EAST EUROPEAN JOURNAL
OF
PSYCHOLINGUISTICS

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
- Psychology of Language and Speech
- 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.

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.

TABLE OF CONTENTS

ARTICLES

REVIEWS

ARTICLES

EXPERIENCES OF STUDENTS WITH COMMUNICATION RELATED DISABILITIES IN THE TBL CLASSROOM

Rachel Berkson
Scopus Author ID: 8618196500
rachel@outgra.be
Anglia Ruskin University, UK
Uwe Matthias Richter
ORCID: 0000-0001-6033-203X
uwe.richter@anglia.ac.uk
Anglia Ruskin University, UK
Sarada Veerabhatla
saradavn@gmail.com
Anglia Ruskin University, UK
Larysa Zasiekina
ORCID: 0000-0001-8456-0774
Scopus Author ID: 57215414977
zasyekina.larisa@eenu.edu.ua
Lesya Ukrainka Eastern European National University, Ukraine

Abstract. The objective of this article is to explore how suitable Team-Based Learning (TBL) is for students with social and communication disabilities, such as those on the autism spectrum or with social anxiety. TBL is a structured form of Active Collaborative Learning, combining a flipped classroom approach with students working in permanent teams to apply concepts, models and theories into practice. The design of the study was based on an idiographic case study approach at Anglia Ruskin University, UK, treating each student as an individual rather than a representative sample. Towards the end of the academic year 2017/18, an electronic questionnaire was sent out to all students who had taken TBL modules at ARU during the preceding academic year, asking about various aspects of TBL experience. The questionnaire was repeated towards the end of the first semester of 2018/19. The questionnaire was analysed with a focus on questions relating to inclusivity, and the responses related to students who had declared a disability. The questionnaire was followed by semi-structured interviews with students with disabilities who had experienced TBL. We focused primarily on disabilities broadly related to communication, notably with dyslexia, dysgraphia, social phobia and autism that may impair students' abilities to work in teams. Interviews were audio recorded and then transcribed. Transcriptions were thematically analysed by the research team using

NVivo. The results of the study provide anonymized case studies for each of the students who took part in an interview, explaining their disability or condition, their coping strategies for studying in HE, and their experiences, both positive and negative, of the TBL modules they had taken.

Keywords: Team-Based Learning, Active Collaborative Learning, communication disabilities, anonymized case studies.

Берксон Рейчел, Ріхтер Уве Матіас, Вірабхатла Шарада, Засєкіна Лариса. Досвід командно-орієнтованого навчання студентів із особливими комунікативними проблемами.

Анотація. Мета статті – на теоретичному і емпіричному рівні встановити ефективність командно-орієнтованого навчання (КОН) студентів із особливими комунікативними проблемами. КОН – це вид активного колаборативного навчання студентів у командах, упродовж якого концепти, моделі і теорії втілюються у практику. У дослідженні використовується дизайн кейс стаді, у якому досвід кожного студента вивчається індивідуально без урахування репрезентативності вибірки. Наприкінці 2017–2018 навчального року студентам було запропоновано online опитування для фіксації досвіду КОН. Повторне опитування проводилося також у 2018–2019 навчальному році. Основна увага фокусувалася на питаннях інклюзії для студентів із особливими комунікативними проблемами. Після цього із цими студентами здійснювалося напів-структуроване інтерв'ю. Вибірку склали студенти, які мають особливі проблеми з комунікацією, зокрема читанням і письмом: студенти із дислексією і дисграфією, соціальною тривожністю та аутичним спектром. Усі ці студенти відчувають значні труднощі у роботі в команді. Інтерв'ю записувалися і транскрибувалися, а згодом піддавалися якісному аналізу із виділенням тематичних категорій з допомогою комп'ютерної програми NVivo. Результати дослідження дали змогу виокремити анонімні індивідуальні випадки (кейси) із визначенням природи особливих потреб упродовж комунікації, копінг стратегій упродовж навчання, а також позивного і негативного досвіду роботи у команді.

Ключові слова: командно-орієнтоване навчання, активне колаборативне навчання, комунікативні особливі потреби, індивідуальні кейси.

1. Introduction

Team-Based Learning (TBL) is a structured form of Active Collaborative Learning (ACL) (Sibley & Ostafichuk, 2014), combining a flipped classroom approach with students working in permanent teams to apply concepts, models and theories into practice. The team approach means that students increasingly hold each other accountable for coming to class prepared and working together. TBL has been shown to improve performance for all, with particular benefits for lower performing students (Koles et al., 2010). TBL also develops real-world skills such as team-working and communication.

We took part in a national project, funded by the Office for Students (OfS), the independent regulator of Higher Education in England. The project aimed to improve success for students from certain minority backgrounds who often have worse outcomes in Higher Education (HE) than would be expected (Office for Students, 2019a). The project primarily focused on students from disadvantaged socio-economic and ethnic minority backgrounds. We were also interested in other groups who experience unexplained disparities in HE outcomes, including students with

disabilities. The project was a collaboration between three diverse UK universities, Nottingham Trent University (the lead institution), University of Bradford, and our institution, Anglia Ruskin University (ARU). Over the course of the two-year project, all three institutions worked to scale up the use of ACL methods to the whole institution level, to address disparities. The form of ACL chosen at Nottingham Trent University was SCALE-UP (McNeil et al., 2019a), while ARU and Bradford used TBL.

The three universities successfully increased adoption of ACL methods (Active Collaborative Learning, 2019), and found that degree courses (programmes) that used ACL had improved attendance and performance for most groups of students compared to other courses. The effects were particularly marked where students took multiple ACL modules, and most elements of the chosen ACL approaches were applied. All three institutions saw some narrowing of performance gaps experienced by students from disadvantaged backgrounds when they moved to ACL (Berkson & Richter, 2019; McNeil et al., 2019b).

A concern expressed by members of teaching staff involved in the project at ARU was that TBL would not be suitable for students with social and communication disabilities, such as those on the autism spectrum or with social anxiety. A high proportion of students at ARU have some form of specific learning difficulty such as dyslexia (ARU, 2018). We also observed that there was no systematic approach to inclusive practice of TBL, but rather, each practitioner adapted the methods on an ad-hoc basis to meet the needs of particular students. Further, many of the reasonable adjustments for students with disabilities that would be made in a traditional course (e.g. one based on lectures, seminars and terminal exams) would not be fit for purpose for TBL (Berkson Richter, 2020).

For example, many students with disabilities or specific learning difficulties related to reading and writing, require extra time in exams, but this adjustment is difficult to apply meaningfully in the context of short in-class multiple choice quizzes used in TBL, known as individual and team Readiness Assurance Tests (iRAT/tRAT) (Sibley & Ostafichuk, 2014). Reasonable adjustments for students with some mental health conditions may involve the option to sit exams in a separate room, but doing so would mean missing out on the team engagement and the peer learning elements of the tRAT. Students who miss a summative assessment due to illness are offered resit opportunities, but there is no meaningful way to resit the iRAT/tRAT assessments because they are designed to assess completion of pre-session learning for a particular class session, and once that session has passed preparation is no longer relevant.

In our literature review, as well as in other research reviews on TBL (Dearnley, 2018; Haidet et al., 2014; Sisk, 2011), we found very little research on experiences of students with disabilities learning using TBL. We found evidence for successful approaches to the inclusion of students with disabilities is often based on school teaching, and evidence for the success of TBL mostly looks at students in the aggregate

with no reports of differential or equivalent outcomes for students with any kind of disability (Sangwan & Sangwan, 2011; Vaccaro et al., 2015; Vaughn et al., 2015; Wanzek, 2014). A literature search identified a single study on TBL involving students with specific learning difficulties in a secondary school classroom in the US (Kent et al., 2015).

In recent years, there has been a substantial increase in the number of students with declared disabilities studying at university (Office for Students, 2019a; Williams et al., 2019). This group of students often experiences worse outcomes than their non-disabled peers, as they have been found to be less likely to complete their programmes of study, less likely to achieve so-called "good" degrees (defined as 2:1 or First Class), and less likely to obtain graduate jobs after they leave university (Hefce, 2018). Universities have a moral responsibility to ensure that students with disabilities have a comparable educational experience to their peers.

ACL has a range of demonstrated benefits for students who learn by carrying out meaningful activities (beyond reading and listening), and who mix working in groups or teams with working individually. Most careers that graduates are likely to take up require the ability to think creatively to solve problems, work in teams, and have the capacity to learn and analyse new information (HM Government, 2017; OECD, 2019; World Economic Forum, 2018). All these skills are supported by the use of ACL. For students with disabilities to benefit from these opportunities, there is a need for research into how to adapt ACL approaches to meet the needs of all learners.

It is also important that research into the experiences of students with disabilities centres the student voice, as otherwise non-disabled researchers' bias may lead to assumptions and the imposition of their own interpretations on student experiences. To avoid bias the research instruments were tested by critical friends with backgrounds in disability support and research. (Chenail, 2009; Roulston & Shelton, 2015). As part of the project, we carried out a study into the experiences of students with disabilities who learned with TBL at ARU, focusing particularly on in-depth interviews with individual students about their experiences. We used the interview material to create anonymised case studies. The case studies provided evidence to inform recommendations for good, inclusive classroom practice, in consultation with the Disability and Dyslexia Service at ARU. In this way, the present study started to address the gap in direct evidence for including students with disabilities in the Active Learning context.

2. Methods

The main approach of the study was to carry out semi-structured interviews with students with disabilities who had experienced TBL. We focused primarily on disabilities broadly related to communication. This category includes specific learning difficulties that affect reading and writing, such as dyslexia and dysgraphia; sensory disabilities such as hearing and visual impairments; mental health conditions that may affect students' experiences in the active classroom; and finally social disabilities such

as autism, that may impair students' abilities to work in teams. Many of the students in our study reported multiple disabilities, such as a specific learning difficulty co-existing with a mental health condition.

Our definition of disability relied exclusively on student self-declaration. Many students formally declare a disability to the university in order for their disability to be recognised and to access support and entitlements to reasonable adjustments (ARU, 2020a), either when they start their courses or at some point during their studies. However, it is very likely that some students who have a disability have not declared it.

We used semi-structured interviews to probe further into the findings of an earlier mixed methods study, to determine whether TBL is an effective and inclusive approach for students with disabilities. The earlier research involved analysing quantitative data, obtained from the student records system, on student attendance, engagement, satisfaction and performance for students learning with TBL or in modules on related courses that did not use TBL, and tested whether there were gaps in achievement between disabled and non-disabled students. Students' declared disabilities were classified into broad categories such as "physical or mobility disability", "chronic illness", "mental health condition", "social or communication disability", "specific learning difficulty". For ethical reasons, we did not obtain medically sensitive information on the exact nature of students' disabilities or conditions.

Towards the end of the academic year 2017/18, an electronic questionnaire was sent out to all students who had taken TBL modules during the preceding academic year, asking about various aspects of TBL experience. The questionnaire was repeated towards the end of the first semester of 2018/19 to capture responses for the new academic year. Completion of the questionnaire was voluntary. We analysed the questionnaire findings with a focus on questions relating to inclusivity and noted the responses of students who had declared a disability.

In early 2019, we carried out semi-structured interviews with students with disabilities who had learned using TBL during the academic year 2018/9. We invited all students from TBL courses to attend interviews if they had a disability and offered a small financial incentive (£10 Amazon vouchers) to compensate participants for their time. Students who volunteered to be interviewed informed the interviewer about their disabilities. We based our analysis on students' own self-conception and narrative of their identity and situation. Interviews were audio-recorded and then transcribed. Transcriptions were thematically analysed by the research team using NVivo.

The design of the study was based on an idiographic case study approach, treating each student as an individual rather than a representative sample. This aligned with our philosophy of centring disabled voices. We created anonymized case studies for each of the students who took part in an interview, explaining their disability or condition, their coping strategies for studying in HE, and their experiences, both positive and negative, of the TBL modules they had taken.

3. Results

3.1. The study population

Automated data was obtained for the following students (Table 1).

Table 1

Number of students taking TBL module

Year	Number of students who took at least one TBL module	Number of students on related courses who did not take any TBL modules	Total number of students included in the analysis
2015/6	1,654	5,146	6,800
2016/7	3,022	3,987	7,009
2017/8	2,220	4,718	6,938

We did not have permission to obtain detailed automated data for the academic year 2018/9. Note that the same student is likely to appear in multiple years of the study, as they would have progressed through their course during the period under investigation. For comparisons to be meaningful and to account for cohort variation, data was analysed separately for each of the three years of the study.

The proportion of students with declared disabilities was similar among the group who took TBL modules and the group who studied on related courses but did not take TBL modules (Table 2).

Table 2

Number of disabled students taking TBL module

Year	Number of TBL students with declared disabilities	Proportion of disabled students taking TBL modules	Number of non-TBL students on related courses with declared disabilities	Proportion of disabled students who did not take TBL modules
2015/6	183	11%	816	16%
2016/7	663	22%	639	16%
2017/8	313	14%	695	15%

In all years, the most common declared disability was a specific learning difficulty such as dyslexia or dysgraphia, representing about half the students who declared any disability. Outcomes for students who declared disabilities were comparable to outcomes for students without declared disabilities.

The measured disparities between students with and without declared disabilities in our study were generally small. This is in line with the broader picture at ARU where multiple interventions have been put in place to support disabled students and implement inclusive practice, leading to a year-on-year narrowing of the attainment gap between students with and without disabilities, to the point where there was no significant difference in attainment between the two groups of students in the academic year ending 2017 (ARU, 2017).

In general, we found that students with declared disabilities had slightly lower attendance and engagement than students with no recorded disability. Students with disabilities also received slightly lower average module marks (a difference of less than 5 percentage points in most cases), and correspondingly slightly lower average course marks. These already small gaps were smaller in TBL modules than non-TBL modules on related courses and smaller for graduates who experienced at least one TBL module during their courses compared to graduates who did not experience any TBL. In 2018, the good degree attainment gap for disability was 7 percentage points for students who had not experienced TBL, compared to 3 percentage points for students who had taken at least one module during the three years of their course.

3.2. Impact of TBL on students with different categories of disability

The numbers of students with some categories of disability were very small. This means that it is not statistically meaningful to make detailed comparisons of outcomes between groups. We, therefore, chose to report the direction and rough magnitude of differences in outcomes depending on whether students learned using TBL, rather than the exact figures. Caution should be exercised in interpreting these findings, which refer to small groups of students (Table 3).

Table 3
Types of students' disabilities

Type of disability	2015/6	2016/7	2017/8
Chronic illness	+	+	–
Mental health condition	–	0	0
Physical impairment or mobility issues	+	++	–
Social/communication impairment	0	++	+
Specific learning difficulty	0	+	0
Blind or a serious visual impairment	0	+	+
Deaf or a serious hearing impairment	—	+	—
Other	+	+	–
Two or more disabilities	+	+	++

Key: Differences in outcomes + / ++ improved, 0 – stayed the same, – / — worsened

13

Broadly, we found that for most categories of disability, marks improved in TBL modules compared to non-TBL modules. In particular, we observed relatively large improvements in marks for students with social or communication disabilities, such as autism, in TBL modules. This finding challenges the frequent assumption that students on the autism spectrum "can't do group work"; our data imply that the autistic students who took TBL modules during the period of the study benefited from this learning and teaching approach. However, the category of social or communication disabilities may include conditions other than autism spectrum disorders, as well as relatively mild impairments.

We did not observe clear benefits of TBL for students with hearing impairments. The number of students who declared a hearing impairment or hearing loss is admittedly very small, but our findings indicated that marks were lower for TBL modules compared to non-TBL modules. This is an area of concern for inclusive practice; it is possible that the often noisy environment of multiple team discussions in parallel in the same room may be less conducive for the learning of students with hearing impairments.

3.3. Student questionnaire findings

Student surveys were sent to 3,587 students, and responses were received from 236 students, representing a 6% response rate. Among 174 students who filled in the questionnaire in Semester 2 2018, 18 (just over 10%) had declared disabilities. We do not know how many of the respondents in Semester 1 2018 had disabilities since we did not obtain detailed student data for this cohort, but we can assume the numbers will be broadly similar.

Overall, about three-quarters of students were satisfied with learning with TBL. They recognized the benefits of TBL for employability and found the approach to be inclusive. Among students with disabilities specifically, 9/18 (50%) were satisfied with learning with TBL, 9/18 (50%) agreed that they felt included in TBL, and 8/18 (44%) felt that TBL was inclusive in general. Students with disabilities had more mixed views towards TBL than their peers without declared disabilities, with 66% stating that they felt included and 62% agreeing that TBL was inclusive in general.

3.4. Interview participants

We carried out semi-structured interviews with four students who reported disabilities. This group included: students with specific learning difficulties; students with mental health difficulties, and one student with an autism spectrum condition. All but one of the students reported multiple disabilities, often from multiple categories. The students who took part in interviews included a mix of mature and young (under 21) students, and a mix of study subjects including business, natural science and

clinical areas. All four students interviewed were white females, and all were UK-domiciled.

Students with disabilities found TBL team work challenging.

Compared to the population of survey respondents, the four students interviewed were all less happy with their TBL experiences. Some outright "hated" TBL.

Interview Excerpt 1: I thought I would do the interview because I did the Team Based Learning […] and I absolutely hated it so that I wanted to make sure you got […] another point of view. [Science student with specific learning difficulties and mental illness]

Some could see some benefits of the approach, but found that TBL, particularly the team work aspect, created challenges for their learning and for coping with their disabilities.

Interview Excerpt 2: I can see how useful the activity is for other people. I can see how they would gain from it. I can see if I was able to socialize without the overwhelming anxiety it would be useful for me too. [Science student with autism spectrum condition]

This may reflect that as students with disabilities they had less positive experiences with TBL than many of their peers, but it may also reflect that students who have something to complain about are more likely to volunteer to be interviewed.

Students reported finding it stressful to be in a situation where they were dependent on other students. This was exacerbated when they were assigned to teams with people they did not know well, due to the strategic and non-social allocation of diverse teams, which forms part of the TBL method.

Interview Excerpt 3: So we had to do a group presentation, within the group as well. It actually counted for something which made it even more scary. [Clinical student with specific learning difficulty].

Interview Excerpt 4: Especially if you don't get on with, you don't know these people and you have anxiety it's gonna plummet your score. A lot of peer pressure as well if you don't know people. [Science student with specific learning difficulties and mental illness].

For some students, depending on other students for their marks was a negative factor, for example in the tRAT, or summatively assessed group work.

Interview Excerpt 5: So you are being assessed not on your own ability but on the ability of these other people. And not even actually on their ability but whether or not they can be arsed to turn up and whether or not they can be bothered to put in the work. [Business student with specific learning difficulties and mental illness].

There were also complaints about depending on team members for shaping their learning experiences and feeling uncomfortable in an environment where collaboration was a required part of the learning activity.

Interview Excerpt 6: So being with a group of people whom I don't know is absolutely horrible. [..] These people don't know me, they don't know how I work. You

can't sit there and try and explain to them while we're trying to do the work as well. [Science student with specific learning difficulties and mental illness].

All students interviewed (except one who was unable to work with others at all) reported finding team work stressful. They shared this in common with students with no known disability, but the stress may have created additional challenges for students who were already finding it hard to cope with the course in general. For students with social anxiety there is a clear connection between being made to work with others, and exacerbating a condition which can include extreme negative emotional responses to social interactions.

Interview Excerpt 7: I should not be forced into a situation where I feel extremely uncomfortable. It compromises my learning. So because I have anxiety and that really punches me back from even talking to anybody at all. I have social anxiety specifically. [Science student with specific learning difficulties and mental illness].

In other students, the link is less apparent, but they reported problems such as other students making them feel uncomfortable, or dominating discussions so that they (the interviewees) lost confidence.

Interview Excerpt 8: We had a really negative experience. The group I was put in had somebody that was quite overpowering. It was not just me that picked up on it, the whole group did. She completely shot all my confidence. Completely. [Clinical student with specific learning difficulty].

Interview Excerpt 9: Well you know with some of the others we'll have come to an agreement, I'll have said the agreement and then they'll have still, like, told me why I'm wrong. Like, you're in the same group as me, why are you trying to throw me under the bus? We're in the same group, and you're saying, well you're wrong. [Business student with specific learning difficulties and mental illness].

These factors of poor group dynamics had a knock-on effect of exacerbating their mental health symptoms. Respondents reported negative behaviours included asking inappropriate personal questions or making offensive remarks about the interviewees' backgrounds.

Interview Excerpt 10: And I can defend that but actually I have a processing difficulty and so therefore the length of time it's taking me to think of it and I am not good at insults, whereas quite a lot of what they're saying feel like insults. [Business student with specific learning difficulties and mental illness].

In these cases the lecturers did not intervene, possibly because the excluding behaviours happened in intra-team discussions and the facilitator was not aware, or possibly because the facilitator wished to be non-directive of classroom discussions to allow space for peer teaching and exploration of the issues.

Several students reported that they did not fit in well with their teams, perhaps partly because their disabilities made it harder for them to create successful social connections. The specific problems mentioned often related to coming from a different background to other students, for example, a mature student in a team with 18- or

19-year-olds, again likely to be a problem for some students with or without disabilities, but perhaps creating further emotional difficulties for students who already struggled with mental health problems. The students were embarrassed to perform skills they found difficult in front of peers, such as reading or writing for a student with specific learning difficulties, or public speaking for a student with anxiety or an expressive verbal impairment.

3.5. Benefits of team working

Although working with other students, who were not necessarily socially compatible and sometimes were perceived as not sympathetic, caused problems for all students interviewed, some respondents perceived benefits of working in a permanent team. In some cases, they reported establishing a good working relationship as a benefit. For example, one student was able to form a team with two other students she perceived as academically able and ambitious, and the three of them supported each other to achieve highly in the module. Another student reported being lucky that at random, she was allocated to a team with students she was already friends with, and they worked together outside the timetabled sessions.

Sometimes team members were able to help work around limitations due to specific learning difficulties. For example, team members with good reading skills would read the questions out to a student with dyslexia during the RAP, meaning that she could keep up with the quiz and did not need a dedicated scribe. This informal support became a problem when a particular tutor insisted on carrying out the iRAT test in strict "exam" conditions, i.e. did not allow any talking at all during the test. In another case, students were happy with asking some other team member to record the discussion in writing and create documents to share with the rest of the class, when one student was uncomfortable with writing in front of other people due to her dysgraphia.

Reasonable adjustments for disabilities were sometimes compromised in TBL. In terms of specific adjustments and accommodations for specific learning difficulties, students reported that adjustments were less readily available in TBL than in other learning approaches. For example, reading materials for the TBL application exercises were not provided in accessible formats, such as coloured paper or readable fonts (ARU, 2020b), although in other parts of their courses the students would expect such accommodations. Students usually printed out their own materials in a format that worked for their reading difficulties but found that in TBL, materials were not usually made available online in advance of the face-to-face learning activity, meaning that they were not able to use this strategy.

Interview Excerpt 11: [Pre-class independent learning] was all right. Because we got given information, you know, we get lots of different ways of preparing in videos, texts, you'll get reading. We get given lots of sources, but in the classroom we're not given that. […] I tend to print it out on coloured paper or things like that. So I can prepare it for myself. […] We wasn't already asked to bring anything in, so it tends to

be, we get given the stuff in the classroom. […] It was all on paper. It is not really any point in taking laptops and stuff, because it was all stuff that he was giving us and it wasn't accessible to us. [Science student with specific learning difficulties and mental illness].

Interview Excerpt 12: We obviously print all the stuff, I'm a bit, I like a bit of paper. I have all my notes printed and like the slides printed for the lecture so that I can just make notes next to them which makes my life a lot easier. [Clinical student with specific learning difficulty].

Students might be entitled to support from a scribe or reader during an exam, but there was no formal mechanism to support them with reading the iRAT questions or writing down findings during application exercises.

Interview Excerpt 13: I get extra time in exams. I get 25 percent extra time which I think it means summative extra time. I get that in all formal assessment. But I do not get it in my mid-term assessment. I should get access to a computer to do my exams with. I can get access to them in formal exams, but not in midterm assessments. [Business student with specific learning difficulties and mental illness].

A theme that was repeated for several interviews was difficulties caused by ad-hoc seating arrangements. When TBL teams are assigned in the first session, the lecturer/facilitator may allocate each team to a table arbitrarily, and teams will generally sit in the same place for each subsequent class. For some students simply not having a choice of seating (unlike the situation in a non-TBL setting where students can generally sit wherever they choose) provoked anxiety. For others, they found that a particular location in the room was more conducive to learning, and did not feel able to object if they were told to move away from that position.

Interview Excerpt 14: Because when I go into the normal lessons I can sit right at the front or in the middle. It is my choice. Whereas you know, put in a group, the group sort of decides where they want to go. [Science student with specific learning difficulties and mental illness].

For example, a student who experienced attention deficits resulting from her specific learning difficulty (dyspraxia) found that in a TBL classroom she was frequently distracted by the other students and movements in the room, and would have preferred to be able to sit near the front where only the lecturer was in her line of sight.

Interview Excerpt 15: But if you're not sat in the right place, you can't see the screen properly, you can't hear him properly. So I was quite often faced away from him, I can't see him. And also because of the dyspraxia I get distracted easily by movements. I can see everybody. It is actually really [more] distracting than sitting in lines. [Science student with specific learning difficulties and mental illness].

Others were anxious if they could not see a clear route to the exit if they could not see what was going on behind them, or if they had to sit too physically close to other students.

Interview Excerpt 16: I won't sit anywhere except the first front row and I won't sit with people near me. So at least one space. So I always put my bag on the chair next to me and I try to sit on the end. Usually the end nearest the door or easiest exit. I prefer more than one space if I have someone sat the other side of my bag it can make me very edgy. [Science student with autism spectrum condition].

Although none of the students interviewed had hearing impairments, we know that many deaf students also need to sit in a position where they can see the lecturer well enough to lip-read, and where background noise is minimized. It is likely that students in this situation would also struggle if they had to move to a table based on random team numbers.

In principle, students could have asked for reasonable adjustments regarding seating, provision of formatted materials etc. However, several of the students referred to not wanting to disclose all of their conditions to their team members.

Interview Excerpt 17: You can't sit there and try and explain to them while we're trying to do the work as well. There was a lot of pressure as well in like a very small space of time. I think that sometimes people do not realize that it can be extremely negative to people like me. [Science student with specific learning difficulties and mental illness].

Generally, the students seemed happy to make reference to their specific learning difficulties and neurodivergence.

Interview Excerpt 18: We all know where people are struggling and can help each other out. [Clinical student with specific learning difficulty].

Interview Excerpt 19: I mean you get, who's going to write it, it was always like, well, I don't want to write it because I've got dyslexia. My writing is awful, you can't read it. [Science student with specific learning difficulties and mental illness].

Interview Excerpt 20: I am diagnosed Asperger's. In day-to-day terms, I prefer to use the term autism, as more people understand it. It is just easier for me. [Science student with autism spectrum condition]

However, they felt that mental illnesses were stigmatized and they did not want team mates to know about their mental health issues, particularly when they were put into teams with people they did not know well because of how teams are formed strategically in TBL.

Interview Excerpt 21: Actually, while I am very very anxious about people finding out about the mental health condition, I don't care about, you can find out I'm dyslexic, I talk about it openly. I don't talk about mental health openly. I've had discrimination on that basis before. [Business student with specific learning difficulties and mental illness].

Interview Excerpt 22: I was moved twice because I physically said the people who I was with was making me feel extremely uncomfortable. So very immature and they do things which I don't approve of. I did try right at the beginning to join in and I was just ignored and not listened to. [...] So when I did get moved into another group

who were quite nice. I mean it was a bit better than the previous groups but because I have got, as I said, the anxiety and struggling as it is normally, it's still not very good. These people don't know me and, as I said, there's no time to get to know each other. It's just get in, do your work and leave. I don't see these people outside so... [Science student with specific learning difficulties and mental illness].

In a lecture situation, students normally only interact with the lecturer and have avenues which allow them to mention a requested adjustment in confidence so that the lecturer can accommodate them. Students also have the option of going through the formal route of declaring a disability and working with the Disability and Dyslexia Service to prepare a Statement of Reasonable Adjustment (SoRA), which is then disclosed to the lecturer ahead of the teaching period.

Interview Excerpt 23: *I know ARU actually is very very good on mental health. It is certainly very good at faculty level. The lecturers that I have specifically mentioned it to, could be very very good. It's statemented now. So I have never had any type of discrimination in the institution. [Business student with specific learning difficulties and mental illness].*

For students learning with TBL, these options are still available, but it may be more difficult to communicate confidentially with the lecturer and to apply the adjustments without singling out a particular student in a way that would make them uncomfortably visible to the team or the whole class.

Interview Excerpt 24: *I'm not confident enough to say, please go back at all. I don't like bringing attention to myself at all. [Clinical student with specific learning difficulty].*

One example where a reasonable adjustment was successfully applied was in the case of a student whose autism spectrum condition meant that she had extreme difficulty in participating in group work. This student had declared her disability to the Disability and Dyslexia Service and had a SoRA stating that she should not be expected to work with groups. The lecturer was therefore aware of the student's needs and made the adjustment of allowing her to constitute a "team" on her own, so that she could take part in most elements of TBL learning activities, without ever having to work directly with other students, and she was assessed for the team elements of the module as a single-person team.

Interview Excerpt 25: *[The tutor] accepted very quickly without much fight that I was not going to work with the other people and I was going to sit on my own in this particular table and that was fine by me. When we did the individual group test they actually, cause they had these like scratch cards prepared. They named me as group thirteen and gave me a scratch card for the group thing. [..] but they brought extra resources for me. [Science student with autism spectrum condition].*

This reasonable adjustment was workable because the student in question was highly academically able. She felt confident to carry out tasks intended for a team of five or more people to a satisfactory standard on her own.

Interview Excerpt 26: So if we're doing any kind of group project I am more than happy and capable of taking on the entire group project alone and doing that and I prefer that, honestly I think I can do it better than most people anyway. [Science student with autism spectrum condition].

3.6. Problems with course organization

For several of the students, the strategies they would normally apply to achieve successful learning with their disabilities were disrupted by TBL. For example, a student who would usually take extra time to go over material from a taught session such as a lecture, and make her own notes, was unable to do this in TBL units. In her course, lectures were used in place of independent pre-session learning, and these were timetabled too close to the face-to-face session. Further, there was no time allotted for independently going over the work after the end of the session, because the in-class application exercises are seen as the final stage of consolidating learning.

Interview Excerpt 27: Sometimes I think [the TBL sessions] are a bit of waste of our time. So today, I have just come, before I came up here from my bioscience lecture. My TBL for it is this afternoon. We've had no time to revise. I mean what is the point in doing a quiz to check what we have learnt, when we have not had the time to learn it. […]

That's a lot of information in hour and a half to then go and have to try and process it whilst, so I have got this, and another two hour lecture which is completely different and then go into a lecture again. It is a lot of work. [Clinical student with specific learning difficulty].

Another student also experienced challenges when in-class TBL sessions were timetabled on the same day as lectures from other modules.

Interview Excerpt 28: I find [the application activities] tricky because they normally, the way our timetabling is, we've got a lecture in the morning and the seminar in the afternoon. So for me that is not enough time in between. It is working on short-term memory which I don't have, I don't have it with dyslexia. It makes the days very very long, which when I am not mentally well, I can't do it. [Business student with specific learning difficulties and mental illness].

A student whose disabilities presented challenges with time management and executive function (the ability to plan actions with a series of complex steps) could normally "get away with" leaving most of the work for a module or project until near the end of the teaching period, but the regular structure of TBL, with multiple low-stakes assessments, challenged this strategy.

Interview Excerpt 29: In fact the iRAT and tRAT test was not difficult but I have really, really poor time management. Actually getting round to watching the video lectures and reading the chapters before the lectures. It didn't happen that often. I often did them afterwards but that meant I was going in to the test unprepared. [Science student with autism spectrum condition].

Conversely, a student who found project assessment deadlines anxiety-provoking controlled her anxiety by starting each piece of work well in advance, leaving plenty of time, and planning her time in detail. She was not able to do this when she was working with a team, who did not share her anxiety condition and usually left things to the last minute.

Interview Excerpt 30: As a disabled student, I have to plan my work very very carefully. I have to plan when I am going to do the work, when I am going to complete it. I do have caring responsibilities as well. […] But if I do a little bit each week and I can plan and over-structure it that is fine. […] So it means that it is a lot harder to plan with TBL than it is with any other learning. Planning no matter what your condition is as a disabled student, that's your key to actually coping and TBL undermines your ability to plan and it can have a knock-on effect to all the other subjects. […]

They did everything last minute. I can't do that. If I do that, I will fail. And that's just on dyslexia, if I do that, I will fail. That's not the other one, that's not mental health at all, if I leave everything to the last minute, as a dyslexic I will fail. [Business student with specific learning difficulties and mental illness].

4. Discussion
4.1. Interpretations
We carried out interviews with four students with different and in most cases multiple disabilities. The student who had a specific learning difficulty only, with no accompanying mental health condition, expressed the most positive views of TBL, although it was not without its problems. For students who had any kind of mental health condition, TBL was seen as a source of stress, and the stress made it harder for them to learn.

All four students found their relatively unstructured experiences with TBL disrupted some of their strategies for successful learning with a disability. In a didactic classroom, the lecturer provides the content and has both the responsibility and hopefully the skills to make sure that all material is available in accessible formats. When students are co-creating and applying their conceptual knowledge in perhaps unpredicted ways, some materials generated by students on the fly may not be accessible. For example, scribbled notes on a flip chart may not be easy to read for students with special learning difficulty, especially not at speed. Equally, because most of the application of knowledge takes place in a face-to-face session, students who might take extra time over consolidating their learning independently have much more limited time available to do so, as the class as a whole will quickly move on to the next topic or exercise.

Students with disabilities had a very similar set of complaints to students without disabilities about the difficulties of working with peers they did not know well. It could be interpreted that students who had a mental health condition blamed their condition

when team dynamics were challenging, whereas other students who had similar problems located the cause in other students' poor behaviours. Some of the students did report that teams developed their patterns of working as they got to know each other. However this was not a major theme; students' impressions were dominated by the view that if they started out with team problems, those problems often persisted throughout the module and continued to disrupt learning and promote anxiety.

Several students mentioned that they would prefer being allowed to work with their friends, again an attitude they shared with their non-disabled peers. Experience from TBL practice indicates that socially formed teams often function poorly; some students may be excluded, or interpersonal difficulties from the team members' social lives may spill over into the classroom. Because of these experiences, It is one of the principles of TBL that teams are strategically assigned to promote diversity (Michaelsen, Davidson, & Major, 2014; Michaelsen, Knight & Fink, 2004; Sibley & Ostafichuk, 2014). If students simply work with people they are already socially connected to, they will not be exposed to a wide range of opinions and experiences. Furthermore, teams, where all members are struggling academically, may lack the skills to support and peer teach each other, and teams, where all members are high performers, are likely to become over-competitive.

Teaching communication, group working and to some extent negotiation and conflict resolution skills is an explicit aim of the TBL method (Eksteen, 2019; Michaelsen, Knight & Fink, L. D., 2004; Sibley & Ostafichuk, 2014). Interestingly, all students interviewed reported that they did not need to learn how to work in teams, as they already had work experience of team work (again, except for the student whose disability meant she was unable to work in groups at all). This included returning students who had already experienced professional careers before taking a degree, and young students who had part-time jobs to help fund their studies and living costs. For these students, the team working as part of TBL felt artificial and not representative of the team working they experienced in the workplace. One mentioned that she was perfectly capable of working with difficult people in a highflying career, but nevertheless found TBL team projects exceptionally stressful, partly due to the assessment element. Another student explained that she was able to cope with difficulties with group work while at work, albeit with difficulty, but that in her learning she expected to be able to relax and feel comfortable. She identified a difference between being paid to do a job even if she found some parts of it challenging, versus paying for an education, which should be in her interest.

4.2. Conclusions and Recommendations

What emerges from the interviews is that there are some difficulties which are inherent to TBL and would be difficult to change without giving up some of its fundamental principles, but for most difficulties, TBL practice could be adapted to be more inclusive of learners with disabilities.

For example, as with any learning and teaching approach, it should be an expectation that materials are provided in advance of in-class sessions so that students can reformat them as appropriate and take extra time if necessary to process the information. However, when we carried out an informal survey of TBL modules on the virtual learning environment, we saw very little in the way of materials available electronically; the pre-session independent work was uploaded, but the in-class application exercises were not. It is understandable, that lecturers may wish to leave space for the TBL discussions to be openly facilitated rather than highly pre-structured, but the structure of each unit is decided in advance and any reading expected from the students during application exercises should be made available just as would be normal practice for a seminar.

