

Волинський національний університет імені Лесі Українки
Lesya Ukrainka Volyn National University

**EAST EUROPEAN JOURNAL
OF
PSYCHOLINGUISTICS**

Volume 9
Number 1

Lutsk
2022

*Approved by the Academic Council of Lesya Ukrainka Volyn National University,
Record of proceedings No 8 dated June 28, 2022*

Approved as an “A”-list journal by the Ministry of Education and Science of Ukraine

Editorial Board

Editor-in-Chief

Serhii Zasiiekin, DSc in Philology, Professor

Lesya Ukrainka Volyn National University, Ukraine,

Associate Editor

Larysa Zasiiekina, DSc in Psychology, Professor

Lesya Ukrainka Volyn National University, Ukraine

Editors

Elitzur Bar-Asher Siegal, Ph.D. in Linguistics, Professor
Jihad Hamdan, Ph.D. in Linguistics, Professor
Oleksandr Kapranov, Ph.D. in Linguistics, Assist. Professor
Shelia Kennison, Ph.D. in Psychology, Professor
Azizuddin Khan, Ph.D. in Psychology, Professor
Khrystyna Khvorost, Ph.D. in Psychology, Assist. Professor
Lada Kolomiyets, DSc in Philology, Professor
Victor Kuperman, Ph.D. in Linguistics, Assoc. Professor
Hristo Kyuchukov, Ph.D. in Linguistics, Professor
Amelia Manuti, Ph.D. in Psychology, Professor
John Newman, Ph.D. in Linguistics, Professor
Marcel Pikhart, Ph.D. in Linguistics, Assist. Professor
Federico Soriano, Ph.D. in Linguistics, Assist. Professor
Roman Taraban, Ph.D. in Psychology, Professor
Bilyana Todorova, Ph.D. in Linguistics, Assist. Professor

The Hebrew University of Jerusalem, Israel
The University of Jordan, Jordan
NLA University College, Norway
Oklahoma State University, USA
Indian Institute of Technology Bombay, India
Volyn Medical Institute, Ukraine
Taras Shevchenko National University of Kyiv, Ukraine
McMaster University, Canada
University of Silesia, Poland
University of Bari, Italy
University of Alberta, Canada
University of Hradec Králové, Czech Republic
Institute of Cognitive and Translational Neuroscience, Argentina
Texas Tech University, USA
South-West University “Neofit Rilski”, Bulgaria

Advisory Board

Tetiana Andrienko, DSc in Philology, Professor
Valery Belyanin, DSc in Psychology, Professor
Martha Bojko, Ph.D. in Psychology, Professor
Emrah Dolgunsöz, Ph.D. in Linguistics, Assist. Professor
Samer Jarbou, Ph.D. in Linguistics, Assist. Professor
Diana Kalishchuk, Ph.D. in Linguistics, Assist. Professor
Larysa Kalmykova, DSc in Psychology, Professor
Oleksandr Kholod, DSc in Philology, Professor
Nina Kresova, Ph.D. in Linguistics, Assist. Professor
Andrzej Łyda, Ph.D. in Linguistics, Professor
Svitlana Martinek, Ph.D. in Linguistics, Assist. Professor
Rieko Matsuoka, Ph.D. in Psychology, Professor
Beatriz Peña Acuña, Ph.D. in Education, Assist. Professor
Susheel Sharma, Ph.D. in Linguistics, Professor
Diana Terekhova, Ph.D. in Linguistics, Professor
Runhan Zhang, Ph.D. in Linguistics, Assist. Professor

Kyiv International University, Ukraine
Institute of Applied Psychology, Canada
Yale School of Medicine, USA
Bayburt University, Turkey
University of Sharjah, UAE
Lesya Ukrainka Volyn National University, Ukraine
Hryhorii Skovoroda University in Pereiaslav, Ukraine
Vasyl Stefanyk Precarpathian National University, Ukraine
University of Tartu, Estonia
University of Silesia, Poland
Ivan Franko National University of Lviv, Ukraine
Teikyo University, Japan
University of Hueva, Spain
University of Allahabad, India
Kyiv National Linguistic University, Ukraine
Central University of Finance and Economics, China

Editorial Assistant

Tetiana Hordovska, MA in Psychology

Lesya Ukrainka Volyn National University, Ukraine

Рекомендовано до друку вченою радою Волинського національного університету імені Лесі Українки, протокол № 8 від 28 червня 2022 року

*Затверджено Міністерством освіти і науки України
як наукове фахове видання категорії «А»*

Редакційна колегія

Головний редактор

Сергій Засекін, д. філол. н., проф.

Волинський національний університет ім. Лесі Українки, Україна

Заст. головного редактора

Лариса Засекіна, д. психол. н., проф.

Волинський національний університет ім. Лесі Українки, Україна

Редактори

Елішур Бар-Ешер Сігал, д. філос. з лінгвістики, проф.

Єврейський університет у Єрусалимі, Ізраїль

Джихад Хамдан, д. філос. з лінгвістики, проф.

Йорданський університет, Йорданія

Олександр Капранов, д. філос. з лінгвістики, доц.

Коледж Університету “Норвезька педагогічна академія”, Норвегія

Шілія Кеннісон, д. філос. з психології, проф.

Університет штату Оклахома, США

Азізуддин Хан, д. філос. з психології, проф.

Індійський технологічний інститут Бомбей, Індія

Христина Хворост, к. психол. н., доц.

Волинський медичний інститут, Україна

Лада Коломієць, д. філол. н., проф.

Київський національний університет ім. Тараса Шевченка, Україна

Віктор Куперман, д. філос. з лінгвістики, доц.

Університет Макмастера, Канада

Хрісто Кючуков, д. філос. з лінгвістики, проф.

Сілезький університет у Катовіце, Польща

Амелія Мануті, д. філос. з психології, проф.

Університет м. Барі, Італія

Джон Ньюмен, д. філос. з лінгвістики, проф.

Альбертський університет, Канада

Марсел Пікгарт, д. філос. з лінгвістики, доц.

Університет Градец-Кралове, Чеська республіка

Федеріко Соріано, д. філос. з лінгвістики, доц.

Інститут когнітивної й трансляційної нейронауки, Аргентина

Роман Тарабань, д. філос. з психології, проф.

Техаський технологічний університет, США

Біляна Тодорова, д. філос. з лінгвістики, доц.

Південно-західний університет “Неофіт Рілскі”, Болгарія

Редакційна рада

Тетяна Андрієнко, д. філол. н., проф.

Київський міжнародний університет, Україна

Валерій Белянін, д. філол. н., проф.

Інститут прикладної психології, Канада

Емраг Долгунсоз, д. філос. з лінгвістики, доц.

Бейбуртський університет, Туреччина

Самер Джарбоу, д. філос. з лінгвістики, доц.

Університет Шарджі, ОАЕ

Діана Каліщук, к. філол. н., доц.

Волинський національний університет ім. Лесі Українки, Україна

Лариса Калмикова, д. психол. н., проф.

Університет Григорія Сковороди в Переяславі, Україна

Олександр Холод, д. філол. н., проф.

Прикарпатський національний університет ім. В. Стефаника, Україна

Ніна Кресова, д. філос. з лінгвістики, доц.

Тартуський університет, Естонія

Анджей Ліда, д. філос. з лінгвістики, проф.

Сілезький університет у Катовіце, Польща

Світлана Мартінек, к. філол. н., доц.

Львівський національний університет ім. Івана Франка, Україна

Рієко Мацуока, д. філос. з психології, проф.

Тейкійський університет, Японія

Беатріс Пенья Акунья, д. філос. з педагогіки, доц.

Уельський університет, Іспанія

Сушил Шарма, д. філос. з лінгвістики, проф.

Аллахабадський університет, Індія

Діана Терехова, к. філол. н., проф.

Київський національний лінгвістичний університет, Україна

Рунган Жанг, д. філос. з лінгвістики, доц.

Центральний університет фінансів та економіки, КНР

Відповідальний секретар

Тетяна Гордовська, магістр психології

Волинський національний університет ім. Лесі Українки, Україна

East European Journal of Psycholinguistics is an international double-blind peer-reviewed academic periodical published semiannually. The aim of the journal is to provide a forum for scholars to share, foster, and discuss globally various new topics and advances in different fields of modern psycholinguistics. The journal publishes original manuscripts covering but not limited to the following theoretical and applied fields of psycholinguistics:

- Bilingualism
- Clinical Psycholinguistics
- Cognitive Linguistics
- Cognitive Psychology
- Discourse Analysis
- Forensic Linguistics
- First and Second/Foreign Language Acquisition
- Neurolinguistics
- Pragmatics
- Psychology of Language and Speech
- Sociolinguistics
- Translation Studies

The Editors also take an interest in:

- Brief reports where authors present either preliminary data or ideas with theoretical background of the research; the preliminary research paper should be at least 5–7 page long;
- Book review articles;
- International conference calls
- Announcements

Contributions can be submitted in English (priority), Ukrainian.

East European Journal of Psycholinguistics. (2022). Lutsk: Lesya Ukrainka Volyn National University. Vol. 9, No 1. 348 p.

Founder and publisher: Lesya Ukrainka Volyn National University.

www.vnu.edu.ua

Address: 13 Voli Avenue., Lutsk, 43025, Ukraine

psycholing@vnu.edu.ua;

Web site of the Journal: <http://eejpl.vnu.edu.ua>



Creative Commons «Attribution» 4.0 WorldWide

Східноєвропейський журнал психолінгвістики – міжнародне рецензоване періодичне видання відкритого доступу, що публікується у друкованій та онлайн формах двічі на рік. Мета журналу – об'єднання зусиль учених світу в поширенні, просуванні та обговоренні розмаїття нових тем та ідей сучасної психолінгвістики. Журнал публікує оригінальні рукописи, присвячені таким теоретичним і прикладним галузям психолінгвістики:

- Двомовність
- Клінічна психолінгвістика
- Когнітивна лінгвістика
- Когнітивна психологія
- Дискурс-аналіз
- Криміналістична лінгвістика
- Оволодіння першою та другою / іноземною мовою
- Нейролінгвістика
- Психологія мови та мовлення
- Перекладознавство

Редакція також зацікавлена в публікації:

- Коротких наукових розвідок, де автори представляють або попередні дані, або локальні дослідження з теоретичними обґрунтуваннями; обсяг таких рукописів має становити щонайменше 5–7 сторінок основного тексту;
- Рецензії на книги;
- Інформаційні листи про наукові конференції;
- Оголошення

Рукописи приймаються англійською (пріоритет) та українською мовами.

Східноєвропейський журнал психолінгвістики. Луцьк: Волинський національний університет імені Лесі Українки. 2022. Т. 9, № 1. 348 с.

Засновник та видавець: Волинський національний університет імені Лесі Українки.

www.vnu.edu.ua

Адреса: просп. Волі, 13, м. Луцьк, 43025, Україна

psycholing@vnu.edu.ua;

Веб-сторінка журналу: <http://eejpl.vnu.edu.ua>



Creative Commons «Attribution» 4.0 WorldWide

ETHICS STATEMENT

The author who submits an article to the Journal explicitly confirms that the paper presents a concise, accurate account of the research performed as well as an objective discussion of its significance. A paper should contain sufficient detail and references to public sources of information. Fabrication of data is an egregious departure from the expected norms of scholarly conduct, as is the selective reporting of data with the intent to mislead or deceive, as well as the theft of data or research results from others. Authors must obtain permission for use of any previously published materials from the original publisher. Plagiarism constitutes unethical scholarly behaviour and is unacceptable.

All co-authors share equal degree of responsibility for the paper they co-author. Submitting the same manuscript to more than one journal concurrently is unethical and unacceptable.

By acknowledging these facts the authors bear personal responsibility for the accuracy, credibility, and authenticity of research results described in their papers.

ЕТИЧНІ ПОЛОЖЕННЯ

Автори, які подають статтю до цього журналу, засвідчують, що стаття представляє стислий, точний звіт про проведене дослідження, а також об'єктивне обговорення його значення. Праця містить достатньо деталей та покликань на публічні джерела інформації. Фальсифікація даних, їхнє неповне висвітлення із метою введення в оману читачів, а також крадіжка даних або результатів досліджень у інших – це грубе порушення очікуваних етичних норм поведінки науковця. До подання статті в журнал автори повинні одержати дозвіл на використання будь-яких раніше опублікованих матеріалів від оригінального видавця. Плагіат представляє неетичну наукову поведінку і є категорично неприйнятним.

Усі співавтори статті мають однаковий ступінь відповідальності за неї. Одночасне подання одного й того самого рукопису до кількох журналів є неетичним і неприйнятним.

Визнаючи викладені вище факти, автори несуть персональну відповідальність за точність, вірогідність та автентичність результатів досліджень, викладених й описаних у своїх статтях.

The Journal is indexed and listed in:

Журнал індексовано та каталогізовано у:

Directory of Open Access Journals DOAJ; Scopus; EBSCO; Linguistic Bibliography; Translation Studies Bibliography; European Reference Index for the Humanities and the Social Sciences ERIH PLUS; Ulrich's Global Serials Directory; OCLC WorldCat; Index Copernicus; Scribd; Zenodo; OpenAIRE; Journals' International Compliance Index; Information Matrix for the Analysis of Journals MIAR; Publons; Open Academic Journals Indexing; Electronic Journals Library; Academic Keys; ResearchBible; The Linguist List; Universitätsbibliothek Leipzig; Portal on Central Eastern and Balkan Europe; Russian State Digital Library; Deutsche Zentralbibliothek für Medizin ZB MED; Linguistik Portal für Sprachwissenschaft

TABLE OF CONTENTS

ЗМІСТ

ARTICLES

Dolynska, Lubov; Grinova, Olha

Psycholinguistic Dimensions of Designing the Future by Adolescents and Youth . 9

Estaji, Masoomeh; Fatalaki, Javad Ahmadi

Teacher Educators' Perceptions of Critical Incidents in Teaching Practice: The Case of Novice EFL Teachers.....30

Issa, Saddam; Alfarhan, Abdulah; Awadh, Fares; Aradhya, Abhishek

Relationship Between Age and Lexical Access..... 48

Kolisnichenko, Tetiana; Osovskaya, Iryna; Tomniuk, Liudmyla

Exploring Concepts of the English-Language Tourism Advertising Discourse in Pre-Pandemic and Pandemic Times..... 57

Kostina, Tetiana; Drozdova, Diana; Bulakh, Iryna

Gender Features of Verbal Representation of the Concept "Gender Inequality" by University Students..... 76

Kotys, Olena; Bondar, Tetiana; Servatovych, Viktoria

Common Errors in English Aphasic Discourse..... 94

Kyuchukov, Hristo

Rural Bilingual Roma Children and Theory of Mind Competencies 103

Mir, Farooq Ahmad; Khan, Azizuddin

The Role of Proficiency in Kashmiri Language in Phonological Processing Skills: A Cognitive-Linguistic Approach..... 120

Pastryk, Tetiana; Kots, Mykhailo

Translation and Cross-Cultural Adaptation of Expressed Emotion Measure..... 134

Rabab'ah, Ghaleb; Al-Yasin, Noor; Yagi, Sane

A Socio-Pragmatic Study of Gender Differences in the Use of "Walak' (Woe) and Its Variants in Spoken Jordanian Arabic.....145

Rusalkina, Liudmyla; Tomashevskaya, Agnessa

Theoretical and Methodological Principles of Teaching Professional English to Future Doctors..... 165

Semkiv, Iryna; Turetska, Khrystyna; Kryvenko, Iryna; Kechur, Roman

Linguistic and Psychometric Validation of the Ukrainian Translation of the Inventory of Personality Organization-Revised (IPO-R-UKR)..... 176

Sharma, Susheel Kumar

Reframing English Studies in India: Socio-Psycholinguistic Issues 193

| | |
|---|-----|
| Shmiher, Taras | |
| Modest Grief in the Office of the Dead: A Case Study of Emotion Terms in Translations of the Orthodox Funeral Vigil..... | 240 |
| Starko, Vasyl | |
| A Category with Multiple Centers: The Case of the Ukrainian Verbal Prefix <i>Za-</i> . | 252 |
| Taraban, Roman; Saraff, Sweta; Zasiakin, Serhii; Biswal, Ramakrishna | |
| A Psycholinguistic Analysis of Inter-Ethnic Views of Ethics | 265 |
| Vokalchuk, Halyna; Danylyuk, Nina; Lytvyn, Kateryna; Malevych, Lesya; Rohach, Oksana | |
| Taras Shevchenko’s Neologism <i>Сніжоквіт (Snihokvit)</i> : Psycholinguistic, Lexico-Semantic and Cultural Aspects..... | 279 |
| Zasiakina, Larysa; Kokun, Oleg; Kozihora, Mariia; Fedotova, Tetiana; Zhuravlova, Olena; Bojko, Martha | |
| A Concept Analysis of Moral Injury in Ukrainian National Guard Service Members’ Narratives: A Clinical Case Study | 296 |
| Zembyska, Maryna; Romanova, Yulia; Chumak, Nataliia | |
| ESL Students’ Perceptions of Error Correction Techniques in Oral Production: A Level-Based Approach | 315 |
| Zubach, Oksana | |
| Psycholinguistic and Cultural Implications of German Stimulus Words <i>Humor</i> and <i>Lachen</i> in Association Test | 337 |
| CALENDAR | 347 |

ARTICLES

Psycholinguistic Dimensions of Designing the Future by Adolescents and Youth

Lubov Dolynska

 <https://orcid.org/0000-0002-1817-1102>

lbvdolinska@gmail.com

National Pedagogical Drahomanov University, Ukraine

Olha Grinova

 <https://orcid.org/0000-0002-7714-610X>

grineva_olga@ukr.net

National Pedagogical Drahomanov University, Ukraine

Received March 3, 2021; Revised January 4, 2022; Accepted May 25, 2022

Abstract. In today's rapidly changing society, the ability of an individual to effectively design their future becomes highly important. It is the youth when a person acquires the ability to realize the project of their future. Constructing life goals and plans for their implementation by youth is carried out in the process of information exchange, life experience expansion and reflection of their semantic cognitions in social communications. The success depends on the characteristics of their image transformation into concepts, their statements' reflection, and their interpretation of other people's statements. The article aims to reveal the psycholinguistic features of designing the future by adolescents and youth. The method of the free association test, along with the method of assessing five-year intervals, was used for empirical research. 120 undergraduate and graduate students aged 17 to 21 from the National Pedagogical Drahomanov University, Ukraine, participated in the study held in 2021. Its results showed that most respondents created their goals mainly in marital, family, or professional modes. The objectives of spiritual growth and personal self-realization were autonomously constructed only by a few respondents. Participants with explicit nuclear semantic cognitions and corresponding associative fields, including altruistic associations, revealed prolonged, consistent, realistic structures of their life goals. In contrast, respondents with underdeveloped structures of semantic fields mostly created intermittent, time-limited structures of life goals with somewhat formal cognitions of satisfying their needs in the future.

Keywords: *designing the future, life goals, semantic field, free association test, adolescents, young adults.*

Долинська Любов, Гриньова Ольга. Психолінгвістичні виміри конструювання майбутнього підлітками та молоддю.

Анотація. У сучасному суспільстві, що швидко змінюється, здатність людини ефективно конструювати своє майбутнє стає надзвичайно важливою. Саме в молодості

людина набуває здатності усвідомлювати проєкт свого майбутнього. Конструювання молоддю життєвих цілей і планів їх реалізації здійснюється в процесі обміну інформацією, розширення життєвого досвіду та відображення своїх смислових когніцій у соціальних комунікаціях. Успіх залежить від особливостей перетворення їхніх образів у поняття, рефлексії висловлювань, інтерпретації висловлювань інших людей. Стаття спрямована на розкриття психолінгвістичних особливостей проєктування майбутнього підлітками та молоддю. Для емпіричного дослідження, поряд з методом оцінювання п'ятирічних інтервалів, використано метод вільного асоціативного експерименту. У дослідженні, проведеному у 2021 році, взяло участь 120 студентів та магістрантів віком від 17 до 21 року з Національного педагогічного університету імені Драгоманова, Україна. Його результати засвідчили, що більшість респондентів конструювали свої цілі переважно в подружньому, сімейному чи професійному планах. Цілі духовного зростання та особистісної самореалізації автономно конструювали лише деякі респонденти. Учасники з експліцитними ядерними семантичними когніціями та відповідними асоціативними полями, включаючи альтруїстичні асоціації, виявили тривалі, послідовні, реалістичні структури своїх життєвих цілей. Натомість респонденти з малорозвиненими структурами семантичних полів здебільшого створювали переривчасті, обмежені в часі структури життєвих цілей із дещо формальними когніціями щодо задоволення своїх потреб у майбутньому.

Ключові слова: конструювання майбутнього, життєві цілі, семантичне поле, вільний асоціативний експеримент, підлітки, молодь.

Introduction

In today's rapidly changing society, the development of the human ability to effectively organize life becomes increasingly important. Therefore, designing the future by a personality reflects the development of their vital semantic intentions in the Spatio-temporal continuum of the life path and their further concretization in ideal images of future achievements, namely goal realization.

A sensitive period of human life is adolescence. Within this age period, the boundaries of life perspective are broadened, social consciousness and self-consciousness are formed, and young men and women can create images of their future in the temporal space of life (Gaspani, 2019). However, the number of social problems inherent in modern Ukrainian society cause various deformations in young people during their personal growth, in particular, in the development of their consciousness (Antiniene & Lekaviciene, 2019) and readiness to establish deep interpersonal relationships is weakened (Van Hoof, 1999); infantilism, external locus of control (Van Hoorn & Komlosi, 2000) and passive life position to themselves and their future prevail (Bazilenko, 2014; Maksymenko, 2015). However, youth is the sensitive period in the development of a person's ability to active and purposeful management of their vital activity, individual socialization in new groups, and personal and intellectual development as a whole (Zhuravlyova, Zasiiekina, & Zhuravlyov, 2019).

All these factors determine the social significance and relevance of the study of the ability of modern youth to design their future.

Meaningful life orientations are the critical intentions of young men and women, which they seek to realize in their future (Klimyshyn, 2009; Slobodchikov & Isaev, 2004). Thus, a person of this age creates their meaning of life in inseparable interaction with society. Young people learn actively, internalize and transform the generalized experience of humankind, creating their semantic structures. A person, who becomes the subject of their meanings, acquires ample opportunities to manage their life (Zasiekin, 2020). Therefore, the greater the life experience of social communications a young person acquires, the wider his opportunities for creating their unique meanings and further realization of life goals are. The success of these transformations is mainly due to the specifics of the functioning of a person's language consciousness and verbal abilities because the concept is the central part of the personal meaning of an individual (Krok, 2018). The concept is a system of extralinguistic formations determined by human personality structures and expressed in the form of ideas (Zasiekina, 2005). Only these personal speech competencies determine the ability of a young person to establish relationships between the phenomena of their personal and social world, comprehend their life aspirations and define and formulate their life goals in the way of being clear to the young person and others and which are possible for implementation.

In modern psycholinguistics, much attention is paid to the study of the specifics of comprehension, verbalization and further autonomous reconstruction of ideas about a person's life. Chernysheva (2014) has interpreted the world image as the fifth mental quasi-dimension, in which a person discovers their social existence. The superficial human perception of this quasi-dimension is carried out through sensory cognition. The deep level of human cognition of a person's world is amodal, based on universal social experience. Tarasov (2006) points out that the high complexity of constructing an individual world image in terms of interpersonal interaction and exchanging life experiences is determined by the fact that people exchange meanings of words shaped by linguistic signs. By contrast, personal meanings of communicators may differ significantly, even inside one social microgroup.

The construction of individual ideas about the social world surrounding them provides opportunities for the purposeful organization of their activities, taking into account the influence of certain social factors. In psychology, the process of constructing a person's life is studied mainly in two aspects: spatio-temporal and value-semantic that do not deny but complement each other (Bulakh, 2016; Grinova, 2018; Dolynska & Penkova, 2016; Kronik & Akhmerov, 2003; Leontyev, 2003; Rubinstein, 2003).

Special studies are dedicated to the research of the chronotope of human life. In this context, Sergieva (2010) noted that the core of human linguistic consciousness is a projection of its existence. Hence, an active and orderly system of language units places a relevant version of the world image in the human mind. This type is characterized by chronotopicity, more precisely, by the temporal organization of autobiographical material. The formation of a person's life myth in the chronotope, in turn, is determined by the spatial aspects of their life and the specifics of social

interactions. According to Rubinstein, the paraxial chronotope, which reflects the "family" way of their existence in a person's linguistic consciousness, is cyclical (Rubinstein, 2003). The global chronotope is a manifestation of the transition of a man to a qualitatively new, existential level of development of self-consciousness, which provides the ability of holistic understanding and further systematic management of a person's life (Sergieva, 2010).

Mikhalsky interprets the chronotope of the life path of the individual as a holistic process that integrates personal and social designing of the future. In the dimensions of space, time and meaning, individual forms images of the ideal future and gives them personal significance forms the meaning of life. The individual projects these meanings into plans of his social relations, taking into account the available social opportunities and limitations of the embodiment of their meanings and concretizes them at the level of personal and social achievements – life goals. In the context of interpersonal relationships, a person being an active subject of their semantic structures transmits the meanings of their future to other members of their community and receives the meanings retransmitted by them. Thus, the formation of semantic structures of personality is characterized by high dynamics (Mikhalsky, 2015). In this context, we support the view of Leontyev (2003), who emphasized that individual creates semantic cognition through reconstructing the life experience of many people and one that will be transmitted to others and become a part of their life meanings.

The formation of a person's meanings as key intentions, intentions of the organization of their further life involves not only the internalization of other people's messages that reflect social life experience but also the decryption of the meanings of their messages. The operation of semantic formation reflects the transformation of personally perceived messages into their own semantic and the latter – into their meanings (Kalmykova et al., 2019).

The mechanism of comprehension is one of the central mechanisms of human speech, which provides modeling of the life path. Within a person's lifetime, the models of their life are characterized by diverse degrees of stability and certainty. In contrast to the present model, which the individual subjectively assesses as accurate and unambiguous (Leontyev, 2019), their designing of the future is done through extrapolating their life aspirations in the incomplete time of life. Therefore, probabilistic forecasting is another essential means of modeling and further verbalizing the image of the individual future of the person. Probabilistic forecasting reflects a person's readiness to be exposed to specific possible stimuli. Thus, the person, analyzing the influence of similar stimuli in the life experience, forecasts all context of that life situation of the future to which these stimuli are most inherent (Bernstein, 1990).

Thus, the individual forms their semantic structures by means of perception, internalization and creative reconstruction of social life experience. The development and specificity of the organization of human linguistic consciousness determines the global social and cultural meanings, which it distinguishes from the context of its

image of the surrounding world. The individual projects their meanings into the future and, through probabilistic forecasting, determines the possibilities and specific forms (life goals) of the embodiment of their meanings in social reality.

The problem of autonomous human comprehension of the context of social values, autonomous formation of semantic structures and their further prolongation into the individual future becomes highly relevant in adolescence, because in adolescence it acquires social opportunities for the first time and faces the need to make irreversible life decisions and implement them into life choices of personal significance (Pittman et al., 2008). At a young age, which chronologically coincides with the period of being a student, the specifics of young men and women understanding and forecasting their future is determined by their focus on planning professional and personal life. As Gerasina (2017) noted, this, in turn, actualizes the need of young people in information and business exchange. Such exchange involves not only expanding the experience of communication of young people with different partners, but also the formation of a new level of communication, information and business which is characterized by the intention of young men and women to achieve their defined and predicted communication goals.

However, as Melnikova (2012) found out, the formation of images and concepts in the linguistic consciousness of an adolescent is often not sufficiently consistent and contains various contradictions. The use of concepts by young men and women in interpersonal interaction actualizes the images that correspond to these concepts in their minds. However, strengthening the relationship between these formations of consciousness causes rigidity and retards their dynamic changes. Accordingly, in the dimensions of designing their future in the period of adulthood, life goals become key concepts that in social communications reflect the meanings of communicators who seek to realize them in future life. Clearly outlined goals give certainty to the meanings of young people's lives as ideal images of such goals but at the same time reduce the fluidity of the process of forming these meanings (Bulakh, 2016; Grinova, 2018).

Thus, incompleteness and openness in the development of language consciousness of adolescents and young adults, namely difficulties in the process of transforming images of individual consciousness into concepts, a moderate reflection of their statements and limited communicative control – all these in the process of designing their future complicate the transformation of young people's lives in relevant goals and limit their probabilistic forecasting regarding the implementation of their own goals in society.

Methods

The research aims to reveal the psycholinguistic features of designing the future by adolescents and young adults. The method of the free association test, along with the

method of assessing five-year intervals (Leontyev, 2003), was used for empirical research.

Our empirical research involved 120 young men and women aged 17 to 21 who are native speakers of the Ukrainian language. The study was held based on the humanities faculties of the National Pedagogical Drahomanov University. The study of the meaning-making process by adolescents and young adults was carried out with the help of a free association test. The semi-projective method of assessing five-year intervals was used to study the further design of meanings as formations of the language consciousness of young people in the chronotope of their life path.

Results and Discussion

Comparative analysis of the obtained empirical data of respondents from different social groups on gender, social status, presence or absence of a job, and marital status did not reveal significant differences. Therefore, only some qualitative differences in the phenomenon under study in male and female participants aged 17-19 and 20-21 are presented below.

Based on the results of processing the obtained empirical data of a free-associative experiment on the identification of the characteristics of creating a semantic field of their future by young men and women, we calculated quantitative indicators of all researched fields of nuclear formations of respondents projected by them in life perspective (see Table 1).

Table 1

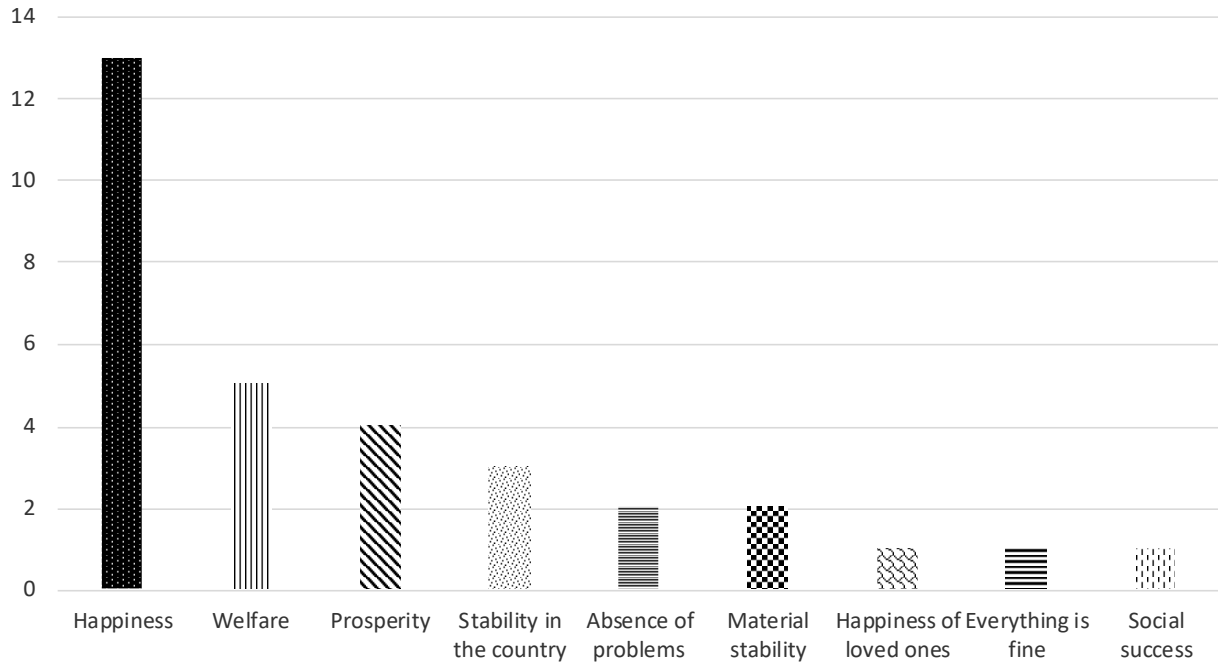
Quantitative indicators of associative zones formation of nuclear concepts of young people's lives

| Nuclear semantic concept of associative zone | Number of associations according to the nuclear concept | |
|--|---|----------|
| | Absolute number | per cent |
| Happiness | 32 | 21.19 |
| Family | 22 | 14.56 |
| Future | 18 | 11.92 |
| Social success | 15 | 9.93 |
| Path | 15 | 9.93 |
| Self-realization | 12 | 7.94 |
| Profession | 10 | 6.62 |
| Associations without a defined nuclear concept | 27 | 17.88 |

According to the results of the study, the most common nuclear association for the stimulus "meaning of life" was "happiness" (32 associations). The semantic field "happiness" structure is presented in Fig. 1.

Figure 1

Quantitative indicators of cognitions of the semantic field "Happiness"



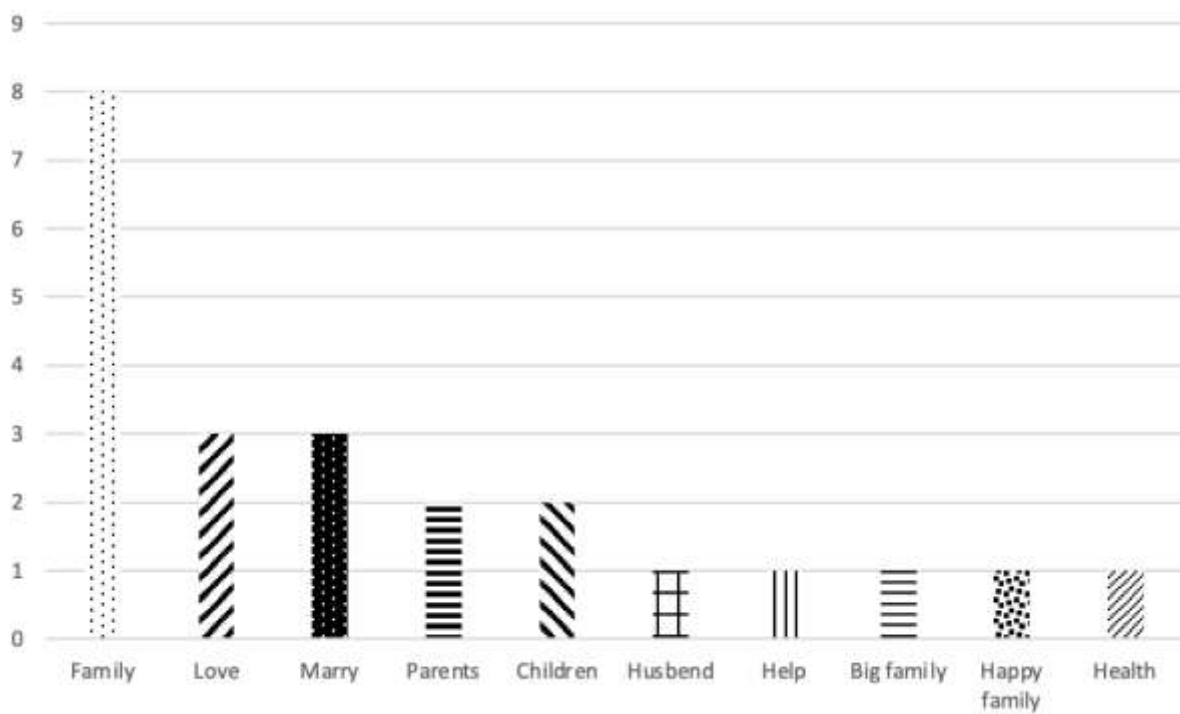
The semantic field around this association consisted of such associations as "welfare", "prosperity", "stability in the country", "absence of problems", "material stability" and the like. The individual statements confirm this associative field's revealed structure. In particular, L.A. (18.6 years old) noted: "Happiness for me, first of all, is the opportunity to become a successful professional; I really hope I will." According to Y.B. (17.5 years), "I consider myself happy now because I don't have any significant problems. I strive to keep it that way.". I.K. (20.2 years) commented: "In the current difficult social situation, it is difficult to be happy. Happiness is when there are all the necessary social conditions for me and my family". S.P. (21.6 years) also noted, "For me, the future is a big and friendly family. My relatives do not suffer poverty because I have succeeded and provided for their life".

Thus, young people generally associate the nuclear concept of happiness with social and individual positive space. At the same time, the happiness cognitions of young men and women still do not become clear and confident. Respondents aged 20-21 presented broader interpretations of the concept of "happiness" deployed in the social living space. They successfully integrate these cognitions with other associative areas of their meaning of life.

The second most crucial nuclear association for the stimulus "meaning of life" was the semantic field of the concept of "family" (22 associations).

Figure 2

Quantitative indicators of cognitions of the semantic field "Family"



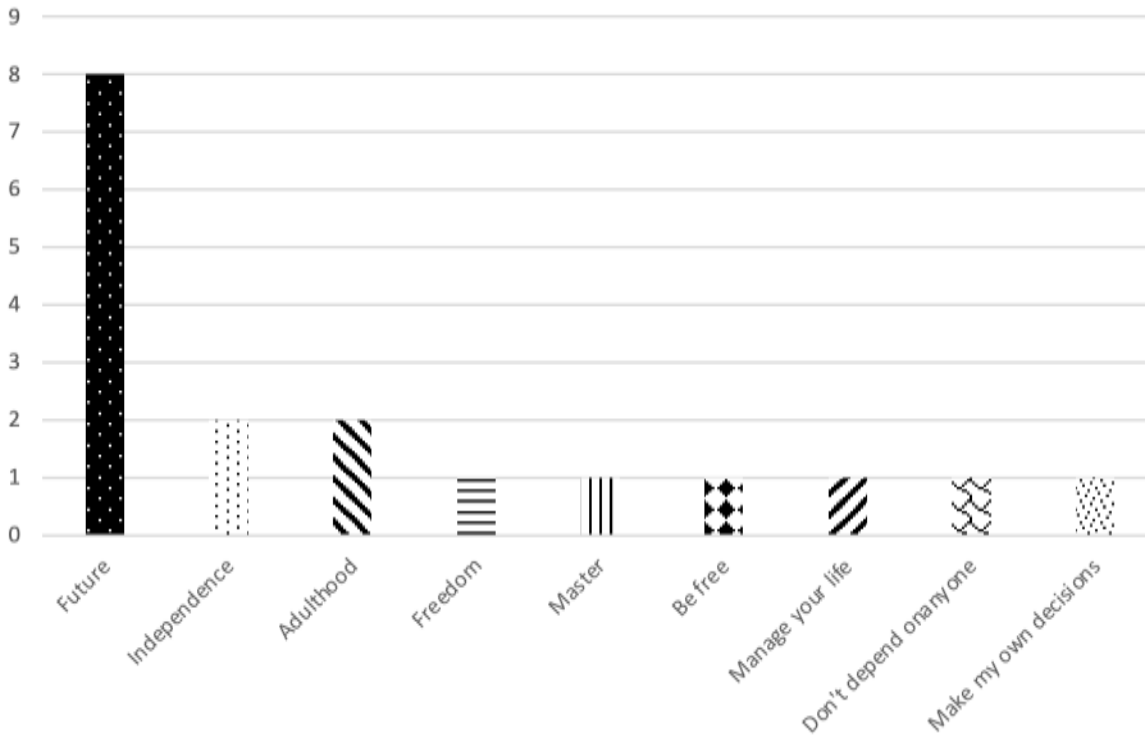
The archetypes of the family are deeply rooted in the Ukrainian mentality, so in the individual consciousness of the respondents, the semantic field behind this core was not only associations of their marital relationships ("love", "husband", "children", "marry"), but also broader ideas about their family ("parents", "relatives", "health", "big family", "happy family", "help"). So, S.T. (17.3 years) explained, "I want to follow my parents' strong and friendly family: a husband, several children, friends and relatives who will often visit us." K.B. (18.11 years) said: "My parents have lived together all their lives and raised children. I hope that feelings of fidelity and responsibility will be the main ones in my family too." O.I. (20.1 years) commented: "As a man, I am obliged to help my relatives - parents, relatives, beloved girl - in everything. If they are happy, so am I". D.A. (21.5 years) interpreted her concept of the family in this way: "Family is love. And to love means to take care of the husband and children, to put their interests in the first place".

As it was presented, the individual projections of the young people's future are closely connected with the general family projections. At the same time, young people aged 17-19 mainly project their parents' relationships on their future family relationships. Respondents aged 20-21 are already more specific in planning their further actions to help their loved ones in their self-realization. The cognitions of "family" and "happiness" among the experiment participants at the age of late adolescence are closely interrelated in their formation.

The third-ranked nuclear semantic formation of young people's language consciousness is its own "future" (18 associations).

Figure 3

Quantitative indicators of cognitions of the semantic field "Future"



Respondents' aspirations to acquire the social status of an adult, to obtain full social, in particular, material independence from parents, and deprivation of social influences of significant others were manifested in the semantic field of this core, namely in associations of "independence", "adulthood", "freedom", "master", "be free", "manage your life". The respondent Yu.K. (17.9 years old) explained her associations: "I want to become a real adult, make my own decisions, without depending on anyone." S.I. (18.8 years) explained: "The most interesting thing in my present life is to independently plan what I will do and see how these plans come true". D.A. (21.2 years old) noted that "Now I am in the process of life's search. In the future, I strive to have clear goals, successfully achieve them and not be distracted by pranks." V.A. (20.5 years) commented, "I often think about what my life will be like in 10, 20 years. Each time I imagine the distant future more and more clearly".

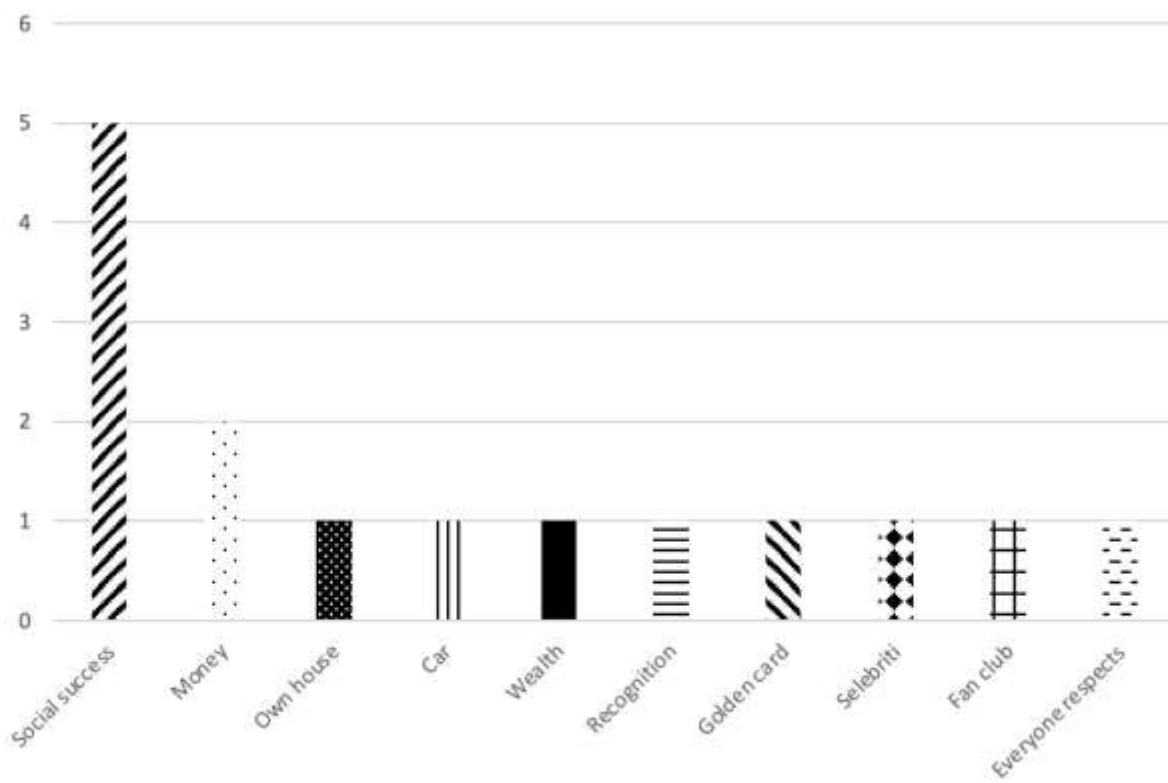
Thus, at the age of late adolescence, the future for the individual is not only a period of their lives but also an aim which includes the desire of young men and women to have personality changes. At the same time, young people aged 17-19 gain experience of social autonomy from the influence of their parents and older relatives. As a result, they develop the ability to organize their lives independently.

The cognitions of young men and women aged 20-21 reflect more on the activation of goal-setting processes and the development of ideas about their ideal future in the middle life perspective.

The concept of "social success" (15 associations) reflected quite the pragmatic aspirations of young men and women to achieve significant material wealth, popularity, and fame.

Figure 4

Quantitative indicators of cognitions of the semantic field "Social success"



These aspirations were embodied in such associations as "money", "wealth", "own house", "car", "gold card", "recognition", "celebrity", "fan club", "everyone respects" and others. Individual consciousness reproduces the so-called "brand" motives prevalent in modern society.

Thus, young men and women aged 17-19 noted that achieving their social success means "Becoming famous throughout Ukraine, appearing on television" (Z.K., 17.5 years), "Becoming a famous blogger, having many fans and my own popular channels on Youtube and other portals" (M.Y., 18.3 years).

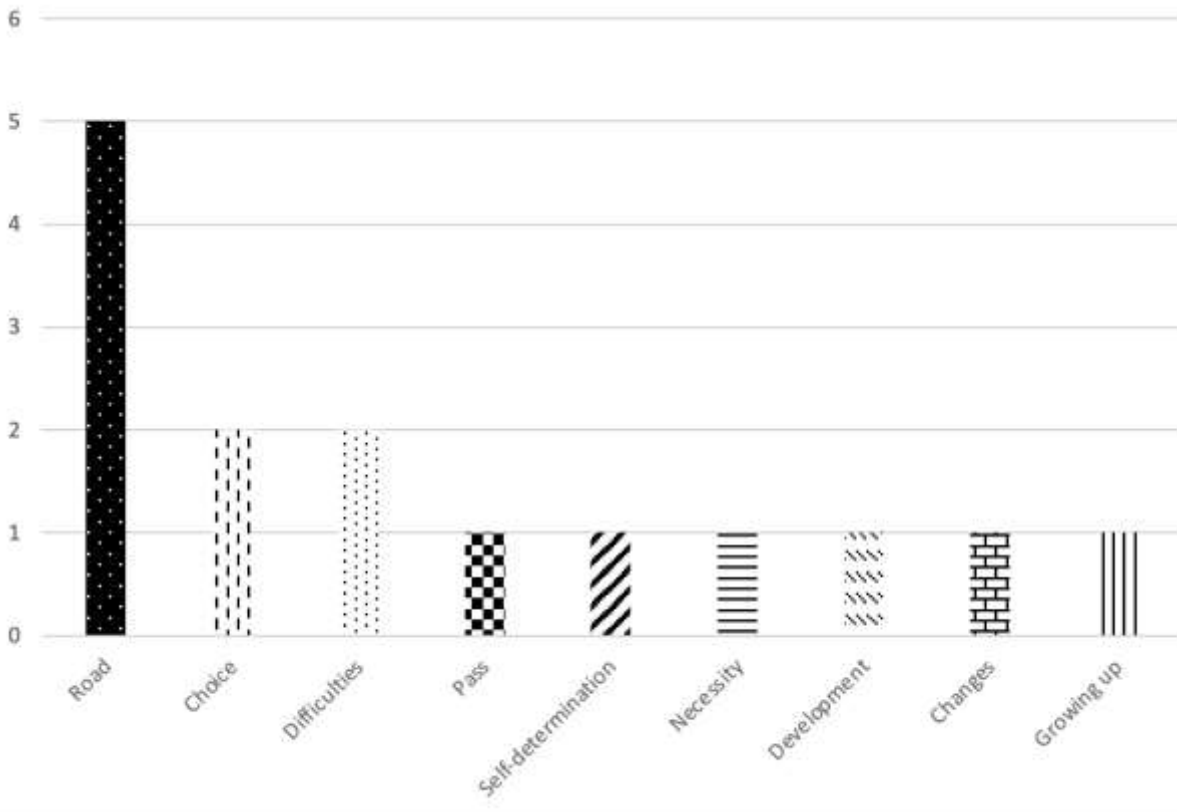
Compared to them, respondents aged 20-21 are reoriented from striving for fame and public recognition to understanding the concept of "social success" to implement their life goals in the social space effectively. Thus, S.P. (21.2 years) noted, "Social success for me means becoming a highly qualified specialist, having appreciative clients and helping people solve their problems". O.T. (20.5 years) commented: "Financial achievements are important. But to become successful for me means achieving the goals of self-realization that I have set for now".

We can state that during late adolescence, the semantic field of the concept of "social success" also dynamically changes. Young men and women are reoriented from the formal signs of their recognition to the desire for the successful realization of their life aspirations.

The semantic field of the "path (way)" concept consisted of 15 associations.

Figure 5

Quantitative indicators of cognitions of the semantic field "Path"

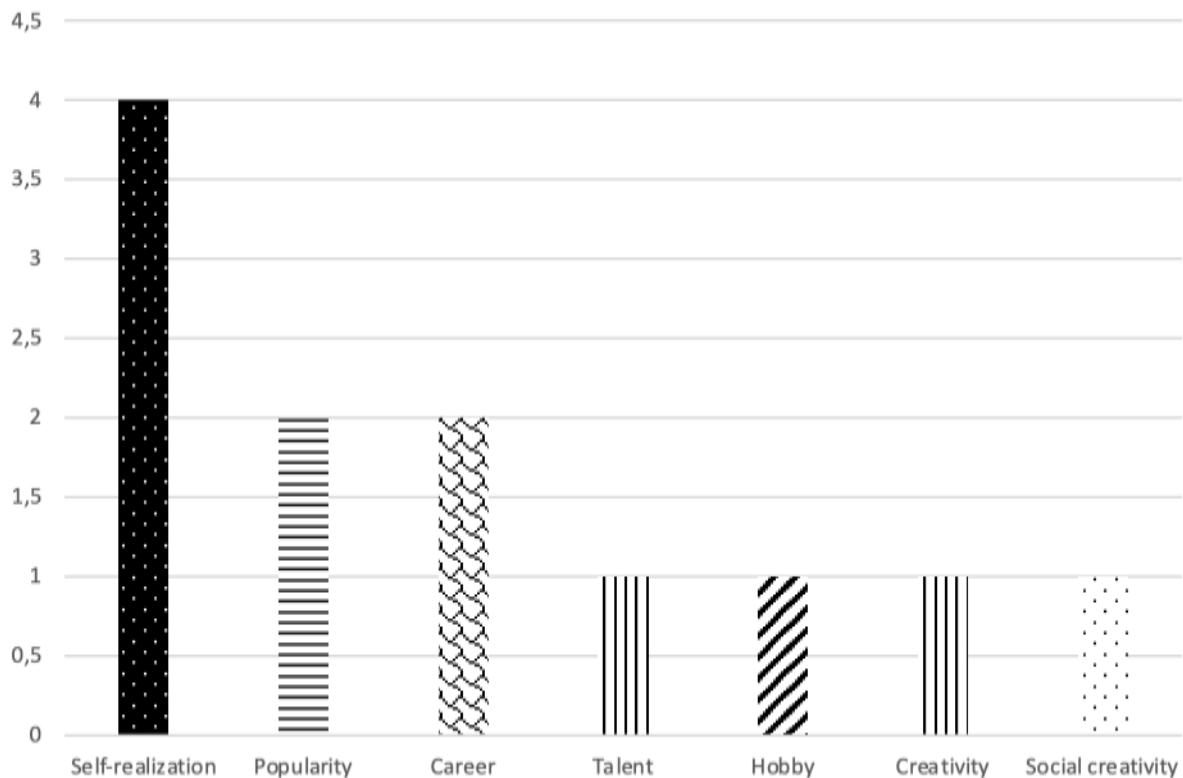


Such associations as "path", "difficulties", "self-determination", "choice", "necessity", and others reflected not only the desire of young people to construct their future autonomously and are aware of its complexity but also, at the same time, the existence of blurring of their life aspirations in specific images of life achievements. This indicates that the way of life is more remote and abstract formation, and as a result, the associations are not saturated with specifics or global meaning. In this context, I.B. (18.0 years) noted: "In general, I imagine my life as a bright and positive path. But I don't see where I'm going." T.K. (18.4 years) noted, "It is not always possible to successfully plan for the future. At such moments, I feel that I am standing still and cannot move forward." According to A.A. (20.5 years), "In life, it is always necessary to make the right choices, although they are not always pleasant." K.O. (21.0 years) commented on feeling happy when he/she succeeds. It is challenging to construct their life path cognitions for respondents aged 17-19. Therefore, their ideas about life prospects are not elaborated yet. For participants in the experiment aged 20-21, the activation of cognitions in the semantic fields of "social success" and "future" allows them to elaborate their ideas about their life goals and, accordingly, interpret the cognitions of their "road" to the future as a process of overcoming life difficulties to achieve life goals.

Young people interpreted the concept of "self-realization" within 12 associations.

Figure 6

Quantitative indicators of cognitions of the semantic field "Self-realization"



These associations embodied their desire for self-realization in various spheres of life, including "popularity", "career", "hobby", "creativity", "social activity", and more.

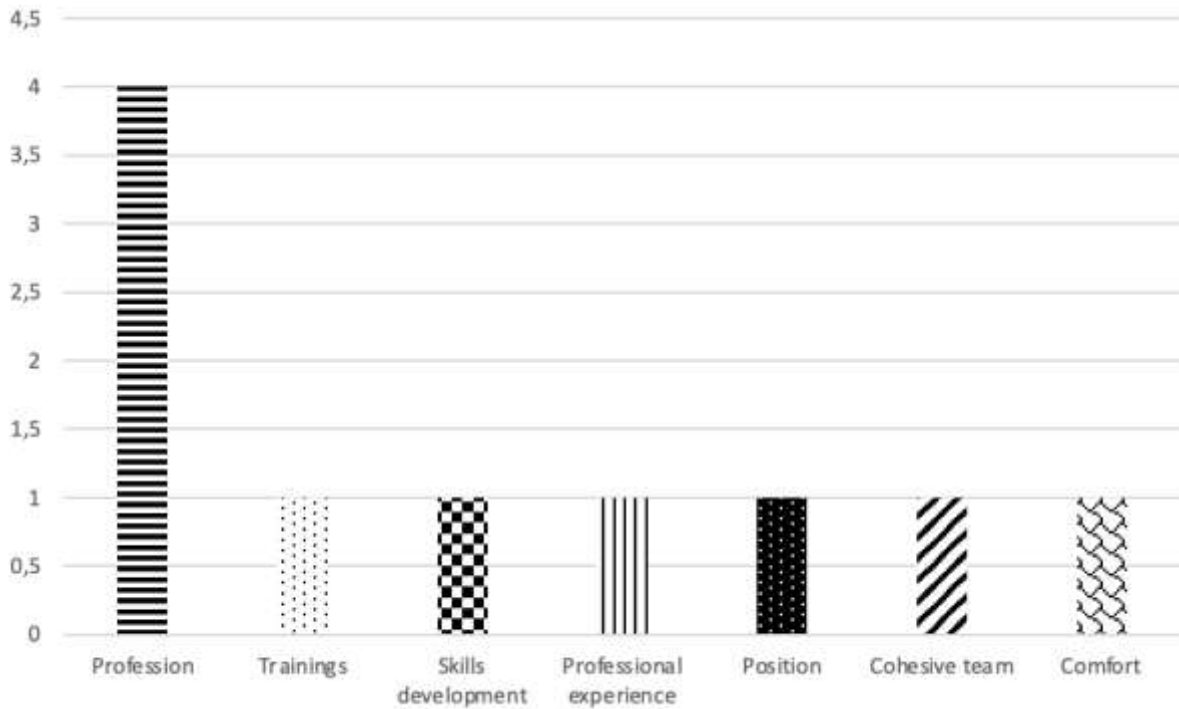
O.P. (17.1 years) noted: "I strive to realize myself, to become successful and famous." A similar interpretation was given by S.B. (18.0 years): "I dream of becoming a famous person." G.A. (20.2 years) commented, "I see self-realization first of all in a career, in respect for other people". According to I.K. (20.5 years), "Self-realization involves the completion of planned important affairs. I want my loved ones to be proud of me".

This indicates that the respondents saw their further self-realization mainly in the social world. Unfortunately, among their associations, there were no implicit aspirations for self-development of their features or expansion of their spiritual potential. During late adolescence, the cognitions of the semantic field "self-realization" and "future" become more specific. The ideas of young men and women about their self-realization are reoriented from the desire for social recognition to the focus on the implementation of the project of their future.

Although professional self-determination in psychological science is traditionally considered to be the leading activity of the individual in adolescence, the concept of "profession" among all the semantic constructs of the respondents formed the narrowest field: only ten associations.

Figure 7

Quantitative indicators of cognitions of the semantic field "Profession"



These associations reflected both the desire of the participants of the experiment for professional growth ("training", "skills development", "professional experience") and the focus on formal aspects of the results of further work ("position", "cohesive team", "comfort"). Thus, young men and women in designing their future strive to "work in a comfortable environment and a close-knit team, have a decent wage" (S.K., 17.6 years), as well as "get a high position, make a successful career" (O.Sh., 18.3 years). Compared to them, respondents aged 20-21 not only create social goals for their professional development but also plan the means to achieve them and attract additional resources. Thus, A.L. (20.2 years) noted: "I am going to constantly study, take various pieces of training, develop my potential." E.S. (20.8 years) commented: "I understand the need to constantly improve my skills, build capabilities in order to make a successful career".

It is significant to note that 27 uncertain ("fate", "further life", "will continue") and unstructured negative ("problems", "difficult life", "lack of freedom") associations testified the participants' unclear formation of ideal images of their future in the chronotope and indicated their willingness to accept social difficulties and insufficiently developed motivation to make their efforts to overcome these difficulties.

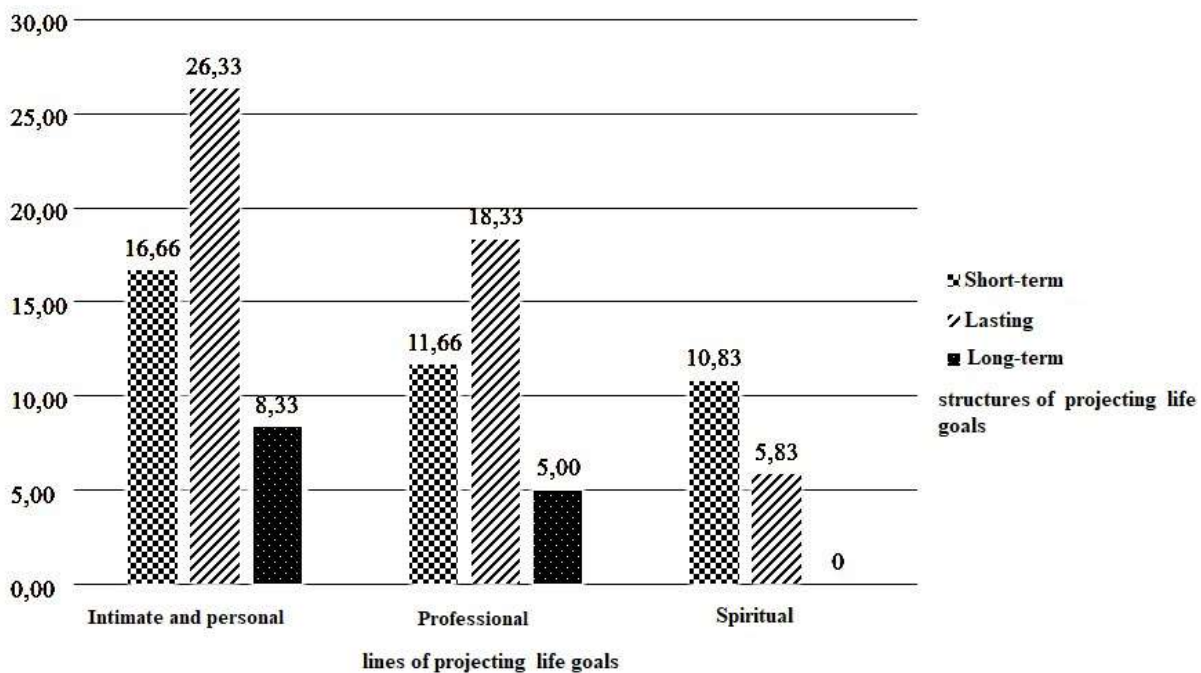
To study the specifics of the concretization of the researched nuclear semantic constructs at the level of ideal images of life achievements in the future, we used the "Method of five-year intervals" (Leontyev, 2003). Furthermore, based on the scientific provisions developed by us (Bulakh, 2016; Grinova, 2018), all participants were included in the following types of structures of life goals:

- intimate and personal, reflecting the focus on the formation of family and marriage relationships, the birth and upbringing of children;
- a professional type which embodies the desire of the individual for professional growth and career;
- a spiritual type that underlines young people's desire for spiritual growth and self-development.

In the chronotope of the future, each of these structures can be short-term (goals are presented for the next 10-15 years), long-term (life goals are formed before the age of 50–60 years) and long-term (young people design life goals during retirement age). The structure of life goals can also be holistic and intermittent (life goals are not presented in all 5-year intervals). The results of the quantitative distribution of respondents by the structure formation of life goals are shown in Fig. 8.

Figure 8

Quantitative indicators of life goals formation of young people



As it can be seen from Fig. 8, the intimate-personal structure of life goals is the most significant to the participants. The amount of respondents in this structure is 16.66%, presented in the short-term perspective, have clearly shown nuclear concepts as "family" and "happiness", which are detailed by such associations as "children", "marriage", "well-being", "family welfare". Thus, it is once again confirmed that young people construct vital goals of marriage, birth and upbringing of children and care for their own family. Furthermore, they set goals for their future, mainly for the next 5-10 years of their lives. The cognitions of "happiness", "well-being", and "self-realization" are embodied in the desire for harmonious family life, the acquisition of one's housing and other expensive things, and the material well-being of one's family.

Among 26.33% of respondents with an extended structure of life goals, the concepts of "family" and "happiness" are complemented by "social success" and "profession". Within their own life goals, there are significant aspirations that reflect not only the formation of their own family but also the ability to provide for themselves and their families, as well as the desire to realize themselves in the profession (target concept "interesting work") and family life. They embody the cognitions of "social success", "happiness", and "profession" in the desire to make a successful career and get a position that will contribute to the well-being of their family and provide ample opportunities for caring for children and loved ones (remote, part-time work). The cognitions of "happiness" and "social success" are also realized in ideas about the further growing up of their children and their achievements in education, creativity, and sports.

We found out that 8.33% of respondents with a long-term structure of life goals. They formed the semantic concepts of "family", "way", and "social success". Among their life goals, there are aspirations like "to give children an education", "to provide children and grandchildren financially", and "to pay for children's education abroad." We believe that the nuclear concept of the "path" forms an associative field of cognition that reflects the predictions of future life difficulties, and intends to construct their life goals with more life resources for themselves and their families.

The professional structure of life goals of the participants of the experiment was somewhat less definite. Respondents with a short-term structure (11.66%) prefer the concepts of "happiness" and "self-realization". They form goals only in the short term, reflecting specific social achievements. For example, respondents strive to get a well-paid job to purchase housing, and a car, receive various awards and have the opportunity to go on holiday abroad. They also imagine their self-realization as an opportunity in the future to demonstrate their achievements to friends and post them on social networks.

The long-term structure of life goals was constructed by 18.33% of respondents. They have the most apparent nuclear meanings such as "self-realization", "profession", "path", "social success", and "future". They embody the cognitions of their "profession" and "social success" not only in their striving for material enrichment but also in their efforts to improve the well-being of other people. The cognitions of the "future" are embodied in the respondents' desire for life-creation in the profession and the spread of their creative developments among many people. Young men and women specify ideas about their "path" in predicting difficulties on the way to achieving their life goals, readiness to make many efforts to overcome them and achieve goals even in a socially challenging environment.

Only 5.00% of boys and girls constructed a long-term professional structure of life goals. Instead, they embody their semantic constructs of "profession", "path", and "family" in focusing on achieving a high level of professionalism, complex and creative work, striving to benefit many people with their work and spread their life experience in society. In ideas about their future, professional and value development are closely connected. Therefore, it is believed that a successful path of

professionalization will also contribute to their positive impact on the personal development of children and grandchildren.

In the short-term perspective, 10.83% of respondents demonstrated the spiritual structure of life goals. They embody their semantic concepts of "self-realization", "happiness", "path", using rather abstract purposes of "creative activity", "self-search", "opportunities to do your favourite thing", and the like. Young men and women demonstrate their focus on self-knowledge, self-analysis of their "I", and the creation of an autonomous image of their ideal future. However, their ideas about the specific forms of accomplishing such goals have not yet been determined.

Having an extended structure of life goals, 5.83% of young people supplemented nuclear semantic constructs with "family" and "future". These respondents strive not only for personal and spiritual growth but also formulated goals of decent moral education for their children, "mentoring" for young people in various social groups and promoting the development of humanism values in modern Ukrainian society.

Conclusions

In modern psycholinguistics, the world image is viewed as an essential construct of human language consciousness, which is formed in the internalization and creative transformation of social experience. The high complexity of a person's construction of their world image is explained not only by the need of the recipient for communication and perceiving the system of common values in the context of messages of another communicator but also by the need to decipher the individual meanings inserted in these values.

Further human activity in organizing their semantic cognition implies the need for their organization and integration into the chronotope of life. The concretization of an individual's meanings in the chronotope of their future occurs in the form of life goals - ideal images of those achievements that person seeks to realize in his/her life and transmit into future life and the processes of meaning-making processes of others.

The results of the empirical study allowed us to state that the semantic field of the phenomenon of designing by young men and women of their life paths is clearly structured. Their most pronounced nuclear concepts are happiness, family, social success and future. During late adolescence, the semantic cognitions of young men and women who form these nuclear concepts change. Thus, young people's ideas about "happiness" spread in the social space from their lives to the well-being of significant others. They are being integrated with the constructs of other semantic fields, particularly "family" and "social success". In the semantic field of "family", there is a shift in emphasis from constructing ideas about one's ideal family to the desire to help one's loved ones and take care of them. The cognitions of the semantic fields of the future and social success become more apparent and less mercantile, aimed at finding the best ways to achieve life goals.

The concept of "path" reflects the desire of today's young people to design their lives autonomously. The abstractness of the cognitions that make up the content of these semantic fields reflects the high complexity of forming a complete image of one's future as a young adult. However, during the age under study, the respondents' cognitions in these fields become clearer and reflect specific plans to achieve life goals and readiness to overcome difficulties.

The narrowest field of associations was found in the core of "profession". Although professional self-determination is the leading activity of a person in youth, modern young people project the existing meanings of life in the processes of professional self-realization quite a bit. However, the respondents did not indicate the meaningful aspects of their further professional growth in the interpretation of the cognitions of the semantic fields of "happiness", "social success", and "future". Therefore, unfortunately, we can state that the respondents of adolescence age integrate the most relevant and personally significant components of the semantic field of designing their future mainly with the formal aspects of professional growth, i.e. career and material benefits.

The success of young men and women in designing their future is largely determined by the development of their ability to create a clear structure of life goals deployed in time. We can state that in late youth, a person does not yet construct a balanced project for their future. Most often, young men and women are dominated by aspirations for self-realization either in the intimate-personal or professional aspects of life. The basis for forming these life goal structures is formed by the cognitions of the associative areas of "family" and "profession", respectively. Since "family" is the broadest associative area of the concept under study, more than a half of the respondents project their future regarding intimate-personal relationships. On the other hand, the associative area of "profession" among boys and girls is much less pronounced than that of "family". Therefore, only for a third of the respondents, the cognitions of the professional line of life design became a priority.

The duration of the projection by young people of their life goals in time is determined by the integration of the semantic fields of "family" and "profession" with other associative areas. Thus, the integration of nuclear semantic constructs and related associative cognitions of these fields with the constructs of "happiness" and "self-realization" is manifested in their creation of a short-term perspective that covers only the near future and involves employment, marriage, and having children.

The integration of "family" and "profession" cognitions with ideas about one's own "future" and "social success" contributes to the construction of a long-term structure of life goals. We believe that, unlike ideas about self-realization at the level of specific achievements, young people interpret success in life as a productive life activity for a long time. In contrast to the short-term one, in the long-term structure of young men's and women's life goals, the integration of the cognitions of the semantic fields of "family" and "profession" has taken place already.

The long-term structure of life goals was found only in a small number of young men and women. Nevertheless, they successfully implemented the integration of the priority cognitions of "family" and "profession" in the intimate-personal and

professional lines of the future following the associations of the most subjectively complex associative area of the "path". The latter reflects the holistic ideas of young people about their future life path. The formation of such ideas in young men reflects their maturity.

The cognitions of the associative area of "path" are also pivotal in the semantic field of designing the future of those young people who form the spiritual structure of life goals, which reflects their focus on further personal self-development.

Thus, we can state that both the formation of the associative areas of the semantic field of the concept of designing a life path and their integration determine the focus of young men and women on designing the future in the intimate-personal, professional or spiritual aspects of life, as well as the duration of the deployment of their life design lines in time.

References

- Бернштейн Н. А. Физиология движений и активность. М.: Наука, 1990.
- Булах І. С. Життєва криза як імпульс до самоцінної траєкторії особистісного зростання людини// Проблеми сучасної психології. 2016. Вип. 33. С 58–68.
- Булах І. С. Психологія особистісного зростання підлітків: реалії та перспективи: монографія. Вінниця: Нілан–ЛТД, 2016.
- Герасіна С. В. Ділова контактність як детермінанта соціально-комунікативної компетентності студентської молоді// Психолінгвістика. 2017. Вип. 22 (1). С. 43–57. <https://doi.org/10.5281/zenodo.1087466>
- Гріньова О. М. Психологічні особливості авторського життєвого вибору в юнацькому віці// Вісник Одеського національного університету. Серія: Психологічні науки. 2018. Вип. 23(47). С. 155–159.
- Гріньова О. М. Психологія проектування особистістю життєвого шляху: юнацький вік. Вінниця: Нілан–ЛТД, 2018.
- Долинська Л. В., Пенькова О. І. Самореалізація особистості як соціально-психологічний феномен// Науковий часопис НПУ ім. М.П.Драгоманова. Серія 12: Психологічні науки. 2016. Вип. 3. С. 18–25.
- Журавльова О., Засекіна Л., Журавльов О. Академічна прокрастинація в іноземних студентів бакалаврату в умовах лінгвокультурної інтеграції. *East European Journal of Psycholinguistics*. 2019. Вип. 6(1). С. 82–93. <https://doi.org/10.29038/eejpl.2019.6.1.zhu>
- Засекін С. В. Психолінгвальні закономірності відтворення художнього тексту в перекладі (на матеріалі англійської та української мов). Дис. ... д-ра філол. наук. Луцьк, 2020. 486 с.
- Засекіна Л. В. Структурно-функціональна організація інтелекту: монографія. Острого: Вид-во Нац. ун-ту «Острозька академія», 2005.
- Калмикова Л. О., Волженцева, І. В., Харченко Н. В., Мисан І. В. Без мотиву не буває цілеспрямованої мовленнєвої активності: своєрідність дитячих монологічних висловлювань// Психолінгвістика. 2019. Вип. 25 (1). С. 107–146. <https://doi.org/10.31470/2309-1797-2019-25-1-107-146>
- Климишин О. І. Християнсько-психологічні засади психотерапевтичної реанімації духовності адиктивних осіб// Збірник наукових праць: соціологія, філософія, психологія. 2009. Вип. 14 (2). С. 164–174.
- Кроник А.А., Ахмеров Р.А. Каузометрия: методы самопознания, психо- диагностики и психотерапии в психологии жизненного пути. М.: Смысл, 2003.
- Леонтьев А. А. Язык, речь и речевая деятельность. М.: URSS, 2019.

- Леонтьев Д. А. Психология смысла: природа, строение и динамика смысловой реальности. М.: Смысл, 2003.
- Максименко С. Д. Прогнозування психічного розвитку особистості у генетичній психології// Актуальні проблеми психології. 2015. Вип. 38. С. 13–23.
- Мильнікова Н. Г. Вікові особливості трансформації образу в поняття у процесі опанування іноземної мови студентами ВНЗ// Психолінгвістика. 2012. Вип. 9. С. 87–95.
- Михальский А. В. Хронотоп в жизненном пути личности: будущее через призму пространства и времени// Международный научно-исследовательский журнал. 2015. Вып. 10. С. 71–74. <https://doi.org/10.18454/IRJ.2015.41.128>
- Пилипенко Н. Г. (2012). Психолінгвістичні аспекти дослідження проблеми життєвих стратегій особистості// Психолінгвістика. 2012. Вип. 11. С. 112–118.
- Райс Ф., Должин К. Психология подросткового и юношеского возраста. СПб.: Питер, 2019.
- Рубинштейн С. Л. Бытие и сознание. Человек и мир. СПб.: Питер, 2003.
- Сергиева Н. С. Хронотоп жизненного пути в русском языковом сознании. Автореф. дисс. ... д-ра филол наук. М., 2010. 43 с.
- Слободчиков В.И., Исаев Е.И. Психология развития человека: развитие субъективной реальности в онтогенезе. М.: Школьная пресса, 2013.
- Тарасов Е.Ф. Межкультурное общение – новая онтология анализа языкового сознания. Этнокультурная специфика языкового сознания. М.: ИЯ РАН, 1996.
- Чернышова Е.Б. Понятие образа мира в теоретическом аппарате отечественной психолінгвістики. *Филологические науки. Вопросы теории и практики*. 2014. Вып. 1(2). С. 206–209.
- Antiniene, D., Lekaviciene, R. (2019). Some psychological factors that affect emotional intelligence of Lithuanian high school students. *Social Welfare Interdisciplinary Approach, 1*, 8–23. <http://dx.doi.org/10.21277/sw.v1i9.378>
- Bazilenko, A. K. (2014). The features of operational component of social activity of student youth. *Social Welfare Interdisciplinary Approach, 4(2)*, 57–67.
- Gaspani, F. (2019). Young Adults NEET and Everyday Life: Time Management and Temporal Subjectivities. *Young, 27(1)*, 69–88. <https://doi.org/10.1177%2F1103308818761424>
- Krok, D. (2018). When is Meaning in Life Most Beneficial to Young People? Styles of Meaning in Life and Well-Being Among Late Adolescents. *Journal of Adult Development, 25(1)*, 96–106. <https://doi.org/10.1007/s10804-017-9280-y>
- Pittman, K., Gazza, P., Yohalem, N., Artman, S. (2008). Addressing spiritual development in youth development programs and practices: opportunities and challenges. *New Directions for Youth Development, 118*, 29–44. <https://doi.org/10.1002/yd.254>
- Van Hoof, A. (1999). The identity status field re-reviewed: An update of unresolved and neglected issues with a view on some alternative approaches. *Developmental Review, 19*, 497–556. <https://psycnet.apa.org/doi/10.1006/drev.1999.0484>
- Van Hoorn, J. L., Komlosi, A. (2000). Adolescent development and rapid social change. New York: State University of New York Press.

References (translated and transliterated)

- Bernstein, N. A. (1990). Fizioloigja dvizhenij i aktivnost' [Physiology of movements and activity]. Moscow: Nauka.
- Bulakh, I. S. (2016). Zhyttieva kryza yak impuls do samotsinnisnoi traiektorii osobystisnoho zrostannia liudyny [Life crisis as impetus to autonomous trend of human personal growth]. *Problemy Suchasnoi Psykholohii, 33*, 58–68.
- Bulakh, I. S. (2016). Psykholohiia osobystisnoho zrostannia pidlitkiv: realii ta perspektyvy: monohrafiia [Psychology of adolescent personal growth: monograph]. Vinnytsia: Nilan–LTD.

- Gerasina, S. V. (2017) Dilova kontaktnist yak determinanta sotsialno-komunikatyvnoi kompetentnosti studentskoi molodi [Business contactness as a determinant of socio-communicative competency of students' youth]. *Psycholinguistics*, 22(1), 43–57. <https://doi.org/10.5281/zenodo.1087466>
- Grinova, O. M. (2018). Psykholohichni osoblyvosti avtorskoho zhyttievoho vyboru v yunatskomu vitsi [Psychological features of authors' life choice in youth age]. *Visnyk of Odesa National University. Serii: Psykholohichni Nauky*, 23(47), 155–159.
- Grinova, O. M. (2018). Psykholohiia proektuvannia osobystistiu zhyttievoho shliakhu: yunatskij vik [Psychology of personalities' life way design: youth age]. Vynnytsia: Nilan–Ltd.
- Dolynska, L. V., Penkova, O. I. (2016). Samorealizacija osobystosti yak social'no-psihologichnij fenomen [Self-actualization of personality as socio-psychological phenomenon]. *Naukovyi Chasopys of National Pedagogical Drahomanov University. Seria 12: Psihologichni Nauki*, 3, 18–25.
- Zhuravliova, O., Zasiiekina, L., Zhuravliov, O. (2019). Akademichna prokrastinacija v inozemnih studentiv bakalavratu v umovah lingvokulturnoi integracii [Academic Procrastination Among International Undergraduate Students Under the Conditions of Linguistic and Cultural Integration]. *East European Journal of Psycholinguistics*, 6(1), 82–93. <https://doi.org/10.29038/eejpl.2019.6.1.zhu>
- Zasiiekin, S. (2020). Psiholingvalni zakonmirnosti vidtvorennya hudozhnioho tekstu v perekladi (na materiali anglijskoi ta ukrainskoi mov) [Psycholinguistic Regularities of Reproducing Literary Texts in Translation (Based on the English and Ukrainian Languages)]. DSc Dissertation. Lutsk.
- Zasiiekina, L. (2015). Strukturno-funkcionalna organizacija intelektu [Structural and Functional Organization of Intelligence]: monograph. Ostroh: National University of Ostroh Academy.
- Kalmykova, L. O., Volzhentseva, I. V., Kharchenko, N. V., Mysan, I. V. (2019). Bez motyvu ne buvaie tsilespriamovanoi movlennievoi aktyvnosti: svoieridnist dytiachykh monolohichnykh vyslovliuvan [There is no Target Oriented Speaking Activity without Motivation: Peculiarities of Children's Monologues Expressions]. *Psikholinhvistyka*, 25 (1), 107–146. <https://doi.org/10.31470/2309-1797-2019-25-1-107-146>
- Klimyshyn, O. I. (2009). Khrystyiansko–psykholohichni zasady psykhoterapevtychnoi reanimatsii dukhovnosti adyktivnykh osib [Christian and psychological bases of psychotherapeutic emergency of spirituality of addiction people]. *Zbirnyk Naukovykh Prats: Sotsioloiiia, Filosofiia, Psykholohiia*, 14 (2), 164–174.
- Kronik, A., Akhmerov, R. (2003). Kauxometria: metody samoznaniya, psikhodiagnostiki i psikhoterapii v psikhologii zhiznennogo puti [Causometrics: Methods of self-cognition, psychodiagnosics and psychotherapy in the psychology of life path]. Moscow: Smysl.
- Leontyev, A. A. (2019). Jazyk, rech; i rechevaja dejatelnost [Language, speech and speech activity]. Moscow: URSS.
- Leontyev, D. A. (2003). Psihologija smysla: priroda, stroenie i dinamika smyslovoj realnosti [Psychology of sense: nature, structure and dynamics of sense reality]. Moscow: Smysl.
- Maksymenko, S. D. (2015). Prohnozuvannia psikhichnoho rozvytku osobystosti u henetychnii psikhologii [Prediction psychological development of personality in genetic psychology]. *Aktualni Problemy Psikhologii*, 38, 13–23.
- Milnikova, N. H. (2012). Vikovi osoblyvosti transformatsii obrazu v poniattia u protsesi opanuvannia inozemnoi movy studentamy VNZ [Age peculiarities of transformation of image into the concept in the process of foreign language mastering by the students of a higher school]. *Psycholinguistics*, 9, 87–95.
- Mihalsky, A. V. (2015). Hronotop v zhiznennom puti lichnosti: budushhee cherez prizmu prostranstva i vremeni [The chronotope in personal life path: the future through space and time]. *Mezhdunarodnyi Nauchno-Issledovatel'skii Zhurnal*, 10, 71–74. <https://doi.org/10.18454/IRJ.2015.41.128>

- Pylypenko, N. H. (2012). Psykholinhvistychni aspekty doslidzhennia problemy zhyttievkykh stratehii osobystosti [Psycholinguistic aspects of personality's life strategies problem research]. *Psykholinhvistyka*, 11, 112–118.
- Rajs, F. & Dolzhin, K. Psihologija podrostkovogo i junosheskogo vozrasta [Psychology of adolescence and youth]. SPb.: Piter.
- Rubinstein, S. L. (2003). Bytie i soznanie. Chelovek i mir [Being and consciousness. Man and world]. SPb.: Piter.
- Sergieva, N. S. (2010). Hronotop zhiznennogo puti v russkom jazykovom soznanii [Chronotopos of life way in russian linguistic consciousness]. Avtoref. diss d-ra filol nauk. Moscow.
- Slobodchikov, V. I. Isaev, E. I. Psihologija razvitija cheloveka: razvitie sub"ektivnoj real'nosti v ontogeneze [Psychology of human development: development of subjective reality in ontogeny]. Moscow: Shkol'naja pressa.
- Tarasov, Ye. F. (1996). Mezhekulturnoe obshhenie – novaja ontologija analiza jazykovogo soznaniya. Jetnokulturnaja specifika jazykovogo soznaniya [Cross-cultural communication – a new ontology of analysis of linguistic consciousness. Ethnocultural specificity of linguistic consciousness]. Moscow: IJa RAN.
- Chernysheva, E. B. (2014). Ponjatie obraza mira v teoreticheskom aparate otechestvennoj psiholingvistiki [Notion of world image in theoretical apparatus of russian psycholinguistics]. *Filologicheskie nauki. Voprosy Teorii i Praktiki*, 1(2), 206–209.
- Antiniene, D., Lekaviciene, R. (2019). Some psychological factors that affect emotional intelligence of Lithuanian high school students. *Social Welfare Interdisciplinary Approach*, 1, 8–23. <http://dx.doi.org/10.21277/sw.v1i9.378>
- Bazilenko, A. K. (2014). The features of operational component of social activity of student youth. *Social Welfare Interdisciplinary Approach*, 4(2), 57–67.
- Gaspani, F. (2019). Young Adults NEET and Everyday Life: Time Management and Temporal Subjectivities. *Young*, 27(1), 69–88. <https://doi.org/10.1177%2F1103308818761424>
- Krok, D. (2018). When is Meaning in Life Most Beneficial to Young People? Styles of Meaning in Life and Well-Being Among Late Adolescents. *Journal of Adult Development*, 25(1), 96-106. <https://doi.org/10.1007/s10804-017-9280-y>
- Pittman, K., Gazza, P., Yohalem, N., Artman, S. (2008). Addressing spiritual development in youth development programs and practices: opportunities and challenges. *New Directions for Youth Development*, 118, 29–44. <https://doi.org/10.1002/yd.254>
- Van Hoof, A. (1999). The identity status field re-reviewed: An update of unresolved and neglected issues with a view on some alternative approaches. *Developmental Review*, 19, 497–556. <https://psycnet.apa.org/doi/10.1006/drev.1999.0484>
- Van Hoorn, J. L., Komlosi, A. (2000). Adolescent development and rapid social change. New York: State University of New York Press.

Teacher Educators' Perceptions of Critical Incidents in Teaching Practice: The Case of Novice EFL Teachers

Masoomeh Estaji


 <https://orcid.org/0000-0002-8014-9491>

Scopus Author ID: 56200945500

mestaji74@gmail.com

Allameh Tabataba'i University, Iran

Javad Ahmadi Fatalaki

 <https://orcid.org/0000-0003-2378-4621>

ahmady.fatalaky@gmail.com

Allameh Tabataba'i University, Iran

Received January 9, 2022; Revised March 16, 2022; Accepted May 8, 2022

Abstract. Teachers experience various challenges and conditions in their profession, and they may require to make appropriate decisions and take action based on the analysis of the situation. The present study attempted to identify the critical incidents that occur in teaching practices for the novice teachers from the teacher educators' standpoint. Moreover, they were asked to offer some solutions for these critical incidents. To do so, eight teacher educators at a teacher education university in Iran were asked to be involved in a semi-structured interview to openly express their views. Content and thematic analyses were carried out on the transcript of the interviews. Based on the findings, teacher educators referred to nine major incidents in the teachers' pedagogical practices and offered six solutions. The major incidents included time management, the students' ineffective cooperation, odd behavior, demotivation, dissatisfaction, lack of empathy and sympathy, the teacher's content knowledge, and the required type of feedback. The solutions provided by the teacher educators were familiarizing the pre-service teachers with the critical incidents, management strategies, use of classroom observation, running workshops, reflective practice, and emotional intelligence development. The research results help novice and pre-service teachers to identify the critical incidents, reflect upon them, and be prepared to react appropriately. Moreover, the results confirm the necessity of a course, emphasizing both the critical incidents and the probable solutions.

Keywords: *critical incidents, EFL teachers, teacher reflection, teacher educators.*

Естаджі Мазумех, Фаталакі Джавад Ахмаді. Сприйняття викладачами критичних випадків у педагогічній практиці (на прикладі молодих викладачів англійської мови як іноземної).

Учителі стикаються з різними викликами та працюють у різних умовах, і вони можуть вимагати прийняття відповідних рішень та вживання заходів на основі аналізу ситуації. У цьому дослідженні була зроблена спроба визначити критичні інциденти, які трапляються в педагогічній практиці викладачів-початківців як педагогів. Крім того, їх попросили запропонувати деякі рішення для цих критичних інцидентів. Для цього вісьмох викладачів

педагогічного університету в Ірані попросили взяти участь у напівструктурованому інтерв'ю, щоб відкрито висловити свої погляди. Змістовий і тематичний аналізи проведено на стенограмах інтерв'ю. На основі отриманих даних викладачі назвали дев'ять основних інцидентів у педагогічній практиці викладачів і запропонували шість рішень. Серед таких випадків були неправильний тайм-менеджмент, неефективна співпраця зі студентами, неадекватна поведінка, демотивація, незадоволеність, відсутність емпатії та симпатії, недостатнє знання вчителем змісту предмета та невідповідний до ситуації тип зворотного зв'язку. Рішення, запропоновані педагогами, полягали в ознайомленні молодих учителів з критичними випадками, стратегіями управління, використанням спостереження в аудиторії, проведенням семінарів, рефлексивною практикою та розвитком емоційного інтелекту. Результати дослідження допоможуть викладачам-початківцям і викладачам-асистентам визначати критичні випадки, обмірковувати їх і бути готовими до відповідних дій. Крім того, результати підтверджують необхідність розроблення курсу, який наголошував би і на критичних випадках, і на потенційних рішеннях.

Ключові слова: критичні випадки, викладачі англійської як іноземної, міркування викладача, педагоги.

Introduction

Underrating the novice teachers' needs and meeting them are critical concerns for all language and educational policymakers, mentors, principals, and even local educational associations. Not dealing with their difficulties, novice teachers may feel frustrated and consider leaving the profession for good (Kwan & Simpson, 2010). Roberson and Roberson (2009) contended that the principals should be aware of the problems the novice teachers face during the first year of teaching as they attempt to adapt to the new atmosphere. Wong (2004) also stated that novice teachers may experience different feelings of stress, fear, excitement, lack of confidence and organization in planning, uncertainty, joy, and the like in their career. Therefore, it is necessary to help them overcome the problems they encounter during the first year of teaching.

To better understand the novice teachers' needs, school principals and university administrators should carry out a comprehensive analysis of these teachers' performance during and at the end of their educational period through surveys, observation, keeping journals, and reflection notes (Schulz, 2005). Still, the main reason for frustration is that the depth of teachers' emotions is not evaluated and their approach for handling them is not discussed well (Roberson & Roberson, 2009). McCann and Johannsson (2004) believe that "teacher persona" is among the most burning issues new teachers struggle with as they need to identify their role as competent teachers. Novice teachers may misjudge their influential role in education and take on a special role without considering reflection and suitable assessment of their performance when dealing with school principals, benchmarks, supervisors, and parents (Roberson & Roberson, 2009). Besides, many new teachers feel lonely and are overwhelmed during the first year of teaching. Therefore, powerlessness is the typical feeling of most of the new teachers (McCann & Johannessen, 2004). These instances show that the novice teachers face lots of challenges during the first year of their teaching.

The first case of frustration for the novice teachers may be the critical incidents that they may face. Hence, the teachers' behavior should be examined to identify the critical moments of their pedagogical practice. The conglomeration of all critical incidents needs

proper investigation, which is bound to offer a practical solution for pre-service teachers; however, providing a one-size-fits-all approach does not serve the purpose. As the problems may vary according to contextual differences and teachers may not face the same challenges throughout the world, a more localized approach should be developed to fill the gap between theory and practice.

Getting informed of all the critical incidents is far-fetched; however, several critical incidents in language teaching occur for all the novice teachers and due to their frequency and saliency, they are easily deciphered by the experts of the field. The teacher educators, being responsible for training the pre-service teachers during the practicum course, can share their experiences regarding the critical incidents that the teachers usually encounter and guide them to deal with these incidents and difficulties in the teaching practice. This study attempted to identify the most frequent and important critical incidents and their appropriate solutions from the teacher educators' perspectives.

Literature Review

Problem-Based Teacher Education

Current educational movements emphasize the role of teacher education programs to resolve the novice teachers' problems. As Desimone (2008) mentioned, teaching for novice teachers is a complex phenomenon since they need to satisfy parents and principals, evaluate textbooks, assess the students' performance, and manage the classroom events effectively. As a solution, problem-based learning (PBL) is considered for preservice teachers to learn how to confront the difficulties and be comfortable enough to solve them. PBL is an educational process posing an open-ended problem and giving the opportunity to learners or even student teachers to come up with ideas regarding the problem and discuss it autonomously or cooperatively.

Koray, Presley, Koksal, and Ozdemir (2008) carried out a study to allow the pre-service teachers to learn the problem-solving process and express their attitude toward PBL. After using the PBL curriculum in one group and the traditional approach of instruction in the second group, they concluded that the experimental group that received PBL outperformed in perceiving the problem-solving skills and they stated that PBL had enhanced their self-confidence and helped them struggle with problems, although it took a while to become comfortable with PBL.

In a quasi-experimental study, Desimone (2006) attempted to identify the role of PBL in decision-making and strategic problem-solving skills of preservice teachers. The pre-test of the study required the student teachers to decide on a terminally ill student, and the post-test required them to offer solutions. Using MANCOVA, he concluded that the students who were taught by PBL could better understand the main problem and give varied solutions to the problems at hand. They could also use various sources to find the proper solutions.

To help the prospective teachers, Levin, Hibbard, and Rock (2002) designed a pedagogical tool to practice teaching strategies in special education and work collaboratively with other professionals. The result of their study showed that PBL

helped the prospective teachers to learn skills, strategies, and techniques to work with children who have lots of disabilities in a problem-solving setting that necessitates peer collaboration.

In a seminal study, Caukin, Dillard, and Goodin (2016) investigated the difference between prospective teachers who used the problem-based learning approach and those who used the traditional style. They also discussed the effect of problem-based learning on the student teachers' self-efficacy. Based on the results, there was a significant difference between the two groups and this showed that PBL had influenced edTPA, which is the test that analyzes the teachers' performance on planning, instruction, and assessment. Likewise, there was a statistically significant difference between the two groups considering their perceived self-efficacy.

Critical Incidents in Teaching

Critical incidents can be interpreted as a circumstance in teaching that has unpredictable features and needs special attention. Farrell (2008) pointed out that a critical incident is any unplanned event that occurs during class. If trainee teachers formally reflect on these critical incidents, "it may be possible for them to uncover new understandings of the teaching and learning process" (p. 3). Farrell (2013) defined teaching high and teaching low as concepts that may have a lot in common with critical incidents. In the former case, spontaneous intervention can be implemented by the teacher which has positive consequences, and the latter is the problematic incidents that may bring along difficulties for the teacher. Critical incidents are unpredictable events that need to be considered and based on which proper decisions should be taken.

Kwan and Simpson (2010) mentioned that critical incidents are "characterized by an element of unplanned occurrence which can be problematic for the teacher, calling for an on-the-spot adjustment (reflection-in-action) of the planned course of the lesson" (p. 423). Tripp (1993) stated that critical incidents are daily moments that occur for all teachers and believed that every moment of teaching can be critical. He also noted that no behavior is intrinsically critical, and it is the attitude of the teacher that makes it critical.

Tripp (1993) has also claimed that "critical incidents are produced by the way we look at a situation: A critical incident is an interpretation of the significance of an event" (p. 8). In a similar vein, Angelides (2001) stated that critical moments are not necessarily emotion engaging and can happen in every class. The reasons for the occurrence of such moments are sometimes unimportant, and the awareness of their existence can help the novice teachers or even teacher trainees to reflect upon these moments whether they are minor or major issues (Farrell, 2008).

Critical incidents may occur in every educational context, and it is the teacher's responsibility to deal with them effectively. One of the solutions to deal with these critical incidents is the reflection and knowledge of the reflective practice. The activities and situations that necessitate the proper type of reflection can be perceived to be the focal point of teacher education programs as reflection and reflective practices are given higher priority (Kolar & Dickson, 2002; Yost & Moska, 2003). Hence, critical incidents in teaching are at the heart of reflection and the novice teachers should be aware of them

and know influential strategies to deal with them. Hereupon, the role of teacher education should be familiarizing the teachers with the difficulties and dilemmas in the form of critical incidents.

As Yost, Sentler, and Forlenza-Bailey (2000) pointed out, if teachers get involved in the process of problem-solving for daily problems, their critical reflection increases substantially. Some studies considered the effect of critical incidents on in-service and pre-service teachers (e.g., Griffin, 2003; Romano, 2006). They believe that these critical incidents should be accompanied by appropriate reflection. Some critical incidents need to be responded to immediately, and some others need time to think about deeply. Romano (2006) has used the term “bumpy moments” for these critical incidents that novice teachers encounter. He believes that reflection is the best tool to manage and understand the critical incidents.

Similarly, Romano (2006) concluded that reflection could influence the way teachers manage the class or even the students’ behavior in critical moments of teaching practice. Griffin (2003) also asked the pre-service teacher to express their views toward the concept of critical incidents, and they were asked to think of appropriate responses to the problem at hand. She concluded that these pre-service teachers became more critical after thinking about these incidents. They moved from being concrete thinkers to alert thinkers of their own attempts in teaching.

Richards and Farrell (2005) asserted that awareness of critical incidents can serve several purposes. For example, it can be a type of reflective inquiry or it can facilitate the identification of the problems and solutions. They also stated that analyzing critical incidents can influence professional development in several ways:

- It can create a greater level of self-awareness. By writing about and discussing the critical incidents, a teacher can become more aware of some of his or her assumptions about language teaching and learning.
- It can encourage teachers to pose critical questions about teaching. By considering the meaning of critical incidents, teachers learn to pose questions about many dimensions of teaching that they had not given a great deal of thought to.
- It can help bring beliefs to the level of awareness. By writing, reading, analyzing, and interpreting critical incidents, teachers can become more aware of their beliefs and decide if they should be changed. Kagan (1992) points out that the teachers’ beliefs are generally stable and determine the kind of instruction teachers provide to students. However, beliefs are generally not open to critical examination. Analyzing critical incidents is one way that beliefs can be clarified and explored.
- It can create opportunities for action research. Critical incident analysis can be the starting point for follow-up research, such as a case study or action.
- It can help build a community of critical practitioners. Through examining critical incidents with other teachers, a community of practitioners can be created who may be able to influence teaching practices and policies in a school.
- It can provide a resource for teachers. Compiling a file of critical incident reports can serve as a useful resource for both the new and experienced teachers. (pp.116-117)

Achinstein and Barret (2004) studied the challenges the novice teachers face and found three major frames in this regard. The first one is the managerial frame, which deals with the procedures, behavioral problems, time management, and the teaching

pace. The human relations frame is related to the student-teacher relationships, students' individual needs, motivation, collaboration, and sense of community. The political frame, as the last frame, is related to the teachers' perceptions of students' race and cultural differences. Alternatively, Schulz (2005) discussed the in-class challenges for the novice teachers and reported their worries. These problems include the mixed-level management, implementation of rules and regulations, getting the students to participate in class activities, teaching reading and writing, and preparing supplementary materials for teaching. Kilgour, Northcote, and Herman (2015) also examined the most important critical incidents for final year pre-service teachers in their first attempt to teach. Based on the analysis of the interview, classroom management, planning, communication, and learning were among the most common emotional distress that they faced.

Likewise, Atai and Nejadghanbar (2017) analyzed the critical incidents in EAP courses and interviewed 34 EAP teachers by focusing on 13 subject-related critical incidents. They concluded that these teachers mainly used three strategies to deal with these critical incidents, including ignorance, avoidance, and risk taking. They also claimed that the knowledge of critical incidents in EAP courses has provided teachers with valuable insights. In a Japanese context, Hall and Townsend (2017) conducted a study to find suitable tools to emphasize the commonest critical incidents during practicum. They took emotional and cognitive barriers into consideration and introduced E-portfolio to the student teachers to find the critical incidents and reflect upon them. The results of the study showed that E-portfolio as a technique helps the student teachers to analyze the strategies of dealing with critical incidents.

To explore the nature and types of critical incidents, Karimi and Nazari (2019) identified the ones occurred to Iranian EFL teachers as an initiative for their professional development. The teachers were asked to share their written CIs and reflect upon these CIs in an online group. The results of their study showed an interconnection between the factors influencing the varied CIs. The initiative implemented in this study also helped the teacher to enhance their knowledge of classroom critical incidents and boost their techniques to deal with pedagogical decisions. Barth et al. (2019) also discussed the influence of two different methods of problem-based learning and compared them with regard to the gained knowledge of critical incidents and professional vision. The first group received self-directed learning and the second one experienced direct instruction. The result of their study showed that the second group scored higher regarding the knowledge of critical incidents while there were no meaningful differences between groups concerning their professional vision.

Similarly, Esmaeili and Afzali (2020) conducted a research study to identify the critical incidents and categorize them and asked the pre-service teachers to propose their coping strategies. The findings of their study indicated that language skills, heterogeneous classrooms, materials, mother tongue, testing issues, and teaching cultural issues were among the most important critical issues. Dvir and Schatz Oppenheimer (2020) also examined the novice teachers' experience of teaching in the Covid-19 pandemic. Their study was based on 32 narratives of novice teachers in Israel, and they categorized the main issues into three broad domains: Technological, pedagogical, and

educational. They stated that their study may contribute to the understanding of the turmoil teachers' face in the Covid crisis.

In a recent study, Tian, Louw and Kamal Khan (2021) explored their perceptions of language assessment literacy (LAL) in three different contexts in Asia during Covid-19 pandemic as a critical incident and used duo-ethnographic approach to analyze their perceptions of LAL and progress on their professional development. They concluded that they had low confidence in what they design, and what they know was too theoretical. However, their group-based reflection helped them to progress and considered more objective patterns for assessment. Although the mentioned studies were among the most appreciated efforts to render the novice teachers' difficulties, more research is required to unravel the complicated challenges in the teaching practice. Hence, this study gave an account of the teacher educators' perceptions regarding the critical incidents that EFL teachers frequently encounter in their pedagogical practices and some practical solutions to cope with these incidents.

Method

This study adopted a qualitative approach to unravel the teacher educators' perspectives regarding the critical incidents that occur in teaching practices for the novice teachers. Deep perception of the phenomenon is gained by carrying out an inductive analysis of the participants' attitudes by using semi-structured interviews.

Participants

To fulfill the aim of the study, eight teacher educators were selected out of 20 experts from a teacher training university, which prepares teachers for the state-funded schools. These teacher educators are responsible for preparing pre-service teachers to be employed both as middle and high school teachers. The teacher educators were chosen based on purposive sampling, considering their educational background, teaching, and teacher training experiences. They were all university professors, who had their PhD in TEFL and Applied Linguistics. To identify and discuss the critical incidents that teachers face in their teaching practices, they were involved in a semi-structured interview. Table 1 presents further information regarding the background and characteristics of the teacher educators who participated in this study.

Table 1
Participants' Demographic Information

| | |
|------------------------------|-----------------------|
| Country of Origin | Iran |
| Gender | 6 males and 2 females |
| ELT Qualification | PhD |
| Years of teaching experience | 8-19 |
| Age range | 31-47 |

Instruments

Interviews are an applied tool that enables the interviewers to receive first-hand data by asking the interviewees to express their notions, feelings, and thoughts (Berg, 2007). In light of this view, a semi-structured interview was held to identify the teacher educators' perceptions regarding the critical incidents that teachers encounter in their pedagogical practices and the role of reflection as a solution for dealing with the critical incidents, its effectiveness, and the way they apply it. As this interview was semi-structured, there was room for discussion on the critical incidents and the role of reflection in teaching practices from the teacher educators' standpoint. To check the content validity of the interview questions, developed by the researchers of the current study, five experts were asked to discuss their suitability in terms of language and content. Content validity index (CVI) as a measure to indicate the agreement between the experts was implemented by examining their views on the relevance of the items to the objectives using a 4-point Likert scale. Its value was found .84, representing the experts' agreement on the appropriateness of the items. Based on their evaluations of the items, one item was removed. Table 2 shows the interview questions of the study. The length of every interview was at least 30 minutes, and an audio recorder was used to save the spoken data and later trace the recordings and source information.

Table 2

Critical Incidents in Teaching

| |
|--|
| Q1. What are the critical incidents that need reflection? |
| Q2. Do you pay attention to these critical incidents during the practicum? |
| Q3. What are the solutions at hand for these critical incidents? |

Data Collection Procedure

To fulfill the objectives of the study, eight participants were selected through purposive sampling. To begin with, the researchers asked the participants for their consent to cooperate in the study. Then these teacher educators were invited for an interview to discuss the critical incidents in language teaching that need proper reflection by the teachers. They were asked to both state their personal experiences of critical incidents, and the ones explained by pre-service teachers when they asked for consultation. The allotted time for every interview was, at most, 40 minutes. Due to the outbreak of Coronavirus, the researchers could not interview the participants in person. Therefore, the researchers video-called the participants to ask for their perceptions regarding the most important critical incidents in teaching practice. They also asked them to discuss the solutions at hand to help the novice teachers overcome these critical incidents or even be ready to tackle them. Afterward, the recordings were transcribed by the researchers, and content and thematic analyses were applied. The interview analysis was done inductively since there were not enough research studies, identifying the various types of critical incidents in language teaching. The analyses were done by

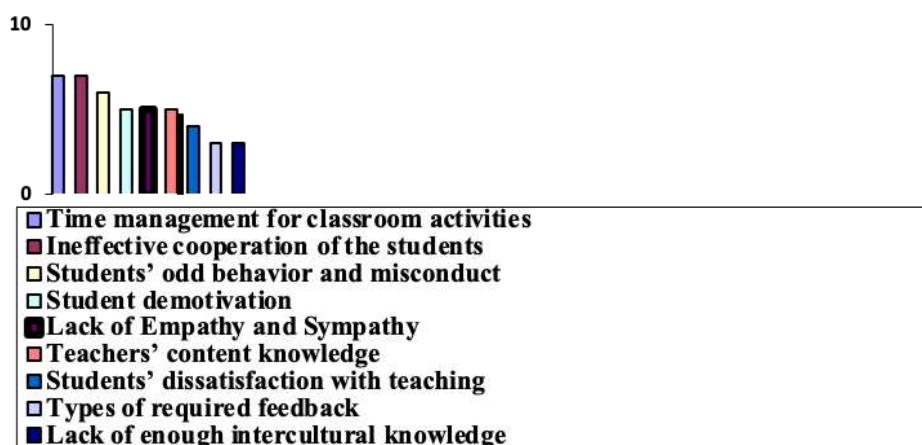
running the MAXQDA (22nd version) software to organize the data and extract the themes accurately and effectively.

Lincoln and Guba's (1985) principles of trustworthiness were implemented to strengthen the quality of the method used in the study. They emphasized credibility, transferability, dependability, and confirmability as the important principles of qualitative studies. As for credibility, the researchers of the current study used member checks technique by asking the interviewees to recheck the transcript of their interviews. Likewise, three participants were asked to examine the extracted codes and themes. Thick description, in comparison with thin description, was applied to show the transferability of the study. To this end, observation and the interview in the study did not lead to the outline of the events and the interpretation and analysis of the data within the context were considered. To check the dependability of the study, external audits technique was deployed by asking an expert in the field of applied Linguistics to evaluate the relationship between the data and interpretations. To employ Audit trail as one of the techniques of confirmability, all steps of the data collection and interpretation techniques were reported by the researchers of the current study.

Results

The purpose of this study was to examine EFL teacher educators' perceptions regarding the instances of critical incidents and the role of reflection and its effectiveness for coping with these critical incidents. The following figures depict the results of the interviews. Figure 1 shows the major critical incidents identified by the teacher trainers as the problems that may occur for novice teachers.

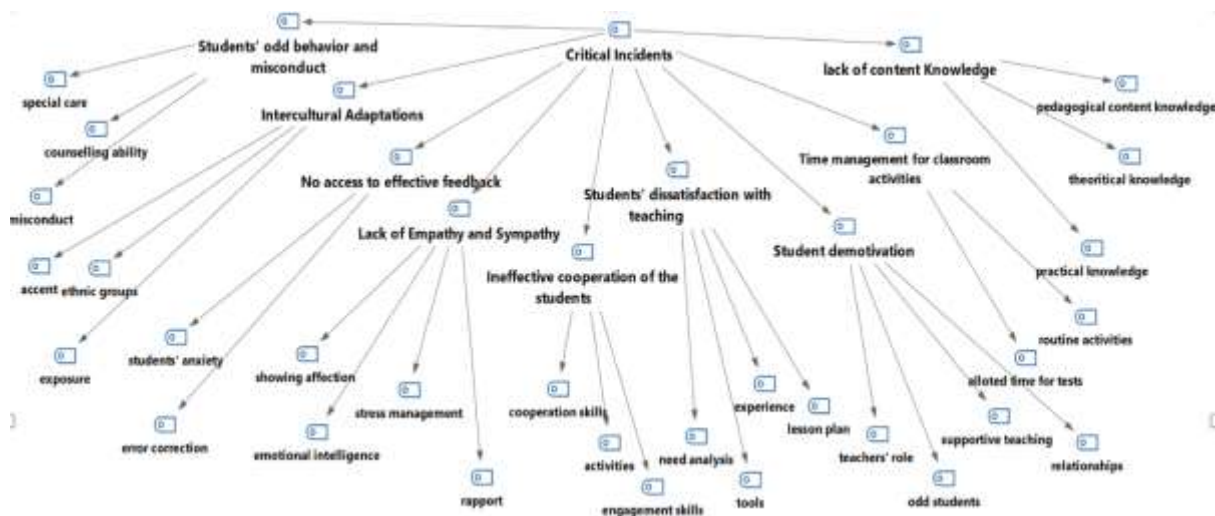
Figure 1
Critical Incidents from Teacher Educators' Standpoint



According to the result of the interview with teacher educators, it became evident that time management for the classroom activities during the whole course and the students' inclination to cooperate for the exercises and activities are among the critical incidents mentioned by most of the teacher educators. Figure 2 depicts the concept map for the critical incidents. This concept map is designed by MAXQDA, which shows the sub-codes for the major codes specified in the analysis.

Figure 2

The concept map for Critical Incidents Depicted by MAXQDA



As Figure 2 shows, there are several sub-codes that are connected to the major ones. Exposure, ethnic groups, and accent are the major themes related to the lack of intercultural competence of the pre-service and novice teachers. Concerning the type of feedback required to be presented by the teachers, error correction strategies and the way of confronting the students' anxiety were identified. Student demotivation was analyzed with four sub-codes, i.e. the teachers' role, odd students, supportive teaching, and relationships. Pedagogical content knowledge as one of the major qualities in teaching, theoretical and practical knowledge, and the way these pieces of knowledge can be connected are all considered to be related to the teachers' content knowledge.

Special care for the students with unusual problems, the counselling ability of the teachers to give immediate solutions to the students, and misconducts were all subcategories of the students' odd behavior and misconduct. As for time management for classroom activities, the required timing for the test and the time needed for daily activities were identified as critical for the novice teachers. Students' dissatisfaction with the teaching style and approaches were found related to the experience, educational tools the teachers have access to, needs analysis, and the well-rounded lesson plan. The teachers' emotional intelligence as their major communicative skill, rapport, stress management, and showing affection were related to the lack of empathy and sympathy. The students' cooperation with the teacher was also found connected to engagement activities, the type of activities presented by the teacher, and the cooperation skills that teachers should have to provide meaningful tasks.

The extracts below show some of the teacher educators' views regarding the most critical incidents the teachers encounter in their instructional practices.

1. Ineffective cooperation of the students

You know you do your best to teach English, but unfortunately, your students don't make any effort to learn. You do your best to persuade your learners, but they are unwilling. (Teacher Educator 3)

2. Lack of rapport, empathy, and sympathy

Some teachers don't know how to establish rapport. Some teachers don't know how to empathize and sympathize, and if we don't know how to do them, they will result in critical incidents. (Teacher Educator 5)

3. Students' demotivation

I find it really hard when my students are demotivated. I sometimes you know that I prepared lots of activities and exercises to do in my class, but sometimes I really find it very hard to manage my time so time management. (Teacher Educator 1)

4. No access to effective feedback

I think giving feedback to my language learners is also another critical incident. Sometimes, the situation can be very stressful, and sometimes, you are stressed out and don't know how to manage a class or a student there act up. And another point that I always think about during my teaching courses is my student's complaints. (Teacher Educator 1)

5. Intercultural Adaptations

When I started teaching, I had some students with a Turkish accent, and I did not know how to manage the class. As a student, not a teacher, I always saw several cases of this problem, and the state schools do not pay attention to these problems. (Teacher Educator 2)

6. Lack of content knowledge

You know, I investigated the effect of pedagogical content knowledge for my thesis and know the extent teacher education can play a role. (Teacher Educator 7)

7. Students' odd behavior and misconduct

At Farhangian University, even you cannot believe that the students behave like they are in high school, and they get used to acting like children and poke fun at each other. I mean, the school staff did not do anything to solve their problem, and you know, their parents do not show any reaction to their children's behavior. (Teacher Educator 4)

8. Students' dissatisfaction with teaching

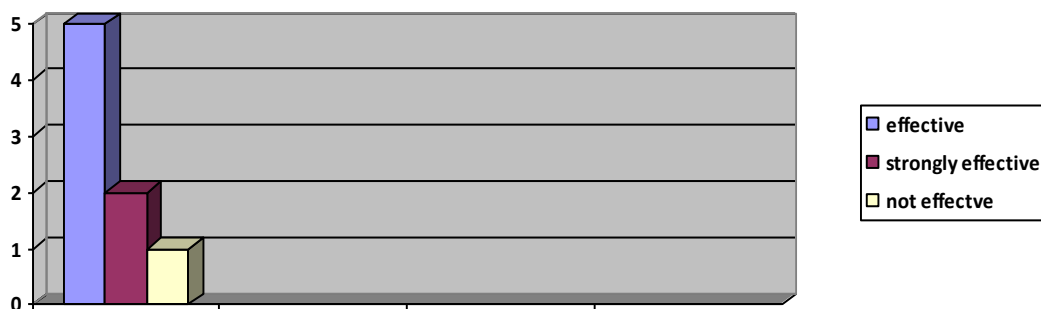
One of my colleagues told me that we should not expect our students to worship us because we always have some weaknesses, and even God is not left with criticism. So, it is natural but the way of dealing with this issue cannot be discussed by simple reasoning. (Teacher Educator 5)

9. Time management for classroom activities

The other thing I know is the time for doing the work. Students know what you do, and in my experience in a language institute, the students told the supervisor I beat around the bush, and we fell behind the program. I was angry those days, but I later understood that I should not be too emotional. (Teacher Educator 5)

Figure 3 below shows whether the teacher educators agree with using the critical incidents in teacher education programs.

Figure 3
Teacher Educators' Views on the Effectiveness of Critical Incidents



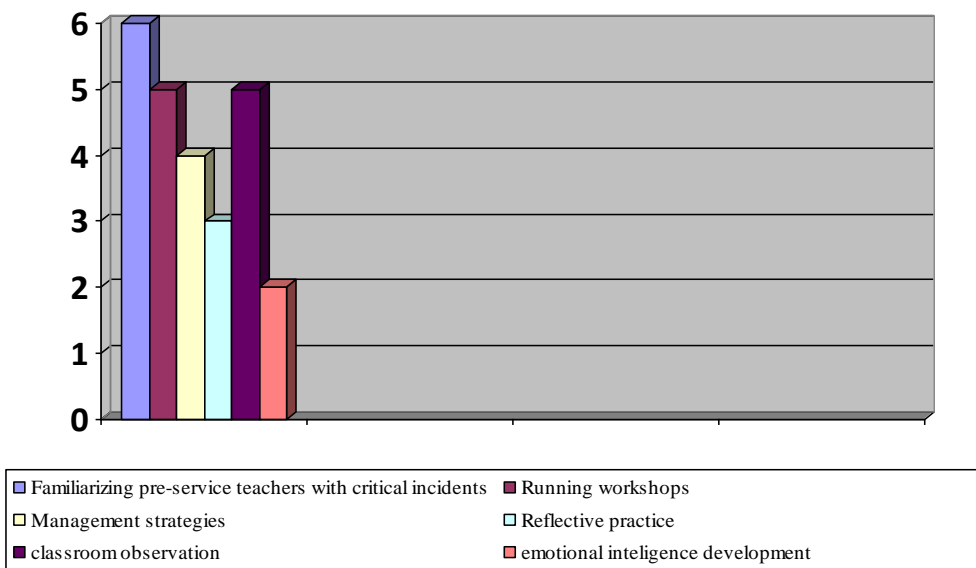
The extracts below show the teacher educators' views on the practicality of the knowledge on critical incidents.

I think teacher education courses should identify this particular incident and then that include them in our teacher education courses. And teacher education should be a bit longer, and that by giving these incidents to our pre-service teachers, and they will be able to have an understanding of the incident they might face in their classes. (Teacher Educator 8)

We should pay attention to these critical incidents because those critical incidents will play a very pivotal role in teacher education programs. (Teacher Educator 2)

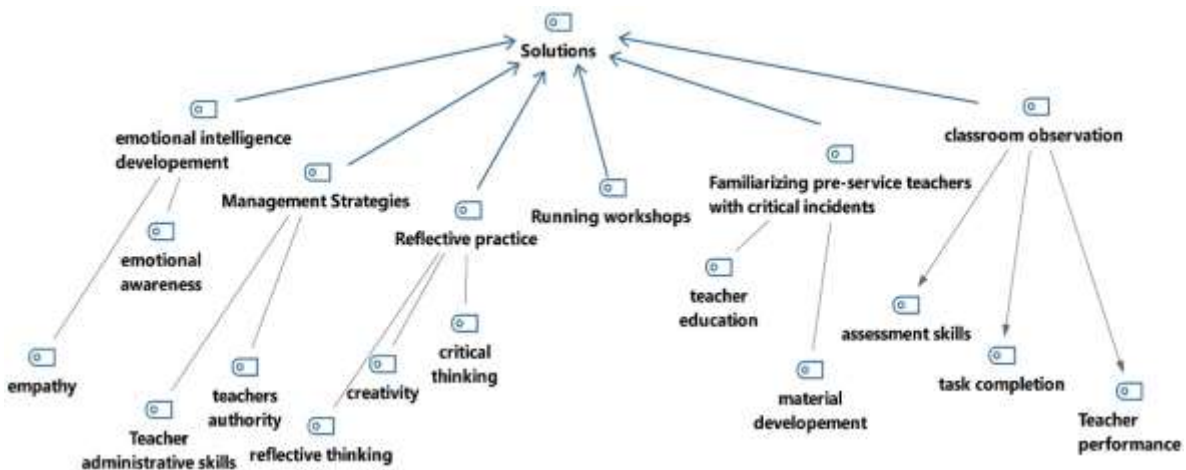
Figure 4 indicates the solutions provided by the teacher educators for the critical incidents occurring in the teachers' instructional practices.

Figure 4
Solutions for Critical Incidents



Six major solutions were presented based on the interview results to help the teacher education and educational policymakers to make appropriate decisions.

Figure 5
The concept map for Solutions for Critical Incidents Depicted by MAXQDA



As Figure 5 shows, six major solutions were identified based on the coding scheme and the relevant sub-themes connected to them. Empathy and emotional awareness were the subcategories of emotional intelligence development. The teachers' empathy and their ability to understand the others' feelings were highlighted there. As for familiarizing the pre-service teachers with critical incidents as a major theme, the role of teacher education programs and the necessity for the development of suitable materials were considered significant. Teachers' creativity, their reflective teaching, and critical thinking were the subsections of reflective practice as the most significant solutions. Teachers' management strategies were defined by their authoritative role and administrative skills to run the class effectively. The teachers' assessment skills, ability to guide the students to complete the tasks, and the teacher performance evaluation were connected to classroom observations. Running workshops was also emphasized by the experts being interviewed. The extracts below show some instances for the provided solutions.

1. Running workshops
Teacher education programs can provide pre-service teachers with special cases of difficulty and hold workshops if they find it difficult to consider it in teacher education. (Teacher Educator 4)
2. Reflective Practice
It is important for language teachers to receive enough pre-service education on critical issues that need special reflection, and ineffective responses may influence the teaching practice. (Teacher Educator 1)
3. Practicing and Studying Management Strategies
New teachers should know that their responsibility is important, and my experience shows that if they do not know the way they talk to the students, they miss the chance. (Teacher Educator 3)
4. Emotional Intelligence Development
Connection with students helps the prospective teachers to understand their feeling, and you know the feeling is crucially important, and I did a study on this three years ago. (Teacher Educator 8)
5. Familiarizing the pre-service teachers with critical incidents
University professors, I mean, us, can be given the chance to spend a part of our class to show them how to behave in the class. (Teacher Educator 4)
6. Classroom Observation
I always liked to be a supervisor in a language institute. Not just for having a new job, but having the chance to make them work efficiently and pay attention to the principles. (Teacher Educator 2)

Overall, in the results section, nine major cases of critical incidents were identified out of some relevant subthemes. To deal with these critical incidents, the teacher educators attempted to offer some cognitive, instructional, and psychological solutions.

Discussion

This research was aimed at identifying the critical incidents and solutions provided by the EFL teacher educators. As for the instances of critical incidents, it can be mentioned that time management has been one of the significant concerns for language teachers. Wong (2004) pointed out that novice teachers have difficulties in organizing

their teaching plan, and time management is related to this category that may occur for every novice teacher. Planning and time management were also among the commonest critical incidents in Kilgour, Northcote, and Herman's (2015) study. Dvir and Schatz-Oppenheimer (2020) also considered three major categories of critical incidents, including the technological, pedagogical, and educational domains. Hence, practicum courses should provide student teachers with time management strategies. Likewise, there can be some practical solutions to effectively monitor the student teachers' progress in their pedagogical practices. As teacher educators claimed, the students' cooperation in the class was another incident that required proper response by the teachers. If the teachers do not know how to find some strategies to help the language learners to cooperate efficiently, there may encounter some difficulties in managing the class. The students' demotivation, dissatisfaction with the teaching style, and misconduct were also the last three critical incidents affecting the teachers.

The students' motivation has undoubtedly been discussed minutely in the language teaching literature, and the teachers' attempt to be reflective can be regarded as the extrinsic force, helping them to be motivated enough. More importantly, the teachers' content and intercultural knowledge can be gauged by the teacher educators at teacher training universities. The intercultural knowledge can be too much important for the language teachers, who work in a situation in which the students' ethnic background varies significantly. This issue was also highlighted in Esmaeili and Afzali's (2020) study in which the main focus was on categorizing the critical incidents. The teachers' ability to sympathize with the students was among the least mentioned points by the teacher educators. The type of feedback the students received was also critical for the educators and might influence all the other factors stated above. If the novice teachers know how to provide feedback for the students, this may affect their motivation and satisfaction with their teaching practice.

As Roberson and Roberson (2009) stated, during the first year of teaching, all these problems may occur to the novice teachers and the school staff should help them to analyze and monitor their performance to get acquainted with the school atmosphere. Hence, critical incidents are the first step for the teachers to think reflectively. In line with the findings of Richards and Farrell's (2005) study, teacher educators consider the knowledge of critical incidents of utmost significance for language teachers which can help them to prepare themselves. This preparation is one of the major goals of teacher education programs, whether formal or informal. Teacher education universities in Iran can prepare their curriculum to cover these critical incidents and deal with the practical solutions rather than theoretical ones. Since teacher education programs rely on the theoretical aspects of language teaching, the teachers' role in making balanced judgements about the strategies they apply for designing the best atmosphere for learning is crucially important.

The focus on the problem-solving ability of the novice teaches has shown that if they receive enough information, their performance is expected to improve significantly (Koray, Presley, Koksall, & Ozdemir, 2008). Hence, getting familiar with different types of critical incidents in teaching practice can impact the language teachers to monitor the intended outcome, design a flexible pattern, respond effectively to the difficulties, and express their personality in the best manner. Classroom management strategies were

considered to be one of the solutions at hand for the novice teachers. As Farrell (2006) stated, classroom management is a recurring problem for all novice teachers because of the difference between what they learn during teacher education courses and the school reality. He added that they eventually understand how to survive in a new school. Using the relevant strategies can influence the management skill in language teaching, such as classroom discipline, the population of classrooms, dealing with the students' differences, their ethnic background, assignment management, and the like (Sarıçoban, 2010).