Similarly, it is important in TBL for tutors to assign students to teams strategically to promote diversity. However, it would be a reasonable adjustment for a disabled student to be joined by a familiar person in the team, who has been supporting these students to overcome some of the challenges of team work. In rare cases, as was the case with the student on the autism spectrum, a lecturer may need to consider a team of "one" for this student as long as the student can take part in class and thus engage passively with other teams and attends. Further helpful support would be to allow a team member to read out the RAT questions and application exercises to support students with reading difficulties and to avoid assigning writing tasks to students with writing difficulties and social anxiety.

Group and team work can be challenging for students irrespective of if it is part of TBL or not. Therefore great care has to be taken to scaffold the group and team formation process from induction and learning agreements to processes promoting trust, accountability and positive team cohesion. This scaffolding is especially important for teams with students with disabilities or specific learning difficulties.

Activities at the beginning of team formation can involve requiring the team to agree on time management and learning patterns to support students who need a more structured study approach. Within a class, the teacher can manage the timing of activities to ensure students with disabilities are not rushed and providing them with the (extra) time they may need.

It is usually desirable for teams to sit around tables to promote discussion and interaction. It is not necessary for groups to be sent to sit at arbitrarily assigned tables in the classroom during the first session. If teams are formed in advance, tutors can make team membership lists available electronically, and allow students to request to sit in a particular location in the room. This would also solve the problem reported by one of the students with anxiety, where the situation of everybody crowding round a list of names to work out which table to sit at was panic-inducing.

It goes without saying that teamwork is more realistic if the learning process includes application exercises and assessments set in real-life contexts.

Overall we found that with some adjustments to teaching and facilitating TBL students with disabilities or specific learning difficulties can be accommodated and their challenges can be addressed.

References

Active Collaborative Learning. (2019). *Scaling Up Active Collaborative Learning for Student Success. Project website.* Retrieved from https://aclproject.org.uk

ARU (2017). *Equality, Diversity and Inclusion at our University*. Annual Report. Anglia Ruskin University. Retrieved from https://web.anglia.ac.uk/anet/student_services/public/AngliaRuskinReport_2017_AW_ACCESSIBLE.pdf

ARU (2018). *Student Snapshots*. Anglia Ruskin University. Retrieved from https://aru.ac.uk/about-us/equality-diversity-and-inclusion/equality-diversity-and-inclusion-for-students/aru-student-snapshots.

ARU (2020). *Disability Support*. Anglia Ruskin University. Retrieved from https://aru.ac.uk/student-life/support-and-facilities/study-skills/disability-support.

ARU (2020b). *Inclusive Practices*. Anglia Ruskin University. Retrieved from https://aru.ac.uk/about-us/equality-diversity-and-inclusion/equality-diversity-and-inclusion-for-students/inclusive-practices.

Berkson, R., & Richter, U.M. (2019). Can Active Collaborative Learning Improve Equality? *The European Conference on Education 2019 Official Conference Proceedings*. Retrieved from https://papers.iafor.org/submission51859/

Berkson, R.G., & Richter, U.M. (2020). Barriers to scaling up active collaborative learning. In S. Pratt-Adams, *U.M. Richter & M. Warnes (Eds.), Innovations in Active Learning in Higher Education,* Ch 7. Anglia Ruskin University (in press).

Chenail, R. J. (2009). Interviewing the Investigator: Strategies for Addressing Instrumentation and Researcher Bias Concerns in Qualitative Research. *The Qualitative Report*, *13*(4), 14–21. Retrieved from https://nsuworks.nova.edu/tqr/vol13/iss4/14/

Dearnley, Ch., Rhodes, Ch., Roberts, P., Williams, P., & Prenton, S. (2018). Team based learning in nursing and midwifery higher education; a systematic review of the evidence for change. *Nurse Education Today*, *60*, 75–83. Retrieved from http://dx.doi.org/10.1016/j.nedt.2017.09.012

Eksteen, M.J. (2019). Does team-based learning develop essential generic skills in pharmacy students? *South African Journal of Higher Education*, *33*(1). http://dx.doi.org//10.20853/33-1-1332

Haidet, P., Kubitz, K., & McCormack, W. T. (2014). Analysis of the team-based learning literature: TBL comes of age. *Journal on Excellence in College Teaching*, *25*(3–4), 303–333. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4643940/

Hefce. (2018). *Differences in student outcomes. The effect of student characteristics*. Data Analysis report March 2018/05. Retrieved from https://dera.ioe.ac.uk/31412/1/HEFCE2017_05%20.pdf

HM Government. (2017). *Industrial Strategy. Building a Britain fit for the future*. UK Government White Paper. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664563/industrial-strategy-white-paper-web-ready-version.pdf

Kent, S., Wanzek, J., Swanson, E.A., & Vaughn, S. (2015). Team-Based Learning for Students with High-Incidence Disabilities in High School Social Studies Classrooms. *Learning Disabilities Research & Practice*, *30*(1), 3-14. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/ldrp.12048

Koles, P.G., Stolfi, A., Borges, N.J., Nelson S., & Parmelee, D.X. (2010). The impact of team-based learning on medical students' academic performance. *Academic Medicine: Journal of the Association of American Medical Colleges*, *85*(11), 1739–1745. http://dx.doi.org/10.1097/ACM.0b013e3181f52bed

Michaelsen, L. K., Davidson, N., & Major, C. H. (2014). Team-based learning practices and principles in comparison with cooperative learning and problem-based learning. *Journal on Excellence in College Teaching, 25*(3–4), 57–84. Retrieved from https://www.lhthompson.com/uploads/4/2/1/1/42117203/team_based_learning_-_group_work.pdf

Michaelsen, L. K., Knight, A. B., & Fink, L. D. (2004). *Team-based learning: A transformative use of small groups in higher education*. Sterling, VA: Stylus.

McNeil, J., Borg, M., Kennedy, E., Cui, V., Puntha, H., Rashid, Z., Churchill, T., Howitt, E. and Trivedy, K., (2019a). *SCALE-UP Handbook 2019–20* (3rd ed). Centre for Academic Development and Quality, Nottingham Trent University. Retrieved from https://www.ntu.ac.uk/__data/assets/pdf_file/0033/906927/FINAL-SCALE-UP-Handbook-2019-20.pdf

McNeil, J., Borg, M., Kerrigan, M., Waller, S., Richter, U., Berkson, R., Tweddell, S., & McCarter, R. (2019b). *Addressing barriers to student success. Scaling up Active Collaborative Learning for Student Success. Final Report*, 28 March 2019, Updated 28 October 2019. Retrieved from https://aclproject.org.uk/wp-content/uploads/2019/07/NTU-ABSS-Final-Report-revised-Oct-2019.pdf

OECD. (2019). *OECD Future of Education and Skills 2030. OECD Learning Compass 2030. A Series of Concept Notes*. OECD. Retrieved from http://www.oecd.org/education/2030-project/contact/OECD_Learning_Compass_2030_Concept_Note_Series.pdf.

Office for Students. (2019a). *Addressing Barriers to Student Success programme*. Retrieved from https://www.officeforstudents.org.uk/advice-and-guidance/promoting-equal-opportunities/addressing-barriers-to-student-success-programme/

Office for Students. (2019b). Beyond the bare minimum: Are universities and colleges doing enough for disabled students? *OfS Insight Brief 4*. Retrieved from https://www.officeforstudents.org.uk/publications/beyond-the-bare-minimum-are-universities-and-colleges-doing-enough-for-disabled-students/#participation

Roulston, K., & Shelton, St. A. (2015). Reconceptualizing Bias in Teaching Qualitative Research Methods. *Qualitative Inquiry*, *21*(4), 332–342. Retrieved from https://journals.sagepub.com/doi/10.1177/1077800414563803

Sangwan, P., & Sangwan, S. (2011). Inclusive Education: A Developmental Approach in Special Education. *Journal of Indian Education*, *36*(4), 18–32. Retrieved from http://www.ncert.nic.in/publication/journals/pdf_files/iea/JIE_FEB2011.pdf#page=20

Sibley, J., & Ostafichuk, P. (2014). *Getting Started with Team-Based Learning*. Sterling, VA, USA: Stylus.

Sisk, R. J. (2011). Team-based learning: systematic research review. *Journal of Nursing Education*, *50*(12), 665–669. Retrieved from https://pubmed.ncbi.nlm.nih.gov/22007709/

Vaccaro, A., Daly-Cano, M., & Newman, B. M. (2015). A sense of belonging among college students with disabilities: An emergent theoretical model. *Journal of College Student Development*, *56*(7), 670–686. Retrieved from https://muse.jhu.edu/article/597267

Vaughn, S., Danielson, L., Zumeta, R., & Holdheide, L. (2015). Deeper Learning for Students with Disabilities. Students at the Center. *Deeper Learning Research Series*. Boston, MA: Jobs for the Future. Retrieved from https://files.eric.ed.gov/fulltext/ED560790.pdf

Wanzek, J., Vaughn, S., Kent, S.C., Swanson, E.A., Roberts, G., Haynes, M., & Solis, M. (2014). The Effects of Team-Based Learning on Social Studies Knowledge Acquisition in High School. *Journal of Research on Educational Effectiveness*. 7(2), 183–204. Retrieved from https://www.tandfonline.com/doi/abs/10.1080/19345747.2013.836765

Williams, M., Pollard, E., Helena Takala, H., & Houghton, A-M. (2019). Review of Support for Disabled Students in Higher Education in England. Report to the Office for Students by the Institute for Employment Studies and Researching Equity, Access and Participation. IES Report. Institute for Employment Studies and Researching Equity, Access and Participation. Retrieved from https://www.officeforstudents.org.uk/media/a8152716-870b-47f2-8045-.fc30e8e599e5/review-of-support-for-disabled-students-in-higher-education-in-england.pdf

World Economic Forum. (2018). *The Future of Jobs 2018. Insight Report*. Centre for the New Economy and Society. *Retrieved from:* http://www3.weforum.org/docs/ WEF_Future_of_Jobs_2018.pdf

World Economic Forum. (2018). *The Future of Jobs 2018. Insight Report*. Centre for the New Economy and Society. Retrieved from http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf.

ASSOCIATED FIELD SEMANTICS IN MODELING
LESYA UKRAINKA'S IMAGE

Svitlana Bohdan
ORCID: 0000-0002-4831-2770
bohdan.svitlana@eenu.edu.ua
Lesya Ukrainka Eastern European National University, Ukraine
Tetiana Tarasiuk
ORCID: 0000-0002-2428-447X
tarasiuk.tania@eenu.edu.ua
Lesya Ukrainka Eastern European National University, Ukraine

Abstract. The article is focused on the study of the perception of Lesya Ukrainka, a famous Ukrainian writer, in contemporary Ukrainian society. The research is based on a free word association test held online with 200 respondents aged from 13 to 70. As a result of applying quantitative analysis of the associates and semantic gestalt method the authors singled out productive semantic zones concerning each of the stimuli. These zones presented an anthroponymic triad of personality identification related to the author's names 'Larysa Kvitka', 'Larysa Kosach', and the pseudonym 'Lesya Ukrainka'. The nuclear zones in each associative field manifest a tendency for uniformity. They are related to her professional activities, her works, elements of inner and outer portrayal, as well as of evaluative spectrum. The respondents have shown predominantly high levels of knowledge about Lesya Ukrainka's personality, which is proven, in particular, by their reverse frequency reactions and peripheral character of zero reactions. A dominant positive evaluative spectrum of perception of Lesya Ukrainka, as well as productivity of individual associates of interpretational character, was also important.

Keywords: Lesya Ukrainka, associative field, word association test, semantic gestalt, semantic zones.

Богдан Світлана; Тарасюк Тетяна. Семантика асоціативного поля в моделюванні образу Лесі Українки.

Анотація. У статті на основі результатів вільного асоціативного експерименту, проведеного шляхом онлайн-опитування), досліджено особливості сприйняття Лесі Українки в сучасному українському соціумі, з'ясовано типологічні та індивідуальні реакції. На основі кількісного аналізу асоціатів та методу семантичного гештальту виокремлено продуктивні семантичні зони щодо кожного зі стимулів, які представляють антропонімійну тріаду її особистісної ідентифікації – автоніми ЛАРИСА КВІТКА, ЛАРИСА КОСАЧ і псевдонім ЛЕСЯ УКРАЇНКА. Ядерні зони в кожному асоціативному полі виявили тенденцію до однотипності, вони стосуються її професійної діяльності, творів, елементів зовнішнього та внутрішнього портретування та оцінного спектру. Респонденти виявили в основному високий рівень

обізнаності з персоналією Лесі Українки, про що засвідчують, зокрема, частотні обернені реакції та периферійність нульових. Важливий також виразно домінувальний позитивний оцінний спектр сприйняття Лесі Українки та продуктивність індивідуальних асоціатів інтерпретаційного характеру.

Ключові слова: Леся Українка, асоціативне поле, асоціативний експеримент, семантичний гештальт, семантичні зони.

.

1. Introduction

The associative experiment, or word association test, is known to be one of the most frequently used methods in different spheres of research, primarily in contemporary sociology and psychology, and even more in psycholinguistics (Zalevskaja, 1978; Zalevskaja, 1990; Zalevskaja, 1994; Goroshko, 2001; Karaulov, 2000a; Terekhova, 2000; Terekhova, 2017; Shono, Ames, & Stacy, 2016).

One of its types, the free associative experiment, is justly considered to be an optimal search tool for a personality's various differential mental features, as well as one of the most productive means of establishing dominant ethnic features (both auto- and heterostereotypical) and modeling of typological images of individual representatives of certain ethnic groups. This is why frequency research above all, performed with this method, is oriented towards finding ethnic cultural peculiarities of language conscience (Kuzina, 2010; Sergieva, 2006; Hui, 2011; Namei, 2004; Séguin, 2015), different elements of a language map of the world (Zahorodnia, 2018), semantic conceptual fields (Nedashkivska, 2007; Pryschepa, Plechko, & Svysiuk), professional and social stereotypes (Denysevych, 2010; Chekanova, 2008a; Chekanova, 2008b), and stereotypical female / male images (Borgoyakova & Pokoyakova, 2012). Nevertheless, paradoxal as it may seem, contemporary linguopersonology (in particular, Ukrainian), which has the language personality as its object of study (his or her lexicon, thesaurus, and otivational features), almost overlooks the possibility of cognizing language personalities, primarily well-known, through associative experiments. And the most important fact is that there has been no research to focus on the study of the language conscience of Ukrainian respondents regarding their perceptions and modeling of well-known writers, politicians, etc. The existing research studies personalities from other than Ukrainian society (Tsagolova, 2016). This motivated us to choose our research subject, i.e., the image of Lesya Ukrainka, which has been studied for the first time in the mentioned aspect.

2. Methods

In the study a method of free associative experiment is used in the search for typical (i.e., repeated, or collective – according to a different terminology) and individual features in the formation of an image of Lesya Ukrainka by contemporary speakers. A method of numerical analysis of data helped to define nuclear and peripheral zones within each field in particular, as well as in all three associative fields.

Owing to the method of comparative analysis, both collective and individual reactions were found.

A method of semantic gestalt construction proved to be important for singling out dominant content zones in the modeling of differentiating features of Lesya Ukrainka's personality. This method was introduced by Karaulov and further developed in the works of Novikova and Kuzina (Novikova, 1988, Novikova, 2008; Kuzina, 2010), who shared Karaulov's view of most associative fields having a "special inner organization of their content", which reflects a pragmatic structure of every field. This pragmatic structure is called a "semantic gestalt" (Karaulov, 2000a, p. 194). This structure "restores a referent's model typical of a certain national culture. This model corresponds to a stimulus in reality surrounding a speaker of this language" (Novikova, 1988, p. 22–23). In other words, it is "built on the involvement of each reaction in a certain stereotypical quality of the referent in this language" (Goroshko, 2001). And this is why the formation the structure of the gestalt of a certain stimulus word is always related to the referent, what "stands behind this word in the speaker's conscience" (Goroshko, 2001). It is also important that a type (or variety) of a gestalt is formed by associates which are similar in content. "The semantic gestalt of an associative field becomes outlined" each time only with a "consistent and whole" analysis of an associative field, when the respondents' answers manifest certain characteristics of a stimulus which are grouped around frequency reactions-concepts "generally indicating typical features of a referent who stands in this culture behind the name of the field, i.e., behind the stimulus" (Novikova, 2008, p. 30). Therefore, a gestalt always "reproduces a model typical of a referent's national culture; the model corresponds to the stimulus in the reality surrounding the speaker of this language" (Novikova, 2008, p. 30).

Novikova believes that a gestalt type for speakers of the same language is a constant feature, i.e., it not only manifests national peculiarities, but also certain features of universality. At the same time, its content can differ, depending on: 1) time parameters of the associative field construction; and 2) characteristics of groups of the language speakers who take part in the experiment (Novikova, 1988, p. 27).

Semantic gestalt "characterizes the field as a unit of knowledge of the world, corresponding its structure with the structure of reality reflected in it. The gestalt usually consists of several zones (their number varies within 7 ± 2), which unite features (typical of this language conscience) of an object or concept which corresponds to the name of the field (= stimulus)". Strictly speaking, it is the semantic gestalt that creates preconditions for finding the most semantically significant segments, inherent in the whole associative-verbal network of every stimulus word, and enables constructing based on semantic classification of all typological reactions. Each zone, in Sergieva's opinion, is a characteristic of a certain significant feature, which collectively construct intensiveness of this stimulus, a generalized image of the perception of the world, and which stand behind this word (in our case – a well-known

personality). In naming the zones, it is convenient to use pronominal markers which can convey the most general meanings ("Who", "What", "Which", "This", etc.) (Sergieva, 2006, p. 161). In our study the method of semantic gestalts is the basis for defining typical and semantically similar reactions in the modeling of the image of Lesya Ukrainka by contemporary speakers. The formation of a register of semantic gestalts regarding every stimulus word involved the procedure of finding stereotypical properties of a certain referent based on contentual similarity of elements of an associative field. To define nuclear and peripheral semantic zones we also partly used a method of a lexical semantic field (further – LSF), which involves, based upon paradigmatic relations between the elements of an associative field, the singling out of "words with a common hyperseme, i.e., the only (integral) meaning for the whole group" (Kocherhan, 2004, p. 305).

A free word association test (FWAT), regarding the search of defining features of language portrayal of Lesya Ukrainka, as well as of peculiarities of perception of her personality, was conducted by means of an anonymous electronic online survey which involved step-by-step responding to a stimulus (the survey's access mode: https://docs.google.com/forms/d/e/1FAIpQLSf419HwPlR_Ff41vOYmcrQhH0qz4J0kR ckxyyKwy9u_-shUWQ/alreadyresponded): the respondents could not see the whole register of offered nominations immediately. The latter made any prompt, even implicit, concerning Lesya Ukrainka's personality, impossible. Another specificity of our research was the register of stimuli words being represented with all three official proper names which serve as a means of anthroponymical identification of the well-known Ukrainian writer, publicist and activist, namely: the authonames LARYSA KVITKA (ЛАРИСА КВІТКА – her legal name after her marrying Klyment Kvitka) and LARYSA KOSACH (ЛАРИСА КОСАЧ – her maiden name), her pseudonym LESYA UKRAINKA (ЛЕСЯ УКРАЇНКА – the unique, individually created / made-up name – her penname, first used in 1884). These three names correspond to her personality and have been used regarding her in the language paradigm of the Ukrainian society and beyond (the marriage of Lesya Ukrainka and Klyment Kvitka was registered, as is known, on July 25, 1907). Still, not all of the mentioned names have uniform quantitative characteristics (first of all, regarding the frequency of their actualization in contemporary speech). The order of presenting (positional placement) of these proper names in the associative experiment was arranged with a clear motivation: *from the least known – to well-known*. The latter, in particular, largely enabled us to avoid the effect of "recognizability" of a real personality, on the one hand, – that is, created certain cognitive difficulties in the process of association. And on the other hand, the associative reaction itself was defined by, and correlated with, the level of being informed and cognitive abilities of the informer. As expected, the most productive in use and the widest-known name in the offered register of stimulus-words, i.e., LESYA UKRAINKA (ЛЕСЯ УКРАЇНКА), was at the end of the register.

The latter provided the absence of even minimal projections towards her personality from the first two stimulus units.

The material of our research comprises the results of the FAE which involved a one-word / word combination/ sentence answer (though in reality some informers did not always comply with the request to choose just one reaction, in spite of its being lexically and syntactically heterogeneous). The experiment involved 200 respondents aged from 13 to 70; **their occupation status** being mostly *teachers, school and college students, post-graduates, researchers*; **their residence** being mostly Ukraine, and only a few respondents were from other countries (1 – Poland, 1 – France, 1 – the UK, 1 – Israel); most respondents mentioned Ukrainian as their **native language** – 167; Russian – 25, Ukrainian and Russian – 4, Russian and Ukrainian – 3, Ukrainian and Polish – 1. We should remark that the experiment still continues in social networks, which will help us in the future to confirm or correct the discovered typological reactions and construct a complete associative image of Lesya Ukrainka.

In the answers we have consistently preserved the authors' spelling and graphic peculiarities (capitalization, italics, underlined parts, non-verbal markers); we have corrected only obvious typos (e.g., *Салфо – Сапфо, Прометая – Прометея, мама Лесі Українки – мама Лесі Українки,* etc.).

3. Results and Discussion

As the result of the survey the associative fields have been created based on each word-stimulus. 13 different collective (repetitive) reactions and 38 individual reactions have been received on the first stimulus – LARYSA KVITKA (ЛАРИСА КВІТКА), on the second stimulus – LARYSA KOSACH (ЛАРИСА КОСАЧ) – 8 and 42 respectively, on the third one – LESYA UKRAINKA (ЛЕСЯ УКРАЇНКА) – 10 and 77.

The nominative field of the LARYSA KVITKA (ЛАРИСА КВІТКА) stimulus mainly comprises a set of one-word associates, at the same time the reactions represented by several words, word combinations and even several word combinations have been received (in this work every associate will be presented together with its quantitative parameters, the number of informants given in brackets).

The first thematic group of this stimulus associative field is created by the reactions which are directly or indirectly related to the personality of Lesya Ukrainka: ***Kosach*** / ***Косач*** 54 (Kosach / Косач 48 / 6 combined ones) (Kosach / Косач 43, *KOSACH / КОСАЧ* 2, *Kosach-Kvitka / Косач-Квітка* 1, *Larysa Kosach / Лариса Косач* 2, *Larysa Kosach / Лариса Косач, Kvika-Osnovianenko / Квітка-Основ'яненко* 1, *Lesya Ukrainka / Леся Українка, Kosach / Косач* 1, *Larysa Kvitka-Larysa Kosach / Лариса Квітка-Лариса Косач* 1); ***Lesya Ukrainka / Леся Українка*** 40 (*Lesya Ukrainka / Леся Українка* 31, *Lesya Ukraynka / Леся Украънка* 1, *Larysa Kvitka / Лариса Квітка – LESYA Ukrainka / ЛЕСЯ Українка* 1, *Lesya Ukrainka / Леся Українка, Kosach / Косач* 1, *happy and smiling Lesya Ukrainka / щаслива*

усміхнена Леся Українка 1, *Lesya Ukrainka with a flower in her hair / Леся Українка з заплетеною у волосся квіткою* 1, *as an association – a classical portrait of a manlike (unwomanly) Lesya Ukrainka / асоціативно – класичний портрет маскуліноподібної (нежіночної) Лесі Українки* 1, *formality / офіційність. Lesya Ukrainka / Леся Українка* 1, *Lesya Ukrainka / Леся Українка; a writer / письменниця* 1, *Lesya Ukrainka in an official mood / Леся Українка в настрої офіціозу* 1, *happy and smiling Lesya Ukrainka / щаслива усміхнена Леся Українка* 1, *Klyment / Климент, Lesya Ukrainka / Леся Українка, disease / хвороба, Surami / Сурамі, in foreign parts / на чужині* 1); **poetess / поетеса** – 13 (*poetess / поетеса 7, poetess / поетеса* 2), *poetess / поетеса 7, poetess / поетесса 1, perhaps poetess / напевно поетесса 1, Ukrainian poetess / українська поетеса 1, brilliant poetess / геніальна поетеса 1, great poetess / велика поетеса 1, Ukrainian woman / українка, poetess / поетеса* 1); **writer / письменниця** 6 (*writer / письменниця 5, Lesya Ukrainka / Леся Українка; writer / письменниця* 1); **wife / дружина** 5 (*wife / дружина 3, Klyment Kvitka' s wife / дружина Климента Квітки 1, Klyment's wife / дружина Климента* 1), **Klyment Kvitka / Климент Квітка** 5 (*Klym Kvitka / Клим Квітка 1, Klyment Kvitka / Климент Квітка 1, Климент 1), Klyment / Клемент 1, Klyment / Климент, Lesya Ukrainka / Леся Українка, disease / хвороба, Surami / Сурамі, in foreign parts / на чужині* 1); **marriage / заміжжя** 2 (*marriage / заміжжя 1, Lesya Ukrainka marriage / заміжжя Лесі Українки 1, married / заміжня* 1; **Lesya / Леся** 4 (*Lesya / Леся 3 , married Lesya / одружена Леся* 1; **mother / мати mom / мама** 4 (*mother / мати 1, Lesya's mom / мама Лесі 2, Lesya Ukrainka's mom / мама Лесі Українки*1); **Larysa Kvitka / Лариса Квітка** 3 (repetition of the word-stimulus and the association itself: *Larysa Kvitka – Larysa Kosach / Лариса Квітка–Лариса Косач 1, Larysa Kvitka – extraordinary woman / Лариса Квітка – непересічна жінка 1, Larysa Kvitka – LESYA UKRAINKA / Лариса Квітка – ЛЕСЯ Українка* 1); **Ukrainka / Українка** 2 (*Ukrainka / Українка 1, Ukrainka / Українка, poetess / поетеса* 1); **Ukraine / Україна** 1; **pseudonym / псевдонім** 3; **poetess / поетка** 1; **poems / вірші** 2, **poetry / поезія** 1; **Boyarynia / Бояриня** 1; **hope against hope / без надії сподіватись** 1; **folk records / фольклорні записи** 1; **artist / митець** 1; **woman / жінка** 4 (*woman / жінка 2, woman in prime / розквітла жінка 1, devoted woman / віддана жінка* 1); **lessons of literature / уроки літератури** 1.

Some of the associates from this group, combined by the common prop lexeme (at the level of syntagmatic associative relations), actualize certain evaluative responses of the respondents, explicating distinctive features of Lesya Ukrainka personality (various qualitative, relative or possessive characteristics, which mainly verbalize her somatic and vestal features) or express speakers' attitude to her via various attributive lexemes, for example: **Klyment Kvitka's** *wife;* **married** *Lesya Ukrainka; Lesya Ukrainka* **in an official mood; happy and smiling** *Lesya Ukrainka; Lesya Ukrainka* **with a flower in her hair; a classical portrait of a manlike (unwomanly)** *Lesya Ukrainka;*

extraordinary woman; woman **in prime**; **devoted** woman; **brilliant** *poetess;* **great** *poetess.*

The second thematic group is formed by the associates that refer to other personalities (only sometimes simultaneous explication and *Lesya Ukrainka* reaction have been observed) and lexemes of the paradigmatic type related to them: ***Osnovianenko / Основ'яненко*** 9 (*Osnovianenko / Основ'яненко* 6, *Kvitka-Osnovianenko / Квітка-Основ'яненко* 2, *Larysa Kosach / Лариса Косач, Kvitka-Osnovianenko / Квітка-Основ'яненко* 1); ***Todos' Os'machka / Тодось Осьмачка*** 1; **Tsisyk** / ***Цісик*** 7 (*tsisyk / цісик* 3, *Tsysyk / Цисик* 1, *Kvitka Tsisyk / Квітка Цісик* 2; *Kvitka / Квітка* 1; ***Vakarchuk / Вакарчук*** 1; ***line for the song / рядок для пісні*** 1; ***song / пісня*** 1; ***music / музика*** 1.

The third group of associates is presented by the lexemes which may equally concern personalities named in the previous groups with different degree of probability: ***good surname / гарне прізвище*** 1; ***the only one / єдина*** 1; ***native / рідна*** 1; ***beautiful / гарна*** 3; ***beauty / красуня*** 1; ***romantic / романтично*** 1; ***girl / дівчина*** 1; ***aunt / тітка*** 2.

The motivation of the next group of associative reactions has definite individual expression: ***Taras oak / Тарас дуб*** 1; ***spring / весна*** 2; ***beginning / початок*** 2; ***to sow / сіяти*** 1; ***Flowers / Квітки*** 1; ***chamomile / ромашка*** 1; ***marigold / чорнобривець*** 1; ***lily / лілія*** 1; ***serenity / спокій*** 1; ***hair / волосся*** 1; ***hippies, species of plants / хіпі, вид рослини*** 1. Zero associates are not numerous: ***none / ніякого*** 1, ***no associations / нема асоціацій*** 1; **?** 2.

One of the reactions – ***pseudonym / псевдонім*** 1 – shows clear cognitive deviation of the respondent.

To study typological and individually peculiar features in Lesya Ukrainka portraying the best way is to utilize the semantic gestalts method (Karaulov, 2000b) and the method of lexical-semantic fields modeling that focus on the search of common semantic dominants within associative fields. The names of these zones have been formed based on the invariant semes of the key associates.

Several nuclear semantic zones may be singled out within the LARYSA KVITKA associative field:

1. ***Anthroponymic nominations of Lesya Ukrainka*** (official names – autonyms, pseudonyms, truncated versions of the name: *Kosach, Lesya Ukrainka, Lesya*).

2. ***Lesya Ukrainka professional occupation*** (*poetess / поетка, poetess / поетеса / поетеса, writer, artist*).

3. ***Lesya Ukrainka as a married woman*** (this group comprises prop lexemes mainly: *wife, marriage, married, Larysa Kvitka*).

4. ***Lesya Ukrainka's husband*** (his full name and the most common versions of it, the surname: *Klym, Klyment / Klement, Klyment Kvitka*).

5. ***Lesya Ukrainka as a representative of a particular ethnos or state*** (ethnonym – *a Ukrainian*, horonim – *Ukraine*).

6. ***Genres of literature in which Lesya Ukrainka fulfilled herself as an artist and her aphorisms*** (*poems, poetry, folk records, hope against hope*).

7. ***Different evaluative characteristics of Lesya Ukrainka*** (*the only one, native, beautiful, beauty*).

8. ***Names by gender*** (*woman, girl, aunt*).

This group of associates is created mainly due to established paradigmatic relations of the noun type (*Larysa Kvitka – Lesya Ukrainka, Kosach, wife, a Ukrainian, Klyment Kvitka, poems, poetess*, etc.), which form regular semantic zones of "WHO" and "WHAT".

The second group of near-nuclear zone semantic gestalts is connected to other personalities of the Ukrainian reality: Kvitka-Osnovianenko, a writer (*Osnovianenko, Kvitka-Osnovianenko*) and the American singer of Ukrainian origin Kvitka Tsisyk (*Tsisyk, Kvitka, Kvitka Tsisyk*). So, we can assume that associates *song, music, line of the song* also imply semantic relations with the personality of the singer Kvitka Tsisyk.

The periphery of semantic gestalts (mainly presented by single reactions) has been formed by individualized associates motivation of which is not always clear. First of all, it concerns the following associates:

1. ***The personalities of certain individuals*** of Ukrainian historic and modern arts and culture (similar to the previous thematic group): *Todos' Os'machka, Vakarchuk* (if the personality of the singer and composer Vakarchuk as an associate can be hypothetically motivated by the fact that there are some songs of Kvitka Tsisyk in Vakarchuk's repertoire, then *Todos' Os'machka* as an associate requires comments of the author and is individual).

2. ***Specific names – phytonyms, created on the basis of generic correlation*** (*chamomile, lily, marigold*).

3. ***Lesya Ukrainka's mother*** (the motivation of such reactions is double-natured – ambiguity / confusion or association by similarity (*mother, Lesya's mom, Lesya Ukrainka's mom*).

4. ***Anthroponymic status / type*** (*pseudonym, good surname*).

Semantically opaque reactions on this word-stimulus are also not numerous (they cannot be explained without knowing cognitive, situational prerequisites that have distinctly individualized features: *Taras oak, spring, beginning, sow, serenity, hair, hippies, species of plants, romantic*, though actualization of some of them may by commented on with different degree of possibility and assumption. It concerns, in particular, reactions *spring* and *romantic*.

The associate *pseudonym*, which shows the respondent's lack of knowledge, belongs to communicative deviations.

Zero reaction is presented by verbal as well as by non-verbal signs: *none, no associations, ?*.

The nucleus of the nominative field of the word-stimulus LARYSA KOSACH has been formed, as predicted (basically – due to the dominating language of communication and the mother-tongue of the informants – the Ukrainian language) by the pseudonym **Lesya Ukrainka** and the surname **Kvitka**, which confirms the level of respondents' awareness and the ability to correctly identify her personality. The associate-pseudonym **Lesya Ukrainka** has been recorded as the most frequent (*Lesya Ukrainka* 54). This associate has different orthographic and graphic versions in some respondents' answers, like: *Lesya ukrainka* 1; *Lesya ukrainka* 2; *Lesya Ukrainka* 1; *LESYA UKRAINKA* 2; Lesya Ukraynka / Леся Украънка1 (which may be caused by some technical reasons). In their answers the respondents somewhat duplicate the name-stimulus: *Larysa Kosach – Lesya Ukrainka* 1. One answer was given in Russian – *Lesya Ukrainka / Леся Украинка* 1. Some reactions are presented by several prop lexemes: *Lesya Ukrainka, writer* 1. In one answer this associate is combined with two surnames of Lesya Ukrainka at the same time – *Kvitka* and *Kosach*, which confirms the high level of the respondents' awareness: *Kvitka – Kosach or Lesya Ukrainka* 1; *Larysa Kvitka – Kosach, Lesya Ukrainka* 1. The surname of the writer's husband quite predictably ranks second according to quantitative parameters in the associative field of this stimulus: *Kvitka* 25; *kvitka* 1; *KVITKA*!! 1; *Kvytka* 1.

The near-nucleus associative zone has been presented by the lexemes which form semantic zones: **Lesya Ukrainka and her professional activity: writer** (*writer* 5), **Lesya Ukrainka and the state / ethnonymic status: Ukrainian / Українка** (*Ukraininan / Українка* 9, *Ukraininans / українки* 1) and **Lesya Ukrainka and her name-patronymic – Petrivna** (Petrivna 7).

It is worth mentioning that the associate referring to the professional status (being a writer) has two grammatical variants: both masculine and feminine (with clear quantitative prevalence of feminine names), sometimes in combination with the lexemes that actualize other semantic features, e.g.: *writer (he-writer) / письменник* 1; *writer (she-writer) / письменниця* 6; *writer (she-writer) / письменниця, Olena Pchilka's daughter 1; poetess / поетка* 1; *poetess / поетеса* 13; *poetess / поетесса* 1; *Larysa Kosach – poetess* 1. Three respondents have mentioned that the stimulus *Lesya Ukrainka* is one of the means of her personalization: *real name* 2 and *the poetess's real name* 1. The adverb associate *officially* 1 also refers to this feature.

The attributive features to the prop associative lexeme – *Volyn* and *Ukrainian* (*Volyn writer* 1; *Ukrainian writer* 1) express its ethnic characteristics and form peculiar synthesis of the two mentioned semantic zones – **Lesya Ukrainka and her professional activity** and **Lesya Ukrainka and her ethnic differentiation**. Semantics of the ethnic identification has been actualized by noun associates-onyms – names of

places *Volyn / Ukraine / Kyiv* and ethnonyms *Volyn woman* (*волинянка*) / *Ukrainian woman* (*українка*) (the most frequent among them are *Volyn* 4 and *Volyn woman* (*волинянка*) 1). Some of them explicate evaluative lexemes: *great Ukraine* 1, *honor of Ukraine* 1).

The reactions which actualize the personality of Lesya Ukrainka's mother also belong to the near-nucleus semantic zone: *mother* 2, *mom* 1, *Lesya Ukrainka's mother* 1, *Lesya's mom* 1, *Lesya Ukrainka's mom* 2. Although, as it has been mentioned concerning the stimulus *Larysa Kvitka*, we can hardly claim that for all the respondents equally these names have the semantics of correlation by family relations based on *daughter – mother* connection, instead of denoting the same person, especially taking into account the frequent aasociate-pseudonym of the mother, Olha Kosach-Drahomanova, – *Olena Pchilka*.

The periphery of this stimulus associative field (less than five associates) has been formed by the reactions with the gestalts semantically similar to the previous one: 1. **Lesya Ukrainka and her family** (*daughter* 1, *Lesya ukrainka's sister* 1 (specific, comparing to the associates to the first stimulus). 2. **Lesya Ukrainka gender characteristics** (*woman* 1, *intelligent woman* 1, *wise woman* 1, *redoubtable* woman 1). 3. **Lesya Ukrainka evaluative characteristics and her differential features** (actualized by noun and adjective lexemes and word combinations-personifications: *majestic* 1, *amazing Larysa Kosach* 1, *treasurer / берегиня* 1, *creator* 2, *fighter* 1, *bee / бджілка* 1, *education / освіченість* 1, *talent* 1, *adamantine bloom / незламний цвіт* 1, *disease* 1). 4. **Lesya Ukrainka, different genres and her works** (*letters* 1, *poetry* 1, *poems* 1). This group (comparing to the first associative field) is expanded by one associate – nomination of the character from her work (*Mavka* 1) and the name of her work "*Forest Song*" – 1. 5. **Toponymic (place) name of the Kosaches's family estate** (*Kolodiazhne* 1). 5. **Lesya Ukrainka identification before marriage** (*youth* 1, *childhood* 1).

The semantic gestalt **Lesya Ukrainka and figurative stereotypes of the Soviet times**, presented by the well-known periphrasis *Prometheus' daughter* 3, may be considered to be a specific type of this word-stimulus associative field.

Among peripheral associates we have singled out multi-componential reactions, which mainly constitute Lesya Ukrainka micro-portrayal with clear reflection of her personality differential features individual creation and emphasis on her professional and social status, on certain outer and inner features concretizing some vestal elements (*noblewoman, poetess, proud Ukrainian* 1; *respectable woman wearing a long dress and a hat (Lesya Ukrainka in the photos of the late period)* 1). The reaction *Ukrainian national movement* (1 (116)) identifies Larysa Kosach participation in the social-political life of Ukraine of that time.

One more important semantic component of the associations of this word-stimulus is the temporal factor and correlation with the status *married / single*. In such a context the anthroponym *Lesya Ukrainka* shows semantic relations with the lexeme *panna*

(miss) / *панна,* which is known to be a Ukrainian name-honoring of unmarried girls (*panna (miss) Larysa Kosach* 1). The descriptive phrase which implies the seme "time" – **before writing the poem "Hope"** (*Lesya Ukrainka: before writing the poem "Hope"*) functions as a differentiation between the use of the two anthroponymic names – an official one (real) and a pseudonym (fictional). Similar semantics is displayed by another associate – *officially recorded, documented individual, not artistic personality of Lesya Ukrainka* 1), in which semantic markers *common – artistic* (personality) have been additionally presented, which creates double association. The associate *Lesya Ukrainka, Kolodiazhne, poetess, strong personality, honor of Volyn* 1 actualizes all main semantic features of the word-stimulus. And quite naturally the image of Larysa Kosach is expressed by the semantic correlation with the whole family of the Kosaches: *the family nest of the Kosaches* 1.

The periphery also includes the reactions marked by the situationality of associations, that is why decoding of their semantic relations with the word-stimulus is complicated. It concerns, in particular, the associate *hutsulka* 1, which must point at cognitive deviation, as well as a single reaction *pseudonym.*

A separate (not numerous) group has been formed by the associative reactions which do not have clear motivation and we have marked them as individual ones: *pond* 1, *Victoria [personal name]* 1, *mow* 1, *pearl-hen* 1, *hair* 1, *Vika Porubliova* 1.

One answer duplicates the previous one but to another word-stimulus given by the same respondent: *the same* 1.

The nominative field of the third stimulus – LESYA UKRAINKA – has been defined by several features: single zero reaction (*I don't know* 1) and the most numerous quantitative parameters of associates of different types 87 (compare LARYSA KVITKA 51, LARYSA KOSACH 50). It is probably caused by the fact that it is widely known in Ukrainian society and by high frequency of its actualization in language consciousness of Ukrainians (only few respondents from other countries participated in Free Associative Test).

The most productive reactions are the ones that have stable semantic relations at paradigmatic level, they present the semantic gestalt "WHO" and form its semantic zone: ***Lesya Ukrainka and her professional activity – literature / writing***. The semantic field of such associates has been formed by the lexemes: *poetess* 17 (one time together with the word-stimulus: *Lesya Ukrainka – poetess* 1) / *poetess* 1, *writer* 9, *poetess* / *поетка* 2 and word-combinations with evaluative attributes: **outstanding** *poetess* 1, **favourite** *poetess* 1, **Ukrainian** *writer* 1, **Ukrainian** *poetess* 1, and also the name of school subject *Ukrainian literature* 1.

The thematic group ***Lesya Ukrainka – identification by gender, family ethnic status*** has been mainly actualized by noun lexemes-identifiers, that name her by certain differential features, often – in combination with evaluative attributes: *daughter* 1, *woman* 1 (**strong** *woman* 1, **strong-willed** *Ukrainian woman* 1), *patriot* 1, *citizen of Lutsk* / *лучанка* 1, *Volynian* / *волинянка* 1, *Ukrainian* / *українка* 1, *authentic*

Ukrainian / справжня Українка 1, *countrywoman / землячка* 2, *famous countrywoman* 1. Some individual associates have been created by several prop lexemes: *Ukrainian **poetess**, spirited **woman*** 1; *outstanding **poetess**, famous **Ukrainian*** 1; *Larysa Kosach, **writer, poetess*** 1.

A significant part of respondents focus on the fact that the name-stimulus is not a real name. Both direct and indirect associates-identifiers point out at that: *pseudonym* 2 and *Larysa Kosach* 5 / *Larysa kosach* 1, *Kosach* 1, *Larysa Petrivna Kosach-Kvitka* 1. One associate actualizes her autonym by her husband – *Kvitka* 1.

The semantic gestalt "WHAT" actualizes multiple semantic zones, which present thematic groups of names, formed on the basis of paradigmatic relations, peculiar for the previous two associative fields:

1. Different genres, in which Lesya Ukrainka realized herself (*poems / поеми* 1, *poem* 1, *poems* 3, *Ukrainian poetry* 1, *letters* 1), ***her works and characters*** (here clear variability of names and various orthography in the respondents' answers are especially noticeable), among the most frequent ones are "Forest Song" and "Contraspemspero": "*Forest Song*" and "*Cherries / Вишеньки*" (in such order) 1 / "*Forest Song*" 2 / *Forest song* 10 / *forest song* 1, *Lesya Ukrainka Forest song* 1 / *Dramo-Feerie "Forest Song" (Драмо-феєрія «Лісова пісня»)* 1 / *Drama-Feerie "Forest Song"(Драма-феєрія «Лісова пісня»)* 1; *ContraSpemSpero!* 1 / *Contra spem spero* 2 / *Contra spem sperum* (mistakes in the answers have not been corrected here and further on) 1, *Hope against hope (Без надії сподіваюсь)* 2 / *Hope against hope (Без надії сподіватися)* 1 / *Still hope against hope (Без надії таки сподіваюсь)* 1; single reactions are presented by names of such works as *Bygone Spring / Давня весна* 1, "*Kasandra*" 1, *On the Field of Blood / На полі крові* 1, *The Obsessed / Одержима* 1, *Hope / Надія* 1, by the first line of the poem (*Dream, don't betray, I have been in sorrow for so long / Мріє, не зрадь, я так довго до тебе тужила* 1, *As a child I used to / Як дитиною бувало* 1) or by quotation / quotations from them (sometimes – not accurate): *was lying sick and lonely / лежала хвора й самотна* 1, "*How painful?" they asked / Як болить мене питали* 1, *"I was laughing not to cry" / «щоб не плакать, я сміялась»; "who told you I am weak?" / «хто вам сказав, що я слабка?»* 1.

We have also recorded the reactions with some contaminations-errors of the author's text. The thematic status of some associates of this semantic zone has ambiguous expression. We may assume that reactions *zoviili lysty* (faded letters) / *зов'їлі листи* 1 and *zoviila troyanda* (faded rose) / *зов'яла троянда* 1 probably refer to the work "Your letters always smell of faded roses" («Твої листи завжди пахнуть зов'ялими»).

Among the names of characters explication of the main character of "Forest Song" is rather frequent (*Mavka* 9 / *MAVKA* 1 / *mavka* 1).

2. Nominations of certain concrete objects, directly related to her commemoration (streets, monuments, educational institutions, money named after her), sometimes associates of the combined type have been actualized: *avenue* 1, *monument*

1, *Lesya Ukrainka Eastern European University* 1, *Volyn university* 1, *hryvnia* 1, *200 hryvnias* 3, *200, theatre, literature* 1.

3. Associates that characterize Lesya Ukrainka physical condition and concern her health, to be more precise, her being unhealthy (which belong to the frequent ones in stereotypical portrayal of her image in educational environment and mass media): *disease* 1, *tuberculosis* 1.

The periphery zone of this associative field has been created by the semantic gestalt "WHAT / ЯКА". These are mainly adjective lexemes, which portray her by distinctive features (inner and outer) or are stereotypical evaluative characteristics: *plait* 2, *tired* 1, *strong-willed* 1, *famous* 1, *genius* 4, *brilliant Lesya Ukrainka* 1, *wise and strong personality* 1, *glorious daughter of the Ukrainian nation* 1.

Equally frequent reactions of this semantic zone have been verbalized by noun lexemes, attributive word-combinations: *perseverance* 1, *courage* 1, *invincibility* 1, *emancipation* 1, *fight for women's rights* 1 and by semantically relevant word-combinations *fragility and courage* 1, *boldness and completeness* 1, *art and intelligence* 1, *unreachable height and pain* 1.

The semantic gestal "THIS / ЦЕ" actualizes, first of all, all figurative, mainly periphrastic, names, explicated by both one-component and multi-component language units. Among them we have singled out stereotypical ones (*Obsessed / Одержима* 2, *Ukrainian Sappho* 1, *daughter of Volyn region / донька Волинського краю* 1, *PROMETHEUS' DAUGHTER !!!!* 1 / *Prometheus' daughter* 1, *Prometheus' Daughter* 1, *the only man in the Ukrainian literature* 1, "*almost the only man in modern Council Ukraine*" 1, *our Lesya* 1) and individually outlined names (*flower of Ukraine* 1, *voice of Ukraine* 1, *Ukrainian soul* 1, *soul of nation* 1, *heart of nation* 1, *beacon of nation* 1, *pride* 1, *pride of nation* 1, *our pride* 1, *national pride* 1, *symbol* 1, *enthusiasm* 1, *fortitude* 1, *hope and soul* 1, *ever-living* 1, *Woman of the Sun* 1).

A significant part of this semantic zone has been formed by *the names of states and cities, related to her image* (*Volyn* – 5, *Kolodiazhne* 5 / *village of Kolodiazhne* 1, *Lutsk* 2, *Ukraine* 1 and *Georgia* 1).

The associates to the word-stimulus LESYA UKRAINKA, which combine several semantic zones, are not numerous: *Forest song, disease* 1, *poetess / поетка, translator, example* 1, *Volyn; Mavka* 1. One answer is presented by a mini-description of the most common photo of the writer: *a page in the Ukrainian literature textbook, in which there is a portrait of Lesya which she didn't like* 1.

Individual reactions explicate emotional feelings and attitude to her personality: *Lesya Ukrainka inspires* 1, *respect* 1.

The comparative analysis of all the three associative fields has made it possible to single out collective nuclear reactions, among which the most frequent ones are autonyms *Larysa Kvitka, Larysa Kosach* and the pseudonym *Lesya Ukrainka* (see Table 1).

Table 1
Nuclear Associative Markers of Lesya Ukrainka Image Modelling

	N of reactions (collective / individual)	Professional activity	Genres, works	Locus	Evaluative characteristics
Larysa Kvitka	13 / 38	21	4	0	8
Larysa Kosach	8 / 42	26	2	9	12
Lesya Ukrainka	10 / 77	33	24	18	25

The defined semantic zones illustrate frequent use of reverse reactions: LARYSA KVITKA – *Lesya Ukrainka, Larysa Kosach, Kosach-Kvitka, Kosach,* LARYSA KOSACH – *Lesya Ukrainka, Larysa Kvitka-Kosach*, LESYA UKRAINKA – *Larysa Kosach, Larysa Petrivna Kosach-Kvitka* (see quantitative parameters of their typological representation in Table 2).

Table 2
Reverse Associations

	Larysa Kvitka	Larysa Kosach	Lesya Ukrainka
Larysa Kvitka	3	27	0
Larysa Kosach	51 (just Kosach)	1	2
Lesya Ukrainka	37	68	1

The cases of Lesya Ukrainka image depersonalization have been noticed only for the stimulus *Larysa Kvitka* (see Table 3).

Table 3
Personal Identification with Other People

	Larysa Kvitka	Larysa Kosach	Lesya Ukrainka
Osnovianenko	9	0	0
Todos' Os'machka	1	0	0
Tsisyk	7	0	0
Vakarchuk	1	0	0

4. Conclusions

Every field associative with a suggested stimulus word is constructed of units which are structurally and semantically heterogeneous, i.e., words, word combinations, phraselological units, free expressions. Among the most common are one-word noun reactions. In addition, word combinations and associates, formed by paradigmatic and syntagmatic connections with stimuli words can be considered productive, and complex word combinations formed by combining several basic words-reactions, as well as phrasal expressions, are considered non-productive. Silence-type reactions constitute the periphery.

The conducted research gives us grounds to draw a conclusion about most respondents as being well-informed concerning the author's names (real nominations-identificators) of Lesya Ukrainka. The stimulus word LARYSA KVITKA (ЛАРИСА КВІТКА) created the most cognitive difficulty, which caused the emergence of associates of other thematic groups with the basic lexeme *kvitka / квітка* (in particular, of the writer Kvitka-Osnovianenko, the singer Kvitka Tsicyk, etc.) Lack of knowledge of Lesya Ukrainka's real names, as well as of associating them both with her personality, has caused reactions which explicated images of other well-known Ukrainian personalities.

The appearance of associates which actualized the writer's mother's penname cannot be interpreted unambiguously: they can be, to an equal degree, both a sign of an associative deviation as a result of the respondents' insufficient knowledge, and of creation of habitual paradigmatic family-type connections on a semantic level, i.e.: *daughter-mother.*

It is worth remarking that associative fields of all three stimuli units have a minimal number of zero reactions. We have registered only one such associate with the stimulus LESYA UKRAINKA / ЛЕСЯ УКРАЇНКА, which confirms a high level of the respondents' knowledge, as well as their high cognitive abilities.

With the third stimulus, we have registered the largest number of different periphrastic nominations and evaluative lexemes as associates which explicate a pronounced emotional expressive perception of Lesya Ukrainka's personality in the contemporary society.

The main semantic zones have been actualized with all the stimuli words, namely: *Lesya Ukrainka and her professional activities, her works and genres, distinctive features of her outward* (seldomly) *and inward portrayal* (frequently), *her ethnonymy status, gender characteristics, toponymy (cities and countries connected with her).* The most productive were associates which belong to the generalized semantic zones: "WHO", "WHAT", and "THIS". We have also discovered special semantic zones with every stimulus, namely, with the first stimulus, LARYSA KVITKA / ЛАРИСА КВІТКА: *Lesya Ukrainka and her status as a married woman; her husband*; with the stimulus LARYSA KOSACH / ЛАРИСА КОСАЧ: *her patronymic Petrivna;* and with

LESYA UKRAINKA: *specific objects, realia,* in particular, *oney, educational establishments.*

It is important that, in contrast to some actively used stereotypes about the image of Lesya Ukrainka (in particular, in mass media, and in the educational environment, first and foremost in schools), as "*a sick, but strong/courageous woman*", "*a woman with a masculine character*" (the latter being a transformation of the well-known quotation by Ivan Franko about her being "*probably the only man in the whole new-time united Ukraine*"), the assotiative perception and portrayal of her image in the contemporary society has shown, first and uppermost, a clear tendency for individually outlined positive modeling (as opposed to the frequency of a usual evaluation specter – i.e., neutral and periphrastic nominations), which partly reflects the destruction of common standards. The latter is probably caused by, first, a sufficiently high level of a language conscience and knowledge of the respondents, which contributed to the formation of a definitely positive and emotionally coloured image of Lesya Ukrainka. The availability of identical or similar semantic zones in associative fields confirms a stereotypical character of the contemporary speakers' perception of her personality, independent of their age, professional and gender characteristics. The registered individual associates in all the three fields have clear shades of meanings and emotions.

It is also important to mention graphical markers in some respondents' answers, mostly represented by punctuation marks and different fonts, which contribute to specify the evaluative character of perception of Lesya Ukrainka's personality.

References

Боргоякова Т. Г., Покоякова К. А. Лексикографическая и психолингвистическая репрезентация образа женщины в разных лингвокультурах. *Вестник Новосибирского государственного университета. Серия: Лингвистика и межкультурная коммуникация*. 2012. № 10(2). С. 45–50.

Горошко Е. И. Интегративная модель свободного ассоциативного эксперимента. Харьков; Москва : РА-Каравелла, 2001. URL: http://www.textology.ru/razdel.aspx?ID=38

Денисевич О. Вільний асоціативний експеримент як засіб дослідження соціального портрету. *Волинь-Житомирщина. Історико-філологічний збірник з регіональних проблем*. 2010. № 22(II). С. 334–340.

Загородня О. Асоціативні поля суспільно-політичної лексики в мовній картині світу українців (комп'ютерне опрацювання результатів психолінгвістичного експерименту) : автореф. дис. ... канд. філол. наук : 10.02.21. Київ, 2018. 20 с.

Залевская А. А. Вопросы организации лексикона человека в лингвистических и психологических исследованиях. Калинин, 1978. 88 с.

Залевская А. А. Слово в лексиконе человека: психолингвистическое исследование. Воронеж : Изд-во Воронежского университета, 1990. 204 с.

Залевская А. А. Функциональная основа разграничения парадигматических и синтагматических связей при анализе материалов ассоциативных экспериментов. *Структурно-семантические исследования русского языка*. Воронеж : Изд-во ВГУ, 1994. С. 5–13.

Караулов Ю. Н. Ассоциативный анализ: новый подход к интерпретации художественного текста. *Вопросы психолингвистики*. 2015. № 3(25). С. 14–35.

Караулов Ю. Н. Показатели национального менталитета в ассоциативно-вербальной сети. *Языковое сознание и образ мира* / отв. ред. Н. В. Уфимцева. Москва: Ин-т языкознания РАН, 2000. С. 191–206.

Караулов Ю. Н. Семантический гештальт ассоциативного поля и образы сознания. *Языковое сознание: содержание и функционирование: тез. док. XIII Международного симпозиума по психолингвистике и теории коммуникации (Москва, 1–3 июня 2000 г.)* / отв. ред. Е. Ф. Тарасов. Москва, 2000. С. 107–108.

Кочерган М. Л. Лексико-семантична система. *Українська мова: енциклопедія* / за ред. В. М. Русанівського, О. О. Тараненка. Київ, 2004. С. 305–306.

Кузина О. А. Семантический гештальт как способ выявления этнокультурной специфіки язикового сознания (на примере семантического гештальта микрополя «Бюро путешествий»). *Филология и человек*. 2010. № 2. С. 46–55.

Недашківська, Т. Є. Асоціативне семантичне поле концептів *професійність*, *служіння*, *мета*, *повноваження*, *завдання* у професійній свідомості державних службовців. *Вісник Національної академії державного управління*. 2007. № 4. С. 65–73.

Новикова А. М. «Семантический гештальт» в структуре ассоциативного поля. Москва, 1988.

Новикова А. М. Использование в рамках ассоциативного поля функциональной структуры «язык-действительность» при обучении переводу художественных текстов. *Русистика*. 2008. № 2. С. 29–34.

Прищепа, О. П., Плечко, А. А., Свисюк, О. В. Особливості вербалізації концепту Україна в мовомисленні сучасної української молоді. URL: http://ir.znau.edu.ua/bitstream/123456789/9593/1/NVNUBiP_18_292_109-116.pdf.

Покоякова К. А. Образ мужчины в языковом сознании русских и американцев. *Филологические науки. Вопросы теории и практики*. 2013. № 7(2). С. 147–149.

Сергиева Н. С. Семантический гештальт и ядро языкового сознания русских. *Вестник Южно-Уральского государственного университета. Серия: Социально-гуманитарные науки*. 2006. № 2(57). С. 160–165.

Терехова Д. І. Типологія вербальних асоціацій у вільному асоціативному експерименті. *Наукові записки. Серія: Філологічні науки (Мовознавство)*. 2000. № 26, С. 236−246.

Терехова Д. І. Психолінгвістичний аналіз асоціативних полів слова-стимулу друг за даними спрямованих асоціативних експериментів. *Вісник Київського національного лінгвістичного університету. Серія Філологія*. 2017. № 20(2). С. 85–91.

Цаголова В. А. Моделирование образа политика Ангелы Меркель на материале ассоциативного эксперимента. *Актуальные проблемы филологии и педагогической лингвистики*. 2016. № 3(23). С. 65–70.

Чеканова С. А. Семантическое поле «профессия» в картине мира носителей языка (на материале русского и английского языков) : автореф. дисс. ... канд. филол. наук : 10.02.19. Москва, 2008. 24 с.

Чеканова С. А. Сравнительный анализ ассоциативных полей слова-стимула «экономист» (современные русские и англичане). *Филологические науки в МГИМО*. 2008. № 33. С. 111–118.

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

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

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

References (translated and transliterated)

Borgoyakova, T. G., & Pokoyakova, K. A. (2012). Lexicographic and Psycholinguistic Representation of a Woman in Different Cultures. *Vestnik Novosibirsk State University. Series: Linguistics and Intercultural Communication, 10*(2), 45–50.

Goroshko, E. I. (2001). Integrativnaja model' svobodnogo associativnogo eksperimenta. Kharkiv; Moscow: RA – Karavella. Retrieved from http://www.textology.ru/razdel.aspx?ID=38

Denysevych, O. (2010). Vilnyi asotsiatyvnyi eksperyment yak zasib doslidzhennia sotsialnoho portretu [The Free Associative Experiment as a Mean of Researching the Social Portrait]. *Volyn-Zhytomyrshchyna. Istoryko-filolohichnyi zbirnyk z rehionalnykh problem – Volyn-Zhytomyrshchyna. Historical-Philological Digest on Regional Problems, 22*(2), 334–340.

Zahorodnia, O. F. (2018). Asotsiatyvni polia suspilno-politychnoi leksyky v movnii kartyni svitu ukraintsiv (kompiuterne opratsiuvannia rezultativ psykholinhvistychnoho eksperymentu) [Associative fields of social and political lexis in the Ukrainian language world view (computer processing of the psycholinguistic experiment results)]. Unpublished Ph.D. dissertation. Kyiv.

Zalevskaja, A. A. (1978). *Voprosy organizacii leksikona cheloveka v lingvisticheskih i psihologicheskih issledovanijah [The Issues of the Individual's Lexicon Structure in the Linguistic and Psychological Research]*. Kalinin.

Zalevskaja, A. A. (1990). *Slovo v leksikone cheloveka: psiholingviticheskoe issle-dovanie [A Word in the Lexicon of a Person: Psycholinguistic Study]*. Voronezh: Voronezh University.

Zalevskaja, A. A. (1994). Funkcional'naja osnova razgranichenija paradigmaticheskih i sintagmaticheskih svjazej pri analize materialov associativnyh jeksperimentov [The functional basis of the distinction between paradigmatic and syntagmatic relationships in the analysis of the materials of associative experiments]. *Strukturno-semanticheskie issledovanija russkogo jazyka – Structural and semantic studies of the Russian language,* (pp. 5–13). Voronezh.

Karaulov, Yu. (2015). Associativnyj analiz: novyj podhod k interpretacii hudozhestvennogo teksta [Association analysis: the new approach to the literary text interpretation]. *Voprosy Psiholingvistiki – Journal of Psycholinguistics*, *25*, 14–35.

Karaulov, Yu. N. (2000a). Pokazateli nacional'nogo mentaliteta v associativno-verbal'noj seti [Indicators of national mentality in associative-verbal network]. In: *Jazykovoe soznanie i obraz mira – Linguistic Consciousness and World Image* (pp. 191–206). N. V. Ufimceva (Ed.). Moscow: Institute of Linguistics of the Russian academy of Sciences.

Karaulov, Yu. N. (2000b). Semanticheskij geshtal't associativnogo polja i obrazy soznanija [Semantic gestalt of the associative field and images of consciousness]. In: *Jazykovoe soznanie: soderzhanie i funkcionirovanie. XIII Mezhdunarodnyj simpozium po psiholingvistike i teorii kommunikacii. Tezisy dokladov (g. Moskva, 1–3 ijunja 2000 g.) – Linguistic Consciousness: Content and Functioning. XIII International Symposium on Psycholinguistics and Theory of*

Communication. Abstracts (Moscow, June 1–3th, 2000) (pp. 107–108). E. F. Tarasov (Ed.). Moscow.

Kocherhan, M. L. (2004). Leksyko-semantychna systema [Lexical-Semantic System]. *Ukrainska mova: entsyklopediia – Ukrainian Language: Encyclopedia*, (pp. 305–306), V. M. Rusanivskyi, & O. O. Taranenko (Eds.). Kyiv.

Kuzina, O. A. (2010). Semanticheskij geshtal't kak sposob vyjavlenija jetnokul'turnoj specifiki jazykovogo soznanija (na primere semanticheskogo geshtal'ta mikropolja «Bjuro puteshestvij») [Semantic gestalt as a means to identify the ethnocultural specifics of linguistic consciousness (case study of the semantic gestalt of the micro-field "Travel Bureau")]. *Filologija i chelovek – Philology & Human, 2*, 46–55.

Nedashkivska, T. Ye. (2007). Asotsiatyvne semantychne pole kontseptiv profesiinist, sluzhinnia, meta, povnovazhennia, zavdannia u profesiinii svidomosti derzhavnykh sluzhbovtsiv [The Associative Semantic Field of the Concepts of professionalism, service, goal, powers, responsibilities in the Professional Consciousness of the Civil Servants]. *Visnyk Natsionalnoi akademii derzhavnoho upravlinnia – Bulletin of the National Academy of Public Administration*, *4*, 65–73.

Novikova, A. M. (1988). *"Semanticheskij geshtal't" v strukture associativnogo polja – "Semantic Gestalt" in an associative field structure*. Moscow.

Novikova, A. M. (2008). Use within the framework of an associative field of functional structure "language – reality" with the instruction in transfer of the artistic texts. *Rusistika, 2*, 29–34.

Pryschepa, O. P., Plechko, A. A., & Svysiuk, O. V. Osoblyvosti verbalizatsii kontseptu Ukraina v movomyslenni suchasnoi ukrainskoi molodi [The Verbalization Peculiarities of the Concept Ukraine in the Mentality of Modern Ukrainian Youth]. Retrieved from http://ir.znau.edu.ua/bitstream/123456789/9593/1/NVNUBiP_18_292_109-116.pdf

Pokoyakova, K. A. (2013). Image of man in russians and americans language consciousness. *Philological Sciences. Issues of Theory and Practice, 7*(2), 147–149.

Sergieva, N. S. (2006). Semanticheskij geshtal't i jadro jazykovogo soznanija russkih [Semantic Gestalt and the linguistic consciousness core of the Russians]. *Vestnik Juzhno-Ural'skogo gosudarstvennogo universiteta. Serija: Social'no-gumanitarnye nauki – Bulletin of South Ural State University. Series "Humanities and Social Sciences", 2* (57), 160–165.

Terekhova, D. I. (2000). Typolohiia verbalnych asotsiatsii u vilnomu asotsiatyvnomu eksperymenti [Typology of the Verbal Associations in a Free Associative Experiment]. *Naukovi zapysky. Seriia : Filolohichni nauky (Movoznavstvo) – Scientific Notes. Series: Philological Sciences (Linguistics), 26*, 236−246.

Terekhova, D. I. (2017) Psykholinhvistychnyi analiz asotsiatyvnykh poliv slova-stymulu druh za danymy spriamovanykh asotsiatyvnykh eksperymentiv [Psycholinguistic Analysis of Associative Fields of Word-Stimulus Друг (Friend) According to the Data of Directed Associative Experiments]. *Visnyk Kyivskoho natsionalnoho linhvistychnoho universytetu. Seriia Filolohiia – Visnyk of Kyiv National Linguistic University. Series Philology, 20*(2), 85–91.

Tsagolova, V. (2016). Modeling of the Image of Politician Angela Merkel on the Material of Associative Experiment. *Current Issues in Philology and Pedagogical Linguistics,* (23), 65–70.

Chekanova, S. A. (2008a). Semanticheskoe pole «professija» v kartine mira nositelej jazyka (na materiale russkogo i anglijskogo jazykov) [Semantic field of PROFESSION in the native speakers' picture of the world]. *PhD Thesis Abstract*. Moscow.

Chekanova, S. A. (2008b). Sravnitel'nyj analiz associativnyh polej slova-stimula «jekonomist» (sovremennye russkie i anglichane) [Comparative analysis of the associative fields of the word-

stimulus "economist" (modern Russians and Englishmen)]. *Filologicheskie Nauki v MGIMO – Philological Sciences, 33*, 111–118.

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

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

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

INVESTIGATING THE CONCEPT OF "LIGHTNESS" AS REFLECTED IN THE RUSSIAN-SPEAKING UKRAINIANS' LINGUISTIC CONSCIOUSNESS

Iia Gordienko-Mytrofanova
ORCID 0000-0001-5332-066
ikavgm@gmail.com
Hryhorii Skovoroda Kharkiv National Pedagogical University, Ukraine
Iuliia Kobzieva
ORCID 0000-0001-8483-9695
Scopus Author ID: 57215587708
yu.kobzeva88@gmail.com
Hryhorii Skovoroda Kharkiv National Pedagogical University, Ukraine
Kateryna Borokh
ORCID 0000-0001-5849-2798
katya.borokh.85@gmail.com
Hryhorii Skovoroda Kharkiv National Pedagogical University, Ukraine

Abstract. The purpose of this study is to define and describe the semantic components of the verbalised concept "lightness" as a component of ludic competence in the linguistic consciousness of the Russian-speaking people from Eastern Ukraine. The main method of the research was a psycholinguistic experiment. The sample comprised 426 young people (aged 18–35), males and females being equally represented. Cluster analysis showed that the core of the concept "lightness" is represented by three semantic groups: "the quality being light and insignificant in weight and size …", "the feeling of happiness and joyful ease", "the feeling of freedom …, cheerfulness, excitement". The last two clusters reveal the ambivalent nature of the concept "lightness". The concept "lightness" is characterized by a large variety of peripheral clusters. The ones that are especially noteworthy are "insight" and "duality". The former reflects the cognitive component of lightness, which accounts for 3 per cent. The latter reflects the concept's ambivalent nature. Basically, the semantic content of the core of the word "lightness" does not depend on gender. The comparative analysis of the concept "lightness" in the linguistic consciousness of Ukrainian citizens and people living in Russia reveals its nationally-specific perception in the linguistic consciousness of Ukrainian people, which was reflected in the most frequent reaction "freedom". Taken together, both samples share a number of common features: wide semantic scope; strong synonymic and weak antonymic connections between stimulus and reactions; positive emotional response to the stimulus. Finally, the results of the free word association test with the stimulus word "lightness" were successfully used to

define more precisely and expand our understanding of "lightness" as a component of ludic competence taking into account both core and peripheral clusters.

Keywords: ludic competence, playfulness, ludic position, lightness, psycholinguistic experiment, free word association test, linguistic consciousness.

Гордієнко-Митрофанова Ія, Кобзєва Юлія, Борох Катерина. Концепт «легкість» у мовній свідомості російськомовних українців.

Анотація. Мета дослідження – виявити й описати семантичні компоненти вербалізованого концепту «легкість», як компонента ігрової компетентності, в мовній свідомості російськомовних жителів Східної України. Основним методом дослідження був психолінгвістичний експеримент. Вибірку склало 426 респондентів молодого віку (18–35) у рівному співвідношенні чоловіків і жінок. Результати кластерного аналізу показали, що ядро концепту «легкість» представлено трьома семантичними групами: «властивість чогось легкого, незначного за вагою й розміром...», «почуття щастя й радісного спокою», «почуття свободи..., бадьорості, підйому». Два останніх кластери відображають амбівалентний характер концепту «легкість». Концепт «легкість» характеризується великою різноманітністю периферійних кластерів. Серед них заслуговують на увагу два кластери – «інсайт» і «дуальність». У першому відображена когнітивна складова легкості, яка склала 3%. У другому – амбівалентний характер концепту. Семантичне наповнення ядра слова «легкість» загалом не залежить від статевої належності. Порівняльний аналіз концепту «легкість» у мовній свідомості жителів України й жителів Росії дає змогу твердити про його національно-типологічне сприйняття в мовній свідомості жителів України, що знайшло своє втілення в найбільш високочастотній реакції «свобода». Загалом обидві вибірки характеризуються: широким семантичним спектром; сильними синонімічними та слабкими антонімічними зв'язками стимулу й реакцій; позитивними емоціями на стимул. Нарешті, результати вільного асоціативного експерименту зі стимулом «легкість» було успішно використано з метою смислового уточнення й розширення поняття «легкість» як компонента ігрової компетентності.

Ключові слова: ігрова компетентність, грайливість, ігрова позиція, легкість, психолінгвістичний експеримент, вільний асоціативний експеримент, мовна свідомість.

1. Introduction

This article is part of the joint research effort dedicated to *ludic competence* (Gordienko-Mytrofanova & Kobzieva, 2017; Gordienko-Mytrofanova, Pidchasov, Sauta, & Kobzieva, 2018). We define ludic competence as a system if inner resources to which a person turns in order to balance their personality against external conditions of the social environment on the basis of positive emotions, e.g. interest and joy, which are frequently expressed in a very emotional way, accompanied by tension and excitement.

Ludic competence is formed alongside the development of *playfulness*, which is a stable personality trait and has been subject of scientific research since 1975 (Csikszentmihalyi, 1975; Groos, 1976; Chapman, 1978; Bowman, 1987; Barnett, 1990; Bundy, 1996; Schaefer & Greenberg, 1997; Guitard, Ferland, Dutil, 2005; Shen, 2010; Yarnal & Qian, 2011; Proyer, 2012; Yue et al., 2016; Gordienko-Mytrofanova & Kobzieva, 2017).

We define playfulness as a person's creative adaptation to the reality of their own "Self" (individual identity) and to the reality of the World (social identity). As a result, every difficult situation can be faced as a challenge, rather than a threat (Gordienko-

Mytrofanova & Kobzieva, 2017; Guitard et al., 2005, p. 19).

In Ukraine, we are pioneers among scholars in studying playfulness. We study it with the help of psycholinguistic methods and psycholinguistic experiment in particular, whose major part is free word association test. Previously, we undertook the most extensive longitudinal free word association test with the stimulus word "playfulness" (4,795 respondents). Then, in order to explore common tendencies and characteristic features of the general population (which is the whole population of Ukraine aged 18–75 who are fluent in Russian) and to meet the objectives of this research, several samples were formed. Nineteen psycholinguistic meanings of playfulness were described as a result of the psycholinguistic experiment with a sample of 1,600 respondents.

Relying on previous theoretical and empirical research into playfulness as a personality trait (Barnett, 2007; Guitard et al., 2005; Proyer, 2012; Yarnal & Qian, 2011; Yue et al., 2016), as well as analysis of components/scales of playfulness (Glynn & Webster, 1992; Tsuji et al., 1996; Schaefer & Greenberg, 1997; Barnett, 2007; Yarnal & Qian, 2011; Proyer, 2012; Shen, Chick, & Zinn, 2014; Proyer, 2017), high-frequency reactions of the biggest sample of 4,795 respondents and established psycholinguistic meanings, we managed to single out the following components of playfulness: ***sensitivity, imagination, sense of humour, lightness, flirting, impishness, fugue*** (Gordienko-Mytrofanova & Kobzieva, 2017; Gordienko-Mytrofanova et al., 2018; 2019).