Undoubtedly, several strategies can help the novice teachers to deal with the problems effectively. One of the strategies mentioned by the teacher educators was related to self-regulation. Self-regulation can be regarded one of the ways by which the novice teachers reflect upon their own performance. Reflection on their performance can help them to prevent the problems to be escalated. Reflection in action and on action as the last solution provided by the teacher educators can be one of the major attempts of teacher education programs. However, the need to develop a well-rounded system for teaching how to perceive and practice reflection is important.

As Kolar and Dickson (2002), Tian et al. (2021), Yost and Moska (2003) stated, reflective practices should be the pivot of teacher training courses to help the novice teachers understand the value of reflection and the incidents that need reflection. In a similar vein, Kwan and Simpson (2010) referred to a direct link between unplanned occurrences in the teaching practice and adjustment in the form of reflection. In line with Yost, Sentler, and Forlenza-Bailey's (2000) study, involving in problem-solving activities can help the novice teachers to reflect on their performance. All in all, reflective practice needs different tools to be operationalized properly. There are different techniques that can be used for novice and pre-service teachers, such as Journals and Portfolios. As Hall and Townsend (2017) stated, E-portfolios are among the best tools used to help pre-service teachers to analyze their performance individually and cooperatively.

Although there are many research studies dealing with the challenges that novice teachers occasionally encounter, areas such as professional identity, efficacy, and being even-minded are the assets in the teaching practice that can be better perceived by further research and empirical evidence.

Conclusion and Implications

Based on the results of the study, several critical incidents were highlighted by the teacher educators. These critical incidents were selected to show the teacher educators' concerns and their own experiences of teaching. As the nature of these incidents shows, the teachers' ability to resolve all these tensions in practice is considered the key to educational success. If the teachers know how to deal with the critical incidents, their instructional practices will be definitely affected. Although deciphering the cases of critical incidents was the major goal of this study, the solutions provided by the teacher educators would be of utmost significance as they would help the novice or even pre-service teachers to find the appropriate and ready-made solution to the unpredictable problems of teaching.

The results of this study can help both the novice teachers and even educational policymakers to identify the areas of difficulty and complication in language teaching. As for the novice teachers, the knowledge of these critical incidents helps them to follow an appropriate approach to teaching and understand that they should further concentrate on their own management strategies and direct the students' behavior. Any mismanagement and lack of enough attention to the psychological aspects of teaching can have great consequences for the teachers. The results of the study can also help the teacher educators to find an appropriate place for critical incidents in teacher education courses and help the pre-service teachers to reflect better and manage their behavior and instructional practices. Teacher education courses can provide pre-service teachers with practical solutions that can be practiced using effective samples and strategies. These in-service teacher education programs can reemphasize the role of reflection by focusing on the teaching incidents that seem resolved, but the teachers do not try to deal with them consciously.

Like any other study, this research suffers from some limitations and delimitations. For instance, the present study was conducted with eight teacher educators who have been working at a teacher training University in Tehran. Therefore, the results of the study may be limited in terms of scope and research context. This study addressed teacher educators as the experts of the field, those whose views can be influential for pre-service teachers, and did not consider the experienced teachers' viewpoints. Future studies can be done considering the experienced teachers' standpoints for identifying the most targeted critical incidents and providing solutions accordingly. The experienced teachers as mentors, considering the local needs, can support the novice teachers to face the potential challenges that are not well-described in theory. Although this study took a substantial step to create a comprehensive picture of the critical incidents, more research can be conducted using a different methodology to address other participants in ESL and EAP instructional contexts.

References


- Achinstein, B., & Barret, A. (2004). (Re)Framing classroom contexts: How new teachers and mentors view diverse learners and challenges of practice. *Teachers College Record*, 106(4), 716-746. <https://doi.org/10.1111/j.1467-9620.2004.00356.x>
- Angelides, P. (2001). The development of an efficient technique for collecting and analyzing qualitative data: The analysis of critical incidents. *International Journal of Qualitative Studies in Education*, 14(3), 429-442. <https://doi.org/10.1080/09518390110029058>
- Atai, M. R., & Nejadghanbar, H. (2017). Exploring Iranian EAP teachers' subject-related critical incidents. *Journal of English for Academic Purposes*, 29(3), 43-54. <https://doi.org/10.1016/j.jeap.2017.08.001>
- Barth, V. L., Piwovar, V., Kumschick, I. R., Ophardt, D., & Thiel, F. (2019). The impact of direct instruction in a problem-based learning setting. Effects of a video-based training program to foster preservice teachers' professional vision of critical incidents in the classroom. *International Journal of Educational Research*, 95(1), 1-12. <https://doi.org/10.1016/j.ijer.2019.03.002>
- Berg, B. L. (2007). *Qualitative research methods for the social sciences*. London: Pearson.

- Caukin, N., Dillard, H., & Goodin, T. (2016). A problem-based learning approach to teacher training: Findings after program redesign. *SRATE Journal*, 25(2), 26-32. <https://doi.org/10.3828/dap.2021.7>
- Dvir, N., & Schatz-Oppenheimer, O. (2020). Novice teachers in a changing reality. *European Journal of Teacher Education*, 43(4), 639-656.
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, 38(3), 181-199. <https://doi.org/10.3102/0013189X08331140>
- Esmaeli, S., & Afzali, K. (2020). Analysis of Iranian EFL teachers' narrated critical incidents and their productive coping strategies. *Journal of Modern Research in English Language Studies*, 7(2), 1-27. <http://doi.org/10.30479/jmrels.2020.12013.1496>
- Farrell, T. S. C. (2006). The first year of language teaching: Imposing order. *System*, 34(2), 211-221. <https://doi.org/10.1016/j.system.2005.12.001>
- Farrell, T. S. C. (2008). Critical incidents in ELT initial teacher training. *ELT Journal*, 62(1), 3-10. <https://doi.org/10.1093/elt/ccm072>
- Farrell, T. S. C. (2013). Critical incident analysis through narrative reflective practice: A case study. *Iranian Journal of Language Teaching Research*, 1(1), 79-89.
- Griffin, M. L. (2003). Using critical incidents to promote and access reflective thinking in preservice teachers. *Reflective Practice*, 4(2), 207-220. <https://doi.org/10.1080/14623940308274>
- Hall, J. M., & Townsend, S. D. C. (2017). Using critical incidents and E-Portfolios to understand the emergent practice of Japanese student-teachers of English. *Teaching and Teacher Education*, 62(1), 1-9. <https://doi.org/10.1016/j.tate.2016.10.017>
- Karimi, M. N., & Nazari, M. (2021). Examining L2 teachers' critical incidents: A complexity theoretic perspective. *Innovation in Language Learning and Teaching*, 15(1), 81-98. <https://doi.org/10.1080/17501229.2019.1676755>
- Kilgour, P., Northcote, M., & Herman, W. (2015). Pre-service teachers' reflections on critical incidents in their professional teaching experiences. *Research Development in Higher Education: Learning for Life and Work in a Complex World*, 38(1), 383-393.
- Kolar, C., & Dickson, S. V. (2002). Preservice general educators' perceptions of structured reflective logs as viable learning tools in a university course on inclusionary practices. *Teacher Education and Special Education*, 25(4), 395-406. <https://doi.org/10.1177%2F088840640703000101>
- Koray, Ö., Presley, A., Koksall, M. S., & Özdemir, M. (2008). Enhancing problem-solving skills of pre-service elementary school teachers through problem-based learning. *Asia-Pacific Forum on Science Learning and Teaching*, 9(2), 1-18.
- Kwan, T., & Simpson, R. (2010). Becoming a critically reflective teacher: To face the challenge of education reform in Hong Kong. *International Journal of Arts and Sciences*, 3(11), 416-437.
- Levin, B., Hibbard, K., & Rock, T. (2002). Using problem-based learning as a tool for learning to teach students with special needs. *Teacher Education and Special Education*, 25(3), 278-290. <https://doi.org/10.1177%2F0888406416664184>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- McCann, T. M., & Johannessen, L. R. (2004). Why do new teachers cry? *The Clearing House. A Journal of Educational Strategies, Issues, and Ideas*, 77(4), 138-145. <https://doi.org/10.3200/TCHS.77.4.138-145>
- Richards, J. C., & Farrell, T. S. C. (2005). *Professional development for language teachers: Strategies for teacher learning*. Cambridge: Cambridge University Press.
- Roberson, S., & Roberson, R. (2009). The role and practice of the principal in developing novice first-year teachers. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 82(3), 113-118. <https://doi.org/10.3200/TCHS.82.3.113-118>

- Romano, M. E. (2006). Bumpy moments in teaching: Reflections from practicing teachers. *Teaching and Teacher Education*, 22(8), 973-985. <https://doi.org/10.1080/1354060042000304828>
- Sarıçoban, A. (2010). Problems encountered by student teachers during their practicum studies. *Procedia: Social and Behavioral Sciences*, 2(2), 707-711. <https://doi.org/10.15446/profile.v17n2.43641>
- Scherff, L. (2008). Disavowed: The stories of two novice teachers. *Teaching and Teacher Education*, 24(5), 1317-1332.
- Schulz, R. (2005). The practicum: More than practice. *Canadian Journal of Education*, 28(1/2), 147-169. <https://doi.org/10.1016/j.tate.2007.06.002>
- Tian, W., Louw, S., & Khan, M. K. (2021). Covid-19 as a critical incident: Reflection on language assessment literacy and the need for radical changes. *System*, 103(4), 1-10. <https://doi.org/10.1016/j.system.2021.102682>
- Tripp, D. (1993). *Critical Incidents in Teaching*. London: Routledge.
- Wong, H. K. (2004). Producing educational leaders through induction programs. *Kappa Delta Pi Record*, 40(3), 106-111. <https://doi.org/10.1080/00228958.2004.10516417>
- Yost, D. S., & Moska, F. J. (2003). Beyond behavior strategies: Using reflection to manage youth in crisis. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 75(5), 264-267. <https://doi.org/10.1080/00098650209603952>
- Yost, D. S., Sentner, S. M., & Forlenza-Bailey, A. (2000). An examination of the construct of critical reflection: Implications for teacher education programming in the 21st century. *Journal of Teacher Education*, 51(1), 39-49. <https://doi.org/10.1177/002248710005100105>

Relationship Between Age and Lexical Access

Saddam Issa

 <https://orcid.org/0000-0002-6335-715X>

Scopus Author ID: [57291572300](https://orcid.org/0000-0002-6335-715X)

sadgull67@gmail.com

Hajjah University, Yemen


Abdullah Alfarhan

 <https://orcid.org/0000-0001-9810-2854>

a.alfarhan@kcst.edu.kw

Kuwait College of Science and Technology, Kuwait

Fares Awadh

 <https://orcid.org/0000-0001-6441-514X>

fa.alshammari@kcst.edu.kw

Kuwait College of Science and Technology, Kuwait

Abhishek Aradhya

 <https://orcid.org/0000-0002-6674-6257>

abhishekbp@aiishmysore.in

All India Institute of Speech and Hearing, India

Received September 25, 2021; Revised May 11, 2022; Accepted May 18, 2022

Abstract. Lexical access refers to the retrieval of the word considered to be appropriate from the lexicon. The related lexical items are assumed to be arranged in a specific pattern. When the related items are presented in succession, it may evoke facilitation or inhibition. When one lexical item facilitates the activation of other lexical items, the term facilitation is used. On the other hand, if one lexical item impedes the lexical activation of the other lexical items, the term inhibition is used. The study aimed to explore lexical-semantic activation patterns in younger and older adults. Continuous naming paradigm was employed to probe the lexical-semantic activation. 40 participants in the age range of 18-25 years; 40 individuals in the age range of 55-70 years served as participants after informed consent. The participants were divided into two groups based on age and they were asked to name pictures. A total of 120 pictures were used (60 related pictures and 60 unrelated pictures were used.). The stimulus was presented in 6 blocks. Each block had 10 semantically related pictures and 10 semantically unrelated pictures. The reaction time and accuracy of scores for related and unrelated pictures did not show statistically significant differences for younger individuals. A statistically significant difference between related and unrelated pictures was seen for older individuals, the reaction time was slower and accuracy was

poorer for semantically related pictures. Greater reaction time and poor accuracy scores on semantically related pictures in this group suggested inhibition.

Keywords: *inhibition, facilitation, reaction time, accuracy*

Ісса Саддам; Алфархан Абдула, Авадг Фарес; Арадг'я Абгішек. Залежність лексичного доступу від віку.

Анотація. Лексичний доступ стосується пошуку слова з лексику, яке вважається відповідним до контексту. Передбачається, що лексичні одиниці в пам'яті розташовані за певним патерном. Коли пов'язані елементи представлені послідовно, це може викликати фасилітацію або гальмування. Коли одна лексична одиниця сприяє активації інших лексичних одиниць, використовується термін "фасилітація". З іншого боку, якщо одна лексична одиниця перешкоджає лексичній активації інших лексичних одиниць, використовується термін "гальмування". Це дослідження мало за мету вивчити лексико-семантичні моделі активації в осіб молодого та середнього й старшого віку. Для дослідження лексико-семантичної активації було використано неперервну парадигму йменування. 40 осіб у віці 18-25 років та 40 осіб у віці 55-70 років були учасниками після інформованої згоди. Учасників було розподілено на дві групи за віком, їх попросили назвати те, що вони бачать на зображенні. Загалом було використано 120 зображень (використано 60 пов'язаних зображень і 60 непов'язаних зображень). Стимул був представлений у 6 блоках. Кожен блок мав 10 семантично пов'язаних зображень і 10 семантично непов'язаних зображень. Час реакції та точність балів для пов'язаних і непов'язаних зображень не показали статистично значущих відмінностей для молодших людей. Статистично значущу різницю між пов'язаними та непов'язаними зображеннями було зафіксовано у старших людей, час їхньої реакції був повільнішим, а точність була гіршою для семантично пов'язаних зображень. Більший час реакції та низька точність семантично пов'язаних зображень у цій групі свідчили про наявність процесу гальмування.

Ключові слова: *гальмування, фасилітація, час реакції, точність.*

Introduction

Semantics is an integral component of language. It mainly deals with the study of word meaning. Lexical semantics is a subfield of semantics. Lexical semantics mainly deals with the storage of words in the lexicon and how these words are retrieved based on the need of the linguistic context. The mental lexicon derives its root from psycho-linguistics and is often a dictionary, hence the mental lexicon is also synonymously called as mental dictionary. The mental lexicon is assumed to comprise information pertaining to a word's form and meaning (Levelt, 1989). The retrieval word deemed appropriate the context is termed as lexical access. The phenomenon of lexical access is best explained through Spreading Activation Theory. The picture naming task is used a referent to explain the spreading activation theory. In a naming task, the participant is expected to name a picture. While naming a picture, the person has to recognise the lexical item. This recognition takes place on the basis of conceptual/semantic features. In other words, the conceptual features which would aid the recognition. Eventually lexical nodes are activated. During the process of activation of lexical nodes, the nodes matching the semantic representation would be activated. During the process, competitor lexical nodes are also activated. These competitor lexical nodes would share semantic representations with the target picture. For example, if a person is shown a picture of 'brush, other lexical

items/nodes like 'paste' and 'soap' are also activated. However, the threshold of activation would be higher for target picture 'brush' in this case enabling activation.

The related lexical nodes are assumed to offer competition to the target. These lexical nodes will cooperate or facilitate the activation of the target words hence it is called lexical cooperation. While few others negate this view by claiming that the lexical nodes would delay the activation of the target by exerting inhibitory action. Researchers in the past have used a variety of tasks to test these two claims. Priming studies favour the former while word picture interference paradigm and blocked naming tasks favour the latter. Picture word interference paradigm is a task where a word (presented in orthographic form) precedes semantically related and unrelated target words. Based on the naming latencies of the given target, the mechanism of lexical activation is speculated. Blocked naming on the other hand is a task where the participants are asked to name pictures presented in succession. Pictures are presented in semantically related and unrelated blocks. Continuous naming paradigm is a slight variation of this task, where the semantically related items are interspersed with the semantically unrelated items, in case if interference is operational the naming latencies for semantically related items would be delayed and the visa versa.

The cyclic blocked naming paradigm is assumed to tap lexical semantic activation. It has gained popularity over the years (Belke et al., 2005; Damian & Als, 2005; Navarrete et al., 2012). In this paradigm, participants are asked to name pictures alike other naming tasks. The difference is that the pictures are presented in a series or block (Kroll & Stewart, 1994). The block may comprise of pictures belonging to the same category (homogenous blocks) or pictures belonging different lexical category (heterogeneous blocks). The basic premise would remain the same in a cyclic block naming paradigm, but here the pictures within a block are repeated multiple times. Each repetition of a set of pictures within a block is termed a 'cycle'. Studies employing the cyclic block naming paradigms is assumed to tap the pattern of lexical semantic activation i.e. if the performance on heterogeneous block would be better compared to homogenous block, it would indicate inhibition and the visa versa may indicate facilitation (Biegler et al., 2008).

The mechanism of lexical semantic activation in children, adults and aging individuals has been studied by many researchers employing priming based tasks and word picture interference paradigm have been used to investigate and the findings derived from most of the studies favour inhibition over facilitation (Brown, 1981; Burke, 2010; Barr et al., 2013; Baayen et al., 2008) especially in persons with aging.

The facilitation effect or inhibition effect may not be consistent through the cycles of the naming test. In other words, the first few cycles may show a particular pattern (for ex facilitation with a better performance on homogenous block for first few pictures of the cycle while the remaining cycles may favour the other pattern of lexical semantic activation (inhibition in this case, with better naming for unrelated block compared to related block) (Rahman & Melinger, 2007).

The first study in this direction was reported by Brown (1981). Brown used blocked naming task for studying lexical semantic activation in older adults. Pictures were presented in the form of semantically related and semantically unrelated blocks.

The reaction time for these blocks were computed and compared. The reaction time was more for semantically related block indicating inhibition. Similar findings was reported by Burke in 2010.

A study conducted by Barr et al. (2013) used cyclic naming task to study lexical access. The pictures were presented in cycles. In cyclic naming task, the protocol would remain the same as blocked naming task, where the pictures are presented as semantically related and unrelated blocks. However, the difference is that the pictures are repeated at regular intervals. The authors again reported inhibition for semantically related picture blocks. The current study was in consonance with these studies signifying inhibition.

Navarrete et al. (2014) were of the opinion that first cycle of a cyclic naming task would favour a facilitation effect while the subsequent cycles may show an inhibition effect. The reason could be that the highest activated word is selected and this activation is assumed to not be affected by the levels of activation words not related to the target. This leads to a speculation that semantic interference in the subsequent blocks only emerges due to repetitions of the pictures within the block. This can be attributed to a lower activation in related blocks compared to unrelated blocks.

The picture-word interference paradigm may not be sensitive to predict the mechanism of lexical semantic activation as the word or pre cursor, as termed in experiments, are presented in orthographic form and the target is presented is presented as picture.

Significance of the study. This study is a preliminary attempt in exploring the mechanism of lexical semantic activation in older individuals by employing a continuous naming task. The continuous naming task is assumed to provide a holistic picture about the mechanism of lexical semantic activation. The present study aimed to probe the lexical-semantic activation in elderly individuals.

Objectives:

- To study the pattern of lexical semantic activation as a function of age by using continuous naming paradigm.
- To compare the reaction time and accuracy scores for semantically related pictures with semantically unrelated pictures within group 1 and group 2.

Method

Participants

The total number of participants was 80. The participants were selected through convenient sampling. The participants were divided into two groups comprising of 40 participants each. First group consisted of 40 younger individuals in the age range of 18-30 years, the second group also consisted of 40 individuals with the age range of 55-70 years. The groups had same number of male and female participants. The exclusionary criterion was that the participants in both the groups should not have any history of cognitive, communication and sensory deficits.

Stimulus

120 pictures from 6 different lexical categories (Birds, vegetables, fruits, animals, common objects and vehicles) were considered. 10 pictures from the same lexical category were presented in succession followed by 10 pictures from different lexical category i.e. pictures pertaining to a particular lexical category was presented, followed by pictures from the other 5 lexical categories presented in a random order.

Procedure

Pictures were presented as line drawings and were presented by using DMDX (Arizona, Auto mode 6.2). DMDX is a software used to record the reaction time and accuracy of response (check vocal allied feature of the software was used for the same). The task of the participant was to name the picture as early as possible. The reaction time and accuracy scores for participants in both the groups were tabulated and analysed.

Results and Discussion

The reaction time (naming latency) and the accuracy of responses for semantically related and unrelated picture blocks were determined. The reaction time for semantically related picture blocks was 1664.33 ms (SD : 267.33 ms) for younger individuals and 2180 ms (SD: 187.22ms) for older individuals. The reaction time for semantically unrelated pictures was 1570.71 ms for group 1 individuals (SD: 566.38ms) and 1882.33ms (SD: 322.40ms) for group 2 individuals.

Figure 1

Reaction time for group 1 and group 2 for semantically related pictures

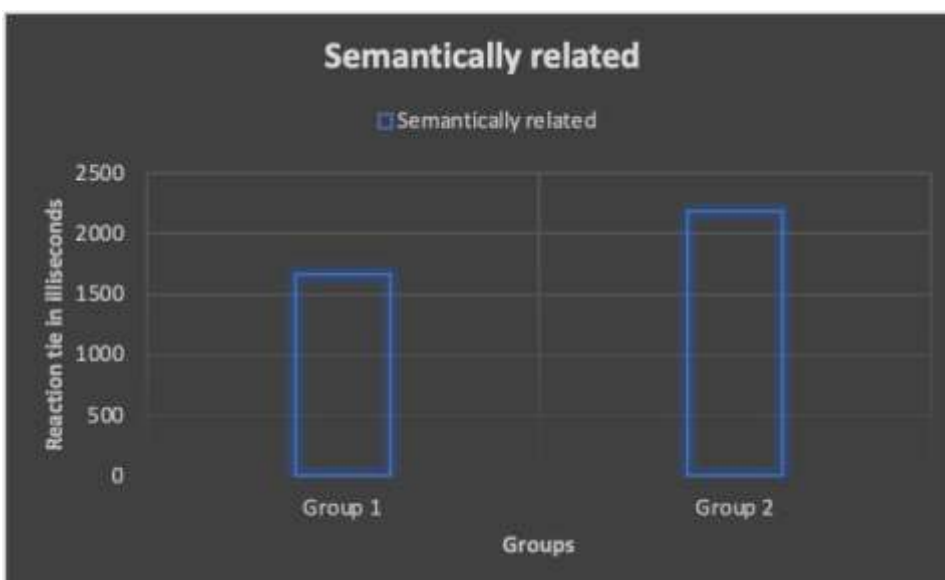
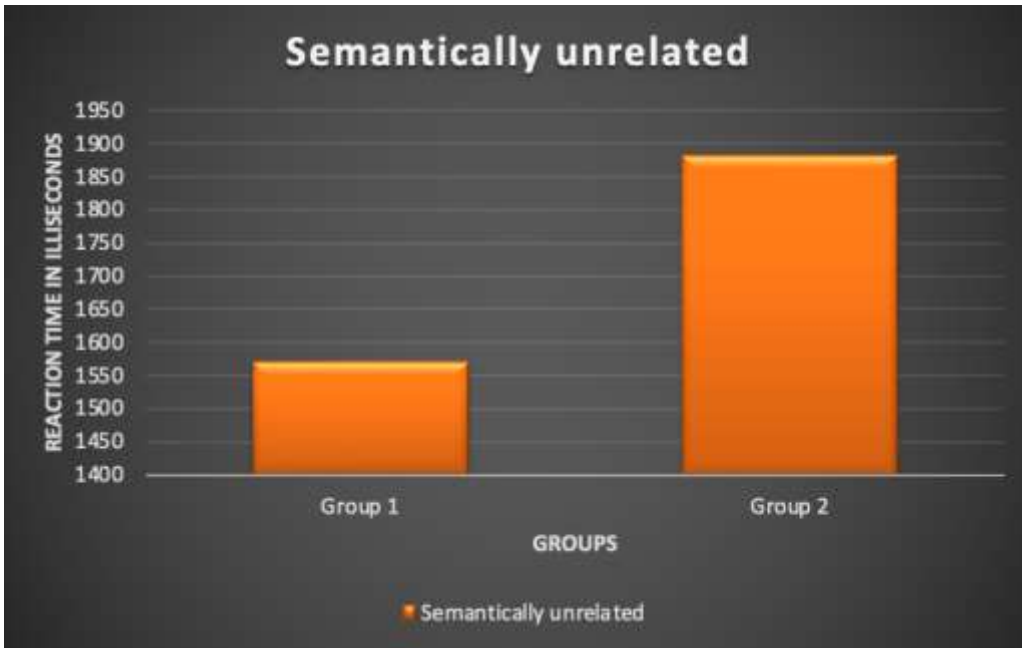


Figure 2
Reaction time for group 1 and group 2 for semantically unrelated pictures



The accuracy for both the groups was 86% and 79% respectively for semantically related pictures (SD: 7.63 and 12.27 respectively) The accuracy scores were 89% and 85% (SD: 4.16 and 11.22 respectively) for the two groups respectively for the semantically unrelated pictures (see Figure 4).

Figure 3
Accuracy scores for group 1 and group 2 for semantically related pictures

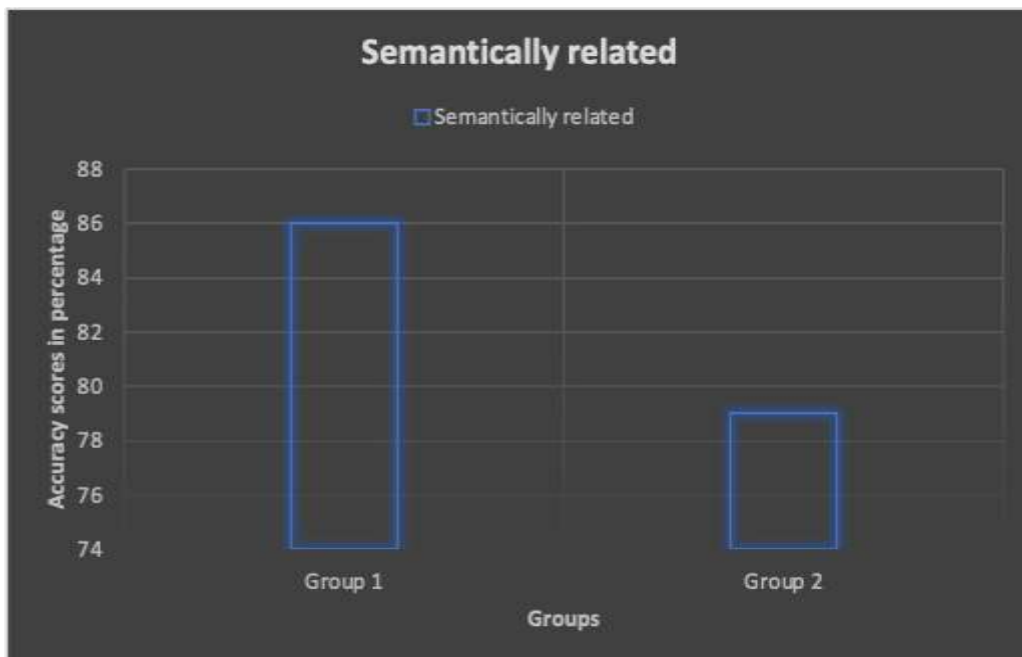
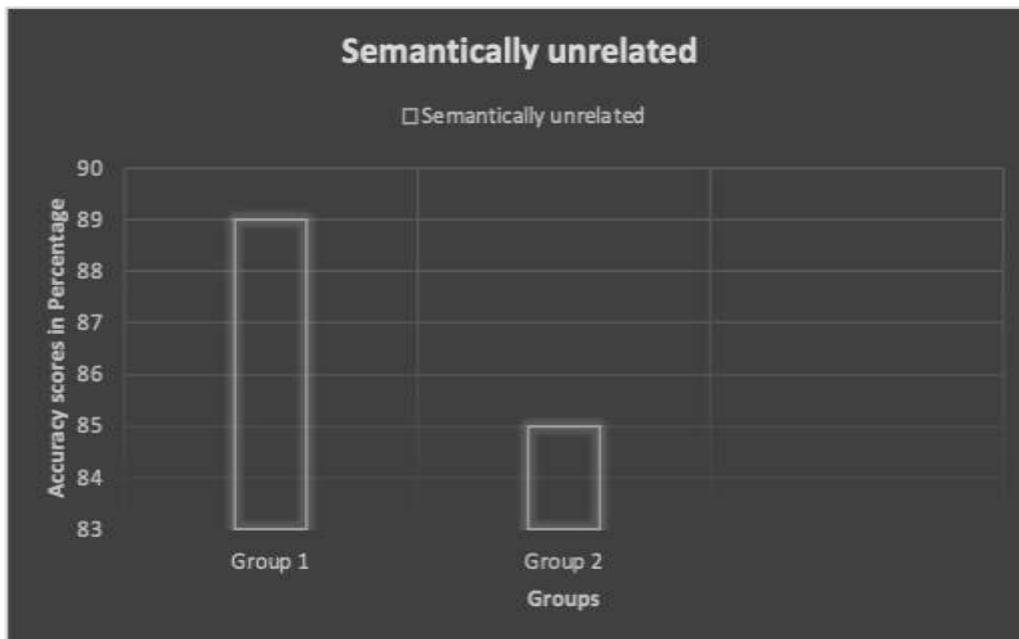


Figure 4

Accuracy scores for group 1 and group 2 for semantically unrelated pictures



In order to verify if there was any significant difference between the reaction time for semantically related and unrelated picture blocks with each group, Wilcoxon's signed rank test was used. Between group analysis was not carried as it was not in par with the motive of the study. The Z score for group 1 was 1.98 and for group 2, it was 3.72. The corresponding p value showed significant difference only for group 2.

Facilitation and inhibition related to lexical retrieval has been explored by researchers. Priming studies, cyclic naming blocked naming tasks and word picture interference paradigm have been used in deriving experimental evidence regarding these two mechanisms of lexical retrieval. The priming task favours facilitation while cyclic naming, blocked naming and word picture interference paradigm favour inhibition.

The current study used continuous naming task. In the continuous naming task, participants would be asked to name pictures presented in different a series or contexts or blocks. Each series/ block would contain pictures belonging to the same lexical semantic category or a different lexical category (Kroll & Stewart, 1994). The blocks can be divided into homogenous and heterogeneous block based on the pictures and its sequence. The performance on homogenous and heterogeneous block would be compared to delineate details about lexical retrieval. If the performance on homogenous block is better, the results would be suggestive of facilitation and the visa versa (performance better for heterogeneous block compared to homogenous block) is suggestive of inhibition.

In younger individuals statistically significant difference between semantically related and unrelated picture blocks was not seen indicating that both facilitation and inhibition would be operational or neither of it was operational in this population. For

elderly individuals, the mean reaction time was better for semantically unrelated picture block compared to semantically related picture block and the accuracy scores also adhered to the same pattern indicating that inhibition was operational in this population. When pictures belonging to particular lexical items were presented in succession, the naming latencies were delayed indicating that the competitor lexical node would offer competition to the target lexical nodes during activation. Age wise difference in lexical access is in lines with an earlier study carried out by Carroll et al. (2016).

In older individuals, the reaction time was more for semantically related blocks compared to semantically unrelated blocks. This finding was in consonance with the findings reported by earlier studies which used priming task (Brown, 1981; Burke, 2010; Barr et al., 2013; Baayen et al., 2008). The studies were in agreement with studies which using blocked and cyclic naming tasks also (Burke 1987; Barr et al., 2013).

Conclusions

The study was carried with the aim of investigating the pattern of lexical semantic activation in younger and older adults. Continuous naming paradigm was employed to probe the lexical semantic activation. Younger and older adults served as participants. The participants were asked to name presented in the form of semantically related and unrelated blocks. The reaction time and accuracy of scores for related and unrelated pictures were almost the same for younger individuals and the difference was not significant statistically, while for older individuals, the reaction was slower and accuracy was poorer for semantically related pictures indicating inhibition.

References

- Barr, D. J., Levy, R., Scheepers, C., & Tily, H. J. (2013). Random effects structure for confirmatory hypothesis testing: Keep it maximal. *Journal of Memory and Language*, *68*(3), 255-278. <https://doi.org/10.1016/j.jml.2012.11.001>
- Baayen, R. H., Davidson, D. J., & Bates, D. M. (2008). Mixed-effects modeling with crossed random effects for subjects and items. *Journal of Memory and Language*, *59*(4), 390-412. <https://doi.org/10.1016/j.jml.2007.12.005>
- Biegler, K. A., Crowther, J. E., & Martin, R. C. (2008). Consequences of an inhibition deficit for word production and comprehension. *Neuropsychology, Cognitive Sciences*, *25*, 493-527. <https://doi.org/10.1080/02643290701862316>
- Belke, E. (2008). Effects of working memory load on lexical-semantic encoding in language production. *Psychonomic Bulletin & Review*, *15*, 357-363. <https://doi.org/10.3758/PBR.15.2.357>
- Brown, A. S. (1981). Inhibition in cued retrieval. *Journal of Experimental Psychology: Human Learning and Memory*, *7*, 204-215.
- Carroll, R., Warzybok, A., Kollmeier, B., & Ruigendijk, E. (2016). Age-related differences in lexical access relate to speech recognition in noise. *Frontiers in Psychology*, *7*, 990. <https://doi.org/10.3389/fpsyg.2016.00990>

- Damian, M. F., and Als, L. C. (2005). Long-lasting semantic context effects in the spoken production of object names. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 31, 1372-1384. <https://doi.org/10.1037/0278-7393.31.6.1372>
- Issa, S. H., Awadh, F. H., & Ahmed, H. R. (2022). The role of proficiency level in the speed of lexical activation. *Cogent Arts & Humanities*, 9(1), 1999613. <https://doi.org/10.1080/23311983.2021.1999613>
- Issa, S. H., Ahmed, H. R., Alwan, E. E., Mutahar, A. A., Bajiri, M. E., & Abhishek, B. P. (2021). An objective tool for classification of language deficits in adults. *Review of International Geographical Education Online*, 11(5), 4237-4246.
- Kroll, J. F., Stewart, E. (1994). Category interference in translation and picture naming: Evidence for asymmetric connections between bilingual memory representations. *Journal of Memory and Language*, 33, 149-174. <https://doi.org/10.1006/jmla.1994.1008>
- Levelt, W. J. M. (1989). *Speaking: From intention to articulation* ACL-MIT Press series in natural-language processing. Cambridge, MA, US: The MIT Press.
- Navarrete, E., Del Prato, P., & Mahon, B. Z. (2012). Factors determining semantic facilitation and interference in the cyclic naming paradigm. *Frontiers in Psychology*, 3, 38. <https://doi.org/10.3389/fpsyg.2012.00038>
- Rahman, A., R., & Melinger, A. (2007). When bees hamper the production of honey: Lexical interference from associates in speech production. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 33, 604-614. <https://doi.org/10.1037/0278-7393.33.3.604>

Exploring Concepts of the English Language Tourism Advertising Discourse in Pre-Pandemic and Pandemic Times

Tetiana Kolisnichenko

 <https://orcid.org/0000-0001-5312-0522>

t.kolisnichenko@chnu.edu.ua

Yuriy Fedkovych Chernivtsi National University, Ukraine

Iryna Osovska

 <https://orcid.org/0000-0002-8109-658X>

Scopus Author ID: [57210824027](#)

i.osovska@chnu.edu.ua

Yuriy Fedkovych Chernivtsi National University, Ukraine

Liudmyla Tomniuk

 <https://orcid.org/0000-0002-7971-780X>

Scopus Author ID: [57210819043](#)

l.tomniuk@chnu.edu.ua

Yuriy Fedkovych Chernivtsi National University, Ukraine

Received October 17, 2021; Revised January 21, 2022; Accepted March 4, 2022

Abstract. After the Second World War, 2019 definitely became one of the most significant strength tests for humanity that gave a boost to gradual but crucial changes in every person's mental worldview models, which are particular deeply established constructs of reality. There is no sphere of activity that has not been affected by the coronavirus pandemic (COVID-19). Tourism became one of those areas most severely affected by the crisis, caused by pandemic conditions and quarantine measures. Consequently, they had to adjust to the new reality of life in circumstances of numerous human rights and freedom restrictions. This fact stipulates the topicality of the given comparative research. Based on the anthropocentric approach, the authors suggest the research methodology that lies in a complex approach to the discourse analysis as a platform for interrelations between the cognitive worldviews of addresser and addressee. Having identified the concepts-autochthons of the modern English-language tourism advertising discourse and determined their regular correlations, the cognitive map of the modern English-language tourism advertising discourse was designed. Having applied the comparative analysis of the cognitive maps of the traditional and modern English-language tourism advertising discourse, the authors determined the main suppositions of the English-speaking consumer of tourism services during pre-pandemic and pandemic periods. Thus, the traditional view of the English-speaking consumer of tourism services is the perception of tourism as the phenomenon related to unhindered, comfortable traveling and family holidays with gastronomic delight, new acquaintances and positive emotions. However, during the pandemic period, for English-speaking tourism services,

consumer tourism became necessary for a change of surroundings, like a sip of fresh air that is available only by following quarantine rules and only in those countries open for tourists. Safety and sanitizing become the most critical factors in choosing a tourist location.

Keywords: *COVID-19, tourism advertising discourse, conceptual system, cognitive map, domain, autochthon, concept.*

Колісніченко Тетяна, Осовська Ірина, Томнюк Людмила. Концептосистема англomовного туристичного рекламного дискурсу: допандемійний та пандемійний період.

Анотація. Після Другої світової війни 2019 рік став однозначно найбільшим випробуванням на міцність для людства, що дало поштовх поступовим, втім докорінним змінам ментальних моделей світу кожної людини, які є своєрідними глибоко укоріненими конструктами реальності. Немає такої сфери людської діяльності, яка б не зазнала впливу пандемії коронавірусу COVID-19. Однією з тих сфер, які в умовах пандемії і карантинних обмежень зазнали найбільшої кризи, і відповідно були змушені адаптуватися до нових реалій життя в умовах численних обмежень людських прав і свобод, стала туристична сфера. Саме цей факт зумовлює актуальність даного компаративного дослідження, яке має на меті на прикладі англomовного колективного когнітивного простору порівняти уявлення і знання дискурсної спільноти про туристичну сферу у допандемійний та пандемійний період, що дасть змогу простежити і виокремити ті зміни, які у свідомості представників англomовної спільноти викликала саме пандемія COVID-19. Автори пропонують засновану на антропоцентричному підході методику дослідження, яка полягає у комплексному підході до аналізу дискурсу як полотна, на якому розгортається взаємодія між когнітивними світами адресанта та адресата. Встановивши концепти-автохтони сучасного англomовного туристичного рекламного дискурсу та визначивши їх регулярні кореляції, було сконструйовано когнітивну карту сучасного англomовного туристичного рекламного дискурсу. Здійснивши порівняльний аналіз когнітивних карт традиційного англomовного туристичного рекламного дискурсу і сучасного англomовного туристичного рекламного дискурсу, автори встановили основні пресупозиції англomовного споживача туристичних послуг у допандемійний і пандемійний періоди. Так, традиційними уявленнями англomовного споживача туристичних послуг є розуміння туризму як явища, яке пов'язане з безперешкодним, комфортним подорожуванням та відпочинком зі своєю сім'єю, що супроводжується гастрономічним задоволенням, новими знайомствами і позитивними враженнями. Натомість для англomовного споживача туристичних послуг у пандемійний період туризм став необхідністю зміни оточення, ковтком свободи, який можна зробити лише з дотриманням умов карантину і лише у тих країнах, які відкриті для туризму. Безпека і санітаїзинг стають основними критеріями при виборі туристичної локації.

Ключові слова: *COVID-19, туристичний рекламний дискурс, концептосистема, когнітивна карта, домен, автохтон, концепт.*

Introduction

In circumstances of an intensive development of tourism industry, tourism advertising discourse, which we consider as a symbiosis of advertising and tourism discourses that encompasses mental and communicative interrelation between addresser and addressee that develops and influences on potential tourists' experience, has firmly positioned itself in a range of linguistic investigations (Seregina, 2021; Jalilifar & Moradi, 2019, Ignatova, 2020; Vakhidova, 2021; Yakhshieva et al., 2021). After we started and deepened the investigation of tourism advertising discourse (Kolisnichenko, 2019a; 2019b), we tried to determine a number of constituent parts of mental

background and reproduce the conceptual system of the traditional English-language advertising discourse in a cognitive map (Kolisnichenko & Koropatnitska, 2021).

However, the current circumstances, COVID-19 pandemic in particular, make its tangible adjustments in people's mindset, cognitive spaces of communicants, and consequently, functioning of various types of discourses. Each of them is considered as a particular multistructural network of communicative acts, based on the full range of extra linguistic factors, which activate them. It is tourism advertising discourse that, in this context, demonstrates considerable changes in different national discourses, as it relates to leisure time that during pandemic period has drastically changed in consciousness and life of potential tourists.

Accordingly, our aim lies in comparison of the main elements of the English-language collective cognitive space as a structured complex of knowledge and ideas of discourse community about tourism before pandemic period and in present pandemic conditions, caused by COVID-19.

Despite of multiple approaches, we determine our position concerning such popular, multiform, and consequently, differently interpreted notion as discourse in the context of active approach, methodological principle of functionalism and anthropocentric principle of language examining, and in general, define *tourism advertising discourse* as an independent type of discourse that is focused on the orientation in a number of tourist attractions, from one side, and consumer's feedback about tourist services, on the other side (Kolisnichenko & Koropatnitska, 2021, p. 115).

Interpretation of the basic concepts of the research is based on the following ideas: a) all knowledge of the English-speaking community representatives about tourist attraction is collected in their consciousness as objects of conceptual space – complex of historically formed basic structural elements of people's real life organization, which are fixed in a range of semiotic spheres, named in a range of semantic spheres, and provide person's existence in real space (Prohorov, 2005, p. 74-94); b) complex of concepts of individual thematically-marked conceptual spaces correlate with conceptual system of a particular type of discourse (discursive practice) – “logical-semantic parallels between discourse type and concepts” (Prykhodko, 2013, p. 211; Osovskaya, 2014); c) conceptual system of a particular type of discourse (discursive practice) is characterized by a relative permanence – discursive configuration of concepts (metachthons – conceptual ideas, autochthons – closed common set, allochthons – not frequent and not common for the given discourse) (ibid).

Conceptual system of the English-language tourism advertising discourse integrates, through the complex of concepts, certain common ideas of the English-speaking community participants about tourism and touristic attractions. Being formed in a complex of autochthons before 2019, this conceptual system has undergone (and continues to undergo) radical transformation, caused by pandemic and the aim of the given investigation is to determine those changes. Consequently, the research object is the English-language tourism advertising discourse in two aspects – traditional (TETAD) and modern (METAD). The first one is considered as an early 21st century tourism discursive practice in general, and the second one – as this same practice in

modern tendencies during the last two years, beginning from the introduction of the pandemic status by the WHO.

Method

The materials of the METAD research comprise texts of 117 advertising brochures and tourist guides across Great Britain within the period from 2020 to 2021, with total amount of 1001247 word expressions, received from the internet sources.

The research consists of several levels. Similar methodology was used before by (Osovska & Tomniuk, 2019; Osovska & Hafu, 2019) and showed its effectiveness. Common methodology was used to analyze the TETAD (Kolisnichenko & Koropatnitska, 2021) that will be compared to the investigated METAD at the final stage.

The first stage involves the determination of the main concepts-autochthons of the METAD through the synthesis of the conceptual analysis, methods of corpus linguistics and quantitative analysis. Firstly, we do inventory of the investigated texts (using the Wmatrix program for corpus analysis and comparison) by selecting verbalizers of all concepts in the research materials – nouns, verbs and adjectives, and fixing their frequency of usage. Then we group the fixed objectifiers of concepts in semantic domains and determine, from the view of quantity, the most representative of them.

In order to specify the most relevant domains, we appeal to mathematical statistics. For the general set (Danilov, 2019, p. 4), it is, normally, the confidence interval (Vasylenko & Sencha, 2011, p. 26–27) that is taken to consideration. The confidence level is found in interval from .9 to .999: high standards of accuracy require the value .999; increased – .99; normal – .95; decreased – .9 (Vasylenko & Sencha, 2011, p. 26–27).

After we have constructed the confidence interval for the TETAD and METAD, based on the one-sample Student's t-test in the IBM program (see table 2), let us determine the most relevant domains for the METAD.

The second stage implies the analysis of the autochthon correlative pairs, which highlight certain related elements in the processes of thinking. This is performed by using introspection method. The type of relation in a pair is defined on the basis of logical-semantic inference. Generally, 1256 thematically-complete and pragmatically-linked parts of text, usually, with a length of not much more than three sentences, with 159 fixed repetitive autochthon correlations were analyzed by absolute sampling technique.

The third stage is directed at the verification of all correlative pairs of autochthons and determination of the dominant ones, which are regularly represented in the discourse as inter-autochthon correlations and form the framework of the METAD. Verification is done through the implementation of the one-sample Student's t-test calculations using the IBM SPSS 26.0 Statistics program.

The fourth stage lies in creation of the METAD cognitive map that includes the basic relevant information about the English-language tourism advertising sphere, and interpretation of the defined dependencies as presuppositions.

The fifth stage represents the comparative analysis of the conceptual systems of the TETAD (Kolishnichenko & Koropatnitska, 2021) and METAD, defining the peculiarities of the relevant (according to the pandemic) transformation for this type of discursive practice.

Results and Discussion

The approbation of method, described in the previous paragraph, was done earlier in a range of theses, dedicated to the investigation of modern German family discourse (Osovskaya, 2014), German matrimonial confrontational discourse, modern German prison discourse (Osovskaya & Tomniuk, 2019), modern British parental discourse, modern English gastronomic discourse (Osovskaya & Hafu, 2021).

The analysis of the METAD, performed by suggested methodology, makes it possible to state the following. After selection of 123698 content parts of speech – verbalizers of all concepts, from the texts of advertising brochures and tourist guides across Great Britain within the period from 2020 to 2021, and grouping of the fixed objectifiers in semantic domains, we introduced the most quantitatively representative of them. The selected domains are provided in the table in order of decreasing frequency of their verbalization in the METAD (see table 1). Alongside, we indicate and fix the main domains of the TETAD (Kolishnichenko & Koropatnitska, 2021), which are vital for the comparison of the TETAD and METAD.

Table 1

The main semantic domains of the TETAD and METAD

| METAD | | | | TETAD | | | |
|---------|----------------------|--------------------|-------|---------|----------------------|--------------------|------|
| Domains | | verbalizers | of | Domains | | verbalizers | of |
| | | concepts in domain | | | | concepts in domain | |
| | | Quantity | % | | | Quantity | % |
| 1. | <i>travel</i> | 29386 | 11.1% | 1. | <i>destination</i> | 19840 | 8.9% |
| 2. | <i>destination</i> | 27533 | 10.4% | 2. | <i>travel</i> | 18813 | 8.4% |
| 3. | <i>entertainment</i> | 25415 | 9.6% | 3. | <i>entertainment</i> | 17516 | 7.9% |
| 4. | <i>culture</i> | 19061 | 7.2% | 4. | <i>culture</i> | 16434 | 7.4% |
| 5. | <i>safety</i> | 18208 | 6.9% | 5. | <i>satisfaction</i> | 15186 | 6.8% |
| 6. | <i>dining</i> | 17943 | 6.8% | 6. | <i>architecture</i> | 14569 | 6.5% |
| 7. | <i>satisfaction</i> | 16679 | 6.3% | 7. | <i>people</i> | 14088 | 6.3% |
| 8. | <i>architecture</i> | 15620 | 5.9% | 8. | <i>dining</i> | 13123 | 5.9% |
| 9. | <i>people</i> | 14355 | 5.4% | 9. | <i>comfort</i> | 13091 | 5.9% |
| 10. | <i>comfort</i> | 13561 | 5.1% | 10. | <i>residence</i> | 12958 | 5.8% |

| | | | | | |
|-----------------------|---------------|---------------|-----------------------|---------------|---------------|
| 11. transport | 13296 | 5.0% | 11. transport | 12101 | 5.4% |
| 12. residence | 11767 | 4.4% | 12. budget | 12058 | 5.4% |
| 13. budget | 9237 | 3.5% | 13. safety | 11326 | 5.1% |
| 14. <i>covid</i> | 8148 | 3.1% | 14. <i>time</i> | 9110 | 4.1% |
| 15. <i>land</i> | 7354 | 2.8% | 15. <i>activity</i> | 8333 | 3.7% |
| 16. <i>technology</i> | 6560 | 2.5% | 16. <i>land</i> | 5054 | 2.3% |
| 17. <i>colour</i> | 5706 | 2.2% | 17. <i>technology</i> | 4020 | 1.8% |
| 18. <i>education</i> | 4912 | 1.9% | 18. <i>colour</i> | 3027 | 1.4% |
| | | | 19. <i>education</i> | 271 | 1.1% |
| Total | 264741 | 100.0% | Total | 223018 | 100.0% |

As we can see in table 1, 18 domains are highlighted in the METAD, where domain *travel* takes the dominant position (11.1%). From one side, it demonstrates the relevance of information about the perception of a journey as an essential part of leisure time and rest, which are vital components of life. From the other side, it shows the importance of change of surroundings for the modern English-speaking potential tourists, in spite of the pandemic. In order to define the most relevant domains, we construct the confidence interval for the TETAD (and simultaneously, for the METAD) in accordance with the one-sample Student's t-test in the IBM program (see table 2).

Table 2

Student's t-test for the TETAD and METAD

| | T | df | Value (bilateral) | Average difference | 95% confidence interval for difference | |
|-------|--------|----|----------------------|-----------------------|---|------------|
| | | | | | Lower | Upper |
| METAD | 10.139 | 18 | .000 | 11737.78947 | 9305.6090 | 14169.9700 |
| TETAD | 8.120 | 17 | .000 | 14707.83333 | 10575.9693 | 10664.1209 |

As we refer to 95% of the confidence interval, the domains, frequency of which is not higher than the minimal confidence interval, will not be taken to consideration as relevantly not noticeable. In accordance with the Student's t-test calculation, the lower confidence interval stands at 9305.6090 items or 3.5%. Thus, the most relevant (basic) of them for the METAD are the domains, highlighted in bold characters (see table 1).

At the third stage we used the quantitative analysis with an aim to indicate the most frequent lexemes-verbalizers of autochthons in basic domains. As a result, there were fixed lexemes-verbalizers with high frequency of usage in the discourse: *visit* (16367 words usage or 3.9% from the total quantity of the objectifiers), *activity* (15999, 3.8%), *entertainment* (13368, 3.2%), *destination* (12831, 3.1%), *tour* (12561, 3%). The objectifiers with low frequency of usage (less than 1% from the general

quantity of the analyzed ones) are *business, tradition, sanitizing, new protocol, culture, architecture, bubble, touch points*. This can be explained by the fact that the addressers in the METAD do not detail the traditions and culture of countries. Information about culture and economic situation of the country is also of secondary importance. The relevant ‘pandemic’ lexemes-verbalizers *sanitizing, new protocol, bubble, touch points* are now at low percentage of usage that can be attributed to their novelty in tourism.

In table 3 it is represented the frequency of objectifiers that indicates the regularity of the concepts, verbalized by them – their autochthon status in the METAD.

Table 3

Concepts-autochthons from the most significant domains of the METAD

| Domain | Autochthons | Quantity of autochthon verbalizers | | | |
|----------------------|--------------------|---|-------|-------|------|
| travel | VISIT | 8828 | 30.0% | 29386 | 100% |
| | TOUR | 6671 | 22.7% | | |
| | TRAVEL | 6098 | 20.8% | | |
| | JOURNEY | 4724 | 16.1% | | |
| | TOURISM | 2232 | 7.6% | | |
| | BUBBLE | 833 | 2.8% | | |
| destination | DESTINATION | 7249 | 26.3% | 27533 | 100% |
| | PLACE | 6996 | 25.4% | | |
| | AREA | 5536 | 20.1% | | |
| | LAND | 3919 | 14.2% | | |
| | SETTLEMENT | 3833 | 13.9% | | |
| entertainment | ACTIVITY | 8739 | 34.4% | 25415 | 100% |
| | ENTERTAINMENT | 7249 | 28.5% | | |
| | FUN | 4899 | 19.3% | | |
| | HOLIDAY | 4528 | 17.8% | | |
| culture | EVENT | 5620 | 29.5% | 19061 | 100% |
| | EXHIBITION | 4679 | 24.5% | | |
| | TIME | 3859 | 20.2% | | |
| | HISTORY | 2350 | 12.3% | | |
| | TRADITION | 1592 | 8.4% | | |
| | CULTURE | 961 | 5.0% | | |
| safety | HEALTH | 4963 | 28.8% | 17208 | 100% |
| | COVID | 4682 | 27.2% | | |
| | SAFETY | 2771 | 16.1% | | |

| | | | | | |
|---------------------|--------------|------|-------|---------------|------|
| | SANITISING | 1652 | 9.6% | | |
| | NEW PROTOCOL | 1455 | 8.5% | | |
| | CLEANING | 1451 | 8.4% | | |
| | TOUCH POINTS | 234 | 1.4% | | |
| dining | RESTAURANT | 6209 | 36.6% | 16943 | 100% |
| | DINING | 6262 | 37.0% | | |
| | FOOD | 4472 | 26.4% | | |
| satisfaction | PLEASURE | 6250 | 37.5% | 16679 | 100% |
| | ENJOYMENT | 4639 | 27.8% | | |
| | SATISFACTION | 3964 | 23.8% | | |
| | DELIGHT | 1826 | 10.9% | | |
| architecture | DESIGN | 5128 | 32.8% | 15620 | 100% |
| | BUILDING | 3720 | 23.8% | | |
| | FAME | 3465 | 22.2% | | |
| | INTEREST | 2417 | 15.5% | | |
| | ARCHITECTURE | 890 | 5.7% | | |
| people | LOCALS | 4088 | 26.6% | 15355 | 100% |
| | VISITOR | 4133 | 26.9% | | |
| | PEOPLE | 3575 | 23.3% | | |
| | FAMILY | 1960 | 12.8% | | |
| | CHILD | 1599 | 10.4% | | |
| comfort | SERVICE | 6411 | 44.0% | 14561 | 100% |
| | COMFORT | 4737 | 32.5% | | |
| | LUXURY | 3413 | 23.4% | | |
| transport | TRANSPORT | 6097 | 42.6% | 14296 | 100% |
| | VEHICLE | 4622 | 32.3% | | |
| | ROAD | 3577 | 25.0% | | |
| residence | RESIDENCE | 5674 | 41.2% | 17022 | 100% |
| | APARTMENT | 5496 | 22.3% | | |
| | ACCOMODATION | 2597 | 22.3% | | |
| budget | BUDGET | 5513 | 41.6% | 13237 | 100% |
| | PRICE | 3991 | 30.2% | | |
| | BUSINESS | 3733 | 28.2% | | |
| Разом | | | | 239061 | |

In general, we determined 56 frequency concepts in the METAD. However, as the autochthons of the METAD are considered only those of them, the frequency of verbalizers' usage of which is not less than 95% of the confidence interval (see table 4).

Table 4

Student's t-test for the domains of the METAD

| Domain | Lower 95% confidence interval | |
|----------------------|-------------------------------|-------|
| | Quantity | % |
| travel | 3631.6191 | 12.4% |
| destination | 3887.2454 | 14.1% |
| entertainment | 4184.2461 | 16.5% |
| culture | 2349.1673 | 12.3% |
| safety | 1883.7585 | 10.9% |
| dining | 3338.1628 | 19.7% |
| satisfaction | 2738.1349 | 16.4% |
| architecture | 2196.8538 | 14.1% |
| people | 2159.2947 | 14.1% |
| comfort | 2865.4851 | 19.7% |
| transport | 2812.9175 | 19.7% |
| residence | 2707.9927 | 19.7% |
| budget | 2602.8867 | 19.7% |
| Total | 239061 | 100% |

Therefore, the autochthons, which form the discourse framework of the METAD, are 46 concepts-autochthons including:

- 1) VISIT (3.7%), TOUR (2.8%), TRAVEL (2.6%), JOURNEY (2.0%) from the domain *travel* (11.1%), e.g.: *Travel by air in the northern region is very safe and reliable.*
- 2) DESTINATION (3.0%), PLACE (2.9%), AREA (2.3%), LAND (1.6%), SETTLEMENT (1.6%) from the domain *destination* (10.4%), e.g.: *A voyage is a trouble-free way to travel, offering fantastic vistas of archipelagos before finally arriving in your destination.*
- 3) ACTIVITY (3.7%), ENTERTAINMENT (3.0%), FUN (2.0%), HOLIDAY (1.9%) from the domain *entertainment* (9.6%), e.g.: *...book the accommodation, relax and enjoy your holiday.*
- 4) EVENT (2.4%), EXHIBITION (2.0%), TIME (1.6%), HISTORY (1.0%) TRADITION from the domain *culture* (7.2%), e.g.: *Many traditional ceremonies are open to the public.*
- 5) HEALTH (2.1%), COVID (2.0%), SAFETY (1.2%) from the domain *safety* (6.5%), e.g.: *Flight attendants wearing masks, sanitising all surfaces between flights.*

- 6) RESTAURANT (2.6%), DINING (2.6%), FOOD (1.9%) from the domain *dining* (6.4%), e.g.: ***Spoil yourself with a traditional tall aromatic coffee and a calorie-busting apfelstrudel!***
- 7) PLEASURE (2.6%), ENJOYMENT (1.9%) SATISFACTION (1.7%) from the domain *satisfaction* (6.3%), e.g.: ***The interests and enjoyment of our clients are paramount as they travel the world.***
- 8) DESIGN (2.1%), BUILDING (1.6%), FAME (1.4%), INTEREST (1.0%) from the domain *architecture* (5.9%), e.g.: ***...iconic architecture seems to be around every corner.***
- 9) LOCALS (1.7%), VISITOR (1.7%), PEOPLE (1.5%) from the domain *people* (5.8%), e.g.: ***In these semi-detached wooden houses, you have a great spot to relax with your family.***
- 10) SERVICE (2.7%), COMFORT (2.0%), LUXURY (1.4%) from the domain *comfort* (5.5%), e.g.: ***Enjoy the highlights of our destinations from the comfort of a coach with a guide.***
- 11) TRANSPORT (2.6%), VEHICLE (1.9%), ROAD (1.5%) from the domain *transport* (5.4%), e.g.:
 - ***Enjoy the freedom of your own vehicle, and drive around the city at your own pace.***
- 12) RESIDENCE (2.4%), APARTMENT (2.3%), ACCOMODATION (1.1%) from the domain *residence* (5.2%), e.g.:
 - ***Experience the Kimberley in Comfort-style accommodation.***
- 13) BUDGET (2.3%), PRICE (1.7%), BUSINESS (1.6%) from the domain *budget* (5.0%), e.g.:
 - ***Rail travel is a budget-friendly and convenient way to travel between major and minor cities.***

Information about autochthons demonstrates that during the pandemic period the modern English-speaking (potential) tourist continues to realize the significance of the fact and process of traveling, in general, considers traveling as one of the main elements of vacation and holiday, gets interested in travel tours and tourist attractions, places to stay during the journey (see Fig. 1).

Table 5
Matrix of inter-autochthons relations in the METAD

| No | Type of relations | Scheme | Examples |
|----|-------------------|--|---|
| 1. | Inclusion | “X includes (is) Y” | 1. SAFETY is BUBBLE: <i>explore in a protected travel bubble with the same group of amazing people from start to finish;</i> 2. TRAVEL is ENTERTAINMENT: <i>- hundreds of models, and many displays which go beyond just transport, make for an enjoyable visit for everyone.</i> |
| 2. | Consequence | “Y is a consequence of (\leftarrow) X” | 1. “ENTERTAINMENT \leftarrow DINNER”: <i>there’s campfire entertainment after dinner, then retire to faithfully restored antique rail carriages.</i> 2. ENTERTAINMENT \leftarrow EVENT: <i>arts festival offers a full programme of fantastic family entertainment.</i> |
| 3. | Causation | “X causes (\Rightarrow) Y” | 1. “HISTORY \Rightarrow EVENT”: <i>the Passion Play, an epic event that traces Jesus’ life, death and resurrection, is a moving feast of drama and music and the event continues today with performers all native to the village.</i> 2. EVENT \Rightarrow ENTERTAINMENT: <i>Attractions here include historic cottages and a late 19th century public house that serves great food and refreshing drinks!</i> |
| 4. | Mutual exclusion | “X excludes (\leftrightarrow) Y” | 1. “COVID \leftrightarrow TRAVEL”... <i>if you’ve tested positive for COVID-19 or are travelling with someone who has, you will not be able to join the trip until cleared as ‘fit for travel’ by a medical professional.</i> 2. TOUR \leftrightarrow COVID: <i>stay home, isolate yourself from others and postpone your tour until it’s safe.</i> |

The analysis of inter-autochthon pairs of the METAD, according to the Student’s t-test, makes it possible to statistically verify 251 correlative pairs of autochthons, from which strong ones account for 9.8%, average – 40.1%, and weak – 50.1%. Relations, which refer to the first and second types, are considered to be discourse-forming.

Strong conceptual relations form 8 correlative pairs of autochthons in the METAD: VISIT is DESTINATION (1.7%); VISIT is PLACE (1.4%); JOURNEY is

SETTLEMENT (1.3%); TIME is TRADITION (1.2%); LOCALS is PLACE (1.1%); ENTERTAINMENT ← EVENT (1.1%); PLEASURE is SETTLEMENT (1%); ACTIVITY is PLACE (1%).

Average conceptual relations form 67 correlative pairs: ACTIVITY is DESTINATION (.8%); ACTIVITY is SETTLEMENT (.6%); ACTIVITY is BUBBLE (.6%) etc.

The defined correlations demonstrate that the main presuppositions of the modern English-speaking consumer of tourism services are the following:

(1) tourism is *a change of attitudes, development*: tourism is one of the ways of self-development, expansion of the world view and improvement of knowledge about other countries and cultures;

(2) tourism is *an activity*: tourism is a dynamic activity, entertainment and events;

(3) tourism is *emotions*: tourism is, first of all, about enjoying the process and result of a journey;

(4) tourism is *funding*: tourism is a budget or luxury holiday;

(5) tourism is *a family holiday*: tourist attractions are created for the family vacation;

(6) tourism is *entertainment*: tourism is the best way to have fun;

(7) tourism is *people*: tourism is a way to get acquainted with local people, learn about their traditions, culture and history;

(8) tourism is *business*: tourism is an open space for business;

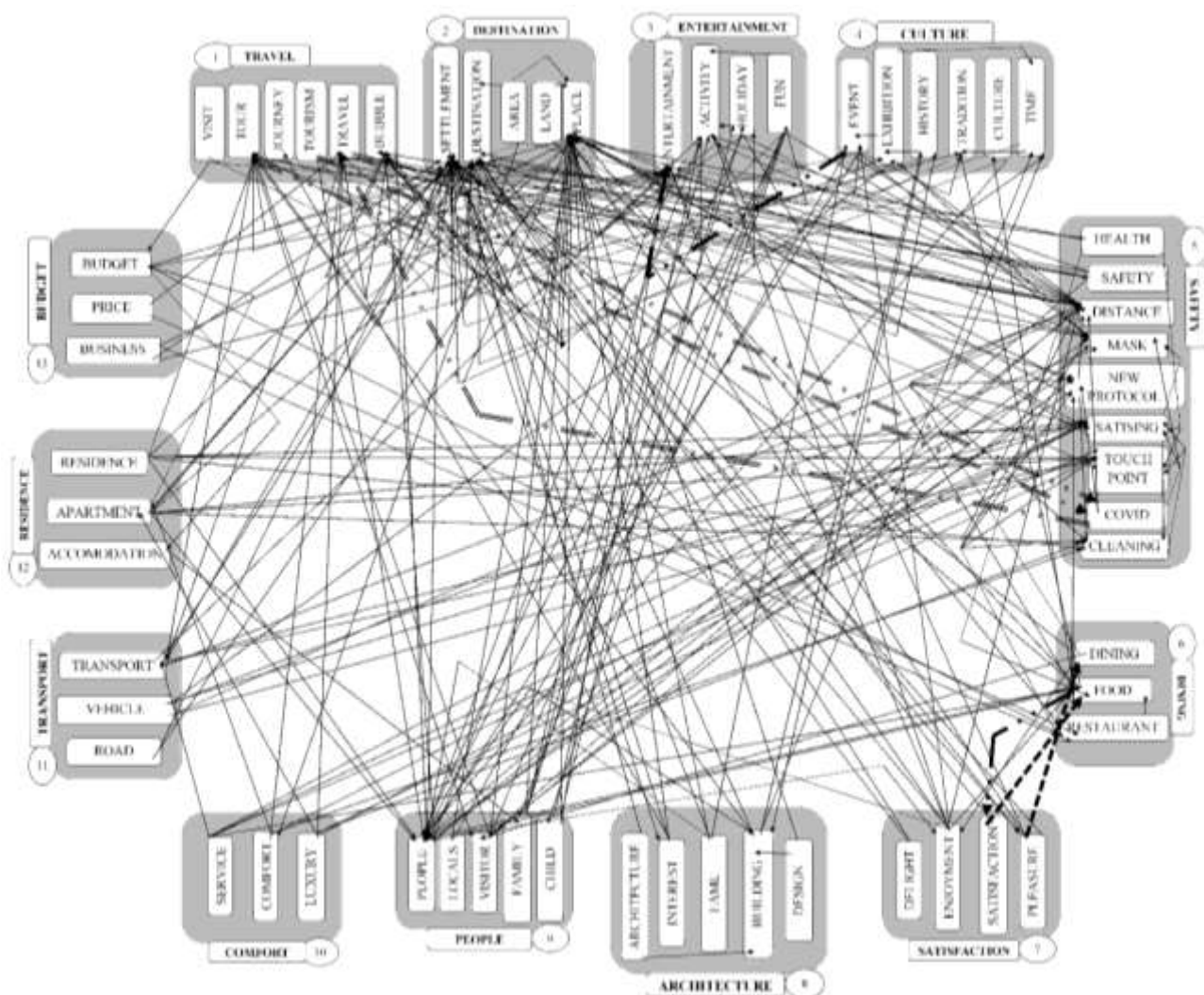
(9) tourism is *comfort*: comfort is a requirement for carriers and hotels;

(10) tourism is *gastronomy*: tourism is a possibility to try something new, expand one's gastronomic boundaries through national culinary traditions of the countries of the world.

In addition to the traditional presuppositions, appear the new, pandemic ones: tourism is *safety*: any journey may jeopardize tourist not only in pandemic conditions; safety of travel and tourist attractions is one of the crucial factors in choosing the destination, route, residence and transportation; disinfection and «touch points» are ones of the most important factors in choosing carriers and hotels; constant sanitizing is one of safety elements.

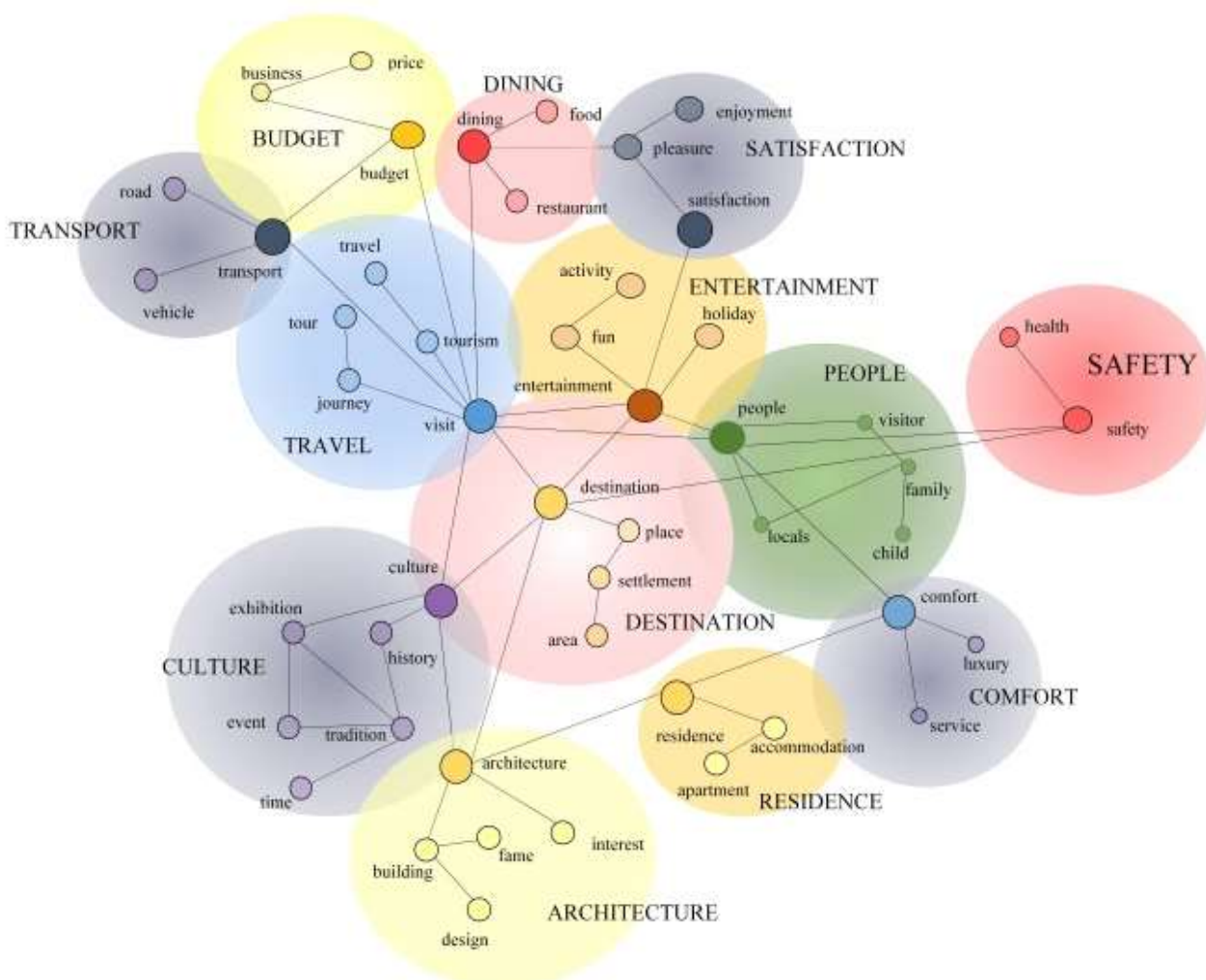
The determined autochthon correlations are demonstrated in a cognitive map of the METAD (see Figure 2).

Figure 2
Cognitive map of the METAD



The final stage, aims to compare cognitive maps of the TETAD and METAD. Based on the data from table 1, we can see that the amount of information has barely changed, as 19 domains are selected in the TETAD (see Figure 3) and 18 – in the METAD. Significance of both discourses is demonstrated by the domains *destination; travel; entertainment; culture*. Domains ranking has partly changed: in the TETAD, the first place is taken by appeal of the modern English-speaking (potential) consumer of tourism services, in the process of creation of a tourist attraction cognitive image, to the information about the following areas: *destination; travel; entertainment; culture; satisfaction; architecture; people; dining; comfort; residence; transport; budget; safety* (Kolisnichenko & Koropatnitska, 2021).

Figure 3
Discourse-forming framework of the TETAD



The pandemic transforms the traditional perception of tourism, first of all, highlighting the necessity of the fact of traveling and change of scenes, while the choice of tourist attraction takes the back seat. Safety issue gained new conceptual meaning.

As we can see, the idea about entertainment, culture and transport is constant, while the domains ranking is changed:

- domain *travel* from second position in the TETAD moved to the first position in the METAD that can be explained by the fact of actualization of necessity to change the surroundings and locations, visit other cities and countries, in comparison with traditional pre-pandemic period, when firstly, attention was paid to a tourist attraction. The dominant position of the domain *travel* in the METAD proves that the pandemic has brought certain changes to the cognitive space of tourism services consumers, as the obligation to be in continues quarantine in their country and closed borders have deprived of the

freedom to travel. People had to learn to live in a new way – with restrictions (Kostruba, 2021, p. 13). Earlier we investigated that in person's consciousness any deprivation of human rights and freedoms that is accompanied by certain isolation is equal to prison. So, people were trapped in some kind of prison during the pandemic. Consequently, we are not surprised by the fact that the possibility to travel and change the surroundings became precious;

- domain *destination* moved from the first position in the TETAD to second position in the METAD that demonstrates the revalorization and can be explained by the post-pandemic people's desire to travel;
- domain *satisfaction* from fifth position in the TETAD moved to seventh position in the METAD, obviously, as the result of restrictions on mass gatherings with an aim to avoid the expansion of COVID that, respectively, would influence on the fact of needs satisfaction;
- domain *comfort* moved from ninth position in the TETAD to tenth position in the METAD, illustrating that comfort issue is less important than change of surroundings and safety;
- domain *residence* from tenth position in the TETAD moved to twelfth position in the METAD, obviously, because of the fact that quarantine restrictions made it almost impossible to travel;
- domain *budget* moved from twelfth position in the TETAD to thirteenth position in the METAD, defining that the main effort of tourism is its revival;
- domain *safety* with lexemes-verbalizers, which mainly referred to the issue of safety in the country, in general (for instance, the absence of military actions), after addition of a number of new pandemic concepts (for example, COVID, SOCIAL DISTANCE, NEW PROTOCOL, MASK), moved from thirteenth position in the TETAD to fifth position in the METAD, which is clearly explained by special attention to not only common security, but also global pandemic requirements of social distance, isolation, constant sanitizing, vaccination etc. The concept TRAVEL BUBBLE deserves special attention. It embodies the new idea about a peculiar way of traveling in a constant group of people.

When comparing a set of autochthons of the TETAD and METAD, we noticed the following changes: it would be reasonable to admit the appearance of such concepts as SANITIZING, NEW PROTOCOL, BUBBLE, TOUCH POINTS, COVID, which currently have low frequency of usage that is explained by their novelty in tourism. However, the fact of their usage frequency increase is rather noticeable.

Regarding stable autochthon correlations, their quantity in the METAD is bigger (251 pairs) than in the TETAD (151 pairs) owing to the appearance of new concepts-autochthons. Such correlations prove that, against the background of the main traditional pre-pandemic presuppositions of the English-speaking consumer (tourism

is a way to have fun and change the surroundings; tourist attraction is a core element of tourism), the tendencies of highlighting in the METAD the fact of traveling that is mainly characterized by safety, is rather noticeable.

Conclusions

After comparing cognitive content of the English-language tourism advertising discourse from the perspective of its evolution (traditional/pre-pandemic and modern/pandemic), it was determined that the discourse as a system is capable of self-organization of internal components, absorbing new notions and concepts, transforming them, in the process of self-organization, to ‘constant’ components of system, such as NEW PROTOCOL or COVID REGULATIONS.

The cognitive map of the METAD is represented by 51 autochthons and 251 inter-autochthon correlations, which demonstrate the knowledge of the modern Englishman about tourism as a phenomenon that is related to traveling (usually, with family), change of views and values, self-development, cultural exchange, dynamic activity, certain funding, new acquaintances, usually brings positive emotions, allows to have a comfort rest from daily routine, taking pleasure, including gastronomic satisfaction, directly related to safety, adherence to anti-epidemic measures (social distancing, isolation, ‘bubble travel’ that includes interrelation with other people, sanitizing and vaccination).

In comparison with the TETAD, English-speaking tourism services consumer gained new presuppositions during the pandemic period (METAD). Among them are the following: tourism is a necessity to change surroundings and break down the isolation; tourism is available only in a certain range of countries, due to pandemic regulations, safety is one of the crucial criterion that influences the choice of tourist attraction; sanitizing is one of the most important requirements to carriers and hotels, people’s lifestyle and habits have changed during the pandemic period; tourism is available only in case of the COVID-19 absence; country’s openness to tourism and quantity of people sick with COVID-19 are the most important factors of tourist attraction selection.

The future prospects of our research, from the perspective of investigations actualized here, lie in the analysis of the METAD conceptual system in the format of intercultural comparison, according to the given methodology.

References

- Василенко О., Сенча І. Математично-статистичні методи аналізу у прикладних дослідженнях. Одеса: ОНАЗ ім. О. С. Попова, 2011.
- Гафу Т., Осовська І. Ментальний ресурс сучасного англомовного гастрономічного рекламного дискурсу. Науковий вісник Чернівецького національного університету імені Юрія Федьковича. Германська філологія. 2021. Вип. 831–832. С. 18–34.
- Данілов В. Статистична обробка даних. Київ, 2019.

- Колісниченко Т., Коропатніцька Т. Концептосистема сучасного англомовного туристичного рекламного дискурсу. Науковий вісник Чернівецького національного університету імені Юрія Федьковича. Германська філологія. 2021. Вип. 831–832. С. 114–123. <https://doi.org/10.31861/gph2021.831-832.114-123>
- Колісниченко Т. Рекламний туристичний дискурс: характеристики. SLAVIA. Journal for Slavonic Philology, 2019a. Вип. 88, №2. С. 202–210. URL: <https://www.ceeol.com/search/article-detail?id=805295>
- Колісниченко Т. Контент-категорії рекламного туристичного дискурсу. Наукові записки Міжнародного гуманітарного університету. 2019a. Вип. 31. С. 56–59. URL: <http://www.sci-notes.mgu.od.ua/archive/v31/15.pdf>
- Осовська І. Сучасний німецькомовний сімейний дискурс: ментальний і вербальний ресурс. Чернівці: РОДОВІД, 2014.
- Приходько А. Концепты и концептосистемы. Днепропетровск: Белая Е.А, 2013.
- Прохоров Ю. К проблеме «концепта» и «концептосферы». Язык, сознание, коммуникация, 2005. Вып. 30. С. 74–94.
- Серегина М. Туристический дискурс: лингвосемиотические особенности функционирования паремий. Филология: научные исследования. 2021. Вып. 3. С. 59–66. URL: https://nbpublish.com/library_read_article.php?id=33475
- Томнюк, Л. Сучасний німецькомовний тюремний дискурс (когнітивно-семантичний аспект). Дис. канд. філол. наук. 10.02.04 германські мови. Чернівці: Чернівецький національний університет імені Юрія Федьковича, 2018a. URL: <https://drive.google.com/file/d/1XVw5luXizMaK-СаамfnaZoulMsWYaYUd/view>
- Томнюк, Л. Дискурс як соціокультурний вимір мови. In Таврійські філологічні наукові читання: матеріали Міжнародної науково-практичної конференції. Київ: Таврійський національний університет імені В. І. Вернадського, 2018b. С. 122-125.
- IBM SPSS Statistics. (n.d.). Retrieved August 21, 2021, from <https://www.ibm.com/analytics/spss-statistics-software>
- Ignatova, E. (2020). Where have all the people gone: a multimodal critical discourse study of the representation of people in promotional tourism discourse. *Tourism, Culture & Communication*, 20, 1–11. <https://doi.org/10.3727/109830420X15894802540205>
- Jalilifar, A., & Moradi, Y. (2019). Tourism discourse revisited: an analysis of evaluative strategies in tourist brochures from a systemic functional linguistics perspective. *Journal of English Studies*, 17, 211–232. <https://doi.org/10.18172/jes.3595>
- Kostruba, N. (2021). Social Restrictions in the COVID-19 Pandemic As a Traumatic Experience: Psycholinguistic Markers. *East European Journal of Psycholinguistics*, 8(1). <https://doi.org/10.29038/eejpl.2021.8.1.kos>
- Osovska, I., & Tomniuk, L. (2019). Modern German Prison Discourse: Mental Resource. *SKASE Journal of Theoretical Linguistics*, 16(2), 61–87. Retrieved from http://www.skase.sk/Volumes/JTL40/pdf_doc/04.pdf
- Vakhidova, F.S. (2021). Tourism discourse and its terminology. *JournalNX – A Multidisciplinary Peer Reviewed Journal*, 7(3), 150–152.
- Yakhshieva, Z., Ortiqova, E., Babadjanova, G., & Khasanova, K. (2021). The Versatility Of Genres Of Tourism Discourse. *Psychology and Education Journal*, 58(2), 5698–5700. <https://doi.org/10.17762/pae.v58i2.2994>


References (translated and transliterated)

- IBM SPSS Statistics. (n.d.). Retrieved August 21, 2021, from <https://www.ibm.com/analytics/spss-statistics-software>
- Ignatova, E. (2020). Where have all the people gone: a multimodal critical discourse study of the representation of people in promotional tourism discourse. *Tourism, Culture & Communication*, 20, 1–11. <https://doi.org/10.3727/109830420X15894802540205>

- Jalilifar, A., & Moradi, Y. (2019). Tourism discourse revisited: an analysis of evaluative strategies in tourist brochures from a systemic functional linguistics perspective. *Journal of English Studies*, 17, 211–232. <https://doi.org/10.18172/jes.3595>
- Kostruba, N. (2021). Social Restrictions in the COVID-19 Pandemic As a Traumatic Experience: Psycholinguistic Markers. *East European Journal of Psycholinguistics*, 8(1). <https://doi.org/10.29038/eejpl.2021.8.1.kos>
- Osovska, I., & Tomniuk, L. (2019). Modern German Prison Discourse: Mental Resource. *SKASE Journal of Theoretical Linguistics*, 16(2), 61–87. Retrieved from http://www.skase.sk/Volumes/JTL40/pdf_doc/04.pdf
- Vakhidova, F.S. (2021). Tourism discourse and its terminology. *JournalNX – A Multidisciplinary Peer Reviewed Journal*, 7(3), 150–152.
- Yakhshieva, Z., Ortiqova, E., Babadjanova, G., & Khasanova, K. (2021). The versatility of genres of tourism discourse. *Psychology and Education Journal*, 58(2), 5698–5700. <https://doi.org/10.17762/pae.v58i2.2994>
- Vasylenko, O., & Sencha, I. (2011). *Matemachno-statystychni metody analizu u prykladnykh doslidzhenniakh* [Mathematical and statistical methods of analysis in applied research]. Odesa: ONAZ im. O. S. Popova.
- Hafu, T., & Osovska, I. (2021). Mentalnyi resurs suchasnoho anhlo-movnoho hastronomichnoho reklamnoho dyskursu [Mental resource of the modern English gastronomic advertising discourse]. *Naukovyi Visnyk of Yuriy Fedkovych Chernivtsi National University. German Philology*, 831–832, 18–34.
- Danilov, V. (2019). *Statystychna obrobka danykh* [Statistical data processing]. Kyiv.
- Kolisnychenko, T., & Koropatnitska, T. (2021). Kontseptosystema suchasnoho anhlo-movnoho turystychnoho reklamnoho dyskursu [Conceptual system of the modern English-language tourist advertising discourse]. *Naukovyi Visnyk of Yuriy Fedkovych Chernivtsi National University. German Philology*, 831–832, 114–123. <https://doi.org/10.31861/gph2021.831-832.114-123>
- Kolisnychenko, T. (2019a). Reklamnyi turystychnyi dyskurs: kharakterystyky [Advertising tourist discourse: characteristics]. *SLAVIA. Journal for Slavonic Philology*, 88(2), 202–210. Retrieved from <https://www.cceol.com/search/article-detail?id=805295>
- Kolisnychenko, T. (2019b). Kontent-katehorii reklamnoho turystychnoho dyskursu [Content categories of advertising tourist discourse]. *Naukovi Zapysky of International Humanitarian University*, 31, 56–59. Retrieved from <http://www.sci-notes.mgu.od.ua/archive/v31/15.pdf>
- Osovska, I. (2014). Suchasnyi nimetskomovnyi simeinyi dyskurs: mentalnyi i verbalnyi resurs [Modern German-speaking family discourse: mental and verbal resources]. Chernivtsi: Rodovid.
- Prihodko, A. (2013). *Kontsepty i Kontseptosystemy* [Concepts and Concept Systems]. Dnepropetrovsk: Belaya E.A.
- Prokhorov, Yu. (2005). K probleme “kontsepta” i “kontseptosfery” [To the problem of “concept” and “concept sphere”]. *Yazyk. Soznaniye. Kommunikatsiya*, 30, 74–94.
- Seregina, M. (2021). Turisticheskiiy diskurs: lingvosemioticheskiye osobennosti funktsionirovaniya paremiy [Tourist discourse: linguistic semiotic features of the paremiias functioning]. *Filologiya: Nauchnyye Issledovaniya*, 3, 59–66. Retrieved from https://nbpublish.com/library_read_article.php?id=33475
- Tomniuk, L. (2018a). Suchasnyj nimets'komovnyj tyuremnyj dyskurs (kohnityvnosemantychnyj aspekt) [Modern German prison discourse (cognitive-semantic aspect)]. Ph.D. thesis. Chernivtsi: Yuriy Fedkovych Chernivtsi National University. Retrieved from <https://drive.google.com/file/d/1XVw5luXizMaK-CaamfnaZoulMsWYayUd/view>
- Tomniuk, L. (2018b). Dyskurs yak sotsiokulturnyi vymir movy [Discourse as a sociocultural dimension of language]. *Tavriiski Filolohichni Naukovi Chytannia: Book of Abstracts*. Kyiv: Vernadskyi Taurida National University. (122–125).


Gender Features of Verbal Representation of the Concept "Gender Inequality" by University Students

Tetiana Kostina

 <https://orcid.org/0000-0001-9644-0630>
kostina.net@gmail.com


Hryhorii Skovoroda University in Pereiaslav, Ukraine

Diana Drozdova

 <https://orcid.org/0000-0003-1254-0728>
diana.drozdova@gmail.com

*Horlivka Institute for Foreign Languages of the
Donbas State Pedagogical University, Ukraine*

Iryna Bulakh

 <https://orcid.org/0000-0003-0314-8070>
i.s.bulakh@ukr.net

National Pedagogical Drahomanov University, Ukraine

Received April 2, 2021; Revised January 22, 2022; Accepted May 6, 2022

Abstract. The article presents a study of the verbal representation of the concept of "gender inequality" in student youth. The research aims to determine and experimentally investigate the content of the "gender inequality" concept in the students' linguistic consciousness and to analyze its verbally expressed gender features. Verbal representations were obtained based on the use of a controlled association test. The study involved 309 undergraduate and graduate students (199 women and 110 men) of various specialities, aged 17 to 25. According to the experiment results, 840 word-tokens were obtained, including 23 phrases; 160 associations presented single reactions. Gender analysis showed that women provided 539 responses, including 530 verbal (176 original) reactions and nine rejections; men provided 319 reactions: 310 verbal reactions (103 original) and nine rejections. Gender characteristics were determined based on calculating associates' brightness index and forming the core of the associative field. Among the most frequent were woman (.28), men (.24), and feminism (.12). Cognitive interpretation of the data showed that for women, the concept of "gender inequality" has a more negative emotional connotation than for men. For a significant number of women, gender inequality includes experiences that are associated with sexism (.08), discrimination (.07), and violence (.07). Analysis of male associations has shown that the concept of "gender inequality" in men has a less emotional response and is presented at a more abstract (theoretical) level.

Keywords: *concept, gender inequality, controlled association test, University student, cognitive interpretation.*

Костіна Тетяна, Дроздова Діана, Булах Ірина. Гендерні особливості вербальної репрезентації концепту «гендерна нерівність» студентською молоддю.

Анотація. У статті презентовано результати дослідження вербальної репрезентації концепту «гендерна нерівність» студентської молоді. Вербальні репрезентації були отримані на основі використання спрямованого асоціативного експерименту. У дослідженні взяли участь 309 студентів (199 жінок та 110 чоловіків) різних спеціальностей, віком від 17 до 25 років. За результатами експерименту було отримано 840 слів-реакцій, які включали 23 словосполучення; 160 асоціатів презентовано одиничними реакціями. Гендерний аналіз засвідчив: жінки надали 539 реакцій, серед яких 530 словесних (176 оригінальних) реакцій та 9 відмов; чоловіки надали 319 реакцій: 310 словесних реакцій (103 оригінальних) та 9 відмов. Гендерні особливості були визначені на основі обчислення індексу яскравості асоціатів та формування ядра асоціативного поля. Для жінок найчастотнішими асоціаціями були такі: жінка (0,28), чоловік (0,24), фемінізм (0,12). Когнітивна інтерпретація отриманих даних засвідчила, що для жінок концепт «гендерна нерівність» має більше негативне емоційне забарвлення, ніж для чоловіків. Для значної кількості жінок гендерна нерівність включає досвід, який пов'язаний із сексизмом (0,08), дискримінацією (0,07) та насильством (0,07). Аналіз чоловічих асоціацій засвідчив, що концепт «гендерна нерівність» у чоловіків має менший емоційний відгук та презентований на більш абстрактному (теоретичному) рівні.

Ключові слова: *концепт, гендерна нерівність, спрямований асоціативний експеримент, студент університету, когнітивна інтерпретація.*

Introduction

At the present stage of the development of Ukrainian society, the need to include a gender component in the study and interpretation of socio-psychological, economic, and political processes is increasingly recognized. Special attention is paid to the issue of gender equality and overcoming discrimination based on gender. Gender analysis is one of the mechanisms to promote gender equality and awareness of the needs of women and men. The European Commission defines *gender analysis* as "the study of differences in conditions, needs, participation rates, access to resources and development, control of assets, decision making powers, etc. between women and men and their assigned gender roles." (EU, 2016, p. 10). Our state's choice of the European vector requires the community, including scientific ones, to respect gender equality and apply gender analysis in its practical activities.

Gender analysis is a prerequisite for society's development and achieving Sustainable Development Goals. It allows identifying and considering the needs of different participants in social interaction: women and men. Recall that the top five Sustainable Development Goals include achieving gender equality and empowerment for girls and women (UN, 2016).

In Ukraine, there are already examples of applying gender analysis to achieve gender equality. Currently, there is a project to introduce a gender-oriented budgeting (GOB) approach to the budget process. The project aims to increase the economic efficiency and efficiency of budget expenditures considering the needs of men and women and their various groups (MOF, 2013). A systematic approach to the application for a job at the state and local levels combines financial and social aspects of the budget. It contributes to reducing the gender gap in Ukraine. It should be noted

that according to data for 2019, Ukraine ranks 74th in terms of the gender gap out of 189 countries (Gender profile of Ukraine, 2020). It should be mentioned that gender equality has been strongly affected by the COVID-19 pandemic. The analysis of the situation shows a negative impact on women and their life experiences. In particular, there was an increase in domestic violence cases, an increase in the burden on women in the household (unpaid housework: caring for children and the elderly), a decrease in income, and job loss (Kiselova, 2020).

Despite significant changes in gender equality, the so-called "gender blindness" is still present in the Ukrainian society. This term refers to the inability to consider the gender variable or unconscious disregard for gender issues in developing political and social programs (Shevchenko, 2016). For example, "gender blindness" still manifests itself in the construction of school playgrounds, a significant number of which include the equipment of a football field. At first glance (without gender analysis), this is a positive development for the school and students. However, gender analysis allows us to understand the critical points contributing to maintaining gender stereotypes. In particular, the football field attracts boys to activity (they are overwhelmingly active players) and leaves the girls "behind the line" – they watch how the boys play football. It is important to remember that childhood experience is vital for personal development. Moreover, suppose girls, starting from childhood, will experience "being behind the line," observing, and not actively participating in events. In that case, this helps to maintain well-established gender stereotypes (for example, the stereotype of "passivity" of women). This does not mean that football is bad. However, it should be remembered that school budgets are pretty limited in most cases, and the awareness that spending this budget can increase gender inequality is an important issue.

These examples show that gender equality is a complex issue that requires study from different angles and the involvement of scientists from different fields of knowledge.

Modern Ukrainian science shows a positive trend toward increasing the number of studies focusing on gender issues. In particular, research implemented in psycholinguistics has such dynamics. It is worth noting that psycholinguistics has in its arsenal methods that allow studying not only the conscious level but also the deep level of the unconscious part of the psyche (for example, an associative experiment) (Sakharnyi, 1989).

It should be noted that the study of the gender component in the linguistic consciousness of a person has a significant history. One of the first researchers to introduce gender issues to linguistics and psycholinguistics was the American scientist Lakoff (Lakoff, 1973). She updated this question in her book "Language and Woman's Place." Starting with the works by Lakoff, gender is becoming a mandatory component of thorough psycholinguistic research.

Today, Ukraine has many psycholinguistic studies related to gender issues. In particular, in the study of gender aspects of text construction and interpretation, gender features of communicative interaction (gender imbalance) are presented within gender linguistics and psycholinguistics. Adamenko & Klymenko (2020)

analyze the speech behavior of communicants in the context of gender identity. The analysis of gender as a factor of text formation was carried out by Antineskul (2001). The study of gender aspects of the peculiarities of marriage partners' perception of the emotional concept of "jealousy" is presented in the works of Petiak (2020); the associative field of "communication" in gender conceptspheres is reflected in the study of Gett (2009); psycholinguistic aspects of the study of gender and sexuality outside the binary approach (Cameron, 2005).

The study of gender- and role-specific differences in the perception of the concept of "impishness" is described in the works by Bondar and Gordienko-Mitrofanova (2017); features of male and female verbal behavior (Goroshko, 2004); the influence of gender stereotypes in a speech on attitudes towards speakers are presented in research by Dennison (2006).

A review of approaches to the study of gender in linguistics was carried out by Kirilina (2003). The history of the formation of gender linguistic research and the analysis of gender specifics of the language are presented in the works of Maslova (Maslova, 2015). As Goroshko (2004) notes, in general, the study of gender imbalance in gender linguistics focuses on the following two groups of issues: 1) gender reflection in the language (how men and women are depicted in the language as a system); 2) speech (in a broader sense – communicative) behavior of men and women.

Modern psycholinguistics also presents studies of socio-psychological features of students' formation of gender images (Libakova, 2014). In addition, research that is devoted to the study of women's experience and gender equality issues is becoming relevant: the impact of a problematic life situation on women's linguistic consciousness (Zavjalova, 2017); "gendered tongues" and society's attitude to the problem of gender equality (Pérez, 2017; Prewitt-Freilino, 2012). Note that *gender inequality* is defined as a social process by which people are treated differently and disadvantageously, under similar circumstances, based on gender (Oxford Dictionary, 2007). Gender inequality can manifest itself through gender discrimination, gender-based violence, and the like. Both women and men can be affected by gender inequality. However, in the vast majority, gender inequality is an area of women's experience.

Despite the great interest of scientists and the implemented research (foreign and domestic), many issues require more detailed study. In particular, our theoretical analysis showed the absence of psycholinguistic research on gender inequality in the Ukrainian scientific space. The lack of such studies prompted us to conduct our research, which is presented in this article.

Methods

The study aims to determine and experimentally investigate the content of the "gender inequality" concept in the students' linguistic consciousness and to analyze its verbally expressed gender features.

According to the purpose of the article, such general scientific methods were used as a) analysis of domestic and foreign psycholinguistic sources on the topic of the article; b) systematization of theoretical analysis data on the level of development of gender issues in psycholinguistics; c) generalization of the results of theoretical analysis; d) classification and systematization of factual material that served as an evidence base for conclusions. Psycholinguistic methods included the controlled associative experiment, a method of cognitive interpretation implemented in the form of cognitive commentary (Sternin, 2020). Partial methods included: questionnaires, comparative-descriptive, and mathematical-statistical methods.

The sample population consisted of 309 students aged 17-25 years ($M=18.84$; $SD=1.68$) from the V. I. Vernadsky Taurida National University, Borys Grinchenko Kyiv University, and National Pedagogical Drahomanov University in Ukraine. The study involved 199 females and 110 males. The sample includes nine branches of higher education knowledge, namely: 03 "Humanities" – 25 students, 05 "Social and behavioral sciences" – 69 students, 06 "Journalism" – 6 students, 07 "Management and administration" – 103 students, 10 "Natural Sciences" – 8 students, 12 "Information Technology" – 23 students, 14 "Electrical Engineering" – 1 student, 15 "Engineering automation" – 4 students, 24 "Service Sector" – 70 students.

The composition and quantity of the sample population meet the requirements for conducting a word association test (WAT). Thus, Zalevskaya (2011) noted that the most frequent reactions for directed WAT are already observed in 50 of the studied subjects. If the study considers gender characteristics, then the sample should be at least 200 participants (Dmytryuk, 2015). Some authors emphasize a more significant number of respondents in psycholinguistic studies (Gordienko-Mytrofanova & Pidchasov, 2018). Taking this information into account, we created a sample of 309 students for our pilot study.

At the beginning of the experiment, students received a questionnaire indicating their age, gender, place of study, speciality, and course. The questionnaire contained three blocks divided according to the research procedure by parts of speech: "nouns," "verbs," and "adjectives." For each part of speech, the students could enter up to three association words in the corresponding columns. For example, the stimulus word was "gender inequality." In this article, we analyze only the associations that were included in the "nouns" block. The results of the analysis of other reactions, represented by the blocks "verbs" and "adjectives," will be covered in our following papers.

Before the experiment, a training exercise was held so that participants understood the process of forming associations. The subjects were offered the following instructions: "now we will perform a training exercise that will allow you to understand and feel the formation of associations for a certain stimulus. I want to emphasize that you should name the first reactions that come to mind when you hear the word I will name. I emphasize that no "right" or "wrong" associations exist. You name what comes to your mind. So now I name a stimulus word, and you get associations to it, which should be represented by nouns, adjectives, and verbs (up to three-word associations)." The experimenter calls the stimulus "letter." Participants

provide associations: tree, paper, news (nouns); look, smell, send (verbs); empty, bright, soft (adjectives) and the like. Next, students were asked a question about their understanding of the process of providing answers-associations to the stimulus and their understanding of the procedure. After the training exercise, participants received an experimental stimulus word and provided associations according to the instructions. The study was conducted in Ukrainian, and the informants provided their responses in writing.

Many psycholinguistic studies are implemented using the free WAT. It is believed that free WAT is "a tool for measuring the unconscious components of the semantic space of recipients" (Zasiekina & Zasiekin, 2008, p. 55). Studies (Vinogradova & Sternin, 2016) show that nouns usually make up the predominant number of informants' reactions in a free WAT. Therefore, we chose a controlled WAT to determine the specifics of the concept of "gender inequality" in representing different parts of speech and not just nouns. Sakharny (1989) emphasized the ability of a controlled WAT to obtain "deep associative connections". The research procedure allowed us to determine the connections in students' minds between the concept and its associations.

Results and Discussion

According to the experiment results, 858 response words to the proposed stimulus were obtained: 840 (98%) reaction words and 18 failures (2%); word-tokens were obtained, which included 23 phrases; 160 associations presented single reactions. Gender analysis revealed the following: women gave 539 responses, including 530 verbal (176 original) responses and nine rejections; men gave 319 responses: 310 verbal responses (103 original) and nine rejections. The number of associations obtained exceeds the number of study participants since the directed A.E. we applied involved multiple responses to the word stimulus.

The following word-associations were obtained: агресія / aggression 4, агресор / aggressor 1, анатомія / anatomy 1, байдужість / indifference 4, безглуздість / absurdity 1, бійка / fray 1, біль / pain 3, біосміття / biowaste 1, боротьба / struggle 10, бредове ставлення людей один до одного / a delusional attitude of people to each other 1, брехня / lies 1, бред / rave 2, ваги / scales 1, Верховна Рада / Verkhovna Rada 1, взаєморозуміння / mutual understanding 2, вибір / choice 1, витривалість / endurance 1, виховання / nurture 1, відношення / attitude 1, відстоювання / defending 1, вічність / eternity 2, влада / power 5, впевненість / confidence 1, гей / gay 4, ген / gene 1, гендер / gender 8, Голлівуд / Hollywood 1, гомосексуал / homosexual 1, гомосексуали / homosexuals 1, гомофобія / homophobia 4, Грета Тунберг/агресія / Greta Thunberg/aggression 1, гроші / money 3, дискомфорт / discomfort 1, дискримінація / discrimination 20, дитина / child 2, дівчина / girl 2, діти / children 1, докір / reproach 1, домінант / dominant 3, домінантність / dominance 2, домінація / domination 4, домінування / dominating 1, дочка / daughter 1, думка / opinion 2, егоїст / egoist 2, ейджизм / ageism 1, жаль

/ pity 1, жах / horror 1, жертви домашнього насильства / victims of domestic violence 1, жінка / woman 91, жінки / women 9, жінки>чоловіки / women> men 1, жорстокість / cruelty 1, закон / law 3, залежність / dependence 1, зарплата / salary 1, захоплення / delight 1, заява / statement 1, зневага / neglect 2, зневіра / despondency 1, з'ясування / finding out 1, ідіоти / idiots 1, ідіотизм / idiocy 1, індивідуальність / individuality 2, інтрига / intrigue 1, іслам / Islam 1, істерія / hysteria 1, кабмін / cabmin (cabinet of ministers) 1, кайдани / shackles 1, Кароліна / Carolina 1, керівник / supervisor 1, компроміс / compromise 1, комунікація / communication 1, конфлікт / conflict 2, кохання / love 1, краса / beauty 1, ЛГБТ / LGBT 1, лідерство / leadership 1, любов / love 2, любов до однієї статі / love for the same sex 1, люди / people 7, людина / human being 6, малозабезпеченість / needy 1, маніпуляції / manipulation 1, маразм / marasmus 2, маскуліність / masculinity 1, матриархат / matriarchy 3, менша заробітна плата / lower wages 1, минуле століття / last century 1, мітинг / meeting 2, мораль / morality 1, моральна залежність / moral dependence 1, морок / gloom 1, мусульманство / Islam 2, навіювання / suggestion 1, надуманість / far-fetchedness 1, наполегливість / persistence 1, насильство / violence 17, невизначеність / uncertainty 1, невихованість / discourtesy 1, невпевненість / uncertainty 2, непорозуміння / misunderstanding 2, незалежність / independence 3, нейтральність / neutrality 1, необхідність / necessity 1, неосвіченість / ignorance 2, неповага / disrespect 4, неподобство / ugliness 1, нерівні права / unequal rights 1, нерівність / inequality 24, нерівноправ'я / inequality 4, нерозуміння / incomprehension 4, несправедливість / injustice 32, нечесність / dishonesty 1, ні як усі / not like everyone 1, новини / news 1, нововведення / innovation 2, обмежені у кар'єрі / limited in career 1, обмеженість / limitation 1, обмеження / limitation 2, обов'язки / responsibilities 2, образа / insult 3, обурення / indignation 1, орієнтація / orientation 1, особистість / personality 2, особливості / features 1, осуд / censure 1, патріархат / patriarchy 5, перевага / advantage 4, переваги / advantages 1, питання / question 2, плакати / posters 1, повага / respect 2, погляди / views 1, політика / politics 1, помилка / error 2, поняття / concept 1, популярність / popularity 2, порівняння / comparison 1, почуття / feeling 1, права / rights 25, право / right 11, право вибору / the right to choose 1, правопорушення / offense 1, праця / labor 3, представники ЛГБТ / LGBT people 1, пригнічення / oppression 7, пригноблення / oppression 2, придушення / suppression 1, приниження / humiliation 11, природність / naturalness 1, проблема / problem 6, протест / protest 2, протести / protests 3, райдуга / rainbow 1, расизм / racism 3, расовий конфлікт / racial conflict 1, рівність / equality 14, рівновага / balance 2, рівнозначність / equivalence 1, рівноправ'я / equal rights 10, робота / work 4, роботодавець / employer 1, розподіл / distribution 1, розум / mind 1, розумово відсталі / mentally retarded 1, роль / role 1, рольовий конфлікт / role conflict 1, самодостатність / self-sufficiency 1, сварки / quarreling 2, свобода / freedom 2, секс / sex 2, сексизм / sexism 21, сила / power 7, сім'я / family 3, слабкість / weakness 1, слиз / mucus 1, совість / conscience 1, соціальний устрій / social system 1, соціум / society 4, співстраждання / compassion 1, спільноти / communities 2, спір / dispute 1, спокій / calmness 2,

справедливість / justice 11, ставлення / attitude 1, старовина / ancientry 1, статевий орган / genital organ 1, статус / status 2, стать / sex 23, стереотип / stereotype 11, стереотипи / stereotypes 1, стосунки / relationship 3, суддя / judge 1, суди / courts 1, сум / sadness 2, суперечка / dispute 3, суперник / opponent 1, суперництво / rivalry 1, суспільство / society 10, суфражистка / suffragette 2, телебачення / television 1, тиша / silence 1, толерантність / tolerance 1, традиція / tradition 2, транс-гендер / trans-gender 4, тривога / anxiety 1, тупість / stupidity 1, тюрма / prison 1, увага / attention 2, уникнення невизначеності / avoidance of uncertainty 1, упереджене ставлення / preconception 1, утиск / oppression 4, фемінізм / feminism 37, феміністка / feminist 8, феміністки / feminists 5, хлопець / guy 2, хрест (як заборона) / cross (as prohibition) 1, чеславність / vanity 1, чоловік / man 81, чоловік та жінка / man and woman 1, чоловіки / men 7, чутливість / sensitivity 1, шовінізм / chauvinism 2, штампи / cliché 1; refusals – 18.

Here we present the most frequent responses to the "gender inequality" stimulus (10 associations with a total frequency 371): жінка / woman 91 (10.6%), чоловік / man 81 (9.4%), фемінізм / feminism 37 (4.3%), несправедливість / injustice 32 (3.7%), права / rights 25 (2.9%), нерівність / inequality 24 (2.8%), стать / sex 23 (2.7%), сексизм / sexism 21 (2.4%), дискримінація / discrimination 20 (2.3%), насильство / violence 17 (2%). Reactions with more than 2% frequency were taken as the associative core of the associative field; reactions frequency less than 2% were assigned to the periphery (Goroshko, 2001). The periphery was divided into the near periphery from 1% to 2% and the far periphery – less than 1%. The following reactions were included in the near periphery (9 associates with a total frequency of 97): рівність / equality 14 (1.6%), стереотип / stereotype 11 (1.3%), право / right 11 (1.3%), справедливість / justice 11 (1.3%), приниження / humiliation 11 (1.3%), боротьба / struggle 10 (1.2%), суспільство / society 10 (1.2%), рівноправ'я / equal rights 10 (1.2%), жінки / women 9 (1%).

We see that in the linguistic consciousness of respondents, the concept of "gender inequality" is associated with the words "woman" and "man," which are actually included in the definition of gender equality – equal legal status of women and men and equal opportunities for its implementation (Shevchenko, 2016). Also, one of the frequency associations is the word "feminism." It should be noted that representatives of the feminist movement actualized equal rights and opportunities for women. Today, feminism has not lost its relevance since equality may be declarative in nature, but it is not implemented.

A more detailed analysis of the most frequent associations will be provided in the context of gender characteristics: a comparative analysis of the reactions of women and men is carried out.

We present the associations that women provided during the experiment. Note that we highlight the words-reactions that are common to women and men. We chose this method of submitting results due to a restriction on the volume of the article.

For women, the concept of "gender inequality" has the following verbal representation: (539: 530/176/9): агресія / aggression 4, агресор / aggressor 1,

анатомія / anatomy 1, байдужість / indifference 4, бійка / fray 1, біль / pain 1, біосміття / biowaste 1, боротьба / struggle 4, бредове ставлення людей один до одного / a delusional attitude of people to each other 1, брехня / lies 1, брєд / rave 2, ваги / scales 1, взаєморозуміння / mutual understanding 2, вибір / choice 1, витривалість / endurance 1, виховання / nurture 1, відношення / attitude 1, відстоювання / defending 1, вічність / eternity 1, влада / power 3, впевненість / confidence 1, гей / gay 4, ген / gene 1, гендер / gender 5, Голлівуд / Hollywood 1, гомосексуал / homosexual 1, гомосексуали / homosexuals 1, гомофобія / homophobia 3, Грета Тунберг/агресія / Greta Thunberg/aggression 1, гроші / money 2, дискомфорт / discomfort 1, дискримінація / discrimination 14, дитина / child 2, дівчина / girl 2, діти / children 1, докір / reproach 1, домінант / dominant 1, домінантність / dominance 2, домінація / domination 1, домінування / dominating 1, дочка / daughter 1, думка / opinion 1, ейджизм / ageism 1, жаль / pity 1, жах / horror 1, жертви домашнього насильства / victims of domestic violence 1, жінка / woman 55, жінки / women 7, жорстокість / cruelty 1, закон / law 1, захоплення / delight 1, заява / statement 1, зневага / neglect 2, з'ясування / finding out 1, ідіоти / idiots 1, ідіотизм / idiocy 1, індивідуальність / individuality 2, істерія / hysteria 1, кайдани / shackles 1, керівник / supervisor 1, компроміс / compromise 1, конфлікт / conflict 2, кохання / love 1, краса / beauty 1, ЛГБТ / LGBT 1, лідерство / leadership 1, любов / love 1, любов до однієї статі / love for the same sex 1, люди / people 3, людина / human being 3, маніпуляції / manipulation 1, маразм / marasmus 2, матриархат / matriarchy 1, менша заробітна плата / lower wages 1, мітинг / meeting 1, мусульманство / Islam 1, насильство / violence 13, невизначеність / uncertainty 1, невихованість / discourtesy 1, невпевненість / uncertainty 1, недорозуміння / misunderstanding 2, незалежність / independence 1, необхідність / necessity 1, неосвіченість / ignorance 2, неповага / disrespect 2, неподобство / ugliness 1, нерівні права / unequal rights 1, нерівність / inequality 14, нерівноправ'я / inequality 4, нерозуміння / incomprehension 4, несправедливість / injustice 21, ні як усі / not like everyone 1, обмежені у кар'єрі / limited in career 1, обмеженість / limitation 1, обмеження / limitation 1, обов'язки / responsibilities 2, образа / insult 2, обурення / indignation 1, орієнтація / orientation 1, особистість / personality 2, осуд / censure 1, патріархат / patriarchy 3, перевага / advantage 3, питання / question 2, помилка / error 2, поняття / concept 1, популярність / popularity 2, права / rights 14, право / right 5, право вибору / the right to choose 1, пригнічення / oppression 3, пригноблення / oppression 2, придушення / suppression 1, приниження / humiliation 7, природність / naturalness 1, проблема / problem 4, протест / protest 2, протести / protests 3, райдуга / rainbow 1, расизм / racism 3, расовий конфлікт / racial conflict 1, рівність / equality 2, рівновага / balance 1, рівноправ'я / equal rights 7, робота / work 4, роботодавець / employer 1, розум / mind 1, розумово відсталі / mentally retarded 1, роль / role 1, рольовий конфлікт / role conflict 1, самодостатність / self-sufficiency 1, сварки / quarreling 2, свобода / freedom 1, секс / sex 1, сексизм / sexism 15, сила / power 4, слабкість / weakness 1, соціальний устрій / social

system 1, соціум / society 2, спільноти / communities 2, спокій / calmness 2, справедливість / justice 3, старовина / ancientry 1, стать / sex 13, стереотип / stereotype 6, стереотипи / stereotypes 1, стосунки / relationship 3, суддя / judge 1, суди / courts 1, сум / sadness 2, суперечка / dispute 3, суспільство / society 8, суфражистка / suffragette 1, телебачення / television 1, тиша / silence 1, толерантність / tolerance 1, традиція / tradition 2, транс-гендер / trans-gender 4, тривога / anxiety 1, тупість / stupidity 1, тюрма / prison 1, увага / attention 2, уникнення невизначеності / avoidance of uncertainty 1, упереджене ставлення / preconception 1, утиск / oppression 2, фемінізм / feminism 24, феміністка / feminist 5, феміністки / feminists 3, хлопець / guy 2, хрест (як заборона) / cross (as prohibition) 1, чоловік / man 47, чоловік та жінка / man and woman 1, чоловіки / men 5, чутливість / sensitivity 1, шовінізм / chauvinism 2, штампи / cliché 1; refusals – 9. Among the associations provided by female students, there were 176 original reaction words. We can see that the core of the associative field of women was made up of the following 10 associates: жінка / woman 55 (10.4%), чоловік / man 47 (8.9%), фемінізм / feminism 24 (4.5%), несправедливість / injustice 21 (4%), сексизм / sexism 15 (2.8%), нерівність / inequality 14 (2.6%), дискримінація / discrimination 14 (2.6%), права / rights 14 (2.6%), насильство / violence 13 (2.5%), стать / sex 13 (2.5%). The near periphery includes the following 5 associates: суспільство 8 (1.5%), жінки 7 (1.3%), приниження 7 (1.3%), рівноправ'я 7 (1.3%), стереотип 6 (1.1%).

Verbal representation of the concept "gender inequality" by male students (319: 310/103/9): безглуздість / absurdity 1, біль / pain 2, боротьба / struggle 6, Верховна Рада / Verkhovna Rada 1, вічність / eternity 1, влада / power 2, гендер / gender 3, гомофобія / homophobia 1, гроші / money 1, дискримінація / discrimination 6, доміант / dominant 2, домінація / domination 3, думка / opinion 1, егоїст / egoist 2, жінка / woman 36, жінки / women 2, жінки>чоловіки / women>men 1, закон / law 2, залежність / dependence 1, зарплата / salary 1, зневіра / despondency 1, інтрига / intrigue 1, іслам / Islam 1, кабмін / cabinet (cabinet of ministers) 1, Кароліна / Karolina 1, комунікація / communication 1, любов / love 1, люди / people 4, людина / human being 3, малозабезпеченість / needy 1, маскулінізм / masculinity 1, матриархат / matriarchy 2, минуле століття / last century 1, мітинг / meeting 1, мораль / morality 1, моральна залежність / moral dependence 1, морок / gloom 1, мусульманство / Islam 1, навіювання / suggestion 1, надуманість / far-fetchedness 1, наполегливість / persistence 1, насильство / violence 4, невпевненість / uncertainty 1, незалежність / independence 2, нейтральність / neutrality 1, неповага / disrespect 2, нерівність / inequality 10, несправедливість / injustice 11, нечесність / dishonesty 1, новини / news 1, нововведення / innovation 2, обмеження / limitation 1, образа / insult 1, особливості / features 1, патріархат / patriarchy 2, перевага / advantage 1, переваги / advantages 1, плакати / posters 1, повага / respect 2, погляди / views 1, політика / politics 1, порівняння / comparison 1, почуття / feeling 1, права / rights 11, право / right 6, правопорушення / offense 1, праця / labor 3, представники

ЛГБТ / LGBT people 1, пригнічення / oppression 4, приниження / humiliation 4, проблема / problem 2, рівність / equality 12, рівновага / balance 1, рівнозначність / equivalence 1, рівноправ'я / equal rights 3, розподіл / distribution 1, свобода / freedom 1, секс / sex 1, сексизм / sexism 6, сила / power 3, сім'я / family 3, слиз / mucus 1, совість / conscience 1, соціум / society 2, співстраждання / compassion 1, спір / dispute 1, справедливість / justice 8, ставлення / attitude 1, статевий орган / genital organ 1, статус / status 2, стать / sex 10, стереотип / stereotype 5, суперник / opponent 1, суперництво / rivalry 1, суспільство / society 2, суфражистка / suffragette 1, утиск / oppression 2, фемінізм / feminism 13, феміністка / feminist 3, феміністки / feminists 2, чеславність / vanity 1, чоловік / man 34, чоловіки / men 2; refusals – 9. Among the associations provided by male students, there were 103 original reaction words. The core of the associative field of male students was made up of the following 9 associates: жінка / woman 36 (13.3%), чоловік / man 34 (10.7%), фемінізм / feminism 13 (4.1%), рівність / equality 12 (3.8%), несправедливість / injustice 11 (3.4%), права / rights 11 (3.4%), нерівність / inequality 10 (3.1%), стать / sex 10 (3.1%), справедливість / justice 8 (2.5%). Близню периферію склали 7 асоціатів: боротьба / struggle 6 (1.9%), дискримінація / discrimination 6 (1.9%), право / right 6 (1.9%), сексизм / sexism 6 (1.9%), стереотип / stereotype 5 (1.6%), люди / people 4 (1.3%), насильство / violence 4 (1.3%).

In addition to the percentage analysis, Sternin (2020) and Rudakova (2015) also suggest using the brightness index (BI) of each associative reaction, which indicates the ratio of the number of study participants who provided this reaction to the total number of respondents.

Taking into account the BI, the core associations and near periphery to the stimulus word for women are: жінка / woman .28, чоловік / man .24, фемінізм / feminism .12, несправедливість / injustice .11, сексизм / sexism .08, нерівність / inequality .07, дискримінація / discrimination .07, права / rights .07, насильство / violence .07, стать / sex .07. For the near periphery, we have the following indicators of the BR: суспільство / society .04, жінки / women .04, приниження / humiliation .04, рівноправ'я / equal rights .04, стереотип / stereotype .03. The resulting numbers were rounded to hundredths by the rounding rules using special software (online calculator).

For male students, we have the following indicators BI associations of the core and near periphery on the stimulus word "gender inequality": жінка / woman .33, чоловік / man .31, фемінізм / feminism .12, рівність / equality .11, несправедливість / injustice .10, права / rights .10, нерівність / inequality .10, стать / sex .09, справедливість / justice .07.

BI for the near periphery is боротьба / struggle 6 .05, дискримінація / discrimination .05, право / right .05, сексизм / sexism .05, стереотип / stereotype .05, люди / people .04, насильство / violence .04.

In this article, we present an analysis of the associations of the students' associative field, which make up ten associations for women and nine associations for

men. These associations have the highest frequency and have a BI of at least .05. As noted by Vinogradova & Sternin (2016, p. 48), "semantic components with BI .05 or more should be included to describe the psycholinguistic meaning" of the concept. Analysis of the near and far periphery will be carried out in our subsequent publications. The gender features of verbal representation of "gender inequality" by young people are presented in Table 1.

Table 1
Results of Word Association Test

| Associative responses of respondents to the stimulus word "gender inequality" | | | |
|---|-------------|------------------------------|-------------|
| Female | | Male | |
| Reaction | Amount (BI) | Reaction | Amount (BI) |
| жінка / woman | .28 | жінка / woman | .33 |
| чоловік / man | .24 | чоловік / man | .31 |
| фемінізм / feminism | .12 | фемінізм / feminism | .12 |
| несправедливість / injustice | .11 | рівність / equality | .11 |
| сексизм / sexism | .08 | несправедливість / injustice | .10 |
| нерівність / inequality | .07 | права / rights | .10 |
| дискримінація / discrimination | .07 | нерівність / inequality | .09 |
| права / rights | .07 | стать / sex | .09 |
| насильство / violence | .07 | справедливість / justice | .07 |
| стать / sex | .07 | | |

Note. Associations, original for women and men, are highlighted in grey color

We will perform a cognitive interpretation of the obtained data using cognitive commentary. We share the opinion of Sternin (2020) that any interpretation of the results of psycholinguistic experiments is always subjective and may differ from one researcher to another. We also emphasize that cognitive commentary shows only specific trends in cognitive understanding of the phenomena of consciousness but does not imply a categorical statement about this or that fact.

The results show that in the linguistic consciousness of informants of both female and male students, the most frequent associations are the words жінка / woman and чоловік / man. At the same time, male students have a higher rate of BI of these words than women: .33 vs .28 (woman) and .31 vs .24 (man). For men, "gender inequality" is more related to the interaction between women and men.

The following association with the same BI for both women and men is фемінізм / feminism (.12). This is evidence that feminism is entering the verbal representation of "gender inequality" among young people. Simultaneously, the research procedure

does not make it possible to determine students' emotional and evaluative attitudes to such a phenomenon as feminism (positive, negative, neutral). We can also assume that there may be differences in the attitude of women and men to this phenomenon. We will look for the answer to this question in our future research.

An analysis of the associations provided by women shows the following. In women's experience, "gender inequality" is associated with such phenomena as несправедливість / injustice (.11), сексизм / sexism (.08), нерівність / inequality (.07), дискримінація / discrimination (.07), права / rights (.07), насильство / violence (.07), and a person's belonging to a certain gender (gender – .07). We see that "gender inequality" has a more negative connotation for women than for men. Existing associations confirm that "gender inequality" is not just an abstract phenomenon for women. On the contrary, it is an experience in their lives and represents a sense of injustice. Women face discrimination, including gender discrimination – sexism; manifestations of violence (we noted above that the negative consequence of the COVID-19 pandemic increased in domestic violence cases). Unlike women, there were no words such as sexism, discrimination, and violence among the core associations provided by men. The results show that gender inequality for women is not just an abstract category but an experience that includes negative manifestations of socio-psychological interaction.

Analysis of the core of the associative field of men's reactions shows that the concept of "gender inequality" is represented through such words as рівність / equality (.11), несправедливість / injustice (.10), права / rights (.10), нерівність / inequality (.09), стать / sex (.09), справедливість / justice (.07). Like women, men associate gender inequality with rights and gender. However, in men, the word права / rights has a higher brightness index than in women: .10 vs .07. This result can be explained by the fact that men associate gender equality with increased rights for women. In fact, this process took place in the history of society's development: gender equality began with women's struggle for rights (vote rights, economic rights and the like). However, the lower rates of women can be explained by the fact that gender inequality for women is more relevant due to the experience of injustice, which can manifest itself in the discrepancy between declarative rights and their actual implementation. Like women, men associate the concept of "gender inequality" with the word стать / sex, but this indicator is higher for men at .09 for men and .07 for women. For male students, gender inequality can more often be represented through a person's belonging to one or another gender.

Just as female students associate gender inequality with injustice and inequality, we also see reactions that are the opposite of the proposed stimulus and are represented by the words рівність / equality (.11) and справедливість / justice (.07). The associations provided are antonymic responses to the proposed stimulus. One assumption in explaining such results may be that gender inequality for men is a kind of abstraction that does not find an "emotional response" in the subject's experience. The explanation may be that men are less likely to face manifestations of gender

inequality (discrimination, sexism, domestic violence and the like) towards themselves.