The components of playfulness as an integral personality trait are also the components of ludic competence. We define them as "motivational predisposition" (Raven, 2001). This "motivational predisposition" forms the basis of ludic positions of effective social interaction: *"sensitivity" (sensitive) – "Aesthete"*; *"imagination" – "Sculptor"*; *"lightness" ("light") – "Balance-Master"*; *"flirting" (flirtatious) – "Diplomat"*; *"impishness" (impish) – "Frolicsome Fellow"*; *"humour" (funny) – "Real Humourist"*; *"fugue" (fugue) – "Holy Fool"*. Ludic positions reflect the way how ludic competence manifests itself in different standard and non-standard situations, which brings about behavioural aspect. Therefore, mastering ludic positions means mastering certain behavioural patterns.

The names of ludic positions are justified both theoretically and empirically (Gordienko-Mytrofanova et al., 2018) and were tested during coaching sessions in ludic competence, which are part of the curriculum of psychology students at H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine.

As it was mentioned above, *lightness* is one of the components of ludic competence. Lightness is not part of any scales designed to measure playfulness that we are aware of: *Adult Playfulness Scale* (Glynn, & Webster, 1993); *Playfulness Scale for Adults* (Schaefer & Greenberg, 1997); *Playfulness Scale for Young Adults* (Barnett, 2007); *Older Adult Playfulness Scale* (Yarnal & Qian, 2011); *Short Measure of Adult Playfulness* (Proyer, 2012); *Adult Playfulness Trait Scale* (Shen et al., 2014); *Other-directed, Lighthearted, Intellectual, and Whimsical playfulness* (Proyer, 2017).

However, as it was mentioned above, lightness as a component of playfulness / ludic competence was discovered as we described the psycholinguistic meanings of *playfulness* with a sample of 1,600 respondents (Gordienko-Mytrofanova et al., 2019).

We decided to study *lightness* as a component of ludic competence from a psycholinguistic approach, using free word association test as a psycholinguistic tool for clarifying and expanding our understanding of the semantic content of notions that are expressed in the language with the help of particular words. Free word association test has already proved to be very effective in studying *impishness, imagination, humour* as components of ludic competence, as well as studying *holy fool* as a ludic position (Gordienko-Mytrofanova et al., 2018; Kobzieva, Gordienko-Mytrofanova, & Goncharenko-Kulish, 2020a; Kobzieva, Gordienko-Mytrofanova, & Sauta, 2020b; Kobzieva, Gordienko-Mytrofanova, Udovenko, & Sauta, 2020c).

In our coaching sessions dedicated to ludic competence, we use the results of the psycholinguistic experiment that help us consider gender-specific differences in the perception of certain component of playfulness / ludic competence expressed with the help of a particular word, emotional attitude to this word, as well as its popular meanings that are typical of the linguistic consciousness of the Russian speakers in Ukraine.

Linguistic consciousness is coined as "the aggregate of psychological mechanisms of speech generation and understanding, as well as retaining the language in consciousness, i.e., mental mechanisms that underlie a person's speech activity" (Popova & Sternin, 2007, p. 32). It should be noted that this approach describes linguistic consciousness from the perspective of psycholinguistics, science with the human linguistic consciousness in the context of its psychological reality as an exclusive object of study (Sternin & Rudakova, 2011; Zasiekina, 2008).

The associative field obtained in the course of association experiment is "not only a fragment of the verbal memory of a human being, but also a fragment of the image of the world shared by a particular ethnos, reflected in the consciousness of an average representative of some particular culture, their motives and judgments, and, consequently, cultural stereotypes" (Ufimtseva, 2009, p. 98). The scope and nature of reactions in associative fields tell us a lot about the word usage, revealing the content of the word which is psychologically common among the native speakers of the language.

The present article describes the results of a joint research effort (2017–2019) into the stimulus "lightness" that was conducted by K. Borokh, M. Kosenko, Iu. Kobzieva under the supervision of I. Gordienko-Mytrofanova on the basis of the Department of Applied Psychology at H. S. Skovoroda Kharkiv National Pedagogical University.

The aim of the present article is to use the method of applied psycholinguistic research to define semantic components of the verbalised concept "lightness" in the linguistic consciousness of young Russian-speaking people living in Ukraine.

The results of the research will be later used 1) to define *lightness* as a component of ludic competence and as playfulness scale in the questionnaire that we are developing on the basis of cluster analysis results; 2) to describe behavioural pattern of the ludic position "Balance-Master" taking into account meanings that reflect the linguistic consciousness of Russian native speakers.

The following objectives were outlined: to determine general features of the verbal behaviour of young respondents in the framework of studying the verbalised concept "lightness"; to suggest major strategies and ways of dividing associations triggered by the stimulus "lightness" into clusters.

2. Methods

The main method of this research is a psycholinguistic experiment, whose major part is free word association test with the stimulus word "lightness". As additional methods, we used surveys (to refine the results of the free word association test) and questionnaires (to specify the characteristics of the sample). As a mathematical-statistical method to analyze the results of the research, we used frequency and cluster analysis, which allowed us to identify tendencies in the distribution of associations expressed by the experimental group.

The free word association test with the stimulus word "lightness" was conducted in written form. Respondents were instructed to state their gender, age, education/specialisation, marital status, and write down the first five words that came to their minds that were somehow associated with the word *"lightness"*.

The total number of respondents was 426 young people (18–35 y.o.), males and females being equally represented. By education, 76.7% had a university degree, 3% were undergraduate students, 13.8% completed secondary school education, and 6.5% did not state their education. By marital status, 69.9% were married, 0.7% cohabited with a partner, 2.3% had a girlfriend or boyfriend, 19.9 % were single, 0.7% were divorced; 6.5% did not state their marital status.

3. The study
3.1. Building associative fields for five reactions and for the first reaction

Frequency analysis of the free word association test with the stimulus word "lightness" enabled us to build associative fields for five reactions and for the first reaction. A total of 1,645 reactions were expressed by the respondents (the results of the free word association test were processed for five reactions). Out of these, 747 reactions were unique[3], including 153 word combinations and complete sentences, 267 reactions with a frequency greater than one, 480 isolated cases[4], 0 declined to answer the question.

---

[3] Unique reactions are reactions expressed with different lexemes (Karaulov, 2002a).

4 Isolated cases are reactions with a frequency that equals 1 (Karaulov, 2002a).

As far as the first reaction is concerned, the free word association test with the stimulus word *"lightness"* yielded 426 associations, of which 226 reactions were unique, including 34 word combinations; 68 reactions with a frequency greater than one, 158 isolated cases, 0 declined to answer the question.

Comparative analysis of the associative fields (for the first and for five additional reactions) prompted the conclusion that the scope and nature of reactions have not changed significantly. What has changed, though, is the sequence of high-frequency reactions (Fig. 1), as well as the quantity of peripheral reactions and isolated cases. The latter can be easily explained by the bigger number of respondents.

Figure 1

Comparative analysis of the associative fields for the first and for five additional reactions to the stimulus word "lightness"
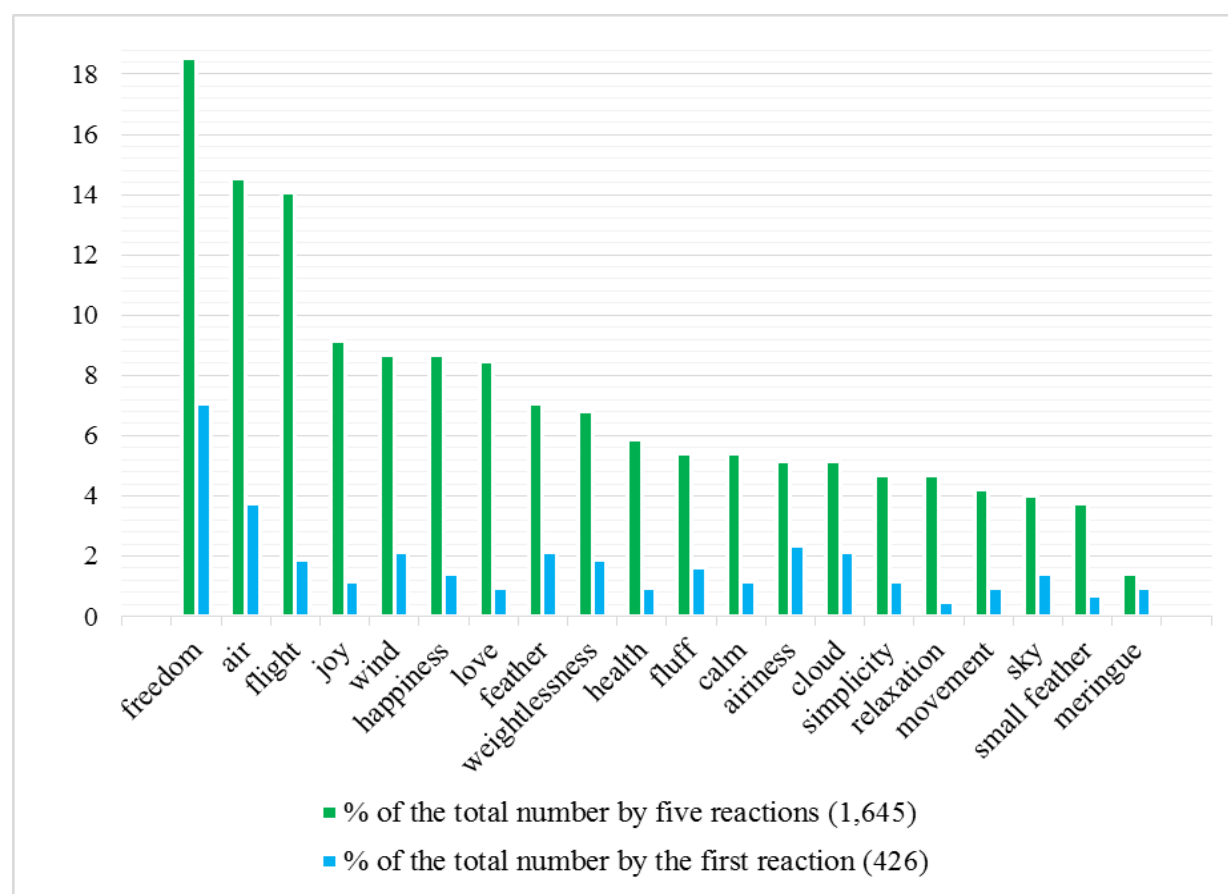
3.2. Partial semic interpretation of the results of the frequency analysis for the free word association test with the stimulus word "lightness" according to the first reaction

Partial semic interpretation of the results of the frequency analysis for the free word association test with the stimulus word "lightness" according to the first reaction was the next stage of our research. Partial semic interpretation of associative reactions

53

involves combining cognate associations and nominations of the same semantic component expressed by different parts of speech, including singular and plural forms of the same word.

Partial semic interpretation allows us to obtain more objective data on high-frequency associations and the quantity of different sememes that were revealed during the experiment. For example, ***feather*** *14 [feather 9, small feather 3, white feather, white feather in weightlessness 1],* ***cloud*** *10 [cloud 9, clouds 1],* ***fluff*** *11 [fluff 7, bit of fluff 3, poplar fluff 1],* ***weightlessness*** *9, [weightlessness 8, weightless 1].* Analysis of the data from partial semic interpretation resulted in a changed sequence of some high-frequency associations in comparison with the reactions. However, the composition and nature of the associations remained the same.

3.3. General features of the verbal behaviour of the young respondents

Partial semic interpretation allowed us to outline general features of the verbal behaviour of the young respondents (Fig. 2).

Figure 2
Comparative analysis of associations of female and male samples to the stimulus "lightness"
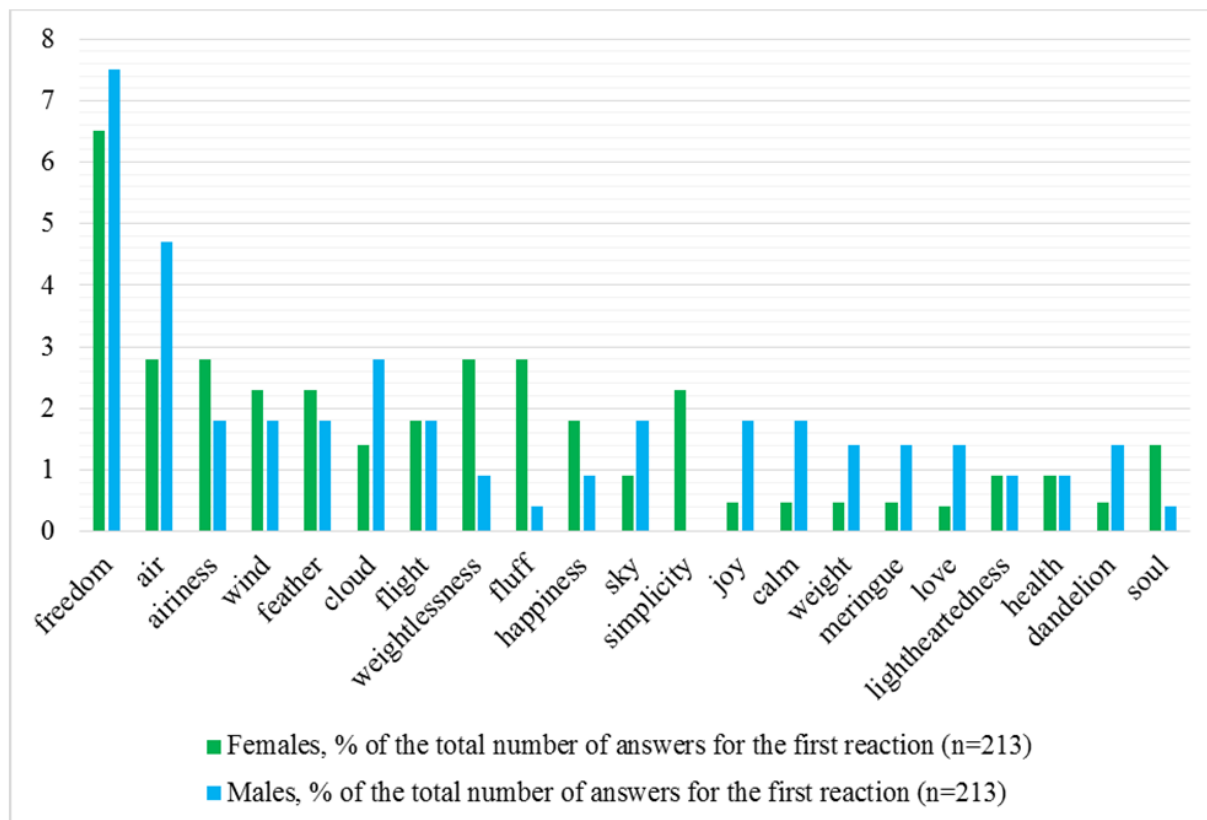
The general features of the verbal behaviour of the young respondents are represented in the following lexemes (more that 1%): ***freedom** 30 (7.04%),* ***air** 16 (3.76%),* ***airiness** 10 (2.35%),* ***wind**,* ***feather** 9 (2.11%),* ***flight** 8 (1.88%).*

3.4. Negative reactions

The associative field of the stimulus "lightness" had a number of reactions with negative connotation[5] (1.9%). These are: *couldn't-care-less attitude 2, indifference, marijuana, lying, alcohol addiction, madness, smoking 1.*

The low number of negative reactions shows that the general attitude of the respondents to the stimulus "lightness" is quite positive.

3.5. Semantic clusters of the verbalised concept "lightness"

426 reactions obtained during the experiment were distributed among the following semantic groups/clusters[6]:

1. ***Air** 16, airiness 11 [airiness 10, airy shawl 1],* ***feather** 14 [feather 9, small feather 3, white feather, white feather in weightlessness 1],* ***cloud** 10 [cloud 9, clouds 1],* ***fluff** 11 [fluff 7, bit of fluff 3, poplar fluff 1],* ***weightlessness** 9, [weightlessness 8, weightless 1],* ***meringue, weight, dandelion** 4,* ***snow** 3 [snow 2, snowflake 1],* ***carpet, slenderness, ball** 2, immaterial, scales, hydrogen, hair, helium, knee high socks, dessert, marshmallow, kefir, mosquito, basket, fur, soap bubbles, soft, dress, fluffiness, backpack, soufflé, comfortable shoes, energy consumption, ether 1 –* **113** (26.5%) f. 59 (13.85%), m. 54 (12.7) = **"THE QUALITY BEING LIGHT AND INSIGNIFICANT IN WEIGHT AND SIZE; AIRINESS, WEIGHTLESSNESS"** (indicated as "SOMETHING LIGHT" in Fig. 3).

2. ***Happiness** 7   [happiness 6, feeling of happiness 1],* ***sky**,* ***joy** 6 [joy 5, heart full of joy 1],* ***love** [love 4, falling in love 1],* ***calm** 5,* ***lightheartedness, soul** 4,* ***spring, comfort, silence** 3,* ***peace** [peace, appeasement 1],* ***sea, mood, tenderness, relaxation, emptiness, pleasure, hobby** 2, balance, carelessness, return, all is well, completion, completed work, green grass, summer, daydream, ease of mind, finally, holiday, snowdrop, work done correctly, nature, walk, journey, relaxedness, relax, state, satisfaction 1 –* **84** (19.71%), f. **43** (10.09%), m. **41** (9.62%) = **"THE FEELING OF HAPPINESS AND JOYFUL EASE"** (indicated as "HAPPINESS" in Fig. 3).

3. ***Freedom** 34 [freedom 30, liberation 2, taking a load off, freedom of speech 1],* ***health** 5 [health 4, healthy lifestyle 1],* ***spontaneity** 3,* ***cheerfulness, delight, excitement***

---

[5] The authors of the paper coded the reactions as positive or negative on the basis of Russian dictionaries which give information about emotional connotations of words (Dal, 2011; Ozhegov & Shvedova, 2011; Ushakov, 1935–1940; Yefremova, 2000), e.g. ALCOHOL ADDICTION: 1. A disease that involves compulsive use of alcohol. 2. colloq. Excessive drinking (Yefremova, 2000); COULDN'T-CARE-LESS ATTITUDE slang. Careless, indifferent attitude to people and everything that happens (Yepishkin, 2010). The agreement between the researchers was 95%.

[6] The reactions were distributed among various clusters on the basis of the algorithm of describing psycholinguistic meanings developed by Sternin (Sternin & Rudakova, 2011). The author of this article, Gordienko-Mytrofanova, collaborated with Sternin during 3 years and described the psycholinguistic meanings of the stimulus word "playfulness" with a sample of 1,600 respondents under his supervision.

2, opportunities, enthusiasm, independence, space, sex, courage, confidence, financial stability, vigor 1 – **57** (13.38%), f. **28** (6.57%), m. **29** (6.81%) = **"THE FEELING OF FREEDOM (physical or mental), CHEERFULNESS, EXCITEMENT"** − (indicated as "FREEDOM" in Fig. 3).

4. *Wind 12 [wind 9, light wind 2, warm wind 1]*, *dream 3 [light and warm dream, dream, to sleep]*, *alcohol 3 [alcohol 2, alcohol addiction 1]*, *breeze [breeze, light breeze 1]*, *transparence 2, aquarelle, white, flapping, light, affection, pastel, sunrise 1* – **29** (6.8%), f. **18** (4.2%), m. **11** (2.6%) = **"THE QUALITY OF SOMETHING INSIGNIFICANT IN ITS MANIFESTATION"** − (indicated as "SOMETHING INCONSPICUOUS" in Fig. 3).

5. *Flight 8*, *hovering 4 [hovering, to hover 2]*, *bird 3, butterfly, hang-glider, wings, planet 1* – **19** (4.46%), f. **9** (2.11%), m. **10** (2.34%) = **"THE ABILITY TO MOVE OR HOVER IN AIR"** − (indicated as "HOVERING" in Fig. 3).

6. *Relationships 3, communication, honesty 2, amiability, benevolence, trust, unresentfulness, treatment of people, not bearing grudges, decency, condescension, character, person 1* – **18** (4.2%), f. **5** (1.18%), m. **13** (3.05%) = **"FEATURE OF CHARACTER OF PERSON WHO IS DECENT AND EASY TO DEAL WITH"** – (indicated as "FEATURE OF CHARACTER" in Fig. 3).

7. *Movement 4*, *gait 3*, *ballet dancer [ballet dancer, ballet 1]*, *jump 2, barefoot on the grass, golf, grace, legs, worship, sliding 1* – **17** (3.99%), f. **6** (1.41%), m. **11** (2.58%) = **"ABILITY TO MOVE GRACEFULLY", about a person** − (indicated as "GRACEFULNESS" in Fig. 3)**.**

8. *No fuss*, *knowledge 2, luckiness, money, magic touch, mark, victory, promotion, growth, luck, success 1* – **13** (3.05%), f. **5** (1.17%), m. **8** (1.88%) = **"ABILITY TO ACQUIRE SOMETHING EFFORTLESSLY, BY GOOD LUCK"** − (indicated as "LUCK" in Fig. 3).

9. *Simplicity 5*, *insight 3, inspiration, perception, availability, epiphany, clarity 1* – **13** (3.05%), f. **9** (2.11%), m. **4** (0.94%) = "INSIGHT".

10. *Creation*, *sport 2 [sport, athletic 1]*, *running, easy climbing, absence of tension, habit, professionalism, work, magic trick 1* – **11** (2.58%), f. **6** (1.4%), m. **5** (1.17%) = **"ABILITY TO DO SOMETHING WITHOUT EFFORT OR STRAIN"** − (indicated as "ABSENCE OF TENSION" in Fig. 3).

11. *Bright 2, playfulness, song, smile, flute, euphoria, humour 1* –**8** (1.87%), f. **8** (1.87%) = **"MANIFESTATION OF JOY"**.

12. *Breath 3 [breath 2, to breathe 1]*, *being, death, lifestyle 1* – **6** (1.4%), f. **2** (0.47%), m. **4** (0.94%) = "**ABSENCE OF DIFFICULTIES AND SUFFERING"**.

13. *The Unbearable Lightness of Being 3 [the unbearable lightness of being 2, unbearable 1]*, *dissociation, duality, unusualness 1* – **6** (1.4%), f. **5** (1.17%), m. **1** (0.23%) = **"DUALITY"**.

14. *Bicycle* 3 *[bicycle, riding the bicycle at high speed, riding the bicycle at high speed in the forest 1], quickness, cars, promptitude 1* – **6** (1.4%), f. **1** (0.23%), m. **5** (1.17%) = **"SPEED"**.

15. *Disengagement* 3, *naturalness, smoothly 1*– **5** (1.17%), f. **4** (0.94%), m. **1** (0.23%) = **"DISENGAGEMENT".**

16. *Freshness [freshness, fresh air 1], purity 2* – **4** (0.94%), f. **3** (0.7%), m. **1** (0.235%) = **"FRESHNESS".**

17. *Enema* 2, *hunger, restroom 1*– **4** (0.94%), f. **2** (0.47%), m. **2** (0.47%) = "ABSENCE OF STOMACH HEAVINESS".

18. *Madness, agile mind, mind 1* – **3** (0.7%), m. **3** (0.7%) = "**LIGHT-MINDEDNESS**".

19. *Children* 2, *youth 1* – **3** (0.7%), f. **2** (0.47%), m. **1** (0.235%) = **"A QUALITY TYPICAL OF CHILDHOOD AND YOUTH"**.

20. *Woman* 2, *young girl 1*– **3** (0.7%), f. **1** (0.23%), m. **2** (0.47%) = **"A QUALITY OF A WOMAN OR A YOUNG GIRL"**.

Figure 3.
The results of cluster analysis of the verbalised concept "lightness"
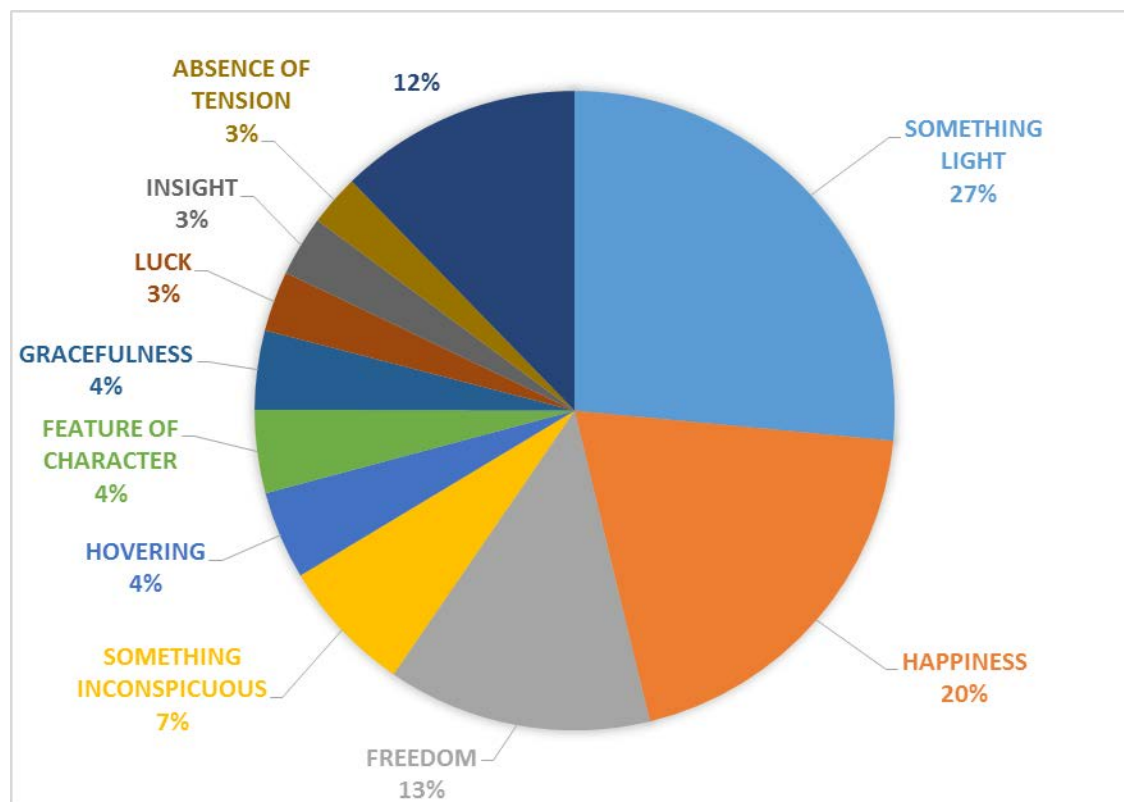
The diagram (Fig. 3) includes the first ten clusters that account for more than 2%; the aggregate of clusters 11–20 amount to 12% and are represented in the diagram as the eleventh cluster without a title.

The clusters described above do not contain reactions represented by antonyms: *complexity 2 – 2 (0.47%), f. 1 (0.235%), m. 1 (0.235%); heaviness 2 – 2 m. (0.47%)*. Further interpretation of these reactions as the actualisation of the main differential seme of antonymic pairs – *lightness-complexity, lightness-heaviness* – will be provided while describing the psycholinguistic meanings.

In addition, the clusters contain reactions expressed by fixed phrases that give information about common idiomatic phrases with the stimulus, e.g. *magic touch ("light hand"[7] in Russian), quick money ("light money"), easy-going person ("light soul"), clear understanding ("light understanding"), athletic lightness, agile mind ("light mind"), light breath, the unbearable lightness of being, etc.*

It is worth mentioning that the most complete and semantically adequate description of the concept "lightness" will be acquired only after its psycholinguistic meanings are described. This is due to the large number of polysemantic words among the reactions to the stimulus, e.g. *freedom, happiness, joy, love*, etc., which definitely made the task of distributing reactions by semantic groups more complicated. Certain semes may appear in the description of more than one psycholinguistic meaning.

4. Discussion

Regarding the free word association test with the stimulus word "lightness" in the Russian language, we are aware of research conducted by Russian scholars Karaulov, Cherkasova, Ufimtseva, Sorokin, Tarasov (Karaulov et al., 2002a, 2002b) in 1990s that described the results of the free word association test with the stimulus "lightness".

Below are the results of the associative field of the stimulus word "lightness" provided by the *Russian Dictionary of Associations*. We processed them in the same manner as it was described in part 3.4. of this article.

LIGHTNESS: *in body 5; of soul, of behaviour, of gait, heaviness 4; in communication, of movement, of arms, of body 3; air, life, gait, bit of fluff 2; ballet, to run, fight, quickness, in movement, in movements, everywhere, of weight, joyfully, spring, wind, in everything, airiness, airy, balloon, in behaviour, during flight, during conversation, of spinning, grace, of a young girl, of actions, soul, of breath, naturalness, of life, of bone, lightly, of lying, incredible [lightness] of thoughts, of thought, filling the soul, being naive, being excited, unobtrusiveness, not for long, not difficult, relief, of communication, optimism, feeling, feather, personal computer, flight, of flight, of object, simply, of jump, freshness, power, state of body, happiness, of dance, body, surprising, of mind, of step, scarf, euphoria, Reebok 1; 104+74+0+60;*

---

[7] Phrases in brackets are literal translations of Russian idiomatic expressions that contain the stimulus word.

104 (number of respondents); 74 (number of unique reactions); 0 (number of declines); 60 (number of isolated cases) (Karaulov, 2002a, p. 289).

Here are some examples from the associative field in the reverse dictionary (from reactions to stimulus): *LIGHTNESS ← butterfly, difficulty 4; LIGHTNESS ← carelessness, heaviness 2; LIGNTNESS ← throw in the air, spring, air, hungry, to give, a girl, Everest, to experience, a sturdy fellow, to fly, to carry, to promise, relief, to hover, superficial, flight, flutters, flippant girl, fluff, freshness, free, athletic 1;* 27+35 (Karaulov, 2002b, p. 381–382). As in the direct dictionary, figures after the stimulus indicate how often this word form appears in the dictionary entry of the corresponding stimulus. Two final figures in the end of the entry in the reverse dictionary (27+35) indicate the total number of its occurrences in the dictionary (27) and the number of stimuli (or entries in the direct dictionary) that trigger this word form (35).

Comparative analysis of the associative fields of Ukrainian people and people who live in Russia reveals that the most frequent reaction in the Russian linguistic world-image is "IN BODY", i.e. *feeling excited, cheerful, and full of energy,* whereas Russian-speaking respondents from Ukraine tend to associate lightness with *the feeling of freedom and absence of restrictions* ("FREEDOM"). Diagram (Fig. 4) shows the number of common reactions.

Figure 4.
The results of the comparative analysis of the associative fields of the concept "lightness"
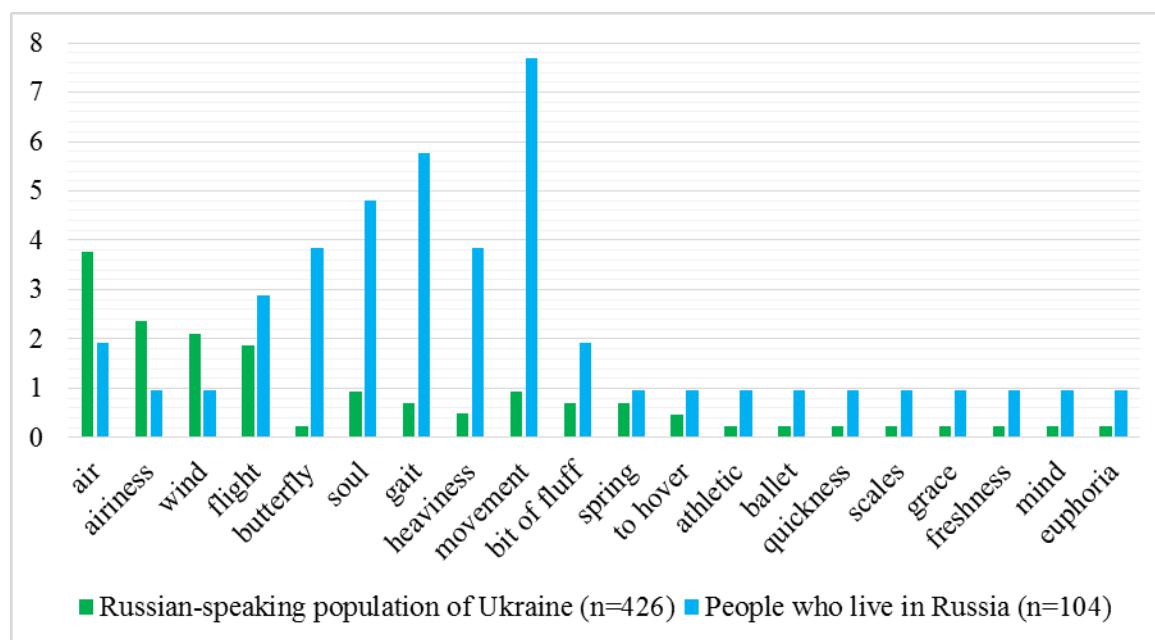
A distinctive feature of the Russian sample is the absence of negative reactions, while the Ukrainian sample features 1.9% of reactions with negative connotations; as well as a large number of reactions expressed by fixed phrases that give information

about common idiomatic phrases with the stimulus − *(lightness) of gait, (lightness) of behaviour, (lightness) in communication, (lightness) of movement, (lightness) of body, (lightness) in everything*, etc.

Another characteristic feature of the Ukrainian sample is the ambivalent nature of the verbalised concept "lightness", which manifests itself in core clusters such as "the feeling of happiness and joyful ease" (20%) and "the feeling of freedom (physical or mental), cheerfulness, excitement", as well as in the peripheral cluster "duality" (1.4%).

In general, both samples display a wide semantic scope, strong synonymic and weak antonymic bonds between stimulus and reaction, positive attitude to the stimulus.

However, it should be noted that we use free word association test as a tool for clarifying and expanding our understanding of various notions, e.g. *lightness* as a component of ludic competence. Relying on the psycholinguistic meanings of playfulness that we described in our previous works (Gordienko-Mytrofanova et al., 2019) and on the results of cluster analysis presented in the current paper, we can define lightness (as a component of ludic competence) as *the ability to dissociate oneself from a situation, keeping the state of inner freedom, to accept any outcome of this situation as potentially effective without clinging to hopes or expectations, and to adjust one's behaviour to changing circumstances.* It is worth mentioning here that the semantic content of *lightness* as a component of ludic competence was defined on the basis of core clusters "the feeling of happiness and joyful ease", "the feeling of freedom (physical or mental), cheerfulness, excitement" and peripheral clusters – "ability to acquire something effortlessly, by good luck", "insight", "ability to do something without effort or strain", "duality".

5. Conclusions

In the first place, the cluster analysis showed that the core (more than 10%) of the verbalised concept "lightness" is represented by three semantic groups: "the quality being light and insignificant in weight and size; airiness, weightlessness" (27%), "the feeling of happiness and joyful ease" (20%), "the feeling of freedom (physical or mental), cheerfulness, excitement" (13%). The last two clusters reveal the ambivalent character of the verbalised concept in the linguistic consciousness of the Russian speakers in Ukraine. On the one hand, the verbalised concept *"lightness"* is represented by lexemes that refer to having *heart full of joy, lightheartedness, calm, appeasement,* feeling *comfort, silence, satisfaction,* etc., but on the other hand, it is also represented by lexemes that refer to feeling *cheerfulness, excitement, vigor,* etc.

Secondly, the concept "lightness" displays a large variety of peripheral clusters (less than 10%, but more than 1%). Out of them, two clusters – "insight" and "duality" – deserve closer attention. The former reflects the cognitive component of *lightness.* The cluster with the arbitrary name "insight" accounts for mere 3%, which testifies to the fact that Ukrainian respondents in the same way as their Russian counterparts do

not tend to associate *lightness* with cognitive characteristics. The latter cluster, "duality", indirectly proves the ambivalent nature of the concept.

Thirdly, analysis of reactions produced by the Russian-speaking respondents from Eastern Ukraine did not reveal any significant difference between male and female samples. It means that the core semantic content of the concept "lightness" does not depend on gender identification. Clusters on the extreme periphery are exclusively represented either by female (e.g. "manifestation of joy") or male reactions (e.g. "light-mindedness"), which is most probably explained by individual preferences of usage rather than by gender-specific tendencies.

In the fourth place, comparative analysis of the verbalised concept *lightness* in the linguistic consciousness of Russian-speaking people from Ukraine and Russian, relying on the results of the frequency analysis (for five reactions, for the first reactions, as well as female and male associative fields) reveals a certain national-specific feature in the way how stimulus "*lightness*" is perceived. This was reflected in the most frequent reaction – "freedom". In this respect, a conclusion can be made that the concept "lightness" has a more prominent ambivalent nature and a bigger semantic scope in the linguistic consciousness of Ukrainian respondents.

Finally, it is worth mentioning once again that the results of the free word association test with the stimulus word "lightness" was applied in order to define the semantic content of *lightness* as a component of ludic competence considering both core and peripheral clusters.

As for the prospect of further research, we believe it is necessary, in the first place, to describe the psycholinguistic meanings of the stimulus "lightness" in order to receive a more complete model of the systemic meaning of the word "lightness". Besides, it appears necessary to describe the behavioural pattern of the ludic position "Balance-Master" in the framework of ludic competence training sessions, taking into consideration core and peripheral semes of the concept "lightness". The research also proves the efficiency of free association test as a psycholinguistic tool for clarifying and expanding our understanding of various notions.

References

Barnett, L. (2007). The nature of playfulness in young adults. *Personality and Individual Differences, 43,* 949–958. https://doi.org/10.1016/j.paid.2007.02.018

Bowman, J. (1987). *Making Work Play*. In G. A. Fine (Ed.), Meaningful Play, Playful Meanings (pp. 61–71). Champaign, IL: Human Kinetics.

Bundy, A. (1996). *Play and Playfulness: What to Look for.* In D.L. Parham & L. S. Fazio (Eds.), *Play in Occupational Therapy for Children* (pp. 52−66). St. Louis, MO: Mosby.

Chapman, J. (1978). Playfulness and the development of divergent thinking abilities. *Child: Care, Health and Development*, *4,* 371–383. https://doi.org/10.1111/j.1365-2214.1978.tb00096.x

Csikszentmihalyi, M. (1975). Play and intrinsic rewards. *Journal of Humanistic Psychology, 15,* 41–63. https://doi.org/10.1111/j.1365-2214.1978.tb00096.x

Dal, V. I. (2011). *Tolkovyi Slovar Zhivogo Velikorusskogo Yazyka [Explanatory Dictionary of the Living Great Russian Language]: in four volumes*. Moscow: Publishing house: Drofa.

Glynn, M., & Webster, J. (1992). The adult playfulness scale: an initial assessment. *Psychological Reports*, *71*(1), 83–103. https://doi.org/10.2466/pr0.1992.71.1.83

Gordienko-Mytrofanova, I., & Kobzieva, Iu. (2017). Playful competence: the access code to the inner resources. *Proceedings of the 15th European Congress of Psychology* Amsterdam, 11–14 July (19).

Gordienko-Mytrofanova, I., Pidchasov, Ye., Sauta, S., & Kobzieva, Iu. (2018). The problem of sample representativeness for conducting experimental and broad psychological research. *Psycholinguistics-Psiholingvistika, 23*(1), 11–46. https://doi.org/10.5281/zenodo.1212360

Groos, K. (1976). *The Play of Man: Teasing and Love-Play*. In J. Brunner, A. Jolly, & K. Sylva (Eds.), *Play, Development and Evolution* (pp. 62–83). Middlesex, United Kingdom: Penguin Books.

Guitard, P., Ferland, F. & Dutil, É. (2005). Toward a better understanding of playfulness in adults. *OTJR: Occupation, Participation and Health*, *25*(1), 9–22. https://doi.org/10.1177/153944920502500103

Кобзева, Ю., Гордиенко-Митрофанова, И., Гончаренко-Кулиш, А. (2020a). Определение шаловливости как компонента игровой компетентности через реконструкцию семантических элементов концепта «шаловливость». *Проблеми сучасної психології*, *47,* 118–140.

Kobzieva Iu., Gordienko-Mytrofanova I., Sauta S. (2020b). Psycholinguistic Features of Imagination as a Component of Ludic Competence. *EUREKA: Social and Humanities. Psychology*, *2,* 15–23. http://dx.doi.org/10.21303/2504-5571.2020.001128

Kobzieva Iu., Gordienko-Mytrofanova I., Udovenko M., Sauta S. (2020c). Concept "humour" in the linguistic consciousness of the Russian-speaking population of Ukraine. *European Journal of Humour Research, 8*(1), 29–44. http://dx.doi.org/10.7592/EJHR2020.8.1.kobzieva

Караулов Ю. Н., Черкасова Г. А., Уфимцева Н. В., Сорокин Ю. А., Тарасов Е. Ф. *Русский ассоциативный словарь. В 2-х т. Т. I. От стимула к реакции: ок.7000 стимулов.* М.: ООО «Издательство Астрель»: ООО «Издательство АСТ».

Караулов Ю. Н., Черкасова Г. А., Уфимцева Н. В., Сорокин Ю. А., Тарасов Е. Ф. *Русский ассоциативный словарь. В 2-х т. Т. II. От реакции к стимулу: более 100 000 реакций.* М.: ООО «Издательство Астрель»: ООО Издательство АСТ».

Ожегов, С. И., Шведова, Н. Ю. (2011). *Толковый словарь русского языка.* Москва: Мир и образование, Оникс.

Попова, З. Д., Стернин, И. А. (2007). *Семантико-когнитивный анализ языка*. Воронеж: Истоки.

Proyer, R. (2012). Development and initial assessment of a short measure for adult playfulness: The SMAP. *Personality and Individual Differences*, *53*(8), 989–994. https://doi.org/10.1016/j.paid.2012.07.018

Proyer, R. (2017). A new structural model for the study of adult playfulness: Assessment and exploration of an understudied individual differences variable. *Personality and Individual Differences, 108,* 113–122. https://doi.org/10.1016/j.paid.2016.12.011

Raven, J. (2001). *The Conceptualisation of Competence*. New York: Peter Lang Publishing,Inc.

Schaefer, C. & Greenberg, R. (1997). Measurement of playfulness: a neglected therapist variable. *International Journal of Play Therapy, 6*(2), 21–31. https://doi.org/10.1037/h0089406

Shen, X. (2010). *Adult Playfulness as a Personality Trait: Its Conceptualization, Measurement, and Relationship to Psychological Well-Being*. (Doctoral dissertation). Retrieved from Pennsylvania State University Library Catalog (OCLC No. 859524715)

Shen, X., Chick, G. & Zinn, H. (2014). Playfulness in adulthood as a personality trait: a reconceptualization and a new measurement. *Journal of Leisure Research, 46*(1), 58–83. https://doi.org/10.1080/00222216.2014.11950313

Стернин, И. А., Рудакова, А. В. (2011). *Психолингвистическое значение слова и его описание.* Воронеж: Ламберт.

Tsuji, Hit., Tsuji, Hei., Yamada, S., Natsuno, Y., Morita, Y., Mukoyama, Y., Hata, K. & Fujishima, Y. (1996). Standardization of the Five Factor Personality Questionnaire: Factor structure. *International Journal of Psychology, 31. Proceedings from the XXVI International Congress of Psychology.* Montreal, 16–21August. (103–217).

Уфимцева, Н. (2009). Образ мира русских: системность и содержание. *Язык и культура*, 98–111.

Ушаков, Д. Н. (1935–1940). *Толковый словарь русского языка: в четырех томах*. Москва: Сов.энциклопедия: ОГИЗ.

Yarnal, C. & Qian, X. (2011). Older-adult playfulness: an innovative construct and measurement for healthy aging research. *American Journal of Play, 4*(1), 52–79. Retrieved from https://files.eric.ed.gov/fulltext/EJ985548.pdf

Ефремова, Т. Ф. (2000). Новый словарь русского языка. Толково-словообразовательный. Москва: Русский язык.

Епишкин, Н. И. (2010). *Историчесикй словарь галлицизмов русского языка*. Москва: Словарное издательство ЭТС.

Yue, X., Leung, C. & Hiranandani, N. (2016). Adult playfulness, humor styles, and subjective happiness. *Psychological Reports*, *119*(3), 630–640. https://doi.org/10.1177/0033294116662842

Засекина, Л. В. (2008). Тенденції розвитку вітчизняної психолінгвістики: методологічний огляд проблем та окреслення шляхів їх вирішення. *Психолінгвістика, 1.* С. 9–20. Retrieved from http://nbuv.gov.ua/UJRN/psling_2008_1_2

References (translated and transliterated)

Barnett, L. (2007). The nature of playfulness in young adults. *Personality and Individual Differences, 43,* 949–958. https://doi.org/10.1016/j.paid.2007.02.018

Bowman, J. (1987). *Making Work Play*. In G. A. Fine (Ed.), Meaningful Play, Playful Meanings (pp. 61–71). Champaign, IL: Human Kinetics.

Bundy, A. (1996). *Play and Playfulness: What to Look for.* In D.L. Parham & L. S. Fazio (Eds.), *Play in Occupational Therapy for Children* (pp. 52−66). St. Louis, MO: Mosby.

Chapman, J. (1978). Playfulness and the development of divergent thinking abilities. *Child: Care, Health and Development*, *4,* 371–383. https://doi.org/10.1111/j.1365-2214.1978.tb00096.x

Csikszentmihalyi, M. (1975). Play and intrinsic rewards. *Journal of Humanistic Psychology,* 15, 41–63. https://doi.org/10.1111/j.1365-2214.1978.tb00096.x

Dal, V. I. (2011). *Tolkovyi Slovar Zhivogo Velikorusskogo Yazyka [Explanatory Dictionary of the Living Great Russian Language]: in four volumes*. Moscow: Publishing house: Drofa.

Glynn, M., & Webster, J. (1992). The adult playfulness scale: an initial assessment. *Psychological Reports*, *71*(1), 83–103. https://doi.org/10.2466/pr0.1992.71.1.83

Gordienko-Mytrofanova, I., & Kobzieva, Iu. (2017). Playful competence: the access code to the inner resources. *Proceedings of the 15th European Congress of Psychology* Amsterdam, 11–14 July (19).

Gordienko-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

Groos, K. (1976). *The Play of Man: Teasing and Love-Play*. In J. Brunner, A. Jolly, & K. Sylva (Eds.), *Play, Development and Evolution* (pp. 62–83). Middlesex, United Kingdom: Penguin Books.

Guitard, P., Ferland, F. & Dutil, É. (2005). Toward a better understanding of playfulness in adults. *OTJR: Occupation, Participation and Health*, *25*(1), 9–22. https://doi.org/10.1177/153944920502500103

Кобзева, Ю., Гордиенко-Митрофанова, И., Гончаренко-Кулиш, А. (2020a). Определение шаловливости как компонента игровой компетентности через реконструкцию семантических элементов концепта «шаловливость». *Проблеми сучасної психології*, *47,* 118–140.

Kobzieva, Iu., Gordienko-Mytrofanova, I., Goncharenko-Kulish, A. (2020a). Opredeleniie shalovlivosti kak komponenta igrovoi kompetentosti cherez rekonstruktsiiu semanticheskikh elementov kontsepta "shalovlivost" [Defining impishness as a component of ludic competence via restructuring semantic elements of the concept "impishness"]. *Problemy Suchasnoi Psykholohii − Problems of Modern Psychology*, *47,* 118–140. https://doi.org/10.32626/2227-6246.2020-47

Kobzieva Iu., Gordienko-Mytrofanova I., Sauta S. (2020b). Psycholinguistic Features of Imagination as a Component of Ludic Competence. *EUREKA: Social and Humanities. Psychology*, *2,* 15–23. http://dx.doi.org/10.21303/2504-5571.2020.001128

Kobzieva Iu., Gordienko-Mytrofanova I., Udovenko M., Sauta S. (2020c). Concept "humour" in the linguistic consciousness of the Russian-speaking population of Ukraine. *European Journal of Humour Research, 8*(1), 29–44. http://dx.doi.org/10.7592/EJHR2020.8.1.kobzieva

Karaulov, Yu. N., Cherkasova, G. A., Ufimtseva, N. V., Sorokin, Yu. A., & Tarasov, Ye. F. (2002a). *Russkii Assotsiativnyi Slovar [Russian Associative Vocabulary], Vol. 1. Ot reaktsii k stimulu [From Reaction to Stimulus], ca. 100000 reactions*. Moscow: LLC Astrel Publishers; LLC AST Publishers.

Karaulov, Yu. N., Cherkasova, G. A., Ufimtseva, N. V., Sorokin, Yu. A., & Tarasov, Ye. F. (2002b). *Russkii Assotsiativnyi Slovar [Russian Associative Vocabulary], Vol. 2. Ot stimula k reaktsii [From Stimulus to Reaction], ca. 7000 stimuli*. Moscow: LLC Astrel Publishers; LLC AST Publishers.

Ожегов, С. И., Шведова, Н. Ю. (2011). *Толковый словарь русского языка.* Москва: Мир и образование, Оникс.

Ozhegov, S. I. & Shvedova, N. Yu. (2011). *Tolkovyi Slovar Russkogo Yazyka [Dictionary of Russian Language]*. Moscow: Mir i Obrazovaniie, Oniks.

Попова, З. Д., Стернин, И. А. (2007). *Семантико-когнитивный анализ языка*. Воронеж: Истоки.

Popova, Z. D. & Sternin, I. A. (2007). *Semantiko-Kognitivnyi Analiz Yazyka [Semantic and Cognitive Analysis of Language]*. Voronezh: Istoki.

Proyer, R. (2012). Development and initial assessment of a short measure for adult playfulness: The SMAP. *Personality and Individual Differences*, *53*(8), 989–994. https://doi.org/10.1016/j.paid.2012.07.018.

Proyer, R. (2017). A new structural model for the study of adult playfulness: Assessment and exploration of an understudied individual differences variable. *Personality and Individual Differences, 108,* 113–122. https://doi.org/10.1016/j.paid.2016.12.011

Raven, J. (2001). *The Conceptualisation of Competence*. New York: Peter Lang Publishing,Inc.

Schaefer, C. & Greenberg, R. (1997). Measurement of playfulness: a neglected therapist variable. *International Journal of Play Therapy, 6*(2), 21–31. https://doi.org/10.1037/h0089406

Shen, X. (2010). *Adult Playfulness as a Personality Trait: Its Conceptualization, Measurement, and Relationship to Psychological Well-Being*. (Doctoral dissertation). Retrieved from Pennsylvania State University Library Catalog (OCLC No. 859524715)

Shen, X., Chick, G. & Zinn, H. (2014). Playfulness in adulthood as a personality trait: a reconceptualization and a new measurement. *Journal of Leisure Research, 46*(1), 58–83. https://doi.org/10.1080/00222216.2014.11950313

Sternin, I. A., & Rudakova, A. V. (2011). *Psikholingvisticheskoie znacheniie slova i yego opisaniie [Psycholinguistic meaning of the word and its description]*. Voronezh: Lambert

Tsuji, Hit., Tsuji, Hei., Yamada, S., Natsuno, Y., Morita, Y., Mukoyama, Y., Hata, K. & Fujishima, Y. (1996). Standardization of the Five Factor Personality Questionnaire: Factor structure. *International Journal of Psychology, 31. Proceedings from the XXVI International Congress of Psychology.* Montreal, 16–21August. (103–217).

Ufimtseva, N. (2009). Obraz mira russkikh: sistemnost i soderzhaniie [Image of the world of Russians: the systemic characteristics and the content]. *Yazyk i Kultura − Language and Culture*, 98–111.

Ushakov, D. N. (Ed.). (1935–1940). *Tolkovyi Slovar Russkogo Yazyka [Dictionary of Russian Language]: in four volumes*. Moscow: Sov. Encyclopedia: OGIZ. Retrieved from http://feb-web.ru/feb/ushakov/ush-abc/0ush.htm

Yarnal, C. & Qian, X. (2011). Older-adult playfulness: an innovative construct and measurement for healthy aging research. *American Journal of Play, 4*(1), 52–79. Retrieved from https://files.eric.ed.gov/fulltext/EJ985548.pdf

Yefremova, T. F. (2000). *Novyi Slovar Russkogo Yazyka. Tolkovo-Slovoobrazovatelnyi [New Dictionary of the Russian Language. Interpretative and Derivational]. M*oscow*: Russkii yazyk.* Retrieved from https://www.efremova.info/

Yepishkin, N. I. (2010). *Istoricheskii slovar gallitsizmov russkogo yazyka [Historical Dictionary of Gallicisms in the Russian Language].* Moscow: ETS Dictionary Publishing House. Retrieved from http://rus-yaz.niv.ru/doc/gallism-dictionary/index.htm

Yue, X., Leung, C. & Hiranandani, N. (2016). Adult playfulness, humor styles, and subjective happiness. *Psychological Reports*, *119*(3), 630–640. https://doi.org/10.1177/0033294116662842

Zasiekina, L. V. (2008). Tendentsiii rozvytku vitchyznianoii psykholingvistyky: metodolohichnyi ohliad problem ta okreslennia shlyakhiv yikh vyrishennia [Trends in the development of national psycholinguistics: a methodological overview of problems and outlining ways to solve them]. *Psycholinguistics, 1, 9–20.* Retrieved from http://nbuv.gov.ua/UJRN/psling_2008_1_2

HOMONYMY AND THE COGNITIVE OPERATOR
OF NORM IN GERMAN

Svitlana Kiyko
ORCID 0000-0003-4964-7043
Scopus Author ID 36613142500
s.kiyko@chnu.edu.ua
Yuriy Fedkovych National University of Chernivtsi, Ukraine
Yuriy Kiyko
ORCID 0000-0002-2251-2811
Scopus Author ID 36613088300
y.kiyko@chnu.edu.ua
Yuriy Fedkovych National University of Chernivtsi, Ukraine

Abstract. The works of many linguists view homonymy as a negative phenomenon, which interferes with communication, complicates the perception of information, and decreases the effectiveness of the language as a means of communication. At the same time homonymy is a positive phenomenon which contributes to the compactness of the language, and allows to economize the units of the plain of content. The objective of our research is to determine the factors that differentiate the meaning of homonymic units, based on the broad factual material and psycholinguistic experiments. The components of intralinguistic homonymic rows based on the category of markedness, which correlates with the cognitive operator of norm / deviation. Among the criteria of markedness for homonymic differentiation are areal, social, chronological, and stylistic. The fact that one of the elements of the homonymic row is unmarked was proved by a number of psycholinguistic experiments, where we offered the German speakers to suggest the first association word which occurred to them referring the homonyms in the list. The experiment was carried out in a group of students from the Institute of German Studies, Technical University Chemnitz (Germany), aged 21–25, whose native language is German. The psycholinguistic analysis shows that 97 per cent of homonymic pairs have both marked and unmarked components. This allows to explain homonymy from the point of view of the correlation of "markedness/unmarkedness", and wider – "norm/deviation". From the cognitive point of view language markedness is derived from cognitive markedness, i.e. the unmarked language meaning corresponds to the cognitively normal (natural, expected) state of things, and the marked language meaning corresponds to cognitive deviation, i.e. unnatural, unexpected state of things. Normal state of things belongs to the cognitive image of human experience, and is conceptualized with the minimal mental calculating effort, i.e. is activated automatically; and deviations from this image require additional calculating resources for their activation. Thus, language markedness reflects cognitive operators of norm/deviation in the specific language means in language structures, including homonymic pairs and homonymic rows.

Keywords: homonyms, homonymic row, markedness, cognitive operator of norm, German language.

Кійко Світлана, Кійко Юрій. Омонімія і когнітивний оператор норми в німецькій мові.

Анотація. У працях багатьох мовознавців омонімія розглядається як негативне явище, що перешкоджає спілкуванню, ускладнює сприйняття інформації і знижує ефективність мови як засобу комунікації. Водночас вважають, що омонімія сприяє компактності мови і дозволяє зекономити одиниці плану вираження. Мета нашого дослідження – встановити на широкому фактичному матеріалі з допомогою психолінгвістичного експерименту чинники, які диференціюють значення омонімів. На основі суцільної вибірки омонімів виявлено, що критеріями розмежування омонімів є територіальна, соціальна, хронологічна і стилістична маркованість. З огляду на це, компоненти оморяду можна протиставити на основі категорії маркованості. Немаркованість одного з компонентів оморяду доведена в низці психо-лінгвістичних експериментів, у яких носіям німецької мови пропонували навести до омонімів у списку перше слово-асоціацію, яке спаде на думку. Матеріалом дослідження слугували 200 омопар іменників, вибраних на основі різної семантичної, стилістичної, хронологічної, територіальної або соціальної віднесеності одного з компонентів омопари. В експерименті взяли участь студенти Інституту германістики Технічного університету м. Хемніц (Німеччина) у віці від 21 до 25 років, рідна мова яких німецька. Результати експерименту свідчать про наявність у 97% омопар маркованого і немаркованого компонентів. Мовна маркованість є похідною від когнітивної маркованості, тобто немарковане мовне значення відповідає когнітивно нормальному (природньому) стану речей, а марковане мовне значення відповідає когнітивному відхиленню від нього. Нормальний стан речей входить до когнітивного гештальта людського досвіду і концептуалізується з мінімальною затратою ментальних обчислювальних зусиль, тобто активується автоматично, а відхилення від гештальта для їхньої активації вимагають додаткових ресурсів. Таким чином, мовна маркованість відображає лінгвоспецифічними засобами в омопарах і оморядах когнітивний оператор норми і відхилення від норми.

Ключові слова: омоніми, омопари, маркованість, когнітивний оператор норми, німецька мова.

1. Introduction

Linguistic studies of word meaning generally divide ambiguity into homonymy and polysemy. Homonymous words exhibit idiosyncratic variation, with essentially unrelated senses, e.g. *bank* as *financial institution* versus as *natural object*. The works of many linguists view homonymy as a negative phenomenon, which interferes with communication, complicates the perception of information, and decreases the effectiveness of the language as a means of communication. R. Bridges (2004) states that the language which has a lot of homonyms cannot be comfortable to speak, not to mention its scientific use. A. Reformatskiy (2004, p. 89) suggests that "all cases of homonyms mark the absence of precision of what must be precise". Homonymy is also characterized by L. Novikov (1982, p. 209) as an unnatural phenomenon that complicates communication. Homonymy erases the formal differences between the signs with different content, and distorts information. In order to avoid ambiguity the listener has to refer to the context, and it means that homonymic forms delay

communicative process. The experimental research in the area of text perception shows that when given the sentence with the ambiguous elements, the time of the recipient's reaction to the message is considerably increased (Cairns, 1973; Ferreira, 2010; Foss & Jenkins, 1973; Hogaboam & Perfetti, 1975).

At the same time some researches think that homonymy is a positive phenomenon which contributes to the compactness of the language, and allows to economize the units of the plain of content (Mauler, 1983, p. 13). It is impossible to convey all the thoughts with only a dozen of sounds that is why homonymy is a natural language process. Investigating the mutual influence of the word's form and meaning, O. Ducháček (1953, p. 11) came to the conclusion that homonymy is not harmful for the language, which is confirmed by the existence of homonyms in practically every language. Moreover, the use of homonyms in literature serves various purposes, for instance, to form puns.

However, the quoted authors solve the problem of homonymy's benefits or drawbacks mostly in theory, citing only several most vivid examples, without the processing of the sufficient volume of material, in particular, without the consecutive analysis of homonyms in the unilingual dictionaries. The objective of our research is to review the categoric statements according to which homonymy causes interference in the process of communication, and to determine the factors that differentiate the meaning of homonymic units, based on the broad factual material.

2. Methods

The study is based on the consecutive analysis of homonyms selected from the *Dictionary of the German Language Duden* (2000), detailed with the dictionaries of *Wahrig* (2006), *Bünting* (2000), and *Langenscheidt* (2006). The object of the investigation is the homonymy of the Modern German nouns. The subject – the criteria of their differentiation in language and speech. The total number of studied homonyms is 2128 lexical units combined into 1018 homonymic rows. Most homonymic rows have two components, e.g. *die Mutter[1]* "mother", *die Mutter[2]* "nut"; the total number of such pairs is 937 (1874 homonyms). We selected 72 three-component rows (216 homonyms), e.g. *die Messe[1]* "mass" (religious), *die Messe[2]* "fair", *die Messe[3]* "wardroom"; 8 four-component rows (32 homonyms), e.g. *die Note[1]* "note" (musical), *die Note[2]* "academic grade", *die Note[3]* "diplomatic note", *die Note[4]* "undertone" etc. There is also one six-component row: *Atlas[1]* "one of the Titans", *der Atlas[2]* "geographic atlas", *der Atlas[3]* "neck vertebra", *der Atlas[4]* "satin", *der Atlas[5]* "telamon", *der Atlas[6]* "the mountain in Africa" (Kiyko, 2016, p. 160–213).

The fact that one of the elements of the homonymic row (the first one as a rule) is unmarked was proved by a number of psycholinguistic experiments, where we offered the German speakers to suggest the first association word which occurred to them referring the homonyms in the list. This research was based on 200 homonymic pairs from our selection, chosen based on different semantic, stylistic, chronological, areal or

social reference of one of the components of the pair. The questionnaire included both homogenic homonymic pairs whose homonyms have common origin, and heterogenic pairs, which coincide in sounding due to borrowing, incidental phonetic coincidence etc. Both homogenic and heterogenic pairs had 100 examples.

The experiment was carried out in a group of students from the Institute of German Studies, Technical University Chemnitz (Germany), aged 21–25, whose native language is German. As the number of examples was quite large (200), the questionnaires comprised 50 words each and the respondents were divided into four groups. The procedure was as follows: the instructions were given orally. It was required to write down the first word that occurred to the respondents as connected with the stimulus word.

3. Results and Discussion

It is a known fact that in the plane of content any homonymic group is characterized by the absence of the interlexemic semantic ties. It means that in most cases homonyms must belong to different lexico-semantic groups (LSGs), e.g.:

1) names of people referring to their place of their residence → names of dishes: *Berliner*[1] "a citizen of Berlin" – *Berliner*[3] "a doughnut with filling", *Wiener*[1] "a citizen of Vienna" – *Wiener*[3] "Vienna sausage";

2) names of people referring to their age, gender, nationality, relations → names of dishes: *Kanncker*[1] "an old man" – *Knacker*[2] "smoke-dried sausage"; *Tatar*[1] "Tatar" (nationality) – *Tatar*[2] "raw steak";

3) names of rivers → names of countries, lands, states, cities: *der Ohio*[1] "the Ohio River" (the tributary of the Mississippi) – *Ohio*[2] "Ohio" (the US state);

4) names of countries, states, lands → names of their capitals: *Washington, Mexico*;

5) names of animals → names of diseases: *Krebs*[1] "crayfish" – *Krebs*[2] "cancer", *Star*[1] "starling" – *Star*[2] "cataract";

6) names of animals → names of mechanic parts: *Hahn*[1] "rooster" – *Hahn*[2] "water tap", *Döbel*[1] "a type of carp" – *Döbel*[2] "screw";

7) names of cloth/fabric → types of clothing: *Trikot*[1] "knitted fabric" – *Trikot*[1] "tights, leotard", *Reversible*[1] "two-sided fabric" – *Reversible*[2] "two-sided clothes" etc.

In our research 86% of all homonymic rows belong to different LSGs. It means that more than two-thirds of homonymic nouns are semantically differentiated based on the fact that they belong to different LSGs. 14% of homonymic nouns (298 homonyms, 138 homonymic rows) belong to the same LSG. They are differentiated in various ways.

In most cases homonyms are differentiated with the help of grammatical gender, e.g. *das Band*[1] "strip" – *der Band*[2] "book volume" – *die Band*[3] "band". Some nouns demonstrate gender fluctuations with the gradual change of gender, e.g.: *der/das Warp*[1] "tight yarn" – *der Warp*[2] "grapnel", which proves the tendency to differentiate

69

homonyms via the gradual change of grammatical gender. If the nouns belong to the same grammatical gender, different form of plural may be used for their differentiation (5 homonymic pairs), e.g. *das Wort[1]* "word" (plural *Wörter*) – *das Wort[2]* (plural *Worte*) "cue, catchword". In other cases the decisive role in the differentiation of the complete homonymic nouns belongs to sociological, areal, stylistic or chronological aspects, i.e. the homonyms are differentiated via their belonging to different subsystems of lexis. Let us view these aspects in detail.

It is a known fact that the lexical system of any language comprises separate lexical subsystems:

1) from the sociological aspect: generally used, social-dialectal, and professional lexis;

2) from the areal aspect: nationwide and dialectal lexis;

3) from the stylistic aspect: literary and colloquial lexis;

4) from the chronological aspect: modern, archaic lexis, and neologisms.

Every lexical subsystem interacts with other subsystems; they penetrate one another, that is why it is not always easy to differentiate two subsystems. The subsystem of lexis is the scientific abstraction, the same as language as contrasted to speech. However, the notion of the subsystem helps to profoundly understand the complicated mechanism of the lexical system in general, and also to understand how homonyms are differentiated in the language system.

The greatest number of the complete lexical homonymic nouns is differentiated with the help of the restriction of the use of one of the homonyms by the areal dialect (16 homonymic pairs), e.g. *der Flaum[1]* (areal) "lard" – *der Flaum[2]* "fluff". Such homonyms are differentiated in areal aspect: one component of the homonymic pair is used only in a definite part of the German-speaking territory, and another one is a generally used word. For instance, dialectal words *das Heck[2]* (Northern German) "pasture" and *das Bord[2]* (Swiss) "slope, edge" are opposed to the generally used *das Heck[1]* "stern" and *das Bord[1]* "shelf". If the speaker lives in the area where a homonym is not used, then the speaker of the literary norm has no homonymic opposition "dialectal : non-dialectal" because one member of the homonymic pair is actually missing. So, for the speakers of Northern German homonymy like *der Kork[1]* "cork" (material) – *der Kork[2]* (Southern German) "cork" will cause no misunderstanding in communication, as well as cases like *die Kote[2]* (Northern German) "hut" – *die Kote[3]* "tent" for Southern Germany. In the same manner speakers from Germany have no difficulty with communication due to the existence of the homonymic pairs like *die Wegweisung[1]* "road sign" – *die Wegweisung[2]* (Swiss) "deportation" etc., where one component of the pair is only used in Austria or Switzerland. When one of the homonyms is used in a definite area, then for the speaker of the literary standard its very dialectal nature is the decisive factor for homonymic differentiation. This eliminates the danger of homonymic clash in speech. From the point of view of the

dialectal user the literary homonym does not interfere with the similarly sounding dialectal word due to the fact that they belong to different lexical subsystems.

It is interesting to note that the homonyms *das College[1]* (in Britain) "college, private school of higher education" – *das College[2]* (in France, Belgium) "college, higher school", *das Empire[1]* "empire" (in France during the times of Napoleon) – *das Empire[2]* "empire" (British colonies) are differentiated indicating the country of the origin of the corresponding notions. To some extent the differences between these homonyms may be viewed as areally conditioned, though here we have a case of false homonymy, similar to the interlanguage homonymy.

In 11 cases (22 homonyms) components of the homonymic pair belong to different social subsystems, i.e. one homonym is generally used, and another one belongs to terms or professional lexis, e.g. *der Homo[1]* (biol.) "a member of the human species" – *der Homo[2]* "gay". From the point of view of non-professionals homonymic groups of this type do not exist, as the speakers do not know one of the homonyms in the group. Professionals who theoretically know both homonyms do not mix them, as they usually correlate the professional term with only one object, the one usual for them. For instance, the mathematical term *der Graph[1]* (math.) "graph, line" is strictly separated from the linguistic term *der Graph[2]* (ling.) "letter" by the area of its use. Here are some examples of professional homonyms: 1) terms of chemistry: *das Chlorit[1]* (chem.) "salt of the chlorine acid" – *das Chlorit[2]* "chlorite" (mineral); 2) naval terms: *der Gast[1]* "guest" – *der Gast[2]* (nav.) "sailor".

Misunderstanding may occur only in those cases where both homonyms are the terms of the same science, e.g. *die Finne[1]* (zool.) "larva" – *die Finne[2]* (zool.) "fin" (of a fish). To avoid ambiguity in such cases one homonym is substituted by its synonym, e.g. instead of *die Finne[1]* "larva" the synonym *die Larve* is more frequently used (data based on the frequency dictionary Ruoff (2014)). One homonymic pair illustrates the differences in the plain of generally used: social-dialectal lexis: *der Rex[1]* "king" – *der Rex[2]* "headmaster".

Five homonymic pairs have their correlates among archaic lexis, i.e. they are differentiated in chronological aspect. Such homonyms have modern synonyms in the language system and thus they become obsolete, e.g. *die Schnur* – *die Schwiegertochter* "daughter-in-law". Some homonyms became obsolete because the notions they denote stopped playing any significant role in the life of modern society, e.g. *die Lire[1]* "lira" (former Italian currency). Such homonyms are limited in their use to the spheres of historical novels and historical and cultural studies, and they have their homophone correspondents in modern lexis, e.g. *der Real[2]* "real" (currency in Brazil), *die Lire[2]* "lira" (Turkish currency). Archaic homonyms are separated from their similarly sounding correlates by the fact that they exist in a separate subsystem of lexis, e.g. *die Schelle[1]* (arch.) "handcuff" – *die Schelle[2]* (areal) "bell".

Several homonyms differ from their homophone correlates in their stylistic aspect: one member of the homonymic row belongs to the subsystem of colloquial lexis, and

another one – to literary: e.g. *der Skater[1]* (coll.) "skater" (on skates) – *der Skater[2]* "skater" (on a skateboard). The opposition of literary and colloquial is apparently sufficient for their differentiation, e.g. *die Domina[1]* "prioress" – *die Domina[2]* (coll. euph.) "prostitute". One homonym is devoid of any coloring in the system of the language, i.e. is stylistically neutral, while the other one has negative stylistic coloring, which practically excludes their mixture in speech. Stylistic differentiation of the homophone words also works when one of them has positive stylistic coloring, or belongs to the elevated style, being, for instance, a poetic word. The homonymic correlate of such a word usually has no stylistic coloring, e.g. *der Fels[1]* "rock" – *der Fels[2]* (poet.) "cliff". Both types of stylistically colored words differ from the neutral lexis by their use in different spheres of speech: homonyms marked as "colloquial" are mostly used in oral speech, and poetic words – in verse, poems, ballads etc., while stylistically neutral homonyms are used in all types of text. In the language system they are separated by the limits of lexical subsystems.

Some complete homonyms are solely differentiated by the fact that one of the elements of the homonymic row is only used in set expressions, e.g. *das Geschäft[1]* "shop" – *das Geschäft[2]* (euph.) "bathroom deeds". The above cited criteria for homonymic differentiation are presented in Table 1:

Table 1
Criteria of Differentiation of the Homonymic Nouns

Criteria of differentiation	Number of homonymic rows	Examples
Belong to different LSGs	876	*der Hahn[1]* "rooster" – *der Hahn[2]* "water tap"
Areally marked	16	*der Flaum[1]* (areal) "lard" – *der Flaum[2]* "fluff"
Socially marked	11	*der Riemen[1]* "belt" – *der Riemen[2]* (nav.) "oar"
Chronologically marked	5	*die Schelle[1]* (arch.) "handcuffs" – *die Schelle[2]* "bell"
Stylistically marked	4	*der Skater[1]* (coll.) "skater" (on skates) – *der Skater[2]* "skater" (on a skateboard)
Used in set expressions	3	*der Plan[1]* "action" – *der Plan[2]* "plan"
Total	1001	

Other 17 homonymic rows (34 homonyms) completely coincide in their grammatical form and have no stylistic marking to differentiate them. Here belong toponyms (7 homonymic pairs), one of which denotes a country and another one – its capital: *Mexiko* "Mexico" (a country in the South America) – *Mexiko* "Mexico City". The analysis of publicistic texts shows that the differentiation of such nouns is based on the combinability of the homonyms denoting cities with the prepositions *bei, bis* or *über*, which are not used with the names of countries and lands, e.g.: *Aus dem 30. Stock lässt sich der Blick über Singapur genießen* (fr-aktuell.de 05.01.2005). Sometimes we may also observe the lexicalization of one of the homonyms, e.g. *Mexiko-Stadt* "Mexico City" as opposed to *Mexico* "Mexico" (the country), and in some cases the use of the names of cities and countries is specified, e.g.: *Rechtzeitig zum Mozart-Jahr 2006 will die Stadt Salzburg etwa das ewige Rätsel um den Schädel Mozarts lösen* (welt.de 07.01.2005).

In other cases the context is the main criterion of differentiation of the homonymic proper names, for instance, when a proper name is used in the sequence of other country or city names, which helps to understand the homonym, e.g. *Die Redaktion sitzt nicht in Bangkok, Singapur oder Hongkong* (fr-aktuell.de 05.01.2005) (the name of the city).