Conclusions

The conducted research based on a directed associative experiment made it possible to study and compare the content of the concept of "gender inequality" in the linguistic consciousness of students. It was determined that such associations as *жінка / women* and *чоловік / man* have the highest representation. Estimating the brightness index of the provided associations made it possible to systematize the results obtained and identify the cores of the associative field of female and male students.

Comparative Analysis revealed gender features of representation of the concept of "gender inequality." In particular, the most frequent associations (*жінка / woman*; *чоловік / man*; *фемінізм / feminism*) are common to both female and male students but have different expression levels. The high level of the *фемінізм / feminism* association brightness index and its equal level in both women and men indicate the critical role of the feminist movement in combating gender inequality. However, the question of the specifics of attitudes to feminism (positive or negative) on both women and men needs to be clarified.

Cognitive interpretation of the data showed that the "gender inequality" concept has a more negative emotional connotation for female students than male students. For a significant number of women, gender inequality includes experiences related to sexism, discrimination, and violence. Analysis of male associations has shown that the concept of gender inequality in men has a less emotional response and is presented at an abstract (theoretical) level.

The results obtained confirm the relevance of the problem of gender inequality in Ukrainian society. The search for effective measures to eliminate various forms of discrimination and promote gender equality is significant. We see the prospect of further research in studying the concept of "gender inequality" in a larger sample population: to expand the age limits of participants in the experiment. We also consider it is promising to carry out a cross-cultural study of the verbal representation of gender inequality.

References

- Антинескул О.Л. Гендер как параметр текстообразования. Пермь: Перм. Ун-т., 2001.
- Бондарь Ю., Гордиенко-Митрофанова И. Влияние пола на вербальное поведение респондентов поздней зрелости при исследовании стимула «игривость». Психолінгвістика, 2017. Вип. 21(1), С. 65–85.
- Виноградова О. Е., Стернин И. А. Психолінгвістическіе методы в описании семантики слова. Воронеж: «Истоки», 2016.

- Гетте Е. Ю. Ассоциативное поле общения в гендерных концептосферах. Вопросы психолингвистики. 2009. № 9. С. 124- 133.
- Горошко Е. И. Гендерные исследования в языкознании (к проблеме становления метода). URL: <http://dspace.nbu.gov.ua/bitstream/handle/123456789/74059/39-Goroshko.pdf?sequence=1>
- Горошко Е. И. Языковое сознание: гендерная парадигма. Москва-Харьков: ИЯ РАН-ИД «ИНЖЭК», 2003.
- Горошко Е. И. Интегративная модель свободного ассоциативного эксперимента. Харьков: Изд. Группа «РА – Каравелла», 2001.
- Дмитрюк Н. В., Байгутова Д. Н., Мезенцева Е. С. Отражение нравственных ценностей казахского этноса в зеркале свободного ассоциативного эксперимента. Вопросы психолингвистики. №1(23). М., 2015. С.159-172.
- Завьялова Н. Б. Влияние трудной жизненной ситуации на языковое сознание женщин. Вопросы психолингвистики. 2017. № 2(32). С. 74-85. Retrieved from: <https://cyberleninka.ru/article/n/vliyanie-trudnoy-zhiznennoy-situatsii-na-yazykovoe-soznanie-zhenschin/viewer>
- Засекіна Л. В., Засекін С. В. Психолінгвістична діагностика. Луцьк: Вежа, 2008. URL: <https://evnuir.vnu.edu.ua/handle/123456789/503>
- Кирилина А. В. Исследование гендера в лингвистических научных дисциплинах. Иваново: Иван. гос. ун-т, 2003.
- Лобакова Н. М. Социально-психологические особенности формирования гендерных образов в среде российского студенчества (результаты ассоциативного эксперимента). Социодинамика. 2014. № 10. С. 101-134. <https://doi.org/10.7256/2306-0158.2014.10.1343>
- Маслова Ю. Особливості розвитку гендерних лінгвістичних досліджень в Україні й закордоном. Наукові записки Національного університету «Острозька академія». 2009. Вип. 57, С.100-105.
- Рудакова А. В. Проблемы алгоритмизации описания значения как феномена языкового сознания. Социальные и гуманитарные знания. 2015. № 4. С. 284-287. <http://dx.doi.org/10.18255/2412-6519-2015-4-284-287>
- Сахарный Л. В. Введение в психолингвистику. Л.: Изд-во Ленинградского университета, 1989.
- Стернин И. А. Проблемы интерпретации результатов ассоциативных экспериментов. Вопросы психолингвистики. 3(45), 2020. С.110-125. URL: <https://iling-ran.ru/library/voprosy/45/VPL-3-2020-fin-110-125.pdf>
- Стернин И. А., Рудакова А. В. Психолингвистическое значение слова и его описание. Теоретические проблемы: монография. LAP Lambert Academic Publishing: Saarbrücken, 2011.
- Шевченко З. В. (Уклад.). Словник гендерних термінів. Черкаси: видавець Чабаненко Ю. 2016. URL: <http://a-z-gender.net/ua/genderna-slipota.html>
- Adamenko, O., & Klymenko, O. (2020). Communicative Behavior via Gender Identity (Based on the English language “Love Stories”). *Psycholinguistics*, 27(2), 44-70. <https://doi.org/10.31470/2309-1797-2020-27-2-44-70>
- Cameron, D. (2005). Language, gender, and sexuality: current issues and new directions. *Applied Linguistics*, 26(4), 482-502 <https://doi.org/10.1093/applin/ami027>
- Dennison, Ch. (2006). The effect of gender stereotypes in language on attitudes toward speakers. University of Pittsburgh.
- Gordiienko-Mytروفanova, I., & Kobzieva, I. (2019). Gender- and Role-Specific Differences in the Perception of the Concept “Impishness” (based on the results of a psycholinguistic experiment). *Psycholinguistics*, 25(1), 33-48. <https://doi.org/10.31470/2309-1797-2019-25-1-33-48>

- Gordiienko-Mytrofanova, I., Pidchasov, Ye., Sauta, S., & Kobzieva, Iu. (2018). The problem of sample representativeness for conducting experimental and broad psychological research. *Psycholinguistics*, 23(1), 11–46. <https://doi.org/10.5281/zenodo.1212360>
- Lakoff, R. (1973). *Language and Woman's Place*. Language in Society. Cambridge University Press.
- Pérez, E. & Tavits, M. (2017). Language influences public attitudes toward gender equality. *The Journal of Politics*, 81(1), 81-93. Retrieved from <https://www.journals.uchicago.edu/doi/10.1086/700004>
- Petiak, O. (2020). Associative and gender aspects of the emotional concept of jealousy in the Ukrainian linguistic culture. *East European Journal of Psycholinguistics*, 7(1), 140-145. <https://doi.org/10.29038/eejpl.2020.7.1.pet>
- Prewitt-Freilino, J., Caswell, T., & Laakso, E. (2012). The gendering of language: A comparison of gender equality in countries with gendered, natural gender, and genderless languages. *Sex Roles*, 66(3), 268-281.

References (translated and transliterated)

- Adamenko, O., & Klymenko, O. (2020). Communicative Behavior via Gender Identity (Based on the English language “Love Stories”). *Psycholinguistics*, 27(2), 44-70. <https://doi.org/10.31470/2309-1797-2020-27-2-44-70>
- Antineskul, O.L. (2001). *Gender kak parametr tekstoobrazovaniya* [Gender as a parameter of text formation]. Perm: Perm University.
- Bondar, Yu. & Gordienko-Mitrofanova, I. (2017). Vliyanie pola na verbalnoe povedenie respondentov pozdney zrelosti pri issledovanii stimula “igrivost” [Gender- and role-specific differences in the perception of the concept “impishness” of respondents of late maturity]. *Psycholinguistics*, 21(1), 65–85.
- Cameron, D. (2005). Language, gender, and sexuality: current issues and new directions. *Applied Linguistics*, 26(4), 482-502 <https://doi.org/10.1093/applin/ami027>
- Dennison, Ch. (2006). *The effect of gender stereotypes in language on attitudes toward speakers*. University of Pittsburgh.
- Dmytriuk, N. V., Baihutova, D. N., & Mezentseva, E. S. (2015). Otrazhenye нравstvennykh tsennostei kazakhskogo etnosa v zerkale svobodnogo assotsyativnogo eksperymenta [Reflection of the moral values of the Kazakh ethnos in the mirror of a free associative experiment]. *Voprosy Psicholingvistiki*, 1(23), 159-172.
- Gette, E. Yu. (2009). Assotsiativnoe pole obschenie v gendernyih kontseptosferah [Associative field of communication in gender conceptual spheres]. *Voprosy Psicholingvistiki*, 9, 124-133.
- Gordiienko-Mytrofanova, I., & Kobzieva, I. (2019). Gender- and Role-Specific Differences in the Perception of the Concept “Impishness” (based on the results of a psycholinguistic experiment). *Psycholinguistics*, 25(1), 33-48. <https://doi.org/10.31470/2309-1797-2019-25-1-33-48>
- Gordiienko-Mytrofanova, I., Pidchasov, Ye., Sauta, S., & Kobzieva, Iu. (2018). The problem of sample representativeness for conducting experimental and broad psychological research. *Psycholinguistics*, 23(1), 11–46. <https://doi.org/10.5281/zenodo.1212360>
- Goroshko, E. (2001). *Integrativnaya model svobodnogo asotsiativnogo eksperymenta*. [Integration model of the free association test]. Kharkiv: RA – Karavella.
- Goroshko, E. (2003). *Yazykovoe soznanie: gendernaya paradigm* [Linguistic Consciousness: Gender Paradigm]. Moscow-Kharkiv: Inzhok.

- Goroshko, E. (2004). Gendernyye issledovaniya v yazykoznanii (k probleme stanovleniya metoda) [Gender studies in linguistics (to the problem of the formation of the method)]. Retrieved from <http://dspace.nbuv.gov.ua/bitstream/handle/123456789/74059/39-Goroshko.pdf?sequence=1>
- Kirilina, A.V. (2003). Issledovanie gendera v lingvisticheskikh nauchnykh distsiplinah [Research of gender in linguistic scientific disciplines]. Ivanovo: Ivanovo State University.
- Kyselova, O. (2020). Gendernyi vymir pandemii COVID-19 [Gender dimension of the COVID-19 pandemic]. Retrieved from https://mof.gov.ua/storage/files/covid_final.pdf
- Lakoff, R. (1973). *Language and Woman's Place*. Language in Society. Cambridge University Press.
- Libakova, N.M. (2014). Sotsialno-psihologicheskie osobennosti formirovaniya gendernykh obrazov v srede rossiyskogo studenchestva (rezultaty assotsiativnogo eksperimenta) [Socio-psychological features of the formation of gender images among Russian students (results of an associative experiment)]. *Sotsiodinamika*, 10, 101-134. <https://doi.org/10.7256/2306-0158.2014.10.1343>
- Maslova, Yu. (2009). Osoblyvosti rozvytku hendernykh lingvistychnykh doslidzhen v Ukraini y zakordonom [Features of development of gender linguistic researches in Ukraine and abroad]. *Naukovi Zapysky of the National University of Ostroh Academy*, 57, 100-105.
- Pérez, E. & Tavits, M. (2017). Language influences public attitudes toward gender equality. *The Journal of Politics*, 81(1), 81-93. Retrieved from <https://www.journals.uchicago.edu/doi/10.1086/700004>
- Petiak, O. (2020). Associative and gender aspects of the emotional concept of jealousy in the Ukrainian linguistic culture. *East European Journal of Psycholinguistics*, 7(1), 140-145. <https://doi.org/10.29038/eejpl.2020.7.1.pet>
- Prewitt-Freilino, J., Caswell, T., & Laakso, E. (2012). The gendering of language: A comparison of gender equality in countries with gendered, natural gender, and genderless languages. *Sex Roles*, 66(3), 268-281.
- Rudakova, A. V. (2015). Problemy algoritimizatsii opisaniya znacheniya kak fenomena yazykovogo soznaniya [Problems of algorithmic description of meaning as a phenomenon of linguistic consciousness]. *Sotsialnyie i Gumanitarnyye Znaniya*, 4, 284-287. <http://dx.doi.org/10.18255/2412-6519-2015-4-284-287>
- Saharny, L. V. (1989). *Vvedenie v Psiholingvistiku* [Introduction to Psycholinguistics]. Leningrad: Leningrad University Publishers.
- Shevchenko, Z. V. (Ed.). (2016). *Slovyk gendernykh termini* [Dictionary of gender terms]. Cherkasy: vydavets Chabanenko Yu. Retrieved from: <http://a-z-gender.net/ua/genderna-slipota.html>
- Sternin, I. A. & Rudakova, A. V. (2011). *Psicholongvisticheskoye znachenie slova i ego opisaniye. Teoreticheskiie problem: momografiia*. [Psycholinguistic meaning of a word and its description. Theoretical issues: monograph]. Saarbrücken: LAP Lambert Academic Publishing.
- Sternin, I.A. (2020). Problemy interpretatsii rezultatov assotsiativnykh eksperimentov [Interpretation of the results of associative experiments.]. *Voprosy Psiholingvistiki*, 3(45), 110-125. Retrieved from <https://iling-ran.ru/library/voprosy/45/VPL-3-2020-fin-110-125.pdf>
- Vinogradova, O.E. & Sternin, I.A. (2016). *Psiholingvisticheskie metody v opisaniu semantiki slova* [Psycholinguistic methods in describing the semantics of a word]. Voronezh: Istoki.
- Zasiekina, L. V., & Zasiekin, S. V. (2008). *Psikhohingvistichna Diahnostyka* [Psycholinguistic Diagnostics]. Lutsk: Vezha. Retrieved from <https://evnuir.vnu.edu.ua/handle/123456789/503>
- Zavyalova, N. B. (2017). Vliyanie trudnoy zhiznennoy situatsii na yazykovoe soznanie zhenschin [The impact of difficult life situations on language consciousness in women]. *Voprosy*

Psiholingvistiki, 2(32), 74-85. Retrieved from <https://cyberleninka.ru/article/n/vliyanie-trudnoy-zhiznennoy-situatsii-na-yazykovoe-soznanie-zhenschin/viewer>

Sources

- Council of Europe (2005). Gender Budgeting: Final report of the Group of Specialists on Gender Budgeting, Council of Europe, Equality Division, Directorate-General of Human Rights, Strasbourg. Retrieved from <https://rm.coe.int/1680596143>
- Gender profile of Ukraine [Hendernyi profil Ukrainy]. Retrieved from: <https://www.ua.undp.org/content/ukraine/uk/home/gender-equality/comparative-gender-profile-of-ukraine-.html>
- Kent, M.(2007). (Ed.). The Oxford Dictionary of Sports Science & Medicine. 3rd ed. Oxford University Press. <https://doi.org/10.1093/acref/9780198568506.001.0001>
- Kyselova, O. (2020). Gendernyi vymir pandemii COVID-19 [Gender dimension of the COVID-19 pandemic]. Retrieved from https://mof.gov.ua/storage/files/covid_final.pdf
- Ministerstvo Finansiv Ukrainy. Genderno-orientovane biudzhetuвання na mistsevomu rivni [Gender-oriented budgeting at the local level]. Retrieved from https://mof.gov.ua/uk/283-genderno-orientovane_biudzhetuвання_na_mistsevomu_rivni
- United Nations (2016). Gender equality and women's empowerment. Retrieved from: <https://www.un.org/sustainabledevelopment/gender-equality/>

Common Errors in English Aphasic Discourse

Olena Kotys

 <https://orcid.org/0000-0002-3360-8288>

Scopus Author ID: [57215582730](https://orcid.org/0000-0002-3360-8288)

olena.kotys@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Tetiana Bondar

 <https://orcid.org/0000-0002-9421-264X>

bondar.tetiana@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Viktorija Servatovych

servatovych.viktoriiia2020@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Received March 6, 2022; Revised May 2, 2022; Accepted June 1, 2022

Abstract. The article generalizes the results of research directed onto singling out the common errors in speech of aphasic patients. Aphasia is characterized by partial or complete loss of speech and is caused by damage in the language areas (Broca's and Wernicke's areas). A lesion in the middle part of the patient's left frontal lobe results in Broca's aphasia and the damage to the left posterior superior temporal gyrus is referred to as Wernicke's aphasia. The major causes of aphasia are strokes, cortical vein thrombosis, traumas of skull and brain, brain infections, tumors, etc. The research is based on the language-in-use descriptive approach to discourse analysis and presents an investigation of 40 documentary video recordings of aphasic patients' speech (free narration and dialogues); the overall duration of the recordings is 180 minutes. The inclusion criterion was aphasia of any type in adulthood. All the patients are English-speaking people (English being their native language) recovering from aphasia. The analysis was done according to the following criteria: intelligibility, coherence, cohesion, grammatical structure of utterances, prosody and intonation, thus combining formalist (or structuralist) and functionalist research paradigms. The research has shown that the most common errors that aphasic patients make when speaking are as follows: syntactic errors, articulatory errors, lexical misuse and slow speech rate. Syntactic and articulatory errors prevail (55% and 50% of all the studied cases respectively), whereas 37.5% of the speakers demonstrated slow speech rate. The speech of 75% of people with aphasia is incoherent. The patients' verbal performance is marked with extensive use of pronouns and repetition of words and phrases.

Keywords: *aphasia, Broca's area, Wernicke's area, English language, speech error.*

Котис Олена, Бондар Тетяна, Серватович Вікторія. Типові помилки у англомовному дискурсі осіб з афазією.

Анотація. Стаття узагальнює результати дослідження, покликаного виявити типові помилки у мовленні осіб з афазією. Афазії притаманна часткова або повна втрата мовлення, вона зумовлена ураженням мовних центрів кори головного мозку (зон Брока та Верніке). Пошкодження задньої частини лобової звивини лівої півкулі мозку спричиняє афазію Брока, а порушення роботи заднього відділу верхньої скроневої звивини лівої півкулі – афазію Верніке. До основних причин виникнення афазії відносять крововиливи у мозок, тромбоз судин головного мозку, черепно-мозкові травми, інфекції головного мозку, пухлини і т. ін. Наше дослідження ґрунтується на дескриптивному підході до аналізу мовлення та фокусується на особливостях використання мови її конкретними носіями. Стаття презентує аналіз 40 документальних відеозаписів мовлення осіб з різними типами афазії (вільна оповідь та діалоги), загальною тривалістю приблизно 180 хвилин. Критерієм залучення була наявність афазії та дорослий вік пацієнтів. Усі мовці є носіями англійської мови (англійська мова – рідна), котрі знаходяться в процесі видужання. Аналіз було здійснено за такими критеріями: зрозумілість висловлювання, його когезія й когерентність, граматична структура висловлювань, просодичні елементи мовлення та інтонація, тобто ми поєднали структуралістську та функціоналістську дослідницькі парадигми. Виявилось, що найчастотнішими помилками у мовленні пацієнтів з афазією є синтаксичні й артикуляційні огріхи, неправильне використання слів та сповільнене мовлення. Переважають синтаксичні та артикуляційні помилки (55% та 50% від загальної кількості), тоді як 37,5% мовців вирізнялися сповільненим темпом мовлення. Про відсутність зв'язності мовлення свідчать 75% документальних відеозаписів. Таким пацієнтам притаманне надмірне використання займенників, повтори слів та словосполучень.

Ключові слова: афазія, зона Брока, зона Верніке, мовлення, англійська мова, помилки у мовленні.

Introduction

Research of the human brain structure and its relation to language competence and performance at the end of the 19th century led to the discovery of Broca's and Wernicke's language areas. This provoked great interest in investigating how language disorders, caused by specific brain damage (aphasia), are manifested in linguistic performance (comprehension and production) of patients. Hence, aphasia, "caused by a lesion in the middle part of the patient's left frontal lobe" is referred to as Broca's (or motor) aphasia and the one, caused by the "damage to the left posterior superior temporal gyrus" is Wernicke's (or receptive) aphasia (Nasios et al., 2019, p. 3). There are other types of aphasia (global, anomic, primary progressive, mixed non-fluent, etc.), however, in this research we focus on the two types, mentioned previously.

The advent of technology empowered scholars to look for a wider perspective and use modern tools to process language and thus cast light on the specific features of aphasic discourse. The use of MRI technology enabled researchers to investigate impairments in phonological processing (Graves et al., 2008), acoustic parameters of speech were analyzed by Aziz et al. (2020), phonological deficits in language production in patients with agrammatic aphasia became the scope of Nelson's research (Nelson et al., 2020). Furthermore, psychological characteristics of such speakers were the scope of research (Kozynets, 2003; Worrall, 2016) as well as their

impact on recovery of such patients (Hemsley, 1996; Mishchenko, 2020). Speech-language pathologists strive to help patients with aphasia retain their ability to communicate and produce comprehensible discourse thus boosting their integration into society, so factors that influence recovery after strokes have been researched (Pastryk et al., 2019) as well as narratives, produced by such patients (Andreetta, et al., 2012; Linnik et al., 2015). Coherence of discourse of patients with aphasia was researched by Olness and Ulatowska (2011), whereas Togher et al. (2013) dealt with the ways of training communication partners to interact with such patients.

This article seeks to investigate speech performance (and comprehension, where possible) of patients with Broca's and Wernicke's aphasia.

Method

The study involved documentary videos of 40 English-speaking patients. The overall video length is 180 minutes. The recordings can be freely accessed on YouTube channels of healthcare institutions (i.e., County Durham & Darlington NHS Foundation Trust, Flint Rehab, Tactus Therapy) and individuals (Sarah Scott channel and the like) who share their rehabilitation process after strokes, etc. The inclusion criterion was aphasia of any type in adulthood. The dominating type of discourse was personal narration combined with answering questions of an interviewer. The documented discourse underwent linguistic analysis (language-in-use descriptive approach) according to the following criteria: intelligibility, coherence, cohesion, grammatical structure of utterances, prosody and intonation, thus combining formalist (or structuralist) and functionalist research paradigms that proved to be effective for aphasic discourse analysis (Armstrong, 2000).

To ensure quality analysis of aphasic discourse a range of factors that influence rehabilitation success should be taken into account: the type of brain damage, location and type of lesion, age and overall physical state of a patient. In less severe cases, when cerebral blood supply is impaired for a short period of time, patients may regain their ability to communicate in hours or days. However, in the majority of cases it takes much longer to regain former ability to communicate. The process may last weeks or months after the trauma. Furthermore, there are severe cases that require a lot of treatment time. Even so, symptoms of aphasia may still remain. The most common errors typical of aphasic speech are word retrieval errors, errors at the phonological, grammatical and syntactical levels (Kutasi, 2017).

Results and Discussion

One of the spontaneous speech samples displays verbal performance of Laura Cobb (Young Stroke Survivors with Aphasia), a 27-year-old car accident survivor,

who had a stroke and is recovering from aphasia. The duration of her speech is almost 04 minutes.

The speech is intelligible, cohesive and coherent. The narration is well-structured: introduction, the main part and conclusion. However, the speech is very slow, yet clear and rather well articulated. The sentences are short and simple, all the members of the sentences are put in the correct order, no errors, e.g., *I have stroke. I have aphasia*. Complex and compound sentences are sometimes challenging for her: *My friend no go how to talk to me* instead of *My friends don't know how to talk to me*. The vocabulary that is used in the narration seems to be easily retrieved, however there are few articulatory mistakes (tongue slips): [ˈpeɪs] – [ˈpeɪks], [tɪps] – [sɪp]. Sentence stress is correct, notional parts of speech are stressed whereas functional are not. The intonation of the utterances is normal, even though the speech tempo is slower than such of an average language user who does not suffer from aphasia.

The research has shown less successful examples of speech production (Broca's Aphasia). When asked about their previous health condition (*Now tell me what this thing was with your legs last week or week before*), one of the patients with aphasia utters *No good. Egg and knees and ankles* instead of *leg and knees...* This case illustrates articulatory error, they use nominal structures only, even though the patient seems to understand the question. The pauses between words are rather long (10 – 20 seconds), so the speech rhythm is impaired.

For some patients with aphasia answering interview questions is easier than narration. Robert, in his fifties, is answering two interview questions (Aphasia: A loss of words, not thoughts):

Question 1: What does aphasia mean to you?

Answer: It affects me both in understanding what people say and also in speaking. I have to really concentrate when somebody is speaking to me. I get very bothered by other noises and distractions. I have trouble kind of putting the different words together and finding words that put the entire sentence together at times. And then sometimes it can flow okay.

Question 2: What are some day-to-day problems that aphasia has caused for you?

Answer: So I have trouble with giving instructions, placing orders, my biggest problem is dealing with doctors, dealing with a question and answer session. Not like we are doing here, because you've given me something written [interview questions] to help as well.

Robert's speech is cohesive and coherent, his answers are detailed, the sentence structure is extended and grammatically correct, there are both nominal and verbal phrases. The vocabulary is varied and suitable. The speaker admits he has problems with concentration, but even this factor does not deteriorate his speech function.

Another example of an interview with an elderly aphasia patient who has a stroke Fluent (Aphasia. Tactus Therapy). Byron Peterson (BP) is having a conversation with his doctor, Megan Sutton (MS).

MS: Hi Byron! How are you?

BP: I'm happy. Are you pretty? You look good. The utterance seems to be cohesive (syntactic structure is normal), but incoherent. The speaker articulates sounds well, there are no errors.

MS: And what were we just doing with the iPad?

BP: Uhh...right at the moment they don't show the damn thing. Ha-ha!

Bryan's answer demonstrates that he does not understand the syntactic structure of the question. He might not understand the context of the question, too. He must have recognized the word iPad, not paying attention to the tense form used by the interviewer. Moreover, the patient used incorrect tense in the reply (they don't show, not they are not showing).

MS: With the iPad, what were we doing? Like here?

BP: I'd like my change for me and change hands for me. It would happy.

The syntactic structure the patient uses is incorrect, the listener might be confused. Articulation and speech tempo are normal. The utterance is neither cohesive, nor coherent.

BP: I would talk with Donna sometimes. We're out with them. Other people are working with them and them. I'm very happy with them. This girl was very good. And happy and I play golf and hit up trees. We play out with the hands. We save a lot of hands on hold for peoples, for us. Other hands. I don't know what you get, but I talk with a lot of hand for him."

In this extract we observe excessive use of deictic pronouns (*them*), the listener will not understand who Bryan refers to. Moreover, the patient uses a lexical unit *hand* in many structures; this might cause illocutionary silencing, the sense is not relevant for the listener.

The examples of aphasic discourse demonstrate various degrees of intelligibility and coherence. This does not always depend on age of a patient, rather on type of aphasia and rehabilitation process itself.

The typical syntactic errors that the patients with aphasia made, were the following:

- 1) omitting functional parts of speech (articles, prepositions) and pronouns, e.g. *So, [I] have a stroke three years ago;*
- 2) misuse of pronouns: a) *I [my] first half marathon was two years ago;*
b) *Sometime I [my] grammar is not really good, sometimes you're okay;*
- 3) prevalence of nouns and adjectives in sentences: *Um...home...dizzy...lay-headed...fall...friend...call
911...ambulance...doctor...stroke...right...side...left-hemisphere....*

The articulation of the patients is mainly characterized by omission of consonants in words, i.e., patients pronounce vowels only, and mixing phonemes in words (the so-called "spoonerisms" [tips] – [sip]).

Table 1 shows common errors in aphasic discourse of the 40 patients whose narratives were analyzed in this article. The "+" sign shows presence of a certain type of error.

Table 1
Common errors in aphasic discourse

| Patient # | Coherence | Slow speech rate | Syntactic errors | Lexical errors | Articulatory errors | Intonation and prosodic errors |
|------------------|------------------|-------------------------|-------------------------|-----------------------|----------------------------|---------------------------------------|
| 1 | | + | | | + | |
| 2 | + | | + | | + | |
| 3 | | | + | + | | |
| 4 | | | + | | | |
| 5 | + | | + | + | | |
| 6 | + | | + | | | |
| 7 | | + | | | | |
| 8 | | | | | | |
| 9 | + | + | | | | |
| 10 | | + | + | + | + | |
| 11 | | + | + | | + | |
| 12 | | + | | + | | |
| 13 | | + | | + | | + |
| 14 | | | | | | |
| 15 | | + | + | | + | |
| 16 | | | | | | |
| 17 | | | + | + | + | |
| 18 | | | | + | + | + |
| 19 | | | + | | + | + |
| 20 | | | + | | + | + |
| 21 | | | + | | | |
| 22 | | | + | + | | |
| 23 | + | | + | + | + | |
| 24 | | | | | + | + |
| 25 | | | | + | | |
| 26 | | | + | + | | |
| 27 | | + | | | | |
| 28 | + | | + | | + | |
| 29 | + | | + | + | + | |
| 30 | | | | | | |
| 31 | | + | | | + | + |
| 32 | + | + | + | | + | |
| 33 | | + | + | + | | |
| 34 | + | + | + | | + | |
| 35 | + | + | | | + | |
| 36 | | | + | + | + | |
| 37 | | + | + | | + | |
| 38 | | | | + | | |
| 39 | | | | | + | |
| 40 | | | | | | |

The results of the study show that in the participants with aphasia three types of error prevail. These are syntactic and articulatory errors (55% and 50% of all the participants respectively, made mistakes when speaking) alongside with low coherence (the speech of 75% patients is incoherent). Moreover, 37.5% of the patients spoke rather slowly that prevented listeners from following the speaker. It must be noted that this speech characteristic does not depend on a patient's age: younger and older people with aphasia exhibited this. The lexical errors occurred in 37.5% of all the cases (the same ratio as for slow speech): the patients struggled to pick the correct word and/or misused words. The speakers also substituted one word by another belonging to the same semantic group (*arm – leg, week – month*). Notably, the percentage of people who spoke slowly and who suffered with choosing the correct words coincides. This demonstrates the tendency that problems with lexical level lead to change in speech rate.

Conclusions

Aphasia is a specific brain damage that often prevents people from normal social interaction due to poor speech performance of such patients. Problems with spontaneous speech production are referred to as Broca's aphasia, whereas challenges of ability to understand speech are usually caused by Wernicke's aphasia. Such health conditions may cause communicative anxiety, but if treated properly, patients may recover and can be integrated into society.

The research of aphasic speech was done in the framework of language-in-use descriptive approach to discourse analysis. Grammatical structure of utterances, vocabulary, prosody and intonation were investigated to make conclusions about intelligibility, coherence and cohesion of aphasic speech. The documentary videos of 40 aphasic patients' speech performance contain trustworthy linguistic evidence to trace the tendency of common errors that are typical for such people. The errors include: grammatically incorrect syntactic structure of phrases and sentences (omission of auxiliary verbs and prepositions, misuse of tense forms, lack of correlation between a subject and a predicate in sentences), excessive use of pronouns, repetition of words and phrases in a sentence. The search for suitable vocabulary led to pauses and slow speech rate and made the patients' verbal performance incohesive. Naturally, such problems in communication may cause illocutionary silencing.

Results of the analysis of 40 aphasic patients' speech can help to improve understanding of methods that can be used to develop approaches to aphasic speech research and help us conclude that linguistic paradigm can offer a lot to a modern linguist/speech-language pathologist, etc. The scope of new research is to investigate aphasic discourse of Ukrainian-speaking patients with aphasia.

References

- Andreetta, S., Cantagallo, A., & Marini, A. (2012). Narrative discourse in anomic aphasia. *Neuropsychologia*, 50(8), 1787-1793. <https://doi.org/10.1016/j.neuropsychologia.2012.04.003>
- Armstrong, E. (2000). Aphasic discourse analysis: The story so far. *Aphasiology*, 14(9), 875-892. <https://doi.org/10.1080/02687030050127685>
- Aziz, M. A., Hassan, M., Razak, R., & Garraffa, M. (2020). Syntactic abilities in Malay adult speakers with aphasia: A study on passive sentences and argument structures. *Aphasiology*, 34(7), 886–904. <https://doi.org/10.1080/02687038.2020.174228>
- Crystal, D. (2012). *The Cambridge Encyclopedia of Language*. Cambridge University.
- Frisco, N. (2015). *Discourse Processing Treatment for Adults with Aphasia*. Ph.D. thesis. Retrieved from <https://core.ac.uk/reader/71977360>
- Graves, W. W., Grabowski, T. J., Mehta, S., & Gupta, P. (2008). The left posterior superior temporal gyrus participates specifically in accessing lexical phonology. *Journal of Cognitive Neuroscience*, 20(9), 1698-1710. <https://doi.org/10.1162/jocn.2008.20113>
- Hemsley, G., & Code, C. (1996). Interactions between recovery in aphasia, emotional and psychosocial factors in subjects with aphasia, their significant others and speech pathologists. *Disability and Rehabilitation*, 18(11), 567-584. <https://doi.org/10.3109/09638289609166318>
- Kozynets, O. (2003). Do problem vyvchennia psykholohichnykh osoblyvostei khvorykh na afaziyu [On the issue of studying psychological features of aphasic patients]. *Naukovyi Chasopys of National Pedagogical Drahomanov University*, 23, 114 -121.
- Kutasi, R. (2017). Discourse analysis. An aid for studying aphasic speech. *Revista Transilvania*, 59 – 63. <https://aphasia.talkbank.org/publications/2017/Kutasi17.pdf>
- Linnik, A., Bastiaanse, R., & Höhle, B. (2021). Discourse production in aphasia: A current review of theoretical and methodological challenges. *Aphasiology*, 30(7). 765-800. <http://dx.doi.org/10.1080/02687038.2015.1113489>
- Mishchenko, M. (2020). Teoretychni aspekty vidnovlennia komunikatsiyi u doroslykh z afaziyeyu, shcho perenesly isul't [Theoretical issues of rehabilitating speech in adults with aphasia after stroke]. *Aktualni Pytannia Korektsynoyi Osvity*, 197-207.
- Nasios, G., Dardiotis, E., & Messinis, L. (2019). From Broca and Wernicke to the Neuromodulation Era: Insights of Brain Language Networks for Neurorehabilitation. *Behavioural Neurology*. <https://doi.org/10.1155/2019/9894571>
- Nelson, M., Moeller, S., Basu, A., Christopher, L., Rogalski, E., Greicius, M., Weintraub, S., Bonakdarpour, B., Hurley, R., Mesulam, M-M. (2020). Taxonomic Interference Associated with Phonemic Paraphasias in Agrammatic Primary Progressive Aphasia. *Cerebral Cortex*, 30(4), 2529–2541. <https://doi.org/10.1093/cercor/bhz258>
- Olness, G.S., Ulatowska, H.K. (2011). Personal narratives in aphasia: Coherence in the context of use. *Aphasiology*, 25, 1393-1413. <https://doi.org/10.1080/02687038.2011.599365>
- Pastryk, T., Kotys, O., Dyachuk, N., & Milinchuk, V. (2019). Conscious control in speech pathology and speech rehabilitation following stroke. *East European Journal of Psycholinguistics*, 6(2), 89–97. <https://doi.org/10.29038/eejpl.2019.6.2.pas>
- Serdiuk, D., Kashuba, L. (2021). Symptomatyka ta mekhanizmy vynyknennia afaziyi u doroslykh [Symptoms and mechanisms of aphasia emergence in adults]. *SCIENTIA*. Retrieved from <https://ojs.ukrlogos.in.ua/index.php/scientia/article/view/9625>
- Togher, L., McDonald, S., Tate, R., Power, E., Rietdijk, R. (2013). Training Communication Partners of People with Severe Traumatic Brain Injury Improves Everyday Conversations: A Multicenter Single Blind Clinical Trial. *Journal of Rehabilitation Medicine*, 45, 637-645. <https://doi.org/10.2340/16501977-1173>

- Wagenaar, E. Snow, C. & Prins, R. (1975). Spontaneous Speech of Aphasic Patients: A Psycholinguistic Analysis. *Brain and Language*, 2, 281-303. [https://doi.org/10.1016/S0093-934X\(75\)80071-X](https://doi.org/10.1016/S0093-934X(75)80071-X)
- Worrall, L., Ryan, B., Hudson, K., Kneebone, I., Simmons-Mackie, N., Khan, A., Hoffmann, T., Power, E., Togher, L., & Rose, M. (2016). Reducing the psychosocial impact of aphasia on mood and quality of life in people with aphasia and the impact of caregiving in family members through the Aphasia Action Success Knowledge (Aphasia ASK) program: study protocol for a randomized controlled trial. *Trials*, 17, 153. <https://doi.org/10.1186/s13063-016-1257-9>
- Wright, H. (2011) Discourse in aphasia: An introduction to current research and future directions. *Aphasiology*, 25(11), 1283–1285. <https://doi.org/10.1080/02687038.2011.613452>

Sources

- Aphasia: A loss of words, not thoughts. Retrieved from <https://tinyurl.com/zazyszvc>
- Broca's Aphasia. Retrieved from <https://tinyurl.com/2f8y49d7>
- Fluent Aphasia. Tactus Therapy. Retrieved from <https://tinyurl.com/2p8n967m>
- Young Stroke Survivors with Aphasia. Retrieved from <https://tinyurl.com/2dehnh7s>

Rural Bilingual Roma Children and Theory of Mind Competencies

Hristo Kyuchukov

 <http://orcid.org/0000-0002-1965-8908>

Scopus Author ID: 26038282700

hkyuchukov@gmail.com

University of Silesia in Katowice, Poland

Received January 12, 2022; Revised February 20, 2022; Accepted June 5, 2022

Abstract. Two age groups of Roma children (3;6-4;6 years old $n = 20$ and 4;7- 5;6 $n = 20$) from rural areas of Bulgaria were tested for understanding the classical Theory of Mind (TOM) task (False-belief) and the correlations with two language tests (*Evidentiality* and *Yes/No Questions*) were investigated. Coordinate with that the children were tested by means of the nonverbal Knox Cub Intelligent Test. The Theory of Mind tests and the language tests were conducted in both languages – L1 Romani and Bulgarian as their second language. The children attend kindergarten where they learn Bulgarian, but at home, they speak Romani as L1. All children were tested individually in a separate room by the researcher. A Roma woman member of the community and speaker of the dialect of the children tested them in Romani. All the results were analysed using ANOVA. The results from the study show that in the performance of both TOM tasks, the older children understand better the tasks and a high number of them have correct answers. The children performed equally well on the tests in both languages. The differences between Romani as L1 and Bulgarian as a second language are not significant. In the performance of the language tasks *Evidentiality* and *Yes/No Questions* there is a statistically significant correlation ($p < .05000$). There is also a correlation between L1 Romani and Bulgarian in performing the language tasks ($p < .340526$). However, there is no correlation between the language tasks and the TOM tasks. There are correlations between the variables *Evidentiality* Task Scores and *Yes/No Question* Task Scores (.4064); also between *Evidentiality* Task Scores and *Knox's Cube Nonverbal Intelligent Test* Scores (.3969); and between the *Yes/No Question* Task Scores and *Knox's Cube Nonverbal Intelligent Test* Scores (.5073). All correlations are only for the Romani language. The conclusion from the study is that the bilingual Roma children develop the Theory of Mind competencies around the age of 4;6 years old. Their language proficiency level in Romani and Bulgarian is basically equal, however when performing intelligence task the children are much better in their mother tongue. The children understand the Theory of Mind task in both languages in equal measure.

Keywords: *Theory of Mind, Roma children, bilingualism, evidentiality, Yes/No questions.*

Кючуков Христо. Двомовні ромські діти з сільської місцевості та теорія розуму.

Анотація. Дві вікові групи ромських дітей (від 3,5 до 4,5 років $n = 20$ та від 4 років 7 місяців до 5,5 років $n = 20$) із сільської місцевості Болгарії пройшли тестування на розуміння завдання класичної теорії розуму (ТОМ) (Помилкове переконання) і було досліджено кореляцію з двома мовними тестами (Доказовість і питання Так/Ні). Поряд із цим, дітей тестували за допомогою невербального тесту імітації куба Нокса. Тести з теорії розуму та мовні тести проводилися обома мовами – ромською як першою і болгарською як другою мовою. Діти відвідують дитячий садок, де вивчають болгарську мову, але вдома розмовляють ромською як рідною мовою. Усіх дітей дослідниця тестувала індивідуально в окремій кімнаті. Жінка-ромка, яка є членом спільноти та розмовляє діалектом дітей, тестувала їх знання з ромської мови. Усі результати аналізували за допомогою програми ANOVA. Результати дослідження засвідчили, що під час виконання обох

завдань з теорії розуму старші діти краще розуміють завдання, і велика кількість з них дають правильні відповіді. Діти однаково успішно виконали тести з обох мов. Відмінності між ромською як рідною і болгарською як другою мовою незначні. Під час виконання мовних завдань на доказовість та питань Так/Ні існує статистично значуща кореляція ($p < 0,05000$). Існує також кореляція між ромською мовою як рідною і болгарською під час виконання мовних завдань ($p < 0,340526$). Однак відсутня кореляція між мовними завданнями та завданнями теорії розуму. Існують кореляції між змінними оцінки завдання на доказовість та оцінки завдання на запитання Так/Ні (0,4064); між результатами оцінки завдання на доказовість і оцінки невербального тесту імітації куба Нокса (0,3969) і між результатами тесту «Так/Ні» та результатами невербального тесту імітації куба Нокса (0,5073). Усі співвідношення встановлено лише для ромської мови. Висновок дослідження полягає в тому, що двомовні ромські діти розвивають компетенції теорії розуму приблизно у віці 4,5 років. Рівень володіння ними ромською та болгарською мовами загалом однаковий, проте під час виконання інтелектуального завдання діти набагато краще володіють рідною мовою. Діти однаково розуміють завдання теорії розуму обома мовами.

Ключові слова: теорія розуму, ромські діти, білінгвізм, доказовість, питання Так/Ні.

Introduction

According to Lillard (2006), the representatives of different cultures have different behavioural patterns and tend to explain their own behaviours pointing to different factors. The Chinese, for example, as well as Arab and Korean children, use more external factors than the US-American children. Describing life events, the American children aged 4 and 6 give more references to internal states of mind than the Asian children. They place a higher value on activities motivated by an important external source. Cross-cultural differences in the sequencing of Theory of Mind steps are also found between Australian and Iranian children (Shahaeian et al., 2011). In contrast to the children from Australia, knowledge access was understood earlier than opinion diversity in children from Iran, consistent with the same collectivist culture's emphasis on acquiring knowledge. Still, very little research has been conducted in traditional communities where access to schooling and literacy is limited, such as the Roma community in Europe and how the Theory of Mind competencies as they develop help the children to prepare for schooling. The children's understanding of other people's thinking or emotions is part of their wider cognitive development. How do the children growing up in different cultural settings develop similar patterns in their Theory of Mind competencies?

Callaghan et al. (2005) report that cross-cultural study has mixed findings doing research on the Theory of Mind of young children, most possibly because of varying methods used in different cultures. The authors used a single procedure to measure false-belief understanding in five cultures: Canada, India, Peru, Samoa, and Thailand. The authors found a synchrony in the onset of mentalistic reasoning, with children crossing the false-belief milestone at approximately 5 years of age in every culture studied. The study discusses the significance of this synchrony for the origins of mental-state understanding.

In number of studies de Villiers and Pyers (2002), de Villiers and de Villiers (2000), de Villiers (2007) investigate the interface between language and Theory of Mind. The authors try to show a correlation between false-belief tasks and complement sentences. The language ability to deal with complex complements sentences and it is perhaps a prerequisite for false-belief understanding.

As an evidential language, Romani can express what is witnessed directly or indirectly, and what is just hearsay. Some authors Aksu-Koc et al. (2005); Papafragou & Li

(2001) have tried to find a correlation between Evidentiality and Theory of Mind in languages such as Turkish and Korean, which also have Evidentiality markers.

Together with culture the degree of bilingualism of the children also influences their reading comprehension, perspective-taking or performance of different cognitive tasks. Most research to date has conceptualized bilingualism from an all-or-none perspective, dividing participants into bilinguals or monolinguals with little room for variability (Surrain & Luk, 2017). Navarro et al. (2022) in a recent study show that neurobehavioural models of bilingual language use have begun to consider bilingualism as a dynamic trait that varies based on factors like sociolinguistic diversity background and culture (DeLuka et al., 2019). Researchers increasingly recognize the role of individual differences in bilingualism and take that variability into consideration in Theory of Mind studies.

Bilingualism has been traditionally conceptualized as something less valuable in comparison to monolingualism, especially when the bilingual speakers belong to traditional minority or migrant communities. The reason underlying that is that the minority or migrant languages often have a lower social prestige (Kyuchukov, 2007; Kyuchukov & de Villiers, 2009). A key question here is: does bilingualism help or interfere the bilingual children to develop earlier TOM when they have an L1 home language with lower social prestige? The connection between the Theory of Mind of bilingual children who speak a lower prestige L1 has not yet been on focus of proper investigation in the research literature. Another problem concerns children who live in small villages; they do not have the broader range of opportunities for communication of children living in larger towns and cities. The small village has limited possibilities for socialization and the main factor there for the socialization and cognitive development of Roma children is their extended family.

The aim of the present study is to shed needed light on how Roma children living in a small village learn the Theory of Mind and at what age they start to understand it. What grammatical categories help them to understand the Theory of Mind tasks? Could Roma culture, isolation from the broader non-Roma society, and the prevailing more traditional lifestyle function as a possible positive advantage – or could this be instead a source of interference for the children in acquiring the Theory of Mind competencies in both their languages?

Methodology

Bilingual pre-school Roma children living in a small village in southeaster Bulgaria were tested with two types of tasks:

- The classical Theory of Mind tasks: *Unexpected Content and Unseen Displacement task*;
- Language tasks: *Yes/No Questions and the Evidentiality task*.

The children were tested in two languages: Romani as L1 and Bulgarian as a second language (L2).

The participants in the study are divided into 2 age groups:

1 gr. 3;6- 4;6 years old – 20 children

2 gr. 4;7-5;6 years old – 20 children

The testing with the children was conducted individually in a separate room where the researcher and the teacher of the group were present. The testing in Bulgarian was done by the researcher, and the testing in Romani was conducted by a Roma woman, a member of

the community and speaker of the dialect of the children. The Roma woman was trained in advance about how to administer the tests.

Knox’s Cube Nonverbal Intelligent Test – The children were also tested also with a non-verbal intelligence test where they had to repeat movements on cubes shown by the researcher. Children with four and more consequent errors were not included in the study evaluation. The children were tested once, and the instructions were given in Romani.

The children attend a kindergarten, where they learn the Bulgarian language, but at home they speak a variety of Bulgarian Romani. They grow up as ‘successive bilinguals’ (Grosjean, 2010).

Results

Theory of Mind Tasks

The results from the Theory of Mind tests are presented first.

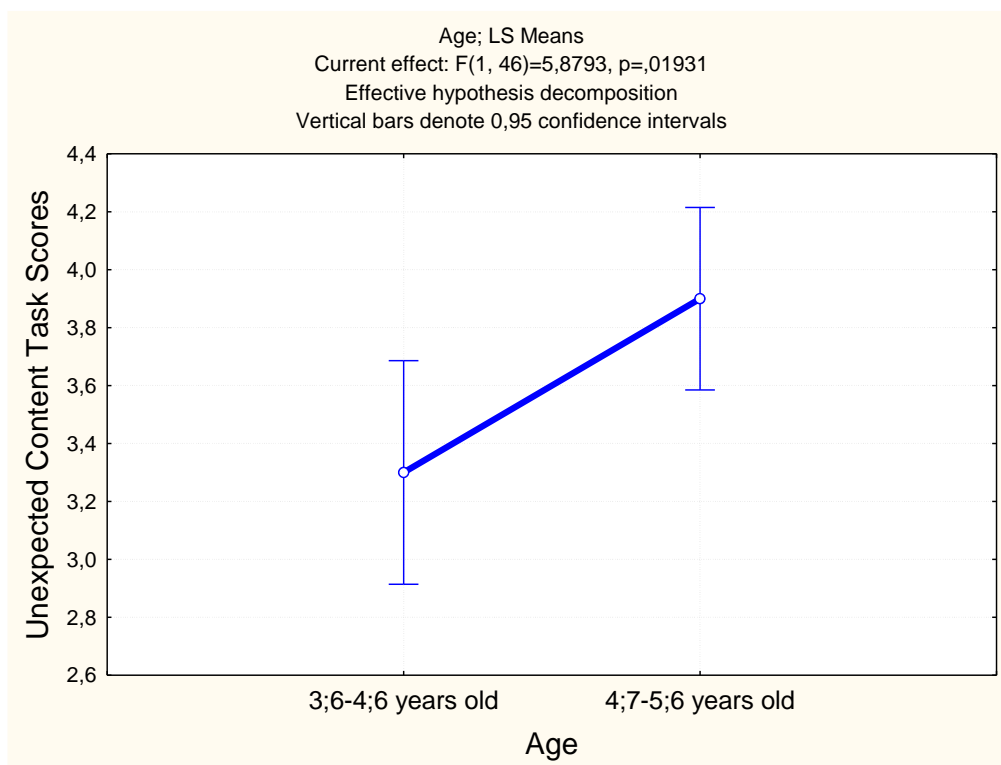
Unexpected Content task

In this task the children in the study are shown a box of chocolates. The child does not know what the box contains. The researcher asks the child what (s)he thinks is in the box and usually the children answer: “chocolates”. Then the box is opened, the child sees that the box contains a pen. The box is closed by the researcher and then the child is asked: “What did you think first when you saw the box?” The next question: “What would your friend think is in the box if (s)he sees it?”

The first comparison in performing this task is between the age groups and the results are shown in Figure 1.

Figure 1

Impact of the factor Age on the dependent variable Unexpected Content Task Scores

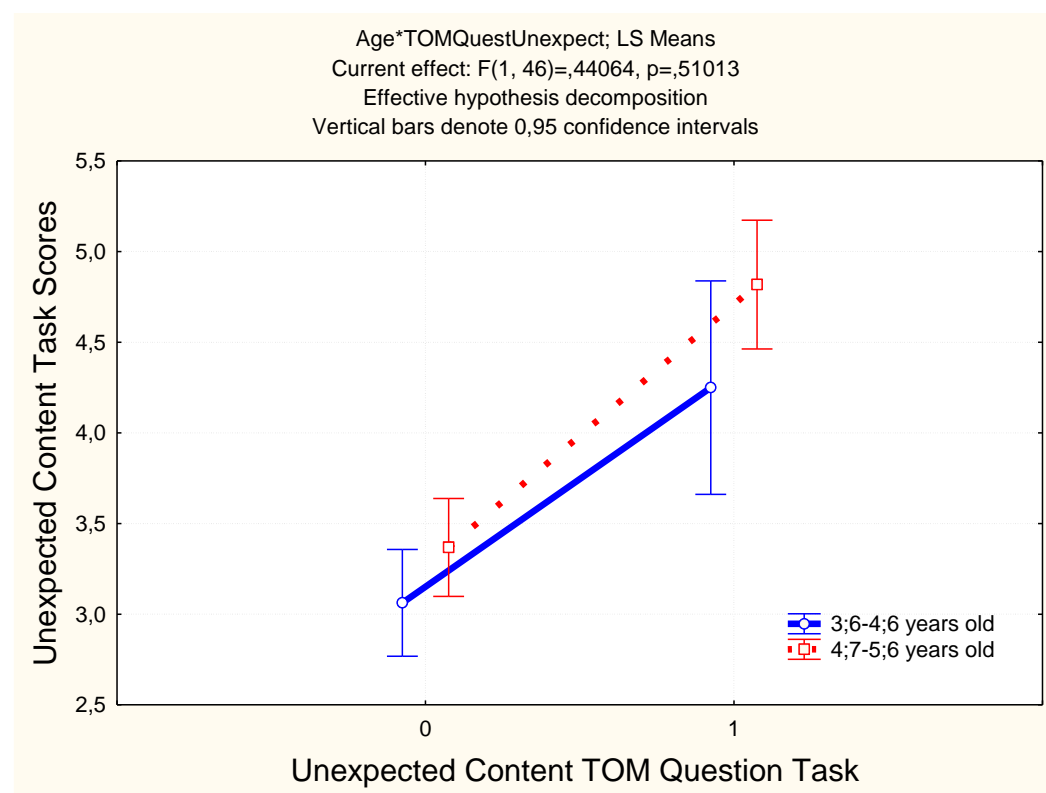


As can be seen from Figure 1, the older children in the study are much better than the younger children; the statistical differences are significant ($p > .01$): $F(1.46) = 5.8793$; $p = .0193$. The younger children between 3 and 4 years old do not remember that at the beginning when they first saw the box their answer was that the box contained chocolates. They answered that they said when they first saw the box, they thought there was a pen inside. The older children after the age of 4;0 years or 4;2 years remembered the content as they thought before opening the box and the difference after closing it.

In turning to to the False-belief task, the results are given in Figure 2.

Figure 2

Impact of interaction between the factors Age and Unexpected Content TOM Question Task on dependent variable Unexpected Content Task Scores



As we can see from Figure 2, the children from both age groups answer the TOM question – False-belief task almost in the same way. The older children answered the question correctly but the statistical analyses between the two groups show no significant differences $F(1.46) = .44064$; $p = .51013$.

The children were tested in two languages, Romani as L1 and their second language Bulgarian, the official language of the country. The results are shown in Figure 3.

Figure 3

Impact of interaction between the factors Age and Language on dependent variable Unexpected Content Task Scores

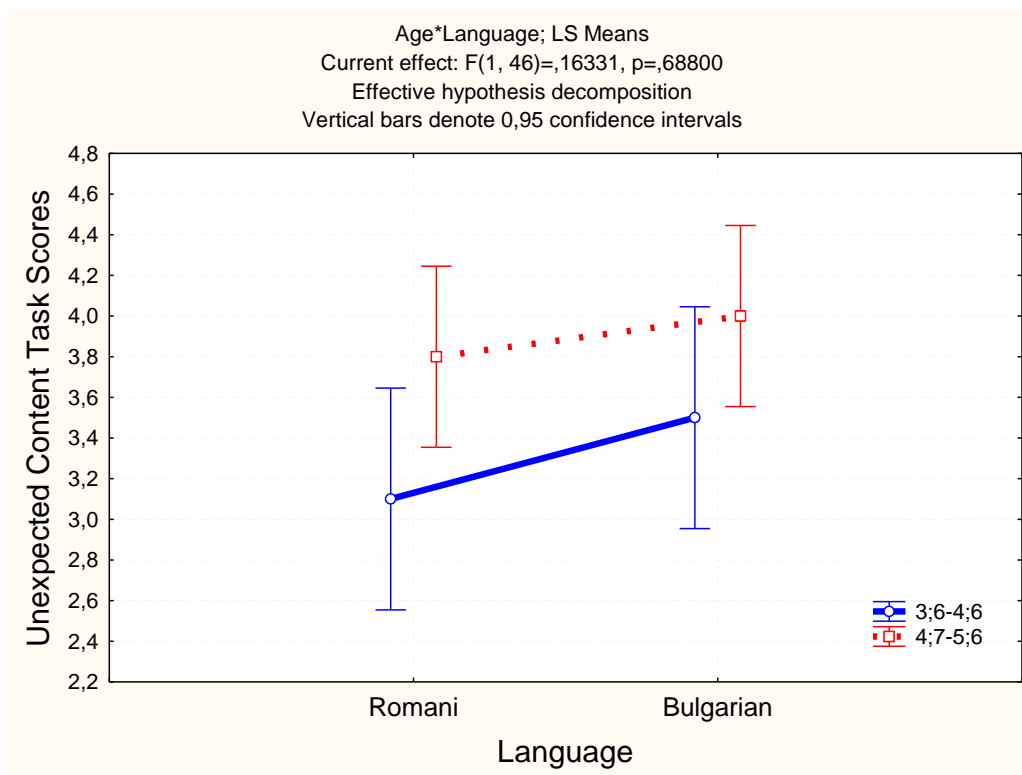


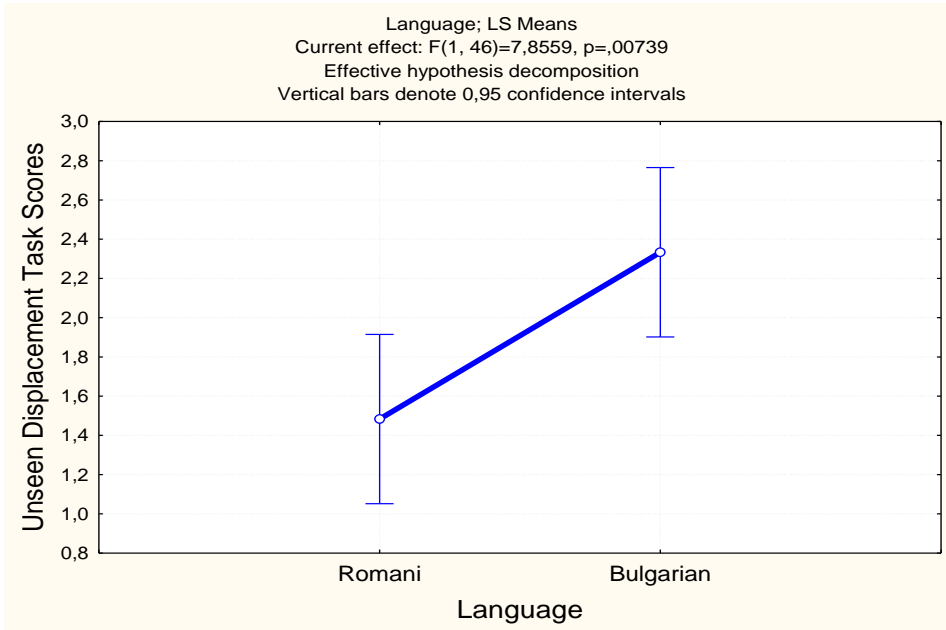
Figure 3 shows that the children perform this test in both languages at the same level. The statistical differences between the two languages are not significant, although the children 4;7-5;6 years old perform the test slightly better: $F(1.46) = .16331; p = .68800$.

Unseen Displacement Task

The second Theory of mind task is Unseen Displacement. The researcher shows the child two actors, a puppet dog and cat, who are friends. They have a ball. At the beginning the two actors put the ball in a basket acting together. One of them then leaves the scene, and the other who remains puts the ball in a second basket next to the first one. Then the first actor returns to the scene and the child is asked by the researcher: where is s/he going to look for the ball? The question is connected with the ability of the children to place themselves in the position of the other person and to take his/her perspective.

The results are given in the following figures. Figure 4 shows the impact of the factor language.

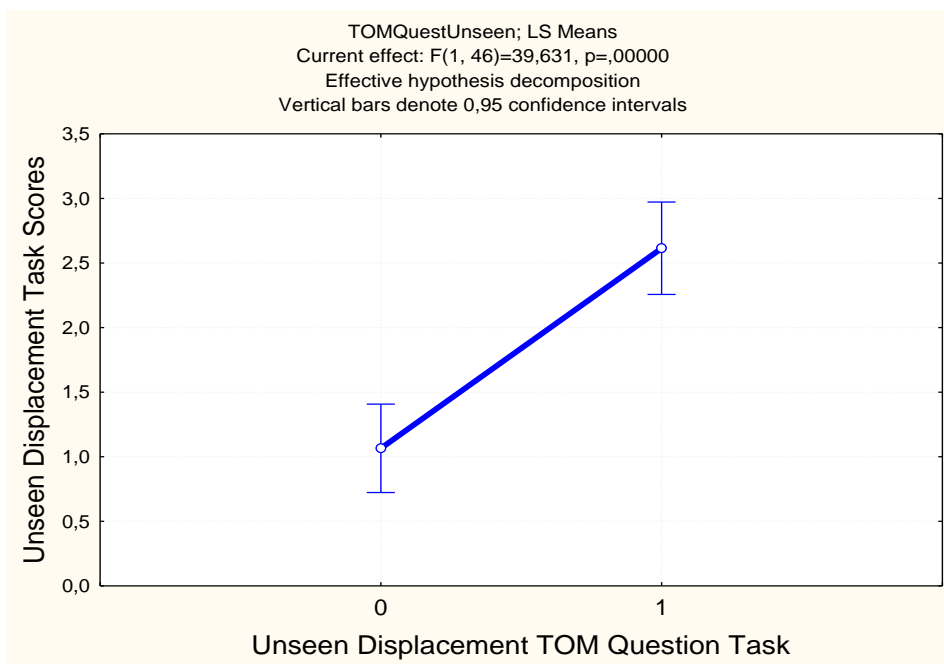
Figure 4
Impact of the factors Language on dependent variable Unseen Displacement Task Scores



As evident from Figure 4, the children are better in performing the task in Bulgarian, their L2. The age of the children does not show any statistically significant difference. However, the language utilized in performing the test is statistically significant: $F(1, 46) = 7.8559$; $p = .00739$; $p > .001$.

Most of the children answer correctly to the False-belief tasks and this is shown in Figure 5.

Figure 5
Impact the factor Unseen Displacement TOM Question Task on dependent variable Unseen Displacement Task Scores

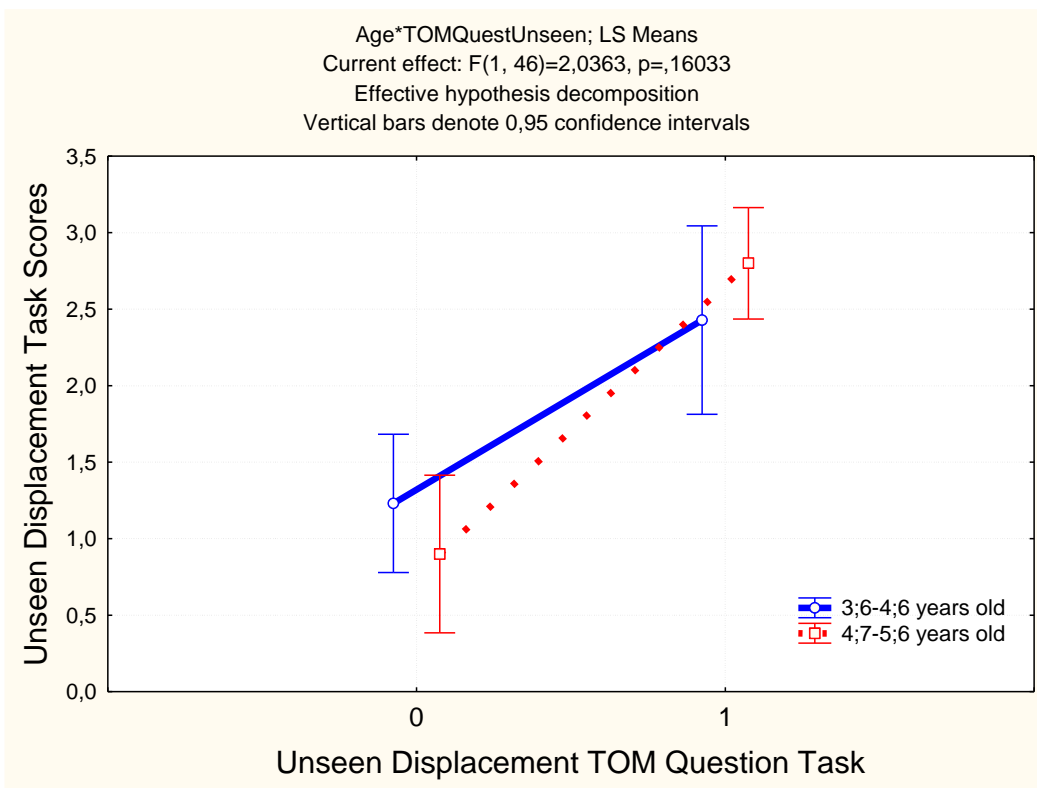


Most of the children from both groups answered the False-belief task correctly and the age did not have a statistically significant impact, which means that both groups performed the test equally well. However, the differences between the children who answered correctly or incorrectly are statistically significant: $F(1.46) = 39.631$; $p = .00000$.

If we look at the interaction between age as a factor and how the children gave an answer to the False-belief question, we see results in Figure 6.

Figure 6

Impact of interaction between the factors Age and Unseen Displacement TOM Question Task on dependent variable Unseen Displacement Task Scores



From Figure 6 it is clear that the younger children have far more errors answering the False-belief question, and the older children have a higher percentage of correct answers. The differences between the age groups are not statistically significant $F(1.46) = 2.0363, p = .16033$.

Turning to performance of the test by age groups and languages, results are given in Figure 7.

Figure 7

Impact of interaction between the factors Age and Language on dependent variable Unseen Displacement Task Scores

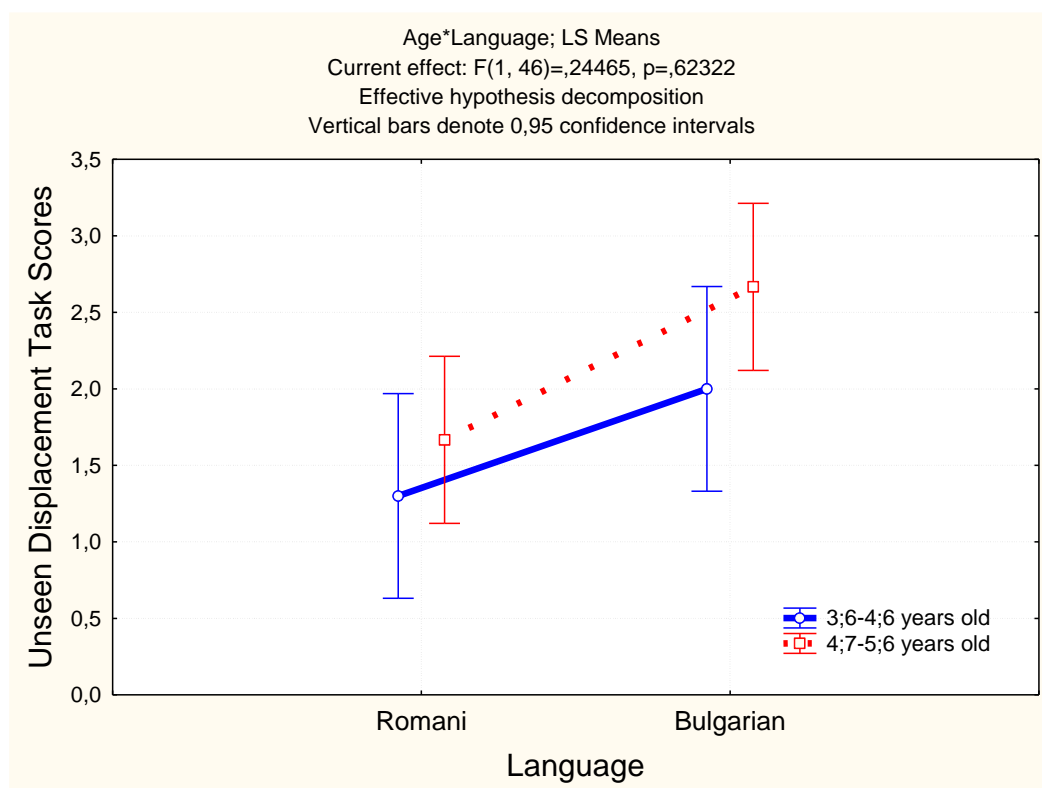


Figure 7 shows clearly that both groups of children perform the test in both languages almost equally well. The group of children 4;7-5;6 years old are better than those 3;6-4;6 years old, but the differences are not statistically significant. There are slight differences in the performance of the test in Bulgarian language, but those differences are not significant.

To summarize the performance of both TOM tasks, the older children understand the tasks better and a high number of them have correct answers. The children perform equally well on the tests in both languages. The differences between Romani as a home language and Bulgarian as a second language are not significant.

Let us now turn to how the children performed the language tasks.

Language Task

Evidentiality

The children are given five pairs of stories. The stories are told by two actors – a cat and a dog puppet. The stories are in past tense and in an evidentiality form (i.e., non-witnessed). The past tense story is told by the cat and the story in evidentiality form is told by the dog. Then the next time they are switched – past tense tale told by

the dog, evidentiality tale by the cat, – so as to avoid the association of one protagonist with one form of the story. The question put to the child is: Who saw what happened in the story?

Here are the results.

Figure 8

Impact of the factor Age on dependent variable Evidentiality Task Scores

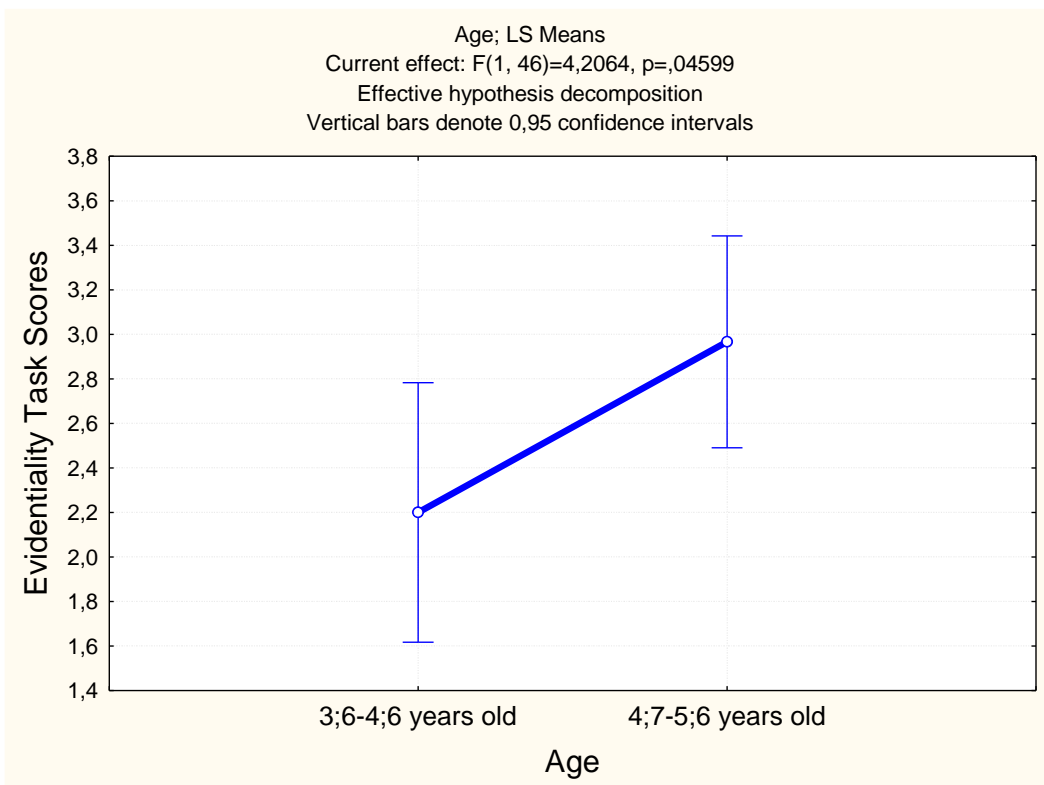


Figure 8 shows that the older children perform this task better and have much better results. The statistical differences are significant: $F(1, 46) = 4.2046, p = .04599$. However, the language of the performance does not have any statistically significant difference. The children understand the stories equally well in both languages - Romani and Bulgarian.

What is the interaction between age and language in performance of the evidentiality task? This is shown in Figure 9.

Figure 9

Impact of interaction between the factors Age and Language on dependent variable Evidentiality Task Scores

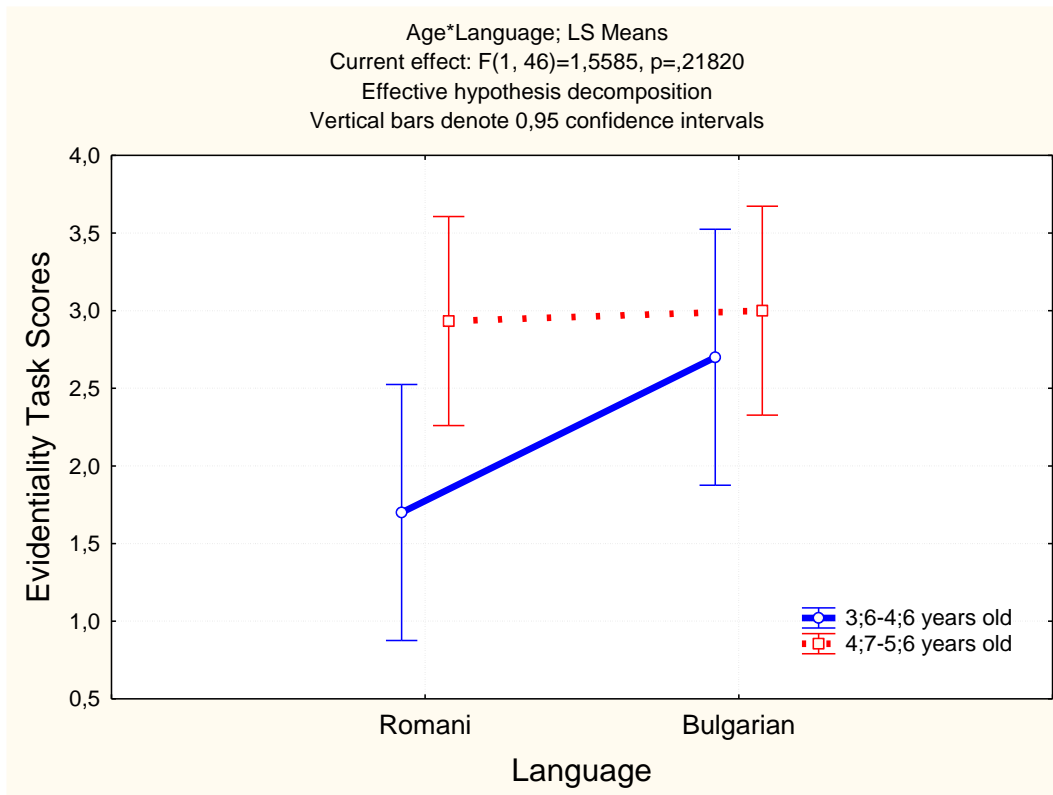


Figure 9 shows that the older children performed the task better than the younger children and although there are some slight differences in the performance of the task in Romani, the performance of the task in Bulgarian language is on the same level by both groups. The differences are not statistically significant $F(1,46) = 1.5585, p = .21820$.

Yes/No Questions

The children were shown eight pictures and for each picture was asked a wh-question with the verb “say”. Half of the questions were with positive answers and the other half with negative answers.

The results of the test are given in the following figure.

Figure 10

Impact of interaction between the factors Age and Language on dependent variable Yes/No Question Task Scores

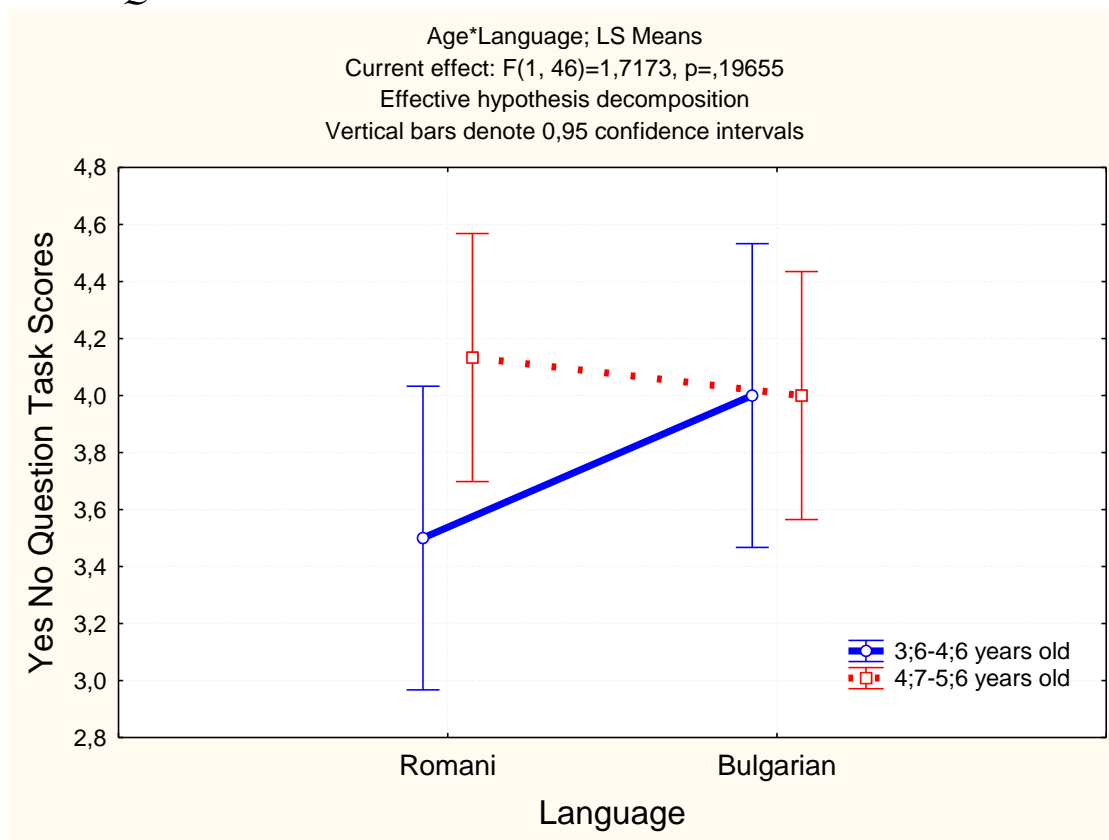


Figure 10 shows that there are no age and no language differences in the performance of this task. The task is equally well performed by both age groups and in both languages, Romani and Bulgarian. The differences are not statistically significant $F(1,46) = 1.7173, p = .19655$.

In regard to a correlation between the language tasks and Theory of Mind tasks, the results are presented in Table 1 (see Appendix).

From Table 1 is clear that there are correlations between the two language tasks – *Evidentiality* and *Yes/No Questions* – and the correlation is statistically significant ($p < .05000$). The correlations are in both languages, Romani and Bulgarian (.340526). However, there is no correlation between the language task and the Theory of Mind tasks.

Let us see how the children performed the Knox Intelligent Test, with results shown in Figure 11.

Figure 11

Impact of the factor Age on Knox's Cube Nonverbal Intelligent Test Scores

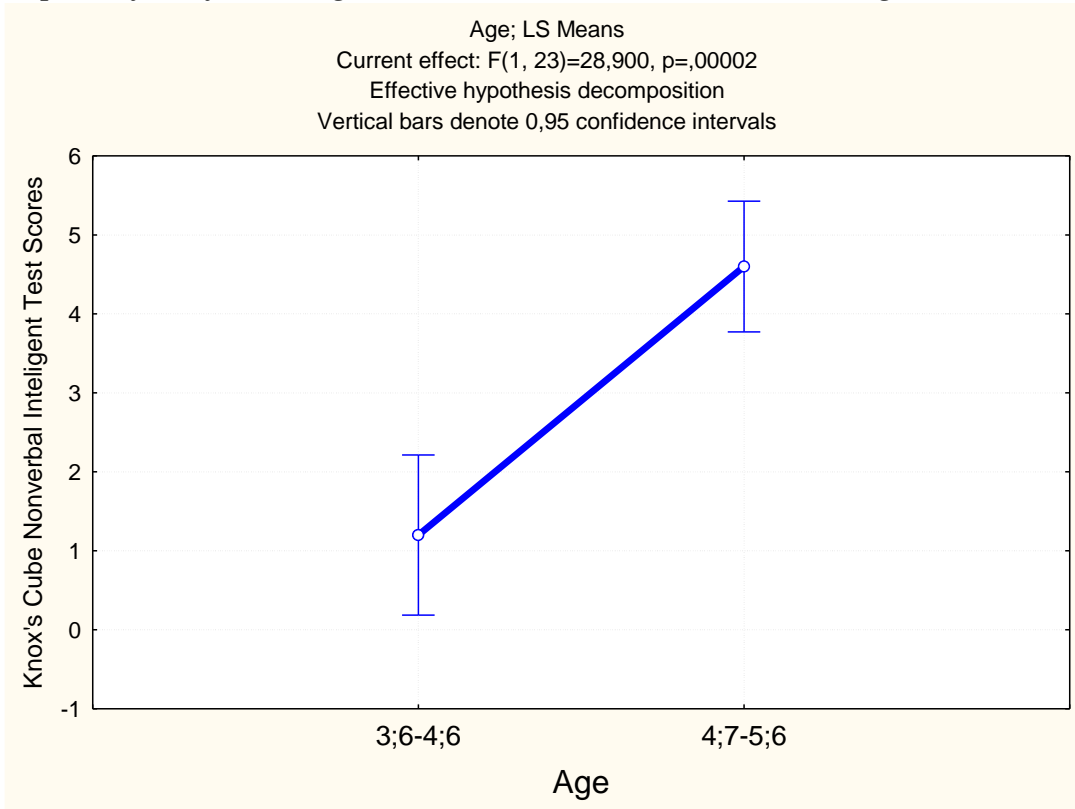


Figure 11 shows that the older children performed this test much better than the younger children. The differences between the two groups are statistically significant $F(1,23) = 28.900, p=.00002$. As children grow older, their intelligence improves as well.

The correlations of all 5 variables are shown in Table 2 (see Appendix).

From Table 2 it is clear that there is a correlation between the variables *Evidentiality Task Scores* and *Yes/No Question Task Scores* (0,4064); *Evidentiality Task Scores* and *Knox's Cube Nonverbal Intelligence Test Scores* (0,3969); and between the *Yes/No Question Task Scores* and *Knox's Cube Nonverbal Intelligence Test Scores* (0,5073). All correlations are only for the Romani language, not for Bulgarian.

Discussion and Conclusions

The study shows the following tendencies: the older children comprehend and perform the Theory of Mind tasks better in both languages. They also show better results performing the language tasks in both languages, Romani and Bulgarian. However, performing the intelligence task, the children are much better in their mother tongue. There is not any statistically significant correlation between the Theory of Mind task and the language tasks. It seems that the children develop the

Theory of Mind competencies independently of their knowledge about grammatical categories of Evidentiality and Yes/No Questions. Why is this so?

Roma children grow up in a rich language environment. The extended families help the children from birth on to be exposed to and hear a variety of registers. According to Alvarez (2019), from birth to the age of three the human brain develops and the neuron frameworks are established. Their intensity depends on the language environment the child grows up in. The children with more intense exposure to a language from an early age have higher IQs and their performance at school later is much better.

Grosjean (2010) writes about the importance of the family support for the language development of bilingual children. The Roma families fully support the children with language because they use a rich range of oral folkloristic genres, such as singing, fairy tales, lullabies, language games, etc. (Kyuchukov, 2021). Another important factor for the language development of bilingual children noted by Grosjean (2010) is the loving environment. In the small village where the Roma children live, they are surrounded with love in the extended family and in the community, because in the community the people know each other, and it is normal for the neighbours to communicate with children, to play with them, to sing for them. On the other official side of education, the atmosphere in the kindergarten is also very friendly and loving. In small villages the Bulgarians and Roma know each other, and they live in a respectful and friendly relationship. That provides the Roma children the possibility to have access to Bulgarian language from an early age. These are not the Roma communities in Slovakia which Spotakova (2011) has described: living in segregated and isolated settlements, in villages with poor even inhumane living conditions – devoid of proper electricity, water supplies, and basic hygiene, while facing racism and humiliation from the majority society day in day out.

Although the study is limited (with only 40 children) and did not show a correlation between the Theory of Mind tasks and language tasks, the results from the study are very important for the following reasons:

1. Like any other normally developing children around the world, the Roma bilingual children acquire the Theory of Mind competencies after reaching the age of 4. They perform the False-belief tasks in both languages (Romani and Bulgarian) at an equal level.
2. The children show high results in comprehension and production of the language tasks (*Evidentiality* and *Yes/No Questions*) in both languages.
3. The non-verbal intelligence test shows a correlation with the language tasks in the L1 of the children, Romani.

This once more confirms the thesis of Spotakova (2011) that testing of Roma children should be done with culturally appropriate tests and in their mother tongue. And as Templer (2016, 152-153) stresses, in order for the minority children to be successful in their education they need dual bilingual and multicultural education, and to build literacy competencies in the L1 home language as well as the official

school language, a bilingual literacy as “emergent bilinguals” grounded on the conception of the ‘Students’ Right to Their Own Language’ (Mother Tongue First!) as a basic egalitarian discursive and educational right, also embodied in ‘MT-based MLE’ – *Mother-tongue based multilingual education* (Malone, 2007; see also Smitherman, 1995). In this model, pupils are taught to read first in their home language, and perhaps also learn other subjects up to grade 5 or 6 in their L1, to develop solid literacy skills in the language they know best. Only then will the Roma children not be in a situation such as Spotakova (2011) describes. Roma children across Europe suffer in particular from neglect of learning literacy in their native Romanes (Kyuchukov, 2006), a form of “linguicism” in the sense of Skutnabb-Kangas (2008; 2015), a language-centered form of racism.

Doing research among Roma communities is very important also to know the Roma culture in order to avoid culturally inappropriate tests or task and to understand better the behaviour and reactions of tested Roma children. A young non-Roma psychologist was doing some psychological research with kindergarten Roma children in Slovakia, without knowing anything about the culture, religion, beliefs and values in their community and life world. A Roma child was given a non-verbal test where one of 4 pictures presented does not fit in with the other three: the child must identify and remove it. A Roma girl was shown 3 pictures of fruits and a picture of bread, and the child was asked by the researcher: What one doesn’t fit with the other three? The child looked at the pictures but did not react. When the researcher asked her why she doesn’t remove the picture which doesn’t fit with the other three, the child answered “I can’t throw it out. It’s a bread. It’s a sin if I throw it away”.

References

- Aksu-Koç, A. et al. (2005). The relation between mental verbs and theory of mind performance: Evidence from Turkish children. *International Association for the Study of Child Language*.
- Alvarez, C. (2019). *The Natural Laws of Children*. Boulder: Shambhala.
- Callaghan, T. et al. (2005). Synchrony in the onset of mental-state reasoning: Evidence from five cultures. *Psychological Science*, 16(5), 378-384. <https://doi.org/10.1111/j.0956-7976.2005.01544.x>
- DeLuca, V. et al. (2019) Redefining bilingualism as a spectrum of experiences that differentially affects brain structure and function. *Proceedings of the National Academy of Sciences*, 116(15), 7565-7574.
- de Villiers, J. (2007) The interface of language and theory of mind. *Lingua*, 117(11), 1858-1878.
- de Villiers, J. & de Villiers, P. (2000). Linguistic determinism and the understanding of false beliefs. In P. Mitchell, K. Riggs, (Eds.). *Children's Reasoning and the Mind*. (pp. 189-226). Hove, UK: Psychology Press.
- de Villiers, J. & Pyers, J. (2002). Complements to cognition: a longitudinal study of the relationship between complex syntax and false-belief-understanding. *Cognitive Development*, 17, 1037-1060.
- Grosjean, F. (2010). *Bilingual life and reality*. Cambridge: Harvard University Press.
- Kyuchukov, H. (2006). Early home literacy of Roma children in Bulgaria. *Education et Sociétés Plurilingues*, 20, 51-61.

- Kyuchukov, H. (2021). The Roma Family's Oral Culture and Folklore and Language Acquisition by Children. In H. Kyuchukov, S. Zahova, & I. Duminica, (Eds.). *Romani history and culture*. (pp. 227-235). Munich: Lincom.
- Kyuchukov, H. (2007). *Turkish and Roma children learning Bulgarian*. Veliko Tarnovo: Faber.
- Kyuchukov, H., & de Villiers, J. (2009). Theory of Mind and Evidentiality in Romani-Bulgarian Bilingual children. *Psychology of Language and Communication*, 13(2), 21-34.
- Lilard, A. (2006). The socialization of theory of mind: Cultural and Social class differences in behavior explanation. In A. Antonietti, O. Liverta-Sempio & A. Marchetti, (Eds.). *Theory of Mind and Language in Developmental Context*. (pp. 65-76). NY: Springer.
- Malone, S. (2007). Mother-tongue based multilingual education: Implications for education policy. Paper presented at the Seminar on Education Policy and the Right to Education. Kathmandu, Retrieved from https://www.academia.edu/6368207/MOTHER_TONGUE_BASED_MULTILINGUAL_EDUCATION_IMPLICATIONS_FOR_EDUCATION_POLICY_Defining_Mother_Tongue_based_Multilingual_Education_MT_Based_MLE
- Navarro, E., DeLuca, V. Rossi, E. (2022). It takes a village: Using network science to identify the effect of individual differences in bilingual experience for Theory of Mind. *Brain Sciences*, 12, 487. <https://doi.org/10.3390/brainsci12040487>
- Papafragou, A., & Li, P. (2001). Evidential morphology and theory of mind. In *Proceedings from the 26th Annual Boston University Conference on Language Development*. Cascadilla Press, Somerville, MA, pp. 510-520.
- Shahaeian, A. Peterson, C. C., Slaughter, V., & Wellman, H. M. (2011). Culture and the sequence of steps in theory of mind development. *Developmental Psychology*, 47(5), 1239–1247. <https://doi.org/10.1037/a0023899>
- Skutnabb-Kangas, T. (2015). Linguicism. *Encyclopedia of Applied Linguistics*. <http://www.tove-skutnabb-kangas.org/dl/310-Skutnabb-Kangas-Tove-2015-Linguicism-Encyclopedia-of-Applied-Linguistics-Blackwell.pdf>.
- Skutnabb-Kangas, T. (2008). Human Rights and Language Policy in Education. In S. May & N. Hornberger, (Eds.). *Language policy and political issues in education*, Vol. 1 of *Encyclopedia of Language and Education*, 2nd edition. (pp. 107-119). New York: Springer, Retrieved from http://www.tove-skutnabb-kangas.org/pdf/Human_rights_and_language_policy_in_education_Tove_Skutnabb_Kangas.pdf.
- Smitherman, G. (1995). "Students' Right to Their Own Language": A Retrospective. *The English Journal*, 84(1), 21-27. Retrieved from https://www.academia.edu/45224507/Students_Right_to_Their_Own_Language_A_Retrospective.
- Spotakova, M. (2011). Cognitive development and Theory of Mind in socially disadvantaged Roma children. In J. Stoyanova and H. Kyuchukov, (Eds.). *Psychology and Linguistics*. Sofia: Prosveta.
- Surrain, S. and Luk, G. (2017). Describing bilinguals: A systematic review of labels and descriptions used in the literature between 2005–2015. *Bilingualism: Language and Cognitions*, 22, 401–415. <https://doi.org/10.1017/S1366728917000682>
- Templer, W. (2016). Confronting linguisticism: Rethinking multiculturalism and bilingual instruction in Bulgaria schools. In H. Kyuchukov (Ed.), *New Trends in the Psychology of Language*. (pp. 143-175). Munich: Lincom.

Appendix

Table 1

Correlation matrix for 4 variables on the basis of all data – Romani and Bulgarian Language

| Variable | Correlations (UnexpEvid.sta) Marked correlations are significant at $p < ,05000$ N=50 (Casewise deletion of missing data) | | | | | |
|---------------------------------|---|----------|--------------------------------|---------------------------------|---------------------------|-----------------------------|
| | Means | Std.Dev. | Unexpected Content Task Scores | Unseen Displacement Task Scores | Evidentiality Task Scores | Yes No Question Task Scores |
| Unexpected Content Task Scores | 3,660000 | 0,894655 | 1,000000 | 0,186142 | 0,054434 | -0,081722 |
| Unseen Displacement Task Scores | 1,960000 | 1,142143 | 0,186142 | 1,000000 | 0,030721 | 0,082243 |
| Evidentiality Task Scores | 2,660000 | 1,349376 | 0,054434 | 0,030721 | 1,000000 | 0,340526 |
| Yes No Question Task Scores | 3,940000 | 0,842978 | -0,081722 | 0,082243 | 0,340526 | 1,000000 |

Table 2

Correlation matrix for 5 variables on the basis of the data of Romani language only

| Variable | Correlations (UnexpEvid.sta) Marked correlations are significant at $p < ,05000$ N=25 (Casewise deletion of missing data) | | | | | | |
|---------------------------------|---|----------|--------------------------------|---------------------------------|---------------------------|-----------------------------|------------------|
| | Means | Std.Dev. | Unexpected Content Task Score: | Unseen Displacement Task Scores | Evidentiality Task Score: | Yes No Question Task Scores | Knox Cube Scores |
| Unexpected Content Task Scores | 3,5200 | 0,9183 | 1,0000 | -0,1772 | 0,2086 | -0,1194 | 0,2764 |
| Unseen Displacement Task Scores | 1,5200 | 0,9626 | -0,1772 | 1,0000 | 0,0077 | 0,1662 | -0,0403 |
| Evidentiality Task Scores | 2,4400 | 1,5832 | 0,2086 | 0,0077 | 1,0000 | 0,4064 | 0,3969 |
| Yes No Question Task Scores | 3,8800 | 0,9274 | -0,1194 | 0,1662 | 0,4064 | 1,0000 | 0,5073 |
| Knox Cube Scores | 3,2400 | 2,2782 | 0,2764 | -0,0403 | 0,3969 | 0,5073 | 1,0000 |

The Role of Proficiency in Kashmiri Language in Phonological Processing Skills: A Cognitive-Linguistic Approach

Farooq Ahmad Mir

 <https://orcid.org/0000-0001-9317-2757>

farooq.lgst@iitb.ac.in

Indian Institute of Technology Bombay, India

Azizuddin Khan

 <https://orcid.org/0000-0001-5113-4760>

Scopus Author ID: [24537732600](https://scopus.com/authid/detail.url?authorID=24537732600)

aziz@hss.iitb.ac.in

Indian Institute of Technology Bombay, India

Received January 5, 2022; Revised January 28, 2022; Accepted March 4, 2022

Abstract. Language reflects the general aspects of human cognition and it works in terms of generalities, i.e. in terms of categories (Cruse, 2000). So, any of the linguistic expressions, whether it's a phone, word, syllable or a sentence ends up in the representation of a category referring to a something that is usually aimed at sufficing the need for communication. These categories are conceptual or can be referred to as the abstract mental constructs. However, language is not an autonomous cognitive faculty which implies that language is not exactly an innate cognitive module and is not separated from non-linguistic cognitive abilities (Craft & Cruse, 2004). This study reports on the role of proficiency of Kashmiri language in phonological processing of illiterate native Kashmiri speakers. A total number 40 participants (20 Literate; 20 Illiterate), divided into two groups; were tested for Lexical Decision, Random Automated Naming, Initial Phoneme Deletion, and Final Phoneme Deletion. The results suggested that the performance of both the groups was affected by Literacy and Proficiency in their native language i.e. Kashmiri. The effect of literacy on phonological processing was in consistence with the available literature however, the performance by illiterates was not worked out. This study attempted to find out the reasons for the performance of illiterates, and it was found that the illiterates can perform almost similar to those of literates on phonological awareness tasks because the proficiency in their native language enhances their phonemic and phonological awareness skills. Hence, the proficiency in Kashmir language has a role in phonological processing of illiterates.

Keywords: phonological processing, Kashmiri native language, phonemic awareness, reading, literates, illiterates.

Мір Фарук Ахмад, Хан Азізуддин. Роль володіння кашмірською мовою у застосуванні фонологічних умінь під час обробки: когнітивно-лінгвістичний підхід.

Анотація. Мова відображає загальні аспекти людського пізнання, і вона функціонує в термінах узагальнень, тобто в термінах категорій (Cruse, 2000). Тому будь-який мовна одиниця, чи-то фон, слово, склад чи речення, репрезентує категорії, яка стосується чогось,

що зазвичай спрямоване на задоволення потреби в спілкуванні. Ці категорії є концептуальними або їх можна назвати абстрактними розумовими конструктами. Однак мова не є автономною когнітивною здатністю, а отже мова не є вродженим когнітивним модулем і не є відокремленою від нелінгвістичних когнітивних здатностей (Craft & Cruse, 2004). У цьому дослідженні йдеться про роль володіння кашмірською мовою під час фонологічної обробки неписьменними носіями кашмірської мови. Загальну кількість учасників 40 (20 грамотних; 20 неписьменних), розділених на дві групи, було протестовано на лексичні рішення, випадкові автоматизовані найменування, початкові видалення фонем та остаточні видалення фонем. Результати засвідчили, що на продуктивність обох груп вплинула грамотність і рівень володіння рідною мовою, тобто кашмірською. Факт впливу грамотності на фонологічну обробку був суголосний наявним дослідженням, однак результати обробки неписьменних не було описано. У цьому дослідженні було зроблено спробу з'ясувати причини успішності неписьменних, і було виявлено, що неграмотні можуть виконувати завдання на фонологічну обізнаність майже так само, як і грамотні, оскільки володіння рідною мовою покращує їхні навички фонематичного чуття. Отже, володіння кашмірською мовою відіграє у неписьменних певну роль у їхній фонологічній обробці мови.

Ключові слова: *фонологічна обробка, кашмірська мова як рідна, фонематичне чуття, обізнаність, читання, письменні, неписьменні.*

Introduction

Phonological processing refers to the overall manipulation of sounds used by an individual in order to achieve the purposes of listening and speaking. Phonological processing operates on many components or cognitive linguistic abilities such as attending to speech, phonological awareness, selection between sounds, and holding sounds in memory for later retrieval and use. Phonological processing is studied as a combination of three processes *phonological awareness*, which refers to an individual's access and awareness of the phonology (Mattingly, 1972) *phonological recoding in lexical access* i.e. recoding written symbols into a sound-based representational system (Coltheart, Davelaar, Jonasson, & Besner, 1979; Crowder, 1982) and *phonetic recoding in working memory*, i.e. recoding the written symbols into a sound-based representational system to maintain them efficiently in working memory (Baddeley, 1982; Conrad, 1964; Burton, Small & Blumstein, 2000). These three parts of phonological processing work on the principle of manipulation of phonological information of a language and thus every linguistic information is recoded to a sound-based representational system in order to be processed phonologically prior to any semantic processing.

Nonetheless, the earlier studies claim that acquisition of literacy helps in acquisition of phonological awareness which assists in phonological processing and to substantiate such claims valid results have been provided (see, Peterson, Reis, & Ingvar, 2001; Matarazzo, 1979; Pizzolo, 1985). So, a literate can supposedly have learned the skill of reading and even writing which leads to a logical presupposition that the ability of phonological awareness among literates is put to exercise while learning to read and write but for an illiterate it is not tasked in this way. Therefore, an illiterate person who never attended a school and have never learned the skill of reading or writing shall not be expected to perform better or alike a literate counterpart on any of the phonological processing tasks.

With a view to measure the ability of phonological awareness among illiterate, various experiments have been carried out from time to time which, suggest the interference of phonological processing in affecting some cognitive processes. In all the experiments carried out so far, illiterates have been observed performing lower than those of literates which lays basis for the argument that phonological awareness fosters reading and also overcomes the problems and difficulties in reading. Among literate, the researches support the idea of, a sort of, permanence and consistency in phonological awareness skills (see Rosselli et al., 1990).

Moreover, some studies have shown that some cognitive abilities are significantly influenced by acquisition of literacy, and some studies have also shown that educational values may affect the degree of hemispheric dominance for language (Ardiela et.al., 1993). Some researchers applied certain neuropsychological test batteries to subjects in order to find the results suggesting the effect of schooling background on test performance (see Peterson, Reis. & Ingwar, 2001; Matarazzo, 1979; Pizzolo, 1985). Apart from some brain damage studies the analysis of performances of illiterates has shown its effect not only on neuropsychological test performance but also provides insights leading to understanding of the cerebral organization of cognitive activity. Cameron et. al. (1971) conducted a study on illiterate subjects for neuropsychological test performances which lead them to conclude that cognitive abilities are significantly influenced by schooling background. Adding to this list of studies is Ostrosky et al. (1985, 1986) who concluded from their neuropsychological experiment on subjects from two different socio-educational levels (high and low) showed that high socio-educational subjects performed better than low socio-educational subjects in all sections which supports the view that the educational background has its effect on cognitive performances of individuals. The experiments conducted by (Reis et al., 1994) suggest that literacy influences the performance when naming 2D pictorial representations of objects as, the naming of objects is part of the visual attention or visual memory coupled with language processing.

Peterson et al. (2001) performed naming tests for three categories of stimuli i.e. Objects (O), Photos (P) and Drawings (D) and found that the illiterates have lower naming scores compared to the literate subjects when naming visually presented drawings of common everyday objects. These results suggest that the schooling, or to be precise, the acquisition of reading and writing affects the cognitive processing. Conclusively therefore, such a varied group of studies suggest that the Phonological awareness, phonological processing, language, and other cognitive abilities of an individual are significantly influenced by literacy.

The phonological processes in Kashmiri language constitute a very important part of the phonology of the language. The processes such as Palatalization, Cluster reduction, Anaptyxis, Paragoge form the group of modification processes in Kashmiri Phonology (Mir, Hasnain, & Khan, 2018). In addition to these processes there exist deletion processes also such as Aphesis, Apocope, and Syncope. Furthermore, the processes of homophony also forms the part of phonological processes in Kashmiri (Koul & Wali, 2006).

Nonetheless, the role of proficiencies such as oral proficiency in Kashmiri language predicting reading among literate or determining any epistemic aspect of

phonological processing among the illiterates has not been studied so far hence, there is non-availability of literature on such topic. However, this study explores the idea of proficiency being part of the embedded or implicit linguistic knowledge of an individual to execute language processes such as phonological processing. Because, in the current study the illiterate individuals performed well on the tasks given to them and that forms the substantial reasoning for proficiencies to have a role in phonological processing. Nevertheless, the role of implicit structural knowledge of language determines the language processing of an individual which is referred to as the metalinguistic awareness. Such metalinguistic awareness arises from the imbedded linguistic structures universal to human natural language (Chomsky, 1965; Hauser, 1996), and it encompasses the syntax or grammar of the language, semantic knowledge and the way the language is being articulated. Such an implicit knowledge forms the base of language proficiencies in humans, which are realized as the skills of reading, writing, listening, and speaking. Yeung & Chan (2012) studied Mandarin speaking population for learning English as second language and confirmed that the role of oral proficiency during the development of the second language acts as general competence for phonological awareness of L2. However, a similar study in Spanish speaking children by Durgunoğlu et al. (1993) could not confirm the role of oral proficiency in predicting language skills such as reading, and therefore concluded that the role of oral proficiency did not correlate significantly with phonological awareness.

After going through all the studies mentioned above, it was found that that the role of native language of the participants was not worked out although the test batteries given were language-based tasks. Therefore, we conducted this study to find out if Kashmiri native language of the informants has a role in cognitive performance of an individual, and if the performance of illiterates is predicted by their mother tongue proficiency. It is hypothesized that there is role of language proficiency in predicting phonological processing among Kashmiri speaking illiterates. Nonetheless, we carried out this study in literate and illiterate Kashmiri speakers in order to ascertain if there is an effect of literacy on the phonological processing of individuals and if the proficiency in native language predicts phonological processing of illiterate individuals. Therefore, this study was designed to examine the performances of literate and illiterate Kashmiri speakers on four types of tasks viz. Lexical Decision, Random Automated naming (Letters), Initial phoneme deletion, and Final phoneme deletion.

Method

Participants

The total population of the location Sopore in district Baramulla is reported 71,292 individuals with a literacy of 67.77% (Census, 2011) and the illiterate population which sums up to some 6,824 individuals constitutes the rest of 9.57% for

illiteracy. The illiterate population mostly consists of, as a matter of observation, adults who are above an average age of 35 years. Among this whole population of 6,824 illiterate individuals in Sopore a total number of twenty persons were selected as participants by *simple random sampling* technique. These twenty participants were selected from a single location in order to partake a similar dialectal variety or a sociolect for that matter. Likewise, at Aligarh Muslim University, Aligarh at least 900 adult native Kashmiri speaking students are enrolled in various courses and among all of them twenty students were selected as participants. The students were selected particularly hailing from the same district i.e. Baramulla of Jammu and Kashmir, again for the same reason to avoid any differences in their dialectal and sociolectal patterns.

The participants were carefully divided into two groups, Group-A and Group-B. Group A, consisted of the participants who were illiterate and have never attended and Group B consisted of the participants who were literate and have pursued a formal schooling. A total of forty participants were selected as the target population for this study; twenty each for Group A and Group B. The participants in Group A were selected from Sopore in district Baramulla of Jammu and Kashmir and the participants of Group B consisted of the students enrolled in different departments at Aligarh Muslim University, Aligarh of Uttar Pradesh India. All the participants were adults and the mean value of their ages in Group-A was 56.0 years and that of the Group-B was 27.7 years. The gender variable was kept constant (Table 1):

Table 1
Demographic Information of Participants

| | Literate | Illiterate |
|----------------------------|------------------|-------------------|
| Number of participants (N) | 20 | 20 |
| Gender (number) | 20/M | 20/M |
| Age (mean) | 27.70 | 56.00 |
| Socio-economic profile | 20/ Middle Class | 20/ Middle Class |

All the participants in target population were essentially the native speakers of Kashmiri. Moreover, Kashmiri adopts Persio-Arabic script for orthographical purposes. It is written from right to left and bears the resemblance to Urdu in its orthography. It was ensured that the illiterate participants i.e. participants in Group-A cannot read and write Kashmiri. However, the participants in Group-B can read and write Kashmiri.

Procedure

All the tasks were given in Kashmiri language (written and oral), primarily because such a research has not been conducted in Kashmiri before and Kashmiri is the mother tongue of all the participants. Kashmiri is classified as Dardic language of Indo-Aryan family with nearly 5.6 million native speakers (Census, 2011). It adopts the Persio-Arabic alphabetic script and is written from right to left in *Nasta'liq* style.

The participants (N=40) were asked to perform a total of four different tasks and it was directed for each task that they shall perform as quickly as possible while being as accurate as possible. In lexical decision task a 4x15 matrix of words (correct and incorrect) was given printed on paper and only the correct words were orally presented to the literate participants over the headphone within a time gap of 10 seconds for each word making it to a total of 600 seconds or 10 minutes task. They were directed to encircle the word they listened over headphone in this time only. After every 10 seconds a new word would be presented to them. The illiterate participants were given the same words in string (correct and incorrect). Over the headphone they would listen to four words in one string (for six seconds) in which only one word was the correct response and they were asked to say the correct response aloud.

A task of Random Automatized Naming task (RAN) containing six consonant letters in Kashmiri alphabet was given to all the participants for six repetitions to have 36 instances of letter recitation. For literate participants the task was given printed on paper and for illiterate the letters were orally administered over a headphone. The literate participants were required to read the letters and the illiterate participants were asked to repeat the letters. The phoneme deletion task was given for initial and final phoneme deletions. The participants were asked to say aloud the correct response after hearing a word over the headphone. In case of initial phoneme deletion (IPD) the participants were directed to respond without the initial sound of the word they hear and in case of final phoneme deletion (FPD) task they were directed to respond with the final sound deleted in the word they hear. A total of sixteen (16) words were given in each of the task.

Data Acquisition and Analysis

The study employed quantitative research approach to collect data from the participants by administering them with four different tasks (Table 2). The instructions were given in English as well as in Kashmiri language and each participant was asked to perform the task as directed through the instructions.

Table 2
Tasks provided to Participants

| S. No. | Name of the Task | Abbreviation |
|--------|------------------------------------|--------------|
| 1 | Lexical Decision Task | LD |
| 2 | Rapid Automatized Naming (letters) | RAN-L |
| 3 | Initial Phoneme Deletion Task | IPD |
| 4 | Final Phoneme Deletion | FPD |

The tasks were provided as audios over headphones for both literate and illiterate participants however, the literate participants were required to respond by encircling the response printed on the paper while as illiterate participants were required to respond verbally. All the participants required to respond as quickly as they could and as accurate as they might. The participants would mount headphones on their skull and listen to the audios. Before the commencement of each task the participants were explained all the procedure in their native language i.e. Kashmiri.

The total time utilized was recorded for each audio or orthographical response and the time was recorded by using digital stopwatch (XIOMI-A1) mobile phone. The responses of the participants were digitally recorded using Sony IC (ICD-UX523F) recorders were all the recordings were saved as 32-bit Linear Pulse Code Modulated (LPCM) bearing Wave format (.wav). The recorded data was processed by the Sound Forge 11.0 software.

The collected data was analyzed using IBM SPSS 20.0 software. General Linear Model (GLM) for Multivariate Analysis was followed and computed for F-Statistic at $\alpha = .5$. Tests Between-Participants Effects were computed for Type III Sum of Squares and Observed power. Pillai's trace and Wilk's lambda were computed and applied to justify the hypothesis test, for Pillai's Trace = .934, $F(5.34) = 96.17$, $p = .00$, partial $\eta^2 = .93$; and for Wilk's $\Lambda = .70$, $F(5.34) = 96.17$, $P = .00$, partial $\eta^2 = .93$.

Results

The scores for Mean and Standard deviation (SD) were calculated for the performance of each task. In these scores, given in Table 3 below for literate and illiterate participant performances each variable is sampled independently. Moreover, the low Standard Deviations against each task suggest that there is not much dispersion of the values from the averages, and the values computed for Mean are slightly higher in case of literate participants than those for illiterate participants.

Table 3

Mean and Standard Deviations of Task Performances (variables/composite scores)

| Measures | N | Literate | | Illiterate | |
|------------------------------------|----|----------|----------------|------------|----------------|
| | | Mean | Std. Deviation | Mean | Std. Deviation |
| Lexical Decision | 20 | 7.171 | .188 | 6.485 | .179 |
| Rapid Automatized Naming (letters) | 20 | .653 | .052 | .491 | .048 |
| Initial Phoneme Deletion | 20 | .699 | .046 | .487 | .057 |
| Final Phoneme Deletion | 20 | .691 | .072 | .533 | .058 |
| Valid N (list-wise) | 20 | | | | |

The participants of this study share certain essential virtues pertaining to their social, cultural and linguistic background. It cannot be ignored that all the participants share a common socio-cultural arena and a common language which necessarily substantiates their linguistic demands and performances. Kashmiri being the native language of all the participants adds to the idea of socioeducational influence on their cognitive linguistic performance. Table 4, given below, reads the composite scores of Mean and Standard Deviations of performances by participants measured for the tasks with respect to their proficiency levels in Kashmiri.

Table 4

Mean and Standard Deviations for Proficiency in Kashmiri and Task Performances (variables/composite scores)

| Task | Proficiency in Kashmiri | Mean | Std. Deviation | N |
|---------------------------------|--|--------------|----------------|-----------|
| Lexical Decision | Speaking and Listening | 7.096 | .303 | 20 |
| | Speaking, Listening and Reading | 6.492 | .189 | 15 |
| | Speaking, Listening, Reading and Writing | 6.521 | .167 | 5 |
| | Total | 6.828 | .391 | 40 |
| Rapid Automated Naming | Speaking and Listening | .639 | .066 | 20 |
| | Speaking, Listening and Reading | .500 | .063 | 15 |
| | Speaking, Listening, Reading and Writing | .469 | .013 | 5 |
| | Total | .572 | .096 | 40 |
| Initial Phoneme Deletion | Speaking and Listening | .477 | .054 | 20 |
| | Speaking, Listening and Reading | .494 | .088 | 15 |
| | Speaking, Listening, Reading and Writing | .679 | .022 | 5 |
| | Total | .593 | .118 | 40 |
| Final Phoneme Deletion | Speaking and Listening | .573 | .073 | 20 |
| | Speaking, Listening and Reading | .537 | .077 | 15 |
| | Speaking, Listening, Reading and Writing | .643 | .082 | 5 |
| | Total | .612 | .102 | 40 |

The number of participants (N) is highest i.e. N=20 for the proficiency category of *Speaking & Listening* because of the fact that (N=20) of the number of illiterate participants who could only speak in and listen to Kashmiri. Among literate participants N=15 were able to speak, listen, and read but are not good at writing. Being not good at writing Kashmiri for the literate participants presumes of not being accurate in writing or having a poor handwriting. However, five participants (N=5) among literate participants could speak, listen, read as well write. Thus Table 4 shows that even illiterate have performed better on tasks such as Lexical Decision and Rapid Automated Naming while they have been little slower on performing Initial and Final Phoneme Deletion tasks. It is because of the lack of phonemic strategies among illiterate participants while as literate participants could use both phonemic and orthographic strategies to perform these two tasks.

A correlation was obtained for whole of the sample (N=40) were the control variable is a categorical independent variable with two categories designated for

literate and illiterate. The values of the control variable (see Table 5) are treated as measures of literacy of the participants. The correlation matrix thus obtained has remarkably significant values computed at $p \leq .01$, and $p \leq .05$.

Table 5
Correlations of Dependent Variables and Literacy

| Control Variable | | Lexical Decision | Rapid Automated Naming | Initial Phoneme Deletion | Final Phoneme Deletion |
|-------------------------|--------------------------|-------------------------|-------------------------------|---------------------------------|-------------------------------|
| Literacy | Lexical Decision | - | | | |
| | Rapid Automated Naming | | - | | |
| | Initial Phoneme Deletion | .121 | .318* | - | |
| | Final Phoneme Deletion | -.089 | .246 | .390* | - |
| | | 535** | | | |

The control variable i.e. literacy, depicts the values of literate and illiterate categories. It can be concluded that with a ‘no significant’ $r = -.089$, the effect of literacy on both the variables is negligible and do not differ. The absence of such a difference under the effect of literacy reveals that the two variables operate in different ways. It will not be wise to assume that both the tests operate in same manner for the cognitive performances of the participants. However, Rapid Automated Naming (RAN) positively correlates with all the variables of Phonological Awareness tasks and none of the correlations are statistically significant.

Nonetheless, another correlation matrix was obtained between the control variable and the test performances. However, the control variable was changed to *Proficiency in Kashmiri* and the values were computed for the responses of the four tasks given to the participants (see Table 6).

Table 6
Correlations of Dependent Variables and Proficiency in Kashmiri

| Control Variable | | Lexical Decision | Rapid Automated Naming | Initial Phoneme Deletion | Final Phoneme Deletion |
|-------------------------|--------------------------|-------------------------|-------------------------------|---------------------------------|-------------------------------|
| Proficiency in Kashmiri | Lexical Decision | - | | | |
| | Rapid Automated Naming | .726** | - | | |
| | Initial Phoneme Deletion | .741** | .829** | - | |
| | Final Phoneme Deletion | .698** | .846** | .869** | - |
| | | | | | |

** $p \leq .01$.

It is observed that the correlation between tasks is positive and statistically significant at $p \leq .01$. The correlation coefficient ($r = .73$) computed between the variables Lexical Decision and Rapid Automated Naming (RAN) is statistically significant at $p \leq .01$. This type of relationship in which both the variables correlate positively show that the effect of the control variable is almost same. Thus, in this case, the effect of Proficiency in Kashmiri is observed affecting the performance of the participants. The correlation tending towards positive direction suggests that there are almost similar cognitive linguistic strategies being applied by the participants for the performance on these tasks. Again, the correlation coefficient ($r = .87$) significant at $p \leq .01$ between IPD and FPD is a positive correlation. The relation between these two variables for Phonological Awareness tasks (i.e. IPD, and FPD) correlate in same direction and thereby, the cognitive linguistic strategies applied by the literate and illiterate participants need to be almost similar.

Discussion

An important assumption of cognitive approach is that the knowledge of language emerges from language use. This is to say that the conceptual structures or categories in phonology (sound) and semantics (meaning) are build up from cognition of specific utterances on specific occasions of use. Nonetheless, communication that is the salient function of language occurs orally, in writing, and by reading. The writing and reading modalities are realized as the script which describes a canonical sequence of events. These events can be understood as a certain 'significantly sequential' occurrence of images, letters or symbols which in turn give rise to different orthographies such as logographic, symbolic or alphabetic systems for writing languages. However, an unwritten language is language without any script and is performed orally by its speech community.

Most of the earlier conducted studies show the results in favor of literacy affecting the acquisition of phonological awareness and phonological processing. Thus, a literate individual is supposed to have learned the skill of reading and writing and therefore, there is always a logical presupposition that the ability of phonological awareness among literates is put to exercise while learning to read and write. On the other hand, an illiterate individual who will/may have never attended a school and never learned the skill of reading or writing is not expected to have phonological awareness as good as that of a literate person.

With a view of measuring the ability of phonological awareness among illiterate, various experiments have been carried out from time to time which, suggest the interference of phonological processing in affecting some cognitive processes. In all the experiments carried out so far, by various researchers, illiterates have been observed performing lower on the given tests than those of literates. However, among literates, the researches support the idea of, a sort of, permanence and consistency in phonological awareness skills.

Nonetheless, it has been observed that because of literacy there exist changes in perceptual and logical reasoning of an individual and the changes in the strategies

adopted to access lexical storage, phonological processing and improved working memory (Kosmidis et al., 2006). Schooling is observed therefore, to influence the formal operational thinking of an individual and influences the cognitive categorization of socio-cultural environment. Nonetheless, it's not only the formal schooling that's observed affecting the cognitive performances of an individual but it is also the socioeducational and socioeconomic levels that affect the cognitive and the linguistic processing of an individual.

Scribner and Cole (1981), however, claimed the association of cognitive skills and literacy is definite but, not necessarily with formal schooling or classroom learning. The cognitive skills are also dictated by culture and situation. Language as a socioeducational tool forms the important part of human cognitive development because, it is the language that lies at the heart of any culture. Proficiency in language, therefore, shall aid the cognitive performance of an individual. Learning of language as part of cultural and social education forms the set of idiosyncrasies of an individual and subjectivity to deal with the situations of reasoning and logic.

Hence, the formal schooling and socioeducational levels of individuals comprise the important reasons of learning a language and its modalities like those of reading and writing etc. In case of illiterate individuals, it is mostly the socioeducational levels that help shape up the information processing system of an individual. While a literate learns the alphabet of a language, an illiterate masters the learning of sounds by channeling acoustic reflex actions. Thus, a literate and an illiterate speaker differ only in specialized skills of reading and writing but possess similar skills of speaking and listening regarding their native language.

Given to the correlation results obtained in Table 5 it is evident that the task performance strategies under the effect of literacy are different for literate and illiterate participants and also there is not any strong correlation among the variables. The significant correlation between Lexical decision (LD) and Rapid Automatized Naming (RAN) under the effect of Literacy demonstrates the use of different strategies by the participants in responding to similar task. The strategies can be linguistic and non-linguistic. Literate participants can supposedly use linguistic strategies, and the illiterate participants will have non-linguistic strategies to respond to the tasks of Lexical Decision (LD) and Rapid Automatized Naming (RAN). Also, there is not a single perfect correlation or strong correlations between the variables which, confirms that the effect of literacy cannot be the predictor of Phonological processing of the informants. Because of the results obtained in Table 5, it is obvious that literacy is not the only major factor affecting phonological processing of an individual. The proficiency in native language is similar an ability for both the types of individuals i.e. literate and illiterate and therefore the performance correlations were obtained for the variables under the effect of *Proficiency in Kashmiri* and is given in Table 6. The correlation matrix provided interesting results and based on these results it is quite evident that proficiency of a native language predicts Phonological processing in illiterate individuals. All the correlations are positive and strong with $r \geq .7$ The strength of the correlations suggest that both the literate and illiterate have performed better which means that the proficiency in their native

language has effect on their performance. Also, the better performance by the illiterate participants under the effect of native language predicts the phonological processing of the illiterate participants.

Conclusion

It was observed in all the earlier studies mentioned that the literacy is a strong predictor of phonological processing or phonological processing strongly predicts reading among the literates but the concrete reasons for the studies in which illiterates perform well on phonological processing tasks have not been described in detail. Therefore, what makes the skill of phonological processing among illiterate to be better enough to enable them to perform all linguistic functions essentially required by them as the consequence of communicative purposes was approached in this study and it was concluded that the proficiency in native language has a role in phonological processing among illiterate individuals. In this study it is the proficiency in Kashmiri language which illustrates its role for phonological processing in illiterate Kashmiri Speakers.

Recommendation

Nonetheless, the current study marks the first attempt to employ a cognitive-linguistic approach in order to study the role of proficiency in phonological processing skills among native Kashmiri illiterate individuals and tried to understand and explain the reason of illiterate individuals performing well on phonological awareness tasks. However, the study will be better performed by using softwares like E-Prime in which the time calculation for the performance of tasks is accurately being assessed to make results more reliable. Also, such studies need to be carried out on mono-, bi-, and multilingual individuals in the same time so that the results can be compared for better deductions

References

- Alves, U. K., & Silveira, R. (2009). *Pronunciation instruction for Brazilians: bringing theory and practice together*. Cambridge Scholars Publishing.
- Ardila, A., Bertolucci, P. H., Braga, L. W., Castro-Caldas, A., Judd, T., Kosmidis, M. H. Matute, E., Nitrini, R., Ostrosky-Solis, F., & Rosselli, M. (2010). Illiteracy: the neuropsychology of cognition without reading. *Archives of clinical neuropsychology*, 25(8), 689-712. <https://doi.org/10.1093/arclin/acq079>
- Baddeley A. (1979) Working Memory and Reading. In: Kolers P.A., Wrolstad M.E., Bouma H. (Eds.) *Processing of Visible Language*. Nato Conference Series, vol 13. Springer, Boston, MA. https://doi.org/10.1007/978-1-4684-0994-9_21
- Baddeley, A. (1982). Reading and working memory. *Bulletin of the British Psychological Society*, 35, 414–417.

- Baddeley, A. (1982). Domains of recollection. *Psychological Review*, 89(6), 708.
- Baron, J., & Strawson, C. (1976). Use of orthographic and word-specific knowledge in reading words aloud. *Journal of Experimental Psychology: Human Perception and Performance*, 2(3), 386–393. <https://doi.org/10.1037/0096-1523.2.3.386>
- Burton, M. W., Small, S. L., & Blumstein, S. E. (2000). The role of segmentation in phonological processing: An fMRI investigation. *Journal of Cognitive Neuroscience*, 12(4), 679–690. <https://doi.org/10.1162/089892900562309>
- Chomsky, N. (1965). *Aspects of the Theory of Syntax*. MIT Press, Cambridge, MA
- Coltheart, M., Besner, D., Jonasson, J. T., & Davelaar, E. (1979). Phonological Encoding in the Lexical Decision Task. *Quarterly Journal of Experimental Psychology*, 31(3), 489–507. <https://doi.org/10.1080/14640747908400741>
- Conrad, R. (1964). Acoustic confusions in immediate memory. *British Journal of Psychology*, 55, 75-84. <https://doi.org/10.1111/j.2044-8295.1964.tb00899.x>
- Crowder, R. G. (1982). The demise of short-term memory. *Acta Psychologica*, 50(3), 291-323. [https://psycnet.apa.org/doi/10.1016/0001-6918\(82\)90044-0](https://psycnet.apa.org/doi/10.1016/0001-6918(82)90044-0)
- Cruse, D. A. (1992). Cognitive linguistics and word meaning: Taylor on linguistic categorization1. *Journal of Linguistics*, 28(1), 165-183. <https://doi.org/10.1017/S0022226700015048>
- Cruse, D. A. (2000). Aspects of the micro-structure of word meanings. In Y. Ravin & C. Leacock, (Eds.). *Polysemy: Theoretical and Computational Approaches*, (pp. 30-51). Oxford: Oxford University Press.
- Durgunoğlu, A. Y., Nagy, W. E., & Hancin-Bhatt, B. J. (1993). Cross-language transfer of phonological awareness. *Journal of Educational Psychology*, 85, 453–465.
- Ehri, L. C., & Wilce, L. S. (1979). The mnemonic value of orthography among beginning readers. *Journal of Educational Psychology*, 71(1), 26–40. <https://doi.org/10.1037/0022-0663.71.1.26>
- Hauser, M. D. (1996) *The Evolution of Communication*. MIT Press, Cambridge, MA
- Justi, C. N. G., Roazzi, A., & Justi, F. R. D. R. (2014). São as tarefas de nomeação seriada rápida medidas do processamento fonológico? *Psicologia: Reflexão e Crítica*, 27, 44-54.
- Kleiman, G. M. (1975). Speech recoding in reading. *Journal of Verbal Learning & Verbal Behavior*, 14(4), 323–339. [https://doi.org/10.1016/S0022-5371\(75\)80013-2](https://doi.org/10.1016/S0022-5371(75)80013-2)
- Koul, O. N., & Wali, K. (2006). *Modern Kashmiri Grammar*. Springfield: Dunwoody Press.
- Lakoff, G. (1987). The death of dead metaphor. *Metaphor and Symbol*, 2(2), 143-147.
- Lopes, A. P. N., & Minervino, C. A. D. S. M. (2015). Phonological awareness in illiterate adults. *Revista CEFAC*, 17(5), 1466-1473.
- Mann, V. A., & Liberman, I. Y. (1984). Phonological Awareness and Verbal Short-Term Memory. *Journal of Learning Disabilities*, 17(10), 592–599. <https://doi.org/10.1177/002221948401701005>
- Mattingly, I. G., Kavanagh, J. F., & Mattingly, I. (1972). Reading, the linguistic process, and linguistic awareness.
- McCusker, L. X., Hillinger, M. L., & Bias, R. G. (1981). Phonological recoding and reading. *Psychological Bulletin*, 89(2), 217–245. <https://doi.org/10.1037/0033-2909.89.2.217>
- Meyer, D. E., Schvaneveldt, R. W., & Ruddy, M. G. (1974). Functions of graphemic and phonemic codes in visual word-recognition. *Memory & Cognition*, 2(2), 309–321. <https://doi.org/10.3758/BF03209002>

- Morais, J., & Kolinsky, R. (2000). Biology and culture in the literate mind. *Brain and Cognition*, 42(1), 47-49.
- Morais, J. & Kolinsky, R. (2002). Literacy effects on language and cognition. *Psychology at the Turn of the Millennium*, 1, 507-530.
- Petersson, K. M., Reis, A., & Ingvar, M. (2001). Cognitive processing in literate and illiterate subjects: A review of some recent behavioral and functional neuroimaging data. *Scandinavian Journal of Psychology*, 42(3), 251-267.
- Reis, A., Faisca, L., Ingvar, M. & Petersson, K. M. (2006). Color makes a difference: Two-dimensional object naming in literate and illiterate subjects. *Brain and Cognition*, 60, 49-54. <https://doi.org/10.1016/j.bandc.2005.09.012>
- Roazzi, A., Justi, C. N. G., Justi, F. R., Henriques, F. G., & Cançado, M. F. L. (2014). Três hipóteses sobre a natureza das tarefas de nomeação seriada rápida [Three hypotheses on the nature of rapid automatized naming tasks]. *Psicologia: Teoria e Pesquisa*, 30(4), 449-457.
- Rosselli, M., Ostrosky-Solis, F., Ardila, A., Lopez-Arango, G., & Uriel-Mendoza, V. (1998). Neuropsychological test performance in illiterate subjects. *Archives of Clinical Neuropsychology*, 13(7), 645-660.
- Stanovich, K. E. (1988). The Right and Wrong Places to Look for the Cognitive Locus of Reading Disability. *Annals of Dyslexia*, 38, 154–177. <http://www.jstor.org/stable/23773663>
- Verplanken B. (2006). Beyond frequency: habit as mental construct. *The British Journal of Social Psychology*, 45(3), 639–656. <https://doi.org/10.1348/014466605X49122>
- Wagner, R. K., & Torgesen, J. K. (1987). The nature of phonological processing and its causal role in the acquisition of reading skills. *Psychological Bulletin*, 101(2), 192-212. <https://doi.org/10.1037/0033-2909.101.2.192>
- Yeung, S. S., & Chan, C. K. K. (2012). Phonological awareness and oral language proficiency in learning to read English among Chinese kindergarten children in Hong Kong. *British Journal of Educational Psychology*, 83, 550-568. <https://doi.org/10.1111/j.2044-8279.2012.02082.x>

Translation and Cross-Cultural Adaptation of Expressed Emotion Measure

Tetiana Pastryk

 <https://orcid.org/0000-0002-6329-9607>

Scopus Author ID: [57215574733](https://orcid.org/0000-0002-6329-9607)

tanyushagp@gmail.com

Volyn Medical Institute, Ukraine

Mykhailo Kots

 <https://orcid.org/0000-0002-5607-0564>

koc.myhajlo@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Received December 1, 2021; Revised January 5, 2022; Accepted March 18, 2022

Abstract. Large gaps of data still exist within the Ukrainian context utilizing Expresses Emotion as a warm, hostile, critical or emotional over-involving behaviour towards individual with a mental or physical condition. The aim of the current article was to suggest translation and cross-cultural adaptation of level of expressed emotion (LEE) as it is perceived by service users. This study applies the LEE which includes four factors: perceived lack of emotional support (pLES: 19 items), perceived intrusiveness (pIN: seven items), perceived irritation (pIR: seven items), and perceived criticism (pC: five items). All items are rated according to frequency and intensity on a four-point Likert scale 1 to 4 (1: untrue; 2: somewhat untrue; 3: somewhat true; 4: true). The total score of the 38 items is entitled perceived expressed emotion (pEE). LEE has strong psychometric properties in adolescents and adults. The translation LEE followed WHO guidelines (2020) and comprises some stages, namely a forward translation from English to Ukrainian, a back translation, expert panel validation, pretesting and cognitive face-to-face interviews with 10 clinical psychologists. The Ukrainian translation version of LEE meets requirements of LEE original version. However, some items were transformed according to semantic, grammatical or stylistic norms of the Ukrainian language. The Ukrainian version of LEE is the first psychometric tool to assess expressed emotion in a Ukrainian healthcare setting.

Keywords: *level of expressed emotion, service users, Ukrainian translation, cultural adaptation*

Пастрик Тетяна, Коць Михайло. Переклад та крос-культурна адаптація опитувальника «Рівень емоційної експресивності».

Анотація. Незважаючи на поширеність терміна емоційної експресивності (ЕЕ), досі не існує надійного психометричного інструменту для діагностики ЕЕ як теплої, або навпаки ворожої, з елементами критики та гіперопіки поведінки стосовно осіб, які мають проблеми з фізичним чи психічним здоров'ям. Метою цієї праці є переклад та культурна адаптація опитувальника «Рівень емоційної експресивності» (РЕЕ), як він сприймається користувачами психологічних чи медичних послуг. Наше дослідження використовує опитувальник РЕЕ, який містить чотири фактори: сприйняття нестачі емоційної підтримки, сприйнята гіперопіка, сприйняте роздратування та сприйнята критика. Усі пункти опитувальника оцінюються за

шкалою від 1 до 4 за мірою інтенсивності чи частотності (1: не згоден, 2: дещо не згоден, 3: частково згоден, 4: повністю згоден). Сумарний показник сприйнятого РЕЕ становить 38 і тлумачиться як рівень сприйнятої ЕЕ. Переклад опитувальника виконувався згідно з рекомендаціями ВООЗ (2020) і містив такі етапи: прямий переклад, зворотний переклад, валідація опитувальника експертами, претестування та когнітивні інтерв'ю з 10 клінічними психологами. Українська версія РЕЕ відповідає повною мірою оригінальній версії опитувальника. Водночас, деякі пункти змінювалися чи вилучалися відповідно до семантичних, граматичних та стилістичних норм української мови. Українська версія опитувальника РЕЕ – перший психометричний інструмент для визначення ЕЕ в українському контексті охорони здоров'я.

***Ключові слова:** рівень емоційної експресивності, користувачі психологічних чи медичних послуг, український переклад, культурна адаптація.*

Introduction

The family environment is fast becoming a key instrument in health psychology. Family relationship is a robust predictor of the quality of life of a person with a mental or physical condition. Recent studies indicate that vulnerability to illness, the process of treatment, adaptation to illness and recovery are determined by several psychological, social and family factors. A growing body of literature recognizes the importance of family relationships on the quality of life of a person with a condition (Cole & Reiss, 1993). The existing body of research on health-related quality of life suggests that the biopsychosocial model proposed by Engel (1979) is the most applicable. This model focuses on clinical and personal aspects of recovery, including full integration of three components: medical (clinical symptoms and physiological pathology), psychological (cognitions, emotions, behavioural patterns, in particular psychological distress, fear, strategies of avoidance and protective behaviour) and social (family relationships, socio-economic factors, place of work) (Engel, 1979). This model considers that psychophysiological reactions, such as chronic pain and other diseases, often cannot be explained by only one physiological factor but require a complex approach.

Expressed emotion (EE) is a construct that represents specific behaviour toward a person with a condition. This behaviour could be expressed in warmth, critical comments, hostilities or emotional over-involvement. Evidence consistently suggests that EE is a key concept in family members' attitudes toward a person with a condition. Brown and Rutter (1966) introduced this concept by examining individuals with schizophrenia with a high risk of relapse. Their study proved that the risk of relapse increases if relatives demonstrate critical comments and emotional over-involvement towards individuals with a condition.

Recent findings indicate that EE is a reliable psychosocial predictor of relapses in mental and physical health (Wearden et al., 2000). Wearden et al. (2000) point out that the concept of EE covers three aspects: the behaviour of relatives, the quality of relationships and the home environment. The conceptualization of EE focuses on assessing family relationships, represented by five types of behaviour: critical remarks, hostility, positive remarks, warmth, and emotional over-involvement. At the current stage, Hooley and Parker (2006) evaluate EE exclusively based on criticism,

hostility, and emotional over-involvement since these types of EE are closely related to chronic diseases of mental and physical etiology.

Evidence consistently suggests that there are poor effects of EE on different physical conditions, namely diabetes, asthma, rheumatoid arthritis, heart surgery, and obesity (Wearden et al., 2000). It is still unknown whether EE effects differ for health-related quality of life in individuals with mental or physical conditions. The research results showed no comprehensive studies of EE in the literature regarding patients with a medical diagnosis compared to persons with mental illnesses (Zasiekina, 2018). Recent studies indicate that individuals with type 1 diabetes have 17% relatives with extremely high EE, compared with 41.4% high EE for individuals with schizophrenia and 28% high EE for individuals with dementia (Wearden et al., 2020). There is also no solid data confirming an association between EE and rheumatoid arthritis, heart surgery, and obesity. However, the recent results indicate an association between the critical comments and the frequency of asthmatic and epileptic attacks (Bressi et al., 2007).

Studies of EE show the importance of family environment and characteristics of relatives. However, recent studies consider EE as a measure of the service-users-relatives relationship. In addition, there are studies introducing EE as a tool for assessing other environments of an individual with a condition, namely healthcare staff (Tanaka et al., 2015). The results of recent studies indicate that there is reciprocal negativity within the relationship. Namely, there is an association between high levels of EE in relatives, healthcare staff and service users (Cook et al., 1991). Foster et al. (2003) developed the perceived EE in staff. They considered it a convenient measure that may have utility for both research and clinical purposes.

Much uncertainty still exists about the tools with solid psychometric properties for assessing EE. However, the Camberwell Family Interview (CFI), which was first applied to examine the family environment of individuals with schizophrenia, and the Five-Minute Speech Sample (FMSS) are considered reliable tools for determining EE.

CFI is usually conducted three months before a person is admitted to the hospital and a few days after admission. The survey is a three-hour semi-structured interview with relatives of an individual with a condition and requires special training to conduct, code and interpret the data. Therefore, instead of the CFI, many studies apply the express FMSS analysis method, which is more convenient to use. In a five-minute interview, relatives are asked to talk continuously for 5 minutes about a family member with a condition. The idea of using FMSS was proposed by Gottschalk and Gleser (1979). According to them, speech discloses intra-personal qualities and relatives' responses to the individual with a condition, which are frequently hidden during structural or semi-structural interviews. Relatives' speech is not interrupted but is recorded, transcribed, coded and later analyzed. Coding corresponds to the following subscales: anxiety (description of events or threats of death, shame, guilt, separation); hostility (description of hostile-aggressive behaviour); hope (expression of optimism about the health-related quality of life). Hooley and Parker (2006) point out that although the measure takes less time to

administer compared with CFI, it also requires the relative's participation, and trained coders must still be used.

The alternative tool is the Level of expressed emotion questionnaire (LEE) (Cole & Kazarian, 1988). LEE comprises 60 items, which assess the family environment of the individual with a condition. The LEE assesses the family environment according to the four subscales Intrusiveness, Emotional Response, Attitude Toward Illness, and Tolerance and Expectations. Hooley and Parker (2006) point out that a thorough evaluation of the LEE scale is complicated because not all investigators use the LEE in its standard (60-item) form. Recently 60-item questionnaire has transformed into a 38-item questionnaire (Hale et al., 2007). The main advantage is that it is more easily administered and could be applied to adolescents and adults.

38-item LEE consists of four factors: perceived lack of emotional support (pLES: 19 items), perceived intrusiveness (pIN: seven items), perceived irritation (pIR: seven items), and perceived criticism (pC: five items). Each item is scored on a scale from 1 to 4 (1: untrue; 2: somewhat untrue; 3: somewhat true; 4: true). The total score of the 38 items is perceived expressed emotion (pEE) (Gerlsma & Hale, 1997). LEE had solid psychometric properties. Cronbach's alphas for the individual scales were: pLES = 0.88 (in subsamples ranging from 0.87 to 0.89), pIN = 0.83 (range 0.78–0.85), pIR = 0.82 (range 0.81–0.83) and pC = 0.73 (range 0.70–0.77). Cronbach's alpha for the total score, pEE, was 0.93 (Gerlsma & Hale, 1997).

Only a limited number of EE have been identified in the Ukrainian context. In addition, there is no psychometric tool for assessing EE in the Ukrainian population. Therefore, the current study aims to translate and make a cultural adaptation of the LEE to the Ukrainian context.

Method

Following WHO recommendations for the translation of psychometric tools (2000), we used a four-step procedure, including direct translation (3 translators who are familiar with health psychology terminology); a group of experts for back-translation (2 people) and expert panel scrutiny; pretesting and cognitive interview; the final version.

In the first stage, we compared three versions of the translated text. We reached a consensus on the final text of the questionnaire translation. The choice of words and grammatical structures in each case was discussed. This stage aims to find the conceptual equivalent of a word or phrase instead of word-for-word translation. All translators were instructed to translate the original term in the most appropriate way considering its content.

Next, two translators (for one of them, English is the mother tongue, and Ukrainian is the second language, and for the other, vice versa) did back translation. The translators worked independently and were unaware of the original version of the questionnaire. The back-translation at this stage aims to focus on conceptual and cultural equivalence instead of linguistic equivalence. In the cases of discrepancies,

an expert panel, including forwarding and back translators, searched for a satisfactory version of the translated text.

We returned to the Ukrainian version when different lexical units conveyed the same meaning. We tried to find more accurate lexical equivalents of the proposed meaning. Researchers in the General and Clinical Psychology Department at Lesya Ukrainka Volyn National University, Ukraine, (n=5) discussed each item for content validation of the back-translated version. Every item was discussed concerning sentence structure, comprehensibility, definition clarity, relevance and sensitivity. Therefore, clarity of statement/wording, relevance (matching the context), emotionality (ability to cause certain emotions), and suggestions for alternative wording were the main steps in validating LEE.

At the stage of the pretesting and cognitive interview, we determined the content validity of the questionnaire and the overall satisfaction with each item of the questionnaire. For this purpose, we gathered a group of clinical psychologists (n=10) in the Department of General and Clinical Psychology at Lesya Ukrainka Volyn National University who have not less than five years' experience of work with adolescents and adults with the mental or physical condition. Pre-test respondents in the current research included individuals' representative of those who will be administered the questionnaire in future. Considering the specific behaviours of significant others towards adolescents and adults with a physical or mental condition, pre-test respondents included clinical psychologists with the experience of work at schools and hospitals.

After obtaining consent from participants, the conversation was recorded and later transcribed. The group of experts received the questionnaire in advance, read all the statements, recorded their concerns regarding each item, and, if necessary, suggested alternative lexical items. The same criteria as the previous stage were used to evaluate the statements. This stage resulted in obtaining the final version of the Ukrainian version of LEE. The relevance of the context involves the correspondence of the self-reporting statements of significant others' attitudes and behaviours. The comprehensibility of the statement / the clarity indicates the correct wording. If it was necessary to repeat the statement or clarify what was meant, such a statement was reviewed again.

Results

Evidence consistently suggests that the LEE questionnaire met most requirements for relevance and comprehension. However, the interviewees reflected on statements according to their professional experience and suggested the variants for cultural adaptation.

Relevance of LEE Questionnaire

Table 1 indicates statements which form the examples of cultural adaptation.

Table 1

Examples of statements which form the basis of the cultural adaption according to relevance

| Item# | English original | Ukrainian version |
|-------|---|---|
| 3 | Are considerate when I'm ill | Дбають про мене, коли я хворію |
| 4 | Can see my point of you | Поділяють мою точку зору |
| 6 | Are understanding if I make a mistake | З розумінням ставляться до моїх помилок |
| 8 | Understand my limitations | З розумінням ставляться до моїх обмежень через хворобу |
| 13 | Accuse me of exaggerating when I say I'm unwell | Звинувачують мене в перебільшенні, коли я кажу, що почуваюся погано |
| 16 | Are willing to gain more information to understand my condition, when I'm not feeling well. | Хочуть більше дізнатися, щоб зрозуміти мій стан, коли я почуваюся погано. |
| 25 | Can't think straight when things go wrong | Не можуть мислити чітко, коли щось пішло не так |

The clinical psychologist working with anxiety disorders in adolescents and adults suggested making changes to item # 3:

I think it would be better to change the grammatical construction "when I am ill" in Ukrainian from "коли я хворий" на "коли я хворію". It helps to avoid complications with grammatical constructions denoting gender in the Ukrainian language.

The clinical psychologist working with adolescents with ADHD considers some wordings in item # 3 inappropriate

In my opinion, the word "уважний" does not fit the context since it means cognitive process. It is often associated with disorders aligned with attention deficit. Therefore, the most appropriate word in the Ukrainian context is "дбайливий".

The clinical psychologist working with mental disorders in adolescents suggested making changes to item # 4

The item implies not just seeing or even understanding or comprehension; it is about compassion and empathy for significant others when the individual has a physical or mental condition. Therefore, considering the lexical norms of the Ukrainian language, we suggested the correct version is "поділяти точку зору".

The clinical psychologist with experience at the hospital suggests some changes to item 6 since it looks too complicated for an individual with a mental condition.

Individuals with mental conditions frequently do not comprehend complex sentences. Therefore, it is better to use the noun “помилки” instead of the subordinate clause. My experience indicates that the best comprehension relates to the most straightforward language forms and constructions.

The clinical psychologist with experience at the hospital with adolescents suggests some changes to item 8, pointing out the relevance of the LLE questionnaire to health-related quality of life.

It is unclear what limitations are meant. Considering the context of specific attitudes and behaviours towards a person with a physical or mental condition, we should clarify the type of limitations. Therefore, it's better to use disease limitations.

The clinical psychologist with experience of work with adolescents with a mental condition at school suggests an alternative wording to item # 13

I think it is better to change “почуватися хворим” to “почуватися погано”. It is connected with stigma, especially in adolescents, and it is a barrier for them to recognize that they are unhealthy. The phrase “почуватися погано” is more neutral.

The clinical psychologist with experience of work with adolescents was concerned about # 16, pointing out its low relevance to the context.

The word combination “вимагати інформацію” seems not to be relevant to the context of health issues in the relations between relatives and family service users. Especially it sounds too complicated for adolescents. So, I think this item means knowing more about conditions to be supportive and helpful to their family member.

The clinical psychologist with previous experience at the hospital suggested making changes to item # 25.

The item is about thinking straight, but not logically. It is not about abstract or logical thinking; it is about understanding the family member's condition. Therefore, it is more appropriate to use “думати чітко” instead of “мислити логічно”.

In the translation and cultural adaptation of the LEE questionnaire, we tried to convey the wording and content of the original text as accurately as possible. In addition, some questionnaire items were clarified, shortened or supplemented based on the results of discussions at all stages, considering the context of Ukraine and the functioning of individuals with mental or physical conditions.

Comprehensibility/Clarity

The comprehensibility of the statement / the clarity indicates the correct wording. During the cognitive interview, some statements need clarification. In this case, these statements were reviewed again.

7 “*Make me feel relaxed when they are around*” being initially translated into “*Дують мені розслабитися, коли вони поруч*”. Following the guideline WHO that translator should always aim at the conceptual equivalent of a word or phrase, not a word-for-word translation, we transform the final version of translation into “*їх присутність мене стишує*”.

15 “*Will not help me when I'm upset*” was initially translated into “*Не допомагають мені, коли я засмучений*”. After the cognitive interview and pretesting, the respondents pointed out that it is impossible to help when the person is upset and suggested the word combination “*Байжужі до мене, коли я засмучений*”.

19 “*Expect the same level of effort from me, even if I don't feel well*” after the back translation was “*очікують від мене такого ж рівня зусиль*” which worsens the clarity of the item. After pretesting and cognitive interview, some translational changes were suggested from “*такого ж рівня зусиль*” to “*очікують від мене високої активності*”.

27 “*Are always nosing into my business*” was considered according to the WHO guideline to avoid the use of any jargon, technical terms that cannot be understood clearly; and colloquialism, idioms or vernacular terms that cannot be understood by common people in everyday life (WHO, 2020). However, considering the original text and target audience, the final translated version was “*Завжди пхають ніс у мої справи*”.

Discussion

The article aimed to translate and make a cultural adaption of the LEE to the Ukrainian context. In contrast to other EE questionnaires, the LEE questionnaire assesses perceived EE. It possesses a four-factor structure for adolescents and adults. Additionally, evidence consistently suggests that the four-factor LEE model fits both younger and older adolescents and boy and girl adolescents. Therefore, the LEE is a valuable tool for assessing EE and has solid psychometric properties. As Epstein et al. (2019) point out, any techniques for cultural adaptation will be helpful if they contribute to conveying the exact content of statements. Therefore, the study applied the step-by-step instructions for translation and cultural adaptation of psychodiagnostic tools proposed by WHO. Given the solid psychometric properties of the original LEE questionnaire, we tried to follow the content of the statements as closely as possible. At the same time, because the target population could be adolescents and adults with physical or mental conditions, some wordings of the questionnaire were transformed to meet the requirements of relevance and comprehensibility/clarity. The study results indicate that the Ukrainian version of LEE may be an essential psychometric tool for assessing EE in adolescents and adults.

Conclusions

The findings of this research provide insights for the importance of step-by-step process to obtain different language versions of the English instrument that are

conceptually equivalent in each of the target countries/cultures. This study has raised important questions about, firstly, the complexity of the process of translation and cultural adaptation of psychological tools, and secondly, the lack of psychometric measures for assessing EE in the Ukrainian population. Limited to translation and cultural adaptation, this study lacks the demonstration of the psychometric properties of the Ukrainian version of LEE. Revealing the psychometric properties of the LEE would be a fruitful area for further work. In addition, the LEE could be a tool for assessing other environments of the individual with a condition, namely healthcare staff (Tanaka et al., 2015). In the case of adolescents and young adults with a condition, the LEE could also indicate reciprocal negativity within the relationship between adolescents with a condition and teachers. Applying the LEE in a new environmental context may have important practical implications for research and clinical purposes.

References

- Bressi, C., Cornaggia, C. M., Beghi, M., Porcellana, M., Iandoli, I. I., & Invernizzi, G. (2007). Epilepsy and family expressed emotion: Results of a prospective study. *Seizure*, 16(5), 417-423. <https://doi.org/10.1016/j.seizure.2007.02.015>
- Brown, G. W., & Rutter, M. (1966). The measurement of family activities and relationships: A methodological study. *Human Relations*, 19(3), 241-263. <https://doi.org/10.1177%2F001872676601900301>
- Cook, W. L., Kenny, D. A., & Goldstein, M. J. (1991). Parental affective style risk and the family system: A social relations model analysis. *Journal of Abnormal Psychology*, 100, 492-501. <https://psycnet.apa.org/doi/10.1037/0021-843X.100.4.492>
- Cole, R. E., & Reiss, D. (1993). *How do families cope with chronic illness?* London: Hillsdale.
- Engel, G. L. (1979). The biopsychosocial model and the education of health professionals. *General hospital psychiatry*, 1(2), 156-165. [https://doi.org/10.1016/0163-8343\(79\)90062-8](https://doi.org/10.1016/0163-8343(79)90062-8)
- Epstein, E. G., Whitehead, P. B., Prompahakul, C., Thacker, L. R., Hamric A. B. (2019). Enhancing Understanding of Moral Distress: The Measure of Moral Distress for Health Care Professionals. *J AJOB Empir Bioethics*, 10(2), 113-24. <https://doi.org/10.1080/23294515.2019.1586008>
- Forster, J., Finlayson, S., Bentall, R., Day, J., Randall, F., Wood, P., ... & HEALY, D. (2003). The perceived expressed emotion in staff scale. *Journal of Psychiatric and Mental Health Nursing*, 10(1), 109-117. <https://doi.org/10.1046/j.1365-2850.2003.00529.x>
- Gerlsma, C., & Hale, W. W. (1997). Predictive power and construct validity of the Level of Expressed Emotion (LEE) scale: Depressed out-patients and couples from the general community. *The British Journal of Psychiatry*, 170(6), 520-525. <https://psycnet.apa.org/doi/10.1192/bjp.170.6.520>
- Gottschalk, L. A., & Gleser, G. C. (1979). *The measurement of psychological states through the content analysis of verbal behavior.* Univ of California Press.
- Hale, W. W., Raaijmakers, Q. A., Gerlsma, C., & Meeus, W. (2007). Does the level of expressed emotion (LEE) questionnaire have the same factor structure for adolescents as it has for adults? *Social Psychiatry and Psychiatric Epidemiology*, 42(3), 215-220. <https://doi.org/10.1007/s00127-006-0145-0>

- Hooley, J. M., & Parker, H. A. (2006). Measuring expressed emotion: an evaluation of the shortcuts. *Journal of Family Psychology*, 20(3), 386. <https://doi.org/10.1037/0893-3200.20.3.386>
- Leff, J. P., & Vaughn, C. E. (1985). *Expressed emotion in families*. New York: Guilford Press.
- Tanaka, K., Iso, N., Sagari, A., Tokunaga, A., Iwanaga, R., Honda, S., ... & Tanaka, G. (2015). Burnout of long-term care facility employees: relationship with Employees' expressed emotion toward patients. *International Journal of Gerontology*, 9(3), 161-165. <https://doi.org/10.1016/j.ijge.2015.04.001>
- Wearden, A. J., Tarrrier, N., Barrowclough, C., Zastowny, T. R., & Rahill, A. A. (2000). A review of expressed emotion research in health care. *Clinical Psychology Review*, 20(5), 633-666. [https://doi.org/10.1016/s0272-7358\(99\)00008-2](https://doi.org/10.1016/s0272-7358(99)00008-2)
- Wearden, A. J., Tarrrier, N., & Davies, R. (2000). Partners' expressed emotion and the control and management of Type 1 diabetes in adults. *Journal of Psychosomatic Research*, 49(2), 125-130. [https://doi.org/10.1016/S0022-3999\(00\)00141-0](https://doi.org/10.1016/S0022-3999(00)00141-0)
- World Health Organization. Process of translation and adaptation of instruments. (2020). Retrieved from https://www.who.int/substance_abuse/research_tools/translation/-en/
- Zasiekina, L. (2018). Expressed Emotion towards individuals with mental and physical health conditions: A structured literature review. *East European Journal of Psycholinguistics*, 5(2), 108–117. <https://doi.org/10.29038/eejpl.2018.5.2.zas>

Appendix


Оцініть кожне із наведених тверджень, яке стосується Ваших рідних (медичного персоналу чи вчителів), за шкалою 1-4, де 1 – не згоден, 2 дещо не згоден, 3 дещо згоден, 4 – повністю згоден

1. Намагаються заспокоїти мене, коли я почуваюся погано.
2. Співчують мені, коли я хворію або засмучений.
3. Дбають про мене, коли я хворію.
4. Поділяють мою точку зору.
5. Часто звинувачують мене в тому, що я вигадую, коли почуваюсь погано.
6. Ставляться з розумінням до моїх помилок.
7. Їхня присутність мене стишує.
8. З розумінням ставляться до моїх обмежень через хворобу.
9. Стараються полегшити мій стан, коли я хворію.
10. Вислуховують мене.
11. Терпляче ставляться до мене, навіть коли я не відповідаю їхнім очікуванням.
12. Дають відчути, що мене цінують як особистість.
13. Звинувачують мене в перебільшенні, коли я кажу, що я нездоровий.
14. Заспокоюють мене, коли я засмучений.
15. Байдужі до мене, коли я засмучений.
16. Хочуть більше дізнатися, щоб зрозуміти мій стан, коли я почуваюся погано.
17. Реагують спокійно на мене, навіть якщо все йде не так як слід.
18. Не знають, як впоратися з моїми емоціями, коли мені погано.
19. Очікують від мене високої активності, навіть якщо я почуваюся погано.
20. Сердяться, коли я щось роблю не так.
21. Дратуються, коли все йде не так.
22. Ще більше ускладнюють ситуацію, коли все йде погано.
23. Засмучуються, коли я не узгоджую усе з ними.
24. Можуть впоратися зі стресом.

25. Не можуть мислити чітко, коли щось пішло не так.
26. Вміють усе тримати під контролем у стресових ситуаціях.
27. Завжди пхають ніс у мої справи.
28. Хочуть знати усе про мене.
29. Завжди втручаються.
30. Порушують мою приватність.
31. Увесь час перевіряють, чим я займаюсь.
32. Наполягають на тому, щоб я звітував, куди я збираюся.
33. Не контролюють моє життя.
34. Висловлюють критичні зауваження у мій бік.
35. Дратуються, якщо я у них щось прошу.
36. Показують, що люблять мене.
37. Намагаються мене змінити.
38. Зазвичай погоджуються зі мною.

A Socio-Pragmatic Study of Gender Differences in the Use of “Walak’ (Woe) and Its Variants in Spoken Jordanian Arabic

Ghaleb Rabab'ah

 <https://orcid.org/0000-0003-1804-5859>

Scopus Author ID: 55207292200

grababah@sharjah.ac.ae

University of Sharjah, UAE

Noor Al-Yasin

 <https://orcid.org/0000-0002-7952-045X>

Scopus Author ID: 57201064639

noor_ysn92@hotmail.com

The University of Petra, Jordan

Sane Yagi

 <https://orcid.org/0000-0002-0594-3230>

Scopus Author ID: 24529198100

syagi@sharjah.ac.ae

University of Sharjah, UAE

Received May 7, 2022; Revised June 13, 2022; Accepted June 22, 2022

Abstract. Using a mixed-method approach, this study examines the pragmatic functions of the discourse marker *walak* and its variants in Spoken Jordanian Arabic. It also explores the differences in the use of this discourse marker according to the speakers' gender. The data was collected from a sample of 200 native speakers of Jordanian Arabic, using informal interviews and a validation questionnaire. The results showed that *walak* and its variants perform six language functions: warning, insulting, addressing/vocative, endearment, threatening, and denial. As far as gender differences are concerned, the findings indicated that there were statistically significant differences between males and females in the use of *walak* and its variants in favour of males. This indicates that males agreed more with the sentences expressing each pragmatic function in the validation questionnaire. The study concludes with some pedagogical implications for learners of Arabic as a second language, teachers and syllabus designers.

Keywords: *discourse markers, pragmatics, Spoken Jordanian Arabic, warning, insulting, vocative.*

Рабаб'аг Галеб, Аль-Ясін Ноор, Ягі Сане. Соціо-прагматичне дослідження гендерних відмінностей у вживанні “Walak” (лихо) та його варіантів у розмовній йорданській арабській мові.

Анотація. Це дослідження покликане дослідити на основі змішаної методики прагматичні функції дискурсивного маркера *walak* (*лихо*) та його варіантів у розмовній йорданській арабській мові. Також досліджено відмінності у використанні цього дискурсивного маркера відповідно до гендеру мовців. Дані зібрано від 200 носіїв йорданського варіанта арабської мови за допомогою неофіційних інтерв'ю та анкети. Результати засвідчили, що *walak* та його варіанти виконують шість мовних функцій: попередження, образа, звертання/спонукання, прихильність, погроза та заперечення. Щодо гендерних відмінностей, результати показали існування статистично значущих відмінностей між чоловіками та жінками в уживанні *walak* та його варіантів на користь чоловіків. Це вказує на те, що чоловіки більше погоджувалися з висловленнями, які виражають кожную з цих прагматичну функцію в анкеті. Дослідження завершують деякі педагогічні настанови для тих, хто вивчає арабську як другу мову, а також для вчителів і розробників навчальних програм.

Ключові слова: дискурсивні маркери, прагматика, розмовна йорданська арабська, попередження, образа, спонукання.

Introduction

Socio-pragmatic research focuses on the speakers' perceptions of cultural norms that impact speech acts, politeness, implicature, to mention but a few (Haugh, Kádár, & Terkouraf, 2021). It studies how such social variables as gender, age and power determine language use. One of the social variables that has received great attention in literature is gender. Lakoff's (1975; 2004) characterization of women's language and Tannen's (1990) dichotomy of gendered language have been the predominant frameworks adopted in gendered language research. Lakoff (2004, p. 78-81) characterizes women's stereotypical language in seven main features. First, women have a stock of words related to their own interests, such as sewing terms which men rarely use. Second, they use empty adjectives like cute, divine and gorgeous. Third, they use tag questions when a declarative is expected (e.g. it's hot, isn't it?). Fourth, since society constrains their assertion, women use hedges more than men do (e.g. I think, I guess, probably). Fifth, intensive 'so' is also one of their linguistic features which is less assertive than 'very'. Sixth, they use hypercorrect grammar and their language is more polite than men's. This includes exclusivity of jokes to men. Finally, they speak statements with rising intonation.

Tannen's (1990) dichotomy of gendered language, on the other hand, contains six main comparisons (p. 24-28).

1. Status vs. support: men emphasize more power in their language, whereas women express more mutual support.
2. Independence vs. intimacy: men's language shows more independence, while women's language reflects closeness.
3. Advice vs. understanding: in a situation where there is a problem, men tend to propose a solution, whereas women tend to be more empathetic and understanding.
4. Information vs. feelings: men's language is more factual, while women's language is more emotional.

5. Orders vs. proposals: men’s language is more imperative while women’s language is not. Women give implicit proposals (e.g. ‘it’s hot in here’ to suggest opening the window).

6. Conflict vs. compromise: men tend to argue, whereas women avoid conflict and compromise by finding common ground.

Another approach to studying conversational styles based on gender was introduced by Coates (2004). She asserts that gendered language features are used for different conversational purposes. First, men use minimal responses, such as ‘yeah’, ‘mhm’, and ‘right’, as backchannel to emphasize their dominance. In contrast, women use these responses to indicate support to the interlocutor. Second, men use more profane language (e.g. fuck, damn, shit, bloody), which asserts power and masculinity. Third, men use more commands and directives (i.e. imperative language) and they only use interrogative sentences to receive information. However, women tend to use questions (e.g. tag questions) to express uncertainty. Finally, men’s compliments are more associated with skills and performance while women’s compliments are more associated with appearance.

We aim here to examine the impact of the social variable, gender, in the Jordanian community on the use of the Jordanian-Arabic discourse marker *walak* (Woe) and its variants. Let us first define a discourse marker. Despite the uncertainty about their functions, discourse markers can be generally defined as words or phrases that contribute to the flow of meaning and structure of discourse (Blakemore, 1987; Andersen, 2001). Fraser (1990) argued that, although most scholars have concurred that discourse markers join discourse elements together, they are still undecided on their definitions and functions. For instance, Lenk (1998, p. 246) defined them as “expressions in spoken discourse that are used pragmatically, with a structuring and organizational function”. However, Fraser (1990) defined them as “a class of expressions, each of which signals how the speaker intends the basic message that follows to relate to the prior discourse” (p. 387).

Discourse markers are optional; a sentence would still be meaningful and grammatical without them (Schiffrin, 1987; Brinton, 1996; Abuseileek & Rabab’ah, 2013; Rabab’ah et al., 2016; Alghazo et al., 2021; Rabab’ah et al., 2022). Nevertheless, Fraser (1990, p. 30) affirmed that the absence of discourse markers may result in a “communicative breakdown.” Heine, Kaltenböck, Kuteva and Long (2021, p. 5) stated that “there is both massive evidence and wide agreement to the effect that DMs are as a rule historically derived from sentence grammar units”. Lexically, discourse markers come from lexical words and phrases, such as verbs, prepositions and modal words (Wang, 2011). Syntactically, they are often not attached to the beginning of a sentence (Fraser, 1990; Östman, 1995). They are not part of the syntactic structure of a sentence; hence, they do not have a clear grammatical function (Fraser, 1990; Östman, 1995). Ranger (2019) provided keys to understanding the value and the functions of English discourse markers since they can be a precious resource for language learners and scholars.

As far as the Arabic language is concerned, Kanakri and Al-Harabsheh (2013) assert that spoken Arabic discourse markers should be studied thoroughly since they

help non-native speakers of Arabic better understand the Arab culture. *Walak*, which is the main concern of the present research, is a colloquial word used in Spoken Jordanian Arabic (SJA); it has several morphosyntactic variants: *walak*, *walah*, *walik*, *walih*, *walkum*, *walku*, *walkin*, which may imply positive and negative meanings.

Prompted by a reviewer's comment, we conducted a swift etymological investigation of 'walak'. At first, we looked it up in a large range of dictionaries, then checked it out in the ArabicDiwan Corpus of Dialects, and we traced it in our own historical corpus (HAC) (Hammo et al., 2016). We concluded that it is not likely for 'walak' to have developed from 'ya walad' for the following reasons: (1) There are multiple forms of 'ya walad' in current use. There are 'ya walad', 'ya wleid', 'ya wild', 'ya wleidi', 'ya wleidi', etc. Had the vocative been so vulnerable, it would have been deleted in all of these forms, but it has not. (2) Had the third radical consonant in 'walad' been so vulnerable, it would have been elided too. (3) We found instances of 'walak' and 'walik' in seven spoken varieties of Arabic: Iraqi, Kuwaiti, Lebanese, Syrian, Jordanian, Palestinian, and Ta'iz Yamani dialects (Alshargi, 2022). It is not very likely that all seven dialects simultaneously deleted the k radical. From past experience, we observe frequent divergence in their phonological development. (4) The third consonant, k, appears to be so essential that it has been retained in the longer forms of this word, in 'ya wildizzina' *bastard* and 'ya wildilharam' *born out of wedlock*. (5) There is no phonological process that we are aware of, which would change an alveolar plosive to a velar plosive without being caused by assimilation. Where is the assimilation that would convert 'walad' into 'walak'?

Most likely, 'walak' developed from 'wai-k' or 'wail lak'. What led us to this conclusion is the following: (1) 'Walak' functions as an interjection exactly like 'wai', 'waik', and 'wai li' which according to Murtaḍā al-Zabīdī (1994) are used for exclamation and 'wai' is an abbreviation of 'wail', "It is said, 'waik astami' qawli' *Woe! Listen to me!* It is also claimed to mean 'wailak' *woe unto you!*". (2) There are counterparts of this interjection that have the same pragmatic function, behave in a similar fashion, and have multiple spoken forms: 'waiH', 'wais', 'waih', 'wail', and 'waib'. (3) All these interjections are used to communicate the same meaning (cf. Ibn Fāris al-Qazwīnī, 1985).

We may account for the alteration that produced 'walak' from 'wai lak' and 'wail lak' as follows: (1) Probably, the original form was 'wail lak', then it got shortened by dropping the prepositional phrase lak, ending with 'wail'. Then at a later stage, the lateral approximant got elided for the benefit of economy of effort and time, resulting in 'wai'. (2) The same motivation could have resulted in a different line of development where the the diphthong ai got reduced to the monothong a, producing 'walak'. (3) After hundreds of years of use in the spoken language varieties, 'walak' got conjugated to suit the addressee's gender and number: 'walak' *woe to you (masculine singular)*; 'walik' *woe to you (feminine singular)*; 'walko' and 'walkom' *woe to you (masculine plural)*; 'walkin' *woe to you (feminine plural)*. So, the k here is a segment of the second person pronouns. (4) In the final stage of development, the k got dropped because it is in word final position and the context of conversation requires no need for identifying the person or gender or number of the

addressee since they are right before the speaker; hence, the form ‘wala’ for ‘walak’ and ‘wali’ for ‘walik’.

Jordanian speakers use inflections to mark the gender of the addressee. The following are the different variants of the discourse marker *walak*:

| Discourse marker | Meaning |
|--|----------------|
| <i>Walak / Wala</i> (2 nd person singular, Masculine) | He boy |
| <i>Walik/ Wali</i> (2 nd person singular, Feminine) | Hey girl |
| <i>Walkum /Walku</i> (2 nd person plural, Masculine) | Hey all |
| <i>Walkin</i> (2 nd person plural, Feminine) | Hey all |

Exciting as the etymology of the various forms of *walak* might be, the present study is not going to study the morphosyntax of this term but rather its role as a discourse marker and the pragmatic functions it serves in everyday conversation. More specifically, the study aims to answer two questions:

1. What are the pragmatic functions of the discourse marker *walak* and its variants in SJA?
2. Are there any statistically significant differences in the use of this discourse marker according to gender?

Literature Review

Language and Gender

For decades, scholars have been studying the difference between men’s and women’s language. Based on their gender roles in society, research has studied how their language is affected. Some studies reached similar conclusions that women’s language is more emotional and sensitive (McMillan et al., 1977; Haas, 1979). In a study that investigated male and female unscripted TV interviews, Brownlow, Rosamond and Parker (2003) lend support to previous literature by showing that women’s language is simpler and more emotional, whereas men’s language is more complex. Nonetheless, some other studies did not find major divergence in men’s and women’s language in e-mail messages and phone voice messages with regards to politeness and accommodating the other gender by using same-gender preferential style (e.g., Thomson et al., 2001; Hobbs, 2003). Yet, Sheridan (2007) examined gendered language in workplace meetings and found out that males generally interrupt others more, while females use more hedges showing more hesitance compared to males. This implies that women’s language is more tentative and polite (Bi, 2010; Robnett & Leaper, 2011).

These findings were also evident in a study applied to Emirati male and female co-workers. Ahmad’s study (2014) revealed that men interrupt others more and they focus on convincing the listener, whereas women use more emotional and supportive language. In addition, Banikalef (2019), who studied gender differences of speech acts in a Jordanian-Arabic context on Facebook, found out that male Jordanian Facebook users are more assertive. In contrast, female Jordanian Facebook users are more expressive and emotional. The study implied that male Jordanians boost their

male dominance in the Jordanian community by being assertive while female Jordanians tend to focus on their social relations (p. 410). A more recent study by Almegren (2022) investigated gender differences between Saudi males and females in the speech act of persuasion. After carrying out a Discourse Completion Task (DCT), the findings indicated that male Saudis used more direct persuasion strategies (e.g. mood derivable, performatives, hedge performatives, obligation statements, and want statements) than female Saudis. It was also found that the direct strategies are mostly applied by males.

Discourse Markers in English and Other Languages

Empirical research has paid great attention to discourse markers. Scholars were more concerned with their pragmatic functions. One of the prominent studies of discourse markers was presented by Schiffrin (1987). After studying the English discourse markers: 'oh', 'well' (particles), 'and', 'but', 'or', 'so', 'because' (conjunctions), 'now', 'then' (time deictic), 'you know', and 'I mean' (lexicalized clauses), Schiffrin concluded that discourse markers serve an integrative function that contributes to discourse coherence by connecting what is being said to what has already been said. Montolí Durán and Unamuno (2001) studied the discourse marker *a ver* (Catalan, *a veure* 'to see'). They suggested that such discourse markers may function differently in certain social interactions such as teacher-student interaction, doctor's office and therapy sessions.

Tchizmarova (2005) studied the function of the Bulgarian discourse marker *xajde* 'come on/let's/why don't we' as a hedging device. She concluded that *xajde* is used for requests, suggestions, warnings, in addition to showing agreement and surprise. Chodorowska-Pilch (2008) studied the Peninsular Spanish discourse marker *verás* 'you'll see' to examine its function in invoking positive and negative politeness since it reflects attitude towards interlocutors. Pishghadam and Kermanshahi (2012) studied the pragmatic functions of *insha'Allah* 'God's willing' in a Persian context. The results of the study showed that some of this discourse marker's functions are to empower the speaker, to wish and to reflect religious identity. Pishghadam and Kermanshahi also argued that these functions may differ in an Arab context since the difference in language may play a role.

Discourse Markers in Arabic

Discourse markers in the Arabic language have been the highlight of some pragmatic research. For example, Al Kohlani (2010) examined the functions of the Arabic discourse markers: *wa* 'and', *fa* 'then', *munthu* 'since', and *inna* 'certainly' in Arabic newspaper opinion articles both at the sentence level and paragraph level. The results of the study indicated that the discourse markers can be additive, contrastive, explanatory, inferential, sequential, alternative, subjective and interactive at the sentence level. At the paragraph level, they imply continuity, refocus, and change of topic. Some pragmatic research investigated discourse markers in different Arabic

varieties, such as Saudi Arabic, and Syrian Arabic. Al-Rousan (2015), for example, studied the pragmatic functions of the Saudi Spoken Arabic discourse marker *maf nafsak* ‘with yourself’ in Saudi online conversations. The findings revealed several pragmatic functions, such as refusal, lack of interest, doubt, and disappointment. In her gender-based study, Habib (2021) investigated the discourse markers *yaʕni* and *?innu*: ‘I mean’ in Syrian Spoken Arabic. The study showed that *?innu*: is used more by children than adults and by women than men. However, it also showed that *yaʕni* usually occurs in initial position while *?innu*: occurs in medial position.

Many studies, however, have been conducted on discourse markers in Spoken Jordanian Arabic. Since this variety is rich with discourse markers, Arab scholars have examined them, carrying out corpus-based studies, studying their pragmatic functions, applying speech act theory and studying their syntactic distribution. In their translation study, Hamdan and Fareh (1999) indicated that the Arabic discourse marker *wa* ‘and’ has six functions: the resumptive, the sequential/additive, the alternative, the comitative, the adversative, and the circumstantial (Hamdan and Fareh, 1999). These different functions can sometimes be translated using one marker. For instance, the alternative, the comitative, and the adversative can be translated into English as *and*.

Some Arab scholars were interested in studying the pragmatic functions of discourse markers. For instance, Farghal (1995) studied the pragmatic functions of the discourse marker *inʕallāh* ‘God willing’ in Spoken Jordanian Arabic (SJA). He identified the functions of *inʕallah* from a speech act theory perspective. The study concluded with several non-literal meanings of *inʕallāh* including affirming, threatening, wondering, wishing, and being ironic. Moreover, the study revealed that the meaning of some utterances differs when the discourse marker is omitted. Farghal’s findings, however, showed different functions for the discourse marker *inʕallāh* in SJA from those found by Pishghadam and Kermanshahi (2012) in Persian. In their study that investigated the non-literal meanings of the expression *inʕallah*, Mehawesh and Jaradat (2015) found that the utterances which include *inʕallah* do not give the same meaning after its removal. They also found out that *inʕallah* implies irony, threatening, wishing, wondering, etc.

Applying Relevance Theory, Al Harahsheh and Kanakri (2013) examined the pragmatic functions of the Spoken Jordanian Arabic discourse marker *tayyib* ‘okay’ and its cognate *tabb*. The study concluded that this discourse marker conveys different pragmatic functions, such as showing objection, introducing a new topic, and mitigating an utterance. In another study, Kanakri and Al Harahsheh (2013) examined the pragmatic functions of the discourse marker *?a:di* ‘normal, usual’ in Spoken Jordanian Arabic. The researchers suggested that *?a:di* ‘normal, usual’ serves several functions based on the context in which it is used like disapproval and permission.

Jaradat (2014) examined one of the most common discourse markers in Spoken Jordanian Arabic, *yalla* ‘let’. This marker has undergone a phonological process. It is phonologically derived from (*yā allāh*) which is a vocative for seeking God’s support. The expression (*yā allāh*) got blended into *yalla*. He argued that *yalla* is used sometimes to mean (let’s) in addition to other pragmatic functions (p.61), namely assuring, suggesting, urging people of doing or repeating something. It can also mean

forget about it and it's ok. Another study by Hammouri (2017) probed into the pragmatic functions of *yalla* 'let' but it quizzed, in a questionnaire, Jordanian university students on the use of this discourse marker. The study revealed 27 pragmatic functions for *yalla*, eight of which recorded the most agreed upon functions, namely approval/acceptance, entreating, signaling the start of an action, spreading enthusiasm, commanding, urging, surrendering, and announcing the start of a new stage.

The discourse marker *bas* 'but' was examined by two researchers using two different methods of data collection, yet they obtained similar results. A corpus-based study by Al-Rousan, Al Harahsheh and Huwari (2020) examined the pragmatic functions of *bas* 'but'. This discourse marker serves various pragmatic functions, such as initiating a topic, ending a conversation, mitigating Face Threatening Acts, showing contrast and expressing regret. Similarly, Ennasser and Hijazin (2021) examined the pragmatic functions of the Jordanian discourse marker *bas*. Based on a corpus of 22 dyadic conversations by Jordanians, their study showed that the DM *bas* is multifunctional; it has 12 pragmatic functions, such as making a repair, returning to main topic, showing threat, denying of expectation, indicating insufficient information, mitigating face-threatening acts and topic shifting. It also revealed that it functions as a modifier, filler marker, expressive marker and directive marker. In examining a corpus of 250,000 words to find out the pragmatic functions of 'to say' in Jordanian Spoken Dialect in Irbid, Al-Shawashreh, Jarrah and Zuraikat (2021) showed that the main lexical function is to introduce direct or indirect speech. However, the results also revealed that there are three more functions, namely expressing the mental state of the speaker, signalling indirect evidentiality, and showing the speaker's disbelief in the accompanying utterance.

Recent studies have paid more attention to the syntactic distribution of discourse markers in Spoken Jordanian Arabic. For instance, Jaradat (2021) highlighted the issue of discourse markers as grammatically non-integrated elements. Providing evidence from three Spoken Jordanian Arabic discourse markers *ma*, *hu* and *mahu*, he concluded that these markers share syntactic processes under a domain of grammar. Another recent corpus-based study by Harb, Jarrah and Alghazo (2022) investigated the pragmatic functions of the Spoken Jordanian Arabic discourse marker *ʕaad* (past form of *ʔiʕaawid/ʔiʕuud* 'return') and its syntactic distribution. The study concluded that when the position of the discourse marker is sentence-initial, it mainly functions as disagreement to the addressee. On the other hand, when it is in final position, it reflects the speaker's best of knowledge (p.14).

As far as the literature review is concerned, many discourse markers have been examined in Spoken Jordanian Arabic. However, the discourse marker *walak* (WOE) and its variants have not been explored yet, despite its popularity among the Jordanian community. Moreover, despite the extensive literature on Spoken Arabic discourse markers, none of the previous studies have studied gender differences. Habib (2021) was the only researcher, as far as Arabic language is concerned, who examined gender differences in the Syrian discourse marker *yaʕni and ʔinnu*: 'I mean'. Therefore, the present research aims to fill this research gap by exploring the gender differences in the most prevalent pragmatic functions of *walak* (WOE), and its variants in Spoken Jordanian Arabic.

Methodology

Participants

The participants of the study were 200 students selected from the Faculty of Foreign Languages at the University of Jordan, Jordan. They were enrolled in a variety of specializations, such as English Language and Literature, Applied English, French, Spanish, Italian, German, Chinese, Turkish, and Korean. They were male and female native speakers of Jordanian Arabic who came from different towns and cities. Their age ranges from 20 to 23 years old. Convenience/availability sampling was used for data collection. The participants’ consent was taken to participate in the study.

The sample was divided into two groups; the first group consisted of 50 participants, while the second consisted of 150 participants. The first group were interviewed for identifying the pragmatic functions of *walak* and its variants in Spoken Jordanian Arabic. This group consisted of equal number of male and female informants (25 males and 25 females). The second group were to validate the questionnaire that was based on the interviews with the first group, and it was designed to check whether they concurred with our assessment of the pragmatic functions of *walak* and its variants.

Data Collection Tasks

Informal Interview Task

A research assistant had individual interviews with 50 students at the Faculty of Foreign Languages during the second semester of the academic year 2020/2021. All the interviews were held in Arabic, the native language of the participants. Each participant was informed about what the research assistant aimed to obtain from them. She took their permission to audio-record the interview for research purposes. The interview questions included, but not limited to: Do you use *walak* and its variants in every day conversation and how often? Why do you use this discourse marker? What are the function of this discourse marker? Will you give me an example utterance you use to perform some language functions like threatening, warning, insulting, etc.? The participants’ spontaneous production was audio-recorded for further analysis and for the validation questionnaire. The same procedure was used with all the 50 participants.

Validation Questionnaire

The interviews yielded six pragmatic functions for *walak* and its variants, namely *warning*, *insulting*, *addressing*, *endearment*, *threatening*, and *denial*. Based on these

interviews, the researchers designed a validation questionnaire, which consisted of 24 sentences that came from those recorded in the interviews, four representing each pragmatic function. Using a five-point Likert scale that ranged from strongly disagree (1) to strongly agree (5), the participants were asked to specify their level of agreement with our characterization of the function of the discourse marker in each sentence.

Validity of Data Collection Tool

The questionnaire was given to a jury of three English language professionals who were asked to validate the questionnaire items and our pragmatic function characterization of each instance of *walak*. As a result of this questionnaire, only three sentences were rewritten to take the jury's views into account; the rest of sentences won unanimous approval.

Results

The responses of the 150 participants were analyzed using SPSS. The analysis also aimed to find out if there were any significant differences in the realization of the pragmatic functions of this discourse marker due to gender. Table 1 presents the results related to the six main pragmatic functions of *walak* and its variants in SJA.

Table 1

Results of the t-Test for Each Domain (Individual Pragmatic Functions) according to Gender

| Pragmatic Function | Gender | N | Mean | SD | Df | Sig. |
|--------------------|----------------|-----------|---------------|---------------|------------|--------------|
| Warning | Males | 75 | 4.6800 | .40595 | 148 | .001* |
| | Females | 75 | 4.4500 | .40894 | | |
| Insulting | Males | 75 | 4.6267 | .45651 | 148 | .000* |
| | Females | 75 | 4.3533 | .37011 | | |
| Vocative | Males | 75 | 4.5333 | .36607 | 148 | .278 |
| | Females | 75 | 4.4600 | .45404 | | |
| Endearment | Males | 75 | 4.7333 | .45644 | 148 | .232 |
| | Females | 75 | 4.6400 | .49532 | | |
| Threatening | Males | 75 | 4.4233 | .45205 | 148 | .462 |
| | Females | 75 | 4.3667 | .48861 | | |
| Denial | Males | 75 | 4.5200 | .38502 | 148 | .309 |
| | Females | 75 | 4.4500 | .45210 | | |
| All | Males | 75 | 4.5861 | .33202 | 148 | .015* |
| | Females | 75 | 4.4533 | .32686 | | |

As shown in Table 1, the overall t-test results of the validation questionnaire, concerning the specified pragmatic functions of the discourse marker *walak* and its variants in SJA, show that there are significant differences between the male and female participants' opinion in favour of males at $\alpha .05$ (sig. .015). Males agreed more than the females that the six pragmatic functions, i.e. *warning*, *insulting*, *vocative*, *endearment*, *threatening*, and *denial*, were reflected through *walak* and its variants. Since the authors of the present research are Jordanians, they have observed that males use such a discourse marker in everyday conversation. This use could be attributed to the fact that the Jordanian community is a male-dominant one. Male Jordanians boost their male dominance through some lexical choices, which are sometimes face-threatening as in the case of their use of *walak*, which is sometimes used to express threat or insult to show masculinity and power. Therefore, the overall finding that male Jordanians agreed more on the pragmatic functions of the discourse marker *walak* than females implies that males use it more to assert their dominance and masculinity. This finding fits in with Tannen's (1990) and Coates's (2004) hypothesis that males assert their dominance in society through their language. It also lends support to previous theories on gender differences (Lakoff, 1975; Lakoff, 2004; Tannen, 1990; Coates, 2004). This implies that women's language is different from men's language.

With regard to each individual pragmatic function, the results related to *warning* revealed significant differences (Sig. .001) between males and females in favour of the male participants. Males registered a higher mean score than females (Mean score = 4.6800 and 4.4500, respectively). This finding is arguably related to the Jordanian norms of men giving warnings, commands and directives, which is in line with Tannen's (1990) and Coates's (2004) observations that men use more imperative language than women. This also supports the findings of Sheridan (2007), Bi (2010) and Robnett and Leaper (2011) that men's language is more directive while women's language is more tentative.

Moreover, the results show that the *insulting* function recorded significant differences (Sig. .000) between males and females in favour of males (mean score = 4.6267 and 4.3533, respectively). Male participants agreed more than females that the discourse marker *walak* functions as an *insulting* discourse marker. As previously stated, since the Jordanian society is male dominated, male Jordanians use more dysphemistic language, whereas females use more euphemistic terms as stated by Olimat (2020). This implies that female Jordanians are more polite than males, and that males use more insults that trigger more use of the discourse marker *walak*. These findings lend support to Lakoff's (2004) argument that women's language is more polite than men's, and Coates' (2004) suggestion that men use more profane language to assert power and masculinity.

The t-test results, however, showed that there are differences between males and females' agreement on the other pragmatic functions, i.e. *vocative*, *endearment*, *threatening* and *denial*, but these differences were found to be not significant. This

implies that both groups agreed almost equally that these pragmatic functions are reflected through the discourse marker *walak* (WOE) and its variants with a mean score of 4.4967, 4.6867, 4.395, and 4.485, respectively. The fact that there are no significant differences can be justified through the subjects in this study being young adult university students, who are also colleagues of the same college. On this account, their age group and shared study environment may impact their speech to become rather similar than divergent.

Tables (2 – 7) present the percentages of agree, uncertain and disagree responses for the six pragmatic functions of the discourse marker under investigation.

Table 2

Percentage of Agree, Uncertain and Disagree Responses for Warning

| No. | Warning Function Statements | Disagree | Uncertain | Agree |
|----------------|---|------------|-------------|--------------|
| 1 | وَلَهْ شوي شوي عليها لا تنكسر. <i>walah fʔwai fʔwai ʕleha la: tinkasir</i> Careful, hey boy! You will break it. | - | 3.33 | 96.67 |
| 2 | وَلَكْ أوعى الكتاب لا تنكب المي عليه! <i>walak ʔu:ʕa lkta:b la: tinkab lmai ʕleh</i> Watch the book, hey boy! You will spill water on it. | - | 1.33 | 98.67 |
| 3 | وَلَكُمْ انتبهوا السياره مسرعة! <i>walkum ntabhu lsajja:ra misrʕa</i> Watch it, hey all! That car is going fast. | 6.67 | 16.00 | 77.33 |
| 4 | صوتكوا عالي! ولكو وطو صوتكم <i>s'o:tku ʕa:li walku watʕu s'o:tkum</i> Your voice is loud. Lower your voice, hey all. | .67 | 5.33 | 94 |
| Average | | 1.9 | 6.34 | 91.67 |

One of the most popular pragmatic functions of *walak* as shown in the examples in Table 2 is warning. Native speakers of Jordanian Arabic use the discourse marker *walak* to advise the addressee not to do something or to prevent them from doing something that is unsafe to avoid danger or punishment. Overall, 91.67% of the participants agreed that the four sentences function as a warning to the hearer, while less than 2% disagreed that they perform such a function. Another important finding is that 98.67% of the participants agreed that sentence two is used to warn the addressee against spilling water on the book. However, sentence three recorded the least agreement (77.33). Sentences one and two recorded the highest agreement percentage (96.67 and 98.67, respectively), which could be attributed the fact that these two could be the most familiar expressions they use on daily basis.

Table 3
Percentage of Agree, Uncertain and Disagree Responses for Insulting

| No. | Insulting Function Statements | Disagree | Uncertain | Agree |
|-----|--|-------------|-----------|--------------|
| 5 | وَلَيْكِ عَمْرِكِ مَا بَتَتَعْلَمِي <i>walik</i> ʕumrik ma: btitʕallami You will never learn, hey girl. | 8.67 | 22 | 69.34 |
| 6 | وَلَيْكِ اقْعِدِي وَاسْكُتِي <i>walik</i> ʔugufdi wuskuti Sit down and shut up, hey girl. | 2.67 | 13.33 | 84.00 |
| 7 | لَا مَوْهِيكِ! وَلَيْكِ إِنَّتِ شَوْ بَفَهْمَكِ laʔ mu: hek – <i>walak</i> ʔinta ʃu: bfahmak No, not like this. – What do you even know, hey boy? | 1.33 | 24.00 | 74.67 |
| 8 | وَلَيْكِ إِنَّتِ وَاحِدٍ وَاطِي! <i>walak</i> ʔinta wa:had wa:tʔi You are a decadent, hey boy! | 0.67 | 12.67 | 86.67 |
| | Average | 3.33 | 18 | 78.67 |

Insulting is used in everyday conversation; it could be between friends and strangers. The results of the analysis have shown that the four sentences recorded the least agreed-upon function of the discourse marker *walak*. 78.67% of the participants agreed that such sentences are used to insult the addressee. It is important to note that these sentences cause insults even without the discourse marker *walak*. Another significant finding is that only 69.34% of the participants agreed that sentence five is used to insult. Although this is considered a majority, still it is the lowest when compared with the other sentences. This can be explained by the fact that sentence five shows rather disappointment rather than just an insult compared to the other utterances that clearly derogate the hearer. The results also indicate that 18% of the participants were uncertain whether these utterances are used to insult, while only 3.33% disagree with the statements. Overall, the majority agreed that *walak*, and its variants are used as an insulting discourse marker in these contexts. As shown in the examples above (5-8), the speaker is insulting the hearer by telling her that she will never learn, implying that she is stupid (S5), telling the second hearer to sit down and shut up (S6), accusing the hearer of not being able to do a task because she does not understand (S7), and humiliating the addressee by telling him that he is a decadent (S8).

Table 4
Percentage of Agree, Uncertain and Disagree Responses for Vocative/Addressing

| No. | Addressing/Vocative Function Statements | Disagree | Uncertain | Agree |
|-----|---|----------|-----------|-------|
| 9 | مَامَا بَتَنَادِي عَلَيْكُوا! وَلَكُو تَعَالُوا جَاي ma:ma bitna:di ʕale:ku <i>walku</i> taʕa:lu dzai Mom is calling you! Come here, hey all! | 1.33 | 8.00 | 92.67 |

| | | | | |
|----|--|-------------|-------------|-----------|
| 10 | ناديت عليك ثلاث مرات! وَلِكِ ردي na:det ʕale:ki θalaθ marra:t walik ruddi | 1.33 | 6 | 92.66 |
| | I called you three times! Answer, hey girl. | | | |
| 11 | وَلِه هات اشوف شوه عملت! walah ha:t ʔafu:f ju: ʕmilit | 1.33 | 6.66 | 91.99 |
| | Let me see what you have done, hey boy! | | | |
| 12 | وَلِكِ نسرين تعالي! walik nisri:n taʕa:li | 1.33 | 6 | 92.67 |
| | Nisreen, come, hey girl! | | | |
| | Average | 1.33 | 6.67 | 92 |

Native speakers of Arabic sometimes use several discourse markers to call upon someone, such as *walak* and its variants, and *yallah*. The results of the study showed that the vocative function of *walak* was the second most agreed upon. As seen in Table 5, 92% of the participants agreed that it is used to perform this function in the given contexts. However, only 1.33% disagreed that the four utterances perform a vocative function, while 6.67% were uncertain of their decision that the four utterances perform a vocative function, while 6.67% were uncertain of their decision. This implies that the discourse marker *walak* is still influenced by its original form *yā walad* which includes a vocative marker *yā*.

Table 5

Percentage of Agree, Uncertain and Disagree Responses for Endearment

| No. | Endearment Function Statements | Disagree | Uncertain | Agree |
|-----|--|------------|-------------|--------------|
| 13 | وَلِكِ شو بحبك أنا! walik shu: baħibbik ʔana | - | 3.33 | 96.66 |
| | How much I love you, hey girl! | | | |
| 14 | وَلِه انتِ قمر! (لمخاطبة بنت) walih ʔinti ʔamar | - | 6 | 94 |
| | You are gorgeous, hey girl! | | | |
| 15 | إيش هاد! ولكِ حليان! ʔe:ʃ ha:d walak ħalja:n | 1.33 | 4.66 | 94 |
| | What's this? You are getting prettier, hey boy! | | | |
| 16 | وَلِكِ انتِ صاحبي! walak ʔinta s'a:ħbi | .66 | 2.66 | 96.66 |
| | You're my friend, hey boy! | | | |
| | Average | .66 | 4.16 | 95.18 |

Endearment expressions in SJA are many; one of which is the discourse marker *walak* which is used to indicate intimacy and closeness. It can be used among friends in everyday conversation to show endearment and sometimes compliment. The

results show that this discourse marker recorded the highest degree of agreement among all the pragmatic functions of this discourse marker (95.18%). Another important finding is that the participants agreed more that sentences 13 and 16 perform endearment since these two sentences highlight close relationship between the speakers. This could be because of the fact that sentences 14 and 15 show compliment more than endearment. The results also show that only 0.66% of the participants disagreed that these sentences are used to endear someone, while 4.16% were not sure of their decision. In addition to the context, there are some words that accompany this discourse marker to show that it is used to endear someone. For example, the use of *walak* with words like ‘love you, you are gorgeous, you’re getting prettier, you are my friend’ performs the pragmatic function of endearment.

Table 6

Percentage of Agree, Uncertain and Disagree Responses for Threatening

| No. | Threatening Function Statements | Disagree | Uncertain | Agree |
|-----|--|------------|-----------|--------------|
| 17 | وَلَه اطلع برا أحسن ما أجيلك! <i>walah</i> ?it'laʃ barra ?aħsan ma: ?azi:lak Get out before I come and get you, hey boy! | - | 12.66 | 87.34 |
| 18 | الي بحياتكم ما شفتموه! وَلَكُو وَالله لتشوفوا <i>walku</i> walla latʃu:fu ?illi bħaja:tkum ma: juftu:h I swear you will see what you’ve never seen in your lives, hey all! | .66 | 16 | 83.34 |
| 19 | ولك روح من هون وبحياتك ما ترجع! <i>walak</i> ru:h min ho:n wu bħaja:tak ma: tirʒaʃ Get out of here and never come back, hey boy! | .67 | 3.33 | 96 |
| 20 | وَلَكْ بفلك مشي معاملي! <i>walak</i> bagullak maʃʃi muʃa:malti I told you to speed up my paperwork, hey boy! | 1.33 | 16 | 82.67 |
| | Average | .66 | 12 | 87.34 |

Threatening is a speech act that is realized by using a variety of discourse markers in SJA, such as *walak*, *bas* ‘stop’, *khalas* ‘stop it’ and *bikaffi* ‘enough’. The results presented in Table 7 show that *walak* and its variants (*walah*, *walku*, *walak*) are used to threaten the addressee. It was found that 87.34% of the participants agreed that the four sentences convey threatening to the hearer. Another significant finding is that utterance 19 recorded the highest agreement percentage (96%) followed by

utterance 17 (87.34) where both include forcing someone to leave. However, only .66% disagreed, while 12% were uncertain of their response.

Table 7

Percentage of Agree, Uncertain and Disagree Responses for Denial

| No. | Denial Function Statements | Disagree | Uncertain | Agree |
|-----|--|-------------|-------------|--------------|
| 21 | وَلَكُوْا اِنْتُوْا اِلَيَّ بِتَحْكُوْا هَالْحَكِي! <i>walku ?intu ?illi btihku halhaki</i> You're the ones saying this, hey all! | 2.66 | 24.66 | 72.66 |
| 22 | وَلَك مِيْن اِنْتِه! <i>walak mi:n ?inta</i> Who are you, hey boy? | 1.33 | 4.66 | 94 |
| 23 | بِتَقْلِي رَح تَعْمَلْهَا! وَاَنْتَ اِنْتِ? <i>bigulli rah ti?malha walak ?inta</i> You're telling me you're going to do it? You, hey boy? | 1.33 | 6 | 92.67 |
| 24 | وَلَك بِتَقْوَلِي اِنْتِي فَعَلَا شَفْتِيْهَا! <i>walik bitgu:li ?inti fi?lan fufti:ha</i> You're saying that you actually saw her, hey girl? | 1.33 | 8 | 90.7 |
| | Average | 1.33 | 10.9 | 87.77 |

Denial is realized in SJA by using a variety of discourse markers, such as *bas* 'stop', *bikaffi* 'enough' and *walak* and its variants. Table 7 shows that 87.77% of the participants agreed that the four sentences are used in SJA to express denial. However, as observed in the table, 1.33% of the participants disagreed that these sentences are used to express denial, while 10.9% of them were uncertain of their decision. The speaker usually denies the acts done by the hearers as shown in the example sentences. In sentence 22, which has the highest percentage of agreement (94%), the speaker denies the worth of the addressee trying to belittle him. Following this, the percentage of sentence 23 is 92.67%. In sentence 23, the speaker denies the hearer's ability to do something. These two sentences imply that *walak* is used more often with denying a person's significance or abilities. In contrast, sentences 21 and 24 have relatively lower percentages. These two sentences mainly deny the hearer's actions of saying something or seeing someone rather than denying the hearer's competencies.

Discussion and Conclusion

The aim of the present study was to examine the prevalence of the discourse marker *walak* and its variants in SJA. Therefore, the study presented two research questions: what are the pragmatic functions of the discourse marker *walak* and its

variants in SJA? Are there any statistically significant differences in the use of this discourse marker according to gender?

The first research question was answered by conducting interviews with native speakers of SJA and using a validation questionnaire. The results have shown that the discourse marker *walak* serves six pragmatic functions, viz. *warning*, *insulting*, *vocative*, *endearment*, *threatening*, and *denial*. Regardless of gender, the findings suggested that some pragmatic functions have more prevalence than others. The pragmatic function *endearment* registered the highest percentage (95.18%). In addition, two of the sentences, which presented *walak* as an *endearment* highlighting the solidarity between the addresser and the addressee, had higher percentages than other sentences. Following that, the pragmatic function *vocative* came in second with 92%. This finding implies that the discourse marker *walak* is still affected by its original form *yā walad* ‘hey boy’ which includes the vocative marker *yā*. This is in line with Hammouri (2017) who revealed that the Jordanian discourse marker *yalla* also functions as a vocative since its original form similarly begins with a vocative marker *yā* as in *yā Allah*. Nonetheless, the pragmatic function *insulting* came in last (78.67%). This finding implies that there is a possibility of marking insult in the sampled sentences with or without the occurrence of the discourse marker *walak*. Therefore, meaning might not be affected if we remove *walak*, but its use produces an everlasting effect on the speaker. In contrast, Farghal (1995) asserted that meaning is often affected when the discourse marker *inšallāh* is removed.

To find out if there are any significant differences between genders with regard to their responses in the validation questionnaire in an answer to the second research question, a t-test was carried out. The results showed that there were significant differences between male and female participants. Overall, males agreed significantly more than females in their opinions concerning the six specified pragmatic functions, i.e. *warning*, *insulting*, *vocative*, *endearment*, *threatening* and *denial*, of the discourse marker *walak* and its variants. This finding is in line with theories of gender differences (Lakoff, 1975; Tannen, 1990; Coates et al., 2004). Males also agreed significantly more than females in their opinions regarding the functions *warning* and *insulting*. Nevertheless, although there are differences between the two genders with regard to the functions of *vocative*, *endearment*, *threatening* and *denial*, these differences were not statistically significant. These findings imply that male Jordanians use the discourse marker *walak* more in their warnings and insults since their language is more directive and less polite than females’ language.

In conclusion, similar to other discourse markers in SJA or Arabic in general, the discourse marker *walak* serves various pragmatic functions in different contexts. The bulky literature on discourse markers and their pragmatic functions especially in Arabic as a Second Language (ASL) has pedagogical implications. ASL learners often struggle with context-dependent language items like JA discourse markers. Therefore, it is important to include such discourse markers in the syllabus. This will help Arabic language learners understand the intended meaning of such discourse markers in spoken discourse. Teachers should also pay more attention to the various pragmatic functions that JA discourse markers (e.g. *bas*, *inshallah*, *walak*, *shekl*, etc.)

express. They should provide ASL learners with many oral examples of the above discourse markers and the like in context so that they can comprehend them and their use in real life, and use them as well.

References

- Abuseillek, A. & Rabab'ah, G. (2013). Discourse functions and vocabulary use in English language learners' synchronous computer-mediated communication. *Teaching English with Technology*, 13(1), 42-61.
- Ahmad, K. (2014). Gender differences and work-related communication in the UAE: A qualitative study. *International Journal of Business and Management*, 9(3), 185-195. <http://dx.doi.org/10.5539/ijbm.v9n3p185>
- Alghazo, S., Al Salem M. N., Alrashdan, I. & Rabab'ah G. (2021). Grammatical devices of stance in written academic English. *Heliyon*, 7. <https://doi.org/10.1016/j.heliyon.2021.e08463>.
- Al-Harashsheh, A. & Kanakri, M. (2013). The pragmatic functions and the translatability of “Ṭayib” in Spoken Jordanian Arabic. *US-China Foreign Language*, 11(3), 196-202.
- Al Kohlani, F. A. (2010). The function of discourse markers in Arabic newspaper opinion articles. DSc dissertation. Georgetown University. Retrieved from <https://repository.library.georgetown.edu/handle/10822/552822>.
- Almegren, R. (2022). Persuasive strategies of Saudi EFL learners. *International Journal of Arabic-English Studies*, 22(1), 275-290. <https://doi.org/10.33806/ijaes2000.22.1.15>.
- Al-Rousan, R. M. (2015). The use of discourse marker “maʿ nafsak” in Saudi Arabic: A pragmatic perspective. *International Journal of Linguistics*, 7(3), 33-48. <https://doi.org/10.5296/ijl.v7i3.7669>
- Al-Rousan, R., Al Harashsheh, A. & Huwari, F. (2020). The pragmatic functions of the discourse marker bas in Spoken Jordanian Arabic: Evidence from a corpus. *Journal of Educational and Social Research*, 10(1). 130-142. <https://doi.org/10.36941/jesr-2020-0012>.
- Alshargi, F. (2022). Makhzan Al-Lahajat. *Arabic Diwan*. Retrieved from <https://arabicdiwan.com/dialects.aspx>.
- Al-Shawashreh, E., Jarrah, M. & Zuraikat, M. J. (2021). The functions of the verb ‘to say’ in the Jordanian Arabic dialect of Irbid. *Poznan Studies in Contemporary Linguistics*, 57(2), 221-248. <https://doi.org/10.1515/psicl-2021-0010>.
- Andersen, G. (2001). *Pragmatic markers and sociolinguistic variation: A relevance-theoretic approach to the language of adolescents*. Amsterdam: John Benjamins
- Banikalef, A. A. (2019). The impact of culture and gender on the production of online speech acts among Jordanian Facebook users. *International Journal of Arabic-English Studies*, 19(2), 399-414. <https://doi.org/10.33806/ijaes2000.19.2.9>.
- Bi, Q. (2010). Characteristics of the language of women in English. *Journal of Language Teaching and Research*, 1(3), 219-221. <https://doi.org/10.4304/jltr.1.3.219-221>
- Blakemore, D. (1987). *Semantic constraints on relevance*. Oxford: Blackwell.
- Brinton, L. (1996). *Pragmatic markers in English: Grammaticalization and discourse functions*. New York: Mouton de Gruyter.
- Brownlow, S., Rosamond, J. A., & Parker, J. A. (2003). Gender-linked linguistic behavior in television interviews. *Sex Roles*, 49(3/4), 121-132. <https://doi.org/10.1023/A:1024404812972>
- Chodorowska-Pilch, M. (2008). Verás in Peninsular Spanish as a grammaticalized discourse marker invoking positive and negative politeness. *Journal of Pragmatics*, 40(8), 1357-1372. <https://doi.org/10.1016/j.pragma.2008.02.011>
- Coates, J. (2004). *Women, men and language: A sociolinguistic account of gender differences in language*. London: Routledge.

- Ennasser, N. & Hijazin, R. (2021). The Jordanian Arabic discourse marker *bas*: A pragmatic analysis. *Kervan: International Journal of African and Asian Studies*, 25(1), 95-114. <https://doi.org/10.13135/1825-263X/5892>.
- Farghal, M. (1995). The pragmatics of ‘*inšāllah*’ in Jordanian Arabic. *Multilingua - Journal of Cross-Cultural and Interlanguage Communication*, 14(3), 253-270. <https://doi.org/10.1515/mult.1995.14.3.253>.
- Fraser, B. (1990). An approach to discourse markers. *Journal of Pragmatics*, 14(3), 383-398. [https://doi.org/10.1016/0378-2166\(90\)90096-V](https://doi.org/10.1016/0378-2166(90)90096-V).
- Haas, A. (1979). Male and female spoken language differences: Stereotypes and evidence. *Psychological Bulletin*, 86(3), 616-626. <https://doi.org/10.1037/0033-2909.86.3.616>
- Habib, R. (2021). The use of the discourse markers *yaʿni* and *ʔinnu*: ‘I Mean’ in Syrian Arabic. *Journal of Pragmatics*, 178, 245-257. <https://doi.org/10.1016/j.pragma.2021.03.025>.
- Hamdan, J. & Fareh, S. (1999). The translation of Arabic *Wa* into English: Some problems and implications. *Dirasat: Human and Social Sciences*, 26(2), 590-603.
- Hammo, B., Yagi, S., Ismail, O., & Abushariah, M. A. M. (2016). Exploring and exploiting a historical corpus for Arabic. *Language Resources and Evaluation*, 50(4), 839-861. <https://doi.org/10.1007/s10579-015-9304-9>
- Hammouri, D. (2017). The pragmatic functions of *Yalla* in Jordanian Spoken Arabic. M.A. Thesis, The University of Jordan.
- Harb, M., Jarrah, M. & Alghazo, S. (2022). Discourse markers within sentence grammar: Further evidence from *šaad* in Jordanian Arabic. *Ampersand*, 9, 100082. <https://doi.org/10.1016/j.amper.2022.100082>.
- Haugh, M., Kádár, D. Z. & Terkouraf, M. (2021). Introduction Directions in Sociopragmatics. In M. Haugh, Z. Dániel Z. Kádár & M. Terkouraf, (Eds.). *The Cambridge Handbook of Sociopragmatics*. (pp. 1-12). Cambridge: Cambridge University Press.
- Heine, B., Kalténböck, G., Kuteva, T. & Long, H. (2021). *The rise of discourse markers*. Cambridge: Cambridge University Press.
- Hobbs, P. (2003). The medium is the message: politeness strategies in men’s and women’s voice mail messages. *Journal of Pragmatics*, 35, 243–262. [https://doi.org/10.1016/S0378-2166\(02\)00100-5](https://doi.org/10.1016/S0378-2166(02)00100-5).
- Ibn Fāris al-Qazwīnī, A. m., & Hārūn, ‘. a.-S. m. M. a. (1985). *Mu‘jam maqāyīs al-lughah*. Dār al-Kutub al-‘Ilmiyah.
- Jaradat, A. (2014). The linguistic variants of Allah expressions in Jordanian Arabic. *Cross-Cultural Communication*, 10(1), 61-68. <http://dx.doi.org/10.3968/j.ccc.1923670020141001.2795>
- Jaradat, A. (2021). Grammaticalization of discourse markers: Views from Jordanian Arabic. *Heliyon*, 7(7), e07632. <https://doi.org/10.1016/j.heliyon.2021.e07632>
- Kanakri, M. & Al-Harashsheh, A. (2013). The discourse analysis and pragmatics of *ʔa:di* in Spoken Jordanian Arabic. *International Journal of English Linguistics*, 3(6), 59-63. <http://dx.doi.org/10.5539/ijel.v3n6p59>
- Lakoff, R.T. (1975). *Language and women’s place*. New York: Harper and Row.
- Lakoff, R. T. (2004). *Language and woman's place: Text and commentaries*. Oxford: Oxford University Press.
- Leech, G. N. (1983). *Principles of pragmatics*. London: Longman.
- Lenk, U. (1998). Discourse markers and global coherence in conversation. *Journal of Pragmatics*, 30(2), 245-257. [https://doi.org/10.1016/S0378-2166\(98\)00027-7](https://doi.org/10.1016/S0378-2166(98)00027-7)
- Mehawesh, M. & Jaradat, A. (2015). *Inshallah* in flouting of Grice’s maxim of quality. *Asian Social Science*, 11(4), 319-327. <https://doi.org/10.13135/1825-263X/5892>.
- McMillan, J. R., Clifton, A. K., McGrath, D., & Gale, W. S. (1977). Women's language: Uncertainty or interpersonal sensitivity and emotionality? *Sex Roles*, 3(6), 545-559. <https://doi.org/10.1007/BF00287838>

- Montolío Durán, E. & Unamuno, V. (2001). The discourse marker *a ver* (Catalan, *a veure*) in teacher-student interaction. *Journal of Pragmatics*, 33(2), 193-208. [https://doi.org/10.1016/S0378-2166\(99\)00135-6](https://doi.org/10.1016/S0378-2166(99)00135-6)
- Murtadā al-Zabīdī, M. i. M., Firūzābādī, M. i. Y., & Shīrī, ' . (1994). *Tāj al-‘arūs min jawāhir al-Qāmūs. Dār al-Fikr.*
- Olimat, S. (2020). COVID-19 Pandemic: euphemism and dysphemism in Jordanian Arabic. *GEMA Online Journal of Language Studies*, 20(3), 268-290. <http://doi.org/10.17576/gema-2020-2003-16>.
- Östman, J. O. (1995). Pragmatic particles twenty years after. In Wårvik, B., S. Tanskanen and R. Hiltunen, (Eds.), *Organization in Discourse: Proceedings from the Turku conference.* Finland: University of Turku. (95-108).
- Pishghadam, R. & Kermanshahi, P. N. (2012). Insha'Allah (God's willing) and its functions in Persian. *CSCCanada: Studies in Literature and Language*, 4(1), 6-11. <http://dx.doi.org/10.3968/j.sll.1923156320120401.273>
- Rabab'ah, G. Rabab'ah, B. Suleiman, N. (2016). Instant messaging language in Jordanian female school students' writing. *Teaching English with Technology*, 16(2), 116-142.
- Rabab'ah, G. Ma'touq, A. & Alghazo, S. (2022). Discourse markers in narrative essays: A case study of Jordanian high school EFL learners. *Jordan Journal of Modern Languages and Literatures*, 14 (1), 203-217. <https://doi.org/10.47012/jjml.14.1.11>
- Ranger, G. (2019). *Discourse markers: An enunciative approach.* New York: Springer.
- Robnett, R. D., & Leaper, C. (2011). Women are more likely than men to use tentative language, aren't they? A meta-analysis testing for gender differences and moderators. *Psychology of Women Quarterly*, 35(1), 129-142. <https://doi.org/10.1177/0361684310392728>
- Schiffrin, D. (1987). *Discourse markers.* Cambridge: Cambridge University Press.
- Sheridan, F. (2007). Gender, language and the workplace: an exploratory study. *Women in Management Review*, 22(4), 319-336. <https://doi.org/10.1108/09649420710754264>
- Tannen, D. (1990). *You just don't understand: Women and men in conversation.* New York: William Morrow.
- Tchizmarova, I. K. (2005). Hedging functions of the Bulgarian discourse marker *xajde*. *Journal of Pragmatics*, 37(8), 1143-1163. <https://doi.org/10.1016/j.pragma.2005.01.003>
- Thomson, R., Murachver, T. & Green, J. (2001). Where is the gender in gendered language? *Psychological Science*, 12(2), 171-175. <https://doi.org/10.1111/1467-9280.00329>
- Wang, Y. (2011). A discourse marker functional study of the discourse markers Japanese *Ano* and Chinese *Nage*. *International Communication Studies*, 2, 41-61. Retrieved from <https://www-s3-live.kent.edu/s3fs-root/s3fs-public/file/05YanWang.pdf>

Theoretical and Methodological Principles of Teaching Professional English to Future Doctors

Liudmyla Rusalkina

 <https://orcid.org/0000-0003-2826-7439>

l_rusalkina@ukr.net

Odesa National Medical University, Ukraine

Agnessa Tomashevskaya

 <https://orcid.org/0000-0003-3574-5945>

vinogradova09@gmail.com

Bukovinian State Medical University, Ukraine

Received October 13, 2021; Revised April 8, 2022; Accepted June 21, 2022

Abstract. Modern social processes determine new vital areas of reconstruction of the educational process in higher medical school on the way to teaching future professionals in all fields of medicine. The objective reality of Ukraine's development today is the expansion of international ties and integration into the European community. Medical professionals' knowledge of foreign languages is becoming essential in such circumstances. The article aims to develop and scientifically substantiate methodological concepts and theoretical bases of the English language professional teaching of future doctors in higher medical schools, characterize the levels of English professional knowledge of medical students, analyze the findings and imply them to future research and practice. The pedagogical conditions of English-language professional teaching of future doctors such as motivational stability and awareness of the need to learn English for further professional communication; integration of professional and linguistic (English-speaking) disciplines in the educational process of the higher medical school; creation of the developmental English-speaking professional environment in medical higher schools; involvement of future doctors in active English-speaking professionally-oriented activities were defined and substantiated. The authors designed and verified the model of English-language professional teaching to future doctors in higher medical schools. Besides, they experimentally established and statistically confirmed the positive dynamics of the levels of English-language professional teaching to students in the experimental group. This was achieved due to the introduction of the designed methodology to future doctors who study at higher medical schools. The application of the Kolmogorov-Smirnov λ -test confirms the validity of the proposed model and experimental technique.

Keywords: *professional teaching, English-language professional teaching, English language preparedness, pedagogical conditions, medical higher schools, future doctor.*

Русалкіна Людмила, Томашевська Агнесса. Теоретичні та методологічні принципи навчання професійної англійської мови майбутніх лікарів.

Анотація. Сучасні суспільні процеси визначають нові важливі напрямки реконструкції навчального процесу у вищій медичній школі на шляху підготовки майбутніх фахівців у всіх

галузях медицини. Об'єктивною реальністю розвитку України сьогодні є розширення міжнародних зв'язків та інтеграція до європейського співтовариства. За таких обставин знання іноземних мов медичними працівниками набуває особливого значення. Мета статті – розробити та науково обґрунтувати методологічні концепції та теоретичні основи професійної підготовки майбутніх лікарів англійської мови у вищих медичних навчальних закладах, охарактеризувати рівні англомовної професійної підготовки майбутніх лікарів, проаналізувати отримані результати та передбачити їх для майбутні дослідження та практика. У дослідженні визначено та обґрунтовано педагогічні умови англомовної професійної підготовки майбутніх лікарів: мотиваційна стійкість та усвідомлення необхідності майбутніх лікарів вивчати англійську мову для подальшого професійного спілкування; інтеграція професійних та лінгвістичних (англомовних) дисциплін в освітній процес вищої медичної школи; створення розвиваючого англомовного професійного середовища у медичному закладі вищої освіти; залучення майбутніх лікарів до процесу навчання до активної англомовної професійно орієнтованої діяльності. Розроблено та обґрунтовано модель англомовної професійної підготовки майбутніх лікарів у медичних закладах вищої освіти, апробовано експериментальну методичку англомовної професійної підготовки майбутніх лікарів, проаналізовано результати.

Ключові слова: професійна підготовка, англомовна професійна підготовка, підготовленість до англійської мови, педагогічні умови, медичні вищі школи, майбутні лікарі.

Introduction

Our rapidly changing life at the beginning of the XXI century in all spheres of education poses a crucial task for higher education teachers. They need not only to carry out vocational teaching but also to educate well-developed and conscious professionals whose knowledge level corresponds to modern society's requirements. The provision of international standards to the medical field is possible provided a new generation of professional specialists who speak foreign languages are trained. According to the modern requirements for the professional activity of doctors, it is necessary to work with primary sources of medicines primarily published in English, which today is foreground and of current interest. Kovtun (2013), Martynova (2007), Nikolaeva (2002), Popova (2017), and Tarnopolsky (1991) developed methodological principles of foreign language teaching as a means to realize professional knowledge and skills. The research results of the scientists became the basis for developing methods for medical students' linguistic competence formation (Yefremova, 2009; Krysak, 2016). Teaching English for specific purposes (ESL) was investigated by Dudley-Evans and Jo St John (1998), Flowerdew and Peacock (2001), and Hutchinson and Waters (2010).

The analyzed researches of Ukrainian scientists cover a wide range of theoretical and methodological problems on the formation of professional foreign language readiness of medical freelance students in general and concrete directions. However, these scientific works concern only certain aspects of foreign language communication and strategic teaching. Therefore, they do not reflect the specifics of professional English-language teaching of future doctors in medical institutions of higher education.

Professional teaching is considered a purposeful pedagogical process aimed at equipping future professionals with a system of professional knowledge, skills and abilities, formation of professionally significant personality qualities that meet the

profession's requirements and contribute to the successful implementation of professional activities.

We understand the English-language professional teaching of future doctors as a purposeful process of mastering English-language linguistic, socio-cultural, local lore, scientific and medical knowledge, specifically medical skills, awareness of the importance of the medical profession, and formed professional qualities of the individual, foreign colleagues, to make intercultural (international) professional contacts.

Following Osipova (2016, p. 20), preparedness is a result of teaching, a complex multi-component professional-oriented education that characterizes the integrity of the individual with the available professional knowledge, skills and abilities, values and values and established positive motivation for professional activity.

Professional teaching of future doctors as a result of purposeful professional medical teaching in medical institutions of higher education forms professional qualities of personality due to the doctor's specifics and ability to provide timely medical care to patients.

English-speaking professional activity of future doctors is treated as the identification of various forms of activity of future doctors as subjects of English-speaking professional activity, determined by socially significant results in the medical field for which the doctor is responsible.

Despite its active study by researchers, English-language professional teaching of future doctors is still the scientific focus. This is because almost all parameters of this pedagogical phenomenon are due to variable features and uniqueness of the socio-pedagogical state of the subject of such activity and the specifics of professional orientation. It is taken into account that the educational and professional potential of the higher medical school and its implementation are conditioned by the scientific basis, where the constructive methodological guidelines are decisive.

Based on the conducted analysis, it should be concluded that Ukrainian scientists make a significant contribution to the modern foreign language teaching system, laying the fundamental basis for its further development through their research. As for the studies on foreign language teaching of future doctors in higher educational institutions, it should be noted that there is an insufficient number of complex research works aimed at improving such teaching as an integrated system in all its aspects based on interdisciplinary integration. Without a detailed study of the international experience, developing an effective national foreign language teaching system, especially vocationally oriented and adapted to the EU and the best international educational standards, is impossible.

The communicative approach to language and professional education reflected in the works by Batsevich (2004), Bogush (2008), Brown (2001), and Kovtun (2013) considers a modern understanding of the purpose of language learning (both native and foreign) in the process of communication. Iskandarova (2000), Krysak (2016), and Tsymbrovska (2017) provided for the maximum approximation of the content and process of educational activities of students to the future English-language interaction of doctors with patients, i.e. the introduction of higher education medical institutions in the educational process "quasi-professional activity" (Kovtun, 2013) of English orientation.

The stimulus for such activities was the quasi-professional communicative need for future doctors to master professionally-oriented English.

Today, there is an urgent need to resolve conflicts between society's objectively existing social order in the preparation of highly skilled medical professionals who actively use English in professional activities and practice teaching English in medical higher school.

The article aims to scientifically substantiate methodological concepts and pedagogical conditions of English-language professional teaching of future doctors in medical institutions of higher education and check their effectiveness.

Methods

As far as our research was carried out at the medical university, we considered that English-language professional teaching of future doctors would be effective if the following pedagogical conditions were implemented:

- motivational stability and awareness of the need for future doctors to learn English for further professional communication;
- integration of professional and linguistic (English-language orientation) disciplines in the educational process of medical health care;
- providing future doctors with active professionally-oriented English-language activities in the process of teaching;
- creation of a developmental English-speaking environment of professional orientation in a medical institution of higher education;
- involvement of future doctors in the teaching process in active English-speaking professionally-oriented activities.

A survey among medical students who study English in their first and second years was conducted to determine the tasks and content of forming English-speaking professional skills in future doctors. Its goal was to highlight their understanding and attitude toward the current state of English-language professional teaching. The survey involved students of Odesa National Medical University, Ukraine. One hundred ten questionnaires were collected. The analysis of the survey results showed that the vast majority of future doctors know the need and importance of developing English-language professional skills.

To determine the reliability of the results obtained after the formative experiment, a statistical hypothesis H1 was put forward: the difference between the distributions of the control and experimental groups was significant (given the point of the maximum accumulated discrepancy between them).

The experiment included higher medical educational institutions such as Odesa National Medical University, Lviv National Medical University, Ternopil State Medical University, and State Institution "Dnipropetrovsk Medical Academy". At different stages, the experimental research covered more than 300 students – future doctors, 20 teachers of higher medical education institutions in Ukraine, and 60 medical practitioners.

The experiment followed seminars with teachers of linguistic ("English (for professional purposes)", "Ukrainian (for professional purposes)", "Latin") and professional ("Anatomy", "Histology", "Pharmacology") educational disciplines that were involved in the formative stage of the experiment. Lectures "The essence and specifics of English-language professional teaching of future doctors" and "Interdisciplinary links on the English-language orientation of teaching professional disciplines" were given. In addition, teachings were conducted: "English in the professional activity of future doctors", "Communicative barriers in the English-speaking professional interaction of a doctor with patients".

The model and experimental technique of English-language professional teaching of future doctors were developed and tested, and the comparative characteristic of levels of formation of English-language professional teaching of future doctors was carried out. The results of the experimental study were generalized and statistically verified.

At the propaedeutic stage, an elective course (at the students' free choice), "English-speaking professional speech activity of a doctor", was developed.

At the formative stage, the model of English-language professional teaching of future doctors was developed, including the purpose, methodological approaches, stages, pedagogical conditions, forms and methods, criteria and results of experimental work. The formation of English-language professional teaching of future doctors in the medical institutions of higher education occurred in the following stages: motivational, activity, communicative teaching, and reflection-evaluation.

At the motivational stage, students worked on the content of the elective course "English-speaking professional speech activity of a doctor." In the first lecture, "English in the professional activity of a modern doctor", students were involved in the discussion and resolution of problematic situations that may be accidental in the activities of a doctor, in particular with foreign patients ("Accident in transport", "On the beach", "Injured passerby", "Journey around Europe"). After the lecture, the students of medical institutions of higher education took part in a round table "Why does a doctor need English?" and in the teaching "English-language communicative models of doctor-patient interaction." At this stage, visualization lectures were held on "Speech etiquette of a doctor in English communication" and "Communicative models of doctor's interaction with patients." For independent work, future doctors were tasked with compiling thematic dictionaries of professional vocabulary in English. During the lectures, students were asked to solve problem situations of doctor-patient interaction ("First acquaintance with the patient", "Foreign patient at the doctor's appointment", "Why didn't the patient follow the doctor's appointment?", "Polite words and phrases", "English proverbs of medical orientation").

In the lecture "National and religious features of diseases and their treatment", students of medical institutions of higher education gave examples from the literature offered by the teacher, from the Internet, expressed their attitudes, and suggested actions of the doctor in extreme situations. The pedagogical condition "Motivational stability and awareness of the need for future doctors to learn English for further professional communication" was implemented at this stage.

At the activity stage, students were involved in English-language work on the content of professional ("Anatomy", "Histology", "Pharmacology") and linguistic disciplines ("Latin", "Ukrainian language (for professional purposes).". In addition, future doctors translated medical texts into English: "Myocardial infarction: causes, symptoms, treatment", "Nephritis", "Gastric ulcer: manifestations, treatment"), and English medical texts they translated into Ukrainian.

In the process of studying linguistic and professional disciplines, future doctors were involved in English-language thematic tasks and exercises in linguistic and specialized disciplines available in the experiment (translations of the text "Pneumonia", "Food Poisoning"), "Fill in the prescription", "Fill in the table in English", "Who is faster?", "Find mistakes"), were involved in phonetic, lexical games, professional situations ("At the doctor's office," "Surgeon," "Therapist"), lexical competition "Medical catchphrases in English." At the activity stage, the pedagogical condition "Integration of professional and linguistic (English-language orientation) disciplines in the educational process of medical health care" was introduced.

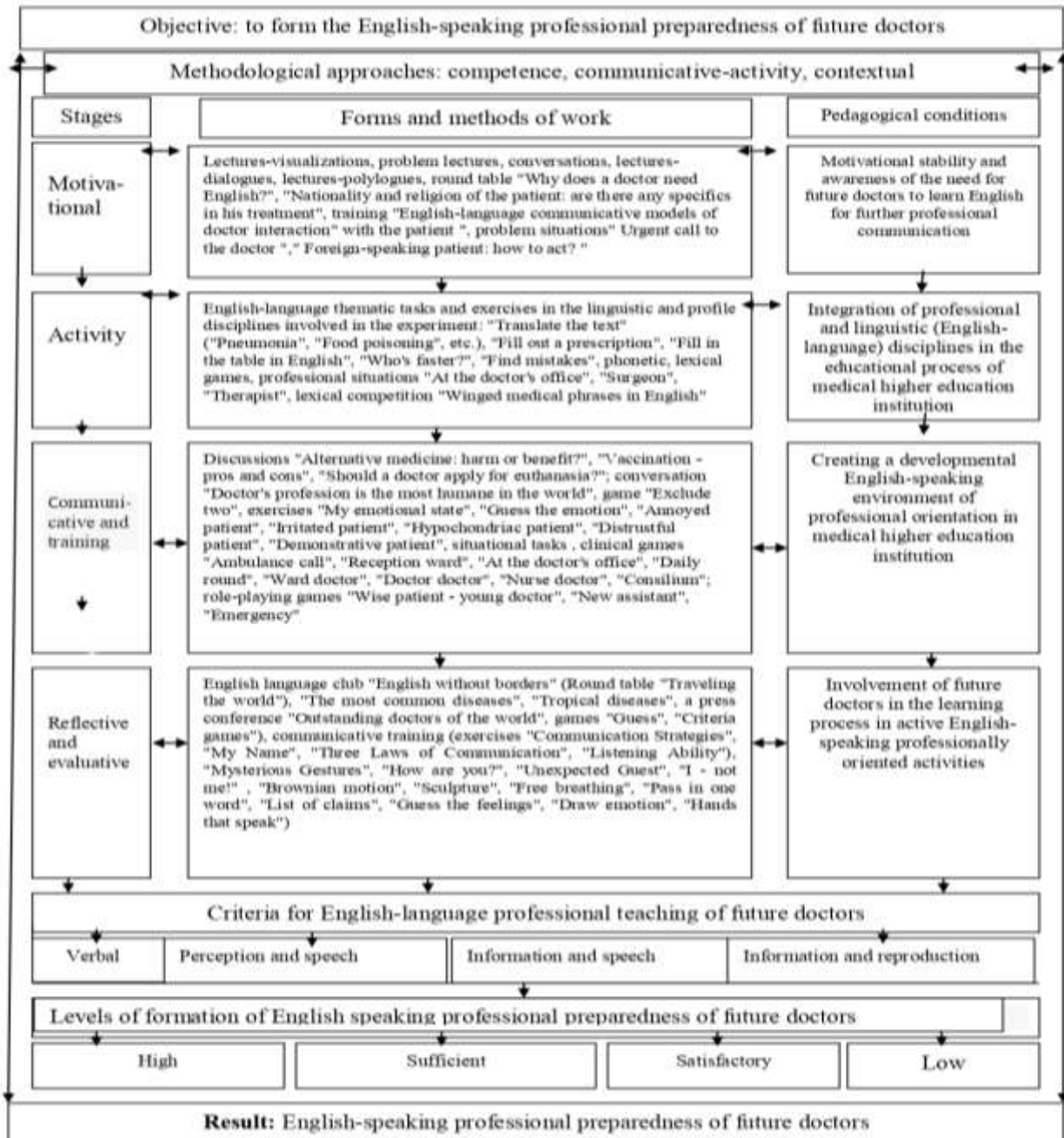
At the communicative-teaching stage, several practical classes and teachings in English on the elective course "English-speaking professional speech activity of a doctor" were conducted with students. Exercises "My emotional state", "Guess the emotion", "Irritated patient", "Hypochondriac patient", "Distrustful patient", "Demonstrative patient", "Wise patient & young doctor" were conducted at the practical lesson on the topic "Professional portrait of a doctor", "New Assistant". Discussions and round tables were organized on the following topics: "Alternative medicine: harm or benefit?" ("Alternative medicine: harm or benefit"), "Inoculation - for and against", "Euthanasia: my point of view", during which future doctors had to answer the question: "What prompted you to choose the profession of a doctor?" Future doctors independently created situations of doctor's dialogue with patients who were in different states. Students were offered cards describing specific characteristics of the patient's behaviour, according to which they had to identify possible causes of this condition and build an appropriate dialogue.

At the communicative-teaching stage, future doctors were involved in independent work with a resource from Oxford University Press (a capacious service that contains virtual textbooks on medical English: Medicine 1, Medicine 2, Nursing 1, Nursing 2); resource "Interactive Anatomy" from InnerBody), which provides free access, visualization of terms in English: symptoms, causes, methods of treatment and prevention of many diseases. The pedagogical condition was realized at this stage: "Creating a developmental English-speaking environment of professional orientation in medical freelance education."

The core work at the reflection and evaluation stage was the English Club "English Without Borders", which also involved foreign students. A series of round tables, "Traveling Around the World" (various English-speaking countries), press conferences "Outstanding Doctors of the World", and "Modern Medicine: Finds and Prospects" were held at the club meetings; communicative teachings "Strategies of multilingual communication", "Brownian movement", "Hands and language of the doctor". In addition, in the practical classes, students were asked to write essays: "My profession is a

doctor", "My friend is a doctor", "My professional future", and the like in order to determine the formation of self-esteem and mutual evaluation of future doctors. The pedagogical condition "Involvement of future doctors in the learning process in active English-speaking professionally-oriented activities" was implemented at this stage. The model of teaching professional English to future doctors is presented below (see Fig. 1).

Figure 1
The model of teaching professional English to future doctors



Model of English-language professional teaching of future doctors

Results and Discussion

The survey results showed that the vast majority (94%) of students knew the importance of English professional skills for a doctor's future effective professional activity. However, a significant part of students (58%) noted that the formation of professional English language is provided by a set of language and professional teaching disciplines. The survey results also confirmed that the main task of this course students saw in their preparation for English professional communication. This made it possible to conclude that the content of English-language professional teaching does not meet students' expectations for developing English professional skills.

The model (motivational, activity, communicative-teaching, reflection-evaluation stages) and experimental methods of English-language professional teaching of future doctors in medical higher schools have been developed and tested. The implementation of the pedagogical condition "motivational stability and awareness of the need for future doctors to learn English for further professional communication" at the motivational stage contributed to lectures-visualizations, problem lectures, conversations, lectures-dialogues, lectures-polylogues, round table "Why do doctors need English?", "Nationality and religion of the patient: are there specifics in his treatment", teaching "English-language communicative models of doctor-patient interaction", problem situations "Urgent doctor's call", "Foreign-language patient: how to act?".

At the activity stage, medical institutions of higher education students were involved in English-language work on the content of professional and linguistic disciplines. English-language thematic tasks and exercises were used (translations of the text "Pneumonia", "Food poisoning", "Fill in the patient's prescription", "Fill in the table in English", "Who is faster?", "Find mistakes"), phonetic, lexical games, professional situations ("At the doctor's office", "Surgeon", "Therapist"), lexical competition "Winged medical phrases in English", etc. The pedagogical condition "Integration of professional and linguistic (English-language orientation) disciplines in the educational process of medical freelance education" was introduced.

At the communicative-teaching stage, several practical classes and teachings were conducted in English on the elective course "English-speaking professional speech activity of a doctor", exercises ("My emotional state", "Guess emotion", "Irritated patient", "A wise patient is a young doctor", "New assistant"), discussions and round tables ("Alternative medicine: harm or benefit?", "Vaccination - pros and cons" "Should a doctor apply for euthanasia?"), Clinical games "Ambulance call", "Reception department", "At the doctor's office", "Ward doctor", "Doctor - doctor", "Doctor - nurse"; role-playing game "Wise patient - young doctor".

At the end of the formative stage of the experiment, a final cut was made to determine the model's effectiveness, pedagogical conditions and experimental methods of English-language teaching to future doctors in medical higher educational institutions (see Table 1).

Table 1

Comparative data on the levels of formation of English-language professional teaching of future doctors at the ascertaining and final stages of the experiment

| Group | Research stage | Levels of formation of English-language professional teaching of future doctors, per cent | | | |
|-------|----------------|---|------------|--------------|-------|
| | | High | Sufficient | Satisfactory | Low |
| EG | Ascertaining | 10.14 | 14.86 | 37.84 | 37.16 |
| | Final | 21.62 | 38.52 | 27.70 | 21.16 |
| CG | Ascertaining | 11.18 | 15.13 | 38.16 | 35.53 |
| | Final | 15.13 | 25.00 | 33.55 | 26.32 |

EG – experimental group; CG – control group

Thus, hypothesis H1 put forward at the outset showed that the difference between the distributions of the control and experimental groups was significant. After the experimental work, it was stated that $\lambda_{emp} = 1.73$. Therefore, $\lambda_{emp} > \lambda_{cr}$, which confirmed hypothesis H1. The empirical distribution is more significant than λ_{cr} , i.e. the results obtained in the experimental group after the formative stage of the experiment are statistically significant. As a result, it has been experimentally established and statistically confirmed that the positive dynamics of English-language professionalism of students in the experimental group are made possible by introducing the developed experimental methodology of English-language teaching to future doctors in higher education.

Conclusions

The results of the experimental work give reasons to believe that the aim is achieved through the realization of objectives, which in turn demonstrates the importance of the conducted research and its outcomes for theory and practical implementation in the modern context of higher medical educational institutions. Nevertheless, the results do not claim to be a perfect and final exhaustive coverage of the issue under the study.

Implementing the model and experimental methods of English-language professional teaching of future doctors in medical institutions of higher education with the gradual introduction of certain pedagogical conditions allowed significant positive changes in the experimental group in contrast to the control.

Thus, the comparative analysis of quantitative and qualitative indicators of English-speaking professional teaching of future doctors at the beginning and end of the experimental work proved its effectiveness and the proposed model, pedagogical conditions and experimental methods of English-language teaching of future doctors in higher education.

We see prospects for further research in the study of the issue of interlingual communication of future doctors from the psycholinguistic point of view..

References

- Банчук М. В., Волосовець О. П., Фещенко І. І., Булах І. Є., Бойчук Т. М., Чернищенко Т. І., Старча Т. М. Кадрова політика у галузі охорони здоров'я та рух вищої медичної освіти України до європейського освітнього простору. *Медична освіта*. 2006. № 2. С. 6-14.
- Банчук М. В., Волосовець О. П., Фещенко І. І., Бойчук Т. М., Булах І. Є., Старча Т. М., Вітенко І. С., Фисун Ю. І., Кебало Т. В., Подрушняк В. Б., П'ятницький Ю. С., Таринська О. Л., Красножон Л. М. Сучасний розвиток вищої медичної та фармацевтичної освіти й проблемні питання забезпечення якісної підготовки лікарів і провізорів. *Медична освіта*. 2007. № 2. С. 5-13. Retrieved from https://tdmuv.com/kafedra/journals/education/2007_2/all.pdf
- Качалова С. М. Технология контекстного обучения в практике вузовского обучения. *Вестник ЦМО МГУ*. 2009. № 3. С. 87-91. Retrieved from <https://elibrary.ru/item.asp?id=12967647>
- Boonyasai, R.T., Windish, D. M., Chakraborti, C., Feldman, L. S., Rubin, H. R., Bass, E. B. (2007). Effectiveness of teaching quality improvement to clinicians: a systematic review. *JAMA*, 298(9), 1023-1037. <https://doi.org/10.1001/jama.298.9.1023>
- Budgen, C., Gamroth, L. (2008). An Overview of Practice Education Models. *Nurse Education Today*, 28(3), 273-283. <https://doi.org/10.1016/j.nedt.2007.05.005>
- Frost, S. & Jean, P. (2003). Bridging the disciplines: interdisciplinary discourse and faculty scholarship. *Journal of Higher Education*, 74(2), 119-149. Retrieved from <http://www.jstor.org/stable/3648252>
- Golding, C. (2009). Integrating the disciplines: Successful interdisciplinary subjects. Centre for the Study of Higher Education. Melbourne: The University of Melbourne.
- Himanshu, P. (2011). Professionalism and Communication in Medical Practice. *Medicine Update*, 21, 544-548. Retrieved from <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.691.1677&rep=rep1&type=pdf>
- Klein, J. T., Newell, W. H. (1998). Advancing interdisciplinary studies. In W. H. Newell, Ed. *Interdisciplinarity: Essays from the Literature*. (pp. 3-22). New York: College Entrance Examination Board.
- Madigosky, W. S., Headrick, L. A., Nelson, K., Cox, K. R., Anderson, T. (2006). Changing and sustaining medical students' knowledge, skills, and attitudes about patient safety and medical fallibility. *Academic Medicine*, 81(1), 94-101. <https://doi.org/10.1097/00001888-200601000-00022>

References (translated and transliterated)

- Banchuk M. V., Volosovets, O. P., Feshchenko, I. I., Bulakh, I. Ye., Chernyshenko, T. I., & Starcha, T. M. (2006). Kadrova polityka u haluzi okhorony zdorov'ya ta rukh vyshchoyi medychnoyi osvity Ukrainy do yevropeyskoho osvitnioho prostoru. [Personnel policy in the field of health care and the movement of higher medical education of Ukraine to the European educational space]. *Medychna Osvita*, 2, 6-14.
- Banchuk, O. P., Volosovets, I. I., Feshchenko, T. M., Boychuk, T. M., Bulakh, I. Ye., Chernyshenko, T. I., Starcha, T. M., Vitenko, I. S., Fysun, Yu. I., Kebkalo, T. V., Podrushniak, V. B., Piatnytsky, Yu. S., Tarynska, O. L., Krasnozhon, L. M. (2007). Suchasnyy rozvytok vyshchoyi medychnoyi ta farmatsevtichnoyi osvity y problemni

pytannya zabezpechennya yakisnoyi podhotovky likariv y provizoriv [Modern development of higher medical and pharmaceutical education and problematic questions of providing of high-quality training of doctors and pharmacists]. *Medychna Osvita*, 2, 5-13. Retrieved from https://tdmuv.com/kafedra/journals/education/2007_2/all.pdf

- Kachalova, S. M. (2009). Tekhnologiiia kontekstnogo obucheniya v praktyke vuzovskogo obucheniya [A technology of contextual teaching in higher education]. *Vestnik TsMO of Moscow State University*, 3, 87-91. Retrieved from <https://elibrary.ru/item.asp?id=12967647>
- Boonyasai, R.T., Windish, D. M., Chakraborti, C., Feldman, L. S., Rubin, H. R., Bass, E. B. (2007). Effectiveness of teaching quality improvement to clinicians: a systematic review. *JAMA*, 298(9), 1023-1037. <https://doi.org/10.1001/jama.298.9.1023>
- Budgen, C., Gamroth, L. (2008). An Overview of Practice Education Models. *Nurse Education Today*, 28(3), 273-283. <https://doi.org/10.1016/j.nedt.2007.05.005>
- Frost, S. & Jean, P. (2003). Bridging the disciplines: interdisciplinary discourse and faculty scholarship. *Journal of Higher Education*, 74(2), 119-149. Retrieved from <http://www.jstor.org/stable/3648252>
- Golding, C. (2009). Integrating the disciplines: Successful interdisciplinary subjects. Centre for the Study of Higher Education. Melbourne: The University of Melbourne.
- Himanshu, P. (2011). Professionalism and Communication in Medical Practice. *Medicine Update*, 21, 544-548. Retrieved from <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.691.1677&rep=rep1&type=pdf>
- Klein, J. T., Newell, W. H. (1998). Advancing interdisciplinary studies. In W. H. Newell, Ed. *Interdisciplinarity: Essays from the Literature*. (pp. 3-22). New York: College Entrance Examination Board.
- Madigosky, W. S., Headrick, L. A., Nelson, K., Cox, K. R., Anderson, T. (2006). Changing and sustaining medical students' knowledge, skills, and attitudes about patient safety and medical fallibility. *Academic Medicine*, 81(1), 94-101. <https://doi.org/10.1097/00001888-200601000-00022>

Linguistic and Psychometric Validation of the Ukrainian Translation of the Inventory of Personality Organization-Revised (IPO-R-UKR)

Iryna Semkiv

 <https://orcid.org/0000-0003-4139-2699>

Scopus Author ID: [57195073829](https://scopus.com/authid/detail.url?authorID=57195073829)

semkiv@ucu.edu.ua

Ukrainian Catholic University, Ukraine

Khrystyna Turetska

 <https://orcid.org/0000-0001-9513-6338>

khrystja@ucu.edu.ua

Ukrainian Catholic University, Ukraine

Iryna Kryvenko

 <https://orcid.org/0000-0002-7558-5440>

Scopus Author ID: [57194282486](https://scopus.com/authid/detail.url?authorID=57194282486)

i.horbal@ucu.edu.ua

Ukrainian Catholic University, Ukraine

Roman Kechur

 <https://orcid.org/0000-0002-9489-7351>

kechur@ucu.edu.ua

Ukrainian Catholic University, Ukraine

Received February 14, 2022; Revised March 1, 2022; Accepted April 2, 2022

Abstract. The cultural adaptation of the psychodiagnostic questionnaire involves the implementation of a “double-blind” translation with subsequent linguistic validation considering both linguistic differences and the symbolism of the authors’ statements. Then, based on the survey data of respondents, various psychometric indicators of the questionnaire are checked. The development of Ukrainian-language questionnaires in the psychodynamic paradigm is crucial for creating an appropriate scientific evidence base of therapeutic methods and for psychotherapeutic practice to equip specialists with reliable diagnostic tools. The research objective is to carry out a professional translation of The Inventory of Personality Organization-Revised (IPO-R) into Ukrainian, followed by checking for linguistic validity and psychometric properties. The questionnaire showed high psychometric performance in the long (IPO; Lenzenweger et al., 2001) and short (IPO-R; Smits et al., 2009) versions and foreign language adaptations. It is widely used in psychological research, the theoretical and methodological basis of which is the psychoanalytic concept, in particular, the theory of Kernberg

(1986) on different levels of structural organization of personality, which underlies the psychoanalyst's choice of a strategy for working with a client. The created test version of the IPO-R-UKR questionnaire passed the stages of two-sided "double-blind" translation and was agreed upon by a team of philologists and psychologists. Based on the results of 1152 people participating in the empirical research, we have proven IPO-R-UKR to have a similar to the original two-factor structure, good internal consistency of the scales, construct convergent, and criterion validity. Thus, IPO-R-UKR can be used in practical psychological activities and scientific research to identify criteria for the structural organization of personality, such as reality testing, identity diffusion, and mechanisms of psychological defenses, as well as for screening diagnostics of the structural level of personality organization by Kernberg (1986).

Keywords: *linguistic validity, Ukrainian translation, structural personality organization, identity diffusion, reality testing, defense mechanisms, psychodynamic therapy.*

Семків Ірина, Турецька Христина, Кривенко Ірина, Кечур Роман. Лінгвістична та психометрична валідація україномовного перекладу «The Inventory of Personality Organization-Revised» (IPO-R-UKR).

Анотація. Культурна адаптація психодіагностичного опитувальника передбачає здійснення двостороннього "сліпого" перекладу із подальшою лінгвістичною валідацією, коли при перекладі враховуються як мовні відмінності, так і символізм авторських тверджень. Далі на основі даних опитування респондентів здійснюється перевірка різних психометричних показників отриманої мовної версії методики. Створення україномовних опитувальників у психодинамічній парадигмі є надважливим завданням для створення належної науково-доказової бази терапевтичних методів, що ґрунтуються на ній, так само як і для психотерапевтичної практики задля "озброєння" фахівців надійним діагностичним інструментарієм. Метою дослідження є здійснення фахового перекладу психологічного тесту «The Inventory of Personality Organization-Revised (IPO-R)» українською мовою, з подальшою перевіркою лінгвістичної валідності та психометричних показників тесту. Опитувальник продемонстрував високі психометричні показники у повній (IPO; Lenzenweger et al., 2001) та скороченій (IPO-R; Smits et al., 2009) версіях, а також в іншомовних адаптаціях. Він широко застосовується у психологічних дослідженнях, теоретико-методологічну основу яких складає психоаналітична концепція, зокрема, теорія О. Кернберга (Kernberg, 1986) про різні рівні структурної організації особистості, що лягає в основу вибору психоаналітиком стратегії роботи з клієнтом. Створений тестовий варіант опитувальника IPO-R-UKR пройшов етапи подвійного двостороннього "сліпого" перекладу та узгоджений групою філологів та психологів. Базуючись на результатах опитування 1152 учасників емпіричного дослідження, було доведено ідентичну оригінальній двофакторну структуру IPO-R-UKR, а також хорошу внутрішню узгодженість шкал, конструктну, конвергентну та критеріальну валідності. Отже, методику IPO-R-UKR можна використовувати у практичній психологічній діяльності, та наукових дослідженнях, спрямованих на виявлення критеріїв структурної організації особистості, як тестування реальності, дифузність ідентичності, механізми психологічного захисту, та для скринінгової діагностики рівня структури організації особистості за О.Кернбергом (1986).

Ключові слова: *лінгвістична валідність, україномовний переклад, структурна організація особистості, дифузність ідентичності, тестування реальності, механізми психологічного захисту, психодинамічна терапія.*

Introduction

The translation of psychodiagnostic tools is a complex task involving finding a linguistic equivalent of foreign words in the native language and accounting for latent meanings embedded in these words by the test authors. In the case of psychological

tools translation, it is crucial to find the correct equivalent for metaphors, idioms, and latent symbolic meanings in a native language (ITC, 2017). In addition, this procedure should be accompanied by verification of the questionnaire's validity and reliability, which determine its cultural adaptation. This procedure requires the involvement of experts in both philology and psychology. Thus, cultural adaptation of psychological tests comprises qualitative (linguistic validation) and quantitative methods (statistical validation) (ITC, 2017; Borsa et al., 2012). Several issues in the cultural validation of psychological instruments in the healthcare field should be solved: linguistic, procedural, and cultural (Chatzidamianos et al., 2021). The last issue refers to both cultural background and to the symbolic meaning of the words in different languages and the psychological tool's author style (Meier et al., 2021).

The article describes the linguistic and psychometric validation procedure of the Inventory of Personality Organization – Revised (IPO-R) (Smits et al., 2009), followed by cultural modification. Creating such a Ukrainian-language tool is an essential task for the development of psychodynamic practice in Ukraine and the investigation of the scientific bases of psychodynamic theory. Correct diagnosis is crucial for choosing the most effective psychotherapeutic interventions in a psychodynamic approach. The vector of modern psychodynamic analysts' activity is directed to the field of metric assessment of the personality organization, which gives a new problem representation, different from its former phenomenological perspective. Therefore, psychometric tools for measuring the personality's structural characteristics have a practical and scientific value.

One of the first models for assessing and diagnosing the personality organization with measurable indicators is the structural interview of Otto Kernberg. Based on Freud's structural theory of personality, Kernberg (1986) developed a method of structural analysis as an approach to psychoanalytic diagnostics. He introduced the criteria for determining the structural organization, a specific combination of which characterizes the three levels of personality organization – psychotic, borderline, and neurotic.

Reality testing is the primary criterion for distinguishing the psychotic level of a personality structural organization from the borderline and neurotic. It can be described through the ability to distinguish between self and non-self; between intrapsychic experiences and experiences originating from the outside world; the ability to evaluate one's emotions, behavior, and thoughts in terms of the social norms (Kernberg, 1986).