Other 10 pairs of complete lexical homonyms have no grammatical, sociological, areal, stylistic or chronological marking to help differentiate them. They also belong to the same LSG, e.g. *der Bauer[1]* "peasant" – *der Bauer[2]* "builder" (LSG "Social status"), *die Einladung[1]* "loading" – *die Einladung[2]* "invitation", *die Folge[1]* "sequence" – *die Folge[2]* "consequence" (LSG "Abstract notions") etc. Their number is too small to cause any obstacles in communication (0,01% of all homonymic rows). Apparently, context (both linguistic and extra-linguistic) is the only criterion of their differentiation.

As we can see, the fact that most homonymic nouns belong to different LSGs, and that those belonging to the same LSG can be differentiated with the help of various grammatical indices and stylistic markings, allows to quite accurately differentiate their meaning. Regarding this the components of the homonymic row can be differentiated based on the category of markedness, which correlates with the cognitive operator of norm / deviation. It is a known fact that the linguistic notion of markedness is applied to various components of the language structure; it has high explanatory potential and cognitive value. The notion of markedness was derived from phonology and gained special value in the typological description of the asymmetry of grammatical parameters in the works of G. Greenberg (1966) and his followers (Croft, 2003, p. 87–100). In grammar the marked (strong) member of the opposition has some formally expressed feature (e.g. plural of nouns) and narrower and more precise meaning than the unmarked one.

In the homonymic row, the homonym registered in the dictionary under №1 is as a rule unmarked, while the others are marked, i.e. they are limited in their use stylistically, chronologically, territorially or socially. This means that the homonymic

row consists of marked and unmarked members. Strong members of the homonymic rows can be characterized as functionally limited lexis, which is opposed in their differential features to the active, generally used, neutral nominative language content. Moreover, the notion of "marked lexis" is much wider than that of "stylistically marked lexis": marked lexemes bear any additional (to their lexical meaning) information about the grammatical meaning, sphere of use, temporal reference, emotional and expressive coloring or functional stylistic use of the lexical units.

The results of psycholinguistic experiments were grouped and the frequency of use of each reaction word to the given stimulus word was calculated (see Table 2, where some examples are cited). In the Table 2 the 3rd and 5th columns contain dictionary definitions of every homonym to compare the obtained data. The frequency of occurrence of associate words is given in parentheses after the words.

Table 2
The List of Associations with the Various Components of the Homonymic Rows

№	Homonymic row	The meaning of the 1st component of the homonymic row	The list of associations	The meaning of the 2nd component	The list of associations
1	Mutter	**Mutter[1], die; -, Mütter** 1. a) Frau, die Kind(er) hat oder erzieht; b) Vorsteherin eines Klosters; 2. weibliches Tier, das Junge geworfen hat; 3. (Techn.) Matrize; 4. (Jargon) Muttergesellschaft	*Kind(er) (14), Frau (9), Tochter (3), Liebe (2), Pflege, Zuhause* Σ 30	**Mutter[2], die; -, -n** Schraubenmutter	Σ 0
2	Gast	**Gast[1], der; -[e]s, Gäste** 1. zur Bewirtung eingeladene Person; 2. a) Besucher eines Lokals; b) jmd., der gegen Entgelt beherbergt wird	*Besucher (12), Ein ladung (4), Wirt (2), einladen (2), Abendessen (2), Essen, Hotel, Ausland, Tante, Empfang, Urlaub, mitbrin-*	**Gast[2], der; -[e]s, -en** (Seemannsspr.) Matrose	Σ 0

			gen, uner-wünscht Σ **30**		
3	Geschoss	**Geschoss¹ das; -es, -e;** etw. aus einer Waffe Abgeschossenes	*Kugel (2), Waffe, schießen, Ziel* Σ **5**	**Geschoss² das; -es, -e** Etage	*Etage (15), Stockwerk (7), Auf-zug, hoch, Haus* Σ **25**
4	Land	**Land¹ das; -(e)s; nur Sg** 1. der Teil der nicht vom Wasser bedeckten Erde; 2. Gebiet, wo man Pflanzen anbaut	*Erde (7), Acker (3), Boden (2), Festland, bear-beiten, Fläche* Σ **15**	**Land² das; Länder** 1. politisch selbständiges Gebiet; 2. Teil eines Landes mit eigener Regierung	*Staat (9), Bundeslan d (3), Sachsen (2), Bayern* Σ **15**
5	Manches-ter	**Manchester¹** engl. Stadt	*England (14), Stadt (6), Fuß-ballclub (3), Fußball (2), Mannschaft (2), United* Σ **28**	**Manchester²** Ba-umwollsamt	*Stoff (2)* Σ **2**

The obtained experimental data show that the homonym cited in the dictionary under №2 is mostly marked (75%). In 200 homonymic pairs only 22% show that the first component of the pair is marked, e.g. *der Kuli¹* "cheap worker" (0 associates) and *der Kuli²* "ballpoint pen" (30 associates), *der Rauch¹* "thick fur" (0 associates) and *der Rauch²* "smoke" (30 associates). Pairs heterogenic in their origin prevail among the homonymic pairs with the first marked component (26 heterogenic pairs as opposed to 15 homogenic), which is apparently conditioned by the peculiarities of lexicographic practice. It is a known fact that in the homogenic pairs the most frequent component is cited first, which is not observed for the heterogenic pairs.

In seven cases (3% of examples) the number of associations with the first and second component of the pair is approximately equal, e.g. *das Land¹* "dry land" and *das Land²* "country" (15 associates), *das Pflaster¹* "cobblestone" (14 associates) and *das Pflaster²* "plaster" (16 associates), etc.

We grouped the homonymic pairs according to the markedness of one of the components in the subgroup, and in each subgroup we calculated the relative number of the pairs with the marked components (when the ratio between the associates of the

marked and unmarked component is 30 to 0). Thus, among the homonymic pairs with one socially marked component the relative portion of such homonymic pairs makes 75%, i.e. we registered 25 homonymic pairs with the most marked component out of 33 homonymic pairs analyzed (see Table 3).

Table 3
Homonymic Rows with Socially Marked Components

Homonymic row	The markedness of the 1st component	Number of associations	The markedness of the 2nd component	Number of associations
Gast, Fall, Glas, Riemen	–	30	*navy*	0
Schütze	–	30	*technical*	0
Pink	–	30	*navy*	0
Stuhl	–	30	*medicine*	0
Galle	–	30	*veterinary medicine*	0
Schiff	–	30	*architecture*	0
Dom	–	30	*geology*	0
Drossel	–	30	*engineering*	0
Flucht	–	30	*construction*	0
Jäger	–	30	*military*	0
Set	–	30	*printing*	0
Kraut	–	30	*soldiers language*	0
Locke	–	30	*hunting*	0
Schmiere	–	30	*criminal*	0
Karre	–	30	*geology*	0
Post	–	30	*basketball*	0
Riff	–	30	*music*	0
Standard	–	30	*Jazz jargon*	0
Popper	–	30	*Jargon*	0
Stift	–	28	*christl. church*	2
Stab	–	27	*military*	3
Spannung	–	26	*physics*	4
Hyazinth	–	26	*greek mythology*	4
Lob	–	26	*tennis, badminton*	4
Gesellschaft	–	19	*economy*	11
Kreuzer	–	11	*military*	19
Raute	–	4	*geometry*	26

Neptun	*roman mythology*	27	–	3
Venus	*roman mythology*	24	–	6
Viola	*botany*	18	–	12
Zettel	*textile industry*	0	–	30
Rauch	*technical*	0	–	30
Stern	*navy*	0	–	30

Here belong homonymic units used in the scientific (general scientific and branch terms, scientific and technical professionalisms), official (administrative, diplomatic and law terminology), publicistic (publicistic terms, socio-political lexis and terms), religious (religious lexis and terms) styles of the German language, as well as bookish lexical units, e.g. *die Locke*[2] (hunting) "decoy", *die Schmiere*[2] (criminal) "lookout". The common feature of these groups of words is their use as a means of communication of the separate social, professional and age groups of people.

The rest of the groups may be ranged as follows:

1) homonymic groups where one of the components is only used in set expressions: 100% (5:5). Here belong such examples as *die Lampe*[2] (in the expression *Meister Lampe*) "Master Hare", *der Onkel*[2] (in the expression *großer/dicker Onkel*) "toe" (see Table 4).

Table 4
Homonymic Rows with Components used in Set Expressions

Homonym ic row	The markedness of the 1st component	Number of association s	The markedness of the 2nd component	Number of associations
Lampe	–	30	*in set expression*	0
Klaue	–	30	*in set expression*	0
Onkel	–	30	*in set expression*	0
August	–	30	*in the chance*	0
Hummel	–	30	*wellcoming call*	0

2) homonymic groups where one component is shortened: 100% (1:1). We only found one homonymic pair of this type: *die Birne*[1] "pear" and *die Birne*[2] "light bulb".

3) homonymic groups with one chronologically marked component: 83% (5:6). Chronologically marked lexis includes obsolete words (archaic and historic), e.g. *der Zelt*[2] (arch.) "pass" (see Table 5).

Table 5
Homonymic Rows with One Chronologically Marked Component

Homonymic row	The markedness of the 1st component	Number of associations	The markedness of the 2nd component	Number of associations
Zelt	–	30	*archaic*	0
Hecke	–	30	*archaic*	0
Mandel	–	30	*archaic*	0
Schild	–	27	*historic*	3
Schock	*archaic*	0	–	30
Rad	*formerly*	0	–	30

4) homonymic groups with both components marked: 53% (9:17). The components of the pair may be simultaneously marked socially, e.g. *der Zyklon[1]* (meteorology) "cyclone" and *das Zyklon[2]* (chemistry) "a type of poisons gas", stylistically and areally, e.g. *der Schamott[1]* (coll. derog.) "junk" and *der Schamott[2]* (Austrian coll.) "a type of clay", chronologically and areally, e.g. *das Panier[1]* (arch.) "flag, banner" and *die Panier[2]* (Austrian) "breading mass", etc. (see Table 6)

Table 6
Homonymic Rows with Both Components Marked

Homonymic row	The markedness of the 1st component	Number of associations	The markedness of the 2nd component	Number of associations
Zyklon	*technical*	30	*chemistry*	0
Elektron	*nuclear physics*	30	*chemistry*	0
Koma	*medicine*	30	*education*	0
Schamott	*colloquial pejorative*	30	*austrian colloquial*	0
Protz	*colloquial*	30	*forestry*	0
Rumpel	*south german*	30	*obsolescent*	0
Pastorale	*music; literature; painting*	30	*kath. church*	0
Alternative	*education*	28	*formerly*	3
Ramsch	*colloquial pejorative*	27	*card game*	3
Pneumatik	*physics, technology*	26	*austrian, swiss*	4
Demo	*jargon*	17	*jargon*	13
Hutsche	*south german, austrian*	9	*areal colloquial*	21
Penne	*colloquial pejorative*	8	*school slang*	22
Hocke	*nothern german*	4	*sports*	26

Panier	*high*	3	*austrian*	27
Hascher	*austrian colloquial*	0	*colloquial*	30
Soll	*geology*	0	*banking*	30

5) homonymic groups with one areally marked component: 52% (11:21). This group is represented by the words with clear dialectal reference, e.g. *die Beige²* (Southern German, Swiss) "pile", *die Pflaume²* (areal) "mockery" (see Table 7).

Table 7
Homonymic Rows with One Areally Marked Component

Homonymic row	The markedness of the 1st component	Number of associations	The markedness of the 2nd component	Number of asso-ciations
Kabel	–	30	*Northern German*	0
Mull, Heck	–	30	*Northern German*	0
Erkenntnis	–	30	*Austrian, Swiss*	0
Felge, Pflaume	–	30	*Areal*	0
Doppel, Wegweisung	–	30	*Swiss*	0
Beige	–	30	*Southern German, Swiss*	0
Loch	–	30	*in Schottland*	0
Mangel	–	29	*Southern German, Swiss*	1
Riese	–	29	*Southern German, Austrian*	1
Paps	–	28	*areal*	2
Matte	–	28	*Swiss*	2
Office	–	27	*Swiss*	3
Hafen	–	25	*Southern German, Austrian, Swiss*	5
Stoppel	–	25	*Austrian*	5
Stollen	–	5	*Austrian, Swiss*	25
Strudel	–	3	*Southern German, Austrian*	27
Muff	*Northern German*	17	–	13
Rummel	*areal*	0	–	30

6) homonymic groups with one stylistically marked component: 25% (5:17). This group is represented by the words which, apart from their objective notional meaning, have components of subjective character: emotion, expression, imagery, evaluation. According to the emotional and expressive coloring connotatively marked lexis is divided into positively and negatively colored. Elevated, rhetorical words, lexical units with the emotional approval, and some joke lexemes bear positive emotional charge, e.g. *die Hochzeit*[2] (humorous) "flourish", *der Reif*[2] "wedding ring" etc. Negative evaluation is characteristic for colloquial words, which are differentiated according to the level of pejoration – from humorously ironic and familiar to rude and vulgar (expressive colloquialism), e.g. *der Schwindel*[2] (coll. vulgar) "fraud", *die Raserei*[2] (coll. vulgar) "races" (see Table 8).

Table 8
Homonymic Rows with One Stylistically Marked Component

Homonymic row	The markedness of the 1ˢᵗ component	Number of associations	The markedness of the 2ⁿᵈ component	Number of associations
Juwel	–	30	*expressive*	0
Tor	–	30	*high*	0
Hochzeit	–	30	*high*	0
Blüte	–	30	*colloquial*	0
Diktat	–	28	*colloquial*	2
Träne	–	28	*colloquial vulgar*	2
Korn	–	28	*colloquial*	3
Kater	–	24	*colloquial*	6
Kohle	–	20	*colloquial*	10
Reif	–	19	*high*	11
Schwindel	–	18	*colloquial vulgar*	12
Mittag	–	16	*colloquial*	14
Raserei	–	14	*colloquial vulgar*	16
Horde	–	3	*colloquial vulgar*	27
Kuli	–	0	*colloquial*	30
Laster	*colloquial*	13	–	17
Bückling	*colloquial humorous*	7	–	23

7) homonymic groups with components without marking: 29% (28:96). In this group the number of associates is influenced by the frequency of the word's use, i.e. the words with greater frequency get more associates, e.g. *die Mutter[1]* "mother" (30 associates) and *die Mutter[2]* "nut" (0 associates) (see Table 9).

Table 9
Homonymic Rows with Components without Marking

Homonymic rows	Number of associations to the 1st component	Number of associations the 2nd component
Mutter, Pony, Moment, Wende, Pol, Drilling, Mantel, Mund, Bulle, Lippe, Mine, Zoll, Messer, Hering, Flur, Pause, Verfassung, Bart, Aufgabe, Umschlag, Ente, Presse, Spur	30	0
Chor	29	1
Schneider, Manchester, Fliege, Taube, Bremse, Militär, Batterie	28	2
Angel, Bruch, Ball, Flügel, Puppe, Handlung	27	3
Technik, Hütte, Geschick, Marsch, Rat, Wechsel	26	4
Pech, Boden, Fliege, Trieb, Kombination, Schwarm, Mühle	25	5
Wurf, Galerie, Schöpfer, Espresso, Laube	24	6
Schnitzel, Magazin	23	7
Gericht, Lösung, Weihe	22	8
Mal	20	10
Seite, Steuer, Krebs, Kiefer	19	11
Rock, Futter	18	12
Linse, Stoß	17	13
Bogen, Fessel, Leiter	16	14
Land, Strom	15	15
Pflaster	14	16
Bahn, Rost	12	18
Pension	11	19
Plastik	10	20
Rolle	9	21
See, Schalter	8	22
Ton	7	23
Geschoss, Weide	5	25

Ruhr, Bildung			4	26
Auflauf, Ordner			3	27
Dichtung			2	28
Kongo			1	29
Scharlach, Pickel, Wetter, Kaschmir, Einladung			0	30

The results of the psycholinguistic experiment show that the components of the homonymic pairs that are used in set expressions, shortened or chronologically marked, are the most marked. The least marked are those components that are cited in the dictionary without any stylistic marking, or they belong to the connotatively marked lexis, i.e. have emotional and expressive coloring.

4. Conclusions

The psycholinguistic analysis we carried out shows that the predominate number of homonymic pairs (97% of our selection) have marked and unmarked components. This allows to explain homonymy from the point of view of the cognitive-language correlation of "markedness/unmarkedness", and wider – "norm/deviation". From the cognitive point of view language markedness is derived from cognitive markedness, i.e. the unmarked language meaning corresponds to the cognitively normal (natural, expected) state of things, and the marked language meaning corresponds to cognitive deviation, i.e. unnatural, unexpected state of things. As stated by A. Kibrik (2008, p. 62), normal state of things belongs to the cognitive image of human experience, and is conceptualized with the minimal mental calculating effort, i.e. is activated automatically; and deviations from this image require additional calculating resources for their activation. Thus, language markedness reflects cognitive operators of norm/deviation in the specific language means in language structures, including homonymic pairs and homonymic rows. The presence of marked and unmarked elements in the homonymic pair or row in its turn demonstrates the synergetic potency of homonymy.

The prospects of the further research lie in the studies of the influence of cognitive-language correlation "norm/deviation" based on the consecutive analysis of homonyms of other parts of speech, primarily verbs and adjectives.

References
Bridges, R.S. (2004). *On English Homophones*. Society for Pure English Tract 02. Oxford: Clarendon Pr. Retrieved from http://www.gutenberg.org/files/14227/14227-h/14227-h.htm.
Cairns, H.S. (1973). Effects of bias on processing and reprocessing of lexically ambiguous sentences. *Journal of Experimental Psychology*, *97,* 337–343. Retrieved from https://psycnet.apa.org/doi/10.1037/h0034098
Croft, W. (2003). *Typology and universals*. 2-d ed. Cambridge: Cambridge University Press.

Ducháček, O. (1953). *O vzájemném vlivu tvaru a významu slov*. Praha: Státní pedagogické nakladatelství.

Ferreira, L. (2010). Metaphor comprehension in foreign language. In L. Scliar-Cabral, (Ed). *Psycholinguistics: Scientific and Technological Challenges.* (pp. 84–98). Porto Alegre: EDIPUCRS,

Foss, D.J. & Jenkins C.M. (1973). Some effects of context on the comprehension of ambiguous sentences. *Journal of Verbal Learning and Verbal Behavior*, *12,* 577–589. Retrieved from https://psycnet.apa.org/doi/10.1016/S0022-5371(73)80037-4

Greenberg, J. (1966). *Language universals, with special reference to feature hierarchies*. The Hague: Mouton.

Hogaboam, T.W. & Perfetti, C.A. (1975). Lexical ambiguity and sentence comprehension. *Journal of Verbal Learning and Verbal Behaviour*, *14,* 265–274. Retrieved from https://psycnet.apa.org/doi/10.1016/ S0022-5371(75)80070-3

Кибрик А.Е. Лингвистическая реконструкция когнитивной структуры. Вопросы языкознания. 2008. № 4. С. 51–77.

Кійко С.В. Синергетика омонімії як мовного, мовленнєвого і міжмовного явища. Чернівці : Родовід, 2016.

Маулер Ф.И. Грамматическая омонимия в современном английском языке. Ростов : Изд. Рост. университета, 1983.

Новиков Л.А. *Семантика русского языка*. М. : Высшая Школа, 1982.

Реформатский А.А. *Введение в языкознание*. 5 изд. М. : Аспект Пресс Press, 2004.

Ruoff, A. (2014). *Häufigkeitswörterbuch gesprochener Sprache*. 2. Auflage. Berlin: de Gruyter. Reprint 2014. https://doi.org/10.1515/9783110916058

References (translated and transliterated)

Bridges, R.S. (2004). *On English Homophones*. Society for Pure English Tract 02. Oxford: Clarendon Pr. Retrieved from http://www.gutenberg.org/files/14227/14227-h/14227-h.htm

Cairns, H.S. (1973). Effects of bias on processing and reprocessing of lexically ambiguous sentences. *Journal of Experimental Psychology*, *97,* 337–343. Retrieved from https://psycnet.apa.org/doi/10.1037/h0034098

Croft, W. (2003). *Typology and universals*. 2-d ed. Cambridge: Cambridge University Press.

Ducháček, O. (1953). *O vzájemném vlivu tvaru a významu slov*. Praha: Státní pedagogické nakladatelství.

Ferreira, L. (2010). Metaphor comprehension in foreign language. In L. Scliar-Cabral, (Ed). *Psycholinguistics: Scientific and Technological Challenges.* (pp. 84–98). Porto Alegre: EDIPUCRS.

Foss, D.J. & Jenkins C.M. (1973). Some effects of context on the comprehension of ambiguous sentences. *Journal of Verbal Learning and Verbal Behavior*, *12,* 577–589. Retrieved from https://psycnet.apa.org/doi/10.1016/S0022-5371(73)80037-4

Greenberg, J. (1966). *Language universals, with special reference to feature hierarchies*. The Hague: Mouton.

Hogaboam, T.W. & Perfetti, C.A. (1975). Lexical ambiguity and sentence comprehension. *Journal of Verbal Learning and Verbal Behaviour*, *14,* 265–274. Retrieved from https://psycnet.apa.org/doi/10.1016/ S0022-5371(75)80070-3

Kibrik, A.E. (2008). Lingvističeskaya rekonstrukciya kognitivnoy struktury [Linguistic reconstruction of cognitive structure]. *Voprosy Yazykoznaniya*, *4,* 51–77.

Kiyko, S.V. (2016). *Synergetyka omonimii yak movnoho, movlennevoho i moshmovnoho yavyshcha. [Synergy of homonymy as language, speech and interlanguage phenomenon].* Chernivtsi: Rodovid.

Mauler, F.I. (1983). *Grammatičeskaya omonimiya v sovremennom angliyskom yazyke [Grammatical homonymy in Modern English].* Rostov: Rostov University Publishers.

Novikov, L.A. (1982). *Semantika russkogo yazyka [Semantics of Russian language].* Moscow: Vys. Shkola.

Reformatskiy, A.A. (2004). *Vvedeniye v Yazykoznaniye [Introduction to Linguistics].* 5th ed. Moscow: Aspekt Press.

Ruoff, A. (2014). *Häufigkeitswörterbuch gesprochener Sprache.* 2. Auflage. Berlin: de Gruyter. Reprint. https://doi.org/10.1515/9783110916058

THE CONTRIBUTIONS OF SINGULAR AND PLURAL NOUNS
TO SENTENCE PROCESSING COMPLEXITY:
EVIDENCE FROM READING TIME

Rachel H. Messer
rmesser@bethelks.edu
Scopus Author ID: 56957958400
ORCID: 0000-0002-0272-6126
Bethel College, KS, USA
Shelia Kennison
shelia.kennison@okstate.edu
Scopus Author ID: 6603400736
ORCID: 0000-0001-9298-3152
Oklahoma State University, USA

Abstract. The nature of semantic representations of plural nouns has been a subject of debates in the literature. The present research investigated the extent to which there are differences in the processing of plural versus single noun descriptions (e.g., the large chairs vs. the large chair). In two reading experiments, we tested whether plural (versus singular) nouns appearing in sentences were more difficult to process initially and/or led to increased processing difficulty when occurring in sentences that contain a temporary syntactic ambiguity. Reading time on syntactically ambiguous sentences containing plural or singular nouns were compared with reading time on unambiguous control sentences. The results of both experiments demonstrated significant effects of sentence ambiguity. No effects or interactions involving noun number were observed, indicating that the complexity of plural nouns does not result in processing difficulty during sentence comprehension.

Keywords: reading, semantic representations, syntactic ambiguity, comprehension, plural nouns, singular nouns.

Мессер Рейчел; Кеннісон Шілія. Унесок іменників однини й множини у складність обробки речень: дані експериментів щодо швидкості читання.

Анотація. Природа семантичної репрезентації іменників в множині була предметом дискусії в літературі впродовж довгого часу. У нашому дослідженні проаналізовано, наскільки відмінними є обробка опису іменників в множині та обробка опису іменників в однині (наприклад, the large chairs vs. the large chair / *великі крісла та велике крісло*). У двох експериментах з читання було протестовано, чи іменники в множині (на противагу іменникам в однині), які траплялися в реченні, були одразу складнішими для обробки і/або призводили до підвищеної складності обробки, коли були в реченнях, що містили тимчасову синтаксичну неоднозначність. Швидкість читання синтаксично неоднозначних речень, що містили

іменники в множині чи однині, порівнювалась із швидкістю читання однозначних контрольних речень. Результати обох експериментів продемонстрували, що неоднозначність речень має суттєвий вплив. Жодних наслідків чи взаємодій, що могли б стосуватися числа іменника, не було виявлено. Це вказує на те, що складність іменників у множині не призводить до труднощів у обробці під час розуміння речень.

Ключові слова: *читання, семантичні репрезентації, синтаксична неоднозначність, сприйняття, іменники в множині, іменники в однині.*

1.1. Introduction. Theoretical Background

Over the last fifty years, numerous studies have identified sources of processing difficulty in a variety of tasks involving reading comprehension (See Rayner, Pollatsek, Ashby, & Clifton, 2011 for review). Relatively few studies have focused on the conceptual representation of plural nouns has been debated (Barker, 1992; Barsalou, 1999; Johnson-Laird, 1983; Schwarzschild, 1996). One view is that their representations are inherently more complex than those of singular nouns due to the greater number of individuals included in the representation (Barker, 1992). This view is compatible with the notion that mental representations contain information about the perceptual features of the objects referred to by nouns (Barsalou, 1999; Zwaan, Stanfield, & Yaxley, 2002). In contrast, the representations of plural and singular nouns may be comparable in complexity if the representations are abstract in nature and information about individual entities are not specified (Schwartzchild, 1996).

There have been numerous studies comparing the processing of plural and singular nouns (See Patson, 2014, for review). Some of these studies have investigated the processing of single words using the lexical decision task during which participants were asked to judge whether a letter sequence was word or not. In these studies, plural nouns have not been shown to take longer to process than singular nouns (Baayen, Dijkstra, & Schreuder, 1997; Dominguez, Cuetos, & Segui, 1999; New, Brysbaert, Sequi, Ferrand, & Rastle, 2004; Schreuder & Baayen, 1997; Sereno & Jongman, 1997), despite the fact that in addition to the possible conceptual differences between plural and singular nouns, there can also be greater morphological complexity for plurals versus singulars.

Few studies have investigated the processing of plural and singular nouns within sentences. Ferreira and McClure (1997) showed that readers rapidly utilize information about the plural status of nouns during sentence processing. In the study, they compared reading time on sentences containing a temporary syntactic ambiguity. Example sentences are displayed in (1). Reciprocal verb conditions (i.e., 1a and b) were compared to conditions in which sentences contained an optionally transitive verb (i.e., 1c and 1d).

(1) a. After Jose and the bride kissed the party began in earnest. (Ambiguous)
   b. After Jose and the bride kissed, the party began in earnest. (Unambiguous)
   c. After Jose and the bride signaled the party began in earnest. (Ambiguous)
   d. After Jose and the bride signaled, the party began in earnest. Unambiguous)

For reciprocal verb conditions, there was no significant difference in reading time for ambiguous and unambiguous sentences, suggesting that information about the plural noun was used by readers to achieve the reciprocal interpretation of the verb. For optionally transitive verb conditions, readers took significantly longer to process ambiguous versus unambiguous sentences because *the party* was initially analyzed a direct object and later reanalyzed as the subject of the main clause. In subsequent work, Patson and Ferreira (2009) showed that readers' use of plural information differed for conjoined phrases (e.g., *Jose and the bride)* and for plural definite descriptions (e.g., *the lovers* or *the two lovers*), with readers avoiding the garden path (i.e., initial syntactic misanalysis) following a reciprocal verb for conjoined phrases but not for plural definite descriptions (see also Patson & Warren, 2011; 2014). In recent experiments involving a picture-matching task, Patson and colleagues (Patson, 2016; Patson, George, & Warren, 2014; Patson & Warren, 2015) have argued that the semantic representation for plural definite descriptions may not specify whether the noun is singular or plural.

Few studies have investigated differences in how plural and singular noun definite descriptions are semantically integrated during sentence processing. Kennison (2005) hypothesized that plural nouns may be semantically integrated with prior context more rapidly than singular nouns, because readers may use plural information to infer the presence of the head of the phrase (e.g., the eager house painter vs. the eager houses painter*). In two experiments, reading time was compared on sentences containing plural or singular definite noun descriptions preceded by an adjective that either formed a plausible or implausible combination with the noun.   Example sentences are displayed in (2).   The results supported the hypothesis. Reading time on plural nouns was longer for
      (2) a. John said that the ancient castle(s) was/were….   Plausible
         b. John said that the careful castle(s) was/were….   Implausible
implausible versus plausible conditions. Reading time on singular nouns did not differ for implausible and plausible conditions; rather, readers took longer to read the word following the noun in implausible versus plausible conditions. Further comparisons showed that while reading time on plural and singular nouns did not differ in plausible conditions, in implausible conditions, reading time on plural nouns was significantly longer than on singular nouns.

The purpose of the research described was to investigate further whether the representations of plural definite descriptions are more complex to process in sentences than singular definite descriptions, particularly when semantic integration is believed to occur. Patson (2014) asserted that for plural definite descriptions, plural is left fully underspecified; thus, no difference in the processing of plural and singular nouns is expected to occur. However, Kennison's (2005) results suggest that during sentence processing in which integrative semantic process occurs, plural definite descriptions

may take longer to process than singular definite descriptions, because integrative semantic processing is initiated earlier for plurals than for singulars.

We report two reading experiments in which we investigated how readers processed plural and singular definite descriptions that were syntactically ambiguous phrases and were syntactically reanalyzed at the point later in the sentence when the reader encountered disambiguating information. A traditional view of the process of syntactic reanalysis is that the processing difficulty during syntactic ambiguity resolution stems from the abandonment of an initial incorrect syntactic analysis and its interpretation, followed by the re-computation of an alternative syntactic analysis and its interpretation (Ferreira & Henderson, 1991). Although other researchers have argued that syntactic reanalysis may not involve the initial consideration of a single possible analysis of a sentence (See Sturt, Pickering, & Crocker, 2000, for discussion), sentences in which syntactic reanalysis is believed to occur typically take longer to process than sentences that are syntactically unambiguous. Our aim was to determine whether syntactically ambiguous sentences containing plural nouns take longer to process than similar sentences containing singular nouns.

2.   Present Study: Experiment 1

We chose a syntactic ambiguity that has been found in prior studies to yield a large syntactic reanalysis effect with reading time on syntactically ambiguous sentences substantially longer than reading time on unambiguous control sentences (Adams, Clifton, & Mitchell, 1998; Mitchell, 1987). Sample sentences are displayed in (3). In 3a, the plural or singular noun is syntactically ambiguous, as readers typically misanalyse the noun as the direct object of the first verb and only realize the error when the second verb in the sentence is encountered. In 3a, the ambiguity is eliminated by the placement of a comma after the first verb.

(3) a. When Al called the lake(s) had been put on a no-fishing alert. (Ambiguous)

b. When Al called, the lake(s) had been put on a no-fishing alert. (Unambiguous)

If the representation of plural definite descriptions is more complex than those of singular nouns, the difference in reading time between ambiguous and unambiguous sentences should be larger for sentences containing plural nouns than sentences containing singular nouns.

2.1. Method

Participants. The participants were 60 undergraduates (23 men and 37 women) at a large public university in the Midwest region of the United States. The average age of participants was 19.25 years old (*SD* =2.19). All participants were native speakers of English, had normal or corrected-to-normal vision (i.e., either they wore eye glasses or reported that they had normal vision and did not need to wear eye glasses), and received course credit in exchange for their participation. Participants were not asked

about their knowledge of other languages, as bilingualism is uncommon in the undergraduate population at this institution.

Materials. 16 sets of experimental sentences were constructed for the experiment. Each set contained four versions in which two versions were syntactically ambiguous and two were unambiguous, containing a comma separating the sentences into two clauses. In half of the sentences in each set, the ambiguous noun was singular and in the other half, it was plural.

Procedure. Sentences were presented using E-Prime to control the stimuli presentation and recording of reaction times (Schneider, Eschman, & Zuccolotto, 2002). The experiment used a phrase by phrase self-paced reading window. Participants were instructed to press the "next" key to advance the presentation of the sentence; the "next" key corresponded to the "/" key on the keyboard. The key was labeled "next" with a sticker. The presentation of each sentence began with an array of asterisks; each asterisk corresponded to the position of a letter in the current sentence. After the participant pressed the "next" key, the first presentation region of the sentence appeared, replacing the corresponding asterisks. When the reader completed reading the first presentation region and pressed the key again, the second presentation region appeared, replacing the corresponding asterisks, and the first presentation region disappeared and was replaced with corresponding asterisks. This procedure was repeated until the last presentation region was read. Each sentence was followed by a yes/no comprehension question. The "z" key was used for "yes" responses. The "x" key was used for "no" responses. These keys were labeled "yes" and "no" with stickers. Participants used the index finger on the right hand for the "NEXT" key and the index and middle fingers on the left hand for "YES" and "NO." The 16 experimental sentences were intermixed with 88 filler sentences. Filler sentences contained a variety of sentence structures, which did not involve syntactic ambiguity, and were also followed by a yes/no comprehension question. Comprehension questions in the experimental sentences did not query the plural or singular noun. The same comprehension question was used for all versions of an item. Each participant viewed sentences in a unique random order. Participants were tested in a repeated measures design involving four counterbalancing lists, which were used to ensure that each item was viewed in each condition equally often across participants. Each participant was randomly assigned to a counterbalancing condition and tested individually in a private, well-lit cubicle. Each participant was given a practice session of 16 sentences, followed by the set of experimental items, which consisted of 104 sentences. The practice and filler items can be provided by the authors upon request. Each session lasted between 30–45 minutes.

Data Analysis. Data were analyzed using SPSS.

3. Results

Participants' accuracy for comprehension questions for Experiment 1 was 95%, indicating that they complied with the instructions of the reading task. Accuracy did not vary significantly across conditions in either experiment, Fs $<$ 1. In both experiments, reading times for each presentation region were initially trimmed to

eliminate responses under 100 milliseconds or over three seconds. This trimming eliminated less than 1 percent of the observations in both experiments. Using the remaining observations, mean reading time per presentation region per condition per participant was calculated. For both experiments reported in this paper, the data were analyzed using analyses of variance (ANOVAs) in which both participants (F_1) and sentences (F_2) were treated as random effects as recommended by Clark (1973). Table 1 displays mean reading time by presentation region for Experiment 1.

The results failed to support the view that plural nouns increase processing difficulty during syntactic reanalysis as compared to singular nouns, as the noun type x ambiguity interaction was not significant at any region, Fs < 1. The presence of syntactic ambiguity affected reading time, as readers took longer to process sentences containing a temporary syntactic ambiguity than unambiguous sentences. Significant differences were observed at region 6 (ambiguous: 1088 ms vs. unambiguous: 949 ms), F_1 (1, 59) = 5.22, p = .026, η^2 = .08, F_2 (1, 15) = 5.17, p = .038, η^2= .26, and at region 7 (ambiguous: 1017 ms vs. unambiguous: 938 ms), F_1 (1, 59) = 5.10, p =.028, η^2= .08, F_2 (1, 15) = 2.96, p = .106, η^2 = .17. Reading time was not influenced by the type of noun (i.e., singular versus plural) at any region, Fs < 1.50.

4. Discussion

The results yielded no support for the view that plural nouns are more difficult to process during syntactic reanalysis than singular nouns. In order to be more certain of this conclusion, we conducted a second experiment to determine whether similar results could be obtained when a different type of syntactic ambiguity was tested with an additional group of participants.

5. Experiment 2

The purpose of the second experiment was to attempt to obtain results similar to those of Experiment 1 using different materials and different participants. Most notably, the materials involved a different type of syntactic ambiguity. Sentences contained the noun phrase (NP)/sentence (S) complement ambiguity, which has been the focus of numerous prior studies (Ferreira & Henderson, 1990; Garnsey, Pearlmutter, Myers, & Lotocky, 1997; Kennison, 2001). Example sentences are displayed in 4. In 4a, the plural or singular noun is syntactically ambiguous, as readers typically misanalyse the noun as the direct object of the first verb and only realize the error when the second verb in the sentence is encountered. In 4b, the ambiguity is eliminated by the placement of the word *that* after the first verb.

4 a. Al knew the answer(s) would be in the back of the book. (Ambiguous)
   b. Al knew that the answer(s) would be in the back of the book. (Unambiguous)

If the representation of plural definite descriptions is more complex than those of singular nouns, then reading time should be determined by an interaction of noun type and ambiguity, as the difference in reading time between ambiguous and unambiguous sentences should be larger for sentences containing plural nouns than sentences containing singular nouns.