The degree of *personality integration* is another important criterion for distinguishing the levels of personality organization. Weak personality integration or the so-called identity diffusion is inherent in psychotic and borderline organizations, while the neurotic personality has a well-integrated identity. The integration of personality reflects the ability to form a holistic image of oneself, self-concept, and, secondly, a holistic view of other people (Kernberg, 1986).

The third criterion is the *maturity of the defense mechanisms*. Individuals with a psychotic organization have the least mature primary defenses based on splitting.

Alternatively, mature defenses based on repression are typical for the neurotic structural organization (Kernberg, 1986).

Although it provides some metrics, the structural interview is based on the trusting oral interaction of two people. This tool has been changed and modified several times. One of these modifications is the basis for the self-report questionnaire – The Inventory of Personality Organization (Lenzenweger et al., 2001). The 57-item questionnaire assesses the level of personality functioning according to the described criteria, having a three-factor structure verified in both clinical and non-clinical samples (Lenzenweger et al., 2001; Igarashi et al., 2009). It also has shown strong connections with the measures of other clinical scales: self-harmful, anxiety, depression, and aggression (Vermote et al., 2009); paranoid and antisocial personality disorders (Yun et al., 2013); tendencies to commit violence against a relationship partner (Maneta et al., 2013). Identity diffusion and primitive defenses are associated with low levels of self-control in borderline personality disorder patients (Hoermann et al., 2005); with alienation, aggression, absorption, and stress response (Lenzenweger et al., 2012); with a disorganized attachment style (Goodman, Bartlett, & Stroh, 2013). IPO has also been used to indicate the effectiveness in randomized controlled trials while treating personality disorders (Arntz, & Bernstein, 2006).

During the last years, several new investigations of the connectedness of the structural characteristics of personality and public and mental health issues appeared. They prove correlations between IPO scales and verbalization ability, reflective function (Górska, & Soroko, 2017), negative maternal behaviors (Ensink et al., 2017), depressive symptoms, rumination mediates (Kovács et al. 2021), traits of emotional intelligence, and early traumatic experience (Espinosa, & Rudenstine, 2018), psychological flexibility and attachment style (Salande, & Hawkins, 2017), and internalized relational patterns (Soroko, & Cierpiałkowska, 2018). The researchers studying how people cope with the COVID-19 pandemic and lock-down have found out that those who did not believe that the virus was life-threatening were more disposed to use maladaptive defense mechanisms than those who thought it was dangerous for life (Zajenkowska et al., 2021).

There is evidence that the researchers can effectively use IPO with adolescents (Biberdzic et al., 2017). Several IPO scales' specifications were recently designed (Dagnall et al., 2018, Hörz-Sagstetter et al., 2021).

However, a strong correlation between the factors of identity diffusion and primitive defense mechanisms ($r = .97$; Lenzenweger et al., 2001) brought an idea to check for the validity of IPO's two-factor structure (Normandin et al., 2002). After testing this model, a short 41-item version of the questionnaire, The Inventory of Personality Organization-Revised (IPO-R), was developed (Smits et al., 2009). The IPO-R includes 11 items on the Reality Testing (RT) and 30 items on the primitive defenses / identity diffusion (PD / ID). The authors claim these factors are independent, having a low correlation rate ($r = .62$; Smits et al., 2009, p.226), and internally consistent ($\alpha = .85$ for the RT and $\alpha = .90$ for the PD / ID; Smits et al., 2009, p.226), as well as highly correlated with the original IPO scales (.92 and .97,

respectively, for the RT and PD / ID scales), which indicates minimal information loss (Smits et al., 2009, p. 226).

The IPO and IPO-R have been translated and adapted into numerous languages: Japanese (Igarashi et al., 2009), French (Normandin et al., 2002), Dutch (Berghuis et al., 2009), German (Zimmermann et al., 2013), Portuguese (Oliveira, & Bandeira, 2011), Italian (Prete et al., 2015), which allows intercultural research in the theoretical and conceptual field of psychoanalysis. However, there is no Ukrainian translation and cultural adaptation for none of the described test versions for studying the structural organization. The creation of a translation and further validation of the IPO-R-UKR is a significant step towards implementing such research in domestic psychology.

The aim and objectives of the study. Taking the practical and scientific value of the IPO-R-UKR, and the lack of reliable and valid Ukrainian-language tools for diagnosing personality organization into consideration, the research aims to translate IPO-R into Ukrainian and to verify its psychometric indicators. Namely, the tasks are to create a high-quality Ukrainian-language version of the IPO-R-UKR; to check for its linguistic validity; on the results of empirical data analysis in a non-clinical sample to check for the internal consistency of the translated test, its construct convergent and criterion validity; to verify the two- and three-factor structure of the IPO-R-UKR and to choose an optimal solution for the Ukrainian-language version of the questionnaire key.

Methods

Procedure and Participants

The adaptation of the Ukrainian version of the “The Inventory of Personality Organization – Revised” had several stages. Firstly, the items were translated into Ukrainian, with subsequent expert evaluation and reverse translation, to ensure linguistic validity. Secondly, the empirical data were collected to assess the fundamental psychometric indicators of the Ukrainian-language test version – the internal consistency of the statements, structural, construct convergent, and criterion validity. Thirdly, based on the obtained results, the final version of the IPO-R-UKR and the questionnaire key were formed.

One thousand one hundred fifty-two people took part in the empirical study, 241 men (20.92%) and 664 women, 247 respondents did not indicate their sex, with an average age of 27.94 years (Min = 18, Max = 50, SD = 9.18). The age distribution was characterized by right-sided asymmetry (Med = 25; Shapiro-Wilk $W = .87770$; $p < .001$). The participants were recruited via social media and after signing an informed consent each of them was randomly allocated to fill-in one of the Google-forms including IPO-R, as well as one or more questionnaires (for details, see below). We did not collect any personal information about the participants so that their anonymity could not be broken.

Materials

The Ukrainian translation of IPO-R (Smits et al., 2009) that we have used, consists of 41 items to be assessed using a 5-point Likert scale (never = 0, rarely = 1, sometimes = 2, often = 3, always = 4). After checking for the questionnaire's factor structure (see below), the scores for the scales of reality testing (RT, 11 statements) and the defense mechanisms/identity diffusion were calculated in the range 0-100, according to their percentage values, due to the different number of the items in the scales.

We used the following measures to determine the construct convergent validity of IPO-R-UKR:

- The Bell's Object Relations & Reality Testing Inventory (BORRTI) (Bell, 1995) consists of 34 questions and contains 2 scales: "object relations" (24 items) and "reality testing" (10 items).
- The Personality Assessment Inventory – Borderline Scale (PAI-BOR) (Morey, 1991) contains 24 questions divided into the following scales: "affective instability," "identity problems," "negative attitudes," and "self-harm."

The links of IPO-R scales with the following questionnaires' scales were to assess criterion validity:

- Mentalization Questionnaire (MZQ) (Hausberg et al., 2012) contains 15 items which form four scales: "refusal of self-reflection," "emotional awareness," "mental equivalence mode," "affect regulation."
- The measure of Attachment Qualities (MAQ) (Carver, 1997) contains 14 questions and four scales – "safety," "avoidance," "ambivalent anxiety," and "ambivalent self-absorption." The questionnaire allows determining the leading type of attachment a person shows in social relationships in adulthood.
- The Hypersensitive Narcissism Scale (HSNS) (Hendin, & Cheek, 1997) diagnoses the level of vulnerable narcissism as a personality trait characterized by sensitivity to other people's views, avoiding behavior. The scale contains ten statements.

We have tested linguistic validity by the method of parallel double-blind translation, further expert evaluations of the text, and the method of reverse translation. Empirical data were processed in the STATISTICA 8.0 package. The methods of exploratory factor analysis – principal components analysis (EFA-PCA) verified structural validity, Cronbach's alpha method established reliability, and correlation analysis was to check for the construct convergent and criterion validity of the IPO-R-UKR.

Results

Linguistic Validity

While creating a test variant of the IPO-R-UKR, two professional philologists-translators have independently translated the original English version of IPO-R into

Ukrainian. A group of experts, professional psychologists, and Ukrainian philologists have compared these texts to evaluate each item to have the most reasonable interpretation. The next step provided reverse translations by two native English speakers with fluency in Ukrainian. We have compared these versions with the original IPO-R to eliminate free interpretations of the text (Eremenco, Cella, & Arnold, 2005; Rebrii & Demetska, 2020). As a result, a test version of the IPO-R-UKR was formed, which we believe saves the content of the original items and accounts for the linguistic tradition of the Ukrainian language.

The analysis of both translations showed no significant differences in the wordings for more than half of the items (No. 3-6, 11-15, 17-18, 20, 24-25, 28, 30, 33-38, 40-41). However, some statements required more careful analysis. The least problematic were the differences, which indicated the synonymy of the words used by translators rather than the interpretation inaccuracies, which could affect the content of the question (Carl & Schaeffer, 2017). For example, Item No. 2, “When *I'm nervous* or confused, it seems like things in the outside world don't make sense either,” one of the translators formulated this item in Ukrainian as “When I feel nervous...” (“коли я нервую”), while another translator used the phrase “When I am nervous” (“коли я знервований”), thus, focusing on a process and an emotional state respectively. Such differences do not significantly affect the understanding of the content of the question. However, Ukrainian philologists believe the wording “коли я нервую” (the process) is more reasonable than the one describing a state. We also met this wording in Google-search more often: “коли я нервую” shows about 5,900 uses, while “коли я знервований” is met only 185 times. We found a similar pattern in item No. 21 “My life, if it were a *book*, seems to me more like a series of short *stories* written by different authors than like a long novel”. Translations of the word “book” into Ukrainian – “книга” or “книжка”, as well as “stories” – “історії” or “оповідання” were controversial, in both cases we preferred the first word for IPO-R-UKR test version.

Item No. 7, “I feel that my tastes and opinions are not really my own, but *have been borrowed from other people*,” also had differences in translation. Namely, one of the interpreters stated “...I inherit them from others” (“я їх переймаю від інших”), and the second formulated “...as if borrowed from others” (“наче запозичені від інших”).

For the final version of the questionnaire, based on similarities with the original, we chose the wording in the passive state “are borrowed from others” (“запозичені від інших”). According to the psychodynamic framework, this wording also has a more substantial diagnostic value for studying the maturity of the defense mechanisms. Knox (2011), analyzing William James’ distinction between the two aspects of the self, “I” and “Me”, empathizes that “Me-ness” symbolizes the passive state of mind, and “I-ness” is a symbol for maturity and developed self-agency. People using words symbolizing high levels of self-agency in personal narratives are more likely to have secondary and more mature defenses. A similar challenge in translation arose for item No. 23. Item No. 23: “*I pick up hobbies* and interests and

then drop them". Two versions of the translation offered either active or passive form: "I find new hobbies..." ("Я знаходжу хобі") and "The hobbies appear..." ("У мене з'являються хобі"). We preferred an active form, the same as used in the original ("Я знаходжу"), as more appropriate.

In item No. 8, "I feel that my wishes or thoughts *will come true as if by magic*," the last part of the statement had different versions of the translation, namely "...will be performed by a miracle as if by magic" ("збудуться дивом, так ніби це магія") and "...can be carried out in some magical way" ("можуть здійснитись якимось магічним чином"). To avoid tracing the linguistic construction from English, we chose a phrase which is more acceptable for Ukrainian, "здійснитись магічним чином". For item No. 10, "I am not sure whether a voice I have heard or something that I have seen is *my imagination or not*," the similar challenge appeared. The more typical for Ukrainian "is the fruit of my imagination" ("є плодом моєї уяви") appears in the test version.

We have solved similar translation problems in items No. 26, 27, 31, 32, and 39 in the same way, following the Ukrainian language tradition rather than the word-to-word translation.

Item No. 9, "People tell me I provoke or *mislead them* so as to get my way," includes a disputable wording which was translated as "mislead" ("ввожу в оману") and "deceive" ("обманюю") by two translators. Oppositely, in this case, we chose the first construction as both closer to the original and more common for Ukrainian. Item No. 16, "I can't tell whether certain physical sensations I'm having *are real, or whether I am imagining them*," had controversial translations with a different context: "...or it's my imagination" ("це моя уява") vs. "...I'm making them up" ("я їх вигадую").

In our choosing correct wording, we proceeded from the logic that it is not that important for the questionnaire to emphasize the cognitive process of imagination than on the fact that the sensations may be wrong. As a result, we worded the following statement: "Я не можу сказати, чи деякі з моїх фізичних відчуттів переживаються мною реально, чи я їх вигадую".

Item No. 19, "People tend to use me *unless I watch out for it*," was also disputable. The two translators' versions were "unless I'm not careful with them" ("якщо я їх не остерігаюся") vs. "unless I don't control" ("якщо я не контролюю").

None of the wording fully reveals the essence of the issue. The first translator's version linking "watch out for it" to the need of a person to be careful, to beware (similarly to "watch out for danger") looks more akin than an alternative one. However, the controversial phrase, we believe, refers more to the word "use," and not the people who do it (as in the translation using a pronoun "them"). Therefore, the statement in Ukrainian sounds like "Люди мають схильність використовувати мене, якщо я за цим не стежу".

We would also like to pay attention to the cultural specificity of several IPO-R items. Namely, the evaluation of the circumstances' predictability is essential here.

For instance, items No. 33, “My life goals change frequently from year to year,” or No. 18, “I act in ways that appear to others as unpredictable” (items No. 15 and 26 have the same ideas). Since the political and social situation in Ukraine is more unpredictable than in the USA or the EU, the measures of unpredictability and uncertainty avoidance can have a different value for the respondents.

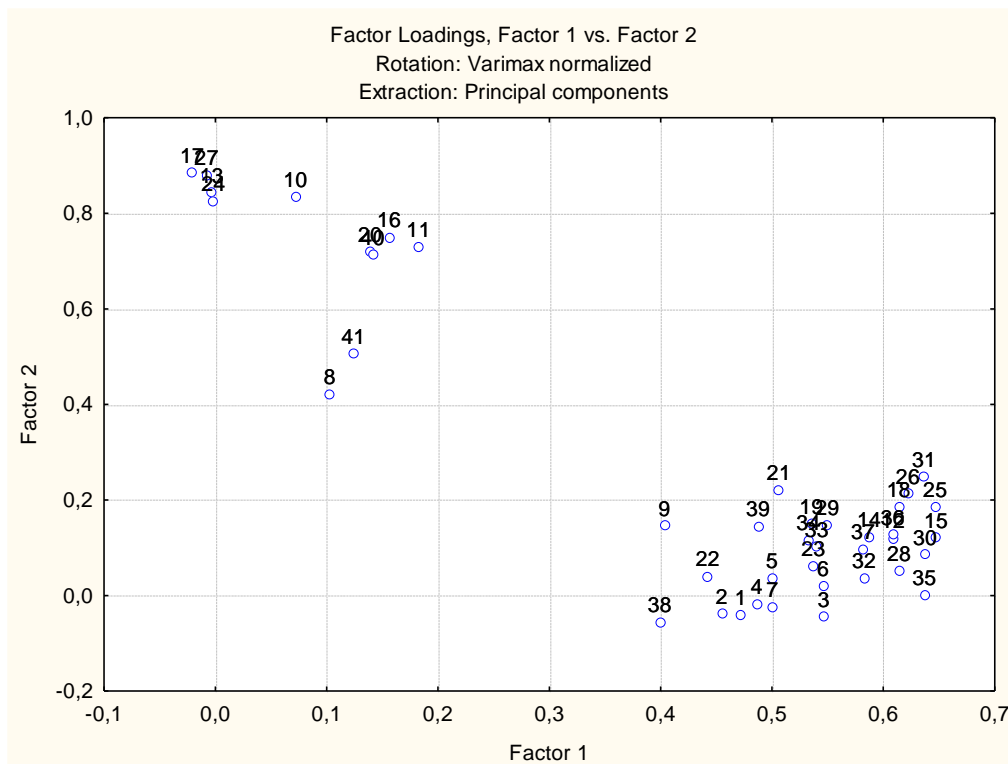
Structural Validity

Using the EFA-PCA, we have divided all items into two and three factors to determine the more valid structure of the IPO-R-UKR.

Two-factor model. Two selected factors describe 38.92% of the total variance; the correlation between factors is significantly lower than in the original version: $r = .26$ vs. $r = .62$ reported by Smits et al. (2009, p.226) that indicates the factors’ independence (Fig. 1).

Figure 1

The items’ location in the two-factor IPO-R-UKR structure



Smits et al. (2009) decided to exclude the statement from the scale in case of its loading $<.40$ and/or cross-loading $<.20$. There are no cross-loadings for any statement (see Fig. 1), and the lowest factor load for item No. 38 is $.399$. According to the factor loading (see Table 1), the Ukrainian version completely replicates the original questionnaire’s structure: factor 1 (PD / ID) includes 30 items, No. 1-7, 9, 12, 14-15, 18-19, 21-23, 25-26, 28-39, and factor 2 (RT) consists of 11 statements, No. 8, 10-11, 13, 16-17, 20, 24, 27, 40-41. Thus, the two-factor model of IPO-R-UKR is valid.

Table 1
Factor loadings of the IPO-R-UKR items (EFA-PCA results)

| Item No. | Factor 1 – PD / ID | Factor 2 – RT | Item No. | Factor 1 – PD / ID | Factor 2 – RT |
|----------|-----------------------|------------------|----------|-----------------------|------------------|
| 1 | .472 | -.041 | 22 | .442 | .041 |
| 2 | .455 | -.038 | 23 | .537 | .620 |
| 3 | .546 | -.044 | 24 | -.002 | .826 |
| 4 | .486 | -.018 | 25 | .647 | .186 |
| 5 | .501 | .0368 | 26 | .622 | .214 |
| 6 | .546 | .020 | 27 | -.008 | .880 |
| 7 | .500 | -.024 | 28 | .614 | .051 |
| 8 | .103 | .423 | 29 | .550 | .148 |
| 9 | .403 | .147 | 30 | .638 | .086 |
| 10 | .072 | .834 | 31 | .637 | .248 |
| 11 | .183 | .731 | 32 | .583 | .037 |
| 12 | .609 | .120 | 33 | .540 | .102 |
| 13 | -.003 | .844 | 34 | .533 | .117 |
| 14 | .587 | .123 | 35 | .637 | .001 |
| 15 | .647 | .120 | 36 | .609 | .128 |
| 16 | .156 | .750 | 37 | .582 | .098 |
| 17 | -.021 | .884 | 38 | .399 | -.056 |
| 18 | .614 | .185 | 39 | .488 | .145 |
| 19 | .536 | .151 | 40 | .141 | .714 |
| 20 | .139 | .720 | 41 | .124 | .505 |
| 21 | .506 | .220 | | | |

Note. The highest factor loading is marked bold

The three-factor model describes 43.04% of the total variance. Correlation coefficient between the factors 1 and 2 is $r = .22$, 1 and 3 $r = .71$, 2 and 3 $r = .27$. According to the content of the items, factor 1 corresponds to the characteristics of diffuse identity (ID scale of IPO). Factor 2 consists of items related to reality testing (RT scale), and factor 3 to primitive defenses (PD scale). Despite the significant strengthening of the links between the factors in the three-factor model, these correlations are still lower than those found for the original IPO (scales ID and RT $r = .67$, PD and ID $r = .97$, PD and RT $r = .71$) (Lenzenweger et al., 2001, p. 581)).

Factor loadings in the three-factor model of the IPO-R-UKR are less unambiguous than in the similar two-factor model. Part of the items have cross-loading in the range of .20 and less (No. 6, 12, 19, 21, 25, 28, 29, 31, 34), and for some of them (No. 6, 21), the factor loadings do not reach .40 in any factor.

Internal Consistency

While testing for reliability, we calculated the alpha Cronbach's coefficients for the IPO-R-UKR scales. The results show $\alpha = .92$ for both scales, inter-item correlation r

= .29 for the PD / ID and $r = .53$ for the RT scale. The internal consistency score for the integral scale including 41 item is also $\alpha = .92$, $r = .24$.

Construct Convergent Validity

To determine whether IPO-R-UKR is suitable for establishing the traits allowing to distinguish personality organization, we have checked for correlations of its measures with the questionnaires measuring relevant characteristics. According to the validation procedure, the primary hypotheses were about the direct positive correlations 1) of the reality testing scale (and its subscales) in BORRTI and the IPO-R-UKR's reality testing scale (RT), 2) of the identity problems' subscale, and the integrated PAI-BOR scale of borderline traits with the primitive defenses/identity diffusion scale (PD/ID). We used non-parametric Spearman's rank correlation criterion to test these assumptions as the analysis of the IPO-R-UKR scales' frequencies indicated there are no normal distributions for both scales ($N = 1152$).

All hypotheses were confirmed, proving the IPO-R-UKR's convergent validity. There are strong ($p < .001$) links between the RT scale and the BORRTI's reality testing scale. The PD/ID scale shows even stronger correlations with the integrated scale of borderline features of the PAI-BOR test (see Table 2 for correlations of the integrated scales).

Table 2

Connections between the IPO-R-UKR and BORRTI and PAI-BOR scales: confirmation of construct convergent validity

| Questionnaire, number of participants | Scale | Link with IPO- R-UKR, RT, r | Link with IPO-R-UKR, PD / ID, r |
|---|-------------------------|--------------------------------|---------------------------------------|
| BORRTI, 147 | Reality testing | .40*** | .60*** |
| | Object relationships | .41*** | .64*** |
| PAI-BOR, 488 | Borderline traits | .41*** | .72*** |

*** $p < .001$.

Criterion Validity

Several constructs determining the differential diagnosis of personality organization were used as external criteria for assessing the validity of the IPO-R-UKR. According to the psychodynamic perspective, these are: the level of mentalization (measured by MZQ), the attachment quality (MAQ), and the level of vulnerable narcissism (HSNS). To confirm the criterion validity of the IPO-R-UKR, we expected its both

scales would be directly correlated to the maladaptive dimension of each of these personality traits.

The close links between the IPO-R-UKR scales and these features (Table 3) give grounds to assert its ability to distinguish the characteristics inherent in individuals within and outside the neurotic spectrum. Namely, the PD/ID scale positively correlates with low ability to mentalize ($r = .55$), the tendency to form unfavorable interdependence in relationships (mainly dysfunctional, $r = .35$, while the relation with a healthy interdependence of this scale is negative, $r = -.34$), and the maladaptive types of attachment (avoidant, $r = .26$, ambivalent anxious, $r = .33$, and ambivalent self-absorbing, $r = .44$), high hypersensitive narcissism ($r = .44$).

Table 3

Connections between the IPO-R-UKR scales and other psychodynamic constructs' questionnaires: confirmation of criterion validity

| Questionnaire, number of participants | Scale | Link with IPO-R- UKR, RT, r | Link with IPO-R- UKR, PD / ID, r |
|---|--------------------------|--------------------------------------|---|
| MZQ, 190 | Mentalization | .27*** | .55*** |
| MAQ, 144 | Secure attachment | .10 | .06 |
| | Avoidant attachment | .16* | .26*** |
| | Ambivalent attachment | anxious .18* | .33*** |
| | Ambivalent attachment | self-absorbing .23** | .44*** |
| HSNS, 284 | Vulnerable narcissism | .26*** | .44*** |

* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

The Ukrainian translation of the Inventory of Personality Organization-Revised has a high level of validity and reliability, allowing using this method in research and practical psychotherapeutic activities within the Ukrainian-speaking cultural environment. Nevertheless, we will emphasize the critical aspects of the questionnaire's linguistic analysis and cultural adaptation in the research process.

Firstly, the difficulties at the stage of IPO-R-UKR linguistic analysis appeared due to the peculiarities of the psychodiagnostic tools construction and the semantics of some wordings. Namely, the specifics of the active or passive forms' usage in the

context of reality testing, identity diffusion, and defense mechanisms maturity were important to preserve the diagnostic value of the items. According to the psychodynamic theory of personality, subjectiveness and the feeling of influencing the environment or life events personally are particularly important in distinguishing the neurotic level of structural organization from borderline and psychotic (Knox, 2011; Khomyk, & Filippova, 2014). Such a subjective sense of influence can be expressed using different wordings: people with higher subjectiveness are more likely to operate with active forms (“I do”), compared to those with lower who used passive voice (“it happened”). Therefore, during the translation process, it was crucial to pay attention to whether the change of the passive to the active form or vice versa neither changes the item’s semantics nor affects the diagnostic power of each statement. When translating, we tried to preserve the items’ style close to the original and select Ukrainian language constructions to be easily understood by the participants. It was also essential to adequately translate the phraseologies avoiding linguistic tracing but saving the latent meaning of the item.

Secondly, it is important to stress that verifying the IPO-R-UKR validity and reliability required an understanding of the sample context. On the one hand, reality testing and primitive defenses/identity diffusion scales have significant correlations with related tools. There is a general reason to believe that the IPO-R-UKR is a valid questionnaire for diagnostic screening of borderline states. On the other hand, the primitive defenses/identity diffusion scale is more sensitive to measuring personality aspects outside the neurotic spectrum than the reality testing scale. We make this deduction due to higher correlation coefficients between PD/ID and convergent scales and more expressive right-sided asymmetry of RT in all samples (which means that a significant number of respondents gave answers in low values). A distinct violation of reality testing occurs only in individuals with a psychotic personality structure (Kernberg, 1986), which may decrease the diagnostic power of this scale in the study of individuals with borderline and neurotic personality structures.

Although the correlations of the RT scale are somewhat weaker than the PD/ID, they still allow us to trace some trends that are essential for psychodynamic diagnostics. People having low reality testing also have lower levels of mentalization, insecure types of attachment, and higher levels of maladaptive narcissism, which generally corresponds with other studies (Goodman, Bartlett, & Stroh, 2013; Maneta et al., 2013; Hoermann et al., 2005) and testifies to the criterion validity of the IPO-R-UKR.

Thirdly, concerning the controversy over the two- or three-factor structure of the IPO-R-UKR, we consider the two-factor model to be better. Such a structure is entirely consistent with the original and devoid of cross-loadings, while the three-factor model does not give grounds to attribute some items to a specific scale unambiguously. In this case, disputable statements had to be excluded from a questionnaire so that a 37-item IPO-R would appear. However, this adaptation applies to the already abbreviated test version, so it would not be appropriate to make such an exclusion due to a possible uncontrollable data loss. Instead, we consider that the two-component structure of the Ukrainian-language version of the IPO-R has

higher structural validity. Thus, we recommend running data analysis within two scales – reality testing (RT) and primitive defenses/identity diffusion (PD/ID).

Finally, it should be noted that the internal consistency of the IPO-R-UKR items is even higher than the original's, which demonstrates the high reliability of this psychodiagnostic tool. Based on the obtained results, we can also say that all questionnaire items measure the same property of the studied phenomenon. Therefore, even the integrated IPO-R-UKR scale can be used in the research as it has the high internal consistency.

Conclusions

The availability of the Ukrainian version of the Inventory of Personality Organization-Revised is an important investment in creating the psychodynamic scientific evidence base and developing psychodynamic psychodiagnostics for the needs of psychotherapeutic practice.

The current study of the linguistic analysis and cultural adaptation of the IPO-R-UKR shows this psychodiagnostic tool's high linguistic validity, internal consistency, factor structure complete reproducibility, high construct convergent, and criterion validity.

Regarding the limitations of the study, which, at the same time, indicate the prospects for further research, we note the following: the uneven distribution of respondents by age (average age is almost 28 years old), gender (only 20,9% are men), other socio-demographic indicators that were not taken into account; the lack of clinical sampling, which can be compensated in further studies to clarify the diagnostic power of the reality testing scale; no retest has been performed, so the questionnaire needs to be tested for temporal reliability.

Nevertheless, these limitations do not diminish the theoretical outcome and practical value of the study. The data presented in the article are original and important and give grounds to recommend IPO-R-UKR to be used in practice for screening determination of the personality organization and its key criteria (reality testing, identity diffusion, defense mechanisms) and to solve scientific tasks within the psychodynamic approach.

References

- Arntz, A., & Bernstein, D. (2006). Can Personality disorders be changed? *Netherlands Journal of Psychology*, 62, 8–18. <http://doi.org/10.1007/BF03061046>
- Berghuis, H., Kamphuis, J. H., Boedijn, G., & Verheul, R. (2009). Psychometric properties and validity of the Dutch Inventory of Personality Organization (IPO-NL). *Bulletin of the Menninger Clinic*, 73(1), 44–60. <https://doi.org/10.1521/bumc.2009.73.1.44>
- Biberdzic, M., Ensink, K., Normandin, L., & Clarkin, J. F. (2017). Psychometric properties of the Inventory of Personality Organization for Adolescents. *Adolescent Psychiatry*, 7(2), 127–151 <http://dx.doi.org/10.2174/2210676607666170607141146>

- Borsa, J. C., Damásio, B. F., & Bandeira, D. R. (2012). Cross-Cultural Adaptation and Validation of Psychological Instruments: Some Considerations. *Paidéia (Ribeirão Preto)*, 22(53), 423-432. <http://dx.doi.org/10.1590/1982-43272253201314>
- Carl, M. & Schaeffer, M. J. (2017). Models of the Translation Process. In: *The Handbook of Translation and Cognition*, (pp. 50–70). J. W. Schwieter & A. Ferreira (eds.). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781119241485.ch3>
- Carver, C. S. (1997). Adult attachment and personality: Converging evidence and a new measure. *Personality and Social Psychology Bulletin*, 23(8), 865–883. <https://doi.org/10.1177/0146167297238007>
- Chatzidamianos, G., Burns, D., Andriopoulou, P., Archer, D., & du Feu, M. (2021). The challenges and facilitators to successful translation and adaptation of written self-report psychological measures into sign languages: A systematic review. *Psychological Assessment*, 33 (11), 1100–1124. <https://doi.org/10.1037/pas0001061>
- Cifuentes-Férez, P. & Rojo López, A. (2015). Thinking for translating: A think-aloud protocol on the translation of manner-of-motion verbs. *Target*, 27, 273–300. <https://doi.org/10.1075/target.27.2.05cif>
- Dagnall, N., Denovan, A., Parker, A., Drinkwater, K., & Walsh, R. S. (2018). Confirmatory Factor Analysis of the Inventory of Personality Organization-Reality Testing Subscale. *Frontiers in psychology*, 9, 1116. <https://doi.org/10.3389/fpsyg.2018.01116>
- Ensink, K., Rousseau, M. E., Biberdzic, M., Bégin, M., & Normandin, L. (2017). Reflective function and personality organization: associations with negative maternal behaviors. *Infant mental health journal*, 38(3), 351–362. <https://doi.org/10.1002/imhj.21643>
- Eremenco, S. L., Cella, D., & Arnold, B. J. (2005). A comprehensive method for the translation and cross-cultural validation of health status questionnaires. *Evaluation & the health professions*, 28(2), 212–232. <https://doi.org/10.1177/0163278705275342>
- Espinosa, A., & Rudenstine, S. (2018). Trait emotional intelligence, trauma and personality organization: Analysis of urban clinical patients. *Personality and Individual Differences*, 123, 176–181. <https://doi.org/10.1016/j.paid.2017.11.026>
- Goodman, G., Bartlett, R. C., & Stroh, M. (2013). Mothers' borderline features and children's disorganized attachment representations as predictors of children's externalizing behavior. *Psychoanalytic Psychology*, 30(1), 16–36. <https://doi.org/10.1037/a0031068>
- Górska, D., & Soroko, E. (2017). Between verbalization and reflection: Referential activity and narrative processes in borderline personality organization. *Psychoanalytic Psychology*, 34(4), 422–433. <https://doi.org/10.1037/pap0000117>
- Hoermann, S., Clarkin, J. F., Hull, J. W., & Levy, K. N. (2005). The Construct of Effortful Control: An Approach to Borderline Personality Disorder Heterogeneity. *Psychopathology*, 38(2), 82–86. <https://doi.org/10.1159/000084815>
- Hörz-Sagstetter, S., Volkert, J., Rentrop, M., Benecke, C., Gremaud-Heitz, D. J., Unterrainer, H. F., Schauenburg, H., Seidler, D., Buchheim, A., Doering, S., Feil, M. G., Clarkin, J. F., Dammann, G., & Zimmermann, J. (2021). A Bifactor Model of Personality Organization. *Journal of personality assessment*, 103(2), 149–160. <https://doi.org/10.1080/00223891.2019.1705463>
- International Test Commission. (2017). *The ITC Guidelines for Translating and Adapting Tests (Second edition)*. Retrieved from www.InTestCom.org
- Igarashi, H., Kikuchi, H., Kano, R., Mitoma, H., Shono, M., Hasui, C., & Kitamura, T. (2009). The Inventory of Personality Organisation: its psychometric properties among student and clinical populations in Japan. *Annals of General Psychiatry*, 8(9). <https://doi.org/10.1186/1744-859X-8-9>
- Kernberg, O. F. (1986). *Severe personality disorders: Psychotherapeutic strategies*. Yale University Press.
- Khomyk V., & Filippova I. (2014). Identity Development and Aggressive Lexicon. *East European Journal of Psycholinguistics*, 1(1), 97–106. Retrieved from <https://eejpl.vnu.edu.ua/index.php/eejpl/article/view/216>

- Knox, J. (2011). *Self-Agency in Psychotherapy: Attachment, Autonomy, and Intimacy*. New York, NY: W.W. Norton.
- Kovács, L. N., Schmelowszky, Á., Galambos, A., & Kokonyei, G. (2021). Rumination mediates the relationship between personality organization and symptoms of borderline personality disorder and depression. *Personality and Individual Differences*, 168. <https://doi.org/10.1016/j.paid.2020.110339>
- Lenzenweger, M. F., Clarkin, J. F., Kernberg, O. F., & Foelsch, P. A. (2001). The Inventory of Personality Organization: Psychometric properties, factorial composition, and criterion relations with affect, aggressive dyscontrol, psychosis proneness, and self-domains in a nonclinical sample. *Psychological Assessment*, 13(4), 577–591. <https://doi.org/10.1037/1040-3590.13.4.577>
- Lenzenweger, M. F., Clarkin, J. F., Levy, K. N., Yeomans, F. E., & Kernberg, O. F. (2012). Predicting domains and rates of change in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment*, 3(2), 185–195. <https://doi.org/10.1037/a0025872>
- Maneta, E. K., Cohen, S., Schulz, M. S., & Waldinger, R. J. (2013). Two to tango: a dyadic analysis of links between borderline personality traits and intimate partner violence. *Journal of Personality Disorders*, 27(2), 233–243. <https://doi.org/10.1521/pedi.2013.27.2.233>
- Meier, T. Boyd, R. L., Mehl, M. R., Milek, A., Pennebaker, J. W., Martin, M., Wolf, M., & Horn, A. B. (2021). (Not) Lost in Translation: Psychological Adaptation Occurs During Speech Translation. *Social Psychological and Personality Science*, 12(1) 131-142 <https://doi.org/10.1177/1948550619899258>
- Morey, L. C., & Ambwani, S. (2008). The Personality Assessment Inventory. In G. J. Boyle, G. Matthews, & D. H. Saklofske (Eds.). *The SAGE handbook of personality theory and assessment*, 2. Personality measurement and testing, (pp. 626–645). Sage Publications, Inc. <https://doi.org/10.4135/9781849200479.n30>
- Normandin, L., Sabourin, S., Diguier, L., Dupont, G., Poitras, K., Foelsch, P., & Clarkin, J. (2002). Évaluation de la validité théorique de l'Inventaire de l'organisation de la personnalité [Evaluation of the theoretical validity of the French translation of the Inventory of Personality Organization]. *Canadian Journal of Behavioural Science / Revue canadienne des sciences du comportement*, 34(1), 59–65. <https://doi.org/10.1037/h0087155>
- Oliveira, S. E. S., & Bandeira, D. R. (2011). Linguistic and cultural adaptation of the Inventory of Personality Organization (IPO) for the Brazilian culture. *Journal of Depression and Anxiety*, 1(105). <https://doi.org/10.4172/2167-1044.1000105>.
- Preti, E., Prunas, A., De Panfilis, C., Marchesi, C., Madeddu, F., & Clarkin, J. F. (2015). The facets of identity: personality pathology assessment through the Inventory of Personality Organization. *Personal Disorders: Theory, Research, and Treatment*, 6 (2), 129–140. <https://doi.org/10.1037/per0000119>
- Rebrii O., & Demetska V. (2020). Adaptation, Association, and Analogy: Triple A of the Translator's Decision-Making. *East European Journal of Psycholinguistics*, 7(2). <https://doi.org/10.29038/eejpl.2020.7.2.reb>
- Salade, J. D., & Hawkins, R. C. II. (2017). Psychological flexibility, attachment style, and personality organization: Correlations between constructs of differing approaches. *Journal of Psychotherapy Integration*, 27(3), 365–380. <https://doi.org/10.1037/int0000037>
- Smits, D. J. M., Vermote, R., Claes, L., & Vertommen, H. (2009). The Inventory of Personality Organization–Revised: Construction of an abridged version. *European Journal of Psychological Assessment*, 25(4), 223–230. <https://doi.org/10.1027/1015-5759.25.4.223>
- Soroko, E., & Cierpiałkowska, L. (2018). Levels of personality organization and internal relational patterns. *Current Issues in Personality Psychology*, 6(4), 292–304. <https://doi.org/10.5114/cipp.2018.80198>

- Vermote, R., Fonagy, P., Vertommen, H., Verhaest, Y., Stroobants, R., Vandeneede, B., Corveleyn, J., Lowyck, B., Luyten, P., & Peuskens, J. (2009). Outcome and outcome trajectories of personality disordered patients during and after a psychoanalytic hospitalization-based treatment. *Journal of Personality Disorders*, 23(3), 294–307. <https://doi.org/10.1521/pedi.2009.23.3.294>
- Yun, R. J., Stern, B. L., Lenzenweger, M. F., & Tiersky, L. A. (2013). Refining personality disorder subtypes and classification using finite mixture modeling. *Personality Disorders: Theory, Research, and Treatment*, 4(2), 121–128. <https://doi.org/10.1037/a0029944>
- Zajenkowska, A., Nowakowska, I., Bodecka-Zych, M., Rajchert, J., Kaźmierczak, I., Jakubowska, A., & Pinkham, A. E. (2021). Defense Mechanisms and Borderline Personality Organization Among COVID-19 Believers and Non-believers During Complete Lock-Down. *Frontiers in Psychiatry*, 12, 700774. <https://doi.org/10.3389/fpsy.2021.700774>
- Zimmermann, J., Benecke, C., Hörz, S., Rentrop, M., Peham, D., Bock, A., & Dammann, G. (2013). Validierung einer deutschsprachigen 16-Item-Version des Inventars der Persönlichkeitsorganisation (IPO-16) [Validity of a German 16-item version of the Inventory of Personality Organization (IPO-16)]. *Diagnostica*, 59, 3–16. <http://doi.org/10.1026/0012-1924/a000076>

Reframing English Studies in India: Socio-Psycholinguistic Issues

Susheel Kumar Sharma

 <https://orcid.org/0000-0002-2220-072X>

sksharma@alladuniv.ac.in

University of Allahabad, India

Received February 26, 2022; Revised April 18, 2022; Accepted June 2, 2022

Abstract. The paper deals with the theory and praxis of decolonising English Studies in India. The paper suggests appropriate measures to pull out English studies from the Macaulayan paradigm and to recast the priorities in English Studies in the light of changing role for emerging India in the unipolar world realities, rising aspirations of the middle classes, democratic and egalitarian needs. The project of ‘decolonising’ education at the macro-level and English Studies at the micro-level has been discussed with reference to curriculum, teaching methods, materials, evaluation, research and publication and medium of instruction in all possible details in the paper. The paper attempts to deal with contemporary realities like various treaties and market economy and issues like making a distinction between real knowledge and colonial knowledge along with historical context of English Studies. Several measures have been suggested to make English Studies in India relevant to the contemporary times, to save them from being derivative and to reshape Euro-American knowledge about English culture, Literature and Language from Indian perspective. Practical suggestions to decolonise curriculum have been made keeping in view the distinction between teaching literature and language in the first and the second language situations.

Keywords: *curriculum, decolonisation, education, English literature/ language, Gandhi, India, Macaulay, publications, research, teaching methods.*

Шарма Сушил Кумар. Переосмислення англійської філології в Індії: соціо-психолінгвістичні проблеми.

Анотація. Стаття присвячена теорії та практиці переосмислення англійської філології (англістики) в Індії у світлі теорій деколонізації. Дослідження пропонує відповідні заходи для вилучення англістики з парадигми Маколей та переосмислення пріоритетів англістики у світлі зміни ролі нової Індії в реаліях однополярного світу, піднесення прагнень середнього класу, а також демократичних та егалітарних потреб. Проект «деколонізуючої» освіти на макрорівні та англістики на мікрорівні автор докладно обговорює з посиланням на навчальний план, методи навчання, матеріали, оцінювання, дослідження та публікації та способів навчання. Стаття спирається на трактування нового історизму та враховує сучасні реалії, як-от різні договори й ринкову економіку під час аналізу ситуації. Беручи до увагу різницю між справжнім знанням та колоніальним знанням, у статті автор ставить завдання пошуку колоніальних елементів в англістиці та їхнього вилучення, аби ця дисципліна була змістовнішою. Щоб англістика була актуальною та відповідала потребам сьогодення, автор запропонував деякі кроки, які сприятимуть переосмисленню її й випрацюванню нового підходу до англійської культури,

літератури та мови власне з перспективи Індії. У статті також обговорюються різні стратегії, які використовували колишні колонізатори для неокolonізування різних дисциплін на шкоду Глобальному Півдню. Запропоновано практичні пропозиції щодо аспектів деколонізації навчальної програми в контексті психолінгвістики, які допоможуть розмежувати викладання літератури та мови в ситуації першої та другої мови.

Ключові слова: навчальний план, деколонізація, навчання, англійська література/ мова, Ганді, Індія, Маколей, публікації, дослідження, методи викладаання.

Introduction

To set the tone of my paper let me begin by citing three different authorities separated by time and place:

“If I were to look over the whole world to find out the country most richly endowed with all the wealth, power, and beauty that nature can bestow—in some parts a very paradise on earth – I should point to India. If I were asked under what sky the human mind has most fully developed some of its choicest gifts, has most deeply pondered on the greatest problems of life, and has found solutions of some of them which well deserve the attention even of those who have studied Plato and Kant – I should point to India. And if I were to ask myself from what literature we, here in Europe, we who have been nurtured almost exclusively on the thoughts of Greeks and Romans, and of one Semitic race, the Jewish, may draw that corrective which is most wanted in order to make our inner life more perfect, more comprehensive, more universal, in fact more truly human, a life, not for this life only, but a transfigured and eternal life – again I should point to India.” (Müller, 2002, p. 5)

“... the official intelligentsia of post-independence India [eschew] their own culture and [turn] to Western, mechanistic dogmas, from Marxism to neoliberalism. Whether they worship the State or the Market, such intellectuals dishonour their [country’s] noblest traditions. They are as craven as those American and British academics who place politically correct considerations before the pursuit of truth and intellectual freedom. In the best of Indian popular culture, however, [one may find] an integrity, a latitudinarian tolerance and a connectedness to nature lacking in intellectual circles - and lacking in Western civilisation today.” (Aidan, 2002, p. viii-ix)

“O members of the Indian intelligentsia! ... speaking polished English, and putting down your own countrymen, specially anybody who has a Hindu connection, makes you an intellectual. But in the process, you have not only lost your roots, you have turned your back on a culture and civilisation that is thousands of years old and has given so much to the world. You are forgetting what a privilege it is to be born an Indian -- and a Hindu at that -- inheritors of a spirituality that accepts that God manifests Himself under different names, at different times, when today the world’s two biggest monotheistic religions still think their God is the only true one and it is their duty to convert everybody by guile or force.” (Gautier, 2004)

Decolonization

The term decolonization has been a part of academic discourse since 1932¹ though it perhaps first appeared in 1836². *Britannica* defines decolonization as “the process by which colonies become independent of the colonizing country.” (Britannica) The process is “often long, tortuous, and violent, by which colonies

achieve their national aspirations for political independence from the colonial metropolitan power.” (Watts, 2009, p. 361) It involves a kind of “restorative justice”³ in the form of racial, ethnic, social, cultural, legal, physical, emotional, intellectual, cultural and spiritual well-being through the process of economic, cultural and psychological freedom. The term is also used to refer to the intellectual decolonization from the colonisers’ ideas that made the colonised feel inferior. (Mignolo, 2011) Because “decolonization is an interrogation of the European concept of territoriality” (Kubayanda, p. 26) true decolonisation seeks to challenge and change White superiority, nationalistic history and the colonisers’ “truth”. Bill Ashcroft et al. therefore, correctly describe decolonization as “the process of dismantling the hidden aspects of those institutional and cultural forces that had maintained the colonialist power and that remains even after political independence is achieved.” (Ashcroft et al., 2003, p. 56) Some scholars also argue that “the term decolonization should be replaced by ‘elimination of the white supremacy mindset’.” (Binagwaho et al., 2022, p. 2)

The Five Stages of Decolonization in India

As indicated above decolonization is not merely a political issue but it also involves tackling of various mental scars left by the colonization. The following five stages of decolonization may be visualised in case of India:

1. The first is when a colonised mind actively works to rediscover its lost roots in order to reclaim the superiority of its own culture, history and traditions of its own particular region. As a result of this an interest in myths, history, folk music and literature of the yore is created. The colonisers may, sometimes, initiate this process. In the case of India this process can be seen in the starting of “Asiatick Society” by William Jones on 15 January 1784. Another such event was the founding of The Theosophical Society in 1875. This phase may also be expressed in the form of armed struggle to reclaim the lost territory. The first Indian War of Independence in 1857 is an example in point.

2. The second stage may be labelled as the stage of mourning, where people as a community process and understand any victimization that the colony may have experienced. The helpless condition of the people of Bihar, Bengal, Odisha and other provinces under the British after various famines⁴ or the changed rules of tax-collection⁵ because of which they suffered silently, as depicted in various fictional accounts by Bankim Chandra, Phanishwarnath Renu, Prem Chand, Fakir Mohan Senapati and others fall in this category. This is often expressed in the form of frustration and protest. The emergence of Gandhi as a leader of the masses may be considered to be the nadir of this stage.

3. The third stage of decolonization is the process of building the future of the proposed independent colony. This takes place most commonly through debates or consultations; the discussions involve the future of the colony, the governing procedures and body and the reestablishment of culture. The debates that were taking place about creation of India or Pakistan during the colonial rule fall in this stage. While most of the

thinker-activists were advocating the adoption of the Western models viz. Nazism (S C Bose etc), Communism (Bhagat Singh etc), Socialism (J L Nehru, Raja Mahendra Pratap etc), Capitalism (B R Ambedkar etc) it was M K Gandhi alone who had come out with an original Indian model based on the Indian principles and rooted in the indigenous wisdom and Indian culture, in a written document, *Hind Swaraj*, though he had been influenced by the Western ideas⁶ a great deal. During this stage the Aryan Invasion Theory was challenged by the Indian scholars, the ideas of liberty and equality were discussed and language debates etc took place at various platforms and forums.

4. The fourth stage is about commitment to a single decided cause and direction for the colony; a call like “Do or Die” given by Gandhi in 1942 is a typical example of this stage. This stage is a collection of all of the people’s voices that are unified in a single direction with the result that the colony may proceed to the final stage. It was during this stage that the idea of India/ Pakistan as a nation was hotly debated, Nehru and Jinnah became the obvious choices to lead their respective countries, the process of consolidation of India and Pakistan took place by merger of several states, Nehru rejected Gandhi’s *Hind Swaraj* as a possible development model of India and Jinnah did not adopt *shariat* as Pakistan’s constitution.

5. The fifth stage of decolonization sets in after political decolonisation has taken place. It takes shape in the relooking at the colonised’s adaptation of various kinds of institutions, hegemonies and issues (that may range from the laws related to banking, businesses, land, social customs like food, parenting, etc, social values like beauty, self-care, health, therapy, religion and spirituality, education, history, language and literature, justice, and politics) created and developed by the colonisers and reassessing their value. It also involves mastering the subjects and skills, their techniques and improving one’s intellectual prowess with a view to taking control of the important institutions and defeating the former masters in their own territories and games. The use of technology and soft powers to counter propaganda and threats has emerged as a powerful tool in this stage. In some cases, violent situations and actions may also be seen. This stage is also one of the most difficult stages because one has to confront one’s own people in the form of “smart alecks, the sly, shrewd intellectuals whose behavior and ways of thinking, picked up from their rubbing shoulders with the colonialist bourgeoisie, have remained intact. Spoiled children of yesterday’s colonialism and today’s governing powers, they oversee the looting of the few national resources. ... During this period the intellectual behaves objectively like a vulgar opportunist. His maneuvering, in fact, is still at work.” (Fanon, 2004, p. 12-13) The issue of decolonisation of English Studies in India falls in the fifth stage though it should not be forgotten that all these categories are not exclusive but may overlap in different parts of the country in different situations over a period of time.

Why Decolonise English Studies in India

Gauri Viswanathan rightly holds that the study of English and the growth of empire proceeded from the single ideological climate (*Masks*). “Valid knowledge” is different from “colonial knowledge” because of their different objectives. While the goal of the

former is to explore truth, the latter is a tool in the hands of the colonisers for the consolidation and perpetuation of their rule in the colony. Chinweizu in his “Colonizer’s Logic” puts it very cogently with a tinge of irony: “The Natives are unintelligent—/ We do not understand their language” (Chinweizu, 1988, p. 32). Because the “civilized imperialist” pretends not to understand the “primitive colonised’s languages” the former undertakes the civilising mission, coupled with religious fervour zestfully, and uses his euro-centric knowledge to help “the natives come out of their ignorance and darkness in their lives”. With the emergence of postcolonial theory to the centre stage of theoretical studies in Humanities, the process of scrutinising various colonial institutions, including “knowledge” and “knowledge production” has been felt more intensely. Ngũgĩ wa Thiong’o’s *Decolonising the Mind* (1986) and *Globalectics: Theory and the Politics of Knowing* (2012) have accelerated the process of scrutiny that was started by Edward Said’s *Orientalism* (1978). A close audit of “the institutions of knowledge production” that set the canon of studies is the crying need of the hour in postcolonial India, a society that happens to be the oldest surviving civilization of the world. The project of colonial education in India was undertaken with a target to make the Indian mind “barren of any originality”⁷, to keep Indians perpetually “in ignorance” by “paralysing and stupefying [their] minds”, to feed Indian minds with stories of England’s greatness and “mission” in the world, and to obliterate their race-consciousness from their minds.

Modern education system in India, the brainchild of Macaulay, is a highly respected colonial remnant which runs on the presumptive principle of the “intrinsic superiority of the Western literature” (columbia.edu). English studies in India greatly strengthen the Macaulayan presumptive principle. In India both of them (Education system and English Studies) continue to be highly derivative⁸; the only dent that has come to them since 1947 is because of the growing influence of the USA in several spheres of life. While education, especially higher education in India was Anglo-centric earlier, as a result of the new political and economic order, it is Anglo-American-centric now. Even a cursory comparison of the course lists, items/ topics therein, the lists of prescribed and recommended books will prove my point. The decolonisation of the education including English studies in India is much needed if India has to stand on its own, to assert her identity in the world, provide some sort of vision for an alternative world and also, if “*bharat ko vishguru banana hai*” (India is to be a world leader) to use an expression from the right-wing rhetoric. Decolonising is to take place in respect of the following four main components of an educational system: Curriculum and Courses, Research and Publications, Medium of Instruction, and Examination and Writing.

Methods

The paper uses analytical method with proper insights from New Historicism. The paper uses meta data for discussion as the canvass of the paper is quite large. In terms of the number of years it deals with the modern Indian educational history of about two hundred years. In terms of cultural history, it deals with times of the yore, the present time and future impact as well. The paper also tries to make future

projections with a view to attain real knowledge (in contrast to colonial knowledge) to explore truth. Such a vast period can be handled with the help of secondary data and insights received from different sources. Again, there is hardly any statistical data in the form of integers and tabulation in this study, the variables are largely historical reference points, therefore, logical sequencing in terms of the pointers and references is a necessity here. The paper deals with many socio-psycholinguistic issues related to the English studies; each of them has been dealt with in a section. Therefore, discussion and results have been incorporated in the concerned section itself. Though decolonisation cuts across various disciplines, it largely remains a political issue. Therefore, every effort has been made to keep the study objective and save it from being a polemic study.

Results

Colonial Legacy of Curriculum & Courses

A cursory glance at the prescribed books and recommended books in the curricula of the UG/PG programmes in the Universities will make one realise that almost all the books are by either British or American authors or from the Indian authors who parrot the Western ideas and arguments. There are hardly any books from the countries where English is taught as a second/ foreign language or from the Indian authors who present an Indian perspective/ point of view. This ignoring of a vast reservoir of the knowledge and experiences of the similarly situated people is to our detriment. The curricula developed by Curriculum Development Centre⁹ are no different. Their study also highlights the fact that an undue emphasis on teaching English Literature is there in the curricula. This is a sort of colonial hangover which is justified unabashedly by many intellectuals located in India and abroad. Let me illustrate it with an example from a typical PG course in Literary Criticism (From Plato to Showalter) at Indian Institute of Technology Madras (archive.nptel). It is well known that reading of literature evokes certain emotions. But, in the curriculum, no course is offered that talks about these emotions and the process of evoking these emotions. The only literary critic who refers to emotions is Aristotle; he mentions two emotions (pity and fear) with reference to tragedy and refers to one (comic) in context of Comedy. Bharata on the other hand discusses eight emotions¹⁰ in his *Natya Shastra* in detail. Naturally, a student who knows about eight emotions is in a better position to understand and appreciate literature and life than the one who knows only about two. Bharata is ignored because he is a native; this ignorance helps in maintaining colonial hegemony; besides the student's understanding of literature remains incomplete.

The English curriculum in India is largely, an epiphenomenon of the Macaulay's plans (in the form of his *Minutes on Education*) of linguistic imperialism which had both overt and covert designs though English-language education had started in India as early as 1717. The *Minutes* were not a product of gentility and benignity but a

work of hostility. The overt plan was simply to stop grants for Oriental education and to extend financial support to English education with a view to discourage the learning of Arabic and Sanskrit, introduce English as a medium of instruction and to create “a class of persons, Indian in blood and colour, but English in taste, in opinions, in morals and in intellect” (columbia.edu) who could in their turn develop the tools to transmit Western learning in the local languages of India. Besides, Macaulay was convinced that the British (or perhaps Scottish because he himself came from that stock) White Christians were more intelligent than the brown Indians, particularly the Hindus. In the “Minutes on Education” he, therefore, is dismissive of the Indian/ Hindu belief systems, history, physical and moral philosophy, astronomy, geography, medicine, religion and law. Macaulay’s objective was far more than to “introduce progress and civilization to the Indians”, an explication of the colonial project of “white man’s civilizing mission”. Macaulay’s plan included cultural colonialisation of India as well: “The languages of Western Europe civilized Russia. I cannot doubt that they will do for the Hindoo what they have done for the tartar.” (columbia.edu) The covert plan of religious imperialism through education is affirmed and explicated by him openly in a private letter to his father, Zachary Macaulay, who “worked endlessly ... to Christianize and improve the world” (Wikipedia). Here is an extract from the letter:

“Our English schools are flourishing wonderfully. We find it difficult, indeed at some places impossible, to provide instruction for all who want it. At the single town of Hoogley fourteen hundred boys are learning English. The effect of this education on the Hindoos is prodigious. *No Hindoo who has received an English education ever continues to be sincerely attached to his religion. Some continue to profess it as a matter of policy. But many profess themselves pure Deists, and some embrace Christianity. The case with Mahometans is very different. The best-educated Mahometan often continues to be a Mahometan still. The reason is plain. The Hindoo religion is so extravagantly absurd that it is impossible to teach a boy astronomy, geography, natural history, without completely destroying the hold which that religion has on his mind. But the Mahometan religion belongs to a better family. It has very much in common with Christianity; and even where it is most absurd, it is reasonable when compared with Hindooism.* It is my firm belief that, if our plans of education are followed up, *there will not be a single idolater among the respectable classes in Bengal thirty years hence.* And this will be effected without any efforts to proselytise, without the smallest interference with religious liberty, merely by the natural operation of knowledge and reflection. *I heartily rejoice in this prospect... .*” (emphasis added, Trevelyan, 1876, p. 454-56)

If one reads the above extract in conjunction with the Minutes¹¹ one can easily note the contradiction in Macaulay’s statements on the role of the state in the matter of religion and religious conversions. His contempt and hatred of Hindus/ heathans, like that of typical Christian bigot is quite apparent. It is no surprise, therefore, that he wished to establish British hegemony by destroying the Indians culturally, mentally, religiously and economically.

In order to perpetuate his rule a coloniser needs to control the system of justice for immediate gains and education for long term advantages. As a protégé of the colonial powers Macaulay chalked out very clever plans to control the colonised’s

mental as well as physical beings. In order to prove himself “more just” the coloniser rejects the old sets of rules and rolls out the new ones. When the East India Company started ruling Bengal, they used to dispense justice to the Hindus mainly on the basis of *Mitākṣarā* (Rocher, 1968, p. 119-128); when they moved northwards other prevailing rules of the land were adopted by them¹²; this is to say that they did not insist on dispensing justice according to English jurisprudence in the first phase of their rule. As a short-term measure to strengthen their position the Coloniser needs to control the “physical beings” of the Colonised; to achieve this objective the existing rules have to be replaced by a new set. Macaulay, therefore, drafted the “Indian Penal Code (IPC)”¹³ to replace the existing ones. IPC was based on a simplified codification of the law of England at the time; some of its elements were also derived from the Napoleonic Code and Edward Livingston’s Louisiana Civil Code of 1825; the existing Indian laws rooted in the soil were not at all taken into consideration though a very rich tradition of law, lawyers, principles and judgments existed in India as has also been demonstrated by Ludo Rocher (1969, p. 383-402, *Studies*). However, even in the post-independent India we have neither abandoned Macaulay’s creation, IPC, nor have disregarded colonial practices administering justice – a fact feebly lamented even by the Chief Justice of India, N V Ramana, who remarked, “Indianisation of the country’s legal system is the need of the hour and it is crucial to make the justice delivery system more accessible and effective.” (*TOI*: Sept 18, 2021) Supreme Court Justice S. Abdul Nazeer has suggested a specific way to Indianize the system: “the surer yet arduous way to free administration of justice in India from the colonial psyche is to teach law students about ancient yet advanced legal jurisprudence [and adoption of] “the legal norms developed by great scholars like Manu, Kautilya, Brihaspati and others.” (Mahapatra, 2021) No wonder, when the Justice S Abdul Nazeer gives a spirited call to be “back to the roots” it is taken as a surprise in certain sections of the Indian press and society. It will not be out of place to point out that Justice Markandey Katju has highlighted the limitations of the pure western jurisprudence in several of his judgments (in Allahabad High Court and Supreme Court of India)¹⁴ wherein he used *Mimamsa*¹⁵ principles of interpretation, the native wisdom. Justice Katju has also highlighted that there is no constitutional or any other legal binding to use only the Principles of Interpretation given by Maxwell, Craies, Crawford, Sutherland etc in the Indian courts. Still, almost all Indian jurists use them in their judgments/ interpretations, laments Justice Katju. It is so because our universities teach only the Western principles and ignore our thinkers though we have a much longer¹⁶ tradition of Interpretation in our country. It is quite deplorable¹⁷, that even in the post-colonial times our modern universities emulate Anglo-American tradition at the cost of public exchequer; it is tantamount to saying that the modern-day governments are paying for propagating the myth that the Indians have no worthwhile intellectual achievement to their credit.

As a long-term strategy, Macaulay drafted “Minutes on Education” to control the mental selves of the colonised. He attempts this by colonising their minds, changing their sensibility and converting them to Christianity both overtly and covertly. The outcome, the modern-day education system, is flourishing in modern

India, despite several education commissions. It is quite unfortunate that the Govt of India has not only continued with both the instruments of colonial control almost without any amendments but has taken them to the far and nook of the country and has bestowed high prestige to them as well. The Govt of India has also continued with the overt plans of Macaulay by accepting and adopting his policy of religious neutrality in the educational institutions. However, it is quite unfortunate that the covert plan has not only been accepted by the government but also is being propagated blatantly. The intellectuals, teachers, political leaders and bureaucracy have just remained silent spectators and have not attempted to unravel the efforts to Christianize the whole country through education (medical education included). It will be quite appropriate to quote Ramdhari Singh Dinkar's following lines about their indifferent attitude: "The struggle is still on, the huntsman alone is not the partaker of the sin, time will also judge the transgressions of those who remained indifferent."¹⁸ (My translation)

In the light of the above background, it is expected that both the teacher and the learner should ask themselves the following questions in order to decolonise the curricula of English Studies:

- Is it literature or English literature that matters for imbibing certain values?
- Do those who study English Literature "receive more wisdom" from their curricula?
- Has English ever been the *de jure* official language in Britain or the US?
- How many countries out of 195 in the world at present use English *de jure* and *de facto*?
- Is English really used by the largest number of people in the World?
- Why does the curriculum represent only the English and not the other nationalities?
- Why does the curriculum represent only English and not Englishes?
- Why is the curriculum dominated by Christian authors?
- Why does the curriculum centre around the whites?
- Why does the curriculum centre around the males?
- Why does the curriculum present my/ our forefathers as pigmies?
- Why is the curriculum reading centric?
- Why is the curriculum not life-oriented?
- Is Raja Rao's proclamation ("We cannot write like the English. We should not." *Kanthapura*: v) false?
- What makes one believe that a western outfit is better and trendier than an indigenous one?
- What makes one believe that "Hello, Good Morning Professor" is better than wishing him in a more traditional way?
- Why smoking a pipe is a sign of cultured behaviour while smoking a *bidi* is uncultured?
- Why do some of the teachers praise a European street singer and condemn the Indian one as a beggar?

- Why does one look westward after taking this curriculum?
- When and why does one start considering one's forefathers fools after taking this curriculum?
 - When and why does a person start hating his motherland and start considering the question, why did I take birth in "this dirty land", after taking this curriculum?

The answers to the above questions may lead one to conclude that the existing curriculum in English are neither largely inclusive nor egalitarian in character; on the other hand, the curricula perpetuate the hegemony of the coloniser in all walks of life; it deracinates the natives as it is racist in nature. What is unfortunate is that the racism is being perpetuated by the natives/ "black *angrez*" in the name of education/modernization.

The modern Indian education system has not only impacted our collective epistemological viewpoints but our society as a whole has also been impacted; we seem to be a rootless society that suddenly came into existence in 1947 out of nothing. Racism is not basically about colour; it's about power. The present education system does not empower the Indians; it becomes so visible in the matter of economic achievements. This is very clear from the statistics about imports and exports. "India's share of the world economy was 23 per cent, as large as all of Europe put together [when Britain arrived on it's shores, but] by the time the British departed [from] India, it had dropped to just over 3 per cent." (Tharoor, 2016, p. 4) "India's share of global gross domestic product (GDP) rose to 7.09 percent in 2019" (O'Neill Oct 27) The exports and imports of India in 2019 were: the total value of exports (FoB) was 323,251 million; the total value of imports (CIF) was 478,884 million." (wits.worldbank) This powerlessness can also be measured in terms of the meagre number of publications from the Indian universities on one hand and those from the western university presses like Oxford, Cambridge, Harvard, Durham etc on the other. It is so obvious that the opinion building power (soft power) rests with the West. Money minting power by way of the export of the books and ideas also lies with them. So, decolonising the curriculum is not needed solely for cultural or intellectual reasons but also for economic reasons. This is not being demanded by some Hindu chauvinist but is an economic necessity. If India is to be governed in equitable and non-partisan manner, power has to slip from the hands of the handful of "*macaulay ki aulad*" (Macaulay's children), the degenerated angelized Indians who wield the stick of English. One thing that every teacher/ student of English can do immediately is to denigrate it and stop being a part of its propaganda and propagation machine. Bourdieu refers to this process as the 'habitus' self-propagated and protected. It is quite understandable that no decolonised and democratic country can afford to dismantle the existing institutions like colleges and universities in a single stroke but continuing to multiply such institutions even after gaining political freedom will be considered a grave mistake fraught with its own dangers of getting neo-colonised, if not colonised by the same/different political power. The situation as a matter of fact has gravely led us to a neo-colonialised position: the influence of American system of education can very easily be perceived in the NEP-2020.

There are a large number of academicians who claim that the teaching of English literature in India (TELI) is necessitated because English is a lingua franca in India and is patronised by the Government of India as an Official language¹⁹. Such persons speak only half-truth as no literature can be the “lingua franca”; they deliberately gloss over the fact that English Language and English Literature are two different issues/disciplines. The belief that by teaching English Literature *alone* the proficiency in English Language can be achieved/ increased is not backed by any authentic data/ research. Even the postulation that English Literature/ Language are synonymous or are interdependent does not prove English to be the lingua franca in India. As regards, English Language being the official language, the Constitution does not envisage perpetuating its status for ever as the provision has been inserted to meet a particular contingency. Again, if English is the “lingua franca” of the anglicised Indian academicians or of the Indian people needs a close scrutiny on the basis of some authentic data. That English is the “lingua franca” of the people is just a presumption, not backed up by the figures in the Census (2011). According to 2011 Census just .02 % of total Indian population (Males: 1,29,115, Females:1,30,563, Total 2,59,678) (censusindia) recognized English as their mother-tongue and only 10.6% of total population use it as second and third language (Wikipedia, censusindia)(while 8,27,17,239 persons (6.835% of the total Indian population) use it as their second language, 4,55,62,173 Indians (3.765% of the total Indian population) use it as their third language). In the Census its decadal (2001-2011) percentage growth has been reported to be 14.67, much less in comparison of several other languages. In a nationally representative sample survey conducted by Lok Foundation and Oxford University, administered by the Centre for Monitoring Indian Economy in 2019, “just 6% of respondents said they could speak English, less that what the 2011 Census showed.” (livemint) If about 90-95% population of this huge multi-lingual and multicultural country do not know/use English is it justifiable to describe English language as the lingua franca of India? Again, it has been reported in Lok Foundation survey that “English speakers are richer, more educated and more likely to be upper caste.” (livemint.com) This minority group because of the colonial hangover holds a considerable economic power and assumes the role of opinion and decision makers in this country. Can this minority group be allowed to continue social ostracization of the majority by holding power against the egalitarian norms? Can this socially elite²⁰ group of people be the sole representative of India against all democratic norms? As a matter of fact, these academicians argue in the manner of Macaulay who believed that scholars of English could be produced in this country by teaching them English literature. If their arguments had been valid English courses in India would have seen the presence of Indian scholars in various syllabi. In countries like France, Germany, Russia and Japan (where English is not the medium of instruction) the foreign scholars (who go there for higher studies) are taught the language (of the respective country) in one year with such proficiency that they are not only able to complete their higher studies but also write doctoral dissertation and publish papers in that language in the journals of international repute. On the contrary, in India despite teaching English literature for more than sixteen years the

students fumble for words to express themselves, what to say of writing and publishing a research paper in correct English. If my testimony on the worthlessness of the approach/ course is any good, here it goes:

“I, along with some others, was associated with the evaluation of the answer scripts in a recently held competitive examination for post of lecturers in Government intermediate colleges. This examination was open to the Indians holding at least MA (English) degree; about 1500 candidates appeared in this examination after passing a screening test. Only a few answer scripts were written in tolerably correct English; the answers largely gave no clue of the examinees’ comprehension of the questions and the instructions -- neither in the literature section nor in the grammar section. Having examined such scripts, I felt I had wasted forty years of my life just for earning wages. My experience of interviewing candidates for the post of Assistant Professor (English) has rarely been better.”

At this point, let me also examine some of the presumptions in the *Minutes*. Macaulay writes: “... it is possible to make natives of this country thoroughly good English scholars, and that to this end our efforts ought to be directed.” (columbia.edu) Elsewhere he wrote, “I hope that, twenty years hence, there will be hundreds, nay thousands, of natives familiar with the best models of composition, and well acquainted with Western science. Among them some persons will be found who will have the inclination and the ability to exhibit European knowledge in the vernacular dialects.” (Trevelyan, 1876, p. 411) It is clear that Macaulay was preparing a ground for the spread of the Western ideas in this country, through his percolation theory, by trying to prepare some local who will act as his agents but will work in local languages. Even if Macaulay’s intentions are taken on their face value, he was proved wrong by the outcome of his policy. The impact of the new education system, in contrast to the local-language schools, was not desirable in terms of the language proficiency though it was successful in achieving its goal in terms of changing the character²¹ of those who undertook this education. He had wrongly presumed that simply by teaching English Literature and introducing English as a medium of instruction the learners will improve their competence in English. It is clear from the evidence collected in the form of letters, extracts from the examination copies, miscellaneous passages and poetry of the period collected in the book entitled *Indo-Anglian Literature*²² which is a sort of empirical study. On the basis of the evidence in the form of the compositions of the natives, the author, B. A., points out three faults of the education being imparted: a) “mistakes in grammar and diction”, b) “curious mixture of self-abasement and vanity” c) looking down upon their parents’ profession and turning away from them. In addition to this the author quotes a report published in the *Calcutta Review* (1883): a) “it has made them more litigious” b) “it has made them less contented with their lot in life and less willing to work with their hands.” Almost something similar has been expressed by Gandhi in *Hind Swaraj* and elsewhere.

On the question of the value of native literatures the opinion of the Oriental and Occidental groups was unanimous as is apparent from the following two opinions. Macaulay’s haughtily opined, “that a single shelf of a good European library was

worth the whole native literature of India and Arabia. The intrinsic superiority of the Western literature is indeed fully admitted by those members of the committee who support the oriental plan of education.” (columbia.edu) Likewise, a member of the Oriental group, Henry Thoby Prinsep, held:

“It is laid down that the vernacular dialects are not fit to be made the vehicle of instruction in science or literature, that the choice is therefore between English on one hand and Sanscrit and Arabic on the other—the latter are dismissed on the ground that their literature is worthless and the superiority of that of England is set forth in an animated description of the treasures of science and of intelligence it contains and of the stores of intellectual enjoyment it opens. *There is no body acquainted with both literatures that will not subscribe to all that is said in the minute of the superiority of that of England...*” (emphasis added, Sharp, 1920, p. 121)

The unanimity on the issue of denigrating native literatures seems to be emanating from their “national pride” which to an Indian is a euphuism for colonial pride. Indians have, in fact, have been quite meek to ask about the qualification of the members of both the groups i.e., occidental and oriental plan²³ to know the extent of their familiarity with European and Indian languages and literatures to pass a judgment. The educated Indians have largely accepted Macaulay’s judgment as they have been taught just to accept English opinions without any critical scrutiny. The Indian teachers of English go a step further and act as Macaulay’s trumpeting agents who spread unsubstantiated claims and propagate myths like “English is used all over the world”, “English Literature is the best/ universal literature”, “Shakespeare is a universal dramatist”, “India/Indians will not prosper without English” and “For a majority of Indians English has become their own language, their only language of expression” (Banu, 2020, p. 17) for they have their axe to grind at the cost of truth and at the cost of national mental freedom.

Discussion

Indian Sensibility & English

Macaulay did not want to produce any critical thinkers through his plan²⁴. As indicated above he did not hide his agenda either; he had twin purpose in his mind: to convert Indian sensibility into English sensibility and to establish the hegemony of English by replacing Sanskrit/ Arabic by English as a medium of instruction.

“We must at present do our best to form a class who may be interpreters between us and the millions whom we govern, -- a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect. To that class we may leave it to refine the vernacular dialects of the country, to enrich those dialects with terms of science borrowed from the Western nomenclature, and to render them by degrees fit vehicles for conveying knowledge to the great mass of the population.” (columbia.edu)

In India performance of public duty is highly praised and practiced too. Lord Ram has been glorified in this country for performing his duty in every role and in every walk of life. Similarly, Lord Krishna is revered by the Indians because he preached the doctrine of *Karma*, action/duty. Indians believe that duty is more important than caring for the personal relationships. In India, we are also taught to forsake one's interest for a larger good²⁵. For Ram his duty as a king (public duty) was more important than his duty towards his wife (personal duty). There are various examples of this in the past and the present. For example, for Arjun his duty as a warrior was more important than his personal relationships. Mahatma Gandhi, Vinoba Bhave, Nanaji Deshmukh and A P J Abdul Kalam are some of the examples in the recent times to exemplify my contention. In India, even a *Riti Kaleen* poet, Bihari, scolds the king, Jai Singh, for being oblivious of his duties. He reminds him of his Kingly duties: "*nahi parag, nahi madhur madhu, nahi bikasu ihi kal, ali kali hi so bindhyo aage kaun haval*" (hindwi.org). In a country where so much of emphasis on "all for duty" and "duty for all" is there the teachers of English glorify "all for [illicit] love" in the classrooms. They glorify Dryden's Antony for his turning away from his duties as a king and justify his caring more for his personal love. I consider it to be a typical example of their effort of changing the sensibility of their Indian students. There are many more such examples which are not being given here for want of space. Thus, it is very clear that teaching of English literature leads to encouraging Englishism at the peril of Indian thought and culture and strengthens the idea of colonial notion/myth of Indian inferiority in matters of language, literature, science and thought. All this is done in the name of sticking to a canon of English Studies. They do not realize that the European canons are not universal in nature and they have also changed over the period of time. For example, no female poet was being taught in poetry paper I and II (i.e. from Chaucer to T S Eliot, a period from 1343 to 1965) of MA (P), Allahabad University. This was in conformity with the practice of *Norton Anthology*. But under the pressure of feminist movement several female poets have found an entry into *Norton Anthology* now, though at Prayagraj and perhaps elsewhere too they are still being ignored. Similar is the case of a concept like Christian patriarchal²⁶ system against which women rose and a movement like feminism came into existence. But the Indian teachers teach them as if the two concepts are typical of an Indian society, irrespective of any Christian reference. The Indian teachers do not realize that the European/ British sensibility is different from the Indian because of different backgrounds and mental make-ups.

A theosophist and an Indianist, popularly addressed as *Kulapati* by his Indian friends, James H Cousins in his book *The Renaissance in India* (1918) has argued that the Indian sensibility being unique is different from the Europeans'. He has urged Indians to express it by maintaining their unique identity in their writings as well: "Be yourselves first: do not fall under the illusory notion that you are fulfilling your ideal in desiring to write as good blank verse as Tennyson, or as fine lyrics as Swinburne." (Cousins, p. 155-56) He further explains his position:

"If they *must* write in English, let it be in the English *language only*: let them keep themselves unspotted of its point of view, temperament, its mannerisms; for

their repetitions of these will fail of conviction, which is one of the absolute essentials of art, since they can never disguise the fact that they are imitations, and Nature abhors imitation more than she does a vacuum: there is a chance of filling a vacuum, but none of turning an imitation into an original.” (Cousins, p. 170)

The stand of James Cousins is almost a repeat of Edmund Gosse’s advice to Sarojini Naidu. Gosse had commented, “The verses which Sarojini had entrusted to me were skilful in form, correct in grammar and blameless in sentiment, but they had the disadvantage of being totally without individuality ...” (wikisource.org) He could hear the mocking bird of English poets in them and so he advised her to “set her poems firmly among the mountains, the gardens, the temples, to introduce to us the vivid populations of her own voluptuous, and unfamiliar province; in other words, to be a genuine Indian poet of the Deccan, not a clever machine-made imitator of the English classics.” Sarojini Naidu ‘immediately accepted’ Gosse’s advice to her advantage and expressed “Eastern magic” in a “Western language” in her poetry²⁷.

From the above discussion it should be clear by now that Indian sensibility is different from the Western/ British. In the postcolonial world it is, therefore, imperative to save this sensibility that Macaulay was trying to destroy/ change to his empire’s advantage.

English Literature: Fiction and Reality

In Upamanyu Chatterjee’s *English, August: An Indian Story*, Pultukaku objects to Agastya’s choice of English as a subject saying: “Chaucer and Swift, what are you going to do with these irrelevancies? Your father doesn’t seem to think that your education should touch the life around you?” (Chatterjee, 1988, p. 59) In the same novel, a senior IAS, R N Srivastav, expresses his contempt of the subject saying, “A useless subject ... unless it helps you to master the language, which in most cases it doesn’t.” (Chatterjee, 1988, p. 59) One may argue that these are only the fictionalized accounts. But, Gandhi too realized that the courses in English literature do not train the learners anything substantial to solve the problems quite early in his life. He, therefore, on the basis of his own experience wrote:

“We had to learn several books of English prose and English poetry. No doubt all this was nice. But the Knowledge has been of no use to me in serving or bringing me in touch with the masses. *I am unable to say that if I had not learnt what I did of English prose and poetry, I should have missed. I am unable to say that if I had not learnt what I did of English prose and poetry, I should have missed a rare treasure.* If I had, instead, passed those precious seven years in mastering Gujarati and have learnt Mathematics, Sciences, and Sanskrit and other subjects through Gujarati, I could easily have shared the knowledge so gained with my habit of application and my inordinate love for the country and the mother tongue, made a richer and greater contribution to the service of the masses?

“I must not be understood to decry English or its noble literature. The columns of the Harijan are sufficient evidence of my love of English. *But the nobility of its literature cannot avail the Indian nation any more than the temperate climate or the scenery of England can avail her. India has to flourish in her won climate, and scenery, and her own literature, even though all the three may be inferior to the English climate, scenery and literature.* We and our children

must build on our own heritage. If we borrow another we impoverish our own. We can never grow on foreign victuals. I want the nation to have the treasures contained in that language, and for that matter the other languages of the world, through its own vernaculars. I do not need to learn Bengali in order to know the beauties of Rabindranath's matchless productions. I get them through good translation. Gujarati boys and girls do not need to learn Russian to appreciate Tolstoy's short stories. They learn them through good translations. It is the boast of Englishmen that the best of the world's literacy output is in the hands of that nation in simple English inside of a week of its publication. Why need I learn English to get at the best of what Shakespeare and Milton thought and wrote?

"It would be good economy to set apart a class of students whose business would be to learn the best of what is to be learnt in the different languages of the world and give the translation in the vernaculars. Our masters chose the wrong way for us, and habit has made the wrong appear as right." (emphasis added, Gandhi, 1938)

Here is a very realistic description from Upamanyu Chatterjee's *English, August: An Indian Story* where a problem has been raised and its solution has also been suggested:

"Dr Prem Krishen of Meerut University has written a book on E. M. Forster, India's darling Englishman – most of us seem to be so grateful that he wrote that novel about India. Dr Prem Krishen holds a Ph.D. on Jane Austen from Meerut University. ... What is Jane Austen doing in Meerut?"

'Or Macbeth in Ulhasnagar, and Wordsworth in Azamganj – no nothing,'

'We're publishing Prem Krishen because he'll fetch us lots of money. His book is entirely in a question and answer form. Students lap that up.' ... 'Why is some Jat teenager in Meerut reading Jane Austen? Why does a place like Meerut have a course in English at all? because the Prem Krishens of the country need a place where they can teach this *rubbish*?' ... 'Surely they can spend the money they waste on running the department usefully elsewhere.'" (Chatterjee, 1988 p. 59, emphasis added)

In the same vein, M Prabha suggests: "... UGC and HRD [should think] of eliminating the English faculties from all colleges and universities. Instead, this should be a discipline reserved for distance learning alone." (Prabha, 2000, p. 209) On the basis of the above discussion, it may easily be concluded that in order to decolonise the English Studies in India, not only the curriculum needs a drastic change but the funding all literature teaching/ oriented departments might also have to be stopped forthwith. Only those Departments that come forward to improve the communicative competence of their students need to be funded. At the most only a select few departments, as is the case with other foreign language literatures like Spanish, French and Portuguese, may be allowed to teach English Literature. I know this suggestion of mine will draw flakes from the departments and I may be called a Kalidas who is ready to cut the branch on which he is sitting. But I have truth and Gandhi on my side. It is not expected of a teacher, who is supposed to explore truth, to push the entire country to permanent state of (mental) slavery not just for the sake of his own survival but for his promotion, free air tickets, fellowships and the seminars in which wine is served freely.

English Language & English Literature

The word “English” as a noun does not find a place singularly in the Constitution of India though the expression “English Language” finds a mention at fifteen places in the Constitution. English does not find a mention in the list of the Indian languages given in the eighth schedule of the Constitution. It is very clear from this that the role of English in the Constitution has simply been envisaged as a means of communication for different purposes. It is also to be noted that the nowhere has it been specified that “English” stands for “British English” (or any other variety of English)²⁸ as a means of communication. It is an unwritten law/convention for the custodians of English in India, the public service commissions, the university/college departments, the intellectual elites, and the authors that by English they understand “British English”. The reason for this hegemony lies in the colonial hangover which is continued and glorified as “tradition”. Though Braj B Kachru and his spouse Yamuna Kachru tried their level best to establish the identity of Indian English²⁹ as an independent variety of English their intellectually rich research-efforts neither got a support from the highly colonial Indian authors in English nor from the Indian academia. Little do the intellectual elites realize that it is the tradition of “intellectual slavery” that they have been cherishing and promoting. Whether this slavery springs up from historical positioning, ignorance, lack of synergetic language planning, lack of initiative and intellectual prowess or helplessness or some other factors is more a matter of common sense than of some deep research.

Most of the people who wish to join higher education in India need English language. People also see English as a passport to better jobs and better social positioning. Because of their ignorance, many of them do not make any distinction between English language and English literature. R N Srivastava in *English, August* says, “... I began to read English on my own. I had to, because English was compulsory for the Civil Services exam. So I read Shakespeare and Wordsworth and people like that, very difficult. It’s still important to know English, it gives one ... confidence.” (Chatterjee, 1988, p. 59-60) With the Government policy of taking higher education to the door-steps of people one finds universities and colleges in the remote corners of India. With this even English has also reached all the nooks and corners of the country. The teachers and the institutions either very subtly hoodwink or push the learners to join a course in English Literature. R N Srivastav says, ““That a young man in Azamganj should find it essential to study *something as unnecessary as Hamlet, that is absurd*, no, but also inevitable, and just as inevitably, if we behave ourselves, in three generations it will fade.” (Chatterjee, 1988, p. 60) (emphasis added) Unlike the situation in Germany or Russia where a foreign student studies the language of the country in India a student has to study English for about 12 years before joining a university. Then the realization dawns upon him/her that (s)he is not sufficiently proficient in English to pursue a course satisfactorily. I wish if our teachers could just compare 12 years to one year of training to teach an alien language to meet the needs of the society.

While most of the foreign universities in the EFL/ ESL situation do not lay emphasis on literature in teaching of the second/foreign language, in India, it is almost mandatory to talk of dated authors like Shakespeare, Milton, Dryden, Wordsworth and the like. Most of the universities have been awarding degrees in “English” or “English Literature” after teaching almost the same content in English Literature. The course contents also consist of largely British Literature; there is hardly any paper dealing with teaching/ learning skills of a language. The result of this is reflected in the following sentence of a very senior teacher: “A student who writes ten pages about Hamlet’s madness is unable to draft an application in English.” This indicates to not only the quality of teaching but also to the misdirected effort of emphasising teaching English Literature in place of English Language against the spirit of the Constitution. Our over-enthusiastic teachers either fail to grasp the basic fact or they pretend to ignore the fact that learning of literature in any language is possible only after some basic proficiency in the language has been achieved. No wonder our post-graduates in English literature fail to deliver what is expected of them. A fictional account of Agastya by Upamanyu Chatterjee in his *English, August* is sufficient to prove my point.

For the development of ELT and related issues, to improve the standard of teaching of English and to undertake relevant research in field the Government opened a new Institute, Central Institute of English in 1958 with the mandate: “instructional, research and extension facilities in the teaching of English and foreign languages and literatures in India” (efluniversity). In 1972 it was converted to Central Institute of English and Foreign Languages³⁰. However, this did not deter other universities to change their policies of teaching and propagating English Literature on a very unusually large scale in an independent country. In other words, the cultural imperialism of English Literature has kept on spreading undeterred even in independent India. With the passage of time, it became English and Foreign Language University, a Central University. The phenomenon is so powerful that even EFLU came under its influence and it has emerged as a new centre of spreading and disseminating English literary culture, spreading the idea of “inherent superiority of the Western literature” and colonise the Indian mind-set further.

The governance of the country according to the colonial rules and colonial mindset is rubbing the salt to the wound. For example, the 1921 rules that govern the recruitment of teachers in a school/college affiliated to UP Secondary Board specify the minimum qualification as a graduate in English Literature though in matters of other languages it just mentions Hindi or Urdu or Sanskrit. It is to be noted that the job of a trained graduate teacher in a UP Board secondary school is to teach both English literature and English language. The situation has been prevalent and continuing since the days of Macaulay who designed a course of English literature for imparting training in English. All those graduates who take their graduation in English Language are denied a job opportunity as per the existing law and are put in a disadvantageous position. Nobody seems to have noticed this anomaly. While a course in English literature should have been replaced by one in English Language after independence, those who study English language are discriminated against. This

also means that those who are competent to discharge his/her duties are declared technically unqualified to their peril. Some of such persons have been contesting cases in the High Court at Allahabad and a verdict is still awaited.

I have surveyed some of the English courses being offered in the universities located in similarly situated post-colonial nations in Africa and some Asian countries. Nowhere the situation is that bad; it is only in the South Asian countries which were once governed by Macaulay's writs that the situation is so bad. In the Gulf countries like Saudi Arabia, Yemen, Iran etc every prescribed book and text is examined on the parameters of Islamist culture. And so are the lectures are monitored. To end the hegemony of the Core English here are some strategies:

- Decentre British/ Colonial literature (introduce multi-nationalistic texts)
- Decentre subject-object relations in the Eurocentric relation (introduce non-white, non-Christian, non-Anglo-Saxon authors)
- Decentre British/ Colonial culture (introduce multi-cultural texts)
- Decentre British/ Colonial English (introduce multi-lingual texts/ translations)
- Decentre British/ Colonial English authors (introduce authors from the New Nations)
 - Decentre British/ Colonial Canon (introduce texts that were banned by the colonial masters)
 - Decentre British/ Colonial Singular Texts (introduce appropriate comparisons e. g. compare *Paradise Lost* and *Mahabharat*)
 - Decentre Literature (introduce the elements from culture/linguistics/folklore/film-studies in the courses)
 - Decentre Multinational Publishing Houses (introduce texts published by smaller publishing houses)
 - Decentre the English Pedagogy (replace lecture method by discussions)

Decolonising Teaching Strategies in English Studies

If the reading lists in the university courses are any evidence, it is clear that Indian universities are Indian only in their location. There is hardly a book in the lists that does not come from either the US or the UK authors or the presses located there. In terms of syllabus, almost all the Indian universities have introduced papers on American Literature and New literatures like Australian/ Canadian/ Caribbean / Commonwealth Literature, Indian Aesthetics, Linguistics, and World Literature etc along with British Literature. But the reference books and the reading lists in these courses are full of Anglo-American critics. Again, even the canon of the texts is defined and set by Anglo-American critics. This also proves that not only the flow of knowledge is uni-directional i.e., from the West to the East but also that the Indian intellectuals do not show any sign of independent thinking and judgment. Again, even if some Indian names are there in the list, they hardly represent the Indian perspective. Thus, it may safely be said that all the recommended books represent the typical Western point of view. This tendency is indicative of either the absence of the

Indian perspective or considering Indians as brain-dead. Let me illustrate this from an example. In Allahabad University there used to be a tradition of printing the Lecture Lists which comprised the list of the authors and works prescribed for detailed and non-detailed study, reference books, pattern of question paper and the topics of the lectures that the concerned teachers were supposed to deliver.

Let me zero down to the specific case of MA English, Previous, Paper-II (Survey of Poetry from Wordsworth to T S Eliot), 2011-12 (allduniv.ac.in) to illustrate my point. This paper deals with Romantic, Victorian and Modern Poetry (pp. 8-30), which are almost a rage with the Indian academicians. A look at the prescribed poems, books and lecture topics in the list gives the impression that this period of English Literary History had no connection with India, though Asiatic Society (1784) and India House (1905) had come into existence, Charles Wilkins's translation of *Bhagavad-Gita* (1785) and *Hitopdesha* (1787) had come out, many of the litterateurs of the period had their relatives in India (in the service of East India Company or later the British crown), the first War of Independence (1857) had already been fought, India had become a shining jewel in the British crown, and the poets of the period had composed poems related to India. The attempt appears to keep the students unaware of the fact that many of the poets in the period had been focussing on India "to become popular as the Empire became greater". There is neither a mention of Aurobindo's take on the Romantics nor of any Marxist critics. These poets were supposed to be taught without any axiomatic principles and irrespective of ontological and epistemological dimensions. It appears that a deliberate attempt was being made to create an impression that the British poets were quite apolitical, they lived in their ivory towers and worked in a very secluded atmosphere that was not vitiated by the contemporary political events.

Coming back to the above-mentioned Lecture List, only eight books³¹ by six Indians find a mention in the reference list consisting of 238 books (only for the paper in question), one each on Keats and Tennyson, four on T S Eliot and two on W B Yeats. Of these, two were by professors at Kolkata, three were by a professor who had settled in Canada, one by the one who had settled in the US and one was a revised version of the PhD thesis awarded by the University of Leeds, 1974. The Lecture List does not mention any book that has even a remote reference as to how India was stirring the British imagination, how an idea like Vedanta and how a book like *Bhagvadgita* were influencing the poets' sensibility and how the War of 1857 was being viewed by the poets³². The books on T S Eliot explore his work purely in Western terms, irrespective of the poet's Sanskrit studies. It may also be noted that even a book³³ on W B Yeats by an erstwhile teacher of the Department, does not find a place in the list though he³⁴ had been awarded a doctorate degree by Cambridge University perhaps because thesis/book explored Yeats' relationship with occultism, an idea closer to the Indian minds. In the *List* one also finds an edited book on W B Yeats which has wrongly been attributed to Ramesh Chandra Shah. The book, *Yeats: Last Poems: A Casebook* (London: Macmillan & Co, 1968), was edited by Jon Stallworthy and not Ramesh Chandra Shah. Shah's book (*Yeats and Eliot: Perspectives on India*, New Delhi: Associated Publishing House, 1983)³⁵, a PhD

work completed in a “mufassil university”, does not find a mention in the list. The story of the other papers is not different either.

This data needs to be analysed. Is it because of highbrowism, jealousy, ignorance, or slighting Indian scholarship/ subjects? What kind of attitude will the students display after studying in such an academic environment may be a subject of considerable reflection. Will the research being done in such an environment help Indians solve any of their problems? Indian scholars also need to reflect on the other side of the coin – how much attention is paid to their interventions in the debates by the Europeans. Indian scholars in English or their interventions are rarely cited abroad. If one needs a proof, one may seek citation indexes which are available on demand these days. Such scholars are largely dumped forever as they belong neither here nor there. This is not something unusual; hardly any scholar from a second language is ever cited by the scholars from the first language. For those who are in India English will always be second language irrespective of their proficiency of the language and mastery of the subject.

Let me also contemplate on the economic fall out of the lecture lists. The Lecture List in question does not mention the publisher and the place of publication of the recommended books; these details have perhaps been avoided in order to save some space and reduce the number of pages in the lecture list. But my limited research says that of the 238 recommended books in Paper II, only five have been published in India; for purchasing other books the payment has to be made in foreign currency. If the course/ syllabus is replicated in 5000 odd PG departments of the country there will be a need of 5000 odd copies of the book even if one copy each is purchased by the libraries in the respective places. It is a huge amount to be spent just for one paper. This may be multiplied by ten papers that a university generally offers in a PG programme. No wonder Indian government often runs short of its foreign currency reserves. This is a huge cost in terms of investment and the net output. Again, in terms of the number of pages a student is required to study in this course in a second language situation, it is an unachievable task even for a good student for it requires to a reading speed more than three books ($250 \times 5 \div 365 = 3.424$) per day. All over the world a difference between the second language and first language courses and their materials is made. Even their teaching strategies and course materials are different.

As one may note that lecture method has been hinted at in the Lecture List in question. Even CDC report suggests the use of this method of teaching. This method is teacher-controlled and follows an information-centred approach in which a teacher works as a role and sole resource in the classroom instruction. In this method, the teacher does the talking and the student is a passive listener. This creates dullness in the classrooms as the interaction between the pupil and teacher ceases to occur. Besides, this method presumes that only a teacher knows as he is knowledge/information incarnate. This method is generally used in the religious discourses where the listeners are not supposed to reason and question. This is certainly not the best method for knowledge creation or if the students have to learn to argue. No coloniser/ imperial power wishes its colonies to produce thinkers and ask questions.

If viewed in this light, the lecture method suits a coloniser the best. In a free country we need to change this as fast as possible. The models already exist in the dialogue form that has been used so profusely in our Upanishads and other texts such as *Charaka Samhita*. I strongly feel that the teaching strategies in English Studies need an over-hauling and a drastic change in India.

Decolonising Research in English Studies

Though thousands of PhD theses have been awarded in this country and some of them are also available on Shodhganga portal (a digital repository of Indian Electronic Theses and Dissertations set-up by the INFLIBNET Centre, India) now for free download, they rarely find a mention in the reading lists. Even the degree awarding universities ignore their mention in the prescribed or recommended readings. One of the reasons is perhaps their poor quality; the other however, is that Indians do not generate debates from their own perspective. They generally, try to intervene in the debates that have a western origin. In the process, most often, they simply end up in rehashing the arguments already made by the Western scholars. I have several times tried to know from the scholars and their supervisors if they disagree with any scholar in the field of their research work. I am sorry to report that most of them have either feigned to understand the question or have ducked the question on one pretext or the other. In an interview for the post of Assistant Professor (English) in a prestigious PG College, in which I interviewed candidates for two days I tried to know from all the candidates as to what was their thesis, everybody was pointing to the dissertation. One cannot expect any argument from such scholars who do not make a difference between a thesis and a dissertation. Again, one rarely comes across citations to the Indian research works in the Indian theses. Is this ignorance of the Indian by the Indians themselves deliberate or contrived? The answer to my mind lies in the double standards that the Indian academicians practice – one for awarding degrees (where they have to certify that the research work is an original contribution to the field, a privately held opinion in the form of a report which generally gets buried in the files) and the other for prescription in the courses (a public face). The chasm between these two reveals the duality of character of an Indian academician, which is not expected of a truly professional teacher/ researcher.

A look at the topics of research on the Shodhganga portal also reveals that the research interests of the Indian scholars have largely been moved by the important books and movements in the West. One can say that there have been some literary fashions in English studies, particularly research, as well. For example, a lot of research work has been carried out from the perspective of feminism. Similarly, the topics like magic realism, metaphor, post-colonial concerns, translation etc also emerged. The emphasis has been to make one's product saleable as is the case in the world of fashion. Very little effort has been made to explore the subject with a view to understand one's own self. Even the PhD theses that study "self" do not have any Indian perspective. The scholars in English seem oblivious of the fact that hardly has

anywhere else in the world more in-depth work on the philosophy of self been carried out. The outcome of ignoring Indian scholarship on “self” in a PhD thesis in English is that the worth of the work is recognised neither here nor there despite the fact a high degree has been awarded on it by a university.

There is hardly any effort to challenge the Western canons in the Indian research works. When I addressed a gathering of young teachers of English on this issue, they said it was not possible in case of English studies. Their presumption was that English Studies in India would always remain derivative; it is almost a conviction for them. In other words, English Studies in India will never be original and will not be able to contribute to the growth of this country in any way. The reason for such a normative answer from the young generation can be attributed to the fact that colonialism has seeped so deep into their psyche that they have lost their identity; they never think of overthrowing the colonial yoke as they consider it to be something normal.

In order to fulfil the requirement of “originality” sometimes the research supervisors and the candidates select some exotic topics like “Godwin’s Shelley as Stable and Unstable Visionary and Prophet”, “Rousseau’s Wordsworth as a Visionary and Critic of Life” and “Un-Aristotelian Approaches to The Shakespearean Texts--- An Inquiry into Possibilities and Practices of Poetic Drama and Dramatic Criticism”. Who is Godwin’s Shelley? One may be familiar with Timothy’s Shelley but one can never be sure of Godwin’s Shelley. Perhaps, the researcher means Shelley who was under Godwin’s influence. If so, which works of Shelley will be the primary sources for research? The same criticism applies to Rousseau’s Wordsworth. In absence of the proper identification of primary sources no proper research can be carried out. Having contradictory terms like “Stable and Unstable Visionary” in the topic means that a proper hypothesis cannot be framed. One is sure about Aristotelian approach to some issue/ subject but what are “Un-Aristotelian Approaches” in the third topic under consideration? It is difficult to specify and limit their number; can some good work may be undertaken in such a case? Sometimes the upcoming authors are selected for researches. But again, the insistence is there on studying them with Western perspectives. The authors too start writing to conform to the western parameters for they know that they will be judged on those parameters. This becomes a sort of vicious circle. One may argue that I have cited very poor examples from some poor universities. Yes, I accept the argument but is that not the reality of the Indian universities by and large?

The so-called leading Indian universities are also derivatives; they just happen to be more alive to the contemporary trends in the Western world because of their location and ample funding that gives them more opportunities to interact with the outside world. And, this is reason why a postcolonial research model is needed. Modelling our university research on the Western paradigms and prototypes is neither required nor is sustainable for any government or people. One may also say that the universities were good but the supervisors and the research candidates had been badly trained. I disagree here on the following counts: a) it is the job of universities to train whatever people are available; a teaching institution like a university is not required for a person who already knows well or is already trained meticulously b) India will not import researchers to do

good research; we have to live with whatever we have and use them optimally c) the remark displays a racial attitude in the likeness of the former colonial masters' d) it were the people of this very country who had made this country great and they alone will do this country some proud e) they are the products of the same gene pool that has produced the best philosophical works and therefore I have great hopes from them. I, therefore, argue that if the colonial hang over is thrown out better research results may be produced in these very institutions. The poor quality of research from India may be attributed to the poor researches, poor motivation and poor training. It may also be attributed to wrong thinking and inappropriate strategies like colonial methods of research. The colonial mindset results in poor researches – the issue in science and technology is a bit different because timing of research and cost involved in it become more important factors. It may be mentioned here that no path-breaking researches have been done in the field of science either, in the former colonies. In this background I hold that Indians need to have a relook at their relationship with English studies and they need to do considerable amount of research in various areas of scholarship. I cite a few examples which may provide some insights and models for decolonising Indian research in English Studies:

Topic: *'Shakespeare's Kings: An Evaluation in the Light of Indian Idea of Kingship'*

Areas of research: Shakespeare, Political Science, Post-colonial Studies, Comparative Studies, History of Education, Interdisciplinary Studies, Politics of Canon-making.

Hypothesis: If Shakespeare is a universal author/dramatist, Indian idea of kingship should find a reflection somewhere in his corpus and his Kings should reflect Indian ideal of kingship. If the hypothesis is not proved the idea of Shakespeare's universality is a colonial myth.

Topic: *'Antifeminism in the Plays of George Bernard Shaw'*

Areas: Bernard Shaw, Feminism, Anti-feminism, Women's Studies, British Drama, Sociology/ Political Science, Canon of Feminism etc.

Hypothesis: Shaw had been intervening in the debates about women's rights during his times through his dramas. He called himself a disciple of Ibsen but in his plays, Shaw conforms to the Christian ideals of subordination of women by presenting a negative image of women. He therefore is an antifeminist in his approach towards women.

Topic: *'A Critical Analysis of John Donne's Poetry in the Light of Shringar Rasa'*

Areas: John Donne, Aesthetics, British Poetry, Comparative Literature, Indian Aesthetics, Postcolonial Studies.

Hypothesis: John Donne is widely considered to be a love poet; his poetry can be analysed in the light of *Shringar Rasa*, the love sentiment in Indian Aesthetics, with better analytical results. More than three strains of love with several subclassifications (like *shreya/preya*) can be identified in his poetry; even the personas may be classified according to *Nayak/Nayika Bhed* which is closely related to *Shringar Rasa*, in Bharata's *Natya Shastra*.

Topic: *'Vedanta and Christopher Isherwood's Spiritual Quest: A Study in Influence'*

Areas: Christopher Isherwood, Indian Philosophy, Vedanta, *Bhagvadgita*, British Poetry, Comparative Literature, Influence Studies, Postcolonial Studies.

Hypothesis: Isherwood came under the influence of Vedanta and lectured on Hinduism, translated *Bhagvagita*; this period acts as a dividing line between his earlier and later writings; there is a marked qualitative difference in the themes, attitudes and techniques before and after his exposure and his earlier writings; the development of his writing career and his perspective can better be understood in the light of the influence of Vedanta.

Topic: ‘Metaphor and Meaning in Indian Aesthetics (*Riti or Alamkar Siddhant*) and Western Literary Theory or Russian Formalism or Deconstruction’

Areas: Indian Aesthetics, Western Criticism, Stylistics, Linguistics/ Semantics.

Hypothesis: Acharya Vaman in his *Kavyalankar sutravritti* considers ‘*riti*’ to be the soul of literature; he considers style to be the main distinguishing feature of a literary text. This idea was opposed by Kuntak (in his *Vakroktijivitam*) and Rajshekhar who consider *riti* to be an external element. Formalists hold that first, those features of literature that distinguish it from other language activities, must constitute the object of inquiry of literary theory; second, “literary facts” have to be prioritized over the metaphysical commitments of literary criticism, whether philosophical, aesthetic or psychological (Steiner, 1995, p. 16). Derrida holds that there is nothing outside the text. A comparative study of their ideas will yield to not only a better understanding of their ideas but may also provide clues for a comprehensive theory of metaphors (figurative language) and meaning. The study may help machine translators in improving their performance.

In the field of language also there is a lot of work to be done by the teachers of English. For example, the work of documenting the languages can be undertaken by these departments without much hullabaloo and paraphernalia – a work that has been pending since 1928. The only official language survey in this country with appropriate collection of language sample was done by George Abraham Grierson during 1894-1928. These days Census Commission of India collects information about the mother tongues and languages known by the citizens of India. It is there only in the form of figures and statistics. Besides, the work is very slow. Only five volumes about their findings about four languages have also been published by them. A project of some millions of rupees was submitted by CIIL, Mysore. The initial work in the form of workshops was also started but it was abandoned because of some sort of the conflict of interest. Later on, G N Devy started his Peoples’ Language Survey of India (PLSI)³⁶ under the aegis of the NGO, Bhasha Research and Publication Centre, Baroda. So far thirty volumes have been published. My question here is what has been the role of the Universities and Colleges in documenting the languages around them or their area of operation/ jurisdiction and analysing the collected data? There is hardly a district headquarter in the country that does not have PG College with a language department in it. My suggestion is that English departments, along with other language departments, should come forward to undertake this work. This will fulfil a long need of having some authentic data to make a better language policy. This will make the Departments connect themselves with the people of their area of location. May be in the process they are also

able to document local folklores, local histories and other useful pieces of information and some local pieces of wisdom to make their lives better.

Decolonising Research Methods in English Studies

There is also a need to decolonise research concepts and methods. The indigenous models already exist. For example, the following verse from *Mimansa Sutra*, gives us a methodology to arrive at a meaning/ interpretation: *upakramopasamharau abhyaso'apurvata phalam | arthavadopapatti ca lingam tatparyanirnaye* ॥ (उपक्रमोपसंहारौ अभ्यासोऽपूर्वता फलम् । अर्थवादोपपत्ती च लिङ्गं तात्पर्यनिर्णये ॥) “The six steps of an interpretation/ research are: statement of the same purport at the beginning and the end (Prologue & epilogue; *upakrama* & *upasamhara*); repeating the same in the middle (citation or referencing; *abhyasa*); the novelty of the subject (uniqueness, *apurvata*); the statement of utility (benefit, *phalam*); extolling the virtue of the subject (praise/ eulogy, *arthavada*); argument (reasoning, *tatparya*; *upapattih*). Sri Madhusudana Saraswati Swami, in the ‘*advaita siddhi*’, groups the six marks into two, consisting of three marks each which have distinct applications: Group I: *apurvata*, *upapattih* and *phalam*. Group II: *upakrama-upasamhara*, *abhyasa* and *arthavadah*³⁷. Contrary to this, a general charge of the Macaulayan scholars is that the Indians neither know about any Research Methodology nor do they have any. In the above cited Shloka, from *Mimansa Sutra*, mentions the entire Research Methodology of interpreting a text; needless to mention that a re-interpretation of a text is generally attempted in research in the field of literature.

The western models of research are based on the perceptions by the five senses. Whatever is acceptable to the five sense is acceptable in the Western methodology; whatever is not acceptable to the five senses is rejected outrightly. In order to increase the efficiency of the sense organs the efforts are constantly made to develop instruments that help the senses. Hence, their conclusions are always tentative. For example, once upon a time a microscope was a great invention to find something in the body. It was followed by an X-ray technique which was replaced by CT scan which in turn has been replaced by MRI. No doubt these techniques have helped in drawing better pictures of the inner side of the body it does not necessarily mean that they provide a better understanding of the working of a human body. Despite all these techniques, the doctors are many times not able to locate a particular problem in certain parts of the body. I, for example, often complain of back-ache while my doctor on the basis of MRI and other tests says I am physically fit. It may, therefore, be safely assumed that the evidence based on only five senses are not sufficient for reaching a right conclusion.

On the other hand, Indian epistemological systems accept a far larger number of *pramāna*³⁸ (evidences). Some of them are: *Pratyakṣha*, *Anumāna*, *Upamāna*, *Shabda*, *Arthāpatti*, *Upamāna*, *Anupalabdhi*, *Itihāsa*, *Sambhava*, *Aitihya*, *Abhāva*, *Cheshta*, *Yukti* and *Tarka*. All of them may not be acceptable in a particular school of thought. Let me turn colonial³⁹ for a while and quote a long passage from *The Stanford Encyclopedia of Philosophy* about *pramāna-shāstra* (Theory of knowledge) in Indian epistemology:

“Theory of knowledge, *pramāṇa-śāstra*, is a rich genre of Sanskrit literature, spanning almost twenty centuries, carried out in texts belonging to distinct schools of philosophy. Debate across school occurs especially on epistemological issues, but no author writes on knowledge independently of the sort of metaphysical commitment that defines the various classical systems (*darśana*), realist and idealist, dualist and monist, theist and atheist, and so on. And every one of the dozen or so major schools from early in its history takes a position on knowledge and justification, if only, as with the Buddhist skeptic (*Prasaṅgika*), to attack the theories of others. There are nevertheless many common epistemological assumptions or attitudes, the most striking of which is a focus on a belief’s source in questions of justification. Mainstream classical Indian epistemology is dominated by theories about pedigree, i.e., views about knowledge-generating processes, called *pramāṇa*, “knowledge sources.” The principal candidates are perception, inference, and testimony. Other processes seem not truth-conducive or reducible to one or more of the widely accepted sources such as perception and inference. However, surprising candidates such as non-perception (for knowledge of absences) and presumption (defended as distinct from inference) provoke complex arguments especially in the later texts—from about 1000 when the number of Sanskrit philosophical works of some of the schools begins to proliferate almost exponentially. The later texts present more intricate views and arguments than the earlier from which the later authors learned. Classical Indian philosophy is an unbroken tradition of reflection expressed in the pan-Subcontinent intellectual language of Sanskrit. Or, we should say it is comprised of interlocking traditions since there are the distinct schools, all nevertheless using Sanskrit and engaging with other schools. Later authors expand and carry forward positions and arguments of their predecessors.” (plato.stanford)

In fact, in Indian epistemology all the *darshans* (philosophical systems) have their theories of evidence (*Pramāṇashāstra*) as different schools of thought and philosophy rely on different *Pramāṇa* to explain their principles. The following table will illustrate my point.

Table 1
Different schools of thought and philosophy

| School of Thought | No. of Pramāṇa | Name of Pramāṇa |
|-----------------------------|----------------|---|
| Chārvāka | 1 | P – Pratyaksha |
| Vaisheshika, Buddhism | 2 | P – Pratyaksha, A – Anumāna |
| Sāṅkhya, Vishishtādvaita | 3 | P – Pratyaksha, A – Anumāna, S – Shabda |
| Nyāya, Tarka | 4 | P – Pratyaksha, A – Anumāna, S – Shabda, U – Upamāna |
| Advaita, Prābhākara | 5 | P – Pratyaksha, A – Anumāna, S – Shabda U – Upamāna, AR – Arthāpatti |
| Vedānta, Bhāṭṭa | 6 | P – Pratyaksha, A – Anumāna, S – Shabda |
| Mīmāṃsākar | | U – Upamāna, AR – Arthāpatti, AN – Anupalabdhi |
| Paurāṇika | 8 | P, A, S, U, AR, AN, SA - Sambhava, AI - Aitiḥya |

Though I largely agree with Rajiv Malhotra⁴⁰ who has been arguing that Sanskrit terms do not have their English equivalents and they therefore need to be accepted as it is, in order to benefit the larger humanity, here are the meanings of some of these terms used above:

- Pratyaksha – the knowledge gained by means of the senses
- Anumāna – the knowledge gained by means of inference
- Shabda Pramāṇa/ Āgama/ Āpta Vākya – Verbal testimony /the knowledge gained by means of texts such as Vedas (also known as Āptavākya)
 - Upamāna – the knowledge gained by means of analogy
 - Arthāpatti – the knowledge gained by superimposing the known knowledge on an appearing knowledge that does not concur with the known knowledge/ “Circumstantial Implication”
 - Aupamya/ Upamāna – analogy; that which brings about cognition based on the similarity of one object with the other
 - Anupalabdhi – non-perception, non-apprehension, scepticism in the face of “Non-cognition”
 - Sambhava – Possibility
 - Itihāsa – “so indeed it was” (derived from the phrase *iti ha āsa* इति ह आस)
 - Aitihiya – Expert testimony, historical tradition
 - Abhāva – ‘non-existence’; the non-production of an effect is the sign of its non-existence
 - Cheshta – Physical or mental efforts
 - Yukti – the “rationale” process of translational research; logical thinking and planning
 - Tarka – “Suppositional Reasoning”; *tarka* is called for in order to establish a presumption of truth in favour of one thesis that has putative source support against a rival thesis that also has putative source support.

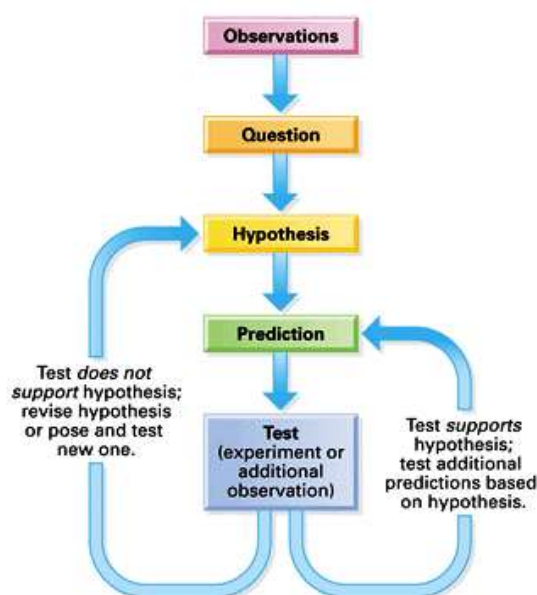
Charvaka does not appeal to a large number of Indians mainly because he, like the westerners, gives credence only to the evidences collected with the five senses. In the situation, how can then Western methods have an appeal to the Indian mind? So, the earlier we Indianize the Western method, the better it is for the world. The West also has to extend its hand for making the world intellectually richer and a better place to live in.

In the light of the above discussion, I urge upon the scholars to devise courses in research methodology taking appropriate cues from Indian epistemology and philosophical systems and stop spending time, energy and money on the Western books. Sudhir Kumar⁴¹ has started using the vocabulary of research Sanskrit/ Indian tradition in his research papers and lectures. So, a working model is already available before the Indian Departments of English.

I would also like to underline the fact that various books by Western and Indian writers confuse between method of research and tools of research. This is particularly true of the books in literary research methods. For example, Griffin writes about her book: “This volume ... aims to introduce readers to a range of research methods in order to suggest to them new and different, as well as tried and tested, ways of conducting research in English studies.” (Griffin, 2005, p. 5) She later makes a distinction between methods and methodologies. What she calls methodologies are basically tools of research in humanities. Every tool has its own methodology for its

operation for achieving the desired result. For examples, psychoanalysis or discourse analysis are the tools and not the methodologies; both of these may select their own methodology like questionnaires or surveys or language analysis or error analysis etc. There is just one method of research which is used to arrive at truth in all the disciplines. This method may be described as scientific method and it has already been explained in terms of Indian Epistemology. For an easy understanding this can be presented in the following Fig. 1:

Figure 1
A Method of Research Used to Arrive at Truth



Another big challenge before Indian English Departments is to develop an independent citation manual. English teachers in India have a divided opinion on the issue. The British camp, trained by the British scholars, pleads for the existing Humanities model while the American camp, trained largely at the then American Studies Research Center, Hyderabad or/and in the US universities toes the American model. The latter group is slowly outnumbering the former one in India. Other language teachers also have their associations. The teachers of language departments in American universities under the banner of Modern Language Association brought out *MLA Handbook* which has now almost become a Bible of the researchers in all the languages. Its adoption by several journals has increased its acceptability. So did the teachers of Humanities in the UK under the banner of Humanities association. What could be a bigger example of colonised English Studies in India when the teachers have not been able to develop a research manual though the Association for English Studies of India (<http://www.aes-india.org/>) has been in existence since 1937. The official journal of the Association, *The Indian Journal of English Studies (IJES)* does not have an independent stylesheet till date but has made “Compliance to MLA Style Sheet latest edition.” (aes-india) necessary for submission of an article.

Publications

Since accountability is an important component to run a democratic system efficiently and aspiration to shine globally is on the cards, there is a pressure on the Colleges and the universities to seek a ranking from specified agencies⁴² and prove their class in the global world⁴³. The citation of the publications carries a special value in these rankings. In the Western academic world, the slogan “publish or perish” has been there since long and it has also paid dividends to them. The importance of the publications for seeking a job is increasing day by day in India as well. Of late, the UGC in India has started giving more weightage⁴⁴ for the publications in the journals listed in “Scopus and / or Web of Science”. While Scopus is operated by Elsevier, a global publishing business headquartered in Amsterdam with offices worldwide Web of Science is run by Clarivate, a public analytics company headquartered at Philadelphia, US and London, UK. The journals listed in Scopus are generally not open access in nature as one has to pay if one needs to go beyond reading the abstract however, a large number of them in the Web of Science can be accessed openly. It may also be noted that a Journal has to pay a hefty amount to get enlisted in SCOPUS by way of fees. They are catering to needs of the world after the Intellectual Property Rights were enforced by means of World Trade Organization in 1995. Other platforms/ companies have also tried to cater to the need. There are more than thirty such databases⁴⁵ at the global level but UGC recognises these two for “[they index research journals that] are accepted globally as quality journals and are considered for all academic purposes.” (CARE np) Giving credence to two databases from the capitalist world is a sort of neo-colonisation of education/ studies. A study of these databases also indicates that they are either located in Europe or in North America and they largely collect information available in different European languages; it is indicative of Euro-American and white dominance in the field.

Language of publications is the coloniser’s another tool to perpetuate his hegemony. For example, if a person wishes to publish a research paper on Odia people’s stresses during the period of Corona in Odia, one will find only a Journal hopefully based somewhere in Odisha. But certain databases may not be indexing the journals in Odia. Thus, a person either will not write a paper in Odia or his findings will not reach the world outside Odia domain. The catch here is if one wishes to shine at the Euro-American level one has to meet their standards in their language and also has to participate in the competition there by conforming to their norms. An acceptance of this also means the acceptance of Western hegemony.

This is a typical problem of the globalized world. One has to cater to the norms of “the other” to market one’s products. Traditionally good ideas were considered to be the property of all. They were not treated as marketable products but unfortunately, after the introduction of WTO they have become so. Quest for truth should not be patented but the papers included in the research journals get patented. All this has been done in a very systematic way by seeking an involvement of various international agencies like the UN and the WTO and by executing all kinds of treaties

in the name of Intellectual Property Rights. The first world has almost full control and access to all the documents and past knowledge systems.⁴⁶ It is of course a tremendous task before the intellectuals from the Global South to come out of these traps and decolonise knowledge production for the sake of plurality and search for truth. Publishing articles in the right earnest is just one small step in the direction. It may also be noted that access to knowledge bases, internet connectivity, artificial intelligence and big-data-analysis techniques have emerged as new tools of creating inequalities leading to new forms of (neo)colonization.

One should be fair enough to acknowledge the political angle to academics too. As in the case of Nobel Prize in matters of databases also the Global North and Global South divide and the Capitalist and the Socialist World divide exists. There is a very meagre contribution from the former colonies in these databases if one goes by the percentage of the publications. An analysis of these contributions from the Global South also reveals that the authors use western methods of analysis as they have largely been trained in those methods either in their homelands or in the foreign universities. Their researches are either derivative or they conform to the stereotyped images of their societies. “The Orient” is almost missing there in terms of approaches or the opinions. In contrast to this, these databases paint a picture of Western societies as ideal. These databases perpetuate the colonial stereotypes about the people who come from the so-called developing world as “backward, lazy, ignorant, and irresponsible.” They also encourage the scientists in the Northern block to consider the developing countries to be their field-laboratories.

Level playing fields supposedly exist in a global world and the globalized world is considered to be free and open for all – this is correct only at an ideational level. The case of the universities is not much different. That the British universities treat coloured people with different opinions and different faiths differently is clear from the episode Rashmi Samant, the first female Indian president-elect of Oxford University Student Union (OUSU), who was hounded and made to resign despite having been duly elected. These universities are not places for close examination of truth but intolerant in nature as they have been founded on intolerant doctrinal faiths. In such circumstances it is not fair to expect an independent view or a contrary view in the journals there. As a matter of fact, the politics and pressure of publication have become a means to throttle indigenous knowledge systems. The journals, the editors and the reviewers insist on a particular point of view in an article, though most of the journals will try to project themselves as apolitical. Many journals are run by the political affiliates; they try to perpetuate the politically convenient truths to suit their political ideology. There are journals that get their support from certain religious groups; they too propagate religiously convenient truths and throttle the alternative approaches and views. Even the UN propagates Abrahamic biases⁴⁷ in various walks of life and Abrahamic “doctrinal intolerance” is imposed on the groups of other faiths through various means, education being one. The contempt and hatred for non-Abrahamic religions is so apparent in not only in the religious fields but also in the academic field and knowledge systems. In the quest of truth, knowledge bases of the non-monolithic civilizations are derided or at best ignored by the West.

The quality of a research article is most often judged on the basis of the journal it gets published in and not because of its intrinsic worth. Many of the prestigious journals charge a hefty publication fee under different names like handling charges, photograph charges, proof-reading charges, language-translation charges, membership charges and publication fees. For example, the papers for publication in *PMLA* can only be submitted by the members⁴⁸ of Modern Language Association. The minimum annual fee of the Association is US \$ 29 and the maximum is \$ 387 (mla.org). The payment of the membership fee or the amount on some other counts to the foreign journal is to be made in foreign currency⁴⁹. The teachers/ researchers in India are supposed to fund the memberships on their own which in some cases is about six month's salary of a teacher in a developing country – which is quite unbearable for an individual. There is hardly any government support for research in the former colonies because the higher structures in the administration continues with the colonial framework that believes in more or less importing things and ideas from the former masters or their allies. Hardly any Indian university has been publishing research journals, particularly in Arts and Humanities regularly. Those that used to bring out their journals have stopped them long ago, in some cases after a few issues.⁵⁰ No wonder hardly any university/academy journal has found an entry into Scopus or UGC CARE List.

The issue of funding of a journal cannot be side-tracked at this juncture – somebody has to fund the publication activity -- be it the Government, editors, writers, publishers, subscribers, readers or donors. In order to mock and strangulate the voice of the marginalised authors the self-financed journals that largely run on a cooperative funding basis are branded as “predatory journals”. The issue can be equated to that of subsidy given by the developing countries in various fields to meet the challenges from the developed countries. As the grant of subsidy in developing countries is resented by the developed nations similarly business houses in the highly oligopolistic field resent the cooperative funding in the publications. They lobby so that their field of operation largely remains competition-free. They, therefore, indulge in all sorts of anti-competitive practices and establish a sort of neo-capitalist monopoly in the publishing world.

There is a great deal of discussion⁵¹ about the issue of different charges by the journals. The established journals keep on encashing their reputation and the scholars from the former colonies keep on resenting. The state of funding in the subjects in Humanities is very poor in general. Underdeveloped/ Undeveloped countries do not fully fund the research undertaken by the people. It is true that one may not have enough money to pay an exorbitant amount in order to get published in the “top class journals”. It may safely be concluded that doing research and getting published is very difficult for a poor person without any financial support. The scholars from the third world should therefore try to publish materials having intrinsic worth in their own lands. In order to bring it in the larger domain they may use databases like <academia.edu>, <arhives.org>, <libgen.is>, <digitallibraryindia>, <delnet.in>, <egyankosh.ac.in>, <ndl.iitkgp.ac.in> and many other such websites.

Another tool to keep knowledge production confined to the sacrosanct space of the coloniser and to throttle independent thinking and publication are various indices and impact factors. Interestingly all indexed journals are not assigned an Impact Factor. One has to shelve a heavy amount to the agency for getting the impact factor of a journal. Different agencies may calculate them differently as there is no specific formula for it. Complicated algorithms have been developed to calculate the impact factor of a journal. Non-transparent methods are used to collect citations and negative citations are used to the peril of the journals and researchers. Some other tools to throttle research and prove the knowledge base of the ex-colonies bogus are: Some other tools to throttle research and prove the knowledge base of the ex-colonies bogus are: an insistence on the use of analysis on certain machines to generate data, an insistence on the use of English/ or some other European language for communication and papers/articles, various indices developed to measure the importance of a journal, the citation and the distribution channels of the journals, a limited online access of the publications, preference of the journal-publishers for articles of a certain type, the publication lag, citing behaviour across subjects, and the possibility of exertion of influence from journal editors. These factors are instrumental in extending, strengthening and cementing the field of colonization in academics.

The indexed journals generally have a three-tier review system. The article should in the first-place appeal to the editor. It is then be often sent to two reviewers, for a blind review. The blind peer-reviewing is not really blind. The reviewers generally look for the latest articles and books in the Work Cited List but in the colonised world the available secondary materials are generally 30–50-year-old (particularly in Humanities) and in some cases it could be even a hundred-year-old (e.g. a paper on Shakespeare may refer to a classic like A.C. Bradley's *Shakespearean Tragedy*, 1904). The reviewers also see if their work or their foe's work has been referred to in the article under reference. A friend of mine submitted a paper on Mia poetry to one such journal. First, the editor wanted him to make some changes. Next, the reviewers said that it "presented a biased view of the poetry". The article was rejected. When the same article was referred to me, I found the interpretation reasonable and logical; but the article had already been rejected because it did not match the reviewers' political stand.

The story of a publication in a book form is not different either. The forces other than literary merit and achievements that spring up from the complicated matrix of six elements: (the elitist background of the) author, the language chosen, (location, position of the) publication house, the advertising and marketing agencies, (the reviewers and the editors of) the journals and the media and the university departments of English etc have been discussed by M Prabha in her *The Waffle of the Toffs: A Sociocultural Critique of Indian Writing in English* (Op. Cit.). Without mincing words, she says, "... the present-day IWE writer is the neo-coloniser who has seized the organs of publishing, the organs of publicity, the organs of state patronage, and the organs of higher education within the country" (Prabha, 2000, p. 254). Actually, it is this sort of "smart alecks, the sly, shrewd intellectuals" (Fanon,

2004, p. 12) who have learnt the ropes of manoeuvring that Frantz Fanon has cautioned the people against.

Medium of Instruction/ Examination/ Writing

The primary purpose of education is the betterment of society as a whole by developing rational, mature and empathetic human beings. All teaching activities including reading, writing and evaluating students focus on this and have to be organised with this objective in mind. The objective of a course in literature is to develop understanding of an individual by honing his/her analytical skills. By carefully selecting literary works, the teachers try to show to their students how the world works, how to find relevance and meaning in their lives, how to enjoy reading literature and how to find out merit and meaning in a text. With this view in mind, a close, objective and text-centred literary analysis is the primary focus in a literature course/ classroom. Certain evaluation strategies are used to evaluate the performance and understanding of the learners. Whether the evaluation of candidates is possible in English or in other languages (mother-tongues) has been a point of controversy in the second language situation. The related issue is if the research articles have to be written in English or in the regional languages. Currently, in Indian situation, only Sahitya Akademi felicitates some sort of bilingualism in matters of publications – e. g. a paper on a Punjabi author may get published in English, in the literary magazine, *Indian Literature* or a paper on Vikram Seth's poetry may be published in Hindi in *Samkāleen Bhārtiya Sāhitya*.

Bilingual method of teaching (materials, medium of instruction and evaluation) and research are very well recognised all over the world and have gainfully been used at primary and secondary levels. It has also been used in some Indian universities (un)officially to teach English literature as is clear from the popularity of various bilingual university level text-books in different states. However, this sort of teaching and book-production are frowned at by some of the Indian academicians who deride it as substandard teaching/learning material for the rustics. Such anglophiles are condemned as *Macaulay ki aulad* by the nativists.

There appears to be a symbiotic relationship between economic prosperity and attitude towards languages. If the figures of bilinguals and tri-linguals in the Indian Census 2011 are any proof monolingualism leads to poverty. Those states that have the higher number of bilinguals and tri-linguals are developed but the states where predominantly monolinguals stay, are backward. Of late, a new class of monolingual, English speaking, social elites have emerged particularly in the metros through expensive English medium schooling; they are not only blind to several dimensions of culture but they also perceive reality only through one lens. Their appreciation of literature also is just an extension of the Christo-Anglo-American literary-view. On the other hand, we have a large number of colleges and universities in the far-flung areas where the students wish to acquire some skills in English language somehow and the teachers wish that the students should somehow be able to follow, understand and appreciate their lectures. The bilingual method comes handy to such teachers and

students. But, some professors and their sponsor, British Council of India or American agencies and some publishing house, close their eyes to this issue. Ignoring the advantages of bilingualism⁵² they advocate the monolingualism of English and try to thrust it on people in several ways. It may not be out of place to mention that the books published by the so-called elite publishers are exorbitantly priced in comparison to bilingual books or the books in the regional languages as the publishers are eyeing people from different economic backgrounds.

It is not that all university teachers/departments are averse to bilingualism. This method is being successfully used in some of the modern universities of India. The teaching and learning of Sanskrit⁵³ is a case in point. If one pursues MA Sanskrit in the Department of Sanskrit, Delhi University, “[t]he medium of instruction and examination shall be either English, or Hindi, or Sanskrit.”⁵⁴ In Aligarh Muslim University too the answers to the questions may be written either in English or Hindi or Sanskrit. In Nagpur University, the answers may be written in Sanskrit/English/Marathi. Thus, a candidate may pass the examination without uttering a word of Sanskrit if there is no viva-voce exam and without writing a word in Sanskrit. In some universities a compulsory question/paper, Essay, is there which has to be answered in Sanskrit, but it carries only a limited number of marks. Even a doctoral dissertation in Sanskrit Department can be written in Hindi or English or Sanskrit. The situation is almost the same in all the modern Indian universities; only in the departments/universities (like Central Sanskrit University) where Sanskrit is being taught in a traditional manner, the medium of instruction is Sanskrit and the doctoral dissertation is written in Sanskrit. At Allahabad University up to 1980s the PG question papers in Sanskrit Dept used to be in both English and Hindi and the answers could be written in either of the languages. These days the question papers are only in Hindi and the candidates are supposed to answer them in Hindi. Only one question each of essay and translation has to be answered in Sanskrit. In the examinations conducted by various public service commissions like UPSC, UPPSC and recruitment board like UPHESC only the question paper comes in Sanskrit; the candidates have to answer their questions either in Hindi or in English. It may sound strange to some persons but this is quite logical. The language of the study of physics is not physics but a language like English or French. If Sanskrit is a subject, it may be studied in Sanskrit or in Hindi or English or any other language. From this discussion it is clear that reading comprehension in Sanskrit is considered sufficient by most of the “modern intellectuals” in case of a language that is ancient and classical – the candidate needs to hone his analytical skills and express himself in the mother tongue.

The same argument is extendable to English. English can also be studied through English or Bangla or Hindi. The requirement in the country is that a person who reads a government order in English should be able to comprehend it and explain it in the local language. In fact, bilingualism as a method of teaching has been quite a popular and successful model all over the world. In Eastern Europe, Russia and some Latin American countries, the academic journals (in English Literature) are bilingual. Articles on English/American Literature are published in both English and

the language of the country. Nobody, can even think of such a situation in India where the intellectuals have yet to come out of the colonial hangover. Some stray efforts made in the direction have not been successful as is clear from the following example. Professor Ram Bilas Sharma (1912 – 2000) an eminent progressive literary critic, linguist, poet and thinker but a teacher of English brought out the second edition (1998) of his book, *Essays on Shakespearean Tragedy*, with a detailed introduction in Hindi. The book failed in the market and the publisher reissued the two other books of his, *Nineteenth Century Poets* (1999) and *Keats and The Pre-Raphaelites* (2005) without his detailed introductions in Hindi to the chagrin of the author.

As a matter of fact, British Council of India through some professors of influential universities, discourage bilingualism in English studies for monetary reasons and for maintaining colonial hegemony. This helps them increase their empire and business as it increases the country's dependence on them. The process of neo-colonisation begins with the introduction of mono-lingualism of English; the people are lured to this by promising their empowerment though in the process they lose their identity and are colonised for ever. Language of publication is again a coloniser's tool. For example, if a person wishes to publish a research paper on Odia people's stresses during the period of Corona in Odia, one will find only a Journal hopefully based somewhere in Odisha. But certain databases may not be indexing the journals in Odia. Thus, a person either will not write a paper in Odia or his findings will not reach the world outside Odia domain.

Conclusion

One may note that the idea of decolonisation was initiated by the African scholars though African scholarship has always been ignored not only in the Euro-American intellectual world but also in Asia. The African scholars' ideas are being appropriated in almost all the former colonies because they are so convincing and down to earth. One sometimes wonders why books like *Decolonising the Mind* or *The Wretched of the Earth* or *The Colonizer and the Colonized* could not be produced by Indian (leftist/ moderate/ liberal) scholars though the idea of communism in India is as old as communism itself. Otherwise also there is hardly any seminal book by such scholars about Indian reality or human reality in the colonial world to my mind. In the prevailing situation, there is hardly any possibility in the future either. After all no nation can survive only on the borrowed ideas and technology in a long run. One needs to have a sense of pride and attachment to one's roots to produce an influential work of this nature. I also realize that unless our education/ English Studies are oriented towards the nation there is no possibility of any important work being produced in English either. A crown is never put on a borrowed head. The above discussion/article is the result of exploring such questions.

One needs to ponder over the politics of social movements also. All kinds of activists run different kinds of movements in India – many of them have their origins

in foreign lands as well. It may also be noted that the Indian university campuses were neither stirred by the movements like #RhodesMustFall (#RMF), ‘Why is My Curriculum White?’, ‘Decolonise Education’ and ‘Decolonise University’ which having crossed the African boundaries reached several British and American universities nor did they (Indian universities) have any parallels to them. Even the tremors of these movements were not felt in India though movements like #MeToo or #LGBTpride spread their horizons to the Indian landscape. Similarly, there was no loud noise in India about the movements like #LeopoldMustFall or #GandhiMustFall. This sort of intellectual and social apathy is reflective of the bourgeoisie mentality of the persons/intellectuals concerned. Most of the movements in India worth the name are spearheaded by the persons/ NGOs with leftist orientation and supported by the liberals – a new term, “urban naxals” (Gurung Aug 30, 2018), is used for them these days. The ideologies of Marxism/ Leninism/ Maoism are some of the techniques to colonise minds and those who appropriate it, cannot afford to decolonise their minds. If they do, they will have to shed their identity first. This group of intellectuals neither revere India, nor do they hold India, Indian traditions and Indian history in high esteem as they hope to run it on an imported ideology. What an irony of situation, the ideas of a political radical, and Marxist humanist like Fanon and those of a “vernacular socialist” like Ngugi have been blown over by the Indian leftists but have been appropriated by the right-wing activists. The project of re-writing history text-books has to be viewed in this light. They have also held at least one national seminar on “Decolonising the Mind” (15th – 16th April 2017) at Ahmedabad, Gujarat.

Some scholars on the other hand are announcing the irrelevance of Postcolonialism and even “Death of Postcolonialism” (Madiou, 2021, p. 1-12, Paranjape, 2022) in view of the fact that after 9/11 every sympathy has turned towards the former colonizers. But the issue is not dead – it springs up in a movement like #Blacklivesmatter which is used as a plank to overthrow “rightist” Trump. Similarly, the moves to give more space to the unrepresented sections of society and ignored periods of history in the Indian text-books indicate that the movement is still relevant. The ball has been set rolling – various inclusive projects have been initiated. The projects for freeing knowledge from the Western domination to include people and knowledge/ knowledge systems from the fringes, the adoption of multiculturalism, and the acceptance of multiple-realities etc are some of the examples of the changing scenario.

Homi Bhabha has written about the hybridity of cultures and people. There are no “original” or “pure” cultures or people and there have perhaps never been. In fact, if someone tries to retrieve the past and claims to gain the “inherent authenticity or purity of cultures” as exists in some texts or in someone’s imagination the person is moving against the natural tendency of moving ahead by learning appropriate lessons from various encounters. One has to struggle to look for the roots and has to see that the grafting of some ideas on the plant should not endanger the plant itself. The purpose of decolonisation is to save the mother plant, the original culture of the native people, so that the inhabitants are not rendered “nowhere men”. The process is

not easy but is desirable. The needs of the society, bureaucracy and people have changed since the times of Macaulay. A cosmetic surgery of the syllabus by way of replacement of one text by another is not enough. Drastic changes are needed in attitude, syllabus, teaching materials and methods, medium of instructions, evaluation strategies and research to cater to these needs. The movement to decolonise English Studies will get momentum in the coming days; NEP 2020 will give it a required impetus. ‘Learning Outcomes based Curriculum Framework’ is a step in that direction. The times of basking in the sunshine of the Raj seem to be over for the teachers of English.

Notes

*Revised lecture, UGCHRDC, Dr H S Gour University, Sagar, 29 Oct 2021.

1. Fabian Close holds that Moritz Julius Bonn was the first scholar to use the term decolonization in the academic discourse in his section on Imperialism in the *Encyclopedia of the Social Sciences* in 1932. (Klose, Fabian. “Decolonization and Revolution”. European History Online. 2014, <http://ieg-ego.eu/en/threads/europe-and-the-world/european-overseas-rule/fabian-klose-decolonization-and-revolution>. This opinion is also held by Wesseling, H.L. (1987). “Towards a History of Decolonization”. *Itinerario*, 11, pp. 95-106. doi:10.1017/S0165115300015473.

2. Henri Fonfrède in his French-language tract, *Decolonization of Algiers*, “calls on the kingdom of France to end the six-year-old occupation of territory in North Africa.” <https://www.encyclopedia.com/social-sciences-and-law/political-science-and-government/political-science-terms-and-concepts/decolonization>.

3. “Restorative justice is an approach that offers offenders, victims and the community an alternative pathway to justice. It promotes the safe participation of victims in resolving the situation and offers people who accept responsibility for the harm caused by their actions an opportunity to make themselves accountable to those they have harmed.” https://www.unodc.org/documents/justice-and-prison-reform/20-01146_Handbook_on_Restorative_Justice_Programmes.pdf

4. “Famines:

1. In the last thirty years of the eighteenth century, 1769-1800 ... 4 cases.

2. In the first half of the nineteenth century 1802-38 ... 12 cases.

3. In the second half of the nineteenth century, 1854-1908 ... 35 cases.

And death from famine only during the nineteenth century is over thirty two millions ! Mr. William Digby in his “Prosperous British India” says that the loss of life by war in all world during 107 years (1793-1900) is five millions while the loss of life by famine in India during ten years (1891-1900) is nineteen millions! While according to the calculations of some British statisticians there are ninety millions of continually hungry people in British India at the beginning of the twentieth century! The truth of this appalling misrule and misery of the people is evident to every unbiassed person.” (The Indian National Party. *British Rule in India Condemned by the British Themselves*, London: The Indian National Party, 1915, p. 8)

5. Several kinds of exorbitant taxes had been imposed by the British that led to various kinds of silent protests. For details on the issue kindly see the following two books: The Indian National Party. *British Rule in India Condemned by the British Themselves*, London: The Indian National Party, 1915 and Dharampal. *Civil Disobedience in Indian Tradition, Collected Writings*, Volume II, Mapusa: Other India Press, 2000.

6. Mahatma Gandhi mostly refers to the Western authorities to debunk the Western Civilization in the book. The only two non-European books that have been mentioned in the appendix to the book as a follow up study are: Dadabhai Naoroji’s *Poverty and Un-British Rule in India* and Romesh Dutt’s *Economic History of India*.

7. “England has applied three methods for the subjugation of India.

Conquest by trade –India’s trade and industry have been destroyed, all her wealth has been ruthlessly plundered, and India in all her nakedness has been made economically dependent on Great Britain which country owed her industrial supremacy to the spoliation of India.

Conquest by deliberate subjection –All Indian aspirations and development of strong character have been suppressed. The Indian mind has been made barren of any originality, and deliberately kept in ignorance.

Conquest by paralysing and stupefying the mind of the people like drugging a person. The people are kept under an illusion in order to make them more amenable to British control. The people’s character is deliberately debased, their mind is denationalized and perpetually [sic] kept in ignorance and fed with stories of England’s greatness and “mission” in the world, and systematic efforts are made to obliterate the race-consciousness.” (The Indian National Party. *British Rule in India Condemned by the British Themselves*, London: The Indian National Party, 1915, pp. 8-9)

8. “It (Indo-Anglian poetry) starts as romantic poetry simply because it was born under Romantic influences. It becomes Victorian because English Romantic poetry became Victorian. It decided to go through a period of “Decadence” because the nineties were a period of “Decadence” in English poetry. After Decadence came the period of Georgianism and Indo-Anglian poetry, loyal as always, suddenly became Georgian. When English poetry became modernist, Indo-Anglian poetry had no alternative but to do the same.” (Sudhir K. Arora, *Cultural and Philosophical Reflections in Indian Poetry in English*. Vol. I, New Delhi: Authors Press. 2016, p.13)

9. Three reports developed by Curriculum Development Centre in English, in 1989, 2001 and 2019 (UGC LOCF) have been in public domain

10. Erotic (*śṛṅgāra*), Comic (*hāsya*), Pathetic (*karuṇa*), Furious (*raudra*), Heroic (*vīra*), Terrible (*bhayānaka*), Odious (*bībhatsa*) and Marvellous (*adbhuta*), *Natya Shastra*, Chapter VI - Sentiments (*rasa*), Verse 15. Later aestheticians have added a few more like *shanta*, *vatslaya* etc to these eight.

11. “Assuredly it is the duty of the British Government in India to be not only tolerant but neutral on all religious questions We are to teach false history, false astronomy, false medicine, because we find them in company with a false religion. We abstain, and I trust shall always abstain, from giving any public encouragement to those who are engaged in the work of converting the natives to Christianity.” (T B Macaulay, “Minutes on Education”, *Macaulay Prose and Poetry*. G M Young (Ed.). London: Rupert Hart Davis Soho Square, 1861, p. 728.)

12. For example, Sir John Edge applied the rule of construction of the Mimamsa of Jaimini to the text of Vasistha while delivering the judgment in the case of Beni Prasad Vs. Hardai Bibi (ILR 1892 (14) Allahabad 67 (FB), www.casemine.com/judgement/in/5ac5e3254a93261a1a73902f) . Some of the other cases where judgments were pronounced by the English judges using Indian authorities in jurisprudence are: Kalgavda Tavanappa Patil v Somappa Tamangavda Patil (ILR 1908 (33) Bom 669, <https://indiankanoon.org/doc/682888/>), V Subramania Ayyar v. Rathavelu Chetty (ILR 1917 (41) Ma 44 (FB), <https://indiankanoon.org/doc/631973/>) and Narayan Pundlik Valanju v. Laxman Daji Sirekar (ILR 1927(51) Bom784, <https://indiankanoon.org/doc/494653/>) .

13. The code was drafted on the recommendations of the first law commission of India, constituted in 1834 under the Charter Act of 1833 under the chairmanship of Thomas Babington Macaulay. The first final draft of the Indian Penal Code was submitted to the Governor-General of India in Council in 1837. It came into force in British India during the early British Raj period in 1862. However, it did not apply automatically in the Princely states, which had their own courts and legal systems until the 1940s. The Code was also adopted by the British colonial authorities in Colonial Burma, Ceylon (modern Sri Lanka), the Straits Settlements (now part of Malaysia), Singapore and Brunei, and remains the basis of the criminal codes in those countries.

14. Some of these judgements are available in *K. L. Sarkar's Mimamsa Rules of Interpretation: Tagore Law Lectures-1905*, Ed. Justice Markandey Katju, New Delhi: Thomson Reuters, 4th edition, 2013, pp. 325-436.

15. Justice Markandey Katju holds that Mimamsa Principles are better than Maxwellian principles: “The Mimamsa Principles of Interpretation, as laid down by Jaimini around the 5th century B.C. in his sutras and as explained by Sabar, Kumarila Bhatta, Prabhakar, Mandan Mishra, Shalignath, Parthasarathy Mishra, Apadeva, Shree Bhat Shankar, etc. were regularly used by our renowned jurists like Vijñeshwara (author of *Mitakshara*), Jimutvahana (author of *Dayabhaga*), Nanda Pandit (author of *Dattaka Mimamsa*), etc. whenever there they found any conflict between the various Smritis, e.g., Manusmriti and Yajñavalkya Smriti, or ambiguity, ellipse or absurdity in any Smriti. Thus, the Mimamsa principles were our traditional system of interpretation of legal texts. Although originally they were created for interpreting religious texts pertaining to the Yagya (sacrifice), they were so rational and logical that gradually they came to be utilized in law, philosophy, grammar, etc., that is, they became of universal application. ... The Mimamsa principles were regularly used by our great jurists for interpreting legal texts (see also in this connection P.V. Kane's ‘History of the Dharmashastra’, Vol. V, Pt. II, Ch. XXIX and Ch. XXX, pp. 1282- 1351). ... In Mimamsa, *casus omissus* is known as *adhyahara*. The *adhyahara* principle permits us to add words to a legal text. However, the superiority of the Mimamsa Principles over Maxwell's Principles in this respect is shown by the fact that Maxwell does not go into further detail and does not mention the sub-categories coming under the general category of *casus omissus*. In the Mimamsa system, on the other hand, the general category of *adhyahara* has under it several sub-categories, e.g., *anusanga*, *anukarsha*, *vakyashesha*, etc.” (Dr Rajbir Singh Dalal v. Chaudhari Devi Lal University, Sirsa & Anr., Civil Appeal No. 4908 of 2008, August 2008, <https://indiankanoon.org/doc/1268797/>)

16. For example, the first edition of Maxwell's Book on Interpretation was published in 1875 whereas Jaimini's Sutras have been in existence since about fifth century BC, even if we ignore other eight authorities, whose works have been lost, but are quoted by Jaimini in his treatise.

17. The fact has also been deplored by Justice Markandey Katju: “It is deeply regrettable that in our Courts of law lawyers quote Maxwell and Craies but nobody refers to the Mimamsa Principles of interpretation. Most lawyers would not have even heard of their existence. Today our so-called educated people are largely ignorant about the great intellectual achievements of our ancestors and the intellectual treasury which they have bequeathed us. The Mimamsa Principles of interpretation is part of that great intellectual treasury, but ... there has been almost no utilization of these principles even in our own country. Many of the Mimamsa Principles are rational and scientific and can be utilized in the legal field.” <https://indiankanoon.org/doc/1268797/>, <https://indiankanoon.org/doc/1557228/>. This sentiment has been repeated in several of his articles, speeches and judgements with minor variation in language, some of which can be located at: <https://indiankanoon.org/doc/461003/>, <https://indiankanoon.org/doc/1313824/>, <https://indiankanoon.org/doc/1313824/>

indiankanoon.org/doc/295313/, <https://indiankanoon.org/doc/1223233/> Allahabad Highcourt, Sardar Mohammad Ansar Khan v. State of U.P. CMWP No. 8249 of 1990, decided on October 11, 1992, Allahabad Highcourt, Udai Shankar Singh v. Branch Manager, LIC, Bharwari, CMWP No. 3807 of 1993, <https://www.aironline.in/legal-articles/The+Mimansa+Principles+of+Interpretation>, <https://www.aironline.in/legal-articles/The+Mimansa+Principles+of+Interpretation-II>, <https://www.outlookindia.com/website/story/from-the-ancient-to-the-modern/264730> and etc.)

18. “समर शेष है, नहीं पाप का भागी केवल व्याध, जो तटस्थ है, समय लिखेगा उनके भी अपराध”, ‘समर शेष है’, Ramdhari Singh Dinkar.

19. *Constitution of India*, Part XVII, Clause 343 (2). Ministry of Law and Justice, Government of India, 2020. It may also be noted that in only 54 countries English is both a *de jure* and a *de facto* official language. It is a *de facto* official language in Australia, New Zealand, the UK and the USA. https://en.wikipedia.org/wiki/List_of_countries_and_territories_where_English_is_an_official_language

20. Vilfredo Pareto discusses the existence of two types of elites: Governing elites and Non-governing elites. He postulates that “in actual societies, elites are those most adept at using the two modes of political rule, force and persuasion, and who usually enjoy important advantages such as inherited wealth and family connections.” Gaetano Mosca says elites are an organized minority and that the masses are an unorganized majority. He divides the world into two group: Political class and Non-Political class. Mosca holds that elites have intellectual, moral, and material superiority that is highly esteemed and influential. John Higley. “Elite Theory and Elites”, *Handbook of Politics: State and Society in Global Perspective*, Kevin T. Leicht, J. Craig Jenkins (eds.), New York: Springer-Verlag, 2010, pp. 160-176.

21. Some characteristics of the people of the Indian subcontinent: “... the prickly sense of insecurity, the obsession with conspiracies, the desire to succeed, the lack of faith in the leadership (everyone is dwarfed at the side of Gandhi or Jinnah), the aggressive loyalty to a cause and by implication the need to assert a separate identity.” (Akbar Ahmed. *Jinnah, Pakistan and Islamic Identity: The Search for Saladin*, Routledge, 1997, p. 270)

22. *Indo-Anglian Literature*. Calcutta: Thacker, Spink and Co., 1883. PDF. The author/compiler of this book identifies himself simply as “B. A.” though this book has been attributed to Sir Edward Charles Buck in the Bibliographic information on the site <worldcat.org> “Edward Charles Buck, Sir”. Likewise, “Buck, Edward Charles, b. 1838” has been mentioned as the main author of the book in the Bibliographic information of Hathi Trust Digital Library <hathitrust.org > However, there is an additional note also on the card: “By Sir Edward Buck, secretary to the Government of India.” [sic] -- Halkett & Laing.” In the recent edition of the book issued by Palala Press (May 21, 2016) also the authorship has been attributed to Sir Edward Charles Buck (amazon.com).

23. “The Orientalist party consisted of the Hon. H. Shakespear, Messrs. H. Thoby Prinsep, James Prinsep, W. H. Macnaghten and T. C. C. Sutherland, the Secretary of the Committee. The Anglicists were Messrs. Bird, Saunders, Bushby, Trevelyan, and J. R. Colvin.” Colonel W. F. B. Laurie. *Sketches of Some Distinguished Anglo-Indians: (Second Series) Including Lord Macaulay’s Great Minute on Education in India; With Anglo-Indian Anecdotes and Incidents*. London: W. H. Allen, 1888. p. 165. PDF.

24. On the result of the introduction of Macaulayan education M Prabha writes: “What followed was a class not of physicists, chemists and mathematicians ... but a sect of grotesque apes who took to European classical learning, British history and writing in the English language. ... they fell headlong for the specious western mores and manners. Instead of imbibing Faraday and Newton they crammed the Bible and Milton. Several of them embraced Christianity or sailed to the west, turning their backs on their own people.” (M. Prabha. *The Waffle of the Toffs*, New Delhi: Oxford-IBH, 2000, p. 5)

25. त्यजेदेकं कुलस्यार्थं ग्रामस्यार्थं कुलं त्यजेत् । ग्रामं जनपदस्यार्थं आत्मार्थं पृथिवीं त्यजेत् ॥ – महाभारत, पर्व १, अध्याय १०७, श्लोक ३२, *tyajet kularthe purusham gramasyarthe kulam tyajet |gramam janapadasyarthe atmarthe prithivim tyajet || (Mahabharata 1, 107, 32)* renounce one person for the sake of the family, a family for the sake of village; village for the sake of country and even the [kingdom of] earth for one’s own sake. The principle is valid even in the modern times as is clear from the following lines in the judgment pronounced by Kerala High Court in the WP(C).No. 35293 of 2018: “In every human relationship, there evolves an interest. In the competing rights, if not resolved through the legislation, it is a matter for judicial adjudication. The Court, therefore, has to balance those rights to uphold the interest of the dominant rather than the subservient interest. *The dominant interest represents the larger interest and the subservient interest represents only individual interest*. If the dominant interest is not allowed to prevail, subservient interest would march over the dominant interest resulting in chaos.” (emphasis added) www.legitquest.com/case/fathima-thasneem-minor-and-other-v-the-state-of-kerala-and-others/1D9784

26. Patriarchy is a “[s]ocial system in which men hold primary power and predominate in roles of political leadership, *moral authority*, social privilege and control of property. ... It is also the political, ideological, *religious*, and societal structure that places maleness above femaleness.” (Emphasis added), <https://www.igi-global.com/dictionary/patriarchy/52625>.

27. Arthur Symons, in his introduction to *The Golden Threshold* (1905), underlined “... in a sort of delicately evasive way, at a rare temperament, the temperament of a woman of the East, finding expression through a Western language and under partly Western influences. They do not express the whole of that temperament; but they express, I think, its essence; and there is an Eastern magic in them.” https://en.wikisource.org/wiki/The_Golden_Threshold/Introduction

28. Eighteen international varieties of English are currently listed in a popular software platform, MS Office.

29. This variety of English has been accepted by MS Office.

30. The status of English in India – if it is an Indian language or a foreign language - is ambiguous. While Sahitya Akademi, New Delhi, considers it to be an Indian language, in order to impart teaching of English Literature EFLU considers it to be a foreign language but in the Linguistics/ ELT class-rooms in EFLU, English in India is considered to be a second language.

31. “Bhabatosh Chatterjee, *John Keats: His Mind and Work*, 1971; K R Chatterjee, *Studies in Tennyson as Poet of Science*, 1977; B Rajan, *W. B. Yeats: A Critical Introduction*, 1965; Ramesh Chandra Shah, *Yeats: Last Poems: A Casebook*, 1968 (wrongly attributed to Shah in place of Jon Stallworthy; Shah is not even a contributor to the book); J. Birje-Patil, *Beneath the Axle-Tree*, 1977; B Rajan, *The Overwhelming Question*, 1977; B Rajan (Editor), *T. S. Eliot: A Study of His Writings by Several Hands*, 1947; Rajnath, *T.S. Eliot's Theory of Poetry*, 1980.”

32. Since Southey has not been prescribed there is no mention of his *The Curse of Kehama, based on a Hindu myth*. Tennyson's fifteen poems have been prescribed which largely deal with Greek myths like Arthur, Shallot, Maud or his melancholy but there is no mention of his “The Defence of Lucknow”. Similarly, in the drama paper Dryden's *All for Love* has been prescribed in place of Aureng-Zebe with which Indian students can relate more.

33. Harivansh Rai Bachchan. *W. B. Yeats and Occultism: A Study of His Works in Relation to Indian Lore, the Cabbala, Swedenborg, Boehme and Theosophy*, Delhi: Motilal Banarsidass, 1965. Reissued by Samuel Weiser Inc., New York in 1974 as *W. B. Yeats and Occultism*.

34. While serving the Dept of English, University of Allahabad, H R Bachchan had gone to Cambridge to pursue his M Litt at Cambridge University. For details one may refer to the third volume of Bachchan's autobiography, *Basere se Door* (Hindi, New Delhi: Rajpal, 1978).

35. This book was also published under the same title by Humanities Press, Atlantic Highlands, N.J., 1983.

36. The publications of the survey include the following information: Name of the language, Brief history, Geographical region where the language is spoken, Short bibliography, Sample oral songs with translation, Sample oral stories with translation, Colour terms, Relational terms and the Terms for time and space. For scheduled languages, the survey also provides a broad cultural overview of each language.

37. “In the first group, by the *apurvata* mark we come to know that the subject discussed is not known from any other source and is known from this text alone. *upapatti* or logically reasoned presentation helps us know that the subject is firmly established without being contradicted/rescinded. The above two marks become meaningful only if the subject discussed/delineated bears a specific fruit/benefit (*phalam*). In the absence of this specific fruit (found mentioned in the text under consideration) the former two marks are rendered redundant. Thus, is explained the first group. It is possible sometimes that a text is seen to discuss several topics and they appear to be supported by reasoned presentation and the benefit too is specified clearly. In such a situation it becomes impossible to ascertain on firm grounds that such and such is the purport of the text. Here lies the utility of the second group. Among the remaining three marks (constituting the second group) even one would be sufficient to determine the purport. Thus, by noticing the *upakrama-upasamhara* mark, or by observing the *abhyasa* mark or by discerning the eulogical indicator one can determine the purport of the text.

In this way the particular topic discussed in the context of the text becomes determined as not a subsidiary of any other topic but enjoying the status of being the main topic.” (<https://adbhutam.wordpress.com/2012/10/13/%E0%A4%B7%E0%A4%A1%E0%A5%8D%E0%A4%B5%E0%A4%BF%E0%A4%A7%E0%A4%A4%E0%A4%BE%E0%A4%A4%E0%A5%8D%E0%A4%AA%E0%A4%B0%E0%A5%8D%E0%A4%AF%E0%A4%B2%E0%A4%BF%E0%A4%99%E0%A5%8D%E0%A4%97%E0%A4%BE%E0%A4%A8%E0%A4%BF-3/>)

38. कारणदोषबाधकज्ञानरहितम् अमृहीतग्राहि ज्ञानं प्रमाणम् ।(शास्त्रदीपिका)

39. One feature of coloniality is also to teach the colonies their own texts in the colonialist's language.

40. Rajiv Malhotra & Satyanarayana Dasa Babaji. *Sanskrit Non-Translatables: The Importance of Sanskritizing English*. Noida: Amaryllis & Harper Collins India, 2020. Also see Rajiv Malhotra. *Being Different: An Indian Challenge to Western Universalism*, Noida: Harper Collins, 2013.

41. Sudhir Kumar is Professor of English, Punjab University, Chandigarh. Kindly see: Sudhir Kumar. “Reflections on Deen Dayal Upadhyaya's Vision of Chiti and Dharma-Centric Indian Culture”, *Madhya Bharati: Research Journal of Humanities and Social sciences*, No 75, July-Dec 2018, pp. 292-313.

42. In case of India, The National Assessment and Accreditation Council (NAAC) was instituted in 1994 to assess and accredit the Higher Educational Institutions (HEI) to derive an understanding of the ‘Quality Status’ of the institution. NAAC evaluates the institutions for its conformance to the standards of quality in terms of its performance related to the educational processes and outcomes, curriculum coverage, teaching-learning processes, faculty, research, infrastructure, learning resources, organisation, governance, financial well-being and student services. QS World University Rankings® has been assessing universities and Colleges on several parameters including research publications and their citations since their inception in 2004. Almost the same parameters were adopted to measure the ranking of the ranking of the top universities in the BRICS nations in 2013. Scopus database was being used to measure the quality of research. In order to meet the requirements under Washington Accord the National Board of Accreditation (NBA), India was initially established by the AICTE (All India Council of Technical Education) in 1994. It assesses the qualitative competence of the programmes offered by educational institution from diploma level to post-

graduate level in engineering and technology, management, pharmacy, architecture and related disciplines, which are approved by AICTE.

43. QS World University Rankings and the Times Higher Education World University Rankings are released annually in September. They also release additional rankings, dedicated to particular subjects and regions, throughout the year.

44. "The UGC-CARE List ... includes journals indexed in Scopus and / or Web of Science." *Consortium for Academic Research and Ethics: CARE*, New Delhi: University Grants Commission, 2019, p. 6, PDF.

45. Academic Keys; BazHum, Caspur, CEEOL, CEJSH, Deutsche Zentralbibliothek für Medizin ZB MED; Directory of Open Access Journals DOAJ; DOAJ, EBSCO, Electronic Journals Library; EMBASE, European Reference Index for the Humanities and the Social Sciences ERIH PLUS, Expanded Academic ASAP, Genamics Journal Seek, Google Scholar; Hinari, Index Copernicus and ERIHPLUS, Index Copernicus IC; Index Copernicus; Information Matrix for the Analysis of Journals MIAR; Journals' International Compliance Index; Linguistic Bibliography; Linguistik Portal für Sprachwissenschaft; MedLine, Norwegian Register for Scientific Journals, OCLC WorldCat; Open Academic Journals Indexing; OpenAIRE; Open J Gate, PubMed, Pol-Index; Portal on Central Eastern and Balkan Europe; Primo Central, Pro Quest, Publons; ResearchBible; Russian State Digital Library; SCIRUS, SIIC databases, SCOLOAR, Scribd; Series and Publishers, Staats- und Universitäts- Bibliothek Hamburg and ERIH PLUS; Summon by Serial Solutions, The Linguist List; Ulrich's Web; Ulrich's International Periodical Directory, Universitätsbibliothek Leipzig; Zenodo etc. Many of these work in highly specialised domains.

46. For example, all the rare books of India which are not available in India can easily be accessed through Internet on www.archives.org. Similarly, in the field of agriculture, the germ plasm of all the native plants in India is collected through NBPGR, New Delhi to be stored in the US.

47. It is against this sort of bias expressed in the UN document, "75/291. The United Nations Global Counter-Terrorism Strategy: Seventh Review" (<https://undocs.org/en/A/RES/75/291>), that T S Tirumurti said, "Emergence of contemporary forms of religiophobia, especially anti-Hindu, anti-Buddhist and anti-Sikh phobias is a matter of serious concern and needs attention of the UN and all member states to address this threat." (<https://theprint.in/diplomacy/anti-hindu-anti-buddhist-anti-sikh-phobias-need-un-attention-says-indian-envoy-tirumurti/809723/>) While Tirumurti's concern appears to be on the "contemporary forms", in academics it has always persisted as has been indicated elsewhere in the paper.

48. "MLA membership. Authors must be members of the MLA. (For a collaboratively written essay to be eligible for review, all coauthors must be members of the MLA.)" <https://www.mla.org/Publications/Journals/PMLA/Submitting-Manuscripts-to-PMLA>

49. For example, "Submissions to East European Journal of Psycholinguistics require an article processing fee of €100 ... [to cover] the costs induced by the editing and reviewing process, checking for plagiarism, efficient publication service to the authors, i.e. proofreading, editorial assistance in the publishing process, providing cover layout, typesetting." <https://eejpl.vnu.edu.ua/index.php/eejpl/home>

50. I have in mind journals like Panjab University Research Bulletin Arts (Chandigarh), Punjab Journal of English Studies (Amritsar), Journal of Literary Studies (Bhubaneswar), Literature and Criticism (Berhampur), Dharwad English Studies (Dharwad), The Aligarh Journal of English Studies (Aligarh), Meerut Journal of Comparative Literature and Language (Meerut), Banasthali Patrika (Banasthali) etc.

51. Here is one sample from a social site, Facebook: "Oindrila Ghosh (8 July 2013): I strongly condemn all journals which charge for publishing research articles in the name of printing charges, postage, compulsive subscription et al... especially if and when this intrinsic business motive is mentioned nowhere on their CFPs or websites and conveyed to you in a mail also informing you of the selection of your paper for their forthcoming issue... now that I am at the helm of a Journal publication myself I understand that it is possible to publish truly meritorious papers without charging for them, and making the persons feel that they have paid to get published... not a good feeling, detrimental to the healthy academic growth of a nation... am sure some will find ways and means to convince me the justification for charging money, for them a prior disclaimer... I won't be convinced. – feeling angry. Ecaterina Patrascu: I am the Editor-in-Chief of such a journal, which is open access and a product of an independent publishing house. As a researcher myself, author of over 45 articles, I have been confronted with the following situations: 1. journals issued by universities (there, special funds are allotted to such journals, and we speak about big money) that do not ask contributors for fees. 2. journals which benefit high indexations and that sometimes ask for fees that go well beyond 500 USD for an article. 3. journals that do not ask for fees, BUT that practise the subscription mode, which brings them a lot of money and 4. independent, [*sic*] open access journals, which have no source [*sic*] of financing, as in the previous cases. Since I am in the last category, I shall make clear what this money is asked for: 1. articles come in ALL kinds of English - they must be checked and double checked both for language and style. 2. in my experience, no contributor respected the reference style - the journal has to format the bibliography and check accuracy of reference. 3. formmating [*sic*] itself - again, no one sends an article in the indicated form. 4. promotion of the journal in various places so that indexations may come in time. 5. website work. In the case of independent journals, all these activities involve the work and time of professionals, both from the academic field and from the technical field. And there is one more aspect - my journal, for example, rejects almost the same number of articles that are finally published in each issue, based on reviewers' or editorial staff indications. The processing fee covers, probably, one third of the work done and believe me, I know very well what I am saying, since I know both sides of the matter. ... to explain - there are

journals that do not charge contributors; those journals are then included in the subscription system of libraries; libraries sell access to their databases to universities; universities pay for that; that is reflected in the salary...

52. Mark Bassett mentions the following ten benefits of bilingualism: 1. Increased brain power, 2. an academic advantage to children. 3. Increased awareness of other cultures. 4. Travel becomes easier and more enjoyable 5. Better competitiveness in the job market. 6. Easier to learn a third language. 7. Kids can easily be bilinguals. 8. Stay mentally stronger for longer. 9. Improved social life and 10. Makes one more attractive. (<https://unuhi.com/10-benefits-of-being-bilingual/>)

53. The story of the teaching/testing in the departments like Urdu, Arabic, Persian and Hindi in the Indian universities is no different. In some universities the medium of instruction to teach/test Hindi literature is English.

54. Department of Sanskrit. "Master of Arts (Sanskrit), Two-Year Full-Time Programme: Rules, Regulations and Course Contents", U of Delhi, Revised in 2019., p. 7, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/viewer.html?pdfurl=http%3A%2F%2Fauth.du.ac.in%2Fsanskrit%2Fusefiles%2Fdownloads%2FSyllabus%2FRevised%2520PG_LOCF%2520Syllabus%2520on%252019.12.2020.pdf&cflen=2928354&chunk=true

References

- Ahmed, A. (1997). *Jinnah, Pakistan and Islamic Identity: The Search for Saladin*. London and New York: Routledge.
- Aidan, R. (2002). Foreword. In D. Frawley (auth.). *Hinduism and the Clash of Civilizations*, (pp. vii-x). New Delhi: Voice of India.
- Arora, S. K. (2016). *Cultural and Philosophical Reflections in Indian Poetry in English*, 1. New Delhi: Authors Press.
- Ashcroft, B., Griffiths, G., & Tiffin, H. (Ed.). (2003). *The Post-Colonial Studies Reader*. London: Routledge.
- B. A. (1883). *Indo-Anglian Literature*. Calcutta: Thacker, Spink and Co.
- Bachchan, H. R. (1965). *W. B. Yeats and Occultism: A Study of His Works in Relation to Indian Lore, the Cabbala, Swedenborg, Boehme and Theosophy*. Delhi: Motilal Banarsidass.
- Bachchan, H. R. (1974). *W. B. Yeats and Occultism*. New York: Samuel Weiser Inc.
- Bachchan, H. R. (1978). *Basere se Door [Far from Home]*. New Delhi: Rajpal.
- Banu, A. (2010). *Modern Indian English Poetry*. In M. Ramanan et al., (Eds.). *Contemporary Indian Poetry in English*. New Delhi: Sahitya Akademi.
- Binagwaho, A., Ngarambe, B. & Mathewos, K. (2022). Eliminating the White Supremacy Mindset from Global Health Education. *Annals of Global Health*, 88(1), 1-9. Retrieved from <http://doi.org/10.5334/aogh.3578>
- Chatterjee, B. (1971). *John Keats: His Mind and Work*. Bombay: Orient Longman.
- Chatterjee, K. R. (1974). *Studies in Tennyson as Poet of Science*. New Delhi: S. Chand.
- Chinweizu. (1988). *Colonizer's Logic*. In Chinweizu, (Ed.). *Voices from Twentieth Century Africa: Griots and Town Criers*, (p. 32). London: Faber and Faber.
- Consortium for Academic Research and Ethics: CARE. (2019). New Delhi: University Grants Commission.
- Cousins, J. H. (n. d.). *The Renaissance in India*. Madras: Ganesh & Co. Retrieved from <https://archive.org/details/in.ernet.dli.2015.20391419>
- Dharampal. (2000). *Civil Disobedience in Indian Tradition, Collected Writings*, 2. Mapusa: Other India Press.
- Dinkar, R. S. "समर शेष है". [The War Is On] Retrieved from https://bharatdiscovery.org/india/समर_शेष_है_-रामधारी_सिंह_दिनकर
- Dutt, R. C. (1902). *Economic History of India*. London: Kegan Paul, Trench, Trübner & Co.
- Fanon, F. (2004). *The Wretched of The Earth*, Translated from the French by R. Philcox. New York: Grove Press.
- Gandhi, M. K. (1938). *Hind Swaraj or Indian Home Rule*. Ahmedabad: Navajivan. Retrieved from www.mkgandhi.org/ebks/hind_swaraj.pdf
- Gandhi, M. K. (1938). *My Own Experience*. In Harijan, 9-7, 38. Retrieved from <https://www.mkgandhi.org/indiadreams/chap44.htm>

- Gautier, F. (2004). "Cry O my beloved India!" Retrieved from <https://www.rediff.com/news/2004/jun/07franc.htm>
- Griffin, G. (Ed.). (2005). *Research Methods for English Studies*. Edinburgh: Edinburgh University Press Ltd, Second Edition.
- Gurung, S. K. (2018). Urban Naxals: How the term came about. *The Economic Times*. English Edition. Retrieved from https://economictimes.indiatimes.com/news/defence/urban-naxals-its-not-such-a-new-thing/articleshow/65598483.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Higley, J. (2010). *Elite Theory and Elites*. In Kevin T. Leicht & J. Craig Jenkins (Eds.). *Handbook of Politics: State and Society in Global Perspective*. New York: Springer-Verlag.
- Indian National Party [The]. (1915). *British Rule in India Condemned by the British Themselves*. London: The Indian National Party.
- Katju, Justice Markandey (Ed.). (2013). *K. L. Sarkar's Mimansa Rules of Interpretation: Tagore Law Lectures-1905*. New Delhi: Thomson Reuters. 4th edition.
- Klose, F. (2014). *Decolonization and Revolution*. *European History Online*. Retrieved from <http://ieg-ego.eu/en/threads/europe-and-the-world/european-overseas-rule/fabian-klose-decolonization-and-revolution>.
- Kubayanda, J. B. (1989). On discourse of decolonization in Africa and the Caribbean. *Dispositio*, 14(36/38), 25-37. Retrieved from www.jstor.org/stable/41491353
- Kumar, S. (2018). Reflections on Deen Dayal Upadhyaya's Vision of Chiti and Dharma-Centric Indian Culture. *Madhya Bharati: Research Journal of Humanities and Social Sciences*, 75, 292-313.
- Laurie, Colonel W. F. B. (1888). *Sketches of Some Distinguished Anglo-Indians: (Second Series) Including Lord Macaulay's Great Minute on Education in India; With Anglo-Indian Anecdotes and Incidents*. London: W. H. Allen. Retrieved from <https://archive.org/details/dli.csl.5911>
- Macaulay, T. B. (1835). Minute by the Hon'ble T. B. Macaulay, dated the 2nd February 1835 Retrieved from www.columbia.edu/itc/mealac/pritchett/00generallinks/macaulay/txt_minute_education_1835.html
- Macaulay, T. B. (1861). *Minutes on Education*. In G M Young (ed). *Macaulay Prose and Poetry*. London: Rupert Hart Davis. Retrieved from <https://archive.org/details/in.ernet.dli.2015.150518>
- Madiou, M. S. E. (2021). The Death of Postcolonialism: The Founder's Foreword. *Janus Unbound: Journal of Critical Studies*, 1(1), 1-12. Retrieved from <https://philarchive.org/archive/MADTDO-12>
- Malhotra, R., & Satyanarayana, D. B. (2020). *Sanskrit Non-Translatables: The Importance of Sanskritizing English*. Noida: Amaryllis & Harper Collins India.
- Malhotra, R. (2013). *Being Different: An Indian Challenge to Western Universalism*. Noida: Harper Collins.
- Mignolo, W. D. (2011). *The Darker Side of Western Modernity: Global Futures, Decolonial Options*. Durham: Duke UP.
- Müller, M. (2002). *India: What Can it Teach Us? A Course of Lectures Delivered before the University of Cambridge*. New York: Funk & Wagnalls, Publishers.
- Naoroji, D. (1901). *Poverty and Un-British Rule in India*. London: Swan Sonnenschein & Co. Retrieved from <https://archive.org/details/in.ernet.dli.2015.111136>
- Paranjape, M. R. (2022). *The End of Post-Colonialism*. Retrieved from <http://www.makarand.com/acad/TheEndofPost-Colonialism.htm>
- Prabha, M. (2000). *The Waffle of the Toffs: A Sociocultural Critique of Indian Writing in English*. New Delhi: Oxford & IBH.
- Rajan, B. (1965). *W. B. Yeats: A Critical Introduction*. London: Hutchinson.

- Rajan, B. (1976). *The Overwhelming Question: A Study of the Poetry of T.S. Eliot*. Toronto: University of Toronto Press.
- Rajan, B. (ed). (1947). *T. S. Eliot: A Study of His Writings by Several Hands*. London: Dennis Dobson.
- Rajnath, R. N. (1980). *T.S. Eliot's Theory of Poetry*, Atlantic Highlands: Humanities Press.
- Rocher, L. (1968-1969). Lawyers in Classical Hindu Law. *Law & Society Review*, 3(2/3), 383-402. Retrieved from <https://www.jstor.org/stable/3053008>.
- Rocher, L. (2012). *Studies in Hindu Law and Dharmaśāstra*. Donald R. Davis Jr (ed). London: Anthem Press.
- Shah, R. C. (1983). *Yeats and Eliot: Perspectives on India*, New Delhi: Associated Publishing House.
- Shah, R. C. (1983). *Yeats and Eliot: Perspectives on India*. Atlantic Highlands: Humanities Press.
- Sharp, H. (ed.). (1920). *Selections from Educational Records, Part I (1781–1839)*. Calcutta: Superintendent, Govt. Printing. Retrieved from <https://archive.org/details/SelectionsFromEducationalRecordsPartI1781-1839>.
- Southey, R. (1812). *The Curse of Kehama*. London: Printed for Longman, Hurst, Rees, Orme, and Brown, Paternoster-Row.
- Stallworthy, J. (1968). *Yeats: Last Poems: A Casebook*. London: Macmillan.
- Steiner, P. (1995). Russian Formalism. In R. Selden, (Ed.). *The Cambridge History of Literary Criticism*, 8. (pp. 11-29). Cambridge: Cambridge University Press.
- Swami, K. (Ed. & Tr.). (1996). *Parthasarthi Mishra's Shastra Dipika*. Delhi: Swami Rama Tirtha Mission.
- Symons, A. (1905). Introduction. In: *The Golden Threshold*. Retrieved from https://en.wikisource.org/wiki/The_Golden_Threshold/Introduction
- Tennyson, A. *The Defence of Lucknow*. Retrieved from <https://www.telelib.com/authors/T/TennysonAlfred/verse/ballads/lucknow.html>
- Tharoor, S. (2016). *An Era of Darkness*, New Delhi: Aleph.
- The Indian National Party. (1915). *British Rule in India Condemned by the British Themselves*, London: The Indian National Party. Retrieved from <https://archive.org/details/britishruleinind00indiuoft>
- Trevelyan, G. O. (1876). *The Life and Letters of Lord Macaulay*. Vol I. London: Longmans, Green, PDF. Retrieved from <https://archive.org/details/lifelettersoflor01trevuoft/page/n7/mode/2up>
- Viswanathan, G. (1998). *Masks of Conquest: Literary Study and British Rule in India*, New Delhi: Oxford UP.
- Watts, M. (2009). Neocolonialism and the Process of Decolonization. In: *International Encyclopedia of Human Geography*, Vol 7, (pp. 360-364). Nigel Thrift & Rob Kitchin, (Eds.). Amsterdam: Elsevier.
- Wesseling, H. L. (1987). Towards a History of Decolonization. *Itinerario*, 11(2). 95-106. <https://doi.org/10.1017/S0165115300015473>

Sources


- Birje-Patil, J. (1977). *Beneath the Axle-Tree*. Delhi: Macmillan.
- Chatterjee, U. (1988). *English, August: An Indian Story*. London: Faber and Faber.
- Constitution of India. (2020). Part XVII, Clause 343(2). Ministry of Law and Justice, Government of India.
- Dryden, J. (n.d.). *All for Love*. Retrieved from <https://www.fulltextarchive.com/page/All-For-Love/>
- Dryden, J. (rpt. 1971). *Aureng-Zebe*. Lincoln: University of Nebraska Press. Retrieved from <https://archive.org/details/aurengzebe0000dryd/page/n7/mode/2up>
- Edge, Sir John. (1892). *Beni Prasad Vs. Hardai Bibi*. ILR 1892 (14) Allahabad 67 (FB). Allahabad Highcourt. Retrieved from www.casemine.com/judgement/in/5ac5e3254a93261a1a73902f

- Katju, M. (1992). Sardar Mohammad Ansar Khan v. State of U.P. CMWP No. 8249 of 1990. Allahabad Highcourt. Retrieved from www.casemine.com/judgement/in/5ac5e2994a932619d9011df0
- Katju, M. (1993). Udai Shankar Singh v. Branch Manager, LIC, Bharwari. CMWP No. 3807 of 1993. Allahabad Highcourt. Retrieved from <https://indiankanoon.org/doc/1597825/>
- Katju, M. (2008). Rajbir Singh Dalal v. Chaudhari Devi Lal University, Sirsa & Anr. Civil Appeal No. 4908 of 2008. Supreme Court of India. Retrieved from <https://indiankanoon.org/doc/1268797/>
- Mahabharata [The]. (2020). Vol. 1-6. Gorkhpur: Gita Press.
- Mahapatra, D. (2021). Must teach ancient Indian jurisprudence, throw out colonial law system: Nazeer. Retrieved from <https://timesofindia.indiatimes.com/india/must-teach-ancient-indian-jurisprudence-throw-out-colonial-law-system-nazeer/articleshow/88512602.cms>
- Mustaque, A. Muhamed. (2018). Mr. Justice, Fathima Thasneem (Minor) & ors vs. The State of Kerala & ors, WP(C) No. 35293 of 2018. Kerala High Court. Retrieved from <https://www.casemine.com/judgement/in/5dc072323321bc77c5085b12>
<https://efaidnbmnnnibpcajpcglclefindmkaj/viewer.html?>
- O'Neill, A. (2021). India's Share of Global Gross Domestic Product (GDP) 2026. Retrieved from <https://www.statista.com/statistics/271328/indias-share-of-global-gross-domestic-product-gdp/>
- Patkar, J. (1927). Narayan Pundlik Valanju v. Laxman Daji Sirekar. ILR 1927(51) Bom784. Bombay High Court. Retrieved from <https://indiankanoon.org/doc/494653/>
- Privy Council. (1908). Kalgavda Tavanappa Patil v Somappa Tamangavda Patil (ILR 1908 (33) Bom 669. Bombay High Court. Retrieved from <https://indiankanoon.org/doc/682888/>
- PTI. (2021). "Indianisation of our legal system is need of the hour: Chief Justice of India", The Times of India, Sep 18, 2021. Retrieved from http://timesofindia.indiatimes.com/articleshow/86316597.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Wallis, J. K. (1917). V Subramania Ayyar v. Rathavelu Chetty. ILR 1917 (41) Ma 44 (FB). Madras High Court. Retrieved from <https://indiankanoon.org/doc/631973/>
https://www.alluniv.ac.in/2Fckfinder/2Fuserfiles/2Ffiles/2Fsly_eng_ma_previous.pdf&clen=3324846&chunk=true
https://efaidnbmnnnibpcajpcglclefindmkaj/viewer.html?pdfurl=http%3A%2F%2Fauth.du.ac.in%2Fsanskrit%2Fuserfiles%2Fdownloads%2FSyllabus%2FRevised%2520PG_LOCF%2520Syllabus%2520on%252019.12.2020.pdf&clen=2928354&chunk=true
<http://ieg-ego.eu/en/threads/europe-and-the-world/european-overseas-rule/fabian-klose-decolonization-and-revolution>
<https://adbhutam.wordpress.com/2012/10/13/%E0%A4%B7%E0%A4%A1%E0%A5%8D%E0%A4%B5%E0%A4%BF%E0%A4%A7%E0%A4%A4%E0%A4%BE%E0%A4%A4%E0%A5%8D%E0%A4%AA%E0%A4%B0%E0%A5%8D%E0%A4%AF%E0%A4%B2%E0%A4%BF%E0%A4%99%E0%A5%8D%E0%A4%97%E0%A4%BE%E0%A4%A8%E0%A4%BF-3/>
<https://archive.org/details/in.ernet.dli.2015.20391419>
<https://archive.org/details/lifelettersoflor01trevuoft>
<https://archive.org/details/SelectionsFromEducationalRecordsPartI1781-1839>
<https://bharatdiscovery.org/india/समर शेष है -रामधारी सिंह दिनकर>
<https://censusindia.gov.in/2011census/C-16.html>
<https://censusindia.gov.in/2011census/C-17.html>
<https://doi.org/10.1016/B978-008044910-4.00109-7>
https://economictimes.indiatimes.com/news/defence/urban-naxals-its-not-such-a-new-thing/articleshow/65598483.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
<https://eejpl.vnu.edu.ua/index.php/eejpl/home>
https://en.wikipedia.org/wiki/List_of_countries_and_territories_where_English_is_an_official_language

https://en.wikipedia.org/wiki/Multilingualism_in_India
https://en.wikipedia.org/wiki/Zachary_Macaulay
https://en.wikisource.org/wiki/The_Golden_Threshold/Introduction
<https://indiankanoon.org/doc/1223233/>
<https://indiankanoon.org/doc/1268797/>
<https://indiankanoon.org/doc/1313824/>
<https://indiankanoon.org/doc/1557228/>
<https://indiankanoon.org/doc/295313/>
<https://indiankanoon.org/doc/461003/>
<https://indiankanoon.org/doc/494653/>
<https://indiankanoon.org/doc/631973/>
<https://indiankanoon.org/doc/682888/>
<https://plato.stanford.edu/entries/epistemology-india/#SupReaTar>
<https://theprint.in/diplomacy/anti-hindu-anti-buddhist-anti-sikh-phobias-need-un-attention-says-indian-envoy-tirumurti/809723/>
<https://timesofindia.indiatimes.com/india/must-teach-ancient-indian-jurisprudence-throw-out-colonial-law-system-nazeer/articleshow/88512602.cms>
<https://undocs.org/en/A/RES/75/291>
<https://unuhi.com/10-benefits-of-being-bilingual/>
<https://wits.worldbank.org/CountryProfile/en/Country/IND/Year/LTST/Summarytext>
www.aes-india.org/policy.php
www.aironline.in/legal-articles/The+Mimansa+Principles+of+Interpretation
www.archives.org
www.britannica.com/topic/decolonization
www.casemine.com/judgement/in/5ac5e3254a93261a1a73902f
www.columbia.edu/itc/mealac/pritchett/00generallinks/macaulay/txt_minute_education_1835.html
www.efluniversity.ac.in/history.php
www.encyclopedia.com/social-sciences-and-law/political-science-and-government/political-science-terms-and-concepts/decolonization
www.hindwi.org/dohe/nahin-paraagu-nahin-madhur-madhu-bihari-dohe
www.igi-global.com/dictionary/patriarchy/52625
www.jstor.org/stable/3053008
www.jstor.org/stable/41491353
www.legitquest.com/case/fathima-thasneem-minor-and-other-v-the-state-of-kerala-and-others/1D9784
www.livemint.com/news/india/in-india-who-speaks-in-english-and-where-1557814101428.html
www.makarand.com/acad/TheEndofPost-Colonialism.htm
www.mkgandhi.org/indiadreams/chap44.htm
www.mla.org/Membership/About-Membership
www.mla.org/Publications/Journals/PMLA/Submitting-Manuscripts-to-PMLA
www.outlookindia.com/website/story/from-the-ancient-to-the-modern/264730
www.rediff.com/news/2004/jun/07franc.htm
www.statista.com/statistics/271328/indias-share-of-global-gross-domestic-product-gdp/
www.ugc.ac.in/oldpdf/modelcurriculum/western.pdf
www.ugc.ac.in/pdfnews/8625263_LOCF-English-report_Final.pdf
www.unodc.org/documents/justice-and-prison-reform/20-01146_Handbook_on_Restorative_Justice_Programmes.pdf
www.wisdomlib.org/hinduism/book/the-natyashastra/d/doc209700.html

Modest Grief in the Office of the Dead: A Case Study of Emotion Terms in Translations of the Orthodox Funeral Vigil

Taras Shmiher

 <http://orcid.org/0000-0002-4713-2882>

taras.shmiher@lnu.edu.ua

Ivan Franko National University of Lviv, Ukraine

Received December 20, 2021; Revised June 16, 2022; Accepted June 18, 2022

Abstract. The aim of this paper is to consider the specific features of rendering ancient emotion terms and words connected with emotions into contemporary languages. The specific texts under study are the Great Litany and the prayer “God of all spirits and of all flesh” from the Byzantine Office for the Dead (its part is the Funeral Vigil): the Church Slavonic and Greek texts serve as the originals, and the translations are into Ukrainian, Polish and English. In religious contexts, ancient emotion terms usually contain psychic reactions and Christian associations which may have disappeared in modern usage. Besides, the emotions used in the funerary texts are never pathetic, but the positive and negative emotions are perfectly balanced. Special attention goes to the emotion of anger which acts as an ethical concept and serves as a synonym for divine punishment in mediaeval Slavonic cultures. The search for equivalents of emotion terms should go within two lines of reception: that of biblical lexis and that of patristic interpretation. Although the change of the meanings from physical rest to spiritual rest, death and other deathly associations is heavily dependent on the fundamentals of Christian theology, the exploration of the conceptual matrices of emotion terms discloses that even such universal emotions as fear and joy contain some space for the national interpretation of believers’ psychic states and the very Divinity. Moreover, translators have to remember that the conceptual matrix of emotion terms altered drastically after the Enlightenment, and the search for successful equivalents makes them insightful and creative

Keywords: *emotion term, liturgical translation, Office for the Dead, Funeral Vigil / Parastas, Eastern Christianity / Orthodoxy.*

Шмігер Тарас. Помірний жаль у Чині похорону: переклад термінів на позначення емоцій з православного Парастасу.

Анотація. Метою цієї статті є розглянути особливості відтворення стародавніх термінів на позначення емоцій та пов’язаних із ними словами сучасними мовами. Аналізованими текстами є Велика Єктенія та молитва «Боже духів і всякої плоті» з візантійського (православного) Чину похорону (його частиною є Парастас): оригіналами служать церковнослов’янський і грецький тексти, а переклади зроблено українською, польською та англійською мовами. У релігійному контексті стародавні терміни на позначення емоцій зазвичай містять психічні реакції та християнські асоціації, які не завжди присутні в сучасному вжитку. Крім того, емоції, використані в похоронних текстах, ніколи не бувають патосними, а позитивні та негативні емоції ідеально збалансовані. Особливу увагу приділено емоції гніву, яка виступає як етичне поняття і слугує синонімом божественної кари в середньовічних слов’янських культурах. Пошук еквівалентів термінів на позначення емоцій має відбуватися згідно з двома напрямків рецепції: біблійної лексики

та патристичної інтерпретації. Хоча зміна значень від фізичного спокою до духовного спокою, смерті й інших смертельних асоціацій значною мірою залежить від основ християнської теології, дослідження концептуальних матриць термінів на позначення емоцій показує, що навіть такі універсальні емоції, як страх і радість, містять певний простір для національної інтерпретації душевних станів вірників і тлумачення самого Божества. Причому перекладачам варто пам'ятати, що концептуальна матриця термінів на позначення емоцій радикально змінилася після Просвітництва, а пошук вдалих еквівалентів стимулює їх бути проникливими й творчими.

Ключові слова: терміни на позначення емоцій, літургійний переклад, Чин похорону, Парастас, Східне християнство / Православ'я.

*Dedicated to the Ukrainian Soldiers
who paid the price of Ukraine's
Independence by sacrificing their brave and
virtuous lives.
Remember their deeds, eyes and graves.
They died for Free Ukraine.*

Introduction

Funerals are extremely emotional events, and emotionality is also expressed in the funerary text by the relevant set of emotion terms. Death is not only a tragic event of earthly life, but hope for a better – heavenly – life. This approach to death helps the Christian Church celebrate the saddest act of human life in a calmly joyful way. The contrast between folk mourning laments and ecclesiastical rites (covering oratory and musical parts) shows how the Church tries to ease the emotional burden of this event by directing a human to a more peaceful acceptance of the bereavement. The balance of using strong and weak, positive and negative emotions in various denominations and communities differs, but it is the key to the power of influencing believers' emotional intelligence.

Typically, even tactile perception can draw references and associations to the previous experience back in childhood: warm objects evokes “early experiences with caretakers who provide warmth, shelter, safety, and nourishment” (Williams & Bargh, 2008, p. 606). In the eschatological contexts, we also want to return to happy safe places, and the Church can help do it via using the emotion terms that are associated with these experiences.

Methodology

The study of emotional states in speech is what dominates in current research, and the focus on their verbalization covers wider circles of lexis (terms and evaluative vocabulary). The emotional aspects of communicative acts, pragmatics and semasiology are broadly and deeply summarized in two volumes of the collection “Handbook of the Sociology of Emotions” (Handbook, 2006; Handbook, 2014)

which testified to the scarcity of investigating the labelling and classification of emotions. The naming of emotions, which depends on their etymological origin, but reflects the historical dynamics of its semantic life, has enjoyed much less attention (see the existing literature and some pioneering ideas in Shmiher (2018)).

Emotionality in the text is permanently reiterated in translation research as a critic comes to the diversity of ways assessing readers' perceptual emotionality on the levels of associations, emotional vocabulary and the very emotion terms. Emotions turn out to be not only mental phenomena, but social practices as well. The society does help a speaker name and grade the range of their mental states evident in the variety of emotional events. The exploration or decoding of the very emotional states via emotion terms may look simple and is usually neglected. Actually, the decoding process is complicated and interesting, and it can bring unexpected conclusions. The aim of this study is to uncover the semantic parameters of emotion terms, which reflect speakers' emotional experience in verbal expression. Simultaneously, they are important for interpreting texts and speakers' experience in texts. Intercultural communication causes additional obstacles, as the experience is different not only between individual speakers, but also between communities. The perception of emotion terms can be studied successfully by conceptual modelling that covers both interpersonal codes and intercultural experience. Emotions as encoded practices can be scrutinized by applying the sociocultural model and the conceptual model which tightly connect the cognitive appraisal and sociocultural dimensions of emotional concepts.

A History of Texts

The study of emotion terms is exercised in the texts from the Orthodox Office for the Dead in Church Slavonic, Ukrainian, English, Polish and partially Greek versions. The dominant tradition is the Church Slavonic one, which is the original for numerous modern Orthodox Slavonic communities. The Greek text, which should have been the authentic original for the Church Slavonic translation, deviates in many places from today's approved texts. This fact is explained by the independent lives of the Churches and their shortening or alternating the text for their accepted praxis. This state of arts explains why translators use the Church Slavonic text (Евхологиѡн, 1646; Евхологиѡнъ, 1926) as the main one and refer to the Greek text (*cf* Funeral, 2011) only in special cases. The authored translations are some English ones (by Isabel Florence Hapgood (Service Book, 1922)) and Polish (by Rev Henryk Paprocki (Euchologion, 2016)). The Ukrainian texts are approved by the Holy Synod of the Ukrainian Greek-Catholic Church and they, like their English translations and some others, are unsigned. The texts collected represent three liturgical traditions according to the accepted and approved editions circulating in the liturgical life of Churches: first, the Greek Orthodox Church (Funeral, 2011); second, the Ukrainian Orthodox Church of the 17th century, the Ukrainian Greek-Catholic Church (Евхологиѡн, 1646; Евхологиѡнъ, 1926; Требник, 2018; Требник, 2020; Order, 2012); third, the Russian Orthodox Church and the Polish Autocephalous Orthodox Church

(Требникъ, 2014; Service Book, 1922; Euchologion, 2016). The focal texts for study are the Great Litany and the prayer “God of all spirits and of all flesh”.

Results and Discussion

The Importance of Traditions and the Outer History of Emotions

The litany is constructed in such a way that it balances between the powerful negative and positive emotional words and the aim of this co-usage is the consequence of calmed emotional state. Actually, the key phrase is already in the beginning of the litany: ‘блаженный покой’. Church Slavonic ‘покои’ designates either the state of emotional, psychic peace (which is transformed into the later interpretation and sense ‘death-as-sleep’) or the place where a person can acquire such a peaceful condition. The development of the meaning from physical rest to spiritual rest, death and other deathly associations is directly connected with the essence of Christian theology.

The Russian tradition transformed ‘blessed repose’ into ‘blessed memory’ that immediately changes the leitmotif of the whole litany. Although the Patristic Greek ‘μακαρίτης’ associates with a dead person because of happy memories connected with them, the Kyiv tradition used to stress repose as the main value for afterlife and the necessity of exercising peacefulness in the earthly life, even in the drastic emotional events. Later in the litany the same number of negative emotions (tribulation, wrath, necessity, dread tribunal) is opposed by the same number of positive emotions (the realm of the living, the place of light, where all the saints and the just repose, unceasing joy). This litany is not found in newer and older Greek official orders of the dead that means Kyiv translators either used even older Greek manuscripts or designed it by themselves. The inner logic of the text is clear: the idea of repose is very important for the litany, and its authors and performers do not want to evoke excessive emotions among funeral participants. The Russians have modulated the text, but this ‘peaceful opener’ is lost and this loss is preserved in the translations by Hapgood and Paprocki.

Although these verbal formulae act like highly-authoritative texts of Judeo-Christian heritage, contradictory ways of perceiving and using them contribute to the diversity of intercultural interpretation. The ‘blessed memory’ in Polish (‘błogosławionej pamięci’) cultural space is seen as a Jewish symbol: ‘zikhroine livrokhe’. It is really interesting that this phrase entered the Polish lexical stock, though Ashkenazi Jews settled on a much wider territory. It really entered Polish culture so strongly that the Orthodox memory have no place in it as recorded by the dictionaries of Polish.

Once Eve Sweetser voiced a hypothesis that rhyming is also a way of conceptual and poetical blending for generating a very powerful aesthetical effect (Sweetser, 2006). This observation is applicable to the litany where the coexistence

of positive and negative emotions can have a modulating – and soothing – effect on listeners. It gives an additional spur to interpretation: thus, the ideal ‘realm of the living’ is the place without any ‘tribulation’; ‘the place of light’ is marked with the absence of ‘wrath’; ‘all the saints and the just repose’ as they have the ‘necessity’ of nothing; the greatest victory of the soul is when Christ’s ‘dread tribunal’ ends up with ‘unceasing joy’.

Ecclesiastical Emotions

The sociocultural parameters of assessing the translation of emotion terms has been taken from the sociological analysis by Stets and Turner (Stets & Turner, 2008) and attested for translation quality assessment in (Shmiher, 2018). The main ideas applicable for the context of penetrating the semantic structure of emotion terms focus on revealing their correlation with social structures and cultural experience. The objective is to identify how emotion terms render Christian experience and values and, thus, can evoke the required peacefulness during funerary procedures.

The promise of ‘unceasing joy’ sounds like an alien phrase in the Christian funerary text. The similar emotion term ‘ἀγαλλίασις’ in Patristic Greek renders strong, fervent joy of spiritual nature, which is associated with charity, grace, the visitation of the Lord and saint and even Resurrection. The term ‘εὐφροσύνη’ stands for joy after death and enjoyment by angels. The bookish Old Ukrainian lexeme ‘веселиє’ was used for rendering those two Greek emotion terms. That is why the sense of spiritual joy dominates in written monuments, though it may have contradicted to the vernacular usage (fixed scarcely) where it denotes a wedding. In early Ukrainian translations, the lexeme ‘веселиє’ was used to modify people’s mentality in order to make them feel spiritual joy. From the view point of a millennium-long written history of Ukrainian, this failed as in New Ukrainian, ‘веселість’ has more to do with carelessness and entertainment than the Christian idea of life after death.

It is not surprising that modern Ukrainian translators opted for the variant ‘радість’, which is strongly associated with pleasantness and comfort, but lacks Christian incorporation or gift. The Ukrainian translators chose the option ‘радість’, which historically contains both psychic satisfaction and Christian associations, though Christian associations are not well-manifested in contemporary usage, but can be regarded as a successful equivalent in translation. Simultaneously, the Ukrainian Greek-Catholic translation (into English) chooses the variant ‘joy’, possessing the features of ‘a pleasurable state or condition; a state of happiness or felicity’ and being associated with ‘the perfect bliss or beatitude of heaven; hence, the place of bliss, paradise, heaven’. Thus, the tradition of Christian joy after death is rendered equally in Petro Mohyla’s and the UGCC’s Offices of the Dead.

The Russian Orthodox tradition transformed the litany and propagates Christ’s ‘оутѣшеніе’ which stands for the action of cheering or comforting which encloses

religious contexts as well. This term expresses an emotion, which is not so exultant as joy: that means it is more oriented at the listeners of the funeral vigil and it does not strongly promote the idea of extreme happiness of joining the Lord after death. This emotion is rendered as 'consolation' in English (by Hapgood) and 'pociecha' in Polish (by Paprocki) that accurately render the Russian tradition.

The Ukrainian and Russian traditions equally appeal to the emotion of fear, but the difference is the object of the fear: in the Ukrainian tradition, it is 'tribunal'; in the Russian one, it is 'throne' which chains to the power of God's instead of the emotional evaluation of a Christian. The Polish translation applies the bookish lexeme 'bojaźń' which is also used in the idiom 'bojaźń Boża' that means the attitude of accepting the greatness, power and holiness of God in comparison with human faultiness and sinfulness, conveyed in the desire to do good and avoid evil. This perception parallels the Christian understanding of non-sinful behaviour.

The emotional power of the tribunal / throne lies in the epithet 'страшный' which is rendered as 'awesome' (UGCC) or 'dread' (Hapgood). Both words developed complicated senses of fear and veneration from the simple subjective emotion of anxiety. The religious perception added the majestic connotation, which integrated tightly a subject's endangered impression of the unknown and their wish to express admiration of the authority. The dogmatic interpretation of a human's fearful condition is that God is not interested in the plain frightening of people, but also in manifesting God's power in order humans to act righteously. Today's semantic and distributional differences of 'awe' and 'dread' are not so far that both lexemes are good equivalents for the dogmatic emotion 'страшный'.

Why Anger?

In the litany, the happy place is a place without anger. The listener can easily interpret it as the place where a believer will not be angry. However, the logical implication is that anger can be expressed against the believer. This view has a deep dogmatic grounding, first of all based on the Bible where God's wrath is a synonym for judgement. Dogmatically, God's wrath is not a psychic concept (emotion), but an ethical one (punishment), and it always involves a believer's improper actions.

The conceptual modelling of emotion terms developed by Antypenko (1995, p. 8) describes the scheme of a situation (feelings; cause; subject; object), the plot (retrospective and prospective implications) and associations. The seeing of the emotion 'anger' via the prism of the whole plot can direct us to reveal an important domain of the emotion life connected with Christian eschatology: the Last Judgement. In Anglophone religious discourse, there are two main synonyms for the angry emotion: 'anger' and 'wrath'. The former emotion is used as the most general term; the latter is supported by the tradition of translating the funerary hymn 'Dies irae' as 'The Day of Wrath'. The contrastive table of the conceptualization of the two emotion terms clearly delineates their emotional and ethical essences.

Table 1
Conceptualization of the two emotion terms – Anger and Wrath

| | Anger | Wrath |
|----------------------------|---|---|
| Feelings | a psychic state covering rage and suffering | a psychic state covering violent indignation and resentment |
| Cause | trouble, affliction, pain | unjust, mean, or unworthy actions |
| Subject | a human | a human OR: the Deity |
| Object | causative relations with other humans | causative relations with other humans OR: the Deity's reaction to the believer |
| Retrospective implications | improper behaviour | sinful behaviour |
| Prospective implications | injury and vengeance | punishment or vengeance as a manifestation of anger |
| Connotations | sorrow, trouble | passion |
| Cases | physical affliction or pain | acts of righteousness |

Superficially, the emotion term 'wrath' looks stronger than 'anger', but the real power lies in its incorporation of ethical parameters which appeal to such high-authority categories like the Deity, Divine Law, Divine Punishment etc. This historical background makes it a good Christian equivalent for rendering the idea of God's anger for wrong – actual sinful and, thus, criminal – behaviour which is to be punished. This idea of Divine Punishment is very coherent in the text of the Funeral Vigil and relevant for describing Paradise as a place for righteous people (people who do not cause God's wrath and punishment).

In Middle Ukrainian mentality, the concept of anger/wrath is not divided into two: the lexeme 'ГНѢВЪ' designates both a psychic state covering rage and the ethical punishment of the Deity. The cause can be painful relations with other humans as well as unjust, mean, or unworthy actions, which call for Divine Punishment. The closeness of emotional and ethical parameters is explained by the predominant place of religious views in the social and cultural life of seventeenth-century Ukrainians. The idioms 'ГНѢВЪ ВѢЧНЫЙ', 'ГНѢВЪ БОЖИЙ', 'ГНѢВЪ ГОСПОДНІЙ' mean punishment from the supernatural forces. In the liturgical text, the phrase "скорбѣ, ГНѢВЪ и нужда" refers first of all to physical conditions of happy living after death. Thus, 'wrath' is a good equivalent for Church Slavonic and Middle Ukrainian 'ГНѢВЪ', although 'punishment' could also well perform the contextual function of this lexeme. In New Ukrainian, the role of 'ГНІВ' as an emotional and ethical amalgam has partially faded: the idioms are not recorded in the dictionaries, though their usage is not rare (except the idiom 'вѣчний гнів'). The tendency of drifting from the priority of religious writings activates primarily the stimulus of wrath-as-emotion, while wrath-as-punishment is not perceived as the result of the judgment of the deceased person's life.

The Polish counterpart ‘gniew’ follows the conceptual scheme of the Ukrainian lexeme: in the historical dynamics, the concept ‘gniew’ resembles English ‘wrath’ and Ukrainian ‘гнів’, indicating the semantic movement from a complex emotional and ethical phenomenon in the Late Middle Ages towards more emotional phenomenon. The ethical essence of this concept is manifested in the idiom ‘święty gniew’, but the Christian heritage of this word is not reiterated so often in contemporary Polish discourse. Besides, it did not have the explicit sense of punishment even in Old Polish, so today the lexeme ‘gniew’ is just treated as an emotion term, than a term connected with law and judgement.

Ancient Emotions and Modern Readers

In the prayer “God of all spirits and of all flesh”, the place of eternal rest is described in a double way: first, it is “a place of light, a place of verdure, and a place of tranquility”, but, second, it is a place “from which pain, sorrow and mourning have fled” (“ἐνθα ἀπέδρα ὀδύνη, λύπη καὶ στεναγμ”). The second description can be interpreted again both positively and negatively. Depending on the negation, this description indicates Paradise or Hell. Similarly, some emotion terms may also be ethical ones.

The Old Greek concept ‘λύπη’ contained the meaning of pain in the body and mind that enabled its ethical extension in the Patristic literature where it started denoting grief, especially grief for sins. The concept ‘ὀδύνη’ is very similar to the semantic structure of ‘λύπη’, though it was not used in Patristic writings, and its potential of grieving over sinful behaviour is not recorded. Thus, the original may mean the dynamic movement from physical and moral sufferings (‘ὀδύνη’) to Christian sufferings (‘λύπη’) which is the specification required for a pious Christian. The lexeme ‘στεναγμός’ (sighing, groaning) did not get the ethical or any additional Christian extension, and in the text, the third word is used for stronger feelings.

The phrase “болѣзнь, печаль и въздыханіе” written in the 1646 Service Book of St Petro Mohyla was ethical not only because of the context of usage and the context of the published source, but also because of the well-accepted Christian heritage: “болѣзнь” meant both illness, physical suffering, moral grief and – transfiguratively – heresy. Given its usage, it was often used in various religious contexts, supporting the ethical character of this lexeme. In New Ukrainian, this word has evaded, and the remnants of its usage indicate only illnesses. This is why the lexeme ‘болізьнь’ used in the accepted text in the UGCC is homage to Church Slavonic and Middle Ukrainian heritage, but is not dogmatic, as the basic idea of suffering is not even evoked primarily. The lexemes ‘печаль’ and ‘въздыханіе’ also contained some Christian associations connected with catharsis and remorse respectively. Their modern counterparts ‘печаль’ and ‘зітхання’ have drifted from the essence of deep ethical suffering, and today they are much closer to routine trouble (‘печаль’) or falling in love (‘зітхання’). The usage of the lexemes ‘мўка’ and ‘стражданнў’ could make the text more oriented at the ethical description of life after death.

The contemporary Polish phrase “*boleść, smutek i westchnienie*” faces the same problems of transferring Christian heritage like the Ukrainian one. In today’s mentality, it does not evoke any specific associations with sins or any other punishable behaviour. It has an impressive semantic structure: the object or reason of suffering is followed by the reached psychic state of sadness and finalized by the outer sign. Although the outer sign (‘sighing’) can be misleading (its reason can be both suffering and love admiration), it is a very dynamic saying in the context of the whole prayer. Actually, this phrase in the Ukrainian form entered the general stock of sayings connected with death, and if Poland had been an Orthodox country, this phrase would have been similarly quoted very often disclosing a speaker’s Christian background.

In the English-language texts, the choice between ‘sickness’ (Hapgood) and ‘pain’ (UGCC) for rendering ‘*ὀδύνη*’ is definitely in favour of the latter: ‘sickness’ stands only for physical inability while ‘pain’ has the sense of punishment and suffering for a crime. In this perspective, Hapgood’s variant is person-oriented, and the option ‘pain’ is really a dogmatic word for the relevant original Patristic Greek interpretation. In the history of English, it was the word ‘pain’ that used to mean ‘the punishment or sufferings of hell (or of purgatory)’, though now this sense is regarded obsolete.

In Hapgood’s translation and in the UGCG translation, the Greek ‘*λύπη*’ is translated as ‘sorrow’ which has a tradition of being used in translations of Isaiah 53:3 where the prophetic phrase ‘Man of sorrows’ means Jesus Christ. In this perspective, the ‘biblical’ word is like a dogma, and it is possible to change it in the condition of accepting a specific translation of the Bible. In the translation approved by the Melkite Greek-Catholic Church, the second word of the verbal triad is ‘grief’ which is also used in the same biblical verse, but in modern limited usage, it designates a deep or violent feeling of regret for something lost or remorse for something done.

The third member of the triad – ‘*στεναγμός*’ – is rendered as ‘sighing’ (Hapgood) or ‘mourning’ (UGCC). The two words are rather close. ‘Sighing’ contains the component of emotional relief, which can be a word of support for mourners. Being ‘a ceremonial manifestation of grief for the death of a person’, ‘mourning’ is more powerful from the viewpoint of emotional connotations. The lexeme ‘mourning’ fits the stylistic dynamics of the Greek phrase quite well.

Conclusions

The analysis of the conceptual matrices of emotion terms proves that in the complicated conceptual structure of universal terms like emotions and even more or less unified dogmatic interpretation, there is always some place for the national perception of the Divinity. Despite their common biblical and dogmatic background, emotion terms still render the experience of a specific cultural community encoded in unique ways. In the historical perspective, some emotion terms were extremely close

in their meanings, but gradually difference grows. Actually, they were all closer to each other centuries ago, but now they acquire new experience and previous experience is lost. The larger the time-distant difference is, the larger the semantic difference is. This may be explained by the movement from theocentric mentality which had dominated before the Enlightenment, but the conceptual matrix of emotion terms restructured drastically afterwards.

The search for equivalents of emotions term in religious discourse should be based on two verifying principles which substitute one another: 1) some lexis is of biblical origin, and it is necessary to keep to the codes accepted in the existing translation(s); 2) some lexis comes from Patristic Greek writings, where it became dogmatic. Liturgy derived from the understanding and interpretation discussed in Patristic writings, so if there is a discrepancy between lexical options, the translator should start with Patristic Greek where the codes acquired new associations. Sometimes, liturgical texts contain biblical quotes, then the translator refers to the Bible, but in other contexts, they are to remember about the radical change of conceptual matrices existing before Patristic literature and as its result.

This point of attention is especially significant for emotion terms when they are not terms designating emotions, but designating other ethical notions. The standard sample is the case of 'wrath' which is often a 'punishment', but not a 'psychic state': thus, the substitution of 'wrath' for 'pain, punishment' can be considered successful and equivalent in specific translation cases.

Referring to retranslations, the translation historian should also be careful with identifying other translations as originals that will influence understanding the conceptual matrices of a specific liturgical traditions. Although the primary original of the Orthodox Office for the Dead did exist in Greek, each Church modify the *textus receptus* for its needs and dogmas. This is how the Church Slavonic text was transformed in different liturgical translations, and the historian is to remember what is right for one tradition may not be so for another. Hapgood's translation with the Russian mental background can be sufficient for the Russian Orthodox Church, but it is sometimes contradictory for the Ukrainian Greek-Catholic Church, just because senses and concepts of cognate words have different dogmatic interpretation.

The above approaches to the exploration of emotion terms will help an analyst to penetrate the exchange of interpersonal and intercultural experience as well as the subtle beauty of literary communication and emotional manipulation. Traditionally, negative emotions are more popular among researchers, but the study of joy can reveal the mechanics of how Christian hymnographers wanted believers to behave morally via emotional modes (like 'calm joy' in opposition to 'crazy exaltation'). In religious discourse, the emotional balance is of primary importance, and it can block believers' unintentional wishes and bias to overinterpretation under aggressive emotional conditions of grief or joy. Similar is the effect of applying emotion term for targeted listeners' behaviour when receivers of time-distant literary texts or foreign-culture political speeches may misconstrue the stimuli encoded in the main body of a message, especially if the common cultural – for instance, Christian – *topoi* are not chosen efficaciously.

Acknowledgements

This publication is part of the project which was made possible through Scholarship Grant No. 52110864 from the International Visegrad Fund. The project is implemented at the Maria Curie-Skłodowska University (Lublin, Poland) under the supervision of Dr Habil. Magdalena Mitura.

References

- Антипенко, Л. А. (1995). Опыт концептуального анализа имен негативных эмоций в русском языке: автореф. дис. ... канд. филол. наук. Харків.
- Antypenko, L. A. (1995). Opyt kontseptualnogo analiza imen negativnykh emotsyy v russkom yazyke: avtoref. diss. ... kand. filol. nauk. [A conceptual analysis of negative emotion terms in Russian]. Extended abstract of Ph.D. dissertation in Linguistics. Kharkiv.
- Handbook of the Sociology of Emotions. (2006). J. E. Stets & J. H. Turner, (Eds.). New York: Springer.
- Handbook of the Sociology of Emotions. (2014). Vol. 2. J. E. Stets & J. H. Turner, (Eds.). New York: Springer.
- Shmiher, T. (2018). Stories behind Words of Emotions: Ways to Assess the 1076 Kyivan Literary Monument in Contemporary Ukrainian and English Translations. *Annales Universitatis Mariae Curie-Skłodowska. Sectio N: Educatio nova*, 3, 175-194. <http://dx.doi.org/10.17951/en.2018.3.175-194>
- Stets, J. E., Turner, J. H. (2008). The Sociology of Emotions. Hand-book of emotions. M. Lewis, J. M. Haviland-Jones, L. Feldman Barrett, (Eds.). (pp. 32-46). 3rd ed. New York; London: The Guilford Press.
- Sweetser, E. (2006). Whose rhyme is whose reason? Sound and sense in *Cyrano de Bergerac*. *Language and Literature*, 15(1), 29-54. <https://doi.org/10.1177/0963947006060553>
- Williams, L. E., Bargh, J. A. (2008). Experiencing physical warmth promotes interpersonal warmth. *Science*, 322(5901), 606–607. <https://doi.org/10.1126/science.1162548>

Sources

Texts

- Byzantine Daily Worship. (1969). Comp. and transl. by Most Rev. Joseph Raya and José De Vinck. Allendale, N.J.: Alleluia Press.
- Euchologion. (2016). Transl. by Rev. Henryk Paprocki. Warszawa: Warszawska Metropolia Prawosławna. T. 1-3.
- Eucholohion, albo Molytvoslov yly Trebnyk [Euchologion]. (1646). Kyiv: Kyiv Caves Monastery. Vol. 1-3.
- Eucholohion, yly Trebnyk [Euchologion]. (1926). Zhovkva: Vydavnytsvo oo. Vasyliyan.
- Funeral Service = Ακολουθια Νεκρωσιμουσ. (2011). Sydney: St Andrew's Orthodox Press.
- Order of Burial for Laity. (2012). St. Stephen Protomartyr Ukrainian Catholic Church. Calgary, Alberta.
- Service Book of the Holy Orthodox-Catholic Apostolic Church. (1922). Comp., transl., and arranged by Isabel Florence Hapgood. Rev. ed. New York: Association Press.
- Trebnyk [Euchologion]. (2014). Chernivtsi: UPTS.

Trebnyk [Euchologion]. (2018). Comp. by Rev. Atanasiy Kupitskyi. Lviv: Svichado.

Trebnyk [Euchologion]. (2020). Lviv: Svichado.

Dictionaries

A Greek-English Lexicon. (1996). Comp. by H. G. Liddell and R. Scott. Oxford: Clarendon Press.

A Patristic Greek Lexicon. (1961). Ed. by G. W. H. Lampe. Oxford: Clarendon Press.

Heneralnyi rehionalno anotovanyi korpus ukrayinskoyi movy (HRAK) [A general regionally-marked corpus of the Ukrainian language (GRMC)]. (2017-2021). Comp. by M. Shvedova, R. von Waldenfels, S. Yaryhin, A. Rysin, V. Starko, T. Nikolayenko et al. Kyiv; Lviv; Jena. <http://uacorporus.org/>

Slovyk ukrayinskoyi movy [A dictionary of the Ukrainian language]. (2010–). Kyiv: Nauk. dumka. Vol. 1-12

Slovyk ukrayinskoyi movy 16 – pershoi polovyny 17 st. [A dictionary of the Ukrainian language of the 16th century and the first half of the 17th century]. (1994–). Lviv.

Słownik języka polskiego [A Dictionary of the Polish Language]. (1958-1969). W. Doroszewski, Ed. Warszawa: PWN. Vol. 1-11.

Słownik staropolski [An Old Polish dictionary]. (1953-2002). S. Urbańczyk, Ed. Kraków. Vol. 1-11.

Sreznevsky, I. I. Materialy dlia slovaria drevne-russkago yazyka po pismennym pamiatnikam [Materials for the dictionary of the Old Rus language after written sources]. (1893-1912). S.-Petersburg. Vol. 1-3.

The Oxford English Dictionary. (1989). 2nd ed. Oxford: Clarendon Press. Vol. 1-20.

Wielki słownik języka polskiego [A large dictionary of the Polish language]. (2007–). P. Żmigrodzki, Ed. Kraków. <http://www.wsjp.pl>

A Category with Multiple Centers: The Case of the Ukrainian Verbal Prefix *Za-*

Vasyl Starko

 <https://orcid.org/0000-0002-2530-2107>

v.starko@ucu.edu.ua

Ukrainian Catholic University, Ukraine

Received March 19, 2022; Revised April 8, 2022; Accepted May 22, 2022

Abstract. The present study aims to reconstruct the structure of the Ukrainian verbal prefix *za-* as a category. Cognitive modeling and the network approach are used to this end, similarly to other works within the Cognitive Linguistics paradigm (Janda, 1985; 1986), (Sokolova & Endresen, 2017), (Tabakowska, 2003). The modeling phase is preceded by an analysis of a large sample of Ukrainian *za-* verbs, which are grouped into semantic blocks based on shared semantic content. These blocks are then mapped onto a network of conceptual schemas, which includes such prominent centers as CURVE and APPEAR. The latter and several other nodes are shown to be modifications of CURVE with the links between them constituting family resemblances (Wittgenstein, 2009). The conceptual schema APPEAR is actively used by native speakers to coin new inchoative *za-* verbs in Ukrainian and several Slavic languages, which means that conscious (Type 2) categorization (Starko, 2014) is employed. This and other considerations suggest that APPEAR is a psychologically real conceptual entity in its own right. Thus, an argument is made in favor of a bifocal, rather than unicentric, topology of the *za-* network, which is contrary to the popular assumption about the existence of a single central element (prototype) from which all other network nodes are derived in what is called “radial structure” or “radical category” (Lakoff, 1987). The a priori assumption in the study of categories should be that they may be unicentric or pluricentric.

Keywords: *categorization, category structure, radial category, prototype, verbal prefix, Ukrainian, cognitive semantics.*

Старко Василь. Категорія з множинними центрами: український дієслівний префікс *за-*.

Анотація. Це дослідження має на меті реконструкцію структури українського дієслівного префікса *за-* як категорії. Для цього застосовано когнітивне моделювання й мережевий підхід подібно до того, як це зроблено в інших роботах, виконаних у рамках парадигми когнітивної лінгвістики (Janda 1985; 1986), (Sokolova & Endresen, 2017), (Tabakowska, 2003). Етапу моделювання передуює аналіз великої вибірки українських дієслів із префіксом *за-*, які було згруповано в семантичні блоки на основі спільного семантичного вмісту. Далі ці блоки накладено на мережу концептуальних схем, серед яких є такі помітні центри, як CURVE та APPEAR. Показано, що APPEAR та ще кілька вузлів є модифікаціями схеми CURVE, а зв'язки між ними становлять родинні подібності (Wittgenstein, 2009). Концептуальною схемою APPEAR активно послуговуються носії української та кількох інших слов'янських мов, створюючи нові інхоативні дієслова з префіксом *за-*. Це означає, що застосовується свідомо категоризація (Типу 2) (Starko, 2014). Це та інші міркування підводять до тези, що APPEAR – сама собою психологічно реальна концептуальна одиниця. Відтак наведено аргументи на користь біфокальної, а не уніцентричної, топології мережі префікса *за-*, що суперечить поширеному припущенню про існування одного центрального елемента (прототипа), від якого виводяться всі

інші вузли мережі, які утворюють так звану «радіальну структуру» або «радіальну категорію» (Lakoff, 1987). Априорне припущення в дослідженні категорій має полягати в тому, що категорії можуть бути уніцентричними або поліцентричними.

Ключові слова: категоризація, структура категорії, радіальна категорія, прототип, дієслівний префікс, українська мова, когнітивна семантика.

Introduction

The verbal prefix *za-* has one of the most ramified configurations of meanings in various Slavic languages, which is a challenge to linguistic analysis. Over the years, it has proven to be an attractive testing ground for different approaches to the study of the semantics of verbal prefixes. The Ukrainian verbal prefix *za-* has been studied in detail following the checklist approach (Ilyin, 1953). Its strength lies in the detailed description of specific usage, while its overall weakness is the difficulty of uniting meanings into broader groups and a lack of motivation links between them. While more attention is paid to the perceptual, physical features, mental features, which serve as motivation links, tend to be ignored. Furthermore, some uses of a prefix under study resist being grouped with the already established groups and are simply listed as ‘miscellaneous’. The results produced by the checklist approach can be used as inputs for a cognitive analysis, even though the groupings will not necessarily be the same.

Svitlana Sokolova (2003) followed the invariant-based approach to describe the semantics of the Ukrainian verbal prefix *za-*. This approach is aimed at discovering an unchangeable meaning common to all uses of a given prefix. While helpful in achieving a sense of unity, it often yields highly abstract meaning, which may be too far removed from real usage. Sokolova (2003) posits three meanings for *za-*: 1) movement towards a certain point; 2) inchoative; 3) resultative (with a number of submeanings and modifications).

The network approach gained popularity in semantics with the advent of Cognitive Linguistics. The semantics of a prefix is modelled here as a network of nodes called ‘semantic blocks’. These are postulated as psychologically real entities that can (but do not have to be) united by a common general idea, while small variation is possible within the blocks due to contextual modifications. The cognitive approach has an advantage in that it allows researchers to not only establish motivation links between various meanings and uses of an entity in question but also to present their general structure as a network. This is achieved by way of reconstructing the internal structure of the category. Another advantage is the availability of tools to explain fine semantic differences that are based on mental, rather than perceptual features, such as the differences between quasi-synonymous Ukrainian verbs with different suffixes – *zachekaty* and *pochekaty* (both meaning ‘to wait a little’). A series of transformations (e.g., metaphoric extensions) are established as limitations on the extension of categories. These transformations permit linking novel uses to “basic” components of the category, which removes the

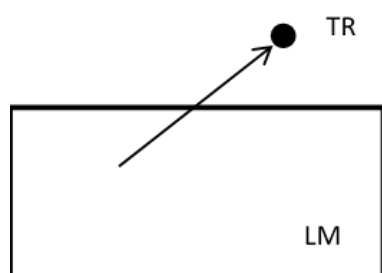
need for multiplying senses and subsenses, something that is the scourge of the traditional checklist approach.

In Cognitive Linguistics, many natural language categories are reconstructed as having a radial structure. This idea of “radial categories” was introduced by George Lakoff along the following lines: “A radial structure is one where there is a central case and conventionalized variations on it which cannot be predicted by general rules” (Lakoff, 1987, p. 84). This formulation suggests that there is a single central case in the category that motivates all noncentral variations. Cognitive linguistic studies of prefixal semantics typically follow this cue and look for a single central component, such as an image-schema.

In her seminal work on Slavic verbal prefixes from the perspective of Cognitive Linguistics (Janda 1985, 1986), Laura Janda develops the ideas of George Lakoff (1987) by treating each prefix as a radial category. She posits that a category relies on one prototype as its central, organizing element of a network of category members: “the prototype organizes the category, all the members of which must make reference to it” (Janda, 1986, p. 216). The category members are connected to the prototype via links, which are transformations of the basic configuration. Janda postulates five schematic configurations of the landmark and the trajectory, and each of the configurations refers to one or more meanings. The configuration below (Fig. 1) is the presumed prototype from which four more configurations are obtained via transformations. Together they constitute the network structure of the Russian *za-* prefix. The prototypical configuration refers to the senses ‘deflection’, ‘fix’, ‘excess’, ‘inchoative’, and ‘exchange’ in Janda’s reconstruction. Each of these meanings is typically illustrated by a number of Russian *za-* verbs.

Figure 1

The prototypical configuration ‘Deflection’ in Janda’s reconstruction.



What emerges as a result is essentially a two-level reconstruction: one level is the grouping into broad meanings such as deviation (lexical semantic level), while the other one is the conceptual level populated by a network of interlinked image schemas converging on one basic configuration – the prototype.

Since the mid-1980s, a number of other Cognitive Linguistics studies of prefixal semantics have been carried out. Remarkably, researchers have focused on the verbal prefix *za-* in different Slavic languages (Nedelcheva, 2016; Sokolova & Endresen, 2017; Tabakowska, 2003; Zaliznyak, 2006) but not in Ukrainian so far. In general,

detailed studies of the structure of Ukrainian categories are few and far between, and Zhuykova et al. (2020) is a notable recent exception here.

The present paper is focused on the verbal prefix *za-* in Ukrainian from a Cognitive Linguistics perspective. It builds on previous research into the verbal prefix *za-* in Slavic languages and various attempts to describe the semantics of the Ukrainian prefix *za-*. Rather than providing an exhaustive account of the entire network and discussing its realization in the semantics of specific Ukrainian *za-* verbs, the objective is to reconstruct the broad configuration of this network with an emphasis on its center(s).

Method

The semantics of the verbal prefix *za-* is fundamentally spatial. However, exactly how it is linked with all the non-spatial meanings of the prefix is far from trivial. The connections between the “basic” spatial semantics of linguistic units, such as prefixes or prepositions, and their temporal and other meanings is not straightforward (Haspelmath, 1997). They can be bridged by intermediate, fairly general conceptual features which are, on the one hand, meaningfully imposed on the spatial relations and, on the other, serve as the conceptual foundation for the meanings of specific linguistic units (Rakhilina & Plungyan, 2014). The above suggests that modeling the meaning of such a prefix as *za-* is best undertaken at the level of conceptual semantics using the network approach.

The procedure consists of three stages. At the first, largely data-driven stage, the various meanings and uses of *za-* verbs are grouped into semantic blocks. The second stage is the reconstruction of conceptual schemas that underlie semantic blocks. The specific senses of a linguistic units are viewed as realizations of its conceptual schema. The schema itself can take different forms, depending on the type of lexis under consideration. The conceptual schema of verbal prefixes may include a certain spatial image (with or without a real “picture”) on which a conceptual structure is imposed. Different parts of this structure can be profiled giving rise to real specific senses (Zaliznyak, 2006, p. 41).

The third stage is aimed at the cognitive modeling of the categorial network. The key question here is how the semantic blocks identified at the previous stage are arranged in a network. The main research question for the present study is whether the Ukrainian verbal prefix *za-* constitutes a radial category in the sense described above, i.e., a category with one center (prototype) from which various extension are projected.

In line with the established tradition, conceptual features are designated by English words that point to their semantic content. Importantly, these designations need to be viewed in conjunction with the underlying aspect of the conceptual schema. For example, the feature *CURVE* marks not just any curved trajectory but one that is loosely based on a particular aspect of the conceptual schema (see Fig. 2 below).

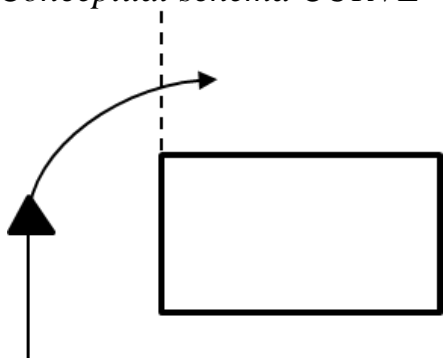
Study

The exposition that follows is based on an analysis of a large sample of Ukrainian *za-* verbs during which several semantic blocks have presented themselves as clear cases for inclusion in the network. For reasons of space, the results are presented in the form of semantic blocks with just a few illustrative examples.

A key component of the *za-* network is the conceptual schema that refers to the basic situation of spatial movement illustrated in Fig. 2. An object (trajector) moves along a curved trajectory (path) which crosses an imaginary line (dashed line in the figure) that is a continuation of the spatial boundary of an immovable object (landmark). The path takes the object to the space behind the landmark (from the viewpoint of the observer). As it moves along the path, the object crosses the imaginary line and then disappears from view. I will call this conceptual schema CURVE.

Figure 2

Conceptual schema CURVE



Different parts of the conceptual schema CURVE can be profiled and serve as the basis of specific lexical meanings. One profiling highlights the movement itself along a curved trajectory associated with the semantics of verbs of spatial movement, e.g., *zaity za budynok* ‘to go around a building’. The trajectory may be curved in the vertical plane, e.g., *zaikhaty za horb* ‘to travel over a hill’, or in multiple planes, e.g., *zamakhnutysia sokyroi* ‘to swing an axe’. Movement along a curved trajectory is also the key component in the semantics of verbs expressing the idea of wrapping, e.g., *zahornuty v papir* ‘to wrap in paper’. The idea of a curved trajectory is also present in the meanings of verbs denoting bending, e.g., *zahynaty paltsi* ‘to curl one’s fingers’ and *zalamuvaty ruky* ‘to wring one’s hands’.

For an outside observer, the trajector moving along a curved trajectory behind the landmark gradually disappears from view. More precisely, the landmark is in full view to begin with and then the trajector moves between the observer and the landmark, gradually eclipsing the landmark from the field of vision. In the absence of contact between the trajector and the landmark, it is the situation of eclipsing (*zastupyty svitlo* ‘to block the light’). When contact is present, however, the scene is conceptualized as covering (*zastelyty stil skatertynoi* ‘to cover the table with a tablecloth’). The corresponding conceptual features are termed ECLIPSE and

COVER. The former can be illustrated with such verbs as *zatiahnuty vikto shtoroiu* ‘to pull a curtain over a window’; the highly frequent *zakryvaty* ‘to close; *metaphorically* to make inaccessible for interaction’; *zayidaty* ‘to eat something after something else (such as sweet after bitter)’ (the “eclipse” of a taste). There are at least two different types of situations underpinned by the COVER schema:

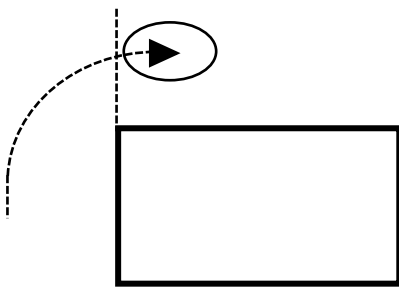
1) gradual distribution of something (often a mass or a liquid) over the surface of an object, e.g., *zasypaty snihom* ‘to cover with snow’, *zabilyty (napys)* ‘to paint over (an inscription) with white paint, etc.’;

2) gradual filling, e.g., *zalyvaty yamu vodoiu* ‘to fill a hole with water’ (as the water level rises, it reaches the rims and thus “covers” the hole), *zapovnyty mistkist* ‘to fill up a container’.

Looking again at the CURVE scheme, we can see that, as the trajector crosses the dashed line extending from the side of the landmark, it moves to a position behind the landmark. This kind of motion is expressed by *za-* verbs in combination with the preposition *za*, as in the examples *zaity za budynok* and *zaikhaty za horb* above. When the location of the trajector behind the landmark is profiled, this results in the conceptual schema BEHIND (Fig. 3), which is the foundation of the preposition *za* in its spatial meaning. In fact, from the perspective of prepositional semantics, this schema may be considered basic and the verbal CURVE schema its extension (with the added motion). Either way, the key idea of the trajectory being located behind is the same.

Figure 3

Conceptual schema BEHIND with the location behind profiled

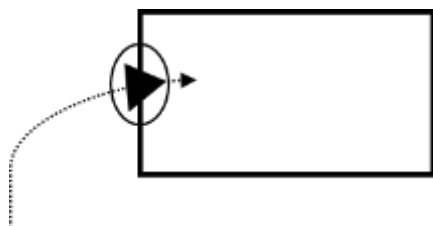


By extension, the location “behind” is conceptualized as exceeding a certain limit and being outside the norm or the desired state of affairs. This conceptual feature, termed EXCESS, manifests itself in adjectives and adverbs with the prefix *za-* (e.g., *zavysokyi* ‘too high’, *zasylnyi* ‘too strong’, *zanadto* ‘too much’, and *zadaleko* ‘too far’) and is also prominent in the meaning of verbs derived from such adjectives, e.g., *zavyshchuvaty* ‘to raise too high’ and *zanyzhuvaty* ‘to set too low, to understate’.

When the crossing of the boundary is profiled in the CURVE schema and the landmark is conceptualized as a container which the trajectory enters, this yields the INTO schema (Fig. 4). The element of moving along a curved trajectory is in the background or absent altogether.

Figure 4

Conceptual schema INTO with boundary crossing profiled



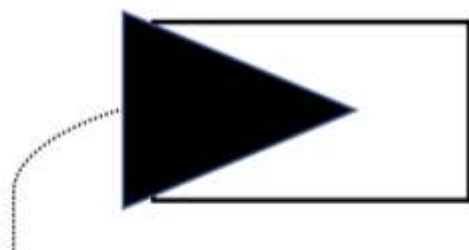
This profile underlies the semantics of verbs of motion used in conjunction with the prepositions *v* ‘in, into’ and *vseredynu* ‘inside’, e.g., *zaity* ‘to go in, enter’, *zaihaty* ‘to drive in’, *zaletity* ‘to fly in’, etc. When the idea of a curved trajectory is absent, these verbs become synonymous with their *v*- and *u*- counterparts, such as *vviity*, *uviity* ‘to go in, enter’,

The CURVE and INTO schemas are concurrently present in the semantics of verbs referring to situations in which the trajector deviates from its path and makes a small detour. For example, *zaity v kramnytsiu (dorohoiu na robotu)* ‘to stop by a shop (on the way to work)’, *zabihty na kavu do druha* ‘to drop by a friend for a coffee’. Janda (1985) and Zaliznyak (2006) choose to interpret these cases as deviations from a straight path. However, a deviation does not describe the situation fully as it also contains an element of entering a building or other spatial entity. It may be argued that this element of meaning is expressed not by the verb itself but by the dependent construction as in the examples above. However, the *za*- verbs make their contribution as well by pointing to such features as the curved trajectory and crossing a boundary. In contrast, a pure case of deviation is found in the meaning of the Ukrainian verbal prefix *z-* that profiles the point of departure, e.g., *z’ikhaty (z dorohy)* ‘to turn off (the road)’, while Ukrainian motion verbs with *za*- always refer to a movement directed at or into an object. Thus, the CURVE+INTO combination more accurately describes the semantics of these verbs than mere deviation.

A further modification of the conceptual schema INTO leads to the FIX schema (Fig. 5) where the trajector moves across a boundary until it becomes firmly lodged in the landmark and immobile in its final state.

Figure 5

Conceptual schema FIX



The expanded image of the trajector in Fig. 5 is designed to point to the idea of its gradual fixation in the landmark. Here are just a few examples that illustrate FIX: *zahnaty* (*skalku pid nihot*) ‘to drive (a splinter under a nail)’, *zaryvatysia* (*v grunt*) ‘to bury (oneself in the ground)’, *zabyty* (*tsviakh u doshku*) ‘to hammer (a nail into a plank)’. In the last example, the movement of the tool held in hand follows an explicitly curved trajectory. This element is found in the semantics of several verbs that refer to inflicting physical harm or killing a living being in a specified manner, e.g., *zarubaty* ‘to kill with an axe or saber’, *zashmahaty* (*do neprytonmoho stanu*) ‘to flog smb. (into an unconscious state)’. The feature FIX correlates here with a passive state—death or loss of mobility and strength.

A number of FIX verbs refer to process that are unidirectional and sometimes irreversible (or at least hard to reverse) and the final state can be described as that of lower energy (passive, inactive, permanent). This aligns with the idea of the trajector being lodged into a landmark. One subgroup includes verbs referring to physical processes, especially numerous technical terms, e.g., *zahustity* ‘to become condensed, to thicken’, *zaspyrtuvaty* ‘to preserve in alcohol’, and *zakonservuvaty* ‘to preserve, to can’. The other subgroup describes processes occurring with living beings, e.g., *zahipnotyzuvaty* ‘to hypnotize’, *zakhvority* ‘to become sick’, and *zakovhatysia* ‘to fall in love’.

The fixation of an object may occur in the abstract domain where the spatial idea of a curved trajectory largely disappears: *zapysaty* ‘to write down (i.e., to fix in writing)’, *zapamiataty* ‘to memorize (to fix in memory)’, *zavvazhyty* ‘to perceive (i.e., to fix in one’s field of attention, either visually or mentally)’, etc.

Let us now consider the mechanism underlying the semantics of the reflexive verb *zapratsiuvatysia* ‘to have worked too long’ and a number of similar verbs with the same structure *za-*+verbal stem+*sia*, e.g., *zahratysia* ‘to have played too long’, *zachekatysia* ‘to have waited too long’. All of these verbs refer to a situation when a person engages in some activity for a period of time and then realizes that he or she has been doing it for too long. To understand the conceptual underpinnings of these verbs, we need to look again at the spatial scene in Figure 2. The trajector crosses the imaginary line and ends up in a space behind the landmark where it cannot be seen by the observer. The curved trajectory correlates with the gradual character of the process, while line crossing evokes the idea of transgressing a boundary. Movement along a trajectory that leads to a location behind the landmark is interpreted as an unfolding process that crosses the limit of what is reasonable or desired. The conceptual schemes that contribute to the semantics of verbs in this group are as follows: CURVE (the process is gradual), INTO (crossing a boundary and entering a state conceptualized as a container), and BEHIND (through the conceptual feature EXCESS). Many other *za-* verbs rely on the same conceptualization, e.g., *zakhvalyty* ‘to praise smb. too much’, *zahoduvaty* ‘to overfeed’, and *zamuchyty* ‘to tire out’. This group of verbs illustrates an important characteristic of a categorial network—“multiple motivation” per Janda (1986, p. 213). In other words, surface-level lexical semantics can draw from multiple conceptual schemas, which become co-activated rather than existing in isolation within the categorial network.

Finally, Ukrainian has hundreds of *za-* verbs with the inchoative meaning. It is the most frequent meaning of the verbal prefix *za-* according to Ilyin (Ilyin, 1953) and remains highly productive (Sokolova 2003), especially with onomatopoeic verbs (Karpilovska, 1990). Most verbs in this large group denote situations of physical perception, either visual or auditory. In these situations, the action suddenly begins and then persists. The perceptual element may play a central and dominant role in their semantics, e.g., *zability* ‘to begin to appear or be white’, *zazvuchaty* ‘to begin to sound’, etc. In other cases, the verb describes an action or process that is perceived but the perceptual component is peripheral, e.g., *zabihaty* ‘to start running (to and fro)’, *zakuryty* ‘to start smoking’, etc. In verbs with more abstract meaning, the perceptual element is lost and only the conceptual feature BEGIN remains, e.g., *zahordytysia* ‘to become proud’, *zasumnivatysia* ‘to begin to have doubts’, and so on.

In line with the adopted approach when spatial scenes give rise to other meanings of the prefix, the objective here is to find a spatial configuration with the matching physical features that would give rise to the inchoative meaning. The answer is again supplied by the schema in Figure 2. This spatial scene is construed from the vantage point of an observer located to the right of the landmark. Initially, the landmark blocks the trajector from the observer’s view. However, as the moving trajector turns the corner of the landmark is instantaneously comes into the field of view and remains there for an extended period. What is profiled in this APPEAR schema is the trajector emerging from behind the landmark. The second important feature (persistent presence) is reflected in the semantic component of duration: inchoative *za-* verbs denote processes that begin suddenly and persist over time. In abstract verbs, the visual element itself is lost, but the idea of a sudden beginning and then persistence through time is preserved.

To appreciate the contribution of the inchoative meaning to the overall picture, the wordlist contained in VESUM (Rysin & Starko, 2022) has been subjected to quantitative analysis. With over 416,000 entries, VESUM is one of the largest up-to-date lexicons of Ukrainian. It includes a little over 4,000 *za-* verbs, with perfective and imperfective forms listed as separate lemmas for reasons of conjugation. We have established that one-fifth of them are inchoative verbs, meaning perfective or imperfective lemmas that are predominantly used in this sense. This calculation excludes polysemous verbs with a non-dominant inchoative meaning. Over 85% of thus identified inchoative verbs contain a more or less pronounced perceptual component (*zablyshchaty* ‘to begin to shine’, *zabriazkaty* ‘to begin to rattle’, *zashrebtly* ‘to begin to scratch’, *zatsvisty* ‘to begin to bloom’, and many others), while the rest are verbs of sensation (*zabolimu* ‘to begin to ache’, *zavvažumy* ‘to observe, to notice’), and abstract verbs (*zatsariuvaty* ‘to begin to rule as a king’, *zaboiatysia* ‘to begin to fear’, *zasviatkuvaty* ‘to begin to celebrate’). Thus, a large group of Ukrainian *za-* verbs have inchoative meaning, and this group is overwhelmingly dominated by perceptual semantics.

Thus, we have established that the conceptual schema CURVE gives rise, by way of profiling and re-construal from a different vantage point, to other schemas (ECLIPSE, COVER, BEHIND, INTO, FIX, and APPEAR) that form the conceptual

foundation for the semantics of a large number of Ukrainian *za-* verbs that constitute the main semantic blocks. In some cases, specific prefixal meaning is motivated by multiple conceptual schemas at once.

Results and Discussion

The best place to start the discussion of obtained results is with the conceptual schema presented last. The inchoative meaning of the verbal prefix *za-* is found in all groups of Slavic languages with varying degrees of productivity (Mazurkiewicz-Sułkowska, 2005). Despite being readily recognized by linguists of different persuasions and expressed in thousands of verbs, this meaning has generally presented serious challenges to scholars attempting to incorporate it into the reconstructed categorial network of *za-*. Janda interprets it as a version of the basic conceptual scheme (deflection) where there is deviation from a basic state in which the agent has zero activity (Janda, 1985). Zaliznyak explains it away by claiming that it is “easy to show” how this feature is derived from the feature IN (Zaliznyak, 2006, p. 311). Evidently, she considers this to be a trivial case (it is not). Tabakowska posits this meaning as an abstract extension from crossing the boundary: “The notion of a passable borderline easily extends into an abstract boundary separating non-being from being. More specifically, the passage from the former to the latter is instantiated as a passage from nonaction to action” (Tabakowska, 2003, p. 168). These reconstructions involve highly abstract ideas of activity/inactivity, being/non-being, while many or most inchoative *za-* verbs refer to situations of physical perception. Moreover, crossing the boundary is generally associated in *za-* verbs with gradual passage to a more passive state, while inchoative verbs with this prefix describe quite the opposite: a sudden commencement of a process or action in the form of a transition to a more active state. For these reasons, a re-construal from a different vantage point (schema APPEAR described above) is a more consistent and fitting model for the inchoative meaning as it preserves the alignment between the spatial scene and the derived meaning. However, the divergence of opinions in this case among scholars pursuing largely the same approach to semantic description is notable here.

It is worthwhile to look at how researchers have reconstructed the categorial network of *za-* in Slavic languages. As mentioned above, Janda (1985, 1986) posits one prototypical conceptual schema (Deflection) for the Russian *za-* from which others are derived. Tabakowska (2003) uses network analysis to reconstruct the semantic structure of the Polish verbal prefix *za-* and shows that it mirrors the organization of meaning of the corresponding preposition *za*. She posits the existence of one “category-central” meaning of ‘going round’ (such as bending one object around another one) which motivates other meanings that together constitute a network. Zaliznyak postulates one very complex spatial idea for the Russian prefix *za-* from which all meanings are supposedly derived. This idea includes multiple elements and appear to be composite image rather than a holistic spatial scene: “motion upwards and away from the observer; then deflection; then interaction with some abstract object; the trajectory continues

‘behind’ it and can be extended ‘inside’ and farther, ‘grasping’ its edge” (Zaliznyak, 2006, p. 311). Sokolova and Endresen (2017, pp. 243–244) posit a “double” prototype consisting of two blocks COVER/BEHIND for the Russian prefix *za-*. Their idea is that the same image schema can be construed in two different ways, either to profile the idea of covering, as in Rus. *zakrasit’* ‘paint over’, or that of being behind some object, as in *zabezhat* ‘run around (smth.)’. Svetlana Nedelcheva (2016) reconstructs the structure of the verbal prefix *za-* in Bulgarian as a network of semantic blocks. In contrast to other studies, she proposes that semantic blocks in its network form two groups: one has to do with crossing a boundary, while the other is about fixation. In her reconstruction, each group has a central element; the two centers are linked, thus forming a two-center configuration.

What is remarkable about these studies is that scholars working with related, but distinct, languages and being guided by different theoretical concepts (checklist approach vs. network approach) single out remarkably similar semantic blocks for the verbal prefix *za-*. A detailed comparison is outside of the scope of this paper, but the overlap of proposed conceptual schemas and features can be seen even from the above review. Where they differ, however, is the general topology of the reconstructed network. In line with the theory of radial categories, some scholars posit one central element (prototype) from which links extend to the entire network. However, a “double” prototype has also been suggested, and a two-center arrangement proposed. In these two cases, the linguists, who are native speakers of the language under study, have departed from the one-prototype-per-category dictum and proposed configurations that they feel better match the distribution of semantic content in the structure of the verbal prefix *za-* as a category.

As has been shown above regarding the Ukrainian verbal prefix *za-*, several conceptual schemas can be derived from the conceptual schema CURVE to explain the conceptual underpinning of the meaning of many (if not most) Ukrainian *za-* verbs. Does it mean that CURVE is the prototype and the Ukrainian prefix *za-* forms a radial network? There are strong arguments against this conclusion, and all of them revolve around the APPEAR schema. This construal is vastly different from all other conceptual schemas considered so far and is only weakly linked to them as evidence by the difficulties of reconstructing this connection. A number of researchers representing various linguistic theories and approaches unanimously single out the inchoative meaning of *za-* verbs but strongly disagree on precisely what underpins it conceptually despite largely agreeing on other semantic blocks. In addition to thousands of existing inchoative *za-* verbs, new ones continue to be coined in various Slavic languages. Creation of new words with a given meaning is an instance of Type 2 categorization (Starko, 2014), which requires conscious operations with categorial knowledge, in this case the APPEAR schema. Thus, APPEAR is highly frequent, productive, accessible to conscious manipulation, and weakly linked to other nodes in the *za-* network. This combination makes it psychologically real for speakers on its own rather than as an extension of the CURVE or some other node within the network. If the objective is to reconstruct psychologically real conceptual structures, preference must be given to a configuration in which CURVE and APPEAR

are two prominent nodes in a network with only a tentative link between them. The same may also be true of the *za-* networks in other Slavic languages, such as Polish and Russian, but more research is needed along this line.

A remark is in order about the relationships between the schemas in the *za-* network. They are very similar to each other, differing only in a specific profile or vantage point. The relationships between them are nothing else than family resemblances, a concept first introduced by Ludwig Wittgenstein (Wittgenstein, 2009) and later picked up and developed in cognitive psychology (Rosch & Mervis, 1975) and Cognitive Linguistics (Lakoff, 1987). This notion captures the psychologically real fact that various *za-* verbs share some semantic features. For an average speaker, the directionality of links between distinct semantic blocks is most likely non-existent or opaque, while semantic commonalities and overlaps are perceived quite clearly.

Conclusions

The structure of the Ukrainian verbal prefix *za-* as a category has been reconstructed as a network in which conceptual schemas are the nodes. The following schemas have been identified: CURVE, ECLIPSE, COVER, BEHIND, INTO, FIX, and APPEAR. While the list is not necessarily exhaustive, it covers the major groupings (semantic blocks) of Ukrainian *za-* verbs. These schemas are linked by commonalities that are best described as family resemblances, while they differ in profiling and construal. It has been shown that CURVE and APPEAR are two prominent centers within the network connected by only a tentative link. Thus, the structure of the Ukrainian verbal prefix *za-* is pluricentric, more precisely bifocal.

On a more general level, a network consisting of conceptual schemas does not necessarily converge on one center—one prototype, one “basic” conceptual schema, one prototypical scenario, or some other single central element. The assumption that there should be just one such center may bias the entire enterprise of category reconstruction. What should be assumed a priori is the existence of one or more centers, i.e., one or more local foci around which networks of category members are formed. A Cognitive Linguistics analysis of a given language unit needs to be undertaken to establish whether a unicentric or pluricentric model best describes and explains linguistic data. With this adjustment in mind, the approach aimed at reconstructing conceptual schemas is a productive way of analyzing the structure of categories.