5.2. Method

Participants. There were 56 additional undergraduates (28 men and 28 women) at a large public university in the south central region of the United States. The average age of participants was 19.76 years old (*SD* =2.33). All participants were native speakers of English, had normal or correct-to-normal vision, and participated in exchange for course credit.

Materials. We constructed 16 sets of items for the experiment. For each set, there were four versions, two that contained the disambiguating word "that," and two that did not. Two versions contained a singular noun, one that was syntactically ambitious and one that was not. Two versions contained a plural noun, one that was syntactically ambitious and one that was not. A complete list of these materials is provided in the Appendix.

Procedure. The procedure was the same as in Experiment 1.

Data Analysis. Data were analyzed using SPSS.

6. Results

Participants' accuracy to comprehension questions for Experiment 2 was 96%. Accuracy did not vary significantly across conditions, as in Experiment 1,, Fs < 1. Mean reading time by presentation region for Experiment 2 is displayed in Table 2. As in Experiment 1, the noun type x ambiguity interaction was not significant, Fs < 1. Readers took longer to process sentences containing a temporary syntactic ambiguity than unambiguous sentences at region 4 (ambiguous: 634 ms vs unambiguous: 586 ms), by participants only, F_1 (1, 55) = 4.42, p =.04, η^2= .07, F_2 <1, and at region 5 (ambiguous: 589 ms vs. unambiguous: 532 ms), F_1 (1, 55) = 7.49, p = .008, η^2= .12, F_2(1, 15) = 58.18, p = .000, η^2= .80. Reading time was not significantly influenced by the type of noun (i.e., singular versus plural); main effects of noun type were not significant for any region (regions 4 to 8, Fs < 1.50 and for region 3, F_1(1, 55) = 3.41, p = .07, F_2 < 1).

7. Discussion

The results of Experiment 2 were similar to those of Experiment 1. There was no support for the view that plural nouns were more difficult to process during sentence comprehension than singular nouns. The presence of a plural noun in a sentence

containing a temporary syntactic ambiguity did not result in increased processing difficulty as compared to the same sentence containing a singular noun. Overall, readers did take longer to process sentences containing a syntactic ambiguity than similar sentences that were syntactically unambiguous.

8. General Discussion

The present research investigated whether sentences containing plural nouns were more difficult to process than sentences containing singular nouns. Prior research conducted using lexical decision tasks, in which plural and singular nouns were processed individually, demonstrated that plural nouns took longer to process than singular nouns. The present paper reported two reading comprehension experiments, in which participants read sentences containing either a plural or singular noun that was part of a syntactically ambiguous or unambiguous phrase. The results of two sentence processing experiments showed that there were no processing costs associated with processing of plural versus singular nouns in sentences containing a temporary syntactic ambiguity. Overall, readers did take longer to process sentences containing a syntactic ambiguity than similar sentences that were syntactically ambiguous. The results add to the growing number of language processing studies failing to observe evidence suggesting that the semantic representations of plural definite descriptions are underspecified for number (Patson, 2016; Patson, George, & Warren, 2014; Patson & Warren, 2011; 2014; 2015).

We acknowledge that a limitation of the present research relates to the fact that we measured reading time using a self-paced moving window. This method requires readers to process text more slowly than they would in a naturalistic reading situation. Other methods of measuring reading time, such an eye movement recording (Rayner, 1988), enable readers to process text in a more naturalistic fashion at rates that are more similar to reading in daily life. Eye movement recording, unlike self-paced methodologies, has the potential to detect relatively small differences in processing, which may provide evidence for the existence of distinct stages of processing. Such differences in processing may not always result in the reader consciously experiencing difficulty during processing. Despite the potential for eye movement recording and the self-paced moving window methodology to produce different patterns of results, prior research in which reading times have been recorded on the same sentences using both methods have found similar, rather than different, overall patterns of processing (Kennison, 2002; 2009).

We anticipate that the present research may serve as an impetus for future studies investigating whether factors that have been found to influence the processing of single words also influence the processing of words when the words are processed in the context of a sentence. We believe that such future studies will be useful for educators involved in the teaching of reading and for practitioners involved in the diagnosis and treatment of reading disorders.

9. Conclusions

The results of the two reading experiments showed that there were no significant differences in reading time for sentences containing plural versus singular nouns in sentences either containing a temporary syntactic ambiguity or sentences in which no ambiguity occurred. The results are consistent with the view that the semantic representations of plural and singular nouns are similar with regards to the specification of grammatical number.

References

Adams, B., Clifton, C., & Mitchell, D. (1998). Lexical guidance in sentence processing? *Psychonomic Bulletin and Review, 5*(2*), 265–270. https://doi.org/10.3758/BF03212949

Baayen, R. H., Dijkstra, T., & Schreuder, R. (1997). Singulars and plurals in Dutch: Evidence for a parallel dual-route model. *Journal of Memory and Language, 37*(1), 94–117. https://doi.org/10.1006/jmla.1997.2509

Barker, C. (1992). Group terms in English: Representing groups as atoms. *Journal of Semantics 9*(1), 69–93. https://doi.org/10.1093/jos/9.1.69.

Barsalou, L. W. (1999). Perceptual symbol systems. *Brain and Behavioral Sciences, 22*, 577–660. https://doi.org/10.1017/S0140525X99002149.

Clark, H. H. (1973). The language-as-fixed-effect fallacy: A critique of language statistics in psychological research. *Journal of Verbal Learning & Verbal Behavior, 12*, 335–359. https://doi.org/10.1016/S0022-5371(73)80014-3

Dominguez, A., Cuetos, F., & Segui, J. (1999). The processing of grammatical gender and number in Spanish. *Journal of Psycholinguistic Research, 28*(5), 485–498. https://doi.org/10.1023/A:1023216326448

Ferreira, F., & Henderson, J. (1990). Use of verb information during syntactic parsing: Evidence from eye tracking and word by word self-paced reading. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 16*, 555–568. https://doi.org/10.1037/0278-7393.16.4.555

Ferreira, F., & Henderson, J. M. (1991). Recovery from misanalyses of garden-path sentences. *Journal of Memory and Language, 30*(6), 725–745. https://doi.org/10.1016/0749-596X(91)90034-H.

Ferreira, F., & McClure, K. K. (1997). Parsing of garden-path sentences with reciprocal verbs. *Language and Cognitive Processes, 12*, 273–306. https://doi.org/10.1080/016909697386862

Garnsey, S. M., Pearlmutter, N. J., Myers, E., & Lotocky, M. (1997). The contributions of verb bias and plausibility to the comprehension of temporarily ambiguous sentences. *Journal of Memory & Language, 37*, 58–93. https://doi.org/10.1006/jmla.1997.2512

Johnson-Laird, P. (1983). *Mental Models: Towards a Cognitive Science of Language, Inference, and Consciousness.* Cambridge, MA: Harvard University Press.

Kennison, S. M. (2001). Limitations on the use of verb information in sentence comprehension. *Psychonomic Bulletin & Review, 8*, 132–138. https://doi.org/10.3758/BF03196149

Kennison, S. M. (2005). Different time courses of integrative semantic processing for plural and singular nouns: Implications for theories of sentence processing. *Cognition, 97*, 269–294. https://doi.org/10.1016/j.cognition.2004.09.005

Mitchell, D. C. (1987). Lexical guidance in human parsing: Locus and processing characteristics. In M. Coltheart (Ed.), *Attention and Performance 12: The Psychology of Reading* (pp. 601–618). Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.

New, B., Brysbaert, M., Segui, J., Ferrand, L., & Rastle, K. (2004). The processing of singular and plural nouns in French and English. *Journal of Memory and Language, 51*, 568–585. https://doi.org/10.1016/j.jml.2004.06.010

Patson, N. D. (2014). The processing of plural expressions. Language and Linguistics Compass, 8(8), 319–329. http://dx.doi.org/10.1111/lnc3.12085

Patson, N. D., George, G., & Warren, T. (2014). The conceptual representation of number. *The Quarterly Journal of Experimental Psychology, 67*(7), 1349–1365. http://dx.doi.org/10.1080/17470218.2013.863372

Patson, N.(2014). The processing of plural expressions. *Language and Linguistics Compass, 8(8)*, 319–329. http://dx.doi.org/10.1111/lnc3.12085

Patson, N. (2016). Evidence in support of a scalar implicature account of plurality. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 42*(7*)*, 1140–1153. https://doi.org/10.1037/xlm0000224

Patson, N. D., & Ferreira, F. (2009). Conceptual plural information is used to guide early parsing decisions: Evidence from garden-path sentences with reciprocal verbs. *Journal of Memory and Language, 60*, 464–486.

Patson, N., George, G., & Warren, T. (2014). The conceptual representation of number. *The Quarterly Journal of Experimental Psychology, 67*(7), 1349–1365. http://dx.doi.org/10.1080/17470218.2013.863372

Patson, N., & Warren, T. (2011). Building complex reference objects from dual sets. *Journal of Memory and Language, 64*, 443–459. https://doi.org/10.1080/17470218.2013.863372

Patson, N., & Warren, T. (2014). Comparing the roles of referents and event structures in parsing preferences. *Language, Cognition and Neuroscience, 29*, 408–423. http://dx.doi.org/10.1080/01690965.2013.788197

Schneider, W., Eschman, A., & Zuccolotto, A. (2002). E-Prime (Version 2.0). [Computer software and manual]. Pittsburgh, PA: Psychology Software Tools Inc.

Schreuder, R., & Baayen, R. (1997). How complex simple words can be. *Journal of Memory and Language, 37*(1), 118–139. https://doi.org/10.1006/jmla.1997.2510

Schwarzschild, R. (1996). *Pluralities*. Kluwer, Dordrecht.

Sereno, J. A., & Jongman, A. (1997). Processing of English inflectional morphology. *Memory & Cognition, 25(4)*, 425–437. https://doi.org/10.3758/BF03201119

Sturt, P., Pickering, M. J., & Crocker, M. W. (2000). Search strategies in syntactic reanalysis. *Journal of Psycholinguistic Research, 29(2)*, 183–194. https://doi.org/10.1023/A:1005145028351

Zwaan, R. A., Stanfield, R. A., & Yaxley, R. H. (2002). Language comprehenders mentally represent the shapes of objects. *Psychological science, 13*(2), 168–171. https://doi.org/10.1111/1467-9280.00430

Appendix

The following list contains the items that were tested in Experiments 1 and 2, respectively. The elements within parentheses occurred in a subset of conditions.

Experiment 1

1. Last summer after Russell visited(,) the (seven, local) orchards ended up producing the best crop in decades.

2. Last summer after Alexander teased(,) the (four, small) ponds in the north field dried up.

3. Last spring before William wrote(,) the (three, nearby) rivers flooded all of the farm land west of the state line.

4. Last weekend when Nathaniel grilled(,) the (five, deep) caves overflowed with a steady stream of rats.

5. On Saturday after Richard paid,(,) the (six, big) clouds turned dark and it began to rain really hard.

6. Recently when Bruce called(,) the (three, large) lakes had been put on a no-fishing alert.

7. Suddenly after Lorraine kicked(,) the (two, high) mountains rumbled loudly as though an earthquake were happening.

8. Yesterday when Jacqueline called(,) the (eight, small) balconies filled with people who were wondering what was happening.

9. Frequently when Zachary pushed(,) the (five, nearby) villages would band together to make the negotiations even more difficult.

10. Occasionally when Samantha cooked(,) the (four, bored) kids would make a lot of noise in the street.

11. Today after Professor Lewis taught(,) the (three, remote) forests began burning because of a spreading wildfire.

12. On Saturday after Patrick cleaned(,) the (seven, public) fountains began to malfunction and stopped working.

13. Typically after Meredith baked(,) the (four, green) pastures become darker and darker because of the setting sun.

14. Today when Bradley threw(,) the (four, far) hills seemed to be close enough for the ball to reach them.

15. Last night when Allison(,) strummed the (ten, long) docks started to be topped with water from the storm surge.

16. This morning when Jonathan hammered(,) the (three, quiet) meadows filled up with birds that had been startled by the sound.

     Experiment 2

1. William knew (that) the answer(s) to the problem was (were) in the back of the algebra book.

2. Catherine forgot (that) the bag(s) near the closet was (were) full of apples and oranges from the farmer's market.

3. Stephen observed (that) the vulture(s) near the carcass was (were) moving around oddly and flappy its large wings.

4. Peter confirmed (that) the date(s) of the visit was (were) a time that he could be there.

5. Raymond accepted (that) the award(s) for the contest was (were) given to someone else.

6. Gregory learned (that) the formulas(s) for the problems was (were) different from the ones discussed in class.

7. Joseph explained (that) the example(s) about the trains was (were) also described in the textbook.

8. Martin announced (that) the event(s) for the athletes was (were) to be held on campus during next year's Homecoming week.

9. Marilyn remembered (that) the mansion(s) was (were) featured in a recent Hollywood movie.

10. Valerie saw (that) the acre(s) of woods was (were) stripped of most of the trees by the logging company.

11. Yvonne resented (that) the accusation(s) about the phone calls was (were) repeated by one of her closest friends.

12. Travis revealed (that) the winner(s) of the prizes was (were) going to receive season tickets for the Oklahoma City Thunder Basketball team.

13. Melissa overheard (that) the rumor(s) about the cheerleaders was (were) spread by some boys on the football team.

14. Victor concealed (that) the reason(s) for the absence was (were) related to his lack of money.

15. Jonathon wrote (that) the story(stories) about the cow was (were) similar to one that he read as a child in Iowa.

16. Meredith   found (that) the book(s) of poetry was left behind on the school bus after the field trip.

Rachel H. Messer, Shelia Kennison

Table 1
Mean Reading Time in Milliseconds (Standard Errors) by Presentation Region and by Condition from Experiment 1.

Presentation Region		R4*	R5	R6	R7	R8
Type of Sentence	Type of Noun	*the lake(s)*	*had*	*been*	*put on*	*a no fishing alert*
Ambiguous	Plural	562 (25)	741 (53)	1077 (80)	1004 (52)	1117 (59)
Unambiguous	Plural	625 (35)	774 (43)	981 (76)	911 (44)	1074 (53)
	Difference	-63	-33	+96	+93	+43
Ambiguous	Singular	565 (30)	683 (43)	1098 (67)	1030 (61)	1136 (59)
Unambiguous	Singular	591 (32)	768 (39)	917 (56)	964 (66)	1093 (59)
	Difference	-26	-85	+181	+66	+43

Note: * indicates region containing singular or plural noun.

Table 2
Mean Reading Time in Milliseconds (Standard Errors) by Presentation Region and by Condition from Experiment 2.

Presentation Region		R3*	R4	R5	R6	R7	R8
Type of Sentence	Type of Noun	*the answer(s)*	*would*	*be*	*in the back*	*of*	*the book.*
Ambiguous	Plural	638 (30)	636 (32)	608 (26)	598 (31)	537 (16)	672 (37)
Unambiguous	Plural	712 (49)	580 (21)	551 (20)	581 (26)	546 (22)	680 (33)
	Difference	-74	+56	+57	+17	-9	-8
Ambiguous	Singular	593 (29)	631 (29)	570 (25)	573 (29)	526 (21)	688 (35)
Unambiguous	Singular	642 (38)	591 (24)	553 (2)	589 (25)	571 (25)	710 (33)
	Difference	-49	+40	+17	-16	-45	-22

Note: * indicates region containing singular or plural noun.

INVECTIVE VOCABULARY IN MEDIA DISCOURSE
AT THE BEGINNING OF THE 21st CENTURY:
A PSYCHOLINGUISTIC ASPECT

Oleksandr Mezhov
ORCID: 0000-0002-5299-417X
mezhov.oleksandr@eenu.edu.ua
Lesya Ukrainka Eastern European National University, Ukraine
Maryna Navalna
ORCID: 0000-0002-5064-3122
m.navalna@phdpu.edu.ua
Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University, Ukraine
Nataliia Kostusiak
ORCID: 0000-0002-9795-6038
kostusyak.nataliia@eenu.edu.ua
Lesya Ukrainka Eastern European National University, Ukraine

Abstract. The article draws on a broad interpretation of the invective as a non-standard (non-literary) vocabulary known in linguistics as *jargonisms, expletives, vulgarisms; foul, pejorative, negatively coloured, disparaging, slang, obscene, coarse, abusive, taboo words* and other lexical units that contain the meaning of an insult in their semic structure; less often the invective is understood as a codified (literary) vocabulary which acquires the insulting meaning in a context as an expression of the speaker's communicative intention and pragmatic tactics of consciously offering a public affront to a specific addressee of communication. The aim of the research is to find out lexical and semantic, communicative and pragmatic features of the invective vocabulary in the modern Ukrainian media discourse and social networks as a specific verbal means of a psychological impact on the consciousness of the recipients. By resorting to the method of free word association test, the authors have studied a conscious and/or subconscious reaction of Ukrainian females and males to pejorative by-words that stir up a feeling of insult. 100 people have been selected as respondents (50 people of each gender). All of them were Ukrainian native speakers including female and male lecturers and students of Lesya Ukrainka Eastern European National University (Ukraine) and Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University (Ukraine); choosing the stimuli, the authors proceeded from the frequency of their use in the texts of modern mass media (out of 300 detected nominations the authors used 100 units). According to the extent of the insult caused by the given words they were rated on a scale of 1 to 4 which made it possible to combine the analyzed stimuli into four groups with the following scores: 1) 2.65–2.93; 2) 1.67–2.31; 3) 1.03–1.54; 4) 0 (zero). The experiment gave a clear structure of the invective – a psycholinguistic category including a communicative-pragmatic intention of the insult.

Keywords: invective vocabulary, psychological impact, insult, jargon, recipient, addressee, addresser.

Межов Олександр, Навальна Марина, Костусяк Наталія. Інвективна лексика в медійному дискурсі початку XXI ст.: психолінгвістичний аспект.

Анотація. У статті представлено широке тлумачення інвективи як ненормативної (позалітературної) лексики, номінованої в лінгвістиці термінами *пейоративна, зневажлива, жаргонна, сленгова, обсценна, лайлива, згрубіла*, що містить у семній структурі значення образи, та рідше – кодифікованої (літературної), яка набуває його контекстуально, виражаючи комунікативну інтенцію й прагматичну тактику мовця свідомого нанесення публічної образи конкретному адресатові мовлення. За мету дослідження обрано лексико-семантичні та комунікативно-прагматичні параметри інвективної лексики в сучасному українському медійному дискурсі та соціальних мережах як специфічного вербального засобу психологічного впливу на свідомість реципієнтів. За допомогою методики вільного асоціативного експерименту виявлено свідомо-підсвідому реакцію українських жінок і чоловіків на негативно марковані слова-символи, які викликають почуття образи. Респондентами обрано 100 людей (по 50 осіб обох статей) – носіїв української мови, серед яких викладачі та студенти Східноєвропейського національного університету імені Лесі Українки і Переяслав-Хмельницького державного педагогічного університету імені Григорія Сковороди. Слова-стимули дібрано з огляду на частотність їхнього використання в сучасних масмедіа (із 300 виявлених залучено 100 номінацій). Відповідно до ступеня викликаного гніву їх оцінювали за 4-бальною шкалою, що послугувало основою для об'єднання номінацій у чотири групи із такими оцінками: 1) 2,65–2,93; 2) 1,67–2,31; 3) 1,03–1,54; 4) 0 балів. Указаний експеримент посприяв чіткішому окресленню структури інвективи – психолінгвістичної категорії, що містить комунікативно-прагматичну інтенцію образи, дав змогу глибше з'ясувати її семантичну та психологічну природу.

Ключові слова: інвективна лексика, психологічний вплив, образа, жаргон, реципієнт, адресат, адресант.

1. Introduction

In a modern scientific paradigm (psychology, psycholinguistics, communicative linguistics, linguo-pragmatics, cognitive science, socio-linguistics), one of the basic interdisciplinary categories is the category of impact, in general, and a psychological impact, in particular. There are a lot of definitions of this concept. Among them is the definition offered by Sidorenko (1997) in which, in addition to semantic characteristics, emphasis is placed on the markers of their implementation. Thus, the psychological impact is the effect produced on the mental state, thoughts, feelings and actions of another human by using purely psychological means (verbal, paralinguistic or non-verbal) and providing him or her with the right and time to respond to this impact (Sidorenko, 1997, p. 123–142). The psychologists and linguists have repeatedly proved that of all linguistic and non-linguistic means it is just the word that has the greatest psychological impact on an addressee, both positive and negative. An effective means of negative verbal impact is the invective. It serves as a speech implementer of such a tool of psychological impact as a destructive critique – i.e. derogatory or offensive judgments on the personality of an opponent; a rude and sometimes aggressive denunciation, vilification or jeering at human flaws and doings (Sidorenko 1997, p. 129–131).

Linguistic literature suggests different interpretations of the term *invective*, its narrow and broad meaning, differences in classifications, a lack of clearly defined

boundaries of this category. The invective is most often associated with an insult, swearing, profanity, obscenity, vulgarity, jargon, slang, etc. The study presents a broad interpretation of the invective as non-standard (non-literary) vocabulary, referred to in linguistics as *low colloquialisms, jargonisms, slang, vulgarisms; pejorative, negatively coloured, insulting, obscene, foul, disparaging, scornful, taboo* words that contain a seme of insult in their component structure. Less often the invective is understood as a codified (literary) vocabulary which acquires an insulting seme in a context , expressing the speaker's communicative intention and pragmatic tactics to consciously offer a public affront to a particular communicative addressee. These can be "lexical items which, outside the context, are deprived of a pejorative component of the utterance but, under certain conditions, they acquire the meaning of an insult. The invective can also be the words whose semantics incorporates an invective characterization of an individual by the use of distinctly negative means of expression" (Topchyi, 2018, p. 99). Therefore, the key concept closely related to the invective is an insult.

The eleven-volume explanatory "Dictionary of the Ukrainian Language" gives two interrelated meanings of a lexical entry "insult": 1. A derogatory remark or a coarse act, etc., directed against someone and making him/her feel bitter, emotionally hurt. 2. Someone's feelings of bitterness and annoyance caused by someone else's offensive word or an unsightly act. (Slovnyk Ukrainskoi Movy, 1974, p. 561). Therefore, it is necessary to distinguish two aspects of this concept: an intentional, goal-oriented (rarely unintentional) physical or verbal action of the addresser (a person, a group of people) on the addressee (a specific person) and the recipient's psycho-emotional state (feelings, emotions, emotional turmoil). An insult as a certain unpleasant experience or a situation may or may not stir up an appropriate emotion, depending on its effect on the so-called human "sore spots" as well as on the mentality and psycho-type of an individual. Unjust disparagement of the individual status and dignity has an extremely strong abusive effect, although sometimes a legitimate critique may also have an insulting effect on an individual and may inflict deep moral suffering on him or her. (For example, a person who is aware of his/her physical, mental, moral, and psychological or other flaws is being reminded of them).

In terms of the psychology of a wronged person, the insult is accompanied, on the one hand, by feelings of anger at the offender, and, on the other hand, by a profound self-pity. Depending on the intensity and scale of the insult, a wronged person can overcome this stressful situation without exterior help. He or she may consult a psychologist or go to court. As a result, the insult acquires a legal status as a conscious, improper act of disrespect to an individual and as "a negative characterization of a person which, being expressed in an indecent form, degrades his/her honor and dignity" (Shevchenko, Derhach, Syzonov, & Shmatko, 2015, p. 99). Therefore, the insult entails an administrative or even criminal liability.

In general, an insult as an action or as an activity becomes a crime if it harms the mental health, honor, dignity and business reputation. The extent of this harm should be established by a linguistic (forensic) appraisal, the results of which serve

as an expert evidence during the trial. From a legal standpoint an insult "is subject to criminal law regulations as a verbal act that contradicts cultural traditions and rules of conduct accepted in society, ...and aims to place emphasis upon the negative traits of a person, often upon the recipient's inferiority or unfitness for performing his or her official responsibilities or for enjoying his or her social status, etc." (Shevchenko et al., 2015, p. 99).

The object of psycholinguistics is a verbal insult caused by a derogatory statement, which has a pejorative component, primarily, an invective. In other words, the insult of the addressee is a consequence of the addresser's use of the invective vocabulary. Not all types of a pejorative vocabulary can stir up the feelings of insult; this holds true essentially for the vocabulary related to the semantic domain "Human" (his/her appearance, inner world, behavior, activities, etc.) and targeted at derogating his/her social status.

The relevance of the research is accounted for by the fact that an insult as a multifaceted category requires an interdisciplinary in-depth study in the realms of various sciences, such as psychology, psycholinguistics, sociolinguistics, communicative linguistics, linguo-pragmatics, discourse study, legal psychology, legal (forensic) linguistics, law science. The invectives (insulting words) are studied by a lot of linguists, sociologists, political scientists and lawyers. Linguistics provides mostly lexical, lexicographical, linguo-stylistic, sociolinguistic, communicative-pragmatic and discursive-cognitive approaches to various types of invectives (Bilokonenko, 2012; Voitsekhivska, 2014; Makarenko, 2013; Stavytska, 2018; Topchyi, 2018; Formanova, 2013). Though a psycholinguistic analysis of a variety of linguistic units and categories has already been undertaken by a number of scholars (Kostusiak & Mezhov, 2018; Mamych, 2019; Navalna, 2017; Pryshchepa, 2017; Kholod, 2017; Giles, 2003; Novick, Kim & Trueswell, 2003; Tauszik & Pennebaker, 2010), a psycholinguistic aspect of the invective vocabulary as a means of psychological impact on the recipients' consciousness is still staying beyond a scholarly vision.

The goal of the research is to study the lexico-semantic and communicative-pragmatic characteristics of the invective vocabulary of modern media discourse and social networks, to find out its role in exerting a psychological impact on the consciousness of recipients. Attaining this goal involves the accomplishment of the following objectives: 1) to outline the structure of the invective as a psycholinguistic category that contains a communicative-pragmatic intention of the insult and to account for its semantic and psychological nature; 2) to determine the linguistic and extralinguistic factors of the intensity of a negative impact of the invective on individual's psychology and mass consciousness; 3) to identify the thematic groups of the invective vocabulary of the semantic field (domain) "Human" and to appraise their psycholinguistic potential and pragmatic effect; 4) to analyze codified and non-codified pejorative lexical items with their both inherent and contextually acquired negative connotation and to explore their contribution to an invective continuum of Ukrainian media texts. The invectives registered in the Ukrainian online media and social networks within recent years served as a source base of the research.

2. Methods

The following methods made it possible to implement the goal and objectives of the research: a *descriptive method* with its own ways of external and internal interpretation allowed for the inventorying, systematizing and classifying the invective vocabulary borrowed from the media texts; a method of *comprehensive analysis* contributed to the study of the analyzed components in terms of their lexico-semantic, communicative-pragmatic and psycholinguistic characteristics with due regard to an intimate linkage between mental and language processes; a method of *contextual-semantic analysis* enabled studying the invectives in a contextual environment and highlighting their psycholinguistic specificity with a greater accuracy; a method of *component analysis* provided a means of studying the component characteristics of the analyzed language units. In order to identify the ethno-psychological features of pejorative language units, a method of *free word association test* was employed. This approach offered a prospect of revealing a conscious-subconscious reaction of Ukrainian males and females to pejorative by-words and describing their feelings triggered by these words.

Of great importance for the accuracy of the results is the need to consistently stick to the following criteria: 100 people have been selected as respondents (50 people of each gender). All of them were Ukrainian native speakers including female and male lecturers and students of Lesya Ukrainka Eastern European National University, Ukraine and Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University, Ukraine; choosing the stimuli, we proceeded from the frequency of their use in the texts of modern mass media (out of 300 detected nominations we used 100 units); the part of speech they belong to (preference was given to the nouns) and the lack of their clear-cut lexical and gender markers. We are aware that the words *задрипанка, клуша, профура* will sound much more insulting to females, whereas the words *альфонс, тюхтій, мудак* will be more abusive to males. Though by parenthesized endings and suffixes of "feminine" or "masculine" gender we actually indicated the respective gender-marked nominations expressed through grammatical forms.

All respondents received a *Questionnaire* with *The Explanatory Note* and a list of stimuli hierarchized considering their descending frequency in media texts. Each of the linguistic units was relatively proportional to their "affiliation" with a certain lexico-semantic group (see below). The participants of the experiment had to determine the extent of the insult caused by the given words: 0 points had to be given to the lexical items which, in the opinion of female or male respondents, do not affect their emotional balance; 1 point was given to the lexical items that caused a slight insult, that is, an insult under certain circumstances and conditions of communication; 2 points – to the linguistic units that cause the average degree of an insult; 3 points – to the stimuli that cause a disruptive reaction of fury, hatred, etc. to a potential opponent who, addressing the respondents, used these nominations. Of course, we are realistic about a possible error in the results because of a unique psycho-type of each individual. We believe, however, that this error is insignificant,

because the focal point of the experiment is the associative reactions of the Ukrainians as a separate ethnic group.

3. Results

The results made it possible to combine the analyzed stimuli into four groups. The females estimated 56.8% of nominations at the highest average score (2.65–2.93). Among them are such words as *курва, лахудра, підстилка, сука, шльондра, паскудниця, нехлюйда, шельма, негідниця, наволоч, сволота, бидло, скотина, тварюка, потвора, whereas* the men estimated 51.2% of lexical items (such as *ганчірка, лох, нездара, негідник, непотріб, нікчема, падло, чмо (чмошник), доходяга, виродок, дебіл, наволоч, недоумок, сволота, бидло, каліка, потвора*) at the same score.

The females gave the score of 1.67–2.31 to the words *свиня, жаба, жирафа, змія, гадюка, качка підсадна, мавпа, гієна, коняка, ропуха* and others (34.6% of nominations), whereas the men gave the same score to the words *барига, бовдур, відморозок, гальмо, даун, жлоб, холуй, олень, свиня, скотина, хохол, жид*, etc. (33.4% of nominations).

The third group is made up of the words with the score of 1.03–1.54. From the perspective of the female respondents the linguistic units with this score (*жаднюга, нахаба. злодюга, морда, пика, рило, баньки, шнобель*, etc.) comprise 7.7 % of the words offered to them; whereas, according to the respondents of the opposite gender, this amount of words reaches 11.9%. Among them are such nouns as *алкаш, ботан, вискочка, жаднюга, злодюга, гультяй, пияка, шахрай, дятел, осел, морда, пика, рило, баньки, копита, шнобель*, etc.

The female respondents gave 0 (zero) points to the words *собака, макітра, фізія, диня, селючка, хохолка, вискочка*, etc., which constitutes 0.9% of all proposed stimuli, while the male respondents gave the same score to the linguistic units *ділок, піжон, селюк, бомж, наркоман, бик, кабан, кріт, собака, клешні, граблі, ласти*, etc., which makes up 3.5%. of the words demonstrated to them.

In the framework of our research we focused attention on the amount of those nominations that each of the respondents rated as the highest, and found out which lexico-semantic group they belong to. According to our estimates, the highest percentage is characteristic of the words of lexico-semantic groups A and B (see below) because their considerable portion was rated as the highest by the representatives of both genders. At the same time, a peripheral zone is made up of lexico-semantic groups C and D rated by the female and male respondents almost commensurately.

The experiment allowed analyzing the emotional reaction of males and females to pejorative by-words. As evident from the results of the experiment, females are getting insulted by a larger bulk of the analyzed nominations than males.

4. Discussion

In terms of communicative linguistics, the pragmatic goal of the invective speech tactics is to achieve a perlocutionary effect of the insult (to evoke the

addressee's feelings of emotional pain, bitterness, anxiety by humiliating him/her in front of a community, colleagues, friends, family) owing to intolerant interaction, imbalance of relations between interlocutors during a conflict discourse. As Issers states, the tactics of the insult reflects the state of strong emotional intenseness of communicators; it is employed mostly at the climatic point of the conflict, therefore, the emotional statements serve as the major means of its implementation. The addresser sees his/her communicative mission in humiliating and ridiculing the target of the insult (Issers, 2008, p. 164–165). The dominant marker of insulting tactics is the invective vocabulary. The latter performs its appropriate pragmatic function either directly, through its own lexical meaning or indirectly, through a contextual environment. There are occasions where, depending on the communicative intentions of the speaker, the lexical items of a normative type can acquire an insulting meaning.

The invective vocabulary of the semantic field (domain) "Human" is employed extensively in modern mass media and social networks. It provides a negatively coloured appraisal of human appearance, inner world, behavior, activities, etc. Being multifaceted the invective vocabulary can be arbitrarily divided into two large groups, each containing a number of thematic subgroups:

1. The vocabulary made up of the words with a pejorative and insulting (invective) seme in their lexical meaning:

– non-taboo colloquial, derogatory, familiar (off-handed, informal, non-official), swear and jargon words marked in dictionaries with specific labels (pejor., derog., fam., invect., colloq., jarg.), e.g.: *Краще людина без досвіду, ніж* **сволота:** *Гордон зробив неочікувану заяву* (a headline) (www.volynnews.com. 3.01.2019); *Президент Бразилії ... назвав 16-річну еко-активістку зі Швеції Ґрету Тунберґ* **паскудницею** *після того, як вона написала текст у мережі...* (www.nizhyn.in.ua, 11.12.2019); *«**Шльондра!**»: український політик «розніс» топ-пропагандистку Кремля у ПАРЄ* (www.vgolos.com.ua, 29.01.2020);

– taboo obscene words, jargonisms, etc. For example: ... *...якщо нормальних зарплат у лікарів немає, яка це* **на фіг** *реформа?* (www.zik.ua, 21.04.2020);

– the vocabulary that acquires a pejorative and insulting (invective) connotation due to a metaphorical transfer based on associations with wildlife, inanimate objects and environmental phenomena. For example: *«Всі «**кроти**» з російськими чи іншими паспортами мають бути вичищені звідси»* (www.umoloda.kiev.ua, 24.02.2017); *Обранець до парламенту від «Слуги народу» назвав журналістку «Нового времени»* **«тупою вівцею»** (www.dw.com, 31.05.2020); *Поводишся, як породиста* **кобила** *на вигоні, – сказав чоловік* (www.ivankivzosh1.at.ua, 29.05.2020).

2. The vocabulary (codified, normative) made up of words deprived of a pejorative and insulting (invective) seme in their basic lexical meanings, though they can acquire it in the context as a result of re-conceptualization. As Topchyi pointed out, "...the semantics of a codified neutral lexical item, depending on the author's intention and on a language environment can acquire specific invective connotations" (Topchyi, 2018, p. 98).

The invective vocabulary characterized by a varying intensity of the insulting effect is targeted at someone's external and internal features. First and foremost, these are:

A) human psychology, mental deviations, moral qualities, intellectual development, experience, headwork, character traits, standard of social behaviour. For example: *Така **наволоч** прийшла до влади на крові Майдану...* (www.uk-ua.facebook.com, 28.05.2020). The lexical item *наволоч* means: 1. collect., derog. Mean, worthless people harmful to society; rabble (Slovnyk ukrainskoi movy, vol. 5, 1974, p. 39); *Промосковська **профура*** (www.stopcor.org, 27.02.2020). The lexical item *профура* has the following meanings (marked by the labels): 1. crim., derog., invect. Woman. 2. yng; derog. Woman of easy virtue (Ukrainskyi Zhargon, p. 279); *«один радикальний політик» дозволив собі принизити людей з синдромом Дауна, коли публічно кричав що «в уряді – **дауни»**, через що виник скандал* (www.pravda.com.ua, 5.04.2019). The lexical item *даун* means: yng; pejor., iron. stupid, ignorant person. Derived from the medical term Down's syndrome (Ukrainskyi Zhargon, p. 116);

B) human behaviors, lifestyle, actions, habits, abilities, activities, occupations, professional, and business qualities. For example: *Ковелем керує «банда **нікчем»**, – депутат Ковельської міськради* (www.kowel.rayon.in.ua, 21.02.2019); *Під Києвом **ділок** підробив документи та привласнив понад 35 га землі...* (www.glavcom.ua, 28.05.2020);

C) human appearance, physical qualities and flaws associated, in particular, with pejorative nominations of body parts (somatisms). For example: *«У нього квадратна «**морда лица**» і великий **трудовий мозоль** у вигляді живота»...* (www.gazeta.ua, 12.10.2018); *«Кому треба ці вибори, якщо вони все одно нічого не поміняють. Хіба **рил жирних** у Верховній Раді стане більше»* (www.gazeta.ua, 23.07.2019)*; «Бодай би в тебе репнула **макітра!»*** (www.gazeta.ua, 05.02.2019);

D) human social set-up and status, financial situation, age; ethnic, national, race, gender, religious, professional affiliation; political views, anti-social (deviant) groups. The invective vocabulary is one of the most common means of expressing verbal aggression against the members of specific ethnic groups, races, religions, sexual minorities, etc.