Further research is needed to see whether similar configurations with multiple centers are found in the structure of prefixes and other linguistic units in Ukrainian and other Slavic languages.

Acknowledgements

This research was supported by a grant from the Humanities Faculty of the Ukrainian Catholic University (Lviv, Ukraine).

References


- Haspelmath, M. (1997). *From Space to Time: Temporal Adverbials in the World's Languages*. München – Newcastle: Lincom Europa.
- Ilyin, V. (1953). *Prefiksy v suchasni ukrainskii movi [Prefixes in Modern Ukrainian]*. Kyiv: Vydavnytstvo AN URSR.
- Janda, L. A. (1985). The meaning of Russian verbal prefixes: Semantics and grammar. In M. S. Flier & A. Timberlake (eds.) *The Scope of Slavic Aspect*. (pp. 26–40). Columbus, OH: Slavica.
- Janda, L. A. (1986). *Semantic Analysis of the Russian Verbal Prefixes za-, pere-, do-, and ot-*. Munich: Otto Sagner. [Slavistische Beiträge, 192].
- Karpilovska, Ie. (1990). *Konstruiuvannia skladnykh slovotvorchykh odynyts [Constructing Complex Word-Formative Units]*. Kyiv: Naukova dumka.
- Lakoff, G. (1987). *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*. Chicago & London: University of Chicago Press.
- Mazurkiewicz-Sułkowska, J. (2005). Czasowniki inchoatywne z prefiksem za- w języku bułgarskim i ich odpowiedniki w polskim i białoruskim. *Acta Universitatis Lodzianis. Folia Linguistica*, 43, 59–69. Retrieved from <http://hdl.handle.net/11089/16564>
- Nedelcheva, S. (2016). Chislata v kognitivnata lingvistika. Opredeliane prototipa na prefiksa ZA-: chestotnost ili yarkost [Numbers in Cognitive Linguistics. Defining the prototype of the prefix ZA-: frequency vs. salience]. *Lyubosloviye*, 16, 88–104.
- Rakhilina Ye. & Plungyan, V. (2014). Semantiko-sintaksicheskiye svoystva russkikh konstruksiy s predlogom pod: primyie (prostranstvenniye) i perenosnyie (vremennyyie) upotrebleniya [Semantic and Syntactic Features of Russian Constructions with the Prefix pod: direct (spatial) and figurative (temporal) uses]. *Die Welt der Slaven*, LIX, 22–56.
- Rosch E. & Mervis, C. (1975). Family resemblances: studies in the internal structure of categories. *Cognitive Psychology*, 7, 573–605. [https://doi.org/10.1016/0010-0285\(75\)90024-9](https://doi.org/10.1016/0010-0285(75)90024-9)
- Sokolova, S. (2003). *Prefiksalni slovtvir diiesliv u suchasni ukrainskii movi [Prefixal Derivation in Modern Ukrainian]*. Kyiv: Naukova Dumka.
- Sokolova, S. & Endresen, A. (2017). The Return of the Prefix za-, or What Determines the Prototype. In A. Makarova, S. M. Dickey, & D. Divjak (eds). *Each Venture a New Beginning: Studies in Honor of Laura A. Janda*. (pp. 239–256). Bloomington, IN: Slavica Publishers.
- Starko, V. (2014). Categorization, Fast and Slow. *East European Journal of Psycholinguistics*, 4(1), 205–212. Retrieved from <https://eejpl.vnu.edu.ua/index.php/eejpl/article/view/88/71>
- Tabakowska, E. (2003). Space and time in Polish: The preposition ZA and the verbal prefix za-. In: H. Cuyckens, Th. Berg, R. Dirven, & K.-U. Panther (eds). *Motivation in language: Studies in honor of Günter Radden*. (pp. 153–177). Amsterdam: John Benjamins.
- Wittgenstein, L. (2009). *Philosophical Investigations*. Rev. 4th ed. Oxford: Wiley-Blackwell.
- Zaliznyak, A. (2006). *Mnogoznachnost v yazyke i sposoby yeye predstavleniya [Polysemy in Language and Ways of Its Representation]*. Moscow, Yazyki slavianskikh kultur.
- Zhuykova, M., Lavrynovych, L., & Svidzynska, O. (2020). The Structure of Basic Level Categories in the Ukrainians' Consciousness According to the Results of Psycholinguistic Experiments: PARKAN and MUR. *East European Journal of Psycholinguistics*, 7(2), 243–256. <https://doi.org/10.29038/eejpl.2020.7.2.zhu>

Sources

- Rysin A. & Starko, V. *Large Electronic Dictionary of Ukrainian (VESUM)*. Version 5.8.0. 2005–2022. Retrieved from https://github.com/brown-uk/dict_uk

A Psycholinguistic Analysis of Inter-Ethnic Views of Ethics

Roman Taraban

 <https://orcid.org/0000-0002-1815-4687>

Scopus Author ID: 6603757476

roman.taraban@ttu.edu

Texas Tech University, USA

Sweta Saraff

 <https://orcid.org/0000-0001-9688-1612>

Scopus Author ID: 57222240818

ssaraff@kol.amity.edu

Amity University Kolkata, India

Serhii Zasiiekin

 <https://orcid.org/0000-0001-9453-3534>

Scopus Author ID: 35112194200

sergiozasyekin@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Ramakrishna Biswal

 <https://orcid.org/0000-0003-3681-9790>

Scopus Author ID: 32867511800

biswalrk@nitrrkl.ac.in

National Institute of Technology in Rourkela, India

Received April 2, 2022; Revised June 18, 2022; Accepted June 24, 2022

Abstract. In this paper we describe a collaborative, cross-cultural project whose focus is on developing an interactive pedagogy for undergraduate students that delivers a culturally relevant ethical activity, using an internet platform to widen the scope of learning at an international level. The ongoing collaborative project described here is implemented through a website, the Ethical Engineer (<https://ethicalengineer.ttu.edu>), that provides an open and unique online digital platform for developing a community of students committed to the discussion of ethics from a global perspective. A goal of this project was to gain insights into similarities and differences between Indian, Ukrainian, and USA respondents in their reasoning about a hypothetical ethical dilemma. Two complementary methods of analysis were applied to students' responses. First, a well-known method for text analysis, Linguistic Inquiry and Word Count (LIWC-22) was used to identify topics and perspectives in students' essays that distinguished the three groups. These analyses were followed by naïve Bayesian analyses that were used to further identify characteristic conceptual differences between the three ethnic groups. We discuss how the Ethical Engineer platform could be further developed by providing students with immediate substantive feedback to their written responses, in order to extend the

learning benefits to students from participation on the website. The analytic methods described here demonstrate ways to gain knowledge of globally-diverse students' thinking.

Keywords: *ethnicity, culture, text analytics, ethics, Bayesian methods, LIWC-22.*

Тарабан Роман, Сараф Свєта, Засєкїн Сергїї, Бїсвал Рамакрїшна. Психолїнгвїстичне дослідження мїжетнїчних поглядїв на етику.

Анотація. У цїй статтї ми описуємо спїльний мїжкультурний проєкт, зосереджений на розробцї інтерактивної педагогїки для студентїв бакалаврату, яка забезпечує культурно зумовлену етичну поведїнку, використовуючи інтернет-платформу для розширення сфери навчання на мїжнародному рївнї. Описаний тут поточний спїльний проєкт реалїзується на основї веб-сайту Ethical Engineer (<https://ethicalengineer.ttu.edu>), покликаної забезпечити відкриту та унікальну онлайн-цифрову платформу для розвитку спїльної студентїв, вїдданих обговоренню етики в глобальному контекстї. Мета цього проєкту полягала в тому, щоб зрозумїти подїбностї та вїдмїнностї мїж респондентами з Індїї, України та США в їхнїх мїркуваннях щодо гїпотетичної етичної дилеми. До вїдповїдей студентїв було застосовано два взаємодоповнюючі методи аналізу. По-перше, добре вїдомий у психолїнгвїстїцї метод аналізу тексту Linguistic Inquiry and Word Count (LIWC-22) був використаний для визначення тем і поглядїв у студентських есе у трьох групах. Цей аналіз супроводжував наївний байєсів аналіз, застосований для подальшого визначення характерних концептуальних вїдмїнностей мїж трьома етнїчними групами. Автори обговорюють, як можна в подальшому розвивати платформу Ethical Engineer, надаючи студентам негайний змїстовний зворотний зв'язок на їхнї письмовї вїдповїдї, щоб розширити переваги навчання студентїв вїд взаємодїї з веб-сайтом. Описанї аналітичнї методи демонструють способи отримання знань про рїзноманїтнїсть мислення студентїв з вїддалених куточків нашої планети.

Ключовї слова: *етнїчнїсть, культура, текстова аналітика, етика, байєсів метод, LIWC-22.*

Scandals tend to break not at the point people “find out” about bad behavior...but when they think a majority of others judge it to be wrong. People, after all, rarely make ethical judgments in a vacuum.
(Martha Gill, The New York Times, July 7, 2022)

Introduction

In the quote above, which appeared in a recent editorial essay in The New York Times newspaper, a simple yet powerful point is made regarding ethical thinking: ethical judgements of right and wrong are often made by groups and rarely by individuals. This suggests that personal growth in the discernment of what is right and just will likely take place in a group setting involving discourse, interaction, and consensus building. To the extent that this suggestion is valid, it implies a rather straightforward path in school curricula. However, there may be complications, particularly at upper levels of education. According to Muller (2009), there is a fundamental rift in college disciplines between the sciences and humanities. To Muller, this breach, which he traces back to the medieval university, has been a social threat across the ages, and is well captured in a quote from Muller where he states: “Science without the Humanities becomes a technician Frankenstein” (p. 206).

Both the New York Times and Muller's (2009) technician Frankenstein are especially poignant to pedagogical work that we have been conducting since 2017 through the development and launching of a globally accessible website for the discussion of ethical dilemmas by university undergraduates. Our work originated as

a collaborative project implemented through a website, the Ethical Engineer¹, that provides an open digital forum for interactive discourse across national boundaries. Participants read and reflect on case studies involving ethical dilemmas that are presented on the website. Students post their reactions to the case studies directly to the website. They also post reactions to other students' responses. Instructor-generated guidelines for developing a response to a case study are provided on the website to help students think critically and gain clarity on their position. Detailed descriptions of the Ethical Engineer can be found at Taraban et al. (in press, 2020).

The Ethical Engineer has been used primarily with engineering students in the USA and India as an instructional resource, typically implemented as a one-time homework or classroom activity. These students come from disciplines oriented towards the Sciences and mechanical applications, as described in Muller (2009). The primary research question in the present project was whether differences in conceptualizations about ethical issues would emerge when comparing those students to students more oriented towards the Humanities and social applications. To this end, we collected website responses from students in Ukraine in language sciences. A comparison of students' ethical thinking across national and disciplinary boundaries is relevant to an assessment of the impact of the Ethical Engineer as an instructional resource. Crossing disciplinary boundaries, as we do here, addresses Muller's concern regarding the fracture between science and humanities, or mechanical and liberal studies. Should a range of conceptual perspectives coalesce on the website, there would be suggestive evidence for the Ethical Engineer as a vehicle for constructive dialogue across national and disciplinary boundaries.

Method

Text Analytics as a Key to Students' Thinking

A fundamental theoretical principle underpinning an analysis of verbal communications comes from the work of Pennebaker and King (1999) who proposed that "the way people talk about things reveals important information about them" (p. 1297). Pennebaker et al. (2015) reasoned that it is possible to identify specific "beliefs, fears, thinking patterns, social relationships, and personalities" (p. 1) that characterize individuals based on the words that they use. In an instructional context, the Pennebaker and King principle potentially empowers researchers and teachers to uncover the cognitive and affective orientations of students in specific coursework and activities. Further, the ability to grasp key constructs that students are employing potentially aids instructors in understanding why a specific activity is effective, and in configuring and implementing beneficial instructional activities.

The present study applied the Pennebaker and King (1999) principle to writing samples from USA, Indian, and Ukrainian students that were submitted on the Ethical Engineer website. Two text analytic methods were applied to these samples. The methods incorporated the Pennebaker and King principle in different ways. One

¹ Available at <https://ethicalengineer.ttu.edu>

method used pre-defined word lists, termed dictionaries, for analysis of student responses; the second method created weighted word lists from the responses themselves and applied these to the analysis of student responses. These methods are described next.

LIWC-22: A Text Analytic Tool

A well-known method for text analysis, LIWC-22 (Linguistic Inquiry and Word Count) (Boyd et al., 2022), uses predefined dictionaries. LIWC-22 quantifies the frequencies of words (or stems) that fall into specific categories, like Cognition, Perception, Social, and Culture. These frequencies are converted into each word's percentage of the total number of words in the text. In that way, the percentages show the relative emphasis of some categories over others, adjusted for the total length of the text. The percentages can then be correlated with independent variables, like course grades or likelihood of academic success (Pennebaker et al., 2014; Robinson et al., 2013).

LIWC-22 includes four summary categories. These categories were constructed from a combination of specific categories by Boyd et al., (2022), were normed based on extensive sampling of data, and are expressed on a percentile scale. The four summary variables as summarized in Boyd et al. (2015) are:

- **Analytic Thinking** - Higher percentile scores suggest formal, logical, and hierarchical thinking, whereas, lower scores reflect more informal, personal, here-and-now, and narrative thinking.
- **Clout** - Higher percentile scores show confidence, whereas lower scores suggest a tentative and anxious style.
- **Authentic** – Higher scores are associated with honest, personal, and disclosing communication; lower scores indicate a more guarded, distanced form of discourse.
- **Emotional Tone** – Higher scores are associated with a positive, upbeat attitude; lower scores indicate greater anxiety, sadness, or hostility. A number around 50 suggests a lack of emotionality.

Recent research has used LIWC variables in order to assess communication styles in students' writing using a metric known as the Categorical-Dynamic Index (CDI). The CDI can be separated into two components: a categorical component and a dynamic component. The categorical component of the CDI assesses analytical thinking, i.e. deep reflection, and logical reasoning (Jordan & Pennebaker, 2017). The dynamic component of the CDI assesses narrative thinking, i.e. a more informal "here and now" communication style (Pennebaker et al., 2015). While analytical thinkers tend to scrutinize a problem, narrative thinkers prefer to share their own experiences and tell stories to understand the problem. Therefore, analytical thinking relies on facts, details, and objective treatment of events. By contrast, narrative thinking relies more on intuition, personal account of events, and snap judgements (Jordan & Pennebaker, 2016). Linguistically, the analytic style, as the authors confirmed, is marked by the high use of nouns, articles, and prepositions. Their use in text/speech indicates that the author/speaker is identifying conceptual categories and organizing

them in hierarchical ways. The narrative style is marked by the high use of personal pronouns, auxiliary verbs, common adverbs, and function words.

Thus, Categorical and Dynamic scores are calculated by applying Equations (1) and (2), respectively, using percentages provided by the LIWC-22 software for the variables shown:

$$\text{Categorical} = (\text{articles} + \text{prep})/2^1 \quad (1)$$

$$\text{Dynamic} = (\text{ppron} + \text{ipron} + \text{auxverb} + \text{conj} + \text{adverb} + \text{negate})/6 \quad (2)$$

In summary, LIWC-22 is a general purpose analytic tool and can be reliably applied across a variety of contexts. In addition to the summary variables, LIWC-22 includes the percentages of total text for specific predictors. The four types of measures summarized here were applied to the research data in this study in order to assess conceptual similarities and differences in student responses, by country.

Naïve Bayesian Text Analytic Method

An alternative to applying pre-compiled dictionaries to carry out text analysis uses computations based on an extension of Bayes theorem. The naïve Bayesian method is used to create classifiers that identify predictors that are able to classify old and new instances. The predictors are the actual words in the texts. For instance, after training on a set of newspaper editorials written from reactionary and liberal perspectives, a Bayesian classifier can be used to classify new editorials based on the discriminating predictors within the texts, that is, based on the words that authors use in the respective editorials. The appeal of naïve Bayesian classifiers is their capacity to be trained to classify content in specific subject domains. The strength of Bayesian classifiers is their ability to correctly classify new instances after being trained on a sample of known instances.

In the present study, a naïve Bayesian classifier was trained on a sample of students' responses. The classifier was then tested on its ability to classify new instances by country. Successful classification would imply that students' responses contained conceptual (i.e., as indicated by the use of different words) differences reflective of their country of origin.

Case Study Applying LIWC-22 and Naïve Bayesian Analyses

Students from the USA, Ukraine, and India participated in this study. They were compensated with a small course credit. The conduct of research had approval from the respective university review boards. The primary material on the Ethical Engineer website that was used in this study is the case study: "Which Is More Important –

¹ *Note.* Abbreviations - prep: preposition; ppron: person pronouns; ipron: impersonal pronouns; auxverb: auxiliary verbs; conj: conjunctions; negate: negations

Environmental Concern or Economic Growth?” by Dr. Sudipta Majumdar (then Amity University Kolkata, India; currently, Faculty of Management Studies, ICFAI University, Jharkhand, India).¹ Participants logged on to the Ethical Engineer website, reviewed the case study, and posted a reaction. The case study and all student responses were posted in English.

Analyses of student responses were conducted through the applications of the LIWC-22 software² and the naïve Bayesian method, applied in the R language. The LIWC-22 analyses compared student responses to pre-compiled dictionaries and reported percentile and percent matches of words in student responses to words in the dictionaries, by country. The naïve Bayesian method weighted words across the responses in a way that reliably separated responses by country. A major difference between the two methods is that the LIWC-22 analysis functioned with advance specification of the country to which a student response belonged. The Bayes method used the country to which each student response belonged training (roughly 75% of available responses). On the critical test trials (i.e., the remaining 25% of the responses), the task of the Bayesian method was to classify the new responses, i.e., responses for which the Bayes method did not know the country in advance.

Results

LIWC-22 Results

Analysis of the four summary variables was conducted first and was used as a reference point for the subsequent analyses. Means and standard deviations for the summary variables are shown in Table 1.

Table 1

Mean Percentiles (standard deviations in parentheses) for LIWC-22 Summary Variables, by Country

| LIWC-22 Variables | Country | | |
|----------------------|-----------------------------|----------------------------|----------------------------|
| | USA (n = 25) | Ukraine (n = 21) | India (n = 25) |
| Analytic | 81.33 (9.61) ^a | 67.32 (15.17) ^b | 80.02 (14.19) ^a |
| Clout | 40.49 (13.66) | 39.02 (16.00) | 40.77 (12.59) |
| Authentic | 32.72 (15.10) ^{ab} | 41.19 (15.34) ^a | 28.18 (17.96) ^b |
| Tone | 33.29 (20.51) | 38.45 (18.85) | 34.66 (20.84) |

Note. Superscripts are used to signify significant differences between cells. When superscripts differ, there is a significant difference between Country for those LIWC-22 variables at $p < .05$. All tests are two-tailed.

¹ The case study can be viewed at <https://ethicalengineer.ttu.edu>

² Information regarding LIWC-22 software can be found at <https://liwc.app>

GLM-Univariate (IBM, 2022¹) was applied to the variables shown in Table 1, with each LIWC-22 variable treated as a dependent variable and Country treated as the independent variable. An initial analysis showed the data were normally distributed. There were significant Country differences for Analytic and Authentic [$F(2.70) = 7.76, p < .001$; and $F(2.70) = 3.73, p = .029$, respectively], and non-significant differences for Clout and Tone (p -values $> .50$). Follow-up mean comparisons using Tukey HSD tests, showed that USA and India significantly exceeded Ukraine in the Analytic factor (p -values $< .005$), and Ukraine exceeded India in the Authentic factor ($p = .023$).

The results from these ANOVAs provide the first major results in this study. The USA and Indian participants expressed more formal, logical, and hierarchical thinking, compared to the Ukrainian participants; whereas Ukrainian participants expressed more informal, personal, here-and-now, and narrative thinking.

The significantly higher score on the Authentic variable for Ukrainian participants compared to Indian participants is consistent with the Analytic effects, since higher scores on the Authentic variable are associated more honest, personal, and disclosing communications; lower numbers suggest a more guarded, distanced form of discourse, which is more consistent with an Analytic perspective. Although not significant, the USA score for Authentic (32.72) is similar to the Indian score (28.18), and shows a notably lower score for Authentic compared to the Ukrainian participants.

There were no significant differences for Country for Clout and Tone. According to the LIWC handbook (Boyd et al., 2022), lower Clout numbers, as in the present case, suggest a tentative, humble, even anxious style. Using 50 as a neutral emotionality level for Tone, participants across countries expressed anxiety and sadness in their responses. From these results, we can infer that participants, across Country, responded similarly to the situation described in the ethical dilemma.

In order to further examine Country differences, additional tests were conducted for the specific LIWC-22 content variables, within LIWC-22 superordinate categories. Because a majority of data distributions for these variables were not normally distributed, the Kruskal-Wallis test (IBM, 2022) was applied, which is an appropriate test of significant differences when data distributions are not normally distributed. Table 2 shows the variables that reliably distinguished between categories. Sample words from those LIWC-22 categories are included in order to convey a sense of the gist of the category. Additional pairwise mean comparisons were carried out for each LIWC-22 variable in order to assess which countries significantly differed from one another. These differences ($p < .05$, two-tailed) are marked using superscripts.

¹ Information available at <https://www.ibm.com>

Table 2

Mean Percents (standard deviations in parentheses) for LIWC-22 Variables, By Country. Superordinate Categories Are Shown with Sample Variables and Words That Define the Category

| LIWC-22 Variables | Country | | |
|--|--------------------------|---------------------------|--------------------------|
| | USA (n = 25) | Ukraine (n = 21) | India (n = 25) |
| COGNITION | | | |
| all[vs]none: all kind, always, everyday, forever, never, no one, nothing, nowhere | .78 (.053) ^b | 1.28 (.82) ^a | 0.68 (0.63) ^b |
| discrep[ancy]: deserve, desire, hope, ideal, lack, need, ought, try, undo, wish, yearn | 2.70(.79) ^{ab} | 2.19 (0.84) ^b | 3.55 (1.85) ^a |
| differ: adjust, differ, disparity, distinct, equality, exception, identical, impossible, not really | 2.65 (1.16) ^b | 3.32 (1.26) ^{ab} | 3.66 (1.50) ^a |
| SOCIAL PROCESSES | | | |
| polite: civility, courteous, decency, please, regard, respectful, sincerely, thank, welcome | .26 (.35) ^a | .35 (.34) ^a | .09 (.21) ^b |
| male: dad, father, he, him, his, man | .29 (.43) ^a | .37 (.85) ^a | .05 (.21) ^b |
| comm[unication]: answer, ask, call, confess, consult, discuss, inform, protest, question | .42 (.48) ^b | 1.18 (.78) ^a | .40 (.59) ^b |
| CULTURE | | | |
| tech: automate, engineer, firewall, glitch, hardware, innovate, machine, multimedia | .62 (.59) ^a | .18 (.32) ^b | .34 (.37) ^{ab} |
| LIFESTYLE | | | |
| home: bed, broom, carpet, garden, house, kitchen, neighborhood, pets, room, window | .15 (.31) ^b | .41 (.41) ^a | .07 (.18) ^b |
| PHYSICAL | | | |
| reward: accumulate, benefit, bonus, earn, fortune, gain, lucrative, pay off, succeed, win | .80 (.48) ^a | .57 .35) ^{ab} | 0.37 (.40) ^b |
| allure: beautiful, country, delicious, dream, easy, family, friend, fun, make, money, work | 5.37 (1.42) ^a | 6.06 (1.93) ^a | 4.38 (1.86) ^b |
| wellness: cardio, diet, fitness, heal, healthy, mindfulness, organic, positive mood, self care | .11 0.33) ^{ab} | .06 (.29) ^b | .19 (.33) ^a |
| PERCEPTION | | | |
| attention: alarm, alert, cognizant, inspect, negligent, notice, oversee, vigilance | .32 (.35) ^b | .50 (.57) ^{ab} | .85 (.69) ^a |
| feeling: cold, dry, grasp, heat, hottest, hurt, numb, pain, sensation, tingle, touch, tremble | .08 (.16) ^b | .09 (.18) ^b | .35 (.50) ^a |
| focus past: advised, assumed, avoided, became, caused, didn't, lied, tricked, warned | 2.65 (1.29) ^a | 1.49 (1.00) ^b | 2.21 (1.24) ^a |

Note. All LIWC-22 variables shown in bold differ significantly by Country ($p < .05$). Superscripts are used to signify significant differences between specific countries. When superscripts differ, there is a significant difference between Country for those LIWC-22 variables ($p < .05$, uncorrected). All tests are two-tailed.

Of the eight superordinate content categories, six categories contained words that reliably distinguished between countries, as shown in Table 2. The prior results showed that USA and Indian participants expressed more formal, logical, and hierarchical thinking, compared to the Ukrainian participants; whereas Ukrainian participants expressed more informal, personal, here-and-now, and narrative thinking. The more detailed analyses here are consistent with those results. USA participants were high in LIWC-22 variables *tech*, *reward*, and *focus past*, which are associated with terms like *automate*, *engineer*, *machine*, *bonus*, *earn*, *lucrative*, *assumed*, *avoided*, and *tricked*. Indian participants were formal and logical as well, although they expressed that differently, through LIWC-22 variables like *discrepancy*, *differ*, and *attention*, which are associated with terms like *ideal*, *ought*, *yearn*, *adjust*, *disparity*, *impossible*, *cognizant*, *negligent*, and *vigilance*. Ukrainian participants expressed more informal and personal ideas consistent with LIWC-22 variables *communication*, *home*, and *allure*, and associated words like *discuss*, *inform*, *question*, *house*, *neighborhood*, *pets*, *dream*, *family*, and *friend*.

In a final application of LIWC-22 to participants' responses to the ethical dilemma, measures of Categorical and Dynamic thinking were calculated according to equations [1] and [2] described earlier. Mean values and standard deviations are shown in Table 3.

Table 3
Mean Percents (standard deviations in parentheses) for Categorical and Dynamic Indices, by Country

| Categorical Dynamic Indices | Country | | |
|--------------------------------|-------------------------|-------------------------|-------------------------|
| | USA (n = 25) | Ukraine (n = 21) | India (n = 25) |
| Categorical | 12.44 (1.29) | 11.31 (1.46) | 11.83 (2.14) |
| Dynamic | 4.81 (.62) ^b | 5.39 (.80) ^a | 4.61 (.67) ^b |

Note: Superscripts are used to signify significant differences between specific countries. When superscripts differ, there is a significant difference between Country ($p < .05$). All tests are two-tailed.

GLM-Univariate (IBM, 2022) was applied to the Categorical and Dynamic data shown in Table 1, with the Categorical and Dynamic variables treated as dependent variables and Country treated as the independent variable. There were significant Country differences for the Dynamic Index [$F(2, 60) = 7.50, p < .001$]. The differences for Categorical were marginally significant ($p = .082$). Follow-up mean comparisons using Tukey HSD tests showed that Ukraine significantly exceeded USA and India in the Dynamic index (p -values $< .02$). Because the Dynamic index is associated with a more casual communication style, it is consistent with the earlier findings showing Ukrainian participants to be lower in Analytic and higher in

Authentic variables. Although the Country differences were statistically marginal for the Categorical variable, the means are higher for USA and India, compared to Ukraine, signaling a preference for more formal communication styles, which is consistent with the earlier finding showing USA and Indian participants’ as being more Analytic than Ukrainian students.

Naïve Bayes Results

In order to carry out an analysis using naïve Bayesian methods to discriminate Ethical Engineer responses by country, a Bayesian classifier was trained on approximately 75% of the responses and was then tested on the remaining responses. In the training phase, the classifier learned the discriminating concepts (i.e., words) that distinguished responses by country. In the test phase, the classifier predicted whether an essay was from a USA, Ukrainian, or Indian participant.

Sample classification results are shown in Table 4. The confusion matrix shows 95% classification accuracy for new responses classified by the naïve Bayes classifier. Over multiple tests, the naïve Bayes method incorrectly classified no more than one out of twenty new responses incorrectly. In the present example, an Indian response was misclassified. In other runs of the classifier, a USA or Ukrainian response could be misclassified, depending on the responses that are randomly selected for training the classifier.

Table 4
Confusion Matrix Showing Frequencies (Percents in Parentheses) for Classification of 20 New Responses, by Country

| Naïve Bayes Results | | | | |
|---------------------|----------|----------|----------|-----------|
| Predicted | Actual | | | |
| | USA | Ukraine | India | Row Total |
| USA | 7 (0.35) | 0 | 1 (0.05) | 8 |
| Ukraine | 0 | 6 (0.30) | 0 | 6 |
| India | 0 | 0 | 6 (0.30) | 6 |

A Psycholinguistic Analysis of Inter-Ethnic Views of Ethics

Naïve Bayes provides for the extraction of the Bayesian conditional probabilities associated with the individual predictors that are used for classification by country. The predictors are the words in students’ responses. Combining the probabilities associated with predictors with the *a priori* probabilities of each country in the training trials, it is easy to compute the Bayesian probabilities for each of the predictors in the corpus. Knowledge of the strongest predictors for each country can give insights into how students from the respective countries differed in the most central concepts in their responses. The strongest predictors, by country, are shown in Table 5, with their associated probabilities.

Table 5
Naïve Bayes Rank-Ordered Predictors and Probabilities, by Country

| Predictors | USA | Predictors | Ukraine | Predictors | India |
|-------------------|------------|-------------------|----------------|-------------------|--------------|
| mexico | 1.00 | geography | 1.00 | degradation | 1.00 |
| negatively | 1.00 | economics | .91 | loss | 1.00 |
| perspectives | 1.00 | difficult | .86 | proper | .88 |
| positively | .88 | authorities | .86 | basic | .83 |
| impacted | .85 | everything | .86 | effective | .83 |
| taking | .83 | main | .83 | sustainable | .83 |
| lack | .81 | really | .83 | increased | .83 |
| regulations | .81 | ecology | .81 | research | .83 |
| engineering | .77 | course | .78 | contamination | .80 |
| innovative | .77 | article | .75 | greed | .80 |
| impacts | .75 | business | .75 | needs | .80 |
| serious | .75 | lot | .74 | importance | .77 |
| engineers | .73 | parties | .71 | increasing | .77 |
| affect | .71 | positive | .71 | organizations | .77 |
| cancer | .71 | state | .71 | ecosystem | .75 |
| decisions | .71 | damage | .71 | individuals | .75 |
| gain | .71 | farmer | .71 | output | .75 |
| lives | .71 | generations | .71 | scientific | .75 |
| culture | .69 | money | .68 | climate | .71 |
| ethical | .68 | first | .67 | heavy | .71 |
| trombay | .67 | say | .67 | since | .71 |
| appropriate | .67 | solving | .67 | without | .71 |
| study | .65 | view | .67 | cost | .69 |
| high | .65 | side | .67 | things | .69 |
| needed | .65 | fact | .64 | costs | .67 |
| used | .65 | order | .64 | individual | .67 |
| surrounding | .63 | polluted | .64 | keep | .65 |
| industries | .63 | population | .64 | level | .65 |
| india | .61 | residents | .64 | related | .65 |
| drilling | .61 | rules | .64 | social | .65 |
| company | .60 | position | .62 | hand | .64 |
| though | .60 | mathur | .62 | human | .63 |
| unethical | .60 | face | .62 | taken | .61 |
| complex | .60 | production | .62 | levels | .61 |
| countries | .60 | reduce | .62 | potential | .61 |
| implement | .60 | future | .61 | done | .61 |
| living | .60 | take | .61 | part | .60 |
| affected | .59 | example | .60 | may | .58 |
| negative | .59 | think | .60 | society | .58 |
| right | .58 | citizens | .59 | management | .57 |

The words most highly weighted by the naïve Bayesian classifier provide a sense of the conceptual differences that were used by the classifier to distinguish USA, Ukrainian, and Indian students. Prior analyses suggested that USA and Indian students were more analytic than Ukrainian students, who tended to be more personal and disclosing. The predictors in Table 5 support these characterizations. USA students were classified by words like *regulations, engineering, engineers, ethical, study, drilling, unethical, and complex*, which convey an analytic sense focused on engineering and oil drilling. Indian students were analytic as well, although focused more on the economics of oil drilling, expressed in words like *loss, sustainable, greed, needs, output, cost, costs, and management*. In contrast, Ukrainian students' responses are characterized by words like *authorities, parties, farmer, generations, population, residents, and citizens*, and focus on the people who are affected by technology and economics. The Ukrainian students take a more personal and people-oriented approach in their discussion of the ethical dilemma.

Although the naïve Bayesian method carries out analyses of students' responses very differently compared to LIWC-22, the two methods appear to converge on similar characterizations of the three student groups.

Discussion

A major goal of this project was to gain insights into similarities and differences between Indian, Ukrainian, and USA students in their reasoning about a hypothetical ethical dilemma. Analyses applying the LIWC-22 software (Boyd et al., 2022) and naïve Bayesian text analytic methods provided evidence of clear differences between the respective students. Generally, USA and Indian students expressed more formal, logical, and hierarchical thinking, compared to the Ukrainian students; whereas Ukrainian students expressed more informal, personal, here-and-now, and narrative thinking. These general findings were supported by more detailed analyses involving specific words. USA participants were high in LIWC-22 variables *tech, reward, and focus past*, which are associated with terms like *automate, engineer, machine, bonus, earn, lucrative, assumed, avoided, and tricked*. Indian participants were formal and logical as well, expressed through LIWC-22 variables like *discrepancy, differ, and attention*, which are associated with terms like *ideal, ought, yearn, adjust, disparity, impossible, cognizant, negligent, and vigilance*. Ukrainian participants expressed more informal and personal ideas consistent with LIWC-22 variables *communication, home, and allure*, and associated words like *discuss, inform, question, house, neighborhood, pets, dream, family, and friend*. A third analysis involving the Dynamic index (Jordan & Pennebaker, 2017) showed Ukrainian participants to be lower in Analytic and higher in Authentic variables, which provided additional support for the previous analyses and overall consistency in outcomes. A naïve Bayesian method that was applied to the student responses produced outcomes consistent with the LIWC-22 results.

The general approach of this paper is similar to the work of Girnyk et al. (2021), who analyzed differences in the word *conflict* in Ukrainian and Indian university students. Girnyk et al. found clear differences between the groups, with Ukrainian

students associating the term *conflict* with words like *fight*, *war*, and *aggression*, whereas Indian students associated the term with emotion-laden terms, like *sadness*, *anger*, and *fear*. In part, Ukrainians may have provided those ‘aggressive’ response words due to the state of ‘hybrid war’ with Russia in 2021, now being full-scale since February 2022. The Girnyk et al. study is consistent with the Pennebaker and King (1999) principle that words reveal much about the way people think and feel, and it demonstrates the importance of acknowledging cultural differences in how individuals use words to convey ideas and feelings.

An ongoing goal in our work is to develop machine-based methods to provide students with instructive feedback immediately after they submit a response to the website. Prior work with naïve Bayesian methods suggests the feasibility of feedback tailored to individual student responses. Preliminary work in this area has shown promising results (Taraban et al., 2020).

Conclusions

We began this paper with two provocative suggestions: one, that ethical development and consensus building is a group process, and two, that universities may be susceptible to wide rifts between disciplines, especially Science, the Arts, and Humanities. The development and implementation of global interdisciplinary instructional resources, like the Ethical Engineer website, help in small ways to foster cross-disciplinary interactions and the exchange of ideas across national and cultural divides. The analyses showed that a range of conceptual perspectives coalesced on the website. These findings provide suggestive evidence for the Ethical Engineer as a vehicle for constructive dialogue across national and disciplinary boundaries. Further research including broader sampling and better experimental control is warranted, given the intriguing differences across the samples reported here. Future work should strive to better flesh out similarities and differences due to disciplinary orientation (i.e., science, art, humanities) and ethnic, cultural, and social backgrounds, and thereby deepen our capacity to build interactive platforms that bring students together in constructive and collaborative interactions.

References

- Boyd, R. L., Ashokkumar, A., Seraj, S., & Pennebaker, J. W. (2022). The development and psychometric properties of LIWC-22. Austin, TX: University of Texas at Austin. <http://dx.doi.org/10.13140/RG.2.2.23890.43205>
- Girnyk, A., Krylova-Grek, Y., & Khan, A. (2021). A Psycholinguistic cross-cultural study of the concept 'conflict' in India and Ukraine. *East European Journal of Psycholinguistics*, 8(2), 51-65. <https://doi.org/10.29038/eejpl.2021.8.2.gir>
- Jordan, K. N., & Pennebaker, J. W. (2016). How the candidates are thinking: Analytic versus narrative thinking styles. Retrieved from: <https://wordwatchers.wordpress.com/2016/01/21/how-the-candidates-are-thinking-analytic-versus-narrative-thinking-styles/>
- Jordan, K. N., & Pennebaker, J. W. (2017). The exception or the rule: Using words to assess analytic thinking, Donald Trump, and the American presidency. *Translational Issues in Psychological Science*, 3(3), 312-316. <https://doi.org/10.1037/tps0000125>

- Muller, J. (2009). Forms of knowledge and curriculum coherence. *Journal of Education and Work*, 22(3), 205-226. <https://doi.org/10.1080/13639080902957905>
- Pennebaker, J.W., Boyd, R.L., Jordan, K., & Blackburn, K. (2015). The development and psychometric properties of LIWC 2015. Austin, TX: University of Texas at Austin.
- Pennebaker, J. W., Chung, C. K., Frazee, J., Lavergne, G. M., & Beaver, D. I. (2014). When small words foretell academic success: The case of college admissions essays. *PloS One*, 9(12), e115844. <https://doi.org/10.1371/journal.pone.0115844>
- Pennebaker, J. W., & King, L. A. (1999). Linguistic styles: Language use as an individual difference. *Journal of Personality and Social Psychology* 77(6), 1296-1312. <https://doi.org/10.1037/0022-3514.77.6.1296>
- Robinson, R. L., Navea, R., & Ickes, W. (2013). Predicting final course performance from students' written self-introductions: A LIWC analysis. *Journal of Language and Social Psychology*, 32(4), 469-479. <https://doi.org/10.1177/0261927X13476869>
- Taraban, R., Marcy, W. M., LaCour, M. S., Prasad S. H. C., Zasiakin, S. (2020). Using the Web to develop global ethical engineering students. *Advances in Engineering Education*, 8(3), 1-21. Retrieved from: <https://advances.asee.org/using-the-web-to-develop-global-ethical-engineering-students/>
- Taraban, R., Saraff, S., Iserman, M., Biswal, R., Marcy, W. M. (in press). Developing a global context for ethical reflection. In S. K. Sia, L. S. Crane, A. K. Jain, and S. Bano, (Eds.), *Understanding psychology in the context of relationship, community, workplace and culture*. Springer Nature Press.

Taras Shevchenko's Neologism *Chizokvim* (*Snihokvit*): Psycholinguistic, Lexico-Semantic and Cultural Aspects

Halyna Vokalchuk

 <https://orcid.org/0000-0002-1347-8199>

vokal_neo@ukr.net

Rivne State Humanitarian University, Ukraine

Nina Danylyuk

 <https://orcid.org/0000-0002-7373-2902>

danyluk@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Kateryna Lytvyn

 <https://orcid.org/0000-0003-3065-2301>

diachok1995@gmail.com

Rivne State Humanitarian University, Ukraine

Lesya Malevych

 <https://orcid.org/0000-0001-6597-8331>

lesya.malevych@gmail.com

The National University of Water and Environmental Engineering, Ukraine

Oksana Rohach

 <https://orcid.org/0000-0002-5304-0837>

oksanarog@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Received January 30, 2022; Revised May 4, 2022; Accepted June 6, 2022

Abstract. The article focuses on the study of Taras Shevchenko's linguistic identity through the free word association test results. The psycholinguistic experiment, "Author Neologisms of Taras Shevchenko," held in 2019, involved four hundred forty-eight participants aged 14 to 61 y.o. Among them were professors, undergraduate and graduate students from Rivne State Humanitarian University, Lesya Ukrainka Volyn National University, Sarny Pedagogical College, National University of "Ostroh Academy", Rivne Economic Technological College, National University of Water and Environmental Engineering, Borys Grinchenko Kyiv University, and M. Ocheret

Zhytomyr City Humanitarian Gymnasium #23 (Ukraine). The responses of the recipients to the stimulus word *сніжоквіт*/snihokvit (“snow blossom”), Shevchenko’s neologism, have been characterized based on grammatical (paradigmatic, syntagmatic, word-building), meaningful (thematic, reminiscent, reactions-personalities), and formal connections. The following semantic spheres to which the verbal responses belong have been defined: “Names of Flora”, “Natural Phenomena”, “Names of Actions”, “Colour Features”, “Haptic Features”, “Temporal Features”, “Abstract Notions”, as well as types of responses within the boundaries of associative fields. The specificity of a modern Ukrainian speaker’s perception of the meaning of a neologism taken out of the literary context has also been discovered. The authors have come to the conclusion that the poet created a highly artistic lexical neologism with the help of which he tried to communicate to the reader not only the primary meaning of the word *лілея*/lileya “white lily” (a flower) but also to provoke aesthetic feelings, and actualize the imagination about this special flower that is empowered with magic properties in the national linguistic map of the world. All the responses of the considered semantic spheres that belong to the associative fields of the author’s neologism *сніжоквіт*/snihokvit give a better understanding of the lexicon of modern Ukrainian, the psycholinguistic peculiarities of the perception of Shevchenko’s figurative word. They also make it possible to trace specific changes in the conceptual map of the world and its perception.

Keywords: *Taras Shevchenko, author’s lexical neologism, association, associative dictionary, free word association test, semantic sphere.*

Вокальчук Галина, Данилюк Ніна, Литвин Катерина, Малевич Леся, Рогач Оксана. Неологізм *сніжоквіт* Тараса Шевченка: психолінгвістичний, лексико-семантичний та лінгвокультурний аспекти.

Анотація. У статті проаналізовано результати вільного асоціативного експерименту як одного з ефективних способів вивчення мовної особистості письменника. Масштабний психолінгвістичний експеримент “Авторські неологізми Т. Г. Шевченка” було проведено в 2019 р. До участі в ньому залучено 448 респондентів – викладачів, аспірантів, магістрантів і студентів Рівненського державного гуманітарного університету, Волинського національного університету імені Лесі Українки, Сарненського педагогічного коледжу РДГУ, Національного університету “Острозька академія”, Рівненського економіко-технологічного коледжу, Національного університету водного господарства і природокористування, Київського університету імені Бориса Грінченка, Житомирської міської гуманітарної гімназії № 23 імені М. Очерета. Схарактеризовано реакції реципієнтів на слово-стимул *сніжоквіт* (новотвір Т. Шевченка) за вербальними зв’язками. При цьому враховано різні аспекти зв’язку між стимулом і реакцією: граматичний (парадигматичні, синтагматичні, словотвірні), смисловий (тематичні, ремінісцентні та реакції-персоналії) та формально-фонетичний типи. Визначено семантичні сфери, до яких належать одиниці-реакції: “Флороназви”, “Явища природи”, “Дієнайменування”, “Колірні ознаки”, “Тактильні ознаки”, “Темпоральні ознаки”, “Абстрактні поняття” й типи реакцій в межах асоціативних полів. З’ясовано специфіку сприйняття сучасним українським мовцем значення новотвору поза художнім контекстом. Зроблено висновок, що поет подав високохудожній лексичний новотвір, за допомогою якого намагався донести до читача не лише первісне значення слова *лілея* (квітка), але й викликати в адресата естетичні відчуття та асоціації, актуалізувати уявлення про цю особливу квітку, наділену магічними властивостями в національно-мовній картині світу. Усі реакції розглянутих семантичних сфер, що входять до асоціативних полів авторського новотвору *сніжоквіт*, дають змогу чіткіше окреслити лексикон сучасного українця, психолінгвальні особливості сприймання образного Шевченкового слова, а також простежити певні зміни в концептуальній картині світу та його перцепції.

Ключові слова: *Тарас Шевченко, авторський лексичний новотвір, асоціація, асоціативний словник, вільний асоціативний експеримент, семантична сфера.*

Introduction

At the end of the 20th – beginning of the 21st centuries, the processes of a language neo-logicistic determination in general and individual author word creations, in particular, have become the research objects of many scholars. Thus, the works by Bauer (Bauer, 1983) were devoted to the studies of specific features of the word building processes of English words. Ahmad (2000) applied a complex approach to the study of neologisms, ways of their creation and their function in speech. Kerremans (2015) provided a profound analysis of the process of conventionalization of English neologisms based on English Language Corpora. Metcalf (Metcalf, 2002) formulated the main criteria that the innovations are to meet to become usable. Comrie (2021) traced the correlations between language and thought and the significance of linguistic determinism in world perception.

There are many studies done by Ukrainian and foreign linguists devoted to the investigation of various aspects of occasional nomination: lexical-semantic (Bilodid, Rusanivsky, Vokalchuk, Hryhorjev, Revzina, and others); word-building (Klymenko, Karpilovska, Bakina, Herman, Kolojiz, and others); lexicographic (Neliuba, Vokalchuk, Adakh, Havryliuk, Semeniuk, Maxymchuk, Tymochko, and others); functional (Holikova, Zhyzhoma, and others). In addition, there are a few studies of lexical neologisms in folklore (Danylyuk, 2011). A multidimensional approach to analyzing the creative psycholinguistic activity of prominent Ukrainian writers is also very important.

We believe that an author's lexical innovation cannot be deeply studied with the sole help of linguistic methods. The objectivity of scientific results can be achieved through the application of psychological and psycholinguistic methods. A psycholinguistic experiment is a conclusive way of obtaining and verifying new theoretical statements in linguistics. Belyanin (2001, p. 115) has paid attention to the fact that in an experiment, a language speaker acts not only as an informant but also as a research object with their system of values and motives. A psycholinguistic approach to the study of author neologisms enables scholars to find out the response of an addressee or a reader to the author's neologism. It is necessary to point out that a psycholinguistic approach in Ukrainian neological studies has been represented in the works of linguists. However, they are not very numerous (e.g. Maxymchuk, 2009).

In modern Ukrainian studies, many works are devoted to investigating Taras Shevchenko's individual style and language creation (Bulakhovsky, Vashchenko, Yermolenko, Kalashnyk, Zahnitko, Vokalchuk, Danylyuk, and others). The poet's author neology has already got its lexicographic interpretation (Vokalchuk, 2016). Taras Shevchenko's poems were also studied through a prism of their apperception and decoding by a speaker (Moisijenko, 2006). Nevertheless, there are not enough research studies devoted to analyzing the psycholinguistic aspects of Shevchenko's word creation through the performance of experiments. This fact reveals the topicality of our study.

Our article aims to find out the psycholinguistic peculiarities of the perception of the context-free meaning of Shevchenko's lexical neologism by modern Ukrainians. The tasks of the study are to reveal the features of the perception of Shevchenko's innovation *сніжоквіт*/snihokvit meaning by the Ukrainian speakers as a result of a word association test as well as to find out special characteristics and general tendencies in the creation of associations in the system "neologism – response to it" that is based on the individual and common linguistic maps of the world.

Method

A systematic approach to the analysis of Shevchenko's neologisms motivated the application of linguistic and psycholinguistic research tools. The former included a structural method to analyze a structural organization of the response words to the stimuli, a contextual-interpretative method to reconstruct the author's idea, the purpose of the author's creation of lexical innovation and the orientation of a new linguistic unit at an addressee, and a descriptive method to find out a complex inventory of the linguistic units recognized in the course of the conducted free word association test and to explain the specific features of these associations for modern language speakers. The latter included a free word association test to define its participants' associative semantic space content.

Important theoretical principles and methods suggested by scholars served as a basis for our research. Miller and Chomsky are known to be some of the first to have paid attention to the importance of experimental methods as a means of penetration into a language system. Thus, with the help of the IC model, suggested by Miller and Chomsky, it is possible to describe the speech as a sequence of elements (Belyanin, 2001, p. 44–45). In his generative grammar, Chomsky laid out principles and rules of a transformational analysis of syntactic figures by transforming them from the surface structures into the deep ones (Chomsky, 2002). Methods for the analysis of the structures of associations in language and speech were presented in the work of Deese (1990). A number of scholars (Vivas et al., 2019) described the ways of evaluating the answers when seeking to establish lexical associations. Rakosi (2017) suggested methods of resolving discrepancies in repeated psycholinguistic experiments.

When analyzing the reactions of the recipients, we take into consideration the models by Vygotsky (1996) and Leontyev (1969) that point out three planes of "speech" thinking: a thought, inner speech, and a word. Models of speech generation are organically connected with the models of speech perception, the knowledge of which is necessary for the organization and explanation of the results of a psycholinguistic experiment. Chomsky, Shcherba, Leontyev and other scholars believe that a process of perception is a multilevel structure on every level of which a recipient tries to "assign" the meaning to the language units, penetrating the true meaning, which is shaped into a sign form. It is necessary to point out that Shcherba

was among the first to write about the significance of studies of the semantics of lingual units (Shcherba, 1974).

In an associative test, respondents are asked to give their reactions/responses to the given stimulus words that rely on the connection between certain phenomena or objects based on subjective experience. Potebnya considered associativity one of the basic principles of creating rows of images (Potebnya, 1976, p. 136). The scholar pointed out that the formation and ways of expressing associations were motivated by the reference of an individual to a specific ethnic culture and to mankind in general. That is why any associative process has a subjective nature founded on objective reality (Potebnya, 1976, p. 195).

In modern Ukrainian psycholinguistics, association tests are used for the analysis of cognitive, psycholinguistic and lingo-cultural phenomena (see e.g. Melnyk et al., 2020). In 1970s and 1980s, the results of associative experiments were presented in dictionaries (Butenko, 1979; Butenko, 1989). At the beginning of the 21st century, a few dictionaries were published (Martinek, 2007; 2008; Kutuza & Kovalevska, 2011). Modern Ukrainian scholars consider associative experiments as a tool for discovering the individual associations formed through their previous experience (Horoshko, 2001, p. 16). They point out three types of association tests: a) free (a respondent is asked to answer with word R, the first word that came to their mind on hearing word S); b) controlled (an experimentalist restricts the choice of the suggested R); c) chain (a respondent is suggested to answer with possible words within a given time) (Denysevych, 2011).

Procedure and Participants

The authors held a broad-scale psycholinguistic experiment, "Author neologisms of Taras Shevchenko", as a free word association test (WAT). Four hundred forty-eight respondents took part in it – professors, undergraduate and graduate students aged from 14 to 61 from Rivne State Humanitarian University, Lesya Ukrainka Volyn National University, Sarny Pedagogical College, National University of "Ostroh Academy", Rivne Economic Technological College, National University of Water and Environmental Engineering, Borys Grinchenko Kyiv University, and M. Ocheret Zhytomyr City Humanitarian Gymnasium #23.

Indeed, such factors as age, occupation, education, gender, personality type had a particular impact on the consciousness of an informant. That is why there were many differences in the participants' answers to the WAT.

The free WAT was conducted in the form of an anonymous questionnaire. The respondents were given 45 words-stimuli – Shevchenko's lexical neologisms (SLN), which were divided into three groups based on different levels of their occasionalism (see: Vokalchuk, 2008, p. 69-71). It was necessary to associate every neologism – with the first word that would come to their mind. Before the test, the participants were provided with detailed instructions. Then an experimentalist read each stimulus word one at a time with an interval of 5-7 seconds so that the respondents would have enough time to write down their responses.

Results and Discussion

The frequency of responses (the total number of responses 448) that were given to the author lexeme сніжоквіт/snihokvit was defined and specified. It is essential to understand that Shevchenko used the neologism сніжоквіт/snihokvit (or снігоцвіт/snihotsvit) "snow blossom" to name the flower лілея/lileya (лілія/lilija) "lily". In the fourth volume of "A Concordance of the Poetic Works of Taras Shevchenko", the word сніжоквіт is presented as a low-frequency one with the parameter 1 and is illustrated with the example Лілеєю сніжоквітом (A Concordance, 2001, p. 3194). In the dictionary of Shevchenko's lexical neologisms (TSH-2016, p. 267, p. 277) three variants of this author's unit are given taken from different editions of the writer's works:

Лілея-снігоцвіт, noun, fem., А весною, мов на диво, На мене дивились. А дівчата завітчались І почали звати Лілеєю-снігоцвітом; І я процвітати Стала в гаї, і в теплиці, І в білих палатах. (TSH1: 271 /"Lileya". 1846); compare.: Снігоцвіт**, Сніжоквіт*;

Сніжоквіт*, noun, masculine [the fixed variant is Сніго-квіт** in: TSH-10, 1: 528 / "Lileya"/: ...І дівчата завітчались І мене назвали Лелеєю квітом білим Лелеєю сніго-квітом; fixed in: SHEVCHENKO-64, 2: 272], ...дівчата завітчались І мене назвали Лілеєю квітом білим Лілеєю сніжоквітом (TSH1: 392 / "Lileya". 1846); compare.: Снігоцвіт**, Лілея-снігоцвіт;

Снігоцвіт** noun, masculine [fixed as снігоцвіт in: ZHELEKH: 890; with the context THSH in: BH4: 161; the fixed variant is Сніго-цвіт** at: TSH-10, 1: 529 / "Liliya"/: І дівчата завітчались І мене прозвали... Лілеєю сніго-цвітом. І я процвітати Стала в гаї, і на полі, І в білих палатах; fixed at : SHEVCHENKO-64, 2: 272], А дівчата завітчались І почали звати Лілеєю снігоцвітом... (TSH-10, 1: 356 / "Lileya"/ 25.07.1846–6.03.1858); compare: Лілея-снігоцвіт; Сніжоквіт*.

It is necessary to pay attention to the specificity of the name лілія/ liliya that became a basis for the analyzed SLN. In volume 11 of the Dictionary of the Ukrainian Language the lexeme лілея/lileya "lily" is given as an equivalent to лілія/liliya with the remarks "old", "poetic", and the original lexeme is explained in the following way: "A bulb plant from the lily family that has a direct stem with big, bell-like flowers that are white or bright colorful; grows as a decorative one" (SUM, 4, p. 515). It has been pointed out that the word can be a component of comparisons (illustration from Shevchenko's work: В садах кохалися, цвіли, Неначе лілії, дівчата), and can obtain figurative meaning "about somebody or something that resembles the flower of this plant either by color or tenderness" (illustration from Lesya Ukrainka's poetry: Марія, Марія, дівчина чиста, лілія біла...). Shevchenko's neologism сніжоквіт is not presented in this dictionary.

The name лілія/liliya, as a part of figurative comparisons, is given in the "Ukrainian-Russian-Belarusian-Bulgarian-Polish dictionary of comparisons" with the equivalents Ukr. білий як лелія – Rus. белый как <водная> лилия – Pol. biały jak lilia <wodna> "very white; with a very white skin". This meaning is illustrated

through examples from the texts by Nechuy-Levytsky, Gertsen, Kolyada, Mitskevych, Ozheshko, and from a folklore lullaby, devoted to the newborn Jesus Christ: Великий, як і я, білий, як лелія. Люляй, люляй же, мій сину, хоц єдну годину (Levchenko, 2011, p. 94).

The usage of the name лілія/liliya in its symbolic meaning has also been seen in religious literature, fiction and folklore since ancient times. In the "Dictionary of Symbols," it is written that: "Liliya (white lily) is a symbol of virtue, purity, and virgin beauty; in the Bible, a lily is an emblem of the beauty of the mysterious bridegroom and bride who are deeply in love; a sign of an eloquent taste, luxury, elegance; wealth; hope for being wealthy; favor; respect. At the same time, it is a symbol of death, loyalty, the revenge of the dead, a flower of the Blessed Virgin" (Potapenko, 1997, p. 80). A symbolic nature of лілія "lily" in the Bible is described in the special work (Plants of the Scripture, 2010, p.p. 180-181). Ancient Greeks ascribed a lily a divine origin, claiming that it evolved from the milk of Juno, who was breastfeeding little Hercules. The Romans perceived a lily to be a symbol of wellbeing. That is why its image was minted on coins. Besides that, the Romans and Greeks considered this flower to be a symbol of virtue, so newlyweds were given wreaths made of lilies and wheat ears. The flower was loved all over Europe. For the Catholics, it was the flower of the Blessed Virgin. Thus, the pictures/icons of God's Mother were decorated with garlands made of lilies. At the same time, in Germany, a lily was associated with death (Encyclopedic dictionary of symbols of Ukrainian culture, 2015, p. 448-450).

Slavic folk myths, fables and legends, transformed into fiction, are connected with lilies too. One of the pageant legends says that the flower was born by the Mother (Raw Earth) and Dana, the Goddess of Water. According to folk beliefs, (водяна) лілія "(water) lily" is a favourite flower of mermaids. That is why it is forbidden to root it out (especially for young men). The word-image лілія "lily" is often used in author poetry as a symbol of women's beauty, girls' purity, charms, elegance and richness (Zhaivoronok, 2006, p. 338). Analyzing a carol in which the refrain Там на воді на Ордані Гей, гей лелія! Ісус Христос, сам Син Божий, і Марія has been repeated, Babych wrote: "This is earthly-heavenly Mother with her maternal worries, but in the refrain – she is a lily, pure and clean" (Babych, 2012, p. 69).

The attribute білий "white" also acquires a symbolic meaning – "a colour of purity, innocence, and joy. It is connected with the daylight, that is with life" (Voitovych, 2002, p. 472). Based on our observations, we can say that in many folklore texts, "the epithet білий "white" does not simply reflect the colour but rather expresses positive evaluative semantics" (Danylyuk, 2010, p. 203). At the same time, the word сніг "snow" in folk poetry names not only an atmospheric phenomenon but is associated with "life difficulties, hardships and trials" (Danylyuk, 2010, p. 400). So, a key word-notion лілія "lily", a related word сніг "snow", and an epithet білий "white" have had a symbolic meaning in the cultures of many nations, including Ukrainians from ancient times.

Let us have a look at the associations that modern Ukrainians have as a response to the nomination of lily – сніжоквіт "snow blossom". It is known that an associative field (AF) is characterized by the organization of the groups of various word associations with a stimulus word. Due to the fact that basic systemic relationships between lexical units (syntagmatic, paradigmatic, hypo-hypernymic) can be realized within the boundaries of the AF, they served as essential data for our research. It is necessary to point out that the responses of the AF to the field-stimulus сніжоквіт are expressed with the lexemes that belong to various parts of speech (nouns, adjectives, adverbs, and verbs), as well as with syntactic units: word combinations, phrases, and sentences.

The division of the responses of the conducted WAT in experimentation is based on Terekhova's classification (Terekhova, 2000). According to the principles of this classification, various aspects of the connections between a stimulus and a response have been considered: grammatical (paradigmatic, syntagmatic, word-building types), semantic (thematic, reminiscent, reactions-personalities), and formal phonetic types.

I. Syntagmatic – responses that build a word combination with a word stimulus:

1) syntagmatic responses that contain evaluation and create a subordinate word-combination: СНІЖОКВІТ – білий "white"⁷, білосніжний "snow white"⁴, ранній "early"³, кришталевий "crystal"¹, квітуча "flourishing"(f)¹, квітучий "flourishing" (m)¹, квітуче "flourishing" (n)¹, білі "white" (pl) 1, перший "first"², новий "new"¹, холодний "cold"¹, зимовий "of winter" 1, товстий "thick"¹, біленька "white"(demin.)¹; білий, як сніг "white as snow" 1;

2) syntagmatic responses/reactions that can be seen as sentences: СНІЖОКВІТ – квітне на снігу "flourishes on the snow" 1, квітне взимку "flourishes in winter" 1, сніжить "is snowing" 1.

II. Paradigmatic – responses that belong to the same grammatical class as a stimulus does. In most cases these are responses-comparisons that point out certain features and structurally are word-combinations: СНІЖОКВІТ – квітка "flower" 12, квіти "flowers" 12, пролісок "snowdrop" 10, перші квіти "first flowers" 6, проліски "snowdrops"⁵, снігова квітка "snow flower"⁴, квіти у/в снігу "flowers in the snow" 3, іній "hoarfrost" 3, білі квіти "white flowers" 3, біла квітка "a white flower" 3, лілея "lily" 2, мороз "frost" 2, первоцвіти "primroses" 2, метелиця "snowstorm" 2, ромашка "chamomile" 2, лапатий сніг "flakes of snow" 2, засніжені квіти "frosty flowers"², багато квітів "many flowers"², квітки "flowers" 1, цвіт вишні "cherry blossom" 1, цвіт квітів "blooming flowers" 1, цвіт снігу "snow blossom" 1, зима-хурделиця "winter-snowstorm" 1, завірюха "snowstorm" 1, хурделиця "heavy fall of snow" 1, густий сніг "thick snow" 1, сніжні квіти "snowy flowers" 2, снігові квіти "snow flowers" 1, сніжний, білий цвіт "snowy, white color" 1, яблуневий цвіт "apple tree blossom" 1, конвалія "lily of the valley" 1, пелюстки "petals" 1, весняні квіти "spring flowers" 1, перші весняні квіти "first spring flowers" 1, все біле "everything white" 1, білий цвіт "white blossom" 1, зимня квітка "winter flower" 1, квіти зимові 1, візерунок "pattern" 1, сплетіння "plexus" 1, крокус "crocus" 1, щось біле "something

white" 1, гарний сніг "nice snow" 1, тендітні проліски "tender snowdrops" 1, чистота "purity" 1, непорочність "virgin" 1, надія "hope" 1, життя "life" 1, зимовий іній "winter hoarfrost" 1, зимова казка "winter fairytale" 1, білизна "whiteness" 1, снігові книги "snow books" 1, падання сніжинок "falling of snowflakes" 1, квітка зі снігу "a flower from the snow" 1, квіти на снігу "flowers on the snow" 1, квіти під снігом "flowers under the snow" 1, квіти з-під снігу "flowers from under the snow" 1, квіти після снігу "flowers after the snow" 1, квіти, що цвітуть в кінці зими "flowers that are blooming at the end of the winter" 1, квіти, що виростили під снігом "flowers that have grown under the snow" 1, квітка, яка росте, коли ще є сніг "a flower that grows when there is still snow" 1, квітка яка цвіте зимою "a flower that blooms in winter" 1, квіти, які розцвітають рано "flowers that start blooming early" 1, сніговий квіт "snowy blossom" 1, вид квітки "a type of a flower" 1.

III. Thematic – responses that belong to the lexemes of one and the same semantic field and are connected with the stimulus paradigmatically: СНІГОКВІТ – зима "winter" 19, весна "spring" 19, березень "March" 5, заметіль "snowstorm" 5, тепла зима "warm winter" 2, багато снігу "much snow" 2, антитеза "antithesis" 1, зима-весна "winter-spring" 1, рання весна "early spring" 1, хороша погода "good weather" 1, тепло "warmth" 1, холод і тепло "cold and warmth" 1, холодно і тепло "cold and warm" 1, галявина "lawn" 1, між зимою і весною "between winter and spring" 1, холод "cold" 1, мороз "frost" 1, мороз на вікні "frost on the window" 1, сонячно "sunny" 1, колір "color" 1, дощ "rain" 1, зимовий день "a winter day" 1, яблуневий сад "an apple orchard" 1, початок "beginning" 1, розцвітання квітів "flowers bloom" 1, опадання квітів "falling of flowers" 1, випав сніг "it has snowed" 1, сніг починає падати "it is starting to snow" 1, коли дуже сніжить "when it snows heavily" 1, цвіте квітка "a flowers is blooming" 1, зійшов сніг "the snow has melted" 1, з неба сипляться сніжинки "the snowflakes are falling from the sky" 1, квіти падають "flowers are falling down" 1, перші весняні квіти – підсніжинки "the first spring flowers - snowdrops" 1, лапатий сніг падає "heavy snow is falling down" 1, падає лапатий сніг "it snows heavily" 1, падає сніг "it snows" 1, паде сніг "it snows" 1.

A separate group is formed of metaphorical responses: СНІГОКВІТ – квітне сніг "the snow is blooming" 1, дощ з квіток "flower rain" 1, квіт снігу "snow blossom" 1, сніг квітне "snow blooms" 1, сніг цвіте ""snow blooms" 1.

IV. Phonetic – responses that sound the same with the stimulus: СНІГОКВІТ – цвіт "blossom" 2, сніголіп "snowfall" 1, сніги на квіті "snow flakes on a blossom". 1. It is possible that such infrequent responses are caused by the stimulus that might be ambiguous to the informant.

V. Word-building – responses are expressed with the help of lexemes that have one and the same root as the stimulus or are neologisms ("occasionalisms") :

1) responses that have similar roots with the stimulus: СНІГОКВІТ – підсніжник "snowdrop" 86, сніг "snow" 19, квітка "a flower" 12, квіти "flowers" 12, підсніжинки "snowdrops" 11, сніговик "snowman" 4, сніжинки

"snowflakes" 4; квітень "April (a bloomy month)" 3, сніжний "snowy" 3, сніжинка "a snowflake" 2;

2) responses – compound words in which a root of the word–stimulus is their parts: СНІГОКВІТ – снігопад "snowfall" 19, білосніжний "snowwhite" 4, первоцвіти "first blossoms" 2, сніголіп "snow cluster" 1, білоквіт "white blossom" 1, багатоснігий "much snowy" 1, яскравосніг "bright snow" 1 (occasionalism).

VI. Reminiscent responses include well-known sayings and quotations: СНІГОКВІТ – буду сіяť квітки на морозі "I will sow flowers in the frost" 1. This single reaction proves a philological awareness of a respondent as he/she quoted Lesya Ukrainka's poetry "Contra spem spero!".

VII. Responses expressed by proper names: СНІГОКВІТ – Масляна "Shrovetide" 1. Shrovetide is known to be a traditional Slavic holiday that is celebrated before Lent. It signifies the end of winter and the beginning of spring when the first flowers appear from under the snow.

VIII. Emotional-evaluative responses express a certain attitude of a respondent to the word stimulus. Traditionally reactions with positive and negative evaluations have been distinguished. Among the responses received there were only words with a positive connotation: СНІГОКВІТ – щось красиве "smth nice" 1, диво "wonder" 1, краса "beauty" 1, краса незвичайна "unusual beauty" 1, краса під холодом "beauty under cold" 1, дивовижність "smth amazing" 1, неймовірність "smth inconceivable" 1. A positive connotation of the stimulus can explain the fact that there are no negative responses.

Considering the studies of Denysevych (Denysevych, 2011), we refer blank responses (29) and responses with unclear motivation to the emotional-evaluative responses: СНІГОКВІТ – сані "sledges" 2, пішохід "a pedestrian" 1, машина "a car" 1, той, який розцвітає в проблемах "the one who is blooming in problems" 1, музичний інструмент "a musical instrument" 1. They can show incomprehension of the meaning of the word stimulus.

All the thematic responses of the associative field are divided into semantic spheres (SS). The SS "Floristic names" includes the responses – names of the objects of the floral world. In our opinion, it is logical since the neologism сніжоквіт has in its semantic structure the seme "a plant/a part of a plant". There have been pointed out 2 groups of the responses expressed by: 1) nouns: підсніжники "snowdrops" 86, квітка "flower" 12, квіти "flowers" 12, підсніжник "a snowdrop" 11, пролісок "squill" 10, проліски "squills" 5, лілея "lily" 2, цвіт "blossom" 2, первоцвіти "primroses" 2, ромашка "chamomile" 2, квітки "flowers" 1, конвалія "lily of the valley" 1, пелюстки "petals" 1, крокус "crocus" 1, білоквіт "white blossom" 1; 2) nominal word combinations (attributive or genitive): перші квіти "first flowers" 6, снігова квітка "a snow flower" 4, квіти у/в снігу "flowers in the snow" 3, білі квіти "white flowers" 3, біла квітка "a white flower" 3, засніжені квіти "frosty flowers" 2, сніжні квіти "snow flowers" 2, вид квітки "a type of flower" 1, яблуневий цвіт "apple blossom" 1, цвіт вишні "cherry blossom" 1, цвіт квітів "flower blossom" 1, цвіт снігу "blossom of the snow" 1, снігові квіти "snowy flowers" 1, сніжний, білий цвіт "snowy, white blossom" 1, весняні квіти "spring flowers" 1, перші

весняні квіти "first spring flowers"¹, перші весняні квіти – підсніжники "first spring flowers – snowdrops"¹, білий цвіт "white blossom"¹, зимня квітка "a winter flower"¹, квіти зимові "winter flowers"¹, яблуневий сад "apple orchard"¹, тендітні проліски "fragile snowdrops"¹, квітка зі снігу "a flower from the snow"¹, квіти на снігу "flowers on the snow"¹, квіт снігу "snow blossom"¹, квіти під снігом "flowers under the snow"¹, квіти з-під снігу "flowers from under the snow"¹, квіт після снігу "blossom after snow"¹, квіти, що цвітуть в кінці зими "flowers that bloom at the end of winter"¹, квіти, що вирости під снігом "flowers that grew under snow"¹, квітка, яка росте, коли ще є сніг "a flower that grows when there is still snow"¹, квітка яка цвіте зимою "a flower that blooms in winter"¹, сніговий квіт "snowy blossom"¹, квіти, які розцвітають рано "flowers that start blooming early"¹. Among these responses, there are words that name: a) generic notions (квітка "flower"), b) conceptual notion (підсніжники "snowdrops"), c) a part of a whole (білий цвіт "white blossom").

SS "Natural phenomena" include names-responses of the atmospheric falls, that are perceived by a human eye as monochromic (of a white color) or are associated with the word прозорий "transparent" – 'the one that lets the light go through, shines through; light, bright' (SUM, 8, p. 184): снігопад "snowfall" 19, сніг "snow" 19, весна "spring" 19, зима "winter" 19, заметіль "snowstorm" 5, сніжинки "snowflakes" 4, іній "hoarfrost" 3, мороз "frost" 3, сніжинка "snowflake" 2, метелиця "snow blizzard" 2, лапятий сніг "fluffy snow" 2, тепла зима "warm winter" 2, зима-весна "winter-spring" 1, хурделиця "rash" 1, завірюха "heavy and windy snow fall" 1, густий сніг "thick snow" 1, сніголіп "snow clustering" 1, хороша погода "good weather" 1, снігопад красивий "beautiful snowfall" 1, сніжить "it snows" 1, сонячно "sunny" 1, дощ "rain" 1, дощ з квіток "rain of flowers" 1, гарний сніг "nice snow" 1, зимовий іній "winter hoarfrost" 1, між зимою і весною "between winter and spring" 1, мороз на вікні "frost on the window" 1, яскравосніг "bright snow" 1, багатоснігий "much-snowy" 1, холод і тепло "warmth and cold" 1, падання сніжинок "falling of flakes" 1. We believe that the semantic component of the stimulus word сніг- "snow-" that belongs to the structure of 53 language units has influenced the occurrence of these responses. It is significant that there are some occasional neologisms among them: сніголіп, яскравосніг, багатоснігий.

The SS "Activity Sphere" includes the responses expressed by non-frequent verb phrases with the meaning of a process and action: розцвітання квітів "blooming of flowers", опадання квітів "falling of flowers", буду сіять квітки на морозі "(I) will sow flowers in the frost", випав сніг "the snow has fallen", лапятий сніг падає "fluffy snow is falling down", падає лапятий сніг "fluffy snow is falling down", паде сніг "it is snowing", сніг починає падати "it is beginning to snow", коли дуже сніжить "when it snows heavily", цвіте квітка "a flower is blooming", зійшов сніг "the snow has melted", сніг квітне "the snow is blooming", сніг цвіте "the snow is flourishing", квітне на снігу "(smth) is flourishing on the snow", квітне взимку "flourishing in winter", з неба сипляться сніжинки "snow flakes are falling from the sky", квіти падають "flowers are falling down".

SS "Color features" is formed with attributes that are used to name achromatic (white) colour caused by the meaning of the structural component сніг- (it is traditionally associated with white colour): білий "white" (m)7, біленька "white" (f) 1, щось біле "smth white" 1, білий, як сніг "as white as snow" 1.

The following SS of the analyzed associative field turned out to be unrepresentative:

1) "Tactile features": холодний "cold"(adj.)1, холодно і тепло "cold and warm" (adv.)1;

2) "Temporal features": березень "March"5, квітень "April" 3, рання весна "early spring" 1;

3) "Abstract notions": чистота "purity"1, непорочність "chastity"1, надія "hope"1, початок "beginning"1, життя "life"1, антитеза "antithesis" 1, колір "color" 1.

It is necessary to point out that the author's understanding of the word did not always coincide with the respondents' ideas. That shows that, above all, the context of a literary work is decisive for understanding the meaning of neologism. It is also vital to understand how a language unit "matches" the "ideo-style" of a writer. Thus, Mojsijenko pointed out Shevchenko's typical comparisons of a person and his/her features with plants, mainly flowers (маківка на городі, Ганна розцвітала "Like a poppy flower in the garden, Hanna was starting to flourish"). They can "transmit" a) an internal evaluative feature, b) an external feature, c) a motivational evaluative feature to an individual subject (Mojsijenko, 2006, p. 109). The scholar paid attention to the syncretic composite epithets (ясноокі зорі "bright-eyed stars", тихо-сумна розмова "a quiet sad talk", лани широкополі "wide-bordered fields" and others that are similar), whose apperceptive nature is revealed via a multifaceted dialectic characteristic of noun nominations" (Mojsijenko, 2006, p. 96). So, the neologism снігоквіт organically comes out of Shevchenko's linguistic figurative perception of the world, but a complete understanding of the meaning of the neologism by an addressee requires a broader context (not only within the frames of a poetic work but also as a component of the lingo-poetics of Shevchenko and the whole Ukrainian linguistic artistic tradition).

Conclusions

The results obtained by the WAT and a psycholinguistic experiment have shown that Taras Shevchenko presented a highly artistic lexical neologism with the help of which he wanted to convey to his reader not only the primary meaning of the word лілея (квітка) "lily (flower)" but also certain aesthetic feelings, as well as to actualize the image of a lily as a special flower in the national linguistic poetic map of the world. It is significant that a few lexical innovations were obtained from the respondents themselves. The WAT gave a chance to discover how transparent the meaning of Shevchenko's neologism to modern respondents was. The experiment has proved that the respondents perceive the neologism adequately, even without context.

All the responses of the analyzed SS belong to the AF of the author neologism *сніжоквіт*, give a possibility to define a lexicon of modern Ukrainian more clearly, help to figure out the psycholinguistic associative characteristics of Shevchenko's figurative word, the relationships between language and thought, and trace the changes in the conceptual map of the world and its cognition. Further psycholinguistic studies of Shevchenko's word creations also offer good prospects. It makes it possible to define the adequacy/inadequacy of modern respondents' perception of Shevchenko's neologisms, most of which enlarged the lexis of the modern Ukrainian language and became common.

Acknowledgements

The research was conducted within the complex scientific project, "Ukrainian Neology: Author Individual and Linguo-cultural Parameters" (state registration number 0117U005247), carried out by the Ukrainian Language Department at Rivne State Humanitarian University, Ukraine.

References

- Бабич Н. Д. Мовний образ Богородиці у фольклорних і молитвенних текстах. Бабич Н. Магія слова для всього живого. Мовно-народознавчі наукові студії. Чернівці: Букрек, 2012, 159–171.
- Белянин В. П. Введение в психолінгвістику. Москва: ЧеРо, 2001.
- Бутенко Н. П. Словник асоціативних норм української мови. Львів: Вища школа, 1979.
- Бутенко Н. П. Словник асоціативних означень іменників в українській мові. Львів: Вища школа, 1989.
- Войтович В. Українська міфологія. Київ: Либідь, 2002.
- Вокальчук Г. М. Неологія Тараса Шевченка: лексикографічна інтерпретація. Територія мови Тараса Шевченка / за ред. С. Я. Єрмоленко. Київ: Видавничий дім Дмитра Бураго, 2016, 259–288.
- Вокальчук Г. М. Словотворчість українських поетів ХХ століття. Острог: Вид-во НаУ "Острозька академія", 2008.
- Выготский Л. С. Мышление и речь. Москва: Лабиринт, 1996. Retrieved from https://pedlib.ru/Books/1/0162/1_0162-5.shtml#book_page_top
- Горошко Е. И. Интегративная модель свободного ассоциативного эксперимента. Харьков; Москва: Изд. группа "РА-Каравелла", 2001.
- Данилюк Н. О. Новотвори-оказіоналізми в мові української народної пісні. Лексико-грамматические инновации в современных славянских языках: материалы V Международной научной конференции (Днепропетровськ, 7–8 квітня 2011) / укл. Т. С. Пристайко. Дніпропетровськ: Нова ідеологія, 2011, 90–93.
- Данилюк Н. Поетичне слово в українській народній пісні. Луцьк: РВВ ВНУ імені Лесі Українки, 2010.
- Денисевич О. Вільний асоціативний експеримент як засіб дослідження особливостей формування мовної картини світу. Психолінгвістика, 2011, 7, 92–97. Retrieved from http://nbuv.gov.ua/UJRN/psling_2011_7_15
- Енциклопедичний словник символів культури України / за ред. В. Коцюри, О. Потапенка, В. Куйбіди. Корсунь-Шевченківський: ФОП Гаврищенко В. М., 2015.

- Жайворонок В. Знаки української етнокультури. Київ: Довіра, 2006.
- Кутуза Н. В., Ковалевська Т. Ю. Короткий асоціативний словник рекламних слоганів. Одеса: Астропринт, 2011.
- Левченко О. Українсько-російсько-білорусько-болгарсько-польський словник порівнянь. Львів: вид-во Львівської політехніки, 2011.
- Леонтьев А. А. Язык, речь, речевая деятельность. Москва: Просвещение, 1969.
- Литвин К. Словотворчість Тараса Шевченка крізь призму вільного асоціативного експерименту. Лінгвістичні студії молодих дослідників. 2020. Вип. 10. С. 56-60.
- Максимчук В. В. Словотворчість поетів Рівненщини (психолінгвістичний аспект). Науковий часопис Національного педагогічного університету імені М. П. Драгоманова. Проблеми граматики і лексикології української мови. 2009. Вип. 10, № 5. С. 108-111.
- Мартінек С. В. Український асоціативний словник: У 2 т. Т. 1: Від стимулу до реакції. Львів: ВЦ ЛНУ імені Івана Франка, 2007. Т. 2. Від реакції до стимулу. Львів: ПАІС, 2008.
- Мойсієнко А. К. Слово в аперцепційній системі поетичного тексту. Декодування Шевченкового вірша. Київ: Вид-во «Сталь», 2006.
- Потапенко О. І., Дмитренко М. К., Потапенко Г. І. та ін. Словник символів. Київ: Ред. часопису «Народознавство», 1997.
- Потебня А. А. Эстетика и поэтика. Москва: Искусство, 1976. Retrieved from https://imwerden.de/pdf/potebnya_estetika_i_poetika_1976ocr.pdf
- Рослини Святого Письма та перспективи створення біблійного саду / С. Руденко, О. Івасюк, С. Костишин, М. Щербань. Чернівці: Букрек, 2010.
- Терехова Д. І. Типологія вербальних асоціацій у вільному асоціативному експерименті. Наукові записки КДПУ ім. В. Винниченка. XXVI. Філологічні науки (Мовознавство). 2000. С. 236–246.
- Щерба Л. В. Языковая система и речевая деятельность. Ленинград: Наука; ЛО, 1974. Retrieved from http://elib.gnpbu.ru/text/scherba_yazykovaya-sistema--deyatelnost_1974/
- A Concordance of the Poetic Works of Taras Shevchenko. Конкорданція поетичних творів Тараса Шевченка (2001). O. S. Ilnytskyj, G. Hawrysch (ed.). Vol. 4. Edmonton; Toronto: CIUSP.
- Ahmad, K. (2000). Neologisms, Nonces and Word Formation. In The 9th EURALEX Int. Congress (8–12 August 2000, Munich). Vol II. (711–730). Munich: Universitat Stuttgart.
- Bauer, L. (1983). English Word-Formation. Cambridge: Cambridge University Press.
- Chomsky, N. (2002). Syntactic Structures. Berlin; New York: Mouton de Gruyter. Retrieved from https://tallinzen.net/media/readings/chomsky_syntactic_structures.pdf
- Comrie, B. (2021). Language and thought. Linguistic Society of America. Retrieved from <https://www.linguisticsociety.org/resource/language-and-thought>
- Deese, J. (1990). The Structure of Associations in Language and Thought. Baltimore: The Johns Hopkins Press.
- Kerremans, D. (2015). A Web of New Words. A Corpus-Based Study of the Conventionalization. Process of English Neologisms. Frankfurt am Main: Peter Lang.
- Melnyk, I., Holoiukh, L., Kalishchuk, D., Levchuk, I. (2020). Verbal markers of the concept of peace: psycholinguistic and lexical analyses. East European Journal of Psycholinguistics, 7(2), 214–230. Retrieved from <https://eejpl.vnu.edu.ua/index.php/eejpl/article/view/376/257>
- Metcalf, A. (2002). Predicting New Words: The Secrets of Their Success. Boston: Houghton Miffling.
- Rakosi, C. (2017). Replication of psycholinguistic experiments and the resolution of inconsistencies. Journal of Psycholinguistic Research, 46(5), 1249–1271. Retrieved from <https://doi.org/10.1007/s10936-017-9492-0>
- Vivas, L., Manoiloff, L., García, A., Lizarralde, F., & Vivas, J. (2019). Core semantic links or lexical associations: assessing the nature of responses in word association tasks. Journal of Psycholinguistic Research, 48, 243–256. <https://doi.org/10.1007/s10936-018-9601-8>

References (translated and transliterated)

- A Concordance of the Poetic Works of Taras Shevchenko. (2001). O. S. Ilnytskyj, G. Hawrysch, (Eds.). Vol. 4. Edmonton; Toronto: CIUSP.
- Ahmad, K. (2000). Neologisms, Nonces and Word Formation. The 9th EURALEX Int. Congress 2000, 2. Book of Abstracts. (711–730). Munich: Universitat Stuttgart.
- Babych, N. (2012). Movny obraz Bogorodytsi u folklornykh i molytvennykh tekstakh [Linguistic image of God's Mother in folklore and prayer texts]. In Babych, N., (Ed.). *Mahija slova dlia vsioho zhyvoho. Movno-Narodoznavchi `Studiji* (pp. 159-171). Chernivtsi: Bukrek.
- Bauer, L. (1983). *English Word-Formation*. Cambridge: Cambridge University Press.
- Belianin, V. (2001). *Vvedeniye v psikholingvistiku [Introduction into psycholinguistics]*. Moscow: CheRo.
- Butenko, N. (1979). *Slovyk asotsiatyvnykh norm ukrajinskoji movy [Dictionary of associative norms of the Ukrainian language]*. Lviv: Vyscha shkola.
- Butenko, N. (1989). *Slovyk asotsiatyvnykh oznachen imennykiv v ukrajinskiy movi [Dictionary of associative attributes of nouns in the Ukrainian language]*. Lviv: Vyscha Shkola.
- Chomsky, N. (2002). *Syntactic Structures*. Berlin; New York: Mouton de Gruyter. Retrieved from https://tallinzen.net/media/readings/chomsky_syntactic_structures.pdf
- Comrie, B. (2021). *Language and thought*. Linguistic Society of America. Retrieved from <https://www.linguisticsociety.org/resource/language-and-thought>
- Vojtovych, V. (2002). *Ukrainska mifolohija [Ukrainian mythology]*. Kyiv: Lybid.
- Vokalchuk, H. (2016). *Neolohija Tarasa Shevchenka: leksykohrafichna interpretatsija [Taras Shevchenko's neology: lexicographic interpretation]*. In *Terytorija movy Tarasa Shevchenka* (pp. 213-218). S. Yermolenko (red.). Kyiv: Vidavnychy dim Dmytra Buraho.
- Vokalchuk, H. (2008). *Slovtvorchist ukrajinskykh poetiv XX stolittia [Word formation of Ukrainian poets of the XX-th century]*. S. Yermolenko, (Ed.). Ostroh: Ostroh Academy.
- Vygotsky, L. (1996). *Myshlenije i rech' [Thinking and speech]*. Moscow: Labirint. Retrieved from https://pedlib.ru/Books/1/0162/1_0162-5.shtml#book_page_top
- Danylyuk, N. (2011). *Novotvory-okkazionalizmy v movi ukrajinskoji narodnoji pisni [Innovations-occasionalisms in the language of a Ukrainian folk song]*. *Leksiko-grammatischekije innovatsii v sovremennykh slavianskikh jazykakh: T. Pristajko* (Ed.). Book of Abstracts. Dnipropetrovsk: Nova Ideolohija. (90-93).
- Danylyuk, N. (2010). *Poetychne slovo v ukrajinskij narodnij pisni [A poetic word in the Ukrainian folk song]*. Lutsk: Volyn National University.
- Deese, J. (1990). *The Structure of Associations in Language and Thought*. Baltimore: The Johns Hopkins Press.
- Denysevych, O. (2011). *Vilny asotsiatyvny eksperyment jak zasib doslidzhennia osoblyvostej formuvannia movnoji kartyny svitu [A free associative experiment as a means of studying the peculiarities of the formation of the linguistic picture of the world]*. *Psycholinguistics*, 7, 92-97. Retrieved from http://nbuv.gov.ua/UJRN/psling_2011_7_15
- Goroshko, Ye. (2001). *Integrativnaja model svobodnogo eksperimenta [An integrative model of a free associative experiment]*. Kharkiv; Moscow: RA-Karavella.
- Entsyklopedychny slovyk symboliv kultury Ukrainy [Encyclopedic dictionary of symbols of Ukrainian culture]*. (2015). V. Kotsura, O. Potapenko, V. Kuibida (Eds.). Korsun-Shevchenkivsky: V. Havryshenko.
- Kerremans, D. (2015). *A Web of New Words. A Corpus-Based Study of the Conventionalization. Process of English Neologisms*. Frankfurt am Main: Peter Lang.
- Kutuza, N., Kovalevska, T. (2011). *Korotky asotsiatyvny slovyk reklamnykh slohaniv [A concise associative dictionary of advertising slogans]*. Odesa: Astroprint.

- Leontyev, A. (1969). *Jazyk, rech', rechevaja dejatel'nost'* [Language, speech, speech activity]. Moscow: Prosveshchenije.
- Levchenko, O. (2011). *Ukrainsko-rosijsko-bilorusko-bolharsko-polsky slovnyk porivnian'* [Ukrainian-Russian-Belarusian-Bulgarian-Polish dictionary of comparisons]. Lviv: Lvivska Politelhnika.
- Maksymchuk, V. (2009). *Slovotvorchist' poetiv Rivnenshchyny (psykholonhivistychny aspekt)* [Word formation of poets of Rivne region (a psycholinguistic aspect)]. *Naukovy Chasopys of National Pedagogical Drahomanov University*, 10(5). *Problemy Hramatyky i Leksykologiji Ukrajinskoji Movy*, 108-111.
- Martinek, S. (2007, 2008). *Ukrajinsky asotsiatyvny slovnyk* [Ukrainian associative dictionary]: In 2 vol. Vol. 1: *Vid stymulu do reaktsiji*. Lviv: Lviv University. Vol. 2. *Vid reaktsiji do stymulu*. L'viv: PAIS.
- Melnyk, I., Holoiukh, L., Kalishchuk, D., Levchuk, I. (2020). Verbal markers of the concept of peace: psycholinguistic and lexical analyses. *East European Journal of Psycholinguistics*, 7 (2), 214–230. <https://doi.org/10.29038/eejpl.2020.7.2.mel>
- Metcalf, A. (2002). *Predicting New Words: The Secrets of Their Success*. Boston: Houghton Miffling.
- Mojsijenko, A. (2006). *Slovo s apertseptsijnij systemi poetychnoho tekstu. Dekoduvannia Shevchenkovooho virsha* [The word in the apperception system of the poetic text. Decoding Shevchenko's poem]. Kyiv: Stal'.
- Potapenko, O., Dmytrenko, M., Potapenko, H. (1997). *Slovnyk symboliv* [Dictionary of symbols]. Kyiv: Narodoznavstvo.
- Potebnia, A. (1976). *Estetika i poetika* [Aesthetics and poetics]. Moscow: Iskusstvo. Retrieved from https://imwerden.de/pdf/potebnya_estetika_i_poetika_1976_ocr.pdf
- Rakosi, C. (2017). Replication of psycholinguistic experiments and the resolution of inconsistencies. *Journal of Psycholinguistic Research*, 46(5), 1249–1271. <https://doi.org/10.1007/s10936-017-9492-0>
- Rudenko, S., Ivasiuk O., Kostyshyn S., Shcherban', M. (2010). *Roslyny Sviatoho Pysma ta perspektyvy stvorennia biblijnoho sadu* [Plants of Scripture and the prospects of creating a biblical garden]. Chernivtsi: Bukrek.
- Shcherba, L. (1974). *Jazykovaja sistema i rechevaja dejatel'nost'* [Language system and speech activity]. Leningrad: Nauka; LO. Retrieved from http://elib.gnpbu.ru/text/scherba_yazykovaya-sistema--deyatelnost_1974/
- Terekhova, D. (2000). *Typologija verbalnykh asotsiatsij u vilnomu asotsiatyvnomu eksperymenti* [Typology of verbal associations in a free associative experiment]. *Naukovi zapysky RVTS KDPU im. V. Vynnychenka*. XXVI: *Filolohichni nauky. Movoznavstvo*, 236-246.
- Vivas, L., Manoiloff, L., García, A., Lizarralde, F., & Vivas, J. (2019). Core semantic links or lexical associations: assessing the nature of responses in word association tasks. *Journal of Psycholinguistic Research*, 48, 243–256. <https://doi.org/10.1007/s10936-018-9601-8>
- Zhaivoronok, V. (2006). *Znaky ukrajinskoji etnokultury* [Signs of Ukrainian ethnoculture]. Kyiv: Dovira.

Sources

- БГ4: *Словарь української мови /упоряд. Б. Грінченко: у 4 т. Т. 4. Київ: Вид-во АН УРСР, 1959.*
- ЖЕЛЕХ: *Желехівський Є., Недільський С. Малоруско-німецький словар: у 2 т. Львів, 1886.*
- СУМ, 4 : *Словник української мови: в 11 т. Т. 4. / І. К. Білодід (гол. ред.). Київ: Наукова думка, 1973.*
- СУМ, 8 : *Словник української мови: в 11 т. Т. 8 / І. К. Білодід (гол. ред.). Київ: Наукова думка, 1977.*

- ШЕВЧЕНКО-64, 2: Словник мови Шевченка: у 2 т. Т. 2. Київ: Наукова думка, 1964.
- ТШ1: Шевченко Т. Г. Повне зібрання творів: у 12 т. Т. 1. Поезії (1837–1847). Київ: Наукова думка, 1989.
- ТШ-10, 1: Шевченко Т. Повне зібрання творів: у 10 т. Т. 1. Поезії (1837–1847). Київ: Вид-во АН УРСР, 1951.
- ТШ-2016: Вокальчук Г. М. Словник лексичних новотворів Т. Шевченка. Територія мови Тараса Шевченка / за ред. С. Я. Єрмоленко. Київ: Видавничий дім Дмитра Бураго, 2016, 259-288.
- Sources (translated and transliterated)
- ВН4: Slovar' ukrainskoji movy [Dictionary of the Ukrainian language]. В. Hrinchenko (comp.). Vol. 4. Kyiv: Vyd-vo AN URSSR, 1959.
- ZHELEKH: Zhelekhivsky Ye., Nedilsky S. Malorusko-nimetsky slovar [Malorussian-German dictionary]. In 2 vol. L'viv, 1886.
- SUM, 4: Slovnyk ukrajinskoji movy [Dictionary of the Ukrainian language]. Vol. 4. I. K. Bilodid (ed. in chief). Kyiv: Naukova dumka, 1973.
- SUM, 8: Slovnyk ukrajinskoji movy [Dictionary of the Ukrainian language]. Vol. 8. I. K. Bilodid (ed. in chief). Kyiv: Naukova dumka, 1977.
- SHEVCHENKO-64, 2: Slovnyk movy Shevchenka [Dictionary of Shevchenko's language]. Vol. 2. Kyiv: Naukova dumka, 1964.
- TSH1: Shevchenko T. H. Povne zibrannia tvoriv [Complete collection of works]. Vol. 1. Poeziji (1837–1847). Kyiv: Naukova dumka, 1989.
- TSH-10,1: Shevchenko T. Povne zibrannia tvoriv [Complete collection of works]. Vol. 1. Poeziji (1837–1847). Kyiv: Vyd-vo AN URSSR, 1951.
- TSH-2016: Vokalchuk, H. Neolohija Tarasa Shevchenka: leksykohrafichna interpretatsija. [Taras Shevchenko's neology: lexicographic interpretation]. In: Terytorija movy Tarasa Shevchenka (pp. 213-218). S. Yermolenko (red.). Kyiv: Vidavnychy Dim Dmytra Buraho.

A Concept Analysis of Moral Injury in Ukrainian National Guard Service Members' Narratives: A Clinical Case Study

Larysa Zasiékina

 <https://orcid.org/0000-0001-8456-0774>

Scopus Author ID: [57215414977](#)

zasyekina.larisa@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Oleg Kokun

 <https://orcid.org/0000-0003-1793-8540>

Scopus Author ID: [57202812209](#)

kokun@ukr.net

Hryhorii Kostiuk Institute of Psychology, Ukraine

Mariia Kozihora

 <https://orcid.org/0000-0001-9597-952X>

Scopus Author ID: [57393644400](#)

kozihora.mariia@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Tetiana Fedotova

 <https://orcid.org/0000-0003-1975-9925>

Scopus Author ID: [57392888700](#)

fedotova.tetiana@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Olena Zhuravlova

 <https://orcid.org/0000-0002-4889-0239>

Scopus Author ID: [57221169362](#)

zhuravlova.olena@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Martha J. Bojko

 <https://orcid.org/0000-0002-0253-9419>

Scopus Author ID: [55757196700](#)

martha.bojko@gmail.com

Independent Global Health Research Anthropologist, USA

Received April 7, 2022; Revised May 8, 2022; Accepted May 31, 2022

Abstract. Moral injury is a relatively new construct which is strongly associated with PTSD but which also has distinctive features that may not overlap with PTSD. There is a growing body of literature that recognises moral injury as emotional distress and sufferings arising from a transgression of one's core moral principles or ethical beliefs and aligned with feelings of shame and guilt. A great number of moral injury research is represented by theoretical and qualitative studies vs biopsychosocial approach towards conceptualizing PTSD. However, a systematic understanding of how potentially moral injurious events contribute to moral injury symptoms is still lacking. Of particular concern is moral injury of military personnel exhibiting PTSD symptoms during and after wartime. This study utilizes the concept analysis model (Walker & Avant, 2011) to explore and assess the attributes, antecedents, consequences and empirical referents of moral injury in Ukrainian National Guard service members, who are protecting the northern Ukrainian border with Belarus and defending military objects during the 2022 full-scale invasion of Ukraine by Russian troops. The research uses narrative case studies collected from National Guard soldiers in Ukraine as part of our combatants' moral injury broader project. Initial results of this study indicate mechanisms of developing moral injury symptoms with comorbidity of depression, generalized anxiety, and PTSD in National Guard service members during wartime. The findings of the current study have important theoretical and practical implications in terms of better understanding the causal relations of moral injury and enhancing clinical practice and holistic treatment approach for National Guard soldiers.

Keywords: *National Guard service members, moral injury, concept analysis, narratives.*

Засєкіна Лариса, Кокун Олег, Козігора Марія, Федотова Тетяна, Журавльова Олена, Бойко Марта. Концептуальний аналіз моральної травми на основі наративів військовослужбовців Національної гвардії України: клінічний кейс-метод.

Анотація. Моральна травма є відносно новим конструктом, що тісно пов'язаний із ПТСР, але який водночас відрізняється від останнього за своєю природою і проявами. У сучасній психологічній літературі зростає кількість досліджень, які визначають моральну травму як емоційний дистрес і страждання, що виникають через порушення основних моральних принципів чи етичних переконань, і пов'язані з почуттям сорому та провини. Значна кількість досліджень моральної травми використовує змішаний дизайн та представлена теоретичними й якісними методами на протипагу біопсихосоціальному підходу, який переважає у вивченні ПТСР. Однак у літературі досі існує прогалина в систематичному розумінні того, як потенційно морально травмуючі ситуації спричиняють виникнення симптомів моральної травми. На особливу увагу заслуговують прояви моральної травми у військовослужбовців із симптомами ПТСР під час та після війни. У цьому дослідженні використовується модель концептуального аналізу (Walker & Avant, 2011) для вивчення та оцінки атрибутів, передумов, наслідків та емпіричних референтів моральної травми військовослужбовців Національної гвардії України, які захищають північний кордон України з Білоруссю та військові об'єкти під час повномасштабного вторгнення російських військ в Україну у 2022 році. У дослідженні використовуються наративи військовослужбовців Національної гвардії України в межах виконання комплексного проекту з дослідження моральної травми військових. Результати цього дослідження відображають механізми розвитку симптомів моральної травми з коморбідністю депресії, генералізованої тривоги та ПТСР у військовослужбовців Нацгвардії у воєнний час. Результати дослідження мають важливе теоретичне та практичне значення для розуміння передумов і наслідків виникнення моральної травми та покращення клінічної практики й ефективних психологічних інтервенцій для військовослужбовців Національної гвардії.

Ключові слова: *військовослужбовці Національної гвардії, моральна травма, концептуальний аналіз, наративи.*

Introduction

The last decade has been marked by a rapidly increasing interest of researchers, mental health professionals and policy makers in the concept of ‘moral injury’ (MI), a complex phenomenon characterized by spiritual, psychological and moral distress (Ames et al. 2021; Okulate et al. 2021; Molendijk, 2022). MI is one of the major recognized concerns among military personnel (Farnsworth et al., 2014; Terpou et al., 2022) due to the fact that MI itself can be considered as a mechanism that may lead to poor mental health and substance use outcomes among military personnel (Battles et al., 2018; Eikenaar, 2022; Jinkerson, 2016). In recent years, the MI concept has become a common term to describe the lasting impact of moral transgressions among frontline workers including service members, police officers, healthcare workers and humanitarian aid professionals (Eikenaar, 2022; Molendijk, 2022).

MI is the result of an internal conflict that stems from exposure to morally injurious experiences (MIEs; Frankfurt & Frazier, 2016; Litz et al., 2009). MIEs, in turn, are events that may run counter to an individual’s moral belief system (e.g., beliefs about right and wrong as well as personal goodness) or that are counter to military and professional training or rules of engagement (Battles et al., 2018). According to the large-scale systematic analysis performed by Richardson et al. (2020), MIEs have routinely been described as “perpetrating, failing to prevent and bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations” (Litz et al. 2009, p.697). The term ‘potentially morally injurious events’ (PMIEs) defined by Williamson et al. (2021) as experiences that violate one’s moral or ethical code is also used as a meaningful equivalent to MIE.

Combatants are considered the most vulnerable category among all professions and military personnel in terms of displaying MI mainly because modern warfare and guerrilla combat within a civilian setting often expose combatants to severe moral and ethical challenges (Eikenaar, 2022; Levi-Belz et al., 2020). Combatants’ PMIEs/MIEs have been classified into seven categories: 1) immoral acts, 2) death and injury, 3) betrayal, 4) ethical dilemmas, 5) disproportionate violence, 6) retribution and 7) religious/spiritual issues (Hodgson et al. 2021). A diverse set of research studies have identified types of PMIEs/MIEs including:

- experiencing events that are incongruent with beliefs about the rules of military engagement (Battles et al., 2018; Drescher et al., 2011);
- performing acts that would be illegal or violate typical rules of engagement in most other contexts, such as intentionally killing combatants or innocents (Braitman et al., 2018; Drescher et al., 2011; Koenig et al., 2019; Terpou et al., 2022);
- witnessing the death or injury of civilians, dismembered bodies, maltreatment of others, failing to prevent injury or death to others, engaging in friendly fire, deserting comrades during battle, inability to protect innocents or prevent the death of fellow soldiers, observing war-

related destruction (Battles et al., 2018; Koenig et al., 2019; Litz et al., 2009);

- witnessing situations in which a medic cannot attend to everyone who has been harmed, or in which someone freezes or fails to perform an active duty in a hostile setting (Terpou et al., 2022);
- the need to make a difficult moral choice, for instance, between the wellbeing of civilians and mission objectives, or have to execute orders that run counter to one's own moral beliefs (Eikenaar, 2022; Litz et al., 2009).

While not all traumatic events result in MI (Terpou et al. 2022) an exposure to PMIEs/MIEs is considered a necessary determinant of MI, but is insufficient on its own to result in MI (Zerach & Levi-Belz, 2022).

The prevalence of reported PMIEs/MIEs among military personnel studied in the United States and Canada ranges from 11% of US combatants reporting engagement in morally transgressive events, 26% indicating betrayals, and 26% experiencing moral transgressions committed by others (Wisico et al. 2017) to 24% of US Marines engaging in at least one morally transgressive act and 28% experienced a betrayal event during deployment (Jordan et al. 2017). In a study performed by Hansen et al. (2021) over 65% of Canadian Armed Forces members reported experiencing at least one PMIE with the most commonly reported PMIEs being: seeing ill or injured women and children whom combatants were unable to help (48.4%), being unable to distinguish between combatants and non-combatants (43.6%), and finding themselves in a threatening situation where they were unable to respond due to the rules of engagement under which they were required to operate (35.4%). One explanation for this wide discrepancy in results is that deployments can differ significantly in the terms of their goals, conditions and intensity of hostilities. Based on an analysis of a representative number of studies among veterans in various militaries around the globe, Levi-Belz et al. (2020) found that approximately 20–30% of veterans had experienced PMIEs.

Military personnel's involvement in PMIEs/MIEs naturally finds its reflection in a whole series of negative, first of all, emotional manifestations. Such manifestations include guilt, shame, grief/sorrow, and the inability to forgive one's self and others (Currier et al., 2019; Frankfurt & Frazier, 2016; Griffin et al., 2019; Held et al., 2019; Jinkerson, 2016; Sherman, 2014). At the same time, guilt and shame are considered as critical core symptoms, since they play a significant role in the development of secondary symptoms (Battles et al., 2018). MI of military personnel can lead to many persistent negative personal and social-personal consequences, as well as negative mental health consequences such as an increased risk of post-traumatic stress disorder (PTSD) and depression, hazardous alcohol use and substance abuse, suicidal ideation, social withdrawal, loss of trust in self and others, spiritual/existential crisis, moral confusion and disorientation (Battles et al., 2018; Currier et al., 2019; Frankfurt & Frazier, 2016; Houle et al., 2020; Koenig et al., 2019; Maguen et al., 2010; Nichter et al., 2021; Protopopescu et al., 2021; Williamson et al., 2021).

In assessing MI negative consequences, many researchers consider that while MI is strongly associated with PTSD, MI is a separate concept from PTSD (Eikenaar, 2022; Koenig et al., 2019; Molendijk, 2022). In particular, it is emphasized that all PTSD models are only focused on direct exposure to life-threatening situations and fear responses, and consequently do not pay attention to MI and moral emotions such as guilt, shame and anger (Molendijk, 2022).

A number of research studies found significant or strong relations between PMIEs/MIEs and PTSD symptoms in military personnel (Bryan et al. 2018; Currier et al. 2019, Jordan et al. 2017; Kinney et al. 2022; Koenig et al. 2020; Nillni et al. 2020). Many studies also found that the direction of the relation between MI and PTSD is that MI *can lead* to the development of PTSD symptoms or intensify PTSD manifestations (Currier et al., 2019; Okulate et al. 2021; Terpou et al., 2022; Williamson et al., 2021).

In recent years, one area of particular interest and promising direction in the study of combatants' MI is to conduct research on MI among different categories of military personnel with the understanding that each of the separate military branches has its own specifics and perform different tasks when participating in combat operations. An example of such a separate category is the National Guard. A small set of recent studies have specifically reported on MI among US National Guard members including Bryan et al. (2018) who examined similarities and differences in the signs and symptoms of PTSD and MI and determined if the combination of these 2 constructs was associated with increased risk for suicidal thoughts and behaviours. Martin et al. (2017) examined how deployment-related MI interacted with interpersonal factors to predict suicide risk. Houtsma et al. (2017) examined the moderating role of post-deployment social support on the association between MI (self-transgressions, other-transgressions, and betrayal) and thwarted belongingness. In Ukraine, Prykhodko et al. (2019, 2020) examined the types and secondary factor structure of the coping strategies of Ukrainian National Guard (UNG) members and found that their combat experience and the dynamics of their adaptation resources and psychological safety of their personality were different than combatants serving in other armed forces units.

In light of the potential negative MI consequences, the topic of MI and PMIE/MIE among Ukrainian military members, especially UNG is a topic of utmost importance. Since 2014, Ukraine has been at war with the Russian Federation when Russia illegally annexed Ukraine's Crimea peninsula and started an armed conflict in the eastern Donbas region of Ukraine. In February 2022, Russia attacked other Ukrainian cities and expanded the war to all of Ukraine. As a result, UNG members have been called into active duty and are at-risk for PMIE/MIEs and MI consequences.

The UNG is a part of Ukraine's Ministry of Internal Affairs, responsible for public security. The mission of the UNG is to ensure state security, protect the state borders, participate in activities to neutralize paramilitary armed groups, terrorist organizations, organized groups and criminal organizations, protect and guard critical

infrastructure such as Ukraine's nuclear power plants, as well as provide security for diplomatic missions, public authorities and buildings of the Ministry of Internal Affairs. Many UNG members have been relocated to the Volyn and Rivne regions in northwestern Ukraine and are stationed along the Ukrainian northern border with Belarus. At the end of May 2022, Ukraine's National Guard reported that at least 560 of its members were killed and additional 1,697 troops had been wounded since the invasion began on February 24, 2022.

This exploratory mixed methods research study was initiated as part of the project "Moral Injury and Healing of Combatants: Neuropsychological Correlates and Psychological Interventions" organized by the Ukrainian Ministry of Education & Sciences. Psychosocial support and health services are being provided to UNG members by the Ukrainian Psychotrauma Center in Lutsk, Ukraine which has provided clinicians and researchers in Ukraine the opportunity to gain an in-depth understanding of MI among UNG members and develop approaches to help mitigate MI consequences. The following set of research questions were formulated to aid in the project implementation and assessment of MI among UNG service members:

RQ1. Are there any differences in MI and PTSD with regard to gender, marital status, having children, or previous family psychotrauma?

RQ2. What are the core beliefs of MI in UNG service members during wartime in Ukraine?

RQ3. Are there any associations of MI and other emotional distress in UNG service members?

RQ4. What is the conceptual structure of MI, represented by PMIEs, in relation to critical attributes, antecedents, consequences and empirical referents in UNG service members.

Method

In designing this research study, it was decided to use a set of validated MI and PTSD screening instruments, as well as ask an open-ended question to give participants the opportunity to provide a brief narrative about their current experiences serving in the UNG during active combat. Research on MI in combatants conducted by Held, et al. (2019) and Hodgson et al. (2021) has shown that using narrative thematic analysis provides a unique perspective on their MI assessment. To examine the possible effect of previous family psychotrauma on MI, a question was included which asked: "Did you have any psychotrauma in your family history?" with a brief description of possible family history psychotraumata. This was done to assess whether there was any historical collective psychotrauma experiences (i.e. Holodomor, Holocaust, forced labor and deportations to Siberia and Soviet gulags) present in the participant's family history that may be a mitigating or contributing factor for MI and/or PTSD consequences. Yehuda et al. (1998) demonstrate an

increased vulnerability to PTSD among offspring of Holocaust survivors and identify offspring as a vulnerable group for PTSD.

The research aims were explained to all participants and they received participant information sheets and provided written consent. Participants were asked to complete a set of questionnaires described below that assessed MI, PTSD and anxiety and depression in UNG members. These survey instruments were part of their screening during the intervention program of psychosocial support for combatants and their families at the Ukrainian Psychotrauma Center.

Moral Injury Symptoms Scale (MISS-M-SF) assesses betrayal, guilt, shame, moral concerns, loss of trust, loss of meaning, difficulty forgiving, self-condemnation, religious struggle, and loss of religious/spiritual faith. Cronbach's alpha was 0.73 (95% CI 0.69–0.76), and test–retest reliability was 0.87 (Koenig et al., 2018). The Ukrainian version of MISS-M-SF scale demonstrate solid psychometric properties (Zasiékina & Kozihora, 2022). Reliability was assessed through the internal consistency using Cronbach's $\alpha = .70$ ($n = 111$), and the test–retest reliability in 8 days, $r = .67$, $p \leq .01$ ($n = 32$). The study assesses discriminant validity of MISS-M-SF through association with PCL-5, which is $r = .36$ and MISS-M-SF through association with GAD-7, which is $r = .37$, $p \leq .05$. Convergent validity is expressed by the correlation of MISS-M-SF and other measures of emotional distress, namely PQH ($r = .53$, $p \leq .01$).

The PTSD Checklist for DSM-5 (PCL-5) is a 20-item self-report measure to assess PTSD symptoms experienced during the last month in accordance with DSM-5 criteria (Weathers et al., 2013). UNG service members were instructed to complete the PCL-5 considering the most stressful life event in their military experience. Items were rated on a 5-point scale, ranging from 0 = Not at all to 4 = Extremely, and summed for a total symptom severity score. Internal consistency of PCL-5 is $\alpha = .97$. DSM-5 symptom cluster severity scores can be obtained by summing the scores for the items within a given cluster, i.e., cluster B (re-experience, items 1-5), cluster C (avoidance, items 6-7), cluster D (negative cognitions and mood, items 8-14), and cluster E (arousal, items 15-20).

The 9-item Patient Health Questionnaire (PHQ-9) and *7-item Generalized Anxiety Disorder (GAD-7)* were used to measure depressive symptoms and anxiety symptoms, respectively. These two instruments are short screening measures often utilized to assess comorbidities of MI. Each item on these measures is rated on 4-point Likert scale (from 0 to 3) indicating how often each symptom has occurred within the past 2 weeks. Total scores range from 0 to 54 for PHQ-9 and 0–42 for GAD-7, with higher scores indicating more severe symptoms. PHQ-9 demonstrates strong internal consistency using Cronbach's $\alpha = .70$ and test-retest reliability is 0,83 (Kroenke et al., 2001). Internal consistency of GAD is 0,92 (Spitzer et al., 2006).

After completing the questionnaires, the participants were asked to write a narrative (200-300 words) focused on “My experience of the Russia-Ukraine War 2022.” The participants' narratives were then separated into categories based on the participant's score on the PTSD screening instruments. To determine probable mental

health disorders, a score of 34 or more on the PTSD checklist for DSM-5 (PCL-5) was used to assess probable PTSD with moral sufferings. Evidence consistently suggests that a cut off score of 34 is optimal for identifying likely PTSD in treatment seeking veterans (Murphy et al., 2017). As a result, we selected 22 from the 91 narratives (24.18%) which were written by participants scoring in the probable PTSD and MI range for further analysis.

To explore the mechanisms of developing MI after experiencing traumatic events, the study applied the concept analysis model introduced by Walker and Avant (2011) to the narratives. A concept analysis aims to reduce ambiguities about concepts and to enhance understanding of the MI construct. Walker and Avant's (2011) approach structured our research and determined the following stages (a) define the expression of MI in UNG service members' narratives "My experience of the Russia-Ukraine war 2022"; (b) identify PMIEs, critical attributions, antecedents and consequences; (c) explore empirical referents of UNG service members. We have chosen a case example to describe developing MI during wartime.

The study applied the cross sectional, between-subjects design utilizing the independent variables of PCL-5, GAD-7 and PHQ-9 and dependent variable of MISS-M-SF for multiple regression analysis. The data were analyzed using SPSS v.24.0 (IBM Corp. Released 2016).

The study was reviewed and approved by the Research Ethics Committee (#03-24/04/1070) at Lesya Ukrainka Volyn National University, Ukraine.

Results

A total of 91 participants of UNG soldiers who are protecting the northern Ukrainian border with Belarus and defending military objects during the 2022 full-scale invasion of Russian troops were recruited into the study by staff of the Ukrainian Psychotrauma Center in Lutsk, Ukraine, where they participated in the in-person group-intervention program of psychosocial support for combatants and their families. The program of psychosocial support was based on Spiritually Oriented Cognitive Processing Therapy for MI, suggested by Koenig et al. (2017). The UNG members participated on a voluntary basis in the weekly program that took place every Saturday during April-May, 2022. The program of psychosocial support covered eight topics related to MI (Introduction to MI; Meaning of the Event; Values and Meaningful Life; Forgiveness and Trust; Compassion, Fatigue and Satisfaction; Trauma and Resilience; Self-worthiness and Significant Others; Post-Traumatic Growth), and included psychoeducation, open discussions and group exercises. To consider heterogeneity of population, we applied a maximum variation sampling strategy to recruit UNG members into the research study, based on age, gender, marital status, nationality, their particular combat oblast, and their experience of previous family psychotrauma. Participant demographic data is presented in Table 1.

Table 1
Demographic Data for the UNG Service Members (n=91)

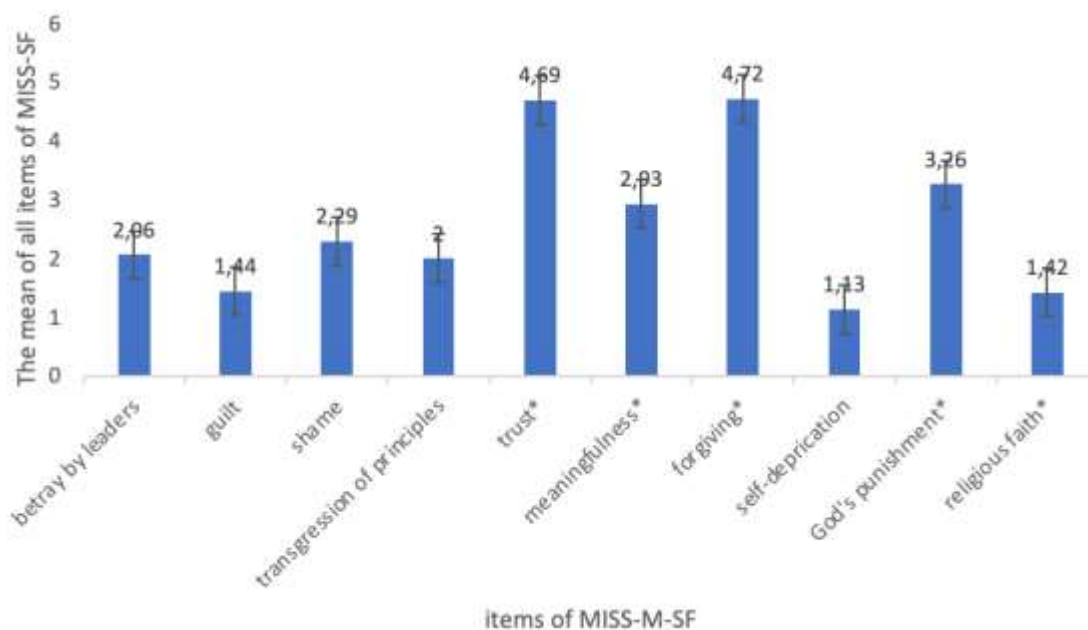
| | Participants | |
|-------------------------------------|--------------|------------|
| | Frequency | Percentage |
| Age | Mean (SD) | Min-Max |
| | 30.95 (7.70) | 18-56 |
| Gender | | |
| Female/male | 29/62 | 31.9/68.1 |
| Nationality | ukr. | 100 |
| Marital status | | |
| Single | 41 | 45.1 |
| Married | 50 | 54.9 |
| Children | | |
| Having children | 49 | 53.8 |
| Without children | 42 | 4.2 |
| Oblast of military service | | |
| Rivnenska | 87 | 95.60 |
| Volynska | 4 | 4.40 |
| Previous Family Psychotrauma | | |
| Yes | 8 | 8.8 |
| No | 83 | 91.2 |

An independent-samples t-test was conducted to compare MISS-M-SF and PCL-5 for gender, having children / no children, and having previous family psychotrauma/ no previous family psychotrauma conditions. There was a significant difference only in the scores for PCL-5 in females ($M=13.69$, $SD=8.53$) and males ($M=4.66$, $SD=2.50$) conditions; $t(89) = 6.07$, $p = .01$. These results suggest that gender does have an effect on the probability of developing PTSD. Specifically, our results suggest females were found to be significantly more prone to developing PTSD. Interestingly, there was not a significant difference in the score of MI and PTSD for other conditions.

Considering a reverse scoring of the items trust, meaningfulness, forgiving, God's punishment and religious faith, Figure 1 below shows that weakening religious faith and loss of meaningfulness are mostly expressed in UNG service members. Therefore, MI is aligned with items that "*I have no sense of what makes my life meaningful*" and "*Compared to when I first went into the military my religious faith since then weakened a lot*". Analyzing items with direct scoring, the highest scores are aligned with loss of trust. We can presume that MI in UNG service members relates to the core beliefs: "*Most people are untrustworthy*" and "*I cannot trust people*". One unanticipated finding was that feelings of guilt and shame are not highly expressed in UNG service members. The possible explanation is that they have not been involved in active frontline hostilities but instead are exposed to the potentially life-threatening situations (Griffin et al., 2019; Litz et al., 2009). The same explanation refers also to the fact that Mean of MISS-M-SF in our sample is not very high $M=25.94$ ($SD=9.29$) within total scoring of MISS-M-SF between 10-100.

Figure 1

The Mean of All Items of MISS-SF in UNG Service Members (n=91)



Multiple regression analysis was used to predict the value of continuous variable MISS-M-SF based on other independent continuous variables, namely PCL-5, PHQ-9 and GAD-7. The assumptions of linear relationship, homoscedasticity, independence of residuals (Durbin Watson $d=1.78$), multicollinearity (average Tolerance= $0.97 > 0.1$, and average VIF= 4.88 , thus $1 < VIF < 10$) were met. Finally, the size of the sample is above number required by Central Limit Theorem ($n=91 > 30$), therefore the assumptions regarding normal distribution of data is also met.

The results of the regression with a forced enter method show that three variables (PCL-5, PHQ-9 and GAD-7) explained 10.3 % of MISS-M-SF in UNG service members, $F(3, 86) = 3.28, p=0.025$. The results also show that PCL significantly predicts MISS-M-SF, $b = .40, 95\% \text{ CI } [.03; .78], t(91) = 2.003, p=.048$, while the PHQ-9, $b = .50, 95\% \text{ CI } [-1.06; 2.16], t(91) = 0.675, p=.501$, and GAD-7, $b = .55, 95\% \text{ CI } [-1.98; .98], t(91) = .680, p=.498$, do not significantly predict the MISS-M-SF in UNG service members (see Table 2).

Table 2

Summary of multiple regression analyses for variables predicting MISS-M-SF for all subjects of UNG (n = 91)

| Variables | B | SEB | β | t | p |
|-----------|-----|-----|---------|-------|-------|
| PCL | .40 | .02 | .33 | 2.003 | .048* |
| PHQ | .50 | .74 | 17.6 | 0.675 | .501 |
| GAD | .55 | .81 | .16 | .680 | .498 |

Note: * $p < .05$

Table 2 indicates that there is an association of MISS-M-SF with all variables, namely PCL-5, PHQ-9 and GAD-7. However, only PCL-5 is a significant independent predictor of MISS-M-SF.

The results of our research show that there is a significant correlation between MISS-M-SF and clusters B and D in PCL-5, while correlation between MISS-M-SF and clusters C and E are not significant (Table 3).

Table 3

Correlations (2-tailed Pearson r) between MISS-M-SF, Clusters B, C, D, E from PCL-5 (n = 91)

| Variables | MISS-M-SF | Cluster B | Cluster C | Cluster D | Cluster E |
|-----------|-----------|-----------|-----------|-----------|-----------|
| MISS-M-SF | - | .37** | .15 | .24* | .18 |
| Cluster B | .37** | - | .57** | .54** | .52** |
| Cluster C | .15 | .57** | - | .24* | .34** |
| Cluster D | .24* | .54** | .24* | - | .47** |
| Cluster E | .18 | .52** | .34** | .47** | - |

Note. *p < .05, **p < .01

Narrative Case Example and Concept Analysis

Natalia is 29 years old, single, has no children, lives and works in Rivnenskyia oblast, has no experience of previous family psychotrauma, PCL=34 (Cluster B=13, Cluster C = 4, Cluster D = 10; Cluster D =7), PHQ-9=7 (Mild), GAD-7=6 (Moderate), MISS-M-SF=49.

I worried of my friends who are in the frontline defending our Eastern borders. They have a lot of life-threatening situations every moment, and when I did not have a contact with them for some time it makes me crazy. I am suffering that I cannot help. I can only express words of support. I know that these words are very important. But I also have a feeling that it is practically nothing. I know that I should have helped more but I cannot find a way how to do it. I feel helplessness. I would like them to know that their relatives, friends, neighbours are waiting for them and wishing them to stay strong. They have to remember that they are fighting for their loved others, families and Ukraine. My mental state is unbalanced, since I am disappointed with people whom I trusted. The war disclosed the internal world of the people whom I trusted. I have never thought that they could have betrayed me. Now I have to learn this lesson and understand that the world and people are untrustworthy. I should also learn how to live with this new rule. Now I am reconsidering my attitudes to other people and relations in general.