The invectives are frequently used in various types of discourse, specifically, in a political conflict discourse. Their function is to demoralize, humiliate, discredit the opponent, to downgrade a person, thereby asserting oneself and/or exhibiting one's strengths. However, an excessive manifesting of such strategies can discredit none other than the addresser. The negative impact of the invective in this case is bilateral, because it is targeted not only at the addressee, but also at the addresser of communication. By solidifying the destructive tendencies (profanity is one of them) in one's behavior, a person distorts his/her own personality and inflicts a moral and psychological damage on it. In addition, the invective stuns a person who uses it. Resorting to the invective is, in fact, a recognition of one's psychological bankruptcy, a surrender to the situation (Makarenko, 2013, p. 336–347).

The invective vocabulary is also employed as a means of moral and psychological pressure on the addressee (as a tool of extortion, threat and blackmail). It serves as a lever of psychological violence, in particular, during the cases of bullying and mobbing behaviour (mostly in schools, institutions and organizations) affecting the honor and dignity of the individual and causing his or her feeling of insult. The invective of any verbal form is characterized by a varying intensity of a psycho-traumatic action on the recipient, stirring up, literally, a chain reaction: protracted mental sufferings, depression and, as an after-effect, deterioration of health. The extent of such an impact is directly associated with a number of extralingual factors: diminished or lost social and business reputation, undermined life and professional prospects of the individual, financial straits, etc. Under the law, the victim has the right to apply to court and claim compensation for moral or material damage caused by the offender.

The intensity of a psychological impact of the invective varies and is determined, on the one hand, by a semantic content and a target of an insulting expression and, on the other hand. by the recipient's age and his or her individual and psychological characteristics, the level of his/her social manners, mentality, temperament, stress resistance and a status in a society. Sneering at the representatives of Jewish community, for example, is definitely a profound insult to them; a resident of an African country can be deeply insulted by the sneers at his or her race; a male will be insulted by derisive remarks on his gender, physical condition, strength and performance efficiency; a similar effect for a female would have the insulting comments on her appearance, dignity, moral qualities, motherhood and age; a qualified doctor or an architect would be insulted by an attempt to downgrade his or her standard of professional competence; a scientist would be insulted if somebody tried to deride his or her scientific accomplishments; an artist would be deeply wounded by someone's insulting assessment of his or her talent and oeuvre; for a military person an insulting effect would be caused by somebody's jeering at his or her service to the Motherland; equally insulting for a physically challenged person would be an offensive word to the effect of his or her physical or mental affliction.

A special pragmatic function of expressing the insult is performed by jargonisms and slang words and phrases which fall into several groups in compliance with the social strata they belong to. That's why this vocabulary is described by means of the following attributives: criminal, youth (student, school), military, professional (i.e. used by IT specialists, athletes, motorists, musicians, businessmen, representatives of informal groups). Some linguists identify jargonisms and slang with the invectives, others differentiate them. Stavytska (2005, p. 37) makes a distinction between the concepts of "jargon" and "invective". The dominant aim of jargon as a group of words is to separate a certain social group from the other social groups. The role of the invectives, by contrast, is merely a function. We believe that the invectives should include only those jargonisms that are employed in the communicative acts of insult and associated with the semantic field "Human".

A criminal jargon marked by a high level of expressivity (similar to that of swear and vulgar words) may have an extremely negative and even hazardous psychological effect. More often than not, this effect goes beyond the boundaries of this or that criminal group and spreads rapidly in a society sweeping across mostly the teenage and young adults' population (in order to stand out and assert themselves among their peers   the young people tend to emulate the manners of certain "criminal bosses"). In due course, via the mass media, fiction, movies, radio stations   the wave of a harmful influence of the criminal jargon comes up in everyday life. According to the researchers of this sociolect, "…harm inflicted by criminal jargon lies in teaching a person to think in criminal terms as well as in instilling perverted views and beliefs in his or her mind, such as aversion to labour, cruelty and barbarity, glorification of the criminal lifestyle, thievish ingenuity, the cult of power and contempt for global human values and morality." Criminal jargon "subverts and falsifies the legal consciousness of an individual". Moreover, "in criminal jargon there is hardly a neutrally colored lexical unit". The words of this non-literary layer are usually "pronounced caustically, with an explicit disdain". Those who use them seek to stun, to sting, to discredit, and downgrade a person (Pirozhkov, 1994).

Therefore, this variety of jargon has an unambiguously invective connotation, and, consequently, even if it is not targeted at a specific recipient, it causes a lot of people (especially those who were reared with a respect for a language culture and the rules of etiquette, for example, such community groups as intellectuals, seniors) to feel the insult and emotional discomfort. The invectives as expressive linguistic means may exert some negative action not only on the mental health of the individual, but also on the mass consciousness. Through the use of specific linguistic means and techniques, we can put and store some   information in the individual's subconscious so that it (the information) should become an integral part of human psychic essence (Formanova, 2013, p. 126). The invectives, no matter how differently they are verbalized, can be effective tools of a suggestive impact on a society. Suggestion is understood as a premeditated conscious effect on the subconscious of a person or a group of people in order to change their (physical or mental) state or attitude to the issue, as well as to generate a disposition toward specific actions, and an inclination to emulate, that is to evoke in the other person's mind a desire to become a copy of the anchorage (Sidorenko, 1997, p. 129–131).

The unreasonable expansion of insulting and swear vocabulary can be accounted for, first, by the fact that   the young people trying to enhance the expressiveness of their speech want to show off their antics, to attract the others' attention or to distinguish themselves from "the crowd"; second, by the jargonization and criminalization of the language in modern fiction and in various communication media (online media outlets, TV programs, including political talk shows), and, finally, by the language used by the speakers in high-profile state institutions (in the abode of the Verkhovna Rada of Ukraine, including). All these tendencies not only downplay the intellectual values, but also impress on the recipients the idea of profanity as a social communicative standard worthy of

imitation and dissemination among the people of different ages and social strata, especially the youth. According to Voitsekhivska, the wide spread occurence of the criminal, thieves' and prison jargon stems primarily from criminalization of public life and social mind as well as from a desire to emulate a fake "figure of authority" (Voitsekhivska, 2014, p. 330). Unlike the young people who use the invectives and jargonisms purely during their oral communication with their peers, the people of specific professions or occupations resort to this layer of vocabulary when talking to their colleagues; at the same time, the invectives used by the criminals and substance abusers can be heard predominantly in their criminal (deviant) groups; the authors of the mass media and writers of fiction, however, can affect the consciousness or subconscious of the people of all generations and all socio-professional communities by making an excessive and sometimes stylistically unjustifiable use of the words and phrases of this layer of the vocabulary.

To a lot of segments of the population, especially, to the senior citizens, the accumulation of such a vocabulary (associated with the growth of verbal aggression) in a society, in general, and in mass media, in particular, is a cause of a number of negative psycho-emotional states, a psychological intenseness and even the feeling of insult (bitterness, emotional pain, depression, humiliation), and de-personalization. After all, an extensively used pejorative invective vocabulary is a reflection of the destructive consciousness of society; this tendency produces the impression of a dominant role of vulgarity, aggression, hatred, world's brutality, elimination the basic standards of morality and language etiquette, which points to symptoms of social deterioration and regression.

Thus, the use of invective vocabulary in the mass media and fiction can be justified only if it serves s specific communicative and stylistic function (to provide a negative stance on the characters and their behavior; to represent the specificity of the character's manner of speech; to achieve an ironic or satirical effect). An aggressive insulting profanity in a public space is unacceptable because it promotes violence, cruelty, disparagement of another person's honour and dignity, downplays intellectual and spiritual values, and recklessly affects the assimilation of the invectives into a society and their dissemination primarily among young people. To completely get rid of profanity is not an easy endeavour. The possibility exists, though, of reducing its intensity through the use of modern methods and training workshops as the modalities of individual psychological impact. The procedure is described, for example, in the paper by Makarenko (2013).

5. Conclusions

Despite their negative impact on the minds of recipients, the invectives make up a dynamic share of the lexical space of the Ukrainian language, in general, and mass communicative tools, in particular. On the one hand, they add expressiveness and eccentricity to the language; on the other hand, they vulgarize various types of discourse, impart an aggressive and insulting tone to a discourse and inflict a profound affront upon a person. The anthropocentric invective vocabulary covers a large and diverse range of colloquial, pejorative, derogatory, jargon, slang, obscene,

swear, rude, vulgar, contemptuous lexical units. They either acquire an insulting meaning contextually or incorporate it in their component structures. A thematic scope of the invectives reflects an individual's physical, psycho-emotional, moral and ethical qualities as well as her or his ethnic, socio-professional, gender, religious, and political affiliation. Such a vocabulary is targeted at providing an insulting characterization of external and internal features of the addressee with a varying intensity of a psychological impact. The latter depends, for one thing, on a semantic content and a target of the insulting expression and, for another, on recipient's age, individual and psychological characteristics, level of civility, mind-set, temperament, stress resistance and social status.

References

Білоконенко Л. Пейоративна й інвективна лексика в міжособистісному конфлікті. *Філологічні студії. Науковий вісник Криворізького державного педагогічного університету*. 2012. Вип. 7, Ч. 2. С. 119–127.

Войцехівська Н. Інвективи в конфліктному діалогічному дискурсі. *Гуманітарна освіта в технічних вищих навчальних закладах*. Київ, 2014. № 29. С. 322–332, https://doi.org/10.18372/2520-6818.29.8011

Иссерс О. Коммуникативные стратегии и тактики русской речи. Москва : КомКнига, 2008. 288 с.

Костусяк Н., Межов О. Префіксальні інновації як засіб психологічного впливу на свідомість реципієнтів. *Psycholinguistics-Psiholingvistika*. 2018. Вип. 24, № 2. С. 97–113. https://doi.org/10.31470/2309-1797-2018-24-2-97-113

Макаренко Н. Інвективна лексика як форма міжособистісного спілкування. *Проблеми сучасної психології*. 2013. Вип. 22. С. 336–347. URL: http://journals.uran.ua/index.php/2227-6246/article/view/159564/158796.

Мамич М. Вульгаризація мови дитячого мультиплікаційного тексту як психолінгвістична проблема. *Psycholinguistics-Psiholingvistika*. 2019. Вип. 26, № 2. С. 260–277. https://doi.org/10.31470/2309-1797-2019-26-2-260-277

Навальна М. Пейоративи в мові української періодики. *Psycholinguistics-Psiholingvistika*. 2017. Вип. 22, № 2. С. 85–97. https://doi.org/10.5281/zenodo.1069544

Пирожков В. Законы преступного мира молодёжи (криминальная субкультура). Тверь : ИПП «Приз», 1994.

Прищепа Г. «Мова ненависті» як лінгвістичний маркер «гібридної війни». *Psycholinguistics-Psiholingvistika*. 2017. Вип. 22, № 2. С. 98–112. https://doi.org/10.5281/zenodo.1069546.

Сидоренко Е. Личностное влияние и противостояние чужому влиянию. В кн.: *Психологические проблемы самореализации личности*. Санкт-Петербург: СПбГУ, 1997. С. 123–142.

Словник української мови: в 11 т. Київ : Наукова думка, 1970–1980.

Ставицька Л. Арго, жаргон, сленг: Соціальна диференціяція української мови. Київ: Критика, 2005.

Ставицька Л. Український жарґон /A Dictionary of Ukrainian Slang: словник. Київ : Критика, 2005.

Топчий Л. Засоби реалізації інвективної прагматики в публіцистичному дискурсі Ірини Калинець. *Держава та регіони. Серія: Гуманітарні. науки*. 2018. Вип. 1, № 52. С. 95–100.

Форманова С. Стилістичні особливості інвективи в українській мові. *Записки з українського мовознавства*. Одеса, 2013. Вип. 20. С. 124–131.

Холод О. Кореляція вербальної агресії інтернет-читачів і даних електронного декларування чиновників України (в період з 23 серпня по 7 листопада 2016 року). *Psycholinguistics-Psiholingvistika.* 2017. Вип. 21, № 2. С. 118–150. Retrieved from: https://psycholing-journal.com/index.php/journal/article/view/62

Шевченко Л., Дергач Д., Сизонов Д., Шматко І. Юрислінгвістика: словник термінів і понять. Київ : ВПЦ «Київський університет», 2015.

Giles, D. (2003). Media Psychology. Mahwah, New Jersey, London: Lawrence Erlbaum Associates, Publishers.

Novick, Ja. M., Kim, A., & Trueswell, J. C. (2003). Studying the Grammatical Aspects of Word Recognition: Lexical Priming, Parsing, and Syntactic Ambiguity Resolution. *Journal of Psycholinguistic Research, 32*(1), 57–75. https://doi.org/10.1023/a:1021985032200

Tausczik, Y., & Pennebaker, J. W. (2010). The Psychological Meaning of Words: LIWC and Computerized Text Analysis Methods. *Journal of Language and Social Psychology, 29*(1), 24–54. https://doi.org/10.1177/0261927X09351676

References (translated and transliterated)

Bilokonenko, L. (2012). Peioratyvna i invektyvna leksyka v mizhosobystisnomu konflikti [Invective and pejorative vocabulary in interpersonal conflict]. *Filolohichni Studii. Naukovyi Visnyk Kryvorizkoho Derzhavnoho Pedahohichnoho Universytetu*, *7*(2), 119–127.

Voitsekhivska, N. (2014). Invektyva v konfliktnomu dialohichnomu dyskursi [Invectives in Conflict Dialogical Discourse]. *Humanitarna Osvita v Tekhnichnykh Vyshchykh Navchalnykh Zakladakh*, *29,* 322–332. https://doi.org/10.18372/2520-6818.29.8011

Issers, O. (2008). Kommunikativnye Strategii i Taktiki Russkoy Rechi [Communicative Strategies and Tactics of Russian Speech]. Moscow: KomKniga.

Kostusiak, N., & Mezhov, O. (2018). Prefiksalni innovatsii yak zasib psykholohichnoho vplyvu na svidomist retsypiientiv. [Prefixal Innovations as a Means of Psychological Impact on Consciousness of Recipients]. *Psycholinguistics-Psiholingvistika*, *24*(2), 97–113. https://doi.org/10.31470/2309-1797-2018-24-2-97-113

Makarenko, N. (2013). Invektyvna leksyka yak forma mizhosobystisnoho spilkuvannia [Invective vocabulary as a form of interpersonal communication]. *Problemy Suchasnoi Psykholohii*, *22*, 336–347. Retrieved from http://journals.uran.ua/index.php/2227-6246/article/view/ 159564/158796

Mamych, M. (2019). Vulharyzatsia movy dytiachoho multyplikatsiinoho tekstu yak psykholinhvistychna problema. [The vulgarization of the language of a children's multiplication text as a psycholinguistic problem]. *Psycholinguistics-Psiholingvistika, 26*(2), 260–277. https://doi.org/10.31470/2309-1797-2019-26-2-260-277

Navalna, M. (2017). Peioratyvy v movi ukrainskoi periodyky [Pejoratives in the language of Ukrainian periodicals]. *Psycholinguistics-Psiholingvistika, 22*(2), 85–97. https://doi.org/10.5281/zenodo.1069544

Pirozhkov, V. (1994). Zakony prestupnogo mira molodezhi (kriminalnaya subkultura) [Laws of The Criminal World of Youth (Criminal Subculture)]. Tver: Priz. Retrieved from http://www.e-readinglib.org/bookreader.php/75561/Pirozhkov-Zakony_prestupnogo_mira_molodezhi.html

Pryshchepa, G. (2017). "Mova nenavysti" yak lingvistychnyi marker "Gibrydnoi Viiny» ["Hate Speech" as a Linguistic Marker of a Hybrid War]. *Psycholinguistics-Psiholingvistika, 22*(2), 98–112. https://doi.org/10.5281/zenodo.1069546

Sidorenko, Y. (1997). Lichnostnoe vliyanie i protivostoyanie chuzhomu vliyaniyu [Personal Influence and Opposition to Another's Influence]. In *Psikhologicheskie Problemy Samorealizatsii Lichnosti*. (pp. 123–142). S.-Petersburg: S.-Petersburg State University.

Slovnyk Ukrainskoi Movy [A Dictionary of the Ukrainian Language]: 11 Volumes. (1970–1980). Kyiv: Naukova Dumka.

Stavytska, L. (2005). *Arho, Zharhon, Slenh: Sotsialna Dyferentsiatsiia Ukrainskoii Movy [Argot, Jargon, Slang: Social Differentiation of the Ukrainian Language]*. Kyiv: Krytyka.

Stavytska, L. (2005). Ukrainskyi Zhargon / A Dictionary of Ukrainian Slang: Slovnyk [Ukrainian Jargon = A Dictionary of Ukrainian Slang: Dictionary]. Kyiv: Krytyka.

Topchyi, L. (2018). Zasoby realizatsii invektyvnoi prahmatyky v publitsystychnomu dyskursi Iryny Kalynets [Methods of implementing invective pragmatics in Iryna Kalynets' journalistic discourse]. *Derzhava ta Rehiony. Seriia: Humanitarni Nauky*, *1*(52), 95–100.

Formanova, S. (2013). Stylistychni osoblyvosti invektyvy v ukrainskii movi [Stylistic Peculiarities of Invective in Ukrainian Language]. *Zapysky z Ukrainskoho Movoznavstva*, *20,* 124–131.

Kholod, O. (2017). Koreliatsiia verbalnoi ahresii internet-chytachiv i danykh elektronnoho deklaruvannia chynovnykiv Ukrainy (v period z 23 serpnia po 7 lystopada 2016 roku). [Correlation Between Verbal Aggression of Online Readers and Data of Electronic Incomes Declaration of Ukrainian Officials (during the period from August 23 to November 7, 2016)]. *Psycholinguistics-Psiholingvistika, 21*(2), 118–150. Retrieved from https://psycholing-journal.com/index.php/journal/article/view/62

Shevchenko, L., Derhach, D., Syzonov, D., & Shmatko, I. (2015). *Yuryslinhvistyka: Slovnyk Terminiv i Poniat [Juridical Linguistics: Dictionary of Terms and Concepts]*. Kyiv: Kyivskyi Universytet Publishers.

Giles, D. (2003). Media Psychology. Mahwah, New Jersey, London: Lawrence Erlbaum Associates, Publishers.

Novick, Ja. M., Kim, A., & Trueswell, J. C. (2003). Studying the Grammatical Aspects of Word Recognition: Lexical Priming, Parsing, and Syntactic Ambiguity Resolution. *Journal of Psycholinguistic Research*, *32*(1), 57–75. https://doi.org/10.1023/a:1021985032200.

Tausczik, Y., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology, 29*(1), 24–54. https://doi.org/10.1177/0261927X09351676

APPLICATION PERSPECTIVES OF CORPUS-BASED METHODS WITHIN LINGUO-CULTURAL AND PSYCHOLINGUISTIC ANALYSIS: GERMAN EMOTIONAL CONCEPT *SEHNSUCHT*

Kostiantyn Mizin
ORCID: 0000-0002-5216-6032
kmizin@i.ua
Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University, Ukraine
Lesia Ovsiienko
ORCID: 0000-0001-6503-7398
lesichkameta@gmail.com
Bohdan Khmelnytsky National University of Cherkasy, Ukraine

Abstract. The paper aims at exploring the German emotional concept SEHNSUCHT features on the basis of corpus-based method being part of contrastive linguo-cultural (language-and-culture oriented) analysis of specific linguo-cultural (language-and-culture) concepts. The tested method includes two research procedures: 1) establishing relevant senses of the concept SEHNSUCHT and identifying their basic sense clusters by contrastive translation analysis of concordances built on the basis of the word query *Sehnsucht*; 2) determining the emotional concepts that can serve as the representatives of the concept SEHNSUCHT in the target linguo-cultures (languages and cultures). The latter procedure includes processing the co-occurrent profile of the word query *Sehnsucht*. This profile is an up-to-date definition of the lexeme *Sehnsucht*. By extrapolating the basic semantic features of this definition on the cognitive features of the concept SEHNSUCHT, the main concept representatives of the latter have been determined. It has been revealed that the basic emotional senses of the concept SEHNSUCHT ('striving', 'desire', 'wish', 'longing', 'mourning for a person one loses', 'passionate attraction' and others) create the following sense clusters: 1) 'intensive inner affection'; 2) 'passionate (sexual) affection'; 3) 'striving for life changes (alternatives)'; 4) 'longing (nostalgia) for life changes (alternatives)'; 5) 'mourning (grief) for another person, often with no hope'. Based on the linguistic corpus statistic data as of the frequency of co-occurrent-like forms, co-occurrents and left- and right-hand collocates of the word query *Sehnsucht*, the co-occurrent profile of the word was developed. With the help of the relevant definition of the lexeme *Sehnsucht* studied on the basis of the co-occurrent profile, the basic concept representatives of the concept SEHNSUCHT, i.e. PASSION, DESIRE, SADNESS, were revealed. These concepts can facilitate an adequate transfer of the specific concept SEHNSUCHT to the target languages and cultures, provided no adequate analogue exists. The tested method may be also applied in psycholinguistic studies aimed at mental and verbal categorization of specific emotions.

Keywords: emotion, linguo-cultural concept, contrastive linguo-cultural analysis, corpus-based method, German language, psycholinguistics.

Мізін Костянтин, Овсієнко Леся. Перспективи застосування корпуснобазованих методик при зіставно-лінгвокультурологічному та психолінгвістичному аналізі: німецький емоційний концепт SEHNSUCHT.

Анотація. Мета статті – виявлення специфіки німецького емоційного концепту SEHNSUCHT на основі корпуснобазованої методики, яка являє собою один із фрагментів зіставно-лінгвокультурологічного аналізу специфічних лінгвокультурних концептів. Методика включає дві дослідницькі процедури: 1) установлення актуальних смислів концепту SEHNSUCHT та визначення його базових смислових кластерів шляхом зіставно-перекладацького аналізу конкордансів, побудованих на основі слова-запиту *Sehnsucht*; 2) визначення тих емоційних концептів, які можуть слугувати репрезентантами концепту SEHNSUCHT у цільових лінгвокультурах. Остання процедура передбачає опрацювання коокурентного профілю слова-запиту *Sehnsucht*. Цей профіль є актуальною дефініцією лексеми *Sehnsucht*. Шляхом екстраполяції базових семантичних ознак цієї дефініції на когнітивні ознаки концепту SEHNSUCHT визначаються основні концепти-репрезентанти останнього. Виявлено, що базові емоційні смисли концепту SEHNSUCHT ('прагнення', 'жага', 'бажання', 'туга', 'журба (скорбота) за втраченою людиною', 'пристрасний потяг' та ін.) утворюють такі смислові кластери: 1) 'інтенсивний внутрішній потяг'; 2) 'пристрасний (сексуальний) потяг'; 3) 'жага до життєвих змін (альтернатив)'; 4) 'туга (ностальгія) за певною життєвою альтернативою, часто утопічна'; 5) 'туга (журба, скорбота) за іншою особою, часто безнадійна'. На основі корпусних статистичних даних щодо частотності коокурентно-подібних форм, коокурентів та лівих і правих колокатів слова-запиту *Sehnsucht* розроблено коокурентний профіль цього слова. За допомогою актуальної дефініції лексеми *Sehnsucht*, що опрацьована на основні коокурентного профілю, виявлено базові концепти-репрезентанти концепту SEHNSUCHT – ПРИСТРАСТЬ, ЖАГА та СМУТОК. Ці концепти можуть сприяти адекватному трансферу специфічного концепту SEHNSUCHT до цільових лінгвокультур в умовах відсутності адекватного аналога. Апробована методика може бути застосована також у психолінгвістичних працях, присвячених вивченню ментальної і вербальної категоризації специфічних емоцій.

Ключові слова: емоція, лінгвокультурний концепт, зіставно-лінгвокультурологічний аналіз, корпуснобазована методика, німецька мова, психолінгвістика.

1. Introduction

The interdisciplinary nature of the modern science can be distinctly traced in cognitive science embracing the research fields focused on the human mind and mental processes, such as psychology, linguistics, computer- and neuroscience, philosophy and artificial intelligence studies which are divided into a set of derivative disciplines, in particular cognitive psychology and cognitive linguistics. Psycholinguistics is also a part of cognitive science (Stillings et al., 1995, p. 3), as it is of an interdisciplinary nature and focuses on the issues of human cognitive processes.

Each field of cognitive science studies cognitive structures and processes. However, it is psycholinguistics and cognitive linguistics that pay special attention to the direct correlation of these structures and processes with language and speech. Psycholinguistics which appeared a couple of decades earlier than cognitive linguistics has a global purpose of revealing the nature of the mental mechanisms that make it possible for humans to use the language (Garnham, 1985). This purpose determines the fact that psycholinguistics highlights a number of issues connected with mental aspects of language and speech that needs development and involving a wide variety of experimental techniques. Actually, it is a problem that concerns the semantic organization of the mental lexicon of a person and now is being studied by cognitive

linguistics. Therefore, some researchers consider cognitive linguistics to be a sub-discipline of psycholinguistics (Vater, 2006, p. 177).

However, there is no doubt that within recent thirty years cognitive linguistics has shaped as a completely independent research area considering language to be an integral part of a human's cognition. The cognitive approach focuses on the use of language, i.e. speech as a process based on mental (conceptual, cognitive) structures. Therefore, the study of language may provide information about structures (mechanisms) of a human's world perception and world understanding, in general (cf: Edgar, & Sedgwick, 2007; Maslova, 2005). To analyze such cognitive structures cognitive linguistics uses mostly methodological tools "borrowed" from psycholinguistic sciences, first and foremost from cognitive psychology, psycholinguistics and gestalt-psychology (image schemes, patterns, frames, scripts, concepts, etc.). Cognitive linguistics widely uses experimental methods developed, among others, by psycholinguists (Talmy, 2007, p. 11).

A close connection of psycholinguistics and cognitive linguistics is proven by the similar issues touched upon by the representatives of these sciences. For instance, psycholinguists have focused on the study of mental and verbal categorization of emotions, since language is considered to be the instrument to explain the nature of emotions (cf: Bahn, Kauschke, Vesker, & Schwaryer, 2018; Citron, Weekes, & Ferstl, 2014; Kuperman, Estes, Brysbaert, & Warriner, 2014). The same issue was studied by adepts of cognitive linguistics at its early stages (Kövecses, 1990; Wierzbicka, 1999), which facilitated the involvement of the new epistemological constructs, in particular emotional concepts (Gawda, 2019), to the study of emotional world of a human being.

The notion of "concept" was readily accepted by researchers of the post-Soviet countries alongside the spread of the ideas of cognitive linguistics, which ensured the shaping of new interdisciplinary areas, i.e. linguo-culture (language-and-culture) studies, the main epistemological unit being *linguo-cultural concept* (see about "linguo-culture", "linguo-culture concept", "linguo-cultural analyze" and other notions of linguoculturology, e.g.: Kalishchuk & Lazuka, 2015; Kulpina & Tatarinov, 2018). It was the moment when active studies of *emotional* linguo-culture concepts started (Vorkachev, 2007). Lately, a special attention has been paid to specific emotional concepts, in particular in the German linguo-culture (Mizin & Letiucha, 2019), as the study of such concepts may give new, research-based results concerning the matters of cognitive (conceptual) and verbal categorization of human emotions. Moreover, the analysis of linguo-culturally marked concepts makes it possible to reveal specific senses that demonstrate some features of mentality of a linguo-culture, i.e. open up extraordinary psycho-types of a nation. These studies are regarded as up-to-date, when total globalization is on track.

It should be mentioned that the notion of "specific emotions" covers the notion of "unique emotions" (on this notion see: Power, 2010, p. 32–33) as well, i.e. the emotions which are experienced by only one language ethnos, while others are not aware of them. The boundary between specific and unique emotions is blurry, as it is an extremely difficult assignment both for psycholinguists to detect ethno-uniqueness of emotions (emotional states), since it is impossible to engage in the experiment all linguo-cultures inhabiting our planet, and for linguists, since the contrastive analysis of

all modern and dead languages of humanity. It must have been a reason for recent attempts to carry out targeted search and determine ethno-unique emotions (feelings, emotional states). It can be illustrated by the project *Positive Lexicography* of the psychologist T. Lomas, consisting in registering entho-unique – "non-translated" – nominations revealing the notions, spread specifically within a certain linguo-culture, e.g.: an Icelandic lexeme *sólarfrí* means the day off given to employees for them to enjoy a warm sunny day; a Norwegian word *tyvsmake* denotes the situation when someone, usually while cooking meals, bites a small piece of dish thinking that nobody notices; a Cherokee lexeme *yutta-hey* means the inner state (which may seem odd to a European) when a person dreams of dying on the wonderful day which this person considers to be the peak of his/her life on earth or fame; a Finnish lexeme *sisu* has a meaning of a person's being extraordinarily determined to resist any life challenges; in Tagalog the word *gigil* has a meaning of 'irresistible desire to squash or pinch someone who is very cute and nice'; in Bantu languages the word *mbuki-mvuki* names the irresistible desire to undress during the dance (Lomas, 2016).

It is remarkable that some of the lexical units mean emotions, familiar in some way to more than one linguo-cultures. Thus, Ukrainians know the emotional state they experience before much expected guests arrive, therefore the word *iktsuarpok* ('impatience a person experiences checking up many times if the guest has arrived') in the Inuit language may seem not so alien to them. It also concerns the Danish *engelengeduld* ('Angel's patience') and it needs studying whose "angel's patience" is more ethnically unique, the Danish or Ukrainian one.

Positive Lexicography contains a number of German lexemes denoting emotions, feelings and emotional states the Ukrainian language community is not aware of, in particular the noun *Sehnsucht*. Its definition in the German-Ukrainian dictionary is as follows: '1) a passionate desire for something; 2) attraction (affection) to someone, something; 3) longing for someone, something' (Ling, 2002), i.e. it renders a wide emotional range, which may cause translation problems, as there is a great difference between a passionate desire and longing. Germans seem to define this lexeme in a simpler way: 'inner, painful longing, strong desire' (DKW, 1997, p. 832). However, we should take into account the polysemantic nature of the noun *Verlangen*, which bears the semantics of need, and longing, and desire. It is also specified by attributes *inner* and *painful*. It complies with the conclusions of psychologists as of the versatile nature of the emotion *Sehnsucht*, which has a component of utopian nature in its meaning while expressing a passionate desire or striving. Besides, the German *Sehnsucht* is a much positive emotion than, for instance, English *nostalgia* (Scheibe, Freund, & Baltes, 2007, p. 778).

The original and complex emotion *Sehnsucht* has pushed psychologists to its intensive study (Kotter-Grühn, Scheibe, Blanchard-Fields, & Baltes, 2009; Mayer, Scheibe, & Riediger, 2008; Scheibe, Blanchard-Fields, Wiest, & Freund, 2011). The emotional concept SEHNSUCHT can be regarded as specific and relevant to the modern German-speaking community, due to the high frequency of the lexeme that nominates this concept in discourses of different types. However, this mental construct has not been an object of a special contrastive linguo-cultural analysis yet. It is remarkable that the lexeme *Sehnsucht* took the third position (after *Liebe* 'love' and

Gemütlichkeit 'cosiness') in the nomination of the "most beautiful German word" (Spiegel Online, 2004).

Taking into consideration all mentioned above, the purpose of this paper is to test the corpus-based method as one of the fragments of contrastive linguo-cultural analysis of specific linguo-cultural concepts, in particular the German emotional concept SEHNSUCHT rendering a particular piece of the Germans' emotional world. This method may be applied in **a** psycholinguistic research of mental and verbal categorization of specific emotions.

2. Methods

Psychophysiological processes, in particular experiencing emotions (emotional states), are characteristic of people as a specie, i.e. they are universal. However, it is true for basic emotions only, but not for the derivative ones (complex, combined), which emerge as a result of "tangling" or "overlapping" of the basic emotions (Izard, 2011; Levenson, 2011). These complex emotions, whose quality has not been identified yet (Cowen, & Keltner, 2017; Du, Tao & Martinez, 2014), are of social nature and usually differ on the interpersonal level as they arise under socio-cultural factors. The differences on the interpersonal level cause differences in perception of a social emotion on the level of a certain group, and then on the cross-cultural level. It makes the methodological basis for recognizing the fact that in the process of socialization in each linguo-culture social emotion acquires some ethno-cultural specific features, not so much its expression but socio-cultural perception of the emotions. Ethno-cultural specifics of a certain social emotion may be really significant, which makes it to be perceived as unique on the cross-cultural level.

Another methodological foundation for the proposed research is the scientifically grounded idea that the Corpus Linguistics data make the results and conclusions of linguistic research more solid and sound (Adolphs, 2006, p. 7-8).

The corpus-based method of revealing the specifics of the German emotional concept SEHNSUCHT includes the following research procedures:

1) establishing relevant senses of the concept and identifying its basic sense clusters by contrastive translation analysis of modern speech patterns with *Sehnsucht* as the key word. These patterns are provided by the concordances, automatically built by the query of *Sehnsucht.* For this purpose, the following representative German linguistic corpora are used: Digitales Wörterbuch der deutschen Sprache (DWDS) and Leipzig Corpora Collection (LCC);

2) determining the emotional concepts that most closely correlate with the concept SEHNSUCHT, i.e. that are its main representatives. Revealing such concepts may facilitate an adequate transfer of this specific concept to the target linguo-cultures, provided there are no adequate analogues. This procedure includes working on the co-occurrent profile of the query *Sehnsucht* with the help of digital functions and statistic data represented in the corpus Leipzig Corpora Collection (LCC). The co-occurrent profile includes condensed calculations of psychologically real syntagmatic and paradigmatic "setting" of a certain lexeme based on the preference-rational approach (Belica, 2011, p. 172). By means of the condensed co-occurrent profile, it is possible to identify the language profile of the lexeme *Sehnsucht,* its relevant definition, as the

basic semantic features of this definition objectify the main cognitive features of the concept SEHNSUCHT. These features point to the concepts that most closely correlate with the concept under consideration, representing it in the target linguo-cultures.

It is remarkable that defining a specific emotion is a necessary stage for both contrastive linguo-cultural and psycholinguistic analysis of a specific emotion, feelings or emotional states.

3. Results and Discussion

Contrastive translation analysis of the fragments of concordances containing the noun *Sehnsucht* as a search lemma, made it possible to reveal the fact that in this word, an "additional" sense component can be traced in all cases, and this sense cannot be compensated in translation. This very fact proves the specific character of the German lexeme *Sehnsucht* and, correspondingly, of the emotion it is used to denote.

The language objectification of the concept SEHNSUCHT gives grounds to claim that the basic sense cluster for this concept is 'a powerful inner affection (attraction)'. The cluster embraces a wide emotional range: from a simple wish to longing (yearning). Emotions and feelings are so tangled in this concept that it is highly difficult to single out just one of them. If one of the emotions or a certain feeling is singled out during the objectification, they are still not "pure", i.e. its 'outline' stays blurry as a result of "overlapping" with other emotions and feelings.

The main emotional senses of the concept SEHSUCHT are as follows:

1) 'affection': *Für die Führer der Regierungen sei es eine heilige Pflicht, die* **Sehnsucht** *nach Frieden zu erfüllen // It is a sacred duty for the government leaders to fulfill their* **affection** *(desire) for peace*;

2) 'desire': *[…] Texte erzählten von Einsamkeit und Verlorenheit, handelten von den Augenblicken des kurzen Glücks, von der* **Sehnsucht** *nach Liebe […] // Texts told about loneliness and seclusion, about moments of short happiness, about the* **desire** *for love*;

3) 'wish': *Ein Mädchen vom Lande zieht in die Stadt, um dort ihre diffusen* **Sehnsüchte** *und namenlosen Träume zu verwirklichen // A country girl moves to the city to realize her diffuse* **wishes** *and nameless dreams*;

4) 'passionate hope': *Die* **Sehnsucht** *ist wieder da, dass da einer kommt, der mit fester Stimme sagt: Alles wird gut // The (passionate)* **hope** *is back again that someone will come, who will say in a firm voice: Everything will be fine*;

5) 'inner need': *Es war Digitale Entgiftung, die* **Sehnsucht***, ganz weit weg zu sein, geografisch, aber vor allem von jedem WLAN oder Handy-Funkmast // It was* **a digital detoxification**, *the* **inner need** *to be far away, geographically, but first of all from any WLAN or cell phone