This case demonstrates that MI relates to feelings of guilt, since Natalia suffers that she cannot help her colleagues who are exposed to continuous threat. She implies that everything she could do is not enough. This feeling corresponds to item 2 in MISS-M-SF “*I feel guilt over failing to save the life of someone in war*”. Interesting, that her guilt is strengthened by feeling of helplessness. In addition, she has lost trust

in other people, which is directly connected with reverse-scoring item 5 “*Most people are trustworthy*”. Natalia’s sufferings are triggered by no responses from her friends who are in the frontline of the war. Another trigger is her exposure to situations of betrayal, when she understands that most people are untrustworthy. Therefore, we can presume that PMIEs in this case are represented by situations of betrayal or losing contacts with other combatants who are highly involved in active frontline hostilities.

Critical attributes are most frequent characteristics that are present every time the concept occurs (Walker & Avant 2011). Natalia’s case demonstrates that the continuous life-threatening situations for her colleagues is a permanent characteristic for her feelings of guilt and an act of betrayal as a characteristic for growing mistrust.

Antecedents are events that occur before the developing MI (Walker & Avant 2011), and represent individual and collective dimensions. The case illustrates collective antecedents of high-threatening situations during wartime, and individual antecedent of Natalya’s personal experience of developing mistrust towards others. These antecedents are aligned with consequences of developing behavioural patterns of emotional over-involvement, because supportive behaviour is nothing, in her opinion, in these situations. Another consequence is changing her attitudes and relationships with significant others and deepening relational conflicts.

Empirical referents are tools that can be used to aid the measurement and acknowledge a concept of MI (Jamieson et al., 2020). Natalia’s case illustrates that MISS-M-SF is reliable measure for assessing MI. Natalia’s cognitions and feelings correspond to two items in MISS-M-SF. We can also presume that measures for assessing betrayal and guilt during wartime are important tools to capture empirical content of MI. In addition, tools for disclosing helplessness could throw light on developing feeling of guilt complicated with helplessness.

The results of concept analysis and defining PMIEs, attributes, antecedents, consequences and empirical referents for MI are illustrated in the Table 4.

Table 4
Concept analysis of MI in case study

| Components of the concept model | Content |
|---------------------------------|--|
| PMIEs | Situations of (a) betrayal, (b) losing contacts with other combatants who are at the high risk |
| Critical attributes | (a) continuous life-threatening situations for her colleagues; (b) act of betrayal |
| Antecedents | Individual: losing trust to others; collective: high-threatening situations during wartime |
| Consequences | Emotional over-involvement, relational conflicts |
| Empirical referents | MISS-M-SF, measures for assessing betrayal, guilt, and helplessness during wartime |

Discussion

The first question in this study sought to determine the differences in MI and PTSD considering gender, marital status, previous family psychotrauma, having children. The results indicate that there was a significant difference only in the scores for PCL-5 for women which is in line with recent studies indicating that the overall high prevalence of PTSD higher among women than in men (Ainamani et al., 2020). It is aligned with high vulnerability of women, who may be more exposed to sexual assault and rape, and may exhibit increased worries about their children and feelings of helplessness. Therefore, trauma-focused psychological intervention during and post-war period should consider the context of gender.

This study did not find any significant differences in MI according to demographic characteristics. A possible explanation for this might be that the subjects of our sample did not suffer severe forms of MI. The recent findings suggest that women more frequently reported witnessing- and betrayal-based PMIEs, but no gender differences were observed for perpetration-based PMIEs (Maguen et al., 2020). Further research examining the effects of gender combined with a more detailed elicitation and assessment of previous family and individual psychotraumata and marital/relationship status is needed.

With respect to the second research question, it was found that the key core beliefs of UNG service members relate to rules “*I have no sense of what makes my life meaningful*”, “*My religious faith has weakened a lot*”, “*Most people are untrustworthy*” and “*I cannot trust people*”. It is in line with recent studies revealing that the core beliefs in MI express loss of trust towards others, self-worthless, increased responsibility, and blaming oneself, while PTSD was defined by threat of harm and forgiveness of the situation (Boska & Capron, 2021). This finding is also consistent with that of Koenig et al. (2017) who demonstrated religiosity and spirituality as protective factors for developing MI and robust predictor for MI healing.

The third question in this research was to examine any associations of MI and other emotional distress in UNG service members. Our findings suggest that there is an association of MISS-M-SF with PCL-5, PHQ-9 and GAD-7. However, only PCL-5 is a significant independent predictor of MISS-M-SF. It is in line with recent findings reporting significant or strong relations between MI events and PTSD symptoms (Aldridge et al., 2019; Bryan et al., 2018; Currier et al., 2018, 2019, 2020, 2021; Zerach & Levi-Belz, 2018).

However, we can presume that since PTSD is a multi-factored disorder, it is a much broader concept than moral sufferings per se. The recent findings show that PMIEs are less likely to cause PTSD in military personnel than immediate combat stressors, and the likelihood of meeting criteria for probable PTSD was the greatest in those who had experienced a non-morally injurious events (Williamson et al., 2021).

The results of our research also show that there is a significant correlation between MISS-M-SF and clusters B and D in PCL-5, while correlation between

MISS-M-SF and clusters C and E is not significant. Our findings are partially in agreement with Koenig et al. (2020) which showed that total MISS-M-SF scores in US active duty military and veterans were more strongly associated with PTSD symptoms of D cluster (negative cognitions and mood) in both bivariate and multivariate analyses. The results of our research also show the significant correlation of MISS-M-SF with D cluster in PCL-5. However, the strongest correlation is between MISS-SF and B Cluster (re-experiencing) in PCL-5. Therefore, we can presume that the re-experience of traumatic situations by UNG service members relate to recollecting specifically PMIEs.

With respect to the fourth research question, the study applies case study to explore the developing MI after experiencing traumatic event. The findings of PMIEs, critical attributes, antecedents, consequences and empirical referents broadly support the work of other studies in this area linking concept model with MI (Jamieson et al., 2020). In accordance with the present results, previous studies have demonstrated that acts of betrayal, specific cognitions and emotions, losing trust, life-threatening situations represent concept model of MI. However, in this study, specific core beliefs were found to cause MI after experiencing traumatic event and specific behavioural patterns of emotional over-involvement and relational conflicts are outlined. In addition, evidence consistently suggest that helplessness could be comorbidity for feeling of guilt. The most important clinically relevant finding was that specific PMIEs, critical attributes, antecedents, consequences and empirical referents should be taken to consider MI-focused interventions.

Conclusion

By comparing all the indicators obtained in the study according to such characteristics as gender, marital status, previous family psychotrauma and having children, we revealed only minor differences in UNG service members (the scores for PCL-5 were significantly higher in women compared to men). At the same time, no differences were found according to MI indicators. We also determined that the core beliefs of UNG service members with MI were characterized by loss of trust towards others, self-worthlessness, increased responsibility and blaming oneself. PCL-5 indicator was the only significant independent predictor of MISS-M-SF.

The use of narratives and a concept analysis framework employed in our study shows promise for future research. Thanks to this approach, the presented case study revealed that specific core beliefs produced MI after experiencing a traumatic event and specific behavioral patterns of emotional over-involvement and relational conflicts were also outlined. The most important conclusion was that specific PMIEs, critical attributes, antecedents, consequences and empirical referents should be taken into account to consider MI-focused interventions. While only one narrative case example was presented, the narrative dataset is substantial and a more systematic concept analysis review is being conducted that may reveal and expand on additional core MI beliefs.

Our findings provide an opportunity to create a scientifically based system of measures aimed at preventing MI and other negative mental states in UNG service members, as well as increasing the effectiveness of psychological support for this category of service members. The study is also unique in that it asked participants to reflect on historical collective family psychotrauma as a possible contributing factor to MI and/or PTSD. While results were not significant in this project, we believe it is an important component to consider in the study of MI and PTSD and in the design of psychosocial interventions for military personnel.

These findings may be somewhat limited by the sample of UNG service members, who are not in the frontline of the war and may not demonstrate severe forms of MI. However, they are under continuous stress because of the high risk of invasion from Belarus. Further studies, which take empirical referents of MI concept model into account, will need to be undertaken with members who serve in other Ukrainian armed forces units as well as the newly formed territorial defense units made up primarily of civilians. This is an important issue for future research of mental health in UNG service members after wartime.

Acknowledgements

This research was financially supported by the Ministry of Education and Science of Ukraine within the project “Moral Injury and Healing of Combatants: Neuropsychological Correlates and Psychological Interventions” (2022-2023), 0122U000945. We would also like to acknowledge and thank the Ukrainian National Guard participants for their time and willingness to share their experiences with the research team.

References

- Ainamani, H. E., Elbert, T., Olema, D. K., & Hecker, T. (2020). Gender differences in response to war-related trauma and posttraumatic stress disorder—A study among the Congolese refugees in Uganda. *BMC Psychiatry*, 20(1), 1-9. :17 <https://doi.org/10.1186/s12888-019-2420-0>
- Ames, D., Erickson, Z., Geise, C., Tiwari, S., Sakhno, S., Sones, A. C., Tyrrell, C. G., Mackay, C., Steele, C. W., Van Hoof, T., Weinreich, H., & Koenig, H. G. (2021). Treatment of moral injury in U.S. veterans with PTSD using a structured chaplain intervention. *Journal of Religion and Health*, 60(5), 3052-3060. <https://doi.org/10.1007/s10943-021-01312-8>
- Aldridge, V., Scott, H., & Paskell, R. (2019). Investigating the relationship between guilt and shame proneness and moral injury in veterans that have experienced active deployment. *Military Behavioral Health*, 7(1), 83-91. <https://doi.org/10.1080/21635781.2019.1580641>
- Battles, A. R., Bravo, A. J., Kelley, M. L., White, T. D., Braitman, A. L., & Hamrick, H. C. (2018). Moral injury and PTSD as mediators of the associations between morally injurious experiences and mental health and substance use. *Traumatology*, 24(4), 246-254. <https://doi.org/10.1037/trm0000153>
- Boska, R. L., & Capron, D. W. (2021). Exploring the maladaptive cognitions of moral injury within a primarily combat-trauma military sample. *Psychological Trauma: Theory, Research, Practice, and Policy*, 13 (8), 861-868. <https://doi.org/10.1037/tra0001071>

- Braitman, A. L., Battles, A. R., Kelley, M. L., Hamrick, H. C., Cramer, R. J., Ehlke, S., & Bravo, A. J. (2018). Psychometric properties of a Modified Moral Injury Questionnaire in a military population. *Traumatology*, 24(4), 301. <https://doi.org/10.1037/trm0000158>
- Bryan, C. J., Bryan, A. O., Roberge, E., Leifker, F. R., & Rozek, D. C. (2018). Moral injury, posttraumatic stress disorder, and suicidal behavior among National Guard personnel. *Psychological Trauma: Theory, Research, Practice, and Policy*, 10(1), 36-45. <https://doi.org/10.1037/tra0000290>
- Currier, J. M., Farnsworth, J. K., Drescher, K. D., McDermott, R. C., Sims, B. M., & Albright, D. L. (2018). Development and evaluation of the Expressions of Moral Injury Scale–Military Version. *Clinical Psychology & Psychotherapy*, 25(3), 474-488. <https://doi.org/10.1002/cpp.2170>
- Currier, J. M., McDermott, R. C., Farnsworth, J. K., & Borges, L. M. (2019). Temporal associations between moral injury and posttraumatic stress disorder symptom clusters in military veterans. *Journal of Traumatic Stress*, 32(3), 382-392. <https://doi.org/10.1002/jts.22367>
- Currier, J. M., Isaak, S. L., & McDermott, R. C. (2020). Validation of the Expressions of Moral Injury Scale–Military version–short form. *Clinical Psychology & Psychotherapy*, 27(1), 61-68. <https://doi.org/10.1002/cpp.2407>
- Currier, J. M., Foster, J. D., Karatzias, T., & Murphy, D. (2021). Moral injury and ICD-11 complex PTSD (CPTSD) symptoms among treatment-seeking veterans in the United Kingdom. *Psychological Trauma: Theory, Research, Practice, and Policy*, 13(4), 417. <https://doi.org/10.1037/tra0000921>
- Drescher, K. D., Foy, D. W., Kelly, C., Leshner, A., Schutz, K., & Litz, B. (2011). An explanation of the viability and usefulness of the construct of moral injury in war veterans. *Traumatology*, 17(1), 8-13. <https://doi.org/10.1177/1534765610395615>
- Eikenaar T. (2022). Relating to moral injuries: Dutch mental health practitioners on moral injury among military and police workers. *Social Science & Medicine*, 298, 114876. <https://doi.org/10.1016/j.socscimed.2022.114876>
- Farnsworth, J. K., Drescher, K. D., Nieuwsma, J. A., Walser, R. B., & Currier, J. M. (2014). The role of moral emotions in military trauma: Implications for the study and treatment of moral injury. *Review of General Psychology*, 18(4), 249-262. <https://doi.org/10.1037/gpr0000018>
- Frankfurt, S., & Frazier, P. (2016). A review of research on moral injury in combat veterans. *Military Psychology*, 28(5), 318-330. <http://dx.doi.org/10.1037/mil0000132>
- Griffin, B. J., Purcell, N., Burkman, K., Litz, B. T., Bryan, C. J., Schmitz, M., ... & Maguen, S. (2019). Moral injury: An integrative review. *Journal of Traumatic Stress*, 32(3), 350-362. <https://doi.org/10.1002/jts.22362>
- Hansen, K. T., Nelson, C. G., & Kirkwood, K. (2021). Prevalence of potentially morally injurious events in operationally deployed Canadian armed forces members. *Journal of Traumatic Stress*, 34(4), 764-772. <https://doi.org/10.1002/jts.22710>
- Held, P., Klassen, B. J., Hall, J. M., Friese, T. R., Bertsch-Gout, M. M., Zalta, A. K., & Pollack, M. H. (2019). "I knew it was wrong the moment I got the order": A narrative thematic analysis of moral injury in combat veterans. *Psychological Trauma : Theory, Research, Practice and Policy*, 11(4), 396-405. <https://doi.org/10.1037/tra0000364>
- Hodgson, T. J., Carey, L. B., & Koenig, H. G. (2021). Moral injury, Australian veterans and the role of chaplains: an exploratory qualitative study. *Journal of Religion and Health*, 60(5), 3061-3089. <https://doi.org/10.1007/s10943-021-01417-0>
- Houle, S. A., Vincent, C., Jetly, R., & Ashbaugh, A. R. (2020). A qualitative analysis of the impact of potentially morally injurious experiences in the Canadian Armed Forces. *Journal of Military, Veteran and Family Health*, 6(1), 67-69. <https://doi.org/10.3138/jmvfh-2019-0064>
- Houtsma, C., Khazem, L. R., Green, B. A., & Anestis, M. D. (2017). Isolating effects of moral injury and low post-deployment support within the U.S. military. *Psychiatry Research*, 247, 194–199. <https://doi.org/10.1016/j.psychres.2016.11.031>


- IBM Corp. Released 2016. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.
- Jamieson, N., Maple, M., Ratnarajah, D., & Usher, K. (2020). Military moral injury: A concept analysis. *International Journal of Mental Health Nursing*, 29(6), 1049-1066. <https://doi.org/10.1111/inm.12792>
- Jinkerson, J. D. (2016). Defining and assessing moral injury: A syndrome perspective. *Traumatology*, 22, 122-130. <http://dx.doi.org/10.1037/trm0000069>
- Jordan, A. H., Eisen, E., Bolton, E., Nash, W. P., & Litz, B. T. (2017). Distinguishing war-related PTSD resulting from perpetration-and betrayal-based morally injurious events. *Psychological Trauma: Theory, Research, Practice, and Policy*, 9(6), 627. <https://doi.org/10.1037/tra0000249>
- Kinney, A. R., Gerber, H. R., Hostetter, T. A., Brenner, L. A., Forster, J. E., & Stephenson, R. O. (2022). Morally injurious combat events as an indirect risk factor for postconcussive symptoms among veterans: The mediating role of posttraumatic stress. *Psychological Trauma: Theory, Research, Practice, and Policy*. <https://doi.org/10.1037/tra0001213>
- Koenig, H. G., Ames, D., Youssef, N. A., Oliver, J. P., Volk, F., Teng, E. J., ... & Pearce, M. (2018). Screening for moral injury: the moral injury symptom scale–military version short form. *Military Medicine*, 183(11-12), e659-e665. <https://doi.org/10.1093/milmed/usy017>
- Koenig, H. G., Youssef, N. A., & Pearce, M. (2019). Assessment of moral injury in veterans and active duty military personnel with PTSD: A review. *Frontiers in Psychiatry*, 10, 443. <https://doi.org/10.3389/fpsy.2019.00443>
- Koenig, H. G., Youssef, N. A., Ames, D., Teng, E. J., & Hill, T. D. (2020). Examining the overlap between moral injury and PTSD in US veterans and active duty military. *The Journal of nervous and mental disease*, 208(1), 7-12. <https://doi.org/10.1097/NMD.0000000000000798>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606-613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Levi-Belz, Y., Greene, T., & Zerach, G. (2020). Associations between moral injury, PTSD clusters, and depression among Israeli veterans: A network approach. *European Journal of Psychotraumatology*, 11(1), 1736411. <https://doi.org/10.1016/j.psychres.2018.08.105>
- Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clinical Psychology Review*, 29(8), 695-706. <https://doi.org/10.1016/j.cpr.2009.07.003>
- Maguen, S., Lucenko, B. A., Reger, M. A., Gahm, G. A., Litz, B. T., Seal, K. H., Knight, S. J., & Marmar, C. R. (2010). The impact of reported direct and indirect killing on mental health symptoms in Iraq war veterans. *Journal of Traumatic Stress*, 23(1), 86-90. <https://doi.org/10.1002/jts.20434>
- Maguen, S., Griffin, B. J., Copeland, L. A., Perkins, D. F., Richardson, C. B., Finley, E. P., & Vogt, D. (2020). Trajectories of functioning in a population-based sample of veterans: contributions of moral injury, PTSD, and depression. *Psychological Medicine*, 1-10. <https://doi.org/10.1016/j.jpsychires.2020.06.020>
- Martin, R. L., Houtsma, C., Bryan, A. O., Bryan, C. J., Green, B. A., & Anestis, M. D. (2017). The impact of aggression on the relationship between betrayal and belongingness among U.S. military personnel. *Military Psychology*, 29(4), 271-282. <https://doi.org/10.1037/mil0000160>
- Molendijk T. (2022). Warnings against romanticising moral injury. *The British Journal of Psychiatry : The Journal of Mental Science*, 220(1), 1-3. <https://doi.org/10.1192/bjp.2021.114>
- Murphy, D., Ross, J., Ashwick, R., Armour, C., & Busuttill, W. (2017). Exploring optimum cut-off scores to screen for probable posttraumatic stress disorder within a sample of UK treatment-seeking veterans. *European Journal of Psychotraumatology*, 8(1). <https://doi.org/10.1080/20008198.2017.1398001>

- Nillni, Y. I., Shayani, D. R., Finley, E., Copeland, L. A., Perkins, D. F., & Vogt, D. S. (2020). The impact of posttraumatic stress disorder and moral injury on women veterans' perinatal outcomes following separation from military service. *Journal of Traumatic Stress, 33*(3), 248-256. <https://doi.org/10.1002/jts.22509>
- Nichter, B., Norman, S. B., Maguen, S., & Pietrzak, R. H. (2021). Moral injury and suicidal behavior among US combat veterans: Results from the 2019–2020 National Health and Resilience in Veterans Study. *Depression and Anxiety, 38*(6), 606-614. <https://doi.org/10.1002/da.23145>
- Okulate, G. T., Akinsanmi, M. A., Oguntuase, R. A., & Majebi, M. A. (2021). Moral injury among Nigerian soldiers following combat: case reports and a review of the literature. *Military medicine, 186*(9-10), e1048-e1052. <https://doi.org/10.1093/milmed/usaa373>
- Prykhodko, I., Matsehora, Y., Bielai, S., Hunbin, K., & Kalashchenko, S. (2019). Classification of coping strategies influencing mental health of military personnel having different combat experience. *Georgian Medical News, 297*, 130-135.
- Prykhodko, I. I., Bielai, S. V., Hrynzovskyi, A. M., Zhelaho, A. M., Hodlevskyi, S. O., & Kalashchenko, S. I. (2020). Medical and psychological aspects of safety and adaptation of military personnel to extreme conditions. *Wiadomosci lekarskie (Warsaw, Poland : 1960), 73*(4), 679-683. <https://doi.org/10.36740/WLek202004110>
- Protopopescu, A., Boyd, J.E., O'Connor, C., Rhind, S., Jetly, R., Lanius, R.A., & McKinnon, M.C. (2021). Examining the associations among moral injury, difficulties with emotion regulation, symptoms of PTSD, depression, anxiety, and stress within Canadian military members and Veterans: A preliminary study. *Journal of Military, Veteran and Family Health, 7*(2), 71-80, <https://doi.org/10.3138/jmvfh-2020-0036>
- Richardson, N. M., Lamson, A. L., Smith, M., Eagan, S. M., Zvonkovic, A. M., & Jensen, J. (2020). Defining moral injury among military populations: A systematic review. *Journal of Traumatic Stress, 33*(4), 575-586. <https://doi.org/10.1002/jts.22553>
- Sherman, N. (2014). Recovering lost goodness: Shame, guilt, and self-empathy. *Psychoanalytic Psychology, 31*(2), 217-235. <https://doi.org/10.1037/a0036435>
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine, 166*(10), 1092-1097. <https://doi.org/10.1001/archinte.166.10.1092>
- Terpou, B. A., Lloyd, C. S., Densmore, M., McKinnon, M. C., Théberge, J., Neufeld, R., Jetly, R., & Lanius, R. A. (2022). Moral wounds run deep: exaggerated midbrain functional network connectivity across the default mode network in posttraumatic stress disorder. *Journal of Psychiatry & Neuroscience, 47*(1), e56-e66. <https://doi.org/10.1503/jpn.210117>
- Walker, L. & Avant, K. (2011). *Strategies for Theory Construction in Nursing*, 5th ed. New York: Prentice Hall.
- Williamson, V., Murphy, D., Stevelink, S. A., Allen, S., Jones, E., & Greenberg, N. (2021). The impact of moral injury on the wellbeing of UK military veterans. *BMC Psychology, 9*(1), 1-7. <https://doi.org/10.1186/s40359-021-00578-7>
- Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). The PTSD checklist for DSM-5 (PCL-5). Scale available from the National Center for PTSD at www.ptsd.va.gov, 10(4), 206.
- Williamson, V., Murphy, D., Stevelink, S. A., Allen, S., Jones, E., & Greenberg, N. (2021). The impact of moral injury on the wellbeing of UK military veterans. *BMC Psychology, 9*(1), 1-7. <https://doi.org/10.1186/s40359-021-00578-7>
- Wisco, B. E., Marx, B. P., May, C. L., Martini, B., Krystal, J. H., Southwick, S., & Pietrzak, R. H. (2017). Moral injury in U.S. combat veterans: Results from the national health and resilience in veterans study. *Depression and Anxiety, 34*, 340-347. <https://doi.org/10.1002/da.22614>

- Yehuda, R., Schmeidler, J., Wainberg, M., Binder-Brynes, K., & Duvdevani, T. (1998). Vulnerability to posttraumatic stress disorder in adult offspring of Holocaust survivors. *American Journal of Psychiatry*, 155(9), 1163-1171. <https://doi.org/10.1176/ajp.155.9.1163>
- Zasiiekina, L., & Kozihora, M. (2022). Cross-Cultural Adaptation and Psychometric Properties of Moral Injury Symptoms Scale. *Psychological Prospects Journal*, (39), 139-152. <https://doi.org/10.29038/2227-1376-2022-39-zas>
- Zerach, G., & Levi-Belz, Y. (2018). Moral injury process and its psychological consequences among Israeli combat veterans. *Journal of Clinical Psychology*, 74(9), 1526-1544. <https://doi.org/10.1002/jclp.22598>
- Zerach, G., & Levi-Belz, Y. (2022). Exposure to combat incidents within military and civilian populations as possible correlates of potentially morally injurious events and moral injury outcomes among Israeli combat veterans. *Clinical Psychology & Psychotherapy*, 29(1), 274-288. <https://doi.org/10.1002/cpp.2632>


ESL Students' Perceptions of Error Correction Techniques in Oral Production: A Level-Based Approach

Maryna Zembytska

 <https://orcid.org/0000-0002-6671-9937>
zembytskama@khnmu.edu.ua


Khmelnytskyi National University, Ukraine

Yulia Romanova

 <https://orcid.org/0000-0003-2840-3170>
romanovayul@khnmu.edu.ua

Khmelnytskyi National University, Ukraine

Nataliia Chumak

 <https://orcid.org/0000-0001-5855-1268>
im.chna@clouds.iir.edu.ua

Taras Shevchenko National University of Kyiv, Ukraine

Received August 27, 2022; Revised September 18, 2022; Accepted October 12, 2022

Abstract. The article reveals the findings from a survey examining students' perceptions of corrective feedback involving six groups of the first- through fifth-year ESL students enrolled in Bachelor's and Master's programs in English Language and Literature, Applied Linguistics, International Law, and International Communication and Global Media. The study attempts to reveal students' perceptions of corrective feedback, as well as its perceived effectiveness and psychological relevance, which are analyzed on the basis of students' answers. The aim of this survey-based research was to explore ESL students' preferences for the amount and type of corrective feedback in speaking/reading and develop a method to help educators effectively choose the types of corrective feedback on the basis of their students' level of English. In order to reinforce the study with substantial theoretical evidence, each type of corrective feedback was characterized on the basis of a rigorous review of related evidence-focused literature. The survey, which was administered to 78 ESL students at Taras Shevchenko National University of Kyiv and Khmelnytskyi National University, Ukraine, demonstrated a number of discrepancies in students' preferences and attitudes. Their responses constituted grounds for assessing and ranking the prevalent verbal correction techniques in ESL teaching according to their perceived relevance. The implications of the current study could be taken into consideration by ESL teachers for determining an optimal set of error correction techniques in their own classrooms on the basis of their students' level of English.

Keywords: *ESL students, perceptions, error correction, corrective feedback, error treatment, oral production, level-based approach, learner uptake, the Bayes' formula/theorem.*

Зембицька Марина, Романова Юлія, Чумак Наталія. Сприйняття методів виправлення помилок в усному мовленні студентами, які вивчають англійську мову як другу іноземну: підхід на основі рівня володіння мовою.

Анотація. У статті викладено результати дослідження, проведеного на основі опитування студентів у шістьох групах з першого по п'ятий курси, які вивчають англійську мову як другу іноземну в рамках освітнього кваліфікаційного рівня “Бакалавр” та “Магістр” за спеціальностями “Англійська мова та література”, “Прикладна лінгвістика”, “Міжнародне право” та “Міжнародні комунікації”. У дослідженні зроблено спробу з'ясувати особливості сприйняття студентами коригувального зворотного зв'язку за допомогою аналізу його передбачуваної ефективності та психологічної комфортності на основі індивідуальних відповідей студентів. Метою дослідження було на основі опитування з'ясувати, який тип та обсяг коригувального зворотного зв'язку під час говоріння/читання є бажаним з погляду студентів, які вивчають англійську мову як іноземну, та розробити метод, який допоможе вчителям ефективно обирати типи коригувального зворотного зв'язку на основі рівня володіння англійською мовою їхніми студентами. Кожен тип коригувального зворотного зв'язку був теоретично обґрунтований на основі вивчення наукової літератури, що спирається на відповідні емпіричні дослідження. Опитування, проведене у двох університетах України (Київському національному університеті імені Тараса Шевченка і Хмельницькому національному університеті) серед 78 студентів, які вивчають англійську мову як першу іноземну, продемонструвало низку розбіжностей в уподобаннях та ставленні студентів до різних методів виправлення помилок.

Ключові слова: студенти, які вивчають англійську мову як іноземну; сприйняття, виправлення помилок, коригувальний зворотній зв'язок, виправлення помилок, усне мовлення, підхід на основі рівня володіння мовою, засвоєння, теорема/формула Баєсса.

Introduction

In the course of learning a second/foreign language, students regularly produce oral and written utterances which do not conform to the standards of the language being acquired, i.e. erroneous or ill-formed utterances (Corder, 2008). The traditional perception of errors as a sign of learners' incompetence has given way to viewing errors as a marker of the difficulties that learners are having with particular aspects of the language, which could be explained by the persistence of the habits imposed by their mother tongue. Numerous studies, taking the stance that corrective feedback constitutes an integral part of L2 instruction, testify to the acute need of providing more coherence between theory, research and pedagogy with respect to this domain. Since error making is a natural and inevitable part of SLA process, error treatment could reasonably be considered a significant component of L2 teaching which directly affects improvement. Hence, the question arises, which strategies should be chosen to facilitate better student learning on the one hand, and to avoid discouraging, demotivating or simply ineffective instruction on the other hand.

There is a vast body of research on students' perceptions regarding error treatment in foreign language teaching (Chen, 2005; Lasagabaster & Sierra, 2005; Lyster et al., 2013; Perdomo, 2018; Quinn, 2014; Sheen, 2010), greater attention being paid to corrective feedback in L2 written activities (Bitchener, 2008; Ferris & Roberts, 2001; Lee, 2004; Rezaei et al., 2017). Numerous studies have examined

error correction strategies implemented in teaching ESL students worldwide. However, a substantially smaller number of studies have focused on Eastern European ESL learners' attitudes and preferences in this domain, with Ukraine kept away from the spotlight. Therefore, this research was carried out to reveal Ukrainian students' perceptions and attitudes towards the oral correction techniques currently used in ESL teaching. Although researchers and ESL educators generally maintain that discovering and matching the expectations of teachers and students is beneficial for language learning, they have not demonstrated consistent approaches to error correction, disagreeing about the extent to which errors should be corrected, the types of errors that need correction, and the techniques to be used.

Therefore, the present research aims to explore ESL students' attitude towards the corrective feedback received while speaking/reading and identify the correlation between the students' L2 proficiency level and their preferences for corrective feedback, which could help educators develop the most effective error correction model for their ESL classroom corresponding to the students' expectations for the type and the amount of the corrective feedback provided.

The research questions posed are as follows:

1. What are the most effective oral correction techniques according to ESL students' perceptions?
2. What types of corrective feedback are more psychologically relevant than others?
3. How do students' preferences correlate with their level of English?

There are different views on the nature of linguistic errors, such as Lennon's error analysis (Lennon, 2008), which has indicated that certain errors recurring among language learners result from the intrinsic difficulty of the subsystem involved, rather than due to the cross-lingual influence. The author maintains that 'No matter what your first language is, whether it has prepositions or not, you will almost certainly find it very difficult to make no mistakes in English prepositions' (Lennon, 2008). As explained by the researcher, even if the ESL learner's first language has the category of verbal aspect, the choice between simple and progressive verb forms in English are likely to be erroneous. These 'developmental errors' are usually made regardless of their first language background and can hardly be predicted by contrastive analysis (Lennon, 2008). The assumption that error correction constitutes an essential aspect of language teaching also resonates in studies of Bartram and Walton (1991), Purwati (2012), Touchie (1986), and others.

To have a clear understanding of what types of errors are speculated on, it is important to differentiate between true errors of competence, revealing the extent of the learner's proficiency in the second language, and mistakes – errors of performance, having a circumstantial origin similar to slips of the tongue in the native language (Corder, 1967). Mistakes are made by both native speakers and foreign language learners, and can be self-corrected when pointed to the speaker. Errors in SLA are traditionally treated as a deviation from the rule, primarily due to the lack of knowledge. As defined by Lennon (1991), an error is 'a linguistic form or

combination of forms which in the same context and under similar conditions of production would, in all likelihood, not be produced by native speakers' counterparts' (Lennon, 1991, p. 182).

Method

The study involved six groups of EFL students in their first, second, third, fourth and fifth year of studies earning their Bachelor's and Master's degrees at Taras Shevchenko National University of Kyiv (Ukraine) and Khmelnytskyi National University (Ukraine) majoring in English Language and Literature, Applied Linguistics, International Law, International Communication and Global Media. The data were collected through the use of an online survey (Zembytska et al., 2019a; 2019b), classroom observations, and follow-up interviews with students. To eliminate a possibility of misinterpretation in students' responses, the terms 'error' and 'mistake' were clarified. Also, the questions selected for the survey were pilot-tested with a small group of similar candidates to avoid ambiguity. All the participants (78 students) were instructed to ensure their understanding of the terminology used for different types of corrective feedback.

Classroom observations were made during the lessons of English in order to supply students with some evidence for further reflection during the follow-up interviews regarding the efficacy of the corrective feedback provided by the teacher. The students used printed observation checklists to make necessary records. Before each lesson, students received printed observation forms with a list of correction techniques and blank spaces in front of them, which were supposed to be filled in with erroneous utterances, corrected by the teacher. Students were supposed to keep a record of their mistakes and indicate which of the suggested techniques was used in each case. In post-lesson interviews, students were encouraged to reflect on the mistakes they had made during the lesson.

Fourteen teachers, involved in the study, were asked to keep a record of students' errors and correct them using a range of error correction techniques. The teachers used printed charts with six error correction techniques (clarification, explicit correction, elicitation, metalinguistic clues, repetition, and recast) to mark those used during each lesson. The final teacher interview involved open-ended questions designed to stimulate their reflection on the techniques utilized.

At the final stage of the study, an online student survey (Zembytska et al., 2019a; 2019b) on SurveyMonkey online platform was held. The survey, administered anonymously to reduce the potential for any uncomfortable feelings among the participants, involved multiple choice response items and closed-ended questions. The fourteen questions raised in the survey generally fall into two groups: *methodological* aspects of corrective feedback in L2 instruction from the learners' perspective and *psychological* aspects of error correction, i.e. students' perception of the techniques commonly used by their teachers. The questions of the first group (e.g. "Which error correction techniques are commonly used by your teachers?" "Please,

rate the effectiveness of each error correction technique.” “In your opinion, what type of errors should necessarily be corrected?”) were aimed at finding out which error correction techniques students are familiar with, while the questions of the second group (e.g. “What's your attitude towards error correction? Should all errors be corrected?” “Do you think error correction by the teacher in front of the whole group could be awkward/uncomfortable for you or your groupmates?” “Do you feel discouraged when the teacher interrupts your speech in order to correct your errors / mistakes?” “Which type of error correction is more appropriate for you?”) were raised to assess how appropriate these techniques are from the students' point of view. The question concerning the respondents' level of English (“What is your level of English?”) was included in the survey to see which error correction technique(s) tend to be preferred by learners at a particular stage of second-language acquisition. Before responding to the questions of the survey, the students had been asked to assess their L2 level on the basis of: a) self-assessment; b) B1 and B2 Cambridge English certificates they had received; and c) Cambridge English online test and Oxford English level tests. In order to reinforce their self-assessment, students were offered a CEFR global scale created by the Council of Europe.

The respondents were asked to complete the online questionnaire individually at home, to avoid the effect of cross-fertilization which might occur during collective administering. A summary of individual responses, which were automatically collected and analyzed by the built-in tool of the mentioned survey platform, is presented in Figures 1-7. This analysis revealed the general attitude of the respondents towards error correction.

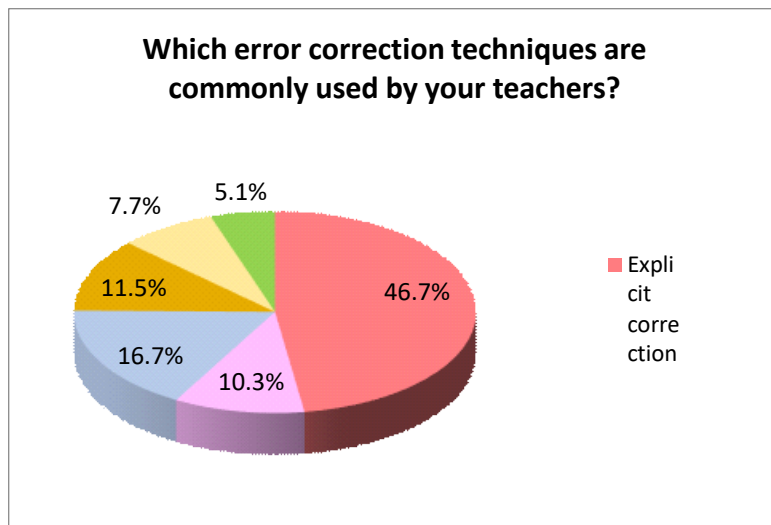
Next the results of the survey were sorted and distributed in interim tables according to the learners' L2 proficiency level. Since one of the research goals was to calculate the statistical likelihood that students belonging to a particular L2 acquisition level (B1/B2/C1) should prefer a particular type of corrective feedback, the methods of applied statistics and the theory of probability were used.

Results and Discussion

When asked to reflect on each type of corrective feedback during the follow-up interviews, students typically characterized *explicit correction* as a method ‘easier for comprehension’, ‘conventional and therefore understandable’, and ‘faster’. While other students sustained the benefits of *repetition* because it was ‘more likely to prevent errors in the future’, ‘quite understandable’, ‘easy to remember’, much fewer students preferred *clarification* and *recast* as techniques which ‘stimulated thinking’, ‘worked on a larger scale’ (contributed to a deeper revision of rules, patterns etc.) were ‘challenging in a good way’ and ‘helpful for memorizing the errors’.

Figure 1

Students' responses to the question addressing the range of error correction techniques used by their teachers



While analyzing students' responses in the online survey (Zembytska et al., 2019a) (Fig. 1), we found that the prevailing error correction technique used by their teachers was *explicit correction*. This type of response was given by the majority of students (46.7 %). This result supports the findings from a qualitative study by Tsang (2004), which demonstrated that teachers mostly used explicit correction and recast in ESL error correction. However, according to Tsang (2004), these techniques did not guarantee student-generated repair, while repetition was the most frequent type of feedback resulting in student repairs. Still, their study suggests that explicit correction and recast appeared to be helpful in treating phonological errors. Surprisingly different are findings from a study by Lee (2013), in which the most frequent type of corrective feedback was recast, which generated 92.09% learner repair. Other studies (Bitchener & Knoch, 2010; Chandler, 2003; Lee, 2005) suggest that explicit correction is preferable in writing, since its precision minimizes students' confusion over the corrective feedback received.

The second most common type of corrective feedback that students attributed to teachers within the current study was *recast* (16.7 % of the students). However, the study by Lyster and Ranta (1997) proved that 'recast, the most popular feedback technique, is the least likely to lead to uptake of any kind' (Lyster & Ranta, 1997: 54). Similarly, in Housen and Pierrard (2005), no student-generated repairs were observed using explicit correction and recasts since both techniques provide learners with correct forms. A study by Mackey et al. (2000) demonstrates that recasts were more preferable in treating morphosyntactic errors, while correction of pronunciation errors implied a more extensive use of clarification requests. In addition, Lyster (2001) has found recasts to be clearly beneficial for error treatment in the case of phonological errors. At the same time, Havranek and Cesnik (2001) emphasize the importance of reinforcing recasts with further comments or repetition by the corrected learner, with 'unfortified' recast being viewed as 'the least successful format of corrective feedback' (Havranek & Cesnik, 2001, p. 99). Analyzing this technique, Perdomo (2018) refers to it as one of the most

common types of negative feedback in native- and nonnative speakers' interaction in different settings; however, the same study admits that there is no sound evidence to properly claim that it is also the most effective corrective feedback for all teaching situations and language learners.

Clarification request ranked third among the most extensively used techniques in ESL classroom within our study, as specified by 10.3% of students. This technique, which involves asking a comprehension question to make students repeat what they said, is believed to help them reconsider and change the form of the utterance produced, especially if the students are given the awareness that comprehension check is used for confirmation of form, rather than meaning (Nicholas et al., 2001). Lyster (2005) has found negotiation of form, which includes elicitation, metalinguistic clues, clarification request, and repetition, to be more effective at leading to immediate repair than recasts or explicit correction, particularly in the case of lexical errors, as well as grammar errors and unsolicited uses of L1.

Repetition, which is recognized as an effective type of corrective feedback, along with metalinguistic feedback, elicitation and clarification requests (Heift, 2004), was reported to be the fourth extensively used error correction strategy by teachers in the current study, as reported by 11.5% of the respondents. This is at variance with a study by Havranek & Cesnik (2001), in which repetition was found the most frequent type of error treatment during language practice, in which the correct form was provided by the teacher and repeated by the learner.

A mere 7.7% of the respondents recognized *metalinguistic feedback* as a strategy commonly used by their teachers. However, according to Lyster & Ranta (1997), metalinguistic feedback, clarification request and repetition are similarly effective at eliciting student uptake, although metalinguistic feedback is more likely to elicit student-generated repair than clarification request or repetition.

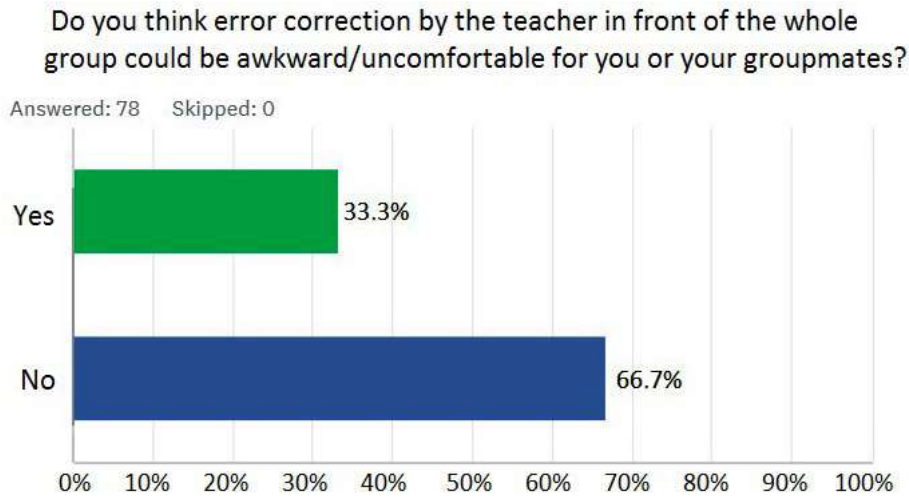
Elicitation, specified by 5.1% of the respondents, was the most uncommon technique in students' responses. By contrast, it was proved to be the most successful technique for eliciting uptake by Lyster & Ranta (1997). Similarly, in Housen & Pierrard (2005) metalinguistic feedback and elicitation were leading to learner uptake 98% of the time. This result is consistent with Lyster & Ranta's study (1997) in which 100% of learner utterances following elicitation involved learner uptake.

Before classroom observations, teachers participating in the study were encouraged to diversify their corrective feedback by using a wide range of error correction techniques. The results of classroom observations carried out within this study support those obtained by Lee (2013), where *recasts* appeared to be the most frequent type of corrective feedback used by ESL teachers. While observed, teachers in this study tended to react to students' erroneous utterances through *recasts* and *explicit correction*.

The online student survey revealed an alarming fact that as much as one third of the respondents admitted that error correction by the teacher in the classroom could be psychologically uncomfortable for them or other students (Fig. 2). This finding could serve a stimulus for ESL teachers to reflect on the types of positive corrective feedback that would reduce the levels of students' anxiety and therefore contribute to oral production fluency.

Figure 2

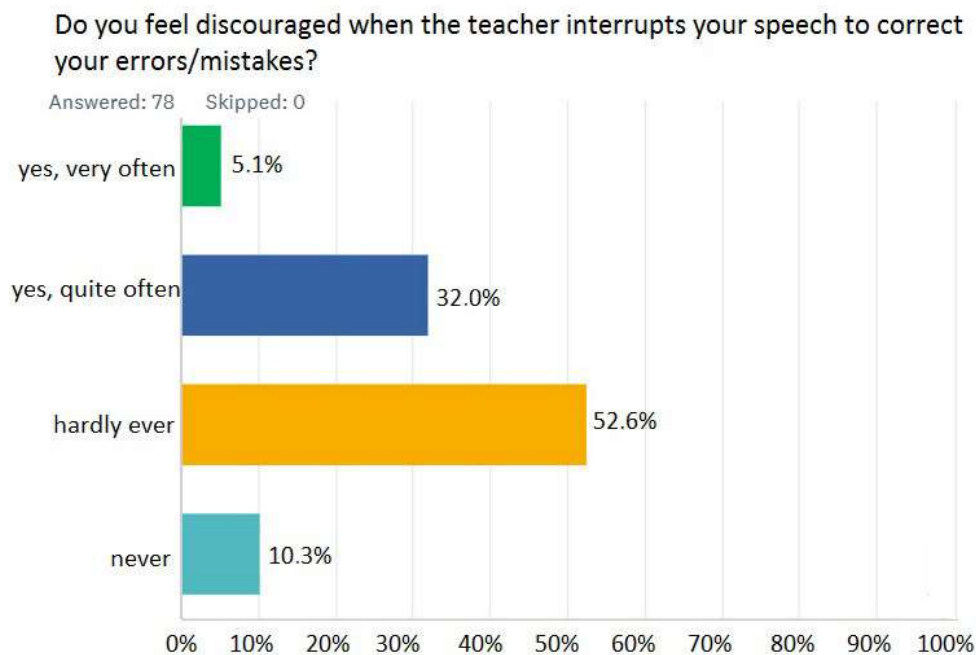
Students' perceptions of oral corrective feedback in terms of the psychological discomfort it may cause



Furthermore, to support the previous statement, another question regarding the psychological relevance of error treatment was posed, in which the respondents reported that they were quite often (32 %) or very often (5%) discouraged by the teacher interrupting their oral production to correct the errors (Fig. 3).

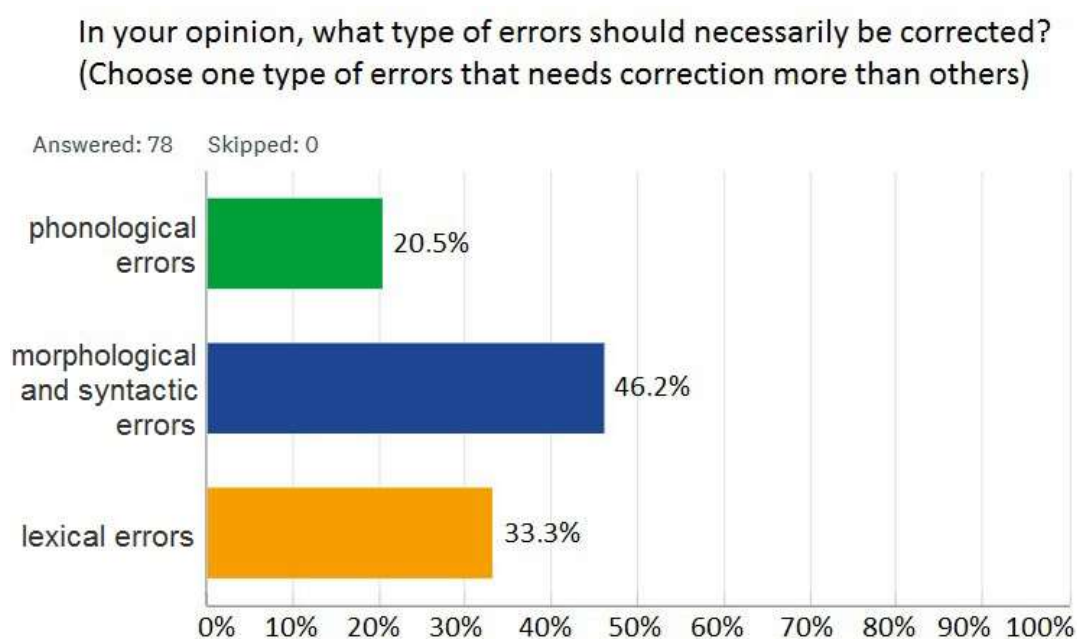
Figure 3

Students' assessment of the frequency of discouragement associated with intrusive corrective feedback



In order to identify the types of errors that are recognized by university-level ESL learners as necessary for treatment, students were offered to choose one type of errors that needs corrective feedback more than others (Fig. 4). The majority of respondents (46.2%) gave priority to morphological and syntactic errors; one third of the students (33.3%) treated lexical errors as more urgent for corrective feedback; while nearly one fifth of the responding students (20.5%) believed that teachers should primarily react to their phonological errors (Fig.4). In a similar study by Zhang et al. (2010) ESL students regarded lexical errors as the most critical and deserving the greatest teacher's attention; while grammatical errors ranked the second and phonological errors – the last (Zhang et al., 2010, p. 307).

Figure 4
Students' vision of the type of errors in SLA which should necessarily be corrected

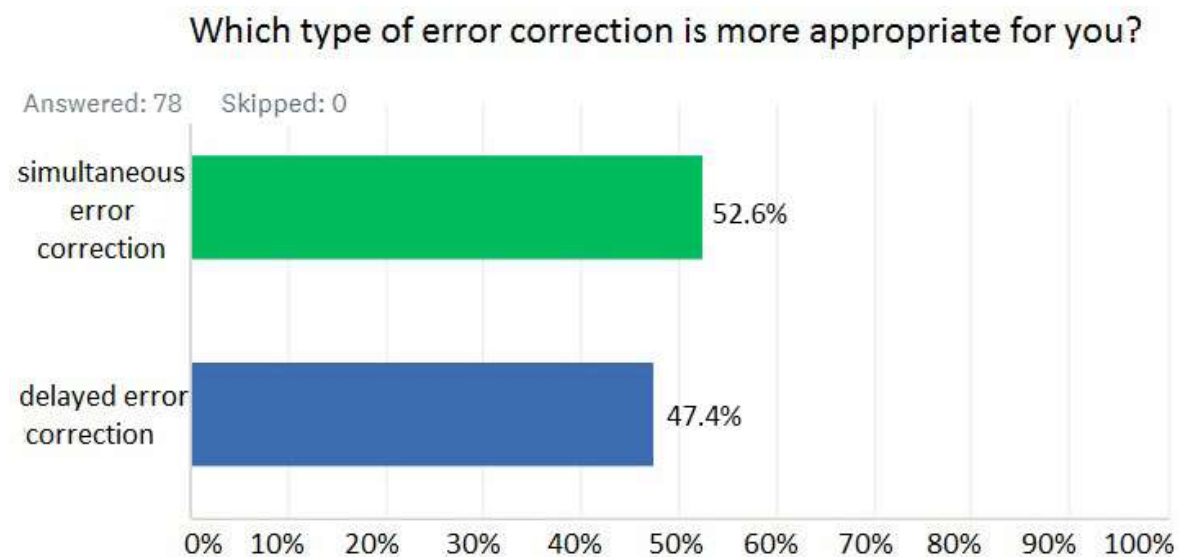


A controversial issue is whether corrective feedback should be provided simultaneously with the learner's oral production or after a while – as soon as a learner has finished speaking, after a particular activity is completed, or at the end of the lesson. Simultaneous feedback on the accuracy of ESL learners' oral production is associated with high rates of success and reduced likelihood of practicing errors (Archer & Hughes, 2011). However, analyzing its relevance, Park (2010) maintains that even though delay between an error and its treatment may undermine the effectiveness of corrective feedback, 'immediate error treatment can interrupt the flow of communication and even make students feel embarrassed or afraid of making errors' (Park, 2010: 61). To highlight the point, Park (2010) provides the evidence that 60% of the students in the high anxiety group preferred their errors to be treated after the activities are completed (Park, 2010, p. 49), as opposed to the students in the low anxiety group, who generally did not favour delayed error correction.

There was no major divergence in students' attitudes to simultaneous and delayed corrective feedback within the current study. The difference in response distribution constituted 5.2% in favour of simultaneous error correction (Fig. 5).

Figure 5

Preferences of the respondents towards the desired speed of corrective feedback received



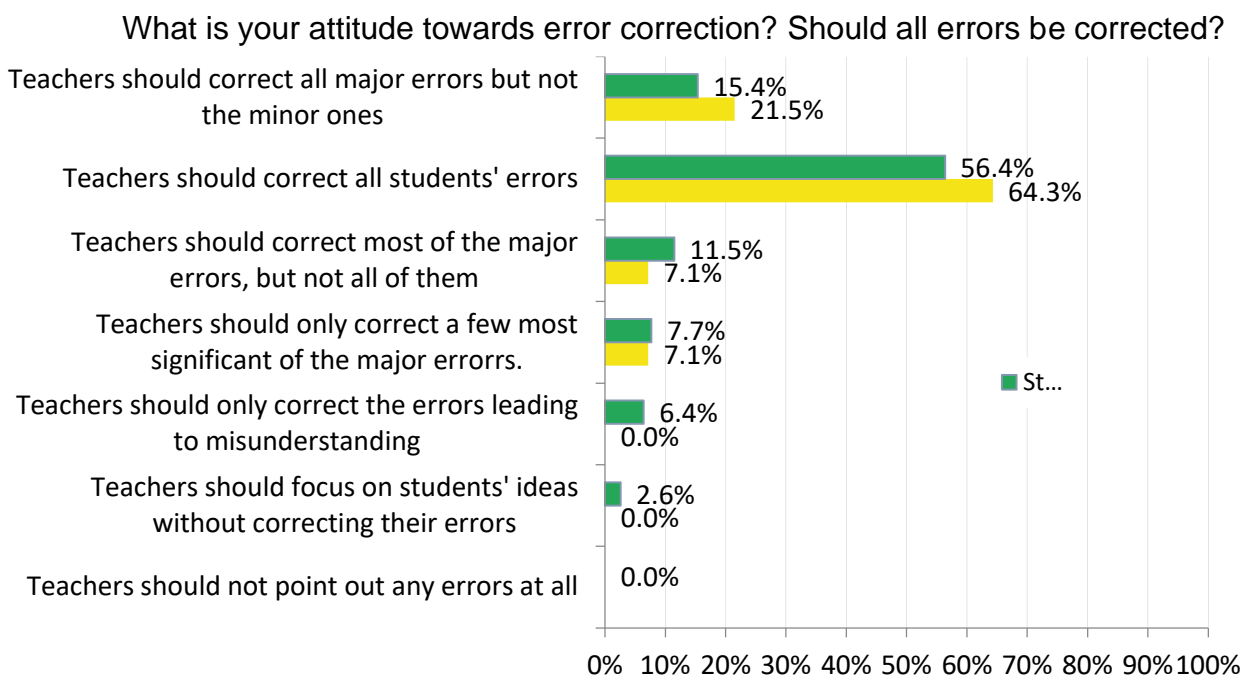
We strongly agree with Touchie (1986) that frequent correction of oral errors may disrupt the process of language learning and discourage shy students from communicating in the target language. According to Touchie (1986), teachers should correct errors global errors which affect the general comprehension of utterances, putting more emphasis on high frequency and generality errors and errors produced by a large percentage of their students. As explained by Radecki & Swales (1988), students' need for error correction does not necessarily imply the usefulness of such feedback. A similar idea is expressed by Hedge (2000), who maintains that teachers should reduce their intrusion by responding to errors, which are systematic and result from the lack of knowledge, rather than mistakes, which are non-systematic and accidental. Teachers in a study by Lee (2013) strongly disagreed that they should correct all of the students' errors and mistakes, although they recognized the benefits of teachers' corrective feedback and the efficacy of immediate correction of the students' errors to enhance their oral proficiency.

In teacher interviews held within the current study, 5 out of 14 instructors disapproved of the idea of correcting all errors, referring to the impediment it creates to the natural flow of communication in ESL classroom. However, both teachers and students completely opposed to the idea that teachers should not correct any errors at all. The majority of students admitted that corrective feedback raises their awareness of the existing problems and prevents them from making repetitive errors. Moreover, 56.4% of

students strongly supported the idea of receiving regular corrective feedback, suggesting that teachers should correct all students' errors.

Since positive reinforcement during language acquisition has been associated with increases in correct responding (Miltenberger, 2003; Worsdell et al., 2005), ESL teachers are generally in favour of correcting students' errors. The results of a similar study (Park, 2010) revealed that although teachers and students had significantly different opinions about types of errors that need correction, as well as the timing, method, and delivering agents of corrective feedback, students wished to get more corrective feedback than their teachers expected. In our survey, both teachers and students agreed on the necessity of error correction (Fig. 6). The majority of teachers expressed a belief that either 'all students' errors should be corrected' (64.3% of the teachers), or 'all major errors but not the minor ones' (21.5%). The students generally reacted to this question in a similar way, 56.4% of them supporting treatment of 'all students' errors' and 15.4% of the respondents expecting a corrective feedback on 'all major errors'. However, there is a clear distinction in terms of students' and teachers' attitude towards reducing corrective feedback to treating global errors leading to misunderstanding, hindering communication, and interfering with clarity of expression. While 9% of students in our survey were in favour of limited corrective feedback (6.4% of students supporting the idea of correction focused on errors leading to misunderstanding and 2.6% of students discarding any error correction as long as the expressed ideas are clear), teachers completely disregarded these options in the survey (0%) (Fig.6).

Figure 6
Comparison of teachers' and learners' perceptions of the extent to which errors should be corrected in SLA

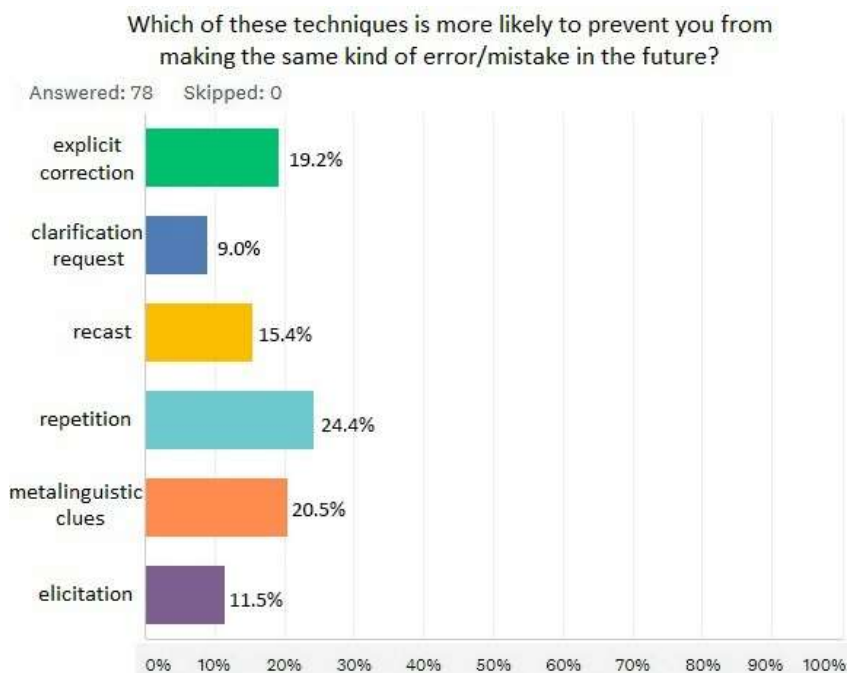


According to Havranek and Cesnik (2001), corrective feedback is considered successful if it elicits a corrected version of the original utterance from the learner it was generated by, even if it is a mere repetition of the corrected version of the utterance. Speculations on the optimal type of corrective feedback resulting in student-generated repairs generally lead researchers to viewing self-correction as a highly productive and psychologically relevant strategy. Self-correction may ‘enable students to have more autonomy in learning, requiring that they take responsibility in the process of monitoring their own errors’ (Hong, 2004, p. 14).

Whether foreign language learners are capable of self-correction or teacher-generated corrective feedback is often dependent on their L2 level, which is also the case with particular error correction techniques they are more responsive to. In this respect, Perdomo (2018) rightly points that the level of L2 proficiency is an important factor influencing the decisions on the type of corrective feedback chosen. We strongly support Nicholas et al. (2001), who state that the effectiveness of corrective feedback depends on ‘the overall developmental level of proficiency or interlanguage variety of the learner’ (Nicholas et al., 2001, p. 752). Therefore, in order to answer the key question in our survey (Fig. 7) students were to specify their English proficiency level before choosing the error correction technique which they considered to have the strongest preventative effect.

Figure 7

Distribution of students’ choices of the error correction technique perceived as having the strongest preventative effect



Interpretation of the data obtained was a complex task. We formed an interim table in which the sorted responses were distributed according to the ESL learners’ proficiency level (Table 1).

Table 1

Results from an online survey of 78 respondents. Responses to the question 'Which of these techniques is more likely to prevent you from making the same kind of error?'

| Level | Error correction technique | | | | | | | | | | | |
|-------|----------------------------|------|-----------------------|------|--------|------------|----|----------------------|----|-------------|---|------|
| | explicit correction | | clarification request | | recast | repetition | | metalinguistic clues | | elicitation | | |
| B1 | 3 | 21% | 1 | 13% | 3 | 27% | 4 | 19% | 3 | 18% | 4 | 57% |
| B2 | 7 | 50% | 6 | 75% | 5 | 45% | 13 | 62% | 9 | 53% | 3 | 43% |
| C1 | 4 | 29% | 1 | 13% | 3 | 27% | 4 | 19% | 5 | 29% | 0 | 0% |
| Total | 14 | 100% | 8 | 100% | 11 | 100% | 21 | 100% | 17 | 100% | 7 | 100% |

For a more profound analysis of the results obtained in the survey, the probability theory was used, i.e., 'desirability' or 'preference' was evaluated by methods of probability theory. At first glance, it may seem that the a priori probability of a particular student choosing one of the six techniques is known, since we have students' responses to the question 'Which of these techniques is more likely to prevent you from making the same kind of error/mistake in the future?' However, since students' attitudes to the question posed were formed during their classes, and the online survey was conducted later, the probability of students referring to the cohort having chosen a particular method had to be re-evaluated using the Bayes' formula (Gelman, 2013). Let's consider the six hypotheses. Supposedly, a D_1 hypothesis suggests that an arbitrarily considered student prefers explicit correction, D_2 hypothesis – the student prefers clarification request, D_3 – the student prefers recast, D_4 – repetition is preferred, D_5 – the preference is given to metalinguistic clues, D_6 – the student opted for elicitation.

Having analyzed the survey results, we obtained the following probability values: $P(D_1)=0.18$, $P(D_2)=0.09$, $P(D_3)=0.15$, $P(D_4)=0.25$, $P(D_5)=0.21$, $P(D_6)=0.12$. Using the classic definition (Jeffreys, 1998), the following was deduced:

$$P(D_1)+P(D_2)+P(D_3)+P(D_4)+P(D_5)+P(D_6) = 1.$$

Let's consider the dependent event A – the student's belonging to one of the B1, B2 or C1 level cohorts on the basis of the data from Table 1.

The probability that an arbitrary student belongs to B1 level cohort, provided that they have chosen the D_1 hypothesis, is equal to $P_{D_1}^{B1}(A)=0.21$. Similarly, the probability that English proficiency level of an arbitrarily taken student is B2, provided that they have chosen the D_1 hypothesis, is equal to $P_{D_1}^{B2}(A)=0.50$, and the probability that an arbitrarily taken student is C1 level learner, provided that they have chosen the D_1 hypothesis, is equal to $P_{D_1}^{C1}(A)=0.29$. Similarly,

for D_2 hypothesis: $P_{D_2}^{B1}(A) = 0.13$, $P_{D_2}^{B2}(A) = 0.75$, $P_{D_2}^{C1}(A) = 0.13$

for D_3 hypothesis: $P_{D_3}^{B1}(A) = 0.27$, $P_{D_3}^{B2}(A) = 0.45$, $P_{D_3}^{C1}(A) = 0.27$

for D_4 hypothesis: $P_{D_4}^{B1}(A) = 0.19$, $P_{D_4}^{B2}(A) = 0.62$, $P_{D_4}^{C1}(A) = 0.19$

for D_5 hypothesis: $P_{D_5}^{B1}(A) = 0.18$, $P_{D_5}^{B2}(A) = 0.53$, $P_{D_5}^{C1}(A) = 0.29$

for D_6 hypothesis: $P_{D_6}^{B1}(A) = 0.57$, $P_{D_6}^{B2}(A) = 0.43$, $P_{D_6}^{C1}(A) = 0$

According to the formula of total probability, the probability that the level of an arbitrarily taken student will be B1 is equal to

$$P^{B1}(A) = P(D_1) \cdot P_{D_1}^{B1}(A) + P(D_2) \cdot P_{D_2}^{B1}(A) + P(D_3) \cdot P_{D_3}^{B1}(A) + P(D_4) \cdot P_{D_4}^{B1}(A) + P(D_5) \cdot P_{D_5}^{B1}(A) + P(D_6) \cdot P_{D_6}^{B1}(A) = 0.24.$$

The probability that the level of an arbitrarily taken student will turn out B2 is equal to

$$P^{B2}(A) = P(D_1) \cdot P_{D_1}^{B2}(A) + P(D_2) \cdot P_{D_2}^{B2}(A) + P(D_3) \cdot P_{D_3}^{B2}(A) + P(D_4) \cdot P_{D_4}^{B2}(A) + P(D_5) \cdot P_{D_5}^{B2}(A) + P(D_6) \cdot P_{D_6}^{B2}(A) = 0.54.$$

The probability that the level of an arbitrarily taken student will be C1 is equal

$$\text{to } P_A^{B1}(D_1) = \frac{P(D_1) \cdot P_{D_1}^{B1}(A)}{P^{B1}(A)} = 0.16$$

Let's suppose the level of a randomly taken student is B1, i.e., the event has already taken place. Therefore, we can calculate a posteriori probabilities using Bayes' formula (Gelman, 2013). The probability of a randomly taken student of B1 level preferring explicit correction is equal to

$$P_A^{B1}(D_1) = \frac{P(D_1) \cdot P_{D_1}^{B1}(A)}{P^{B1}(A)} = 0.16.$$

Similarly, for all other students with B1 level:

$$P_A^{B1}(D_2) = \frac{P(D_2) \cdot P_{D_2}^{B1}(A)}{P^{B1}(A)} = 0.05 \quad - \quad \text{the probability of giving preference to$$

'clarification request';

$$P_A^{B1}(D_3) = \frac{P(D_3) \cdot P_{D_3}^{B1}(A)}{P^{B1}(A)} = 0.17 \quad - \quad \text{the probability of giving preference to 'recast';}$$

$P_A^{B1}(D_4) = \frac{P(D_4) \cdot P_{D_4}^{B1}(A)}{P^{B1}(A)} = 0.19$ – the probability of giving preference to ‘repetition’;

$P_A^{B1}(D_5) = \frac{P(D_5) \cdot P_{D_5}^{B1}(A)}{P^{B1}(A)} = 0.16$ – the probability of giving preference to ‘metalinguistic clues’;

$P_A^{B1}(D_6) = \frac{P(D_6) \cdot P_{D_6}^{B1}(A)}{P^{B1}(A)} = 0.28$ – the probability of giving preference to ‘elicitation’.

$$P_A^{B1}(D_1) + P_A^{B1}(D_2) + P_A^{B1}(D_3) + P_A^{B1}(D_4) + P_A^{B1}(D_5) + P_A^{B1}(D_6) = 1.$$

Similar calculations were made for other B2 and C1 level learners. The results are presented in Table 2.

Table 2

The probability of ESL students of B1, B2, and C1 level preferring a particular error correction technique

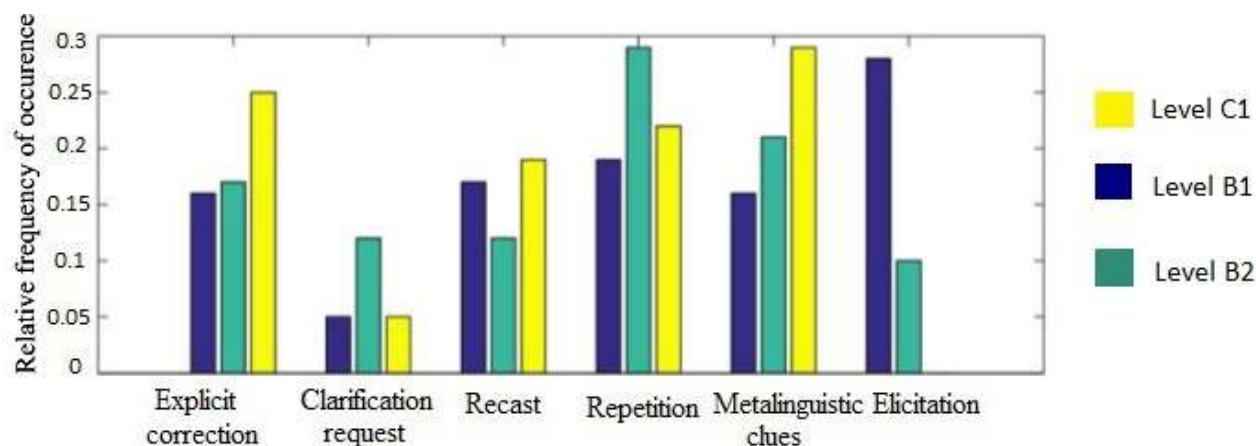
| Level | explicit correction | clarification request | recast | repetition | metalinguistic clues | elicitation |
|-------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|
| B1 | $P_A^{B1}(D_1)=0.16$ | $P_A^{B1}(D_2)=0.05$ | $P_A^{B1}(D_3)=0.17$ | $P_A^{B1}(D_4)=0.19$ | $P_A^{B1}(D_5)=0.16$ | $P_A^{B1}(D_6)=0.28$ |
| B2 | $P_A^{B2}(D_1)=0.17$ | $P_A^{B2}(D_2)=0.12$ | $P_A^{B2}(D_3)=0.12$ | $P_A^{B2}(D_4)=0.29$ | $P_A^{B2}(D_5)=0.21$ | $P_A^{B2}(D_6)=0.1$ |
| C1 | $P_A^{C1}(D_1)=0.25$ | $P_A^{C1}(D_2)=0.05$ | $P_A^{C1}(D_3)=0.19$ | $P_A^{C1}(D_4)=0.22$ | $P_A^{C1}(D_5)=0.29$ | $P_A^{C1}(D_6)=0$ |
| Mean | .19 | .07 | .16 | .23 | .22 | .13 |

Comparing the prevalence of each error correction technique for the three cohorts (B1, B2 and C1 level), we could observe that B1 level learners were inclined to prefer elicitation as a technique that was most likely to prevent them from making the same kind of error/mistake in the future. Within the B2 level cohort, the most preferable error correction technique would be repetition, while C1 level respondents were most likely to opt for metalinguistic clues. Interestingly, the survey demonstrated two opposite students’ reactions to elicitation, which was favoured by B1 level learners and neglected by C1 level respondents (Table 2).

The mean values (Table 2) showed that regardless of ESL students’ proficiency level, the most likely error correction technique to be perceived as optimal by all learners was repetition, being followed by metalinguistic clues, while clarification request was the least probable choice for all learners (Table 2; Fig. 1).

Figure 8

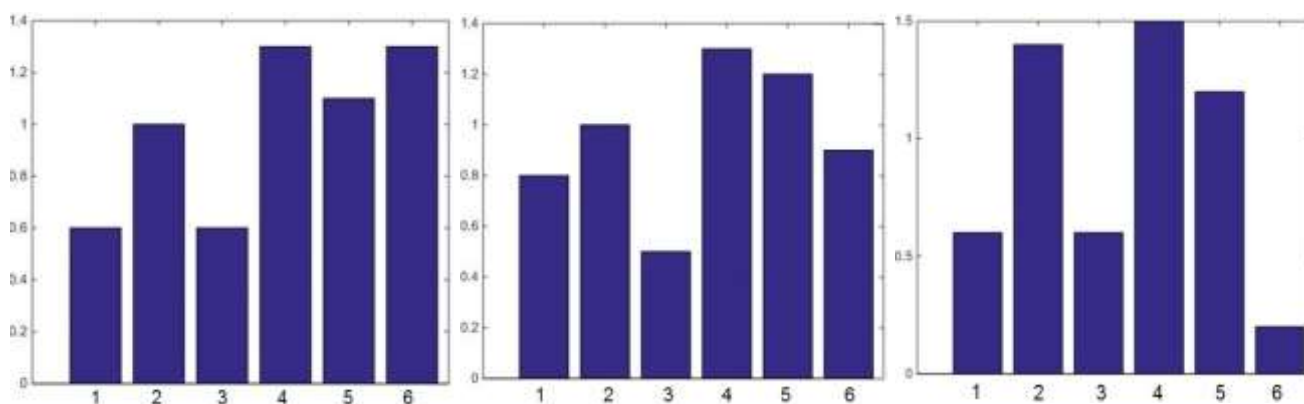
Distribution according to students' priorities (Responses to the question 'Which technique is more likely to prevent you from making the same kind of error/mistake in the future?')



Using Osgood's (1952) semantic differential made it possible to measure the perceived effectiveness of each error correction technique based on students' responses. The students were asked to rate the effectiveness of each error correction technique using a bipolar adjective scale ranging from 'extremely ineffective' (-3) to 'extremely effective' (+3) (Fig. 2). The position marked 0 was labeled 'neutral', the 1st positions were labeled 'slightly', the 2nd positions – 'quite', and the 3rd positions – 'extremely'. Error correction techniques in Fig. 9 correspond to the numbers on the horizontal axis: 1 – explicit correction; 2 – clarification request; 3 – recast; 4 – repetition; 5 – metalinguistic clues; 6 – elicitation.

Figure 9

Distribution by estimates from -3 to 3 within the groups of B1, B2, and C1 level learners



istribution by estimates from -3 to 3 within the group of B1 level learners

Distribution by estimates from -3 to 3 within the group of B2 level learners

Distribution by estimates from -3 to 3 within the group of C1 level learners

To make the results of this study applicable to any other studies we strived to develop a method by which a teacher, having a group with an arbitrary number of listeners of English levels B1, B2, and C1, would be able to make a precise and well-considered choice of error correction techniques. Practically, this method suggests finding the most effective distribution of error correction techniques applied for a group of students with an arbitrary distribution of B1, B2, and C1 English levels.

Initially, we analyzed the results of the selection in each i -th students' subsample formed by evaluating the students' level of English in the representative group. Matrix $\mathbf{A} = [a_{ik}]_{n \times m}$, $i = \overline{1, n}$, $k = \overline{1, m}$ was obtained, with the coefficients characterizing students' preferences of the i -th subsample, where ' n ' is the number of students' levels of English (B1, B2 and C1) and ' m ' – the number of error correction techniques. As a matter of fact, a_{ik} is the probability of a student with i -th level of English preferring k -th error correction technique. The ' i ' line number indicates the serial number of the English level in the sequence (B1, B2 and C1), and the column number ' j ' is the serial number of the error correction technique in the survey. By definition,

$$a_{ik} = \frac{N_{ik}}{N_i}, \quad i = \overline{1, n}, \quad k = \overline{1, m}, \quad (1)$$

where N_{ik} is the number of students of the i -th level, who preferred the k -th technique, N_i is the total number of the i -th level students. In this case, the probabilities in each row of the matrix form a complete group, i.e. $\sum_{k=1}^m a_{ik} = 1, i = \overline{1, n}$.

Knowing the students' level of English in an arbitrary academic group, a teacher can calculate the vector of coefficients $\mathbf{G} = [g_i]_{1 \times n}$, $i = \overline{1, n}$, which characterize the 'weight' of students referring to a particular English level, where the elements g_i of the vector are defined as $g_i = \frac{N_i}{N}$, where N_i is the number of the i -th level students, N – total number of students in the group. It was necessary to find a 'corrected' \mathbf{A}^* matrix for the group participating in the survey through multiplying the matrix rows by the weighting factors g_i that characterize the distribution of English levels in the group

$$\mathbf{A}^* = \begin{bmatrix} g_1 a_{11} & g_1 a_{12} & \dots & g_1 a_{1m} \\ g_2 a_{21} & g_2 a_{22} & \dots & g_2 a_{2m} \\ \dots & \dots & \dots & \dots \\ g_n a_{n1} & g_n a_{n2} & \dots & g_n a_{nm} \end{bmatrix}.$$

The desired weight of the k -th error correction technique in the mixture (the relative weight of using each technique in the examined student group) is calculated as the sum of the elements being the columns of \mathbf{A}^* matrix:

$$K_k = \sum_{i=1}^n g_i a_{ik}, k = \overline{1, m} \tag{2}$$

The sum of the calculated weight factors $\sum_{k=1}^m K_k = 1$.

For the above representative group, the method can be demonstrated as follows. It was expected that as a result we were supposed to get weights matching the results of the survey question ‘Which of these error correction techniques is more likely to prevent you from making the same kind of error/mistake in the future?’ Building on the survey results and data from Table 1, we formed A matrix

$$A = \begin{bmatrix} 0.17 & 0.06 & 0.17 & 0.22 & 0.17 & 0.22 \\ 0.16 & 0.14 & 0.12 & 0.30 & 0.21 & 0.07 \\ 0.24 & 0.06 & 0.18 & 0.24 & 0.29 & 0 \end{bmatrix},$$

where the number of rows corresponds to the number of levels (B1, B2, C1), and the number of columns reflects the number of error correction techniques. After analyzing the responses to the question ‘What is your level of English?’ a vector of coefficients was formed $G = [0.247 \ 0.546 \ 0.207]^T$. Using the formula (2), weight coefficients were found (Table 3).

Table 3
Comparison of weighting factors obtained by calculating and by experiment

| Weighting factors | Error correction technique | | | | | |
|-----------------------------------|----------------------------|-----------------------|--------|------------|----------------------|-------------|
| | explicit correction | clarification request | recast | repetition | metalinguistic clues | elicitation |
| Calculated by the method proposed | .18 | .1 | .14 | .27 | .22 | .10 |
| According to the survey results | .18 | .09 | .15 | .25 | .21 | .12 |

Interestingly, by using the ‘corrected’ values obtained for the elements of the matrix using the Bayes’ formula, we obtained even more accurate results that coincide with the survey results. The accuracy obtained is sufficient to be used in foreign language teaching.

To demonstrate a possible way of transferring these calculations to a different setting, let us suppose a teacher has a group of 12 students, 9 of them at B1

proficiency level, and the other 3 students corresponding to B2 level of English. Applying the suggested method, we can find the vector of the desired weights $\mathbf{K} = [0.16 \ 0.07 \ 0.16 \ 0.22 \ 0.17 \ 0.23]^T$. Thus, the most effective error correction model for this group should involve: explicit correction (16% of the time spent on error correction), clarification request (7% of the time), recast (16%), repetition (22%), metalinguistic clues (17%), and elicitation (23%).

The method suggested in this study is limited to the levels of English, i.e., it works for a group of students whose English level is not lower than B1 and does not exceed C1, which is quite sufficient in most cases. For a wider range of levels, conducting a similar survey and studying its results could be recommended.

Conclusions

The findings of the study indicated that students had a positive attitude towards teachers' corrective feedback. Three quarters of the teachers agreed on the necessity of treating all students' errors (64%) and all major errors (21%). The students generally had a similar reaction, 56% of them supporting treatment of all students' errors and 15% of the respondents expecting a corrective feedback on all major errors. A disparity was revealed in the respondents' perceptions of limited corrective feedback (correction reduced to errors leading to misunderstanding, hindering communication, and interfering with clarity of expression), which was supported by 9% of the students but completely disregarded by the teachers.

At the same time, as much as one third of the respondents admitted that error correction by the teacher in the classroom could cause psychological discomfort for them or other students. Caution should be taken when considering the timing and manner of corrective feedback to be delivered, since more than one third of the students in the survey admitted having been discouraged by the teacher interrupting their oral production to correct the errors.

Almost half of the students viewed grammar errors as those needing treatment more than others, with lexical errors ranking second and phonological errors being the least urgent according to students' perceptions. In terms of the timing, there was no considerable dominance of either simultaneous or delayed corrective feedback within the current study. The difference in response distribution constituted 5.2% in favour of simultaneous error correction.

In terms of the type of errors that should necessarily be treated in SLA, almost half of the respondents gave priority to morphological and syntactic errors as more urgently requiring corrective feedback; one third of the students treated lexical errors as necessary for correction; while nearly one fifth of the responding students believed that teachers should primarily react to their phonological errors.

The prevailing oral error correction technique used by ESL teachers in the classroom, according to the students' survey, was explicit correction. The second most common type of corrective feedback, which students attributed to teachers, was recast. While clarification request ranked third among the most extensively used error correction techniques in SLA, repetition and metalinguistic feedback were found to

be less common, ranking fourth and fifth respectively. Elicitation appeared to be the most uncommon type of corrective feedback according to the students' responses.

The effectiveness of error treatment in SLA often depends on careful selection of the method, timing and delivering agent of corrective feedback. The optimal range of error correction techniques is, to a large extent, determined by the proficiency level of L2 learners. Understanding the correlation between learners' L2 level and their preferences for corrective feedback could increase their responsiveness and, consequently, the number of student-generated repairs. Therefore, the students' responses to the key question in the online survey, addressing the error correction technique which they considered to be the most effective, i.e. having the strongest preventative effect, were sorted and distributed according to their English proficiency level. Using the probability theory and a posteriori probabilities calculated with Bayes' formula, the probability of a randomly taken student of B1, B2 and C1 proficiency levels preferring one of the six error correction techniques was deduced. Analyzing the prevalence of each error correction technique in each of the B1, B2, and C1 level cohorts, the following tendencies could be observed: B1 level learners were inclined to prefer elicitation. Within the B2 level cohort, the most preferable error correction technique was repetition, while C1 level respondents were most likely to opt for metalinguistic clues. The calculations obtained in the study could be utilized by ESL educators and transferred to their settings. The suggested method could help educators develop the most effective error correction model for their ESL classroom, which would correspond to the students' expectations for the type and the amount of corrective feedback provided.

References


- Archer, A. & Hughes, C. (2011). *Explicit Instruction: Effective and Efficient Teaching*. New York: Guilford Press. Retrieved from <https://explicitinstruction.org/download/sample-chapter.pdf>
- Bartram, M. & Walton, R. (1991). *Correction: mistake management: a positive approach for language teachers*. Hove: Language Teaching Publications. Retrieved from https://www.academia.edu/34036578/Correction_a_Positive_Approach_to_Language_Mistakes_pdf
- Bitchener, J. (2008). 'Evidence in support of written corrective feedback.' *Journal of Second Language Writing*, 17(2), 102–118. <https://doi.org/10.1016/j.jslw.2007.11.004>
- Bitchener, J. & Knoch, U. (2008). 'The value of written corrective feedback for migrant and international students.' *Language Teaching Research*, 12, 409–431. <https://doi.org/10.1177/1362168808089924>
- Chandler, J. (2003). 'The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing.' *Journal of Second Language Writing*, 12(3), 267–296. <https://doi.org/10.4236/sm.2018.84020>
- Chen, J.R.C. (2005). 'Effective feedback and error treatment: EFL guidance for academic leaders.' Unpublished doctoral dissertation. The University of Montana. Retrieved from https://scholarworks.umt.edu/etd/9539/?utm_source=scholarworks.umt.edu%2Fetd%2F9539&utm_medium=PDF&utm_campaign=PDFCoverPages
- Corder, S. P. (1967). 'The Significance of Learners' Errors.' *International Review of Applied Linguistics in Language Teaching*, 5, 161–270. <http://dx.doi.org/10.1515/iral.1967.5.1-4.161>

- Corder, S. P. (1975). 'Error Analysis, Interlanguage and Second Language Acquisition.' *Language Teaching & Linguistics: Abstracts*, 8(4), 201–218. <http://dx.doi.org/10.1017/S0261444800002822>
- Ferris, D. & Roberts, B. (2001). 'Error feedback in L2 writing classes: How explicit does it need to be?' *Journal of Second Language Writing*, 10(3), 556–569. [https://doi.org/10.1016/S1060-3743\(01\)00039-X](https://doi.org/10.1016/S1060-3743(01)00039-X)
- Gelman, A., Carlin, J. B., Stern, H. S., Dunson, D. B., Vehtari, A., & Rubin, D. B. (2013). *Bayesian Data Analysis* (3rd ed.). Chapman and Hall/CRC. <https://doi.org/10.1201/b16018>
- Havranek, G. & Cesnik, H. (2001). Factors affecting the success of corrective feedback. In S. Foster-Cohen & A. Nizgorodzew (Eds.), *EUROSLA Yearbook*, Vol. 1. Amsterdam: Benjamins, 99–122. <https://doi.org/10.1017/9781108589789.017>
- Hedge, T. (2000). *Teaching and learning in the language classroom*. Oxford: Oxford University Press. Retrieved from <https://ru.scribd.com/document/351857142/Teaching-and-Learning-in-the-Language-Classroom-by-Tricia-Hedge-pdf>
- Heift, T. (2004). 'Corrective feedback and learner uptake in CALL.' *ReCALL*, 16(2), 416–431. <https://doi.org/10.1017/S0958344004001120>
- Hong, Y. (2004). 'The effect of teachers' error feedback on international students' self-correction ability.' M.A. thesis. Brigham Young University. Retrieved from <http://hdl.lib.byu.edu/1877/etd529>
- Housen, A. & Pierrard, M. (eds.) (2005). *Investigations in Instructed Second Language Acquisition*. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110197372.0.1>
- Jeffreys, H. (1998). *Theory of probability* (3rd edition). Oxford: Oxford University Press. <https://doi.org/10.1214/09-STS284>
- Lasagabaster, D. & Sierra, J. (2005). 'Error correction: Students' Versus Teachers' Perceptions.' *Language Awareness*, 14, 112–127. <https://doi.org/10.1080/09658410508668828>
- Lee, E. J. (2013). 'Corrective feedback preferences and learner repair among advanced ESL students.' *System*, 41(2), 217–230. <https://doi.org/10.1016/j.system.2013.01.022>
- Lee, I. (2004). 'Error correction in L2 secondary writing classrooms: The case of Hong Kong.' *Journal of Second Language Writing*, 13(4), 285–312. <https://doi.org/10.1016/j.jslw.2004.08.001>
- Lee, I. (2005). 'Error correction in L2 writing classroom: What do students think?' *TESL Canada Journal*, 22(2), 1–16. <https://doi.org/10.18806/tesl.v22i2.84>
- Leeman Y., Ledoux G. (2003). Intercultural Education in Dutch Schools. *Curriculum Inquiry*. Vol. 33, Issue 4, 385–399. <https://doi.org/10.1046/j.1467-873X.2003.00271.x>
- Lennon P. (2008). 'Contrastive Analysis, Error Analysis, Interlanguage.' In S. Gramley & V. Gramley (eds.), *Bielefeld Introduction to Applied Linguistics*. Bielefeld: Aisthesis, 51–60. <https://doi.org/10.5539/elt.v11n10p95>
- Lennon, P. (1991). 'Error: Some problems of definition, identification and distinction.' *Applied Linguistics*, 12, 180–196. <https://doi.org/10.1093/APPLIN/12.2.180>
- Lyster, R. & Ranta, L. (1997). 'Corrective feedback and learner uptake: Negotiation of form in communicative classrooms.' *Studies in Second Language Acquisition*, 20, 37–66. <https://doi.org/10.1017/S0272263197001034>
- Lyster, R. (2001). 'Negotiation of form, recasts, and explicit correction in relation to error types and learner repair in immersion classrooms.' *Language Learning*, 51(1), 265–301. <https://doi.org/10.1111/j.1467-1770.2001.tb00019.x>
- Lyster, R., Saito, K., & Sato, M. (2013). 'Oral corrective feedback in second language classrooms.' *Language Teaching*, 46 (1), 1–40. <https://doi.org/10.1017/S0261444812000365>
- Mackey, A., Gass, S., & McDonough K. (2000). 'How do learners perceive interactional feedback?' *Studies in Second Language Acquisition*, 22 (4), 471–497. Retrieved from <https://eprints.lancs.ac.uk/id/eprint/59848/1/download1.pdf>
- Martin, S. & Alvarez Valdivia, I.M. (2017). 'Students' feedback beliefs and anxiety in online foreign language oral tasks' *International Journal of Educational Technology in Higher Education*, 14(1), 1–15. <https://doi.org/10.1186/s41239-017-0056-z>

- Miltenberger, R.G. (2003). *Behavior modification: Principles and procedures* (3rd edition). Belmont, CA: Wadsworth/Thomas Learning. <https://doi.org/10.1901/jaba.2005.115-04>
- Nicholas, H., Lightbown, P., & Spada, N. (2001). 'Recasts as Feedback to Language Learners.' *Language Learning*, 51(4), 719–758. Retrieved from https://www.researchgate.net/publication/229589394_Recasts_as_Feedback_to_Language_Learners/link/5c0a5eab92851c39ebda0ef8/download. <https://doi.org/10.1111/0023-8333.00172>
- Osgood, C. E. (1952). 'The nature and measurement of meaning.' *Psychological Bulletin*, 49, 197–237. <https://doi.org/10.1037/h0055737>
- Park, H.S. (2010). 'Teachers' and learners' preferences for error correction.' M.A. thesis. Sacramento: California State University. Retrieved from https://dspace.calstate.edu/bitstream/handle/10211.9/302/thesis_pdf.pdf?sequence=1
- Perdomo, B. (2018) Research of Recast as Oral Negative Feedback: a Review. *The Online Journal of Science and Technology*, Vol.8, Issue 2, 114–123. Retrieved from <https://tojsat.net/journals/tojsat/articles/v08i02/v08i02-19.pdf>
- Purwati, N. et al. (2012). *Research in English and Applied Linguistics (REAL)*. Vol.2. Beautiful World is Seen from the Eyes of Linguists. LLC Publishing. Retrieved from <http://acikerisim.pau.edu.tr:8080/xmlui/bitstream/handle/11499/2857/Hale%20Yayla%20%20Ustac%C4%B1%20.pdf?sequence=1&isAllowed=y>
- Quinn, P. (2014). 'Delayed versus immediate corrective feedback on orally produced passive errors in English.' PhD dissertation. University of Toronto. Retrieved from <https://hdl.handle.net/1807/65728>
- Radecki, P. M. & Swales, J. M. (1988). 'ESL student reaction to written comments on their written work.' *System*, 16(3), 355–365. [http://dx.doi.org/10.1016/0346-251X\(88\)90078-4](http://dx.doi.org/10.1016/0346-251X(88)90078-4)
- Richards, J. (1971). *Error Analysis and Second Language Strategies*. Longman. Retrieved from <https://files.eric.ed.gov/fulltext/ED048579.pdf>
- Sheen, Y. (2010a). 'Differential effects of oral and written corrective feedback in the ESL classroom. *Studies in Second Language Acquisition*, 32, 203–234. <https://doi.org/10.1017/S0272263109990507>
- Sheen, Y. (2010b). 'Introduction: The role of oral and written corrective feedback in SLA.' *Studies in Second Language Acquisition*, 32(2), 169–179. <https://doi.org/10.1017/S0272263109990489>
- Touchie, H. (1986). 'Second language learning errors. Their types, causes, and treatment.' *JALT Journal*, 8(1), 75–80. Retrieved from https://jalt-publications.org/sites/default/files/pdf-article/art5_8.pdf
- Tsang, W. K. (2004). 'Feedback and uptake in teacher-student interaction: An analysis of 18 English lessons in Hong Kong secondary classrooms.' *RELC Journal*, 35(2), 187–209. <https://doi.org/10.1177/003368820403500207>
- Worsdell, A. S., Iwata, B. A., Dozier, C. L., Johnson, A. D., Neidert, P. L., & Thomason, J. L. (2005). 'Analysis of response repetition as an error-correction strategy during sight-word reading.' *Journal of Applied Behavior Analysis*, 38, 511–527. <https://doi.org/10.1901/jaba.2005.115-04>
- Zembytska, M., Romanova, Y., & Chumak, N. (2019). 'ESL students' perceptions of error correction techniques in oral production. Online Survey (Part II).' Retrieved from <https://ru.surveymonkey.com/results/SM-35V9H8KBV/>
- Zembytska, M., Romanova, Y., & Chumak, N. (2019). 'ESL students' perceptions of error correction techniques in oral production. Online Survey (Part I).' Retrieved from <https://ru.surveymonkey.com/results/SM-YWW7HNXNV/>
- Zhang, Y., Zhang, L., Ma, L. (2010). 'A brief analysis of corrective feedback in oral interaction.' *Journal of Language Teaching and Research*, 1(3), 306–308. <https://doi.org/10.4304/JLTR.1.3.306-308>

Psycholinguistic and Cultural Implications of German Stimulus Words *Humor* and *Lachen* in Association Test

Oksana Zubach

 <https://orcid.org/0000-0003-1884-6875>
subach.oxana@vnu.edu.ua

Lesya Ukrainka Volyn National University, Ukraine

Received December 2, 2021; Revised April 8, 2022; Accepted May 3, 2022

Abstract. The article is focused on the psycholinguistic and cultural study of individual associative responses to German stimulus words 'Humor' and 'Lachen'. The goal is to determine individual cognitive activity features in the target 'culture of popular laughter' (Bakhtin, 1965). The research involved a free word association test aimed at examining the German learners' perception of the stimulus words. Sixty undergraduate students aged 20-22 of the educational programme "Language and Literature (German). Translation" at Lesya Ukrainka Volyn National University, Ukraine, participated in the word association test. Quantitative analysis of response words, typical and individual responses allowed building semantic gestalt and productive semantic zones that represent the linguistic culture identification features. Nouns, adjectives, and verbs represented productive associations. The analysis of associative fields allowed modelling the interaction of psycholinguistic and lingo-cultural factors for the emergence of responses to the stimulus words 'Lachen' and 'Humor'. The obtained response words determined communicative, pragmatic, and cognitive productive profiles. Nuclear zones in each associative field tended towards a unified expression of positive emotions. Respondents produced a wide range of semantic potential of stimulus words and frequency of reverse reactions. The expressive spectrum of productivity of individual associations by the respondents is interpretive and results from their cognition of the culture of popular laughter.

Keywords: *word association test, German language, Lachen, Humor, culture of popular laughter, semantic gestalt, psycholinguistics.*

Зубач Оксана. Психолінгвістичні та лінгвокультурні аспекти асоціативних реакцій на німецькі слова-стимули *Humor* та *Lachen*.

Анотація. Мета статті – виявлення специфіки німецьких слів-стимулів *Humor* та *Lachen* на засадах лінгвокультурологічного та психолінгвістичного аналізу з метою визначення особливостей когнітивної діяльності особистості у сміховому просторі цільової лінгвокультури. У дослідженні застосовано метод вільного асоціативного експерименту, в якому досліджено особливості сприйняття слів-стимулів *Humor* та *Lachen* у сучасному соціумі, з'ясовано типові та індивідуальні реакції. В експерименті взяло участь 60 студентів бакалаврату віком 20-22 років освітньо-професійної програми «Мова та література (німецька). Переклад» Волинського національного університету імені Лесі Українки (Україна). На основі кількісного аналізу слів-асоціацій та методу семантичного гештальта виокремлено продуктивні семантичні зони та реакції щодо кожного зі слів-стимулів, які представляють специфіку ідентифікації лінгвокультури. Продуктивними реакціями

виокремлено іменникові, прикметникові та дієслівні. Аналіз асоціативних полів дав змогу змодельовати взаємодію психолінгвістичних та лінгвокультурологічних засад для виникнення реакцій на слова-стимули *Lachen* та *Humor*. До продуктивних профілів реакцій належать комунікативний, прагматичний та когнітивний. Ядерні зони в кожному асоціативному полі виявили тенденцію до однотипності вираження позитивних емоцій. Респонденти репрезентували широкий обсяг семантичного потенціалу слів-стимулів та частотності обернених реакцій. Виразний спектр продуктивності індивідуальних асоціатив запропонований респондентами має інтерпретаційний характер та є результатом ментальної та вербальної когніції сміхової культури.

Ключові слова: слова-стимули, асоціативний експеримент, семантичний гештальт, німецька мова, лінгвокультурологічний аналіз, психолінгвістика.

As a part of cognitive science (Stillings et al., 1995, p. 3), psycholinguistics focuses on the mental and cognitive mechanisms that make it possible for people to use language (Garnham, 1985, p. 1). The cognitive approach considers a wide range of issues related to the interaction of mental/cognitive processes of individual speech activity. It promotes access to information about the structures (mechanisms) of human perception and understanding of the world in general (Edgar & Sedgwick, 2007). A psycholinguistic analysis aims to reveal the essence of the semantic organization of mental vocabulary and its connection with the mental aspects of language and speech.

Laughter as a combination of mental and cognitive mechanisms of individual emotional state identification may be accompanied by typical (expressions of joy, social satisfaction or well-being) and conflicting emotions (emotions of sadness, dissatisfaction, hysteria, depression, and the like). On the other hand, laughter is a "part of normal human behaviour" (Savage et al. 2017), evidence of a loss of sense of reality or kinship with the situation (culturally conditioned) that caused it. According to Ginzburg et al. (2020, p. 29), laughter is associated with the pleasure experienced by the laugher and, potentially, by other interlocutors. The interdependence of acts of social and interpersonal communication is simultaneously declared by the mental signs of laughter and humour, as "laughter and humour often go together, although humour does not necessarily entail laughter (Charaudeau, 2006, p. 20) and "both what seems wrong and what seems OK depend on people's physiological vulnerabilities, desired identity traits, values, cultural background, language, and understanding of logic" (McGraw, 2014, p. 76). Humour is a functionally systemic sign engraved not only positive or fun but also a carnival and absurd. The pragmatic specificity of humour (Attardo, 2003; Takovski, 2021) contributes to categorizing the principles of mental and cognitive processes to identify individual, ethnospecific features of the speech activity of the individual in a particular linguistic and cultural space.

In psycholinguistics, *humour* is defined as an indicator or point of reference for the manifestation of emotional state recognition point (O'Donnel-Trujillo & Adams, 1983; Podilchak, 1992) and a socially desirable phenomenon facilitating the establishment of contact between communicants (Cann & Matson, 2014), which

influences many aspects of human well-being due to its positive effects on body physiology, immunity status, and psychological behaviour (Piemonte, 2015; Riesch, 2015). Humour both exposes and disrupts the usual ways of using language. It also disrupts the rigidity of conventional ways of thinking, for it plays only with the rules of language but also with the rules of logic. However, humour clearly has a logic of its own (Lopez & Vaid, 2017).

The association test, or word association test (Terekhova, 2014; Shono et al., 2016), is popular among psycholinguists due to the possibility of studying the semantic organization of individual mental lexicon. The free association test is considered a tool for finding differential mental characteristics of the individual and a means of identifying productive linguistic and cultural stereotypical / clichéd traits for modelling typological images of representatives of certain linguistic cultures. The application of the method focuses on identifying the linguistic and cultural specifics of language consciousness, conceptual semantic fields, and various elements of the linguistic world-image (Hui, 2011; Namei, 2004; Seguin, 2015). Recently, special attention has been paid to the study of linguistically marked stimulus words, as such words reveal the specifics of both cognitive and linguistic and cultural categorization of linguistic and cultural world images. Moreover, the analysis of linguistically marked words makes it possible to identify typical and specific meanings that demonstrate the peculiarities of the speakers' mentality of a certain linguistic culture.

Methods

Associative thinking differs at the interpersonal level due to social, cultural, age, gender and other factors. This is a basis for studying the typicality and specificity of linguistic and cultural features of verbalisation and the uniqueness of their perception at the intercultural level.

The study uses the free association test method to search for typical and individual features in the formation of words-stimuli by individuals. In addition, the statistical data analysis method helped determine the nuclear and peripheral zones in each field in particular and all associative fields. The comparative analysis revealed typical and individual reactions. Semantic gestalt construction simulated the reference model typical for a certain national culture and proved to be vital for the selection of dominant semantic zones in the modelling of differential features of stimulus words. This model corresponds to the actual stimulus to a native speaker of a particular language (Novikova, 1988, p. 22–23), reveals both national and universal features and may vary depending on the time parameters and characteristics of groups of experimental participants (Novikova, 1988, p. 27). It is "built on the involvement of each reaction to a certain stereotypical quality of the referent in this language" (Goroshko, 2001). The semantic gestalt creates the preconditions for access to the associative-verbal network of the stimulus word, determining the productivity of reactions to it and the formation of profiles for reactions. The

semantic gestalt method was used in the study to determine typical and semantically similar responses for modelling the specifics of the perception of stimuli by the speakers. Stimulus words, on the one hand, are universal and social; on the other, they are unique at the intercultural level. The formation of a list of semantic gestalts for each stimulus word involved the procedure of seeking stereotypical properties of a specific referent based on the semantic similarity of elements.

The word association test (WAT) had the German words *Lachen* and *Humor* as stimuli. Sixty undergraduate students aged 20-22 of the educational programme "Language and Literature (German). Translation" at Lesya Ukrainka Volyn National University, Ukraine, participated in the word association test. Their level of proficiency in German as a foreign language corresponded to B2. The study included the following procedures:

1. Establishing an associative field at different levels of language
2. The formation of the semantic content of the stimulus words
3. Identification of typical, individual and productive reactions

It is important that the definition of *associative zones* is a necessary step for conducting constructive linguistic, cultural, and psycholinguistic analyses of the words.

Results and Discussion

The WAT results showed that associative fields were created based on each stimulus word, which materialises at different levels of language. The analysis of stimulus words revealed traces of repetitive and individual reactions. For example, seven repetitive reactions were received to the *Lachen* stimulus word, where the stimulus word is categorised as a way of expressing positive emotions, emotional state or human reaction to something funny/humorous. The responses included nonverbal means of expressing mental state, e.g.: *eine ausdrückende Mimik, bei der der Mund in die Breite gezogen wird und die Zähne sichtbar werden*. 53 individual responses to the word-stimulus *Lachen* outlined its understanding as a manifestation of various human reactions to a comic / funny situation: *eine Reaktion eines Menschen auf Komische oder erheiternde Situationen*; preference / capture: *auf etwas, das sie mag oder genießt*; postreaction to the experienced danger: *eine Entlastungsreaktion nach überwundenen Gefahren*); echo of sounds or noises in the expression of joy: *Geräusche, wenn man Freude ausdrü*; an innate means of expressing a person's emotional state: *eines der wichtigsten angeborenen emotionalen Ausdrucksverhalten des Menschen*; method of confrontation with conflict situations and means of socialization: *a method for advocating for conflicts and for social assistance*; a protective mechanism against unexpected danger or fear: *ein Abwehrmechanismus gegen spontane Angstzustände*.

Repetitive reactions to the word-stimulus *Humor* were recorded in 22 cases. This stimulus word was defined as a positive reaction to certain things (*auf bestimmte*

Dinge heiter und gelassen zu reagieren). Thirty-seven individual reactions to the word-stimulus *Humor* indicated the (intellectual) ability to joke (*die Fähigkeit einer Person, Witze zu machen*); ability to resist everyday difficulties, failures (*the movement of a man, the indifference of the world and the people, the all-encompassing triumphs and misfortunes with the help of the voice to escape*); talent to make someone laugh (*ein Talent, andere zum Lachen zu bringen*); the ability to see something fun in objects and objects (*in Objekten das Lächerliche zu sehen / in Gegenständen lustig zu sehen*); a therapeutic/curative or therapeutic agent against sadness, depression, etc. Noteworthy is the individual reaction to the word-stimulus *Humor*, which records the specifics of perception of the individual in the particular language culture and mastery of verbal/nonverbal mechanisms of modelling or provoking laughter (*eine körperliche oder verbale Handlung, die Sie zum Lachen bringen soll, die Kunst sich selbst und die Umstände nicht so ernst nehmen*). Associative deviations include zero reaction (1) represented by verbal and nonverbal cues: no interest, no associations (*nicht mein Ding, weil ich es nicht verstehe*).

The nominative field of the stimulus words *Lachen* and *Humor* is mainly formed at the lexical level and consists of a set of one-word associations (noun, adjective and verb). Nounal reactions (137) outline constants, elements or product of laughter culture: *der Witz* (11), *die Anekdote* (10), *der Komiker* (10), *die Satire* (8), *der Scherz* (8), *der Humor* (7), *the comedy* (6), *the laughter* (6), *the love* (6), *the parody* (6), *the spaghetti* (6), *the joke* (5), *the frivolity* (4), *the irony* (4), *the creativity* (3), *the optimism* (3), *the streak* (3), *the poetry* (3), *the text* (3), *the lightness* (3), *the comics* (2), *the clown* (2), *the words* (2), *der Lachenfall* (2), *die Übertreibung* (2), *die Offenheit* (2), *der Krimi* (2), *das Genre* (2), *der Funke* (2), *die Intelligenz* (2), *das Temperament* (2).

Adjectival reactions (118) are most clearly reflected at the pragmatic level of language, where they mark the interaction of individual mental, cognitive, and linguistic-cultural modes of perceiving the stimuli. This interaction enriches the associative row by indicating the originality of thinking.

Connotative meaning – *lustig* (13), *komisch* (7), *witzig* (6), *fröhlich* (4), *zynisch* (4), *sarkastisch* (4), *lächerlich* (2), *subtil* (3), *unterhaltsam* (3), *ironisch* (3), *satirisch* (3), *gelaunt* (3), *geistreich* (3), *bizarrr* (3), *amüsant* (2), *geistreich* (2), *spielerisch* (2), *liebenswert* (2), *eigentümlich* (2), *liebenswürdig* (2), *poetisch* (2), *spotty* (2), *original* (2), *good* (2).

Significative meaning – *bissig* (4), *derb* (2), *humorlos* (2), *hysterisch* (2), *albern* (2), *boshaft* (2), *irrsinnig* (2), *absurd* (2), *verächtlich* (2).

Contextual meaning – *laconic* (1), *black* (1).

Lingo-cultural meaning – *volkstümlich* (1), *urkomisch* (1).

Verb reactions (67) are associated with nominative fields that reveal the activity code of a person in the laughter space of a certain linguistic culture and categorize its activity: joke (*scherzen* (8), *erheitern* (5), *schwätzen* (1), *plänkeln* (1), *erzählen* (1)), to laugh (*lachen* (6), *belächeln* (1), *gluksen* (1), *gackern* (1)); to have fun (*süsmüren* (5), *überspielen* (2), *sich unterhalten* (2), *sich erlustigen* (1), *aufmuntern* (1), *sich*

entspannen (1), sich ablenken (1), erfrischen (1), sich freuen (1)). The stimulus words *Lachen* and *Humor* in the associative series of the nominative group of verb reactions determine the level of laughter gradation at the communicative level of language – lächeln (9), kichern (4), auslachen (4), grinsen (2), schmunzeln (2), glimmlachen (2), totlachen (2), feixen (1), meckern (1).

The associative row at the syntactic level takes into account the syntactic categorical relations of creating predicative constructions at the levels of phrases and sentences. The peculiarity of the associative production of reactions to stimulus words outlines only the prerequisites for modeling the projection of the laughter culture specifics: purpose (*Fre man Freude äußert und seine Zähne dann sichtbar sind / die Atmosphäre verwässern muss / die Leute aufmuntern will*); condition (*... man anekode gehört oder erzählt hat / etwas Lustiges gesehen, gehört, gedacht oder gefühlt wird / einen guten Witz oder eine witzige Situation sieht oder hört*); receptions (*... man lustig scherzt / etwas lustig findet oder nervös ist / einen lustigen Witz erzählt / lächerlich ist*).

It should be noted that the detection of reactions at the phrase level was not due to the experiment. Representation by 4 respondents of associative adjectives (2 respondents) (*... kindlichen / herzlichen / lauten / lustigen / bitteren Lachens*) and verbs (2 respondents) (*Spaß machen, Witze machen, einen Lachanfall / Lachkrampf bekommen, ein Gelchenmen about jmd. or etw. Witze machen / erzählen, sich über etwas lustig machen, vor Lachen weinen*) reactions-phrases are evidence of a deeper awareness of the semantic volume of words-stimuli at the intercultural level.

The linguistic and cultural specifics of creating an associative series are categorised through national and cultural values of perception of the world of language and the world of culture, which are engraved in a certain linguistic and intercultural space. The specificity of the associative field in 99 proverbs is actualised at the morphological level of language. It is realised in word-forming categorical relations between reactions and stimulus words (*das Lachen, das Lächeln, Gelächter, lächelnd, lustig, lachen*), humor (*der Humor*). The spectrum of the associative field of the stimulus word *Lachen* (78) is higher than that of the stimulus word *Humor* (21). The intercultural level of the associative field is reflected in the responses of two participants:

Humor ist eines der besten Kleidungsstücke, die man in Gesellschaft tragen kann. William Shakespeare.

Lachen ist eine körperliche Übung, von größtem Wert für die Gesundheit. Aristoteles.

Here the stimulus words are part of idioms.

Semantically opaque reactions to these stimulus words are few and their motivation is not always clear, probably due to a clear individualisation similarity or similarity association.

The analysis of associative fields allowed us to identify productive responses to the stimulus words *Lachen* and *Humor* (see Table 1).

Table 1
Productive responses to the stimulus words Lachen and Humor

| Stimulus words | Productive responses | | | | | | |
|----------------|----------------------|--------------|------------------------|------------|-------------|-----------|--|
| | typical | individual | Nouns | Adjectives | Verbs | Zero | |
| Lachen | Mimik | Reaktion | Witz | lustig | scherzen | - | |
| | MundZähne | Entlassungs- | e-aktion | Anekdote | komisch | erheitern | |
| | | Geräusche | | Komiker | humorvoll | lachen | |
| | | Ausdrucksve- | r-halten | Satire | witzig | lächeln | |
| | | | | Scherz | fröhlich | kichern | |
| | | | | Humor | zynisch | auslachen | |
| | | | | Methode | sarkastisch | | |
| | | | | Abwehrmec- | Lachen | bissig | |
| | | | | ha-nismus | Heiterkeit | | |
| | | Humor | Heiterkeit Reaktion | Fähigkeit | Parodie | | |
| Begabung | | | | Spaß | | | |
| Talent | | | | | | | |
| Heilmittel | | | | | | | |
| Handlung | | | | | | | |

The analysis of associative fields allowed us to identify productive response profiles to the stimulus words Lachen and Humor (see Table 2).

Table 2
Productive response profiles to the stimulus words Lachen and Humor

| Stimulus words | Productive response profiles | | |
|----------------|------------------------------|---------------------------|--------------|
| | communicative | cognitive | pragmatic |
| Lachen/Humor | kichern | wenn man Freude äußert | Ironisch |
| | auslachen | und seine Zähne dann | satirisch |
| | grinsen | sichtbar sind/ die | derb |
| | schmunzeln | Atmosphäre verwässern | poetisch |
| | glimmlachen | muss / die Leute | aburd |
| | totlachen | aufmuntern will / eine | volkstümlich |
| | feixen | Anekdote gehört oder | urkomisch |
| | meckern | erzählt hat / etwas | hysterisch |
| | gackern | Lustiges gesehen, gehört, | humoristisch |
| | aufmuntern | gedacht oder gefühlt wird | scharfsinnig |
| | ablenken | / einen guten Witz oder | schwarz |
| | erfrischen | eine witzige Situation | lakonisch |
| | loben | sieht oder hört) / lustig | optimistisch |
| | gluksen | scherzt / etwas lustig | frech |
| | plänkeln | findet oder nervös ist / | albern |
| | erzählen | einen lustigen Witz | eigenartig |
| | schwätzen | erzählt | irrsinnig |
| | belächeln | | spielerisch |
| | überspielen | | gutmütig |

The analysis of associative fields enabled the model of the interaction of psycholinguistic and lingo-cultural aspects for emerging reactions to the stimulus words *Lachen* and *Humor* (see Fig. 1).

Figure 1

A model of the interaction of psycholinguistic and lingo-cultural aspects for emerging reactions to the stimulus words Lachen and Humor



The WAT results indicate a greater amount of semantic potential of the stimulus words than recorded in the German lexicographic edition, where the stimulus word *Lachen* is defined as "durch eine Mimik, bei der der Mund in die Breite gezogen wird, die Zähne sichtbar werden und um die Augen Fältchen entstehen, [zugleich durch eine Abfolge stoßweise hervorgebrachter, unartikulierter Laute] Freude, Erheiterung, Belustigung o. a. erkennen lassen" (Duden, p. 918). The stimulus word *Humor* is defined as follows: "Gabe eines Menschen, der Unzulänglichkeit der Welt und der Menschen, den Schwierigen und Mißgeschicken des Alltags mit heiterer Gelassenheit zu begegnen" (Duden, p. 741).

Semantically opaque reactions to stimulus words are few, and their motivation is not always clear, probably due to certain individualized features or associations based on similarity or contiguity.

Conclusions

The article attempted to conduct a psycholinguistic and cultural analysis of perceiving the stimulus words *Lachen* and *Humor* by the selected group of German learners at different language levels. The results of the psycholinguistic association test indicate that the perception of the stimulus words *Lachen* and *Humor* represents a vital linguistic and cultural fragment of the German culture of popular laughter. The responses contribute to the formation of stereotypes and cultural values, being a stimulus to analytical and critical thinking with expected constructive feedback. Among typical reactions to the stimulus word *Lachen* were *Mimik*, *Mund*, *Zähne*,

individual: Reaktion, Entlassungsreaktion, Geräusche, Ausdrucksverhalten, Methode, Abwehrmechanismus. The stimulus word *Humor* had the following typical responses: *Heiterkeit, Reaktion, individual: Fähigkeit, Begabung, Talent, Heilmittel, Handlung.* Associative fields with the proposed stimulus words consist of structurally and semantically heterogeneous units and are formed at different language levels. The reactions formed by paradigmatic and syntagmatic connections with stimulus words are considered productive, and phrasal expressions unproductive. The productive reactions include nouns *Witz, Anekdote, Komiker, Satire, Scherz, Humor, Komödie, Lachen, Heiterkeit, Parodie, Spaß,* adjectives *lustig, komisch, humorvoll, witzig, fröhlich, zynisch, sarkastisch, bissig,* verbs *scherzen, erheitern, lachen, sich amüsieren, lächeln, kichern, auslachen.* Few sentence-long responses posed the most significant cognitive difficulties. The productive response profiles include communicative, e.g. *schmunzeln, grinsen, auslachen, lächeln, kichern,* pragmatic, e.g. *ironisch, satirisch, derb, poetisch, humorlos, absurd, Volksmilch, urkomisch,* and cognitive, e.g. *wenn man Freude äußert und seine Zähne dann sichtbar sind; die Atmosphäre verwässern muss; die Leute aufmuntern will / eine Anekdote gehört oder erzählt hat; etwas Lustiges gesehen, gehört, gedacht oder gefühlt wird; etwas lustig findet oder nervös ist.* Nuclear zones in each associative field tended towards a unified expression of positive emotions. The expressive range of productivity of individual associations by the respondents is interpretive and results from their cognition of the culture of popular laughter.

Since the study was limited to a small number of participants, it was not possible to reveal other potentially interesting for psycholinguists responses. What is now needed is a cross-national comparative psycholinguistic study involving both German native speakers and German learners.

References

- Attardo, S. (2003). Introduction: the pragmatics of humor. *Journal of Pragmatics*, 35(9), 1287–1294. [https://doi.org/10.1016/S0378-2166\(02\)00178-9](https://doi.org/10.1016/S0378-2166(02)00178-9)
- Bakhtin, M. *Rabelais and his World.* Cambridge, Mass: MIT Press.
- Cann, A., Matson, C. (2014). Sense of humor and social desirability: Understanding how humor styles are perceived. *Personality and Individual Differences*, 66, 176–180. <https://psycnet.apa.org/doi/10.1016/j.paid.2014.03.029>
- Charaudeau, P. (2006). Des catégories pour l'humour? *Questions de Communication*, 10, 19–41. <http://dx.doi.org/10.4000/questionsdecommunication.7688>
- Edgar, A., & Sedgwick, P., (eds). (2007). *Cultural Theory: The Key Concepts.* London: Routledge.
- Garnham, A. (1985). *Psycholinguistics: Central Topics.* London & New York: Methuen.
- Ginzburg, J., & Mazzocconi, C. & Tian, Y. (2020). Laughter as language. *Glossa: A Journal of General Linguistics* 5(1), 104. 1–51. <https://doi.org/10.5334/gjgl.1152>
- Goroshko, Ye. (2001). Integrativnaja model' svobodnogo asociativnogo eksperimenta [An Integrative Model of Free Association Test]. Kharkiv: RA – Karavella.
- Hui, L. (2011). An Investigation into the L2 Mental Lexicon of Chinese English Learners by Means of Word Association. *Chinese Journal of Applied Linguistics*, 34(1). <https://doi.org/10.1515/cjal.2011.005>

- Lopez, B. G., Vaid, J. (2017) Psycholinguistic approaches to humor. In S. Attardo (Ed.), *The Routledge Handbook of Language and Humor* (pp. 267–281). New York: Routledge
- McGraw, P., C. Warren (2014). ‘Benign Violation Theory’. In Attardo, S. (Ed.), *Encyclopedia of Humor Studies*. (pp. 75–77). Los Angeles; London; New Delhi: Sage.
- Namei, S. (2004). Bilingual lexical development: A Persian-Swedish word association study. *International Journal of Applied Linguistics*, 14(3), 363–388. <https://doi.org/10.1111/j.1473-4192.2004.00070.x>
- O'Donnel-Trujillo, N., Adams K. (1983). Heheh in Conversation: Some Coordinating Accomplishments of Laughter. *Western Journal of Speech Communication*, 47(2), 175–191. <https://doi.org/10.1080/10570318309374114>
- Piemonte, N. M. (2015). ‘Last laughs: Gallows humor and medical education’. *Journal of Medical Humanities*, 36(4), 375–390. <https://doi.org/10.1007/s10912-015-9338-4>
- Podilchak, W. (1992). Fun, funny, fun-of humor and laughter. *Humor*, 5, 375–396. <https://psycnet.apa.org/doi/10.1515/humr.1992.5.4.375>
- Riesch, H. (2015). Why did the proton cross the road? Humour and science communication. *Public Understanding of Science*, 24 (7), 768–775. <https://doi.org/10.1177/0963662514546299>
- Savage, B. M., Lujan H. L., Thipparthi R. R. & DiCarlo, S. E. (2017). Humor, laughter, learning, and health! A brief review. *Advances in Physiology Education*, 41(3), 341–347. <https://doi.org/10.1152/advan.00030.2017>.
- Séguin, M. (2015). Exploration of the relationship between word-association and learners’ lexical development with a focus on American L1 and Croatian L2 speakers. *Explorations in English Language and Linguistics*, 3(2), 80–101. <https://doi.org/10.1515/exell-2017-0003>
- Shono, Y., Ames, S., Stacy, A. (2016). Evaluation of internal validity using modern test theory: Application to word association. *Psychological Assessment*, 28(2), 194–204. <https://doi.org/10.1037/pas0000175>
- Stillings, N. A., Chase, Chr. H., Weisler, S. E., Feinstein, M. H., Garfield, J. L., Rissland, E. L., & Weisler, S. W. (1995). *Cognitive Science: An Introduction*. Cambridge, MA: MIT Press.
- Takovski, A. (2021) Lubricating culture awareness and critical thinking through humour. *The European Journal of Humour Research* 9 (4), 1–19. <http://dx.doi.org/10.7592/EJHR2021.9.4>
- Terekhova, D. (2014). Analiz assotsiatyvnykh poliv sliv-stymuliv МИР / МИР / МИР u skhidnoslovyanskikh movakh [The analysis of associative fields of stimulus words МИР / МИР / МИР (PEACE) in East-Slavonic languages]. *East European Journal of Psycholinguistics*, 1(1), 194–201. Retrieved from <https://eejpl.vnu.edu.ua/index.php/eejpl/article/view/228>

Sources

Duden: Deutsches Universal Wörterbuch A–Z. (1989). 2., völlig neu bearb. u. erw. Mannheim: Aufl. Bibliographisches Institut & F. A. Brockhaus AG.

CALENDAR

PSYCHOLINGUISTIC RESEARCH EVENTS

Quantitative Linguistics Conference 2023 – QUALICO 2023

Host institution: University of Lausanne, Switzerland

Deadline for submitting abstracts: January 8, 2023

Location: Lausanne, Switzerland

Start Date: 28th June, 2023

Contact: François Bavaud

E-mail: qualico2023@unil.ch

URL: <https://wp.unil.ch/qualico2023/>

11th International Conference on Language, Media and Culture (ICLMC 2023)

Host institution: Nishinippon Institute of Technology

Deadline for submitting abstracts: November 20, 2022

Location: Fukuoka, Japan

Start Date: 13th May, 2023

Contact: Joe Chou

E-mail: iclmc@iedrc.org

URL: <http://iclmc.org/cfp.html>

3rd International Conference on Computational Linguistics and Natural Language Processing (CLNLP 2022)

Host institution: The Hong Kong Society of Robotics and Automation

Deadline for submitting abstracts: November, 2022

Location: Beijing, China

Start Date: 16th December, 2022

Contact: Willa P. P. Wong

E-mail: clnlp@hksra.org

URL: www.clnlp.org

11th International Conference on Natural Language Processing (NLP 2022)

Host institution: NLP 2022

Deadline for submitting papers: July 30, 2022

Location: Copenhagen, Denmark

Start Date: 17th September, 2022

Contact: nlp2022

E-mail: nlp@nlp2022.org

URL: <https://nlp2022.org/>

Linguistics Beyond And Within — International Linguistics Conference in Lublin online

Host institution: John Paul II Catholic University of Lublin, Poland

Deadline for submitting abstracts: August 15, 2022

Location: Lublin, Poland

Start Date: 13 October, 2022

Contact: Anna Bloch-Rozmej

E-mail: lingbaw@gmail.com

URL: <https://lingbaw.webclass.co>

Наукове видання
Scholarly edition

**EAST EUROPEAN JOURNAL
OF
PSYCHOLINGUISTICS**

Східноєвропейський журнал психолінгвістики

Volume 9
Number 1
Том 9
Число 1

Technical editor I. Zakharchuk
Технічний редактор І. Захарчук

Registered by the Ministry of Justice of Ukraine 14/12/2020,
Certificate # 24651-14591ПР
Зареєстровано в Міністерстві юстиції України,
сертифікат КВ #24651-14591ПР від 14 грудня 2020 року

Підписано до друку 29.06.2022 р. Формат 60×84¹/₁₆. Обсяг 20,46 ум. друк. арк., 20,12 обл.-
вид. арк. Наклад 100 прим. Зам. 284-А. Редакція, видавець і виготовлювач – Волинський
національний університет імені Лесі Українки (43025, Луцьк, просп. Волі, 13). Свідоцтво
Держ. комітету телебачення та радіомовлення України ДК № 4513 від 28.03.2013 р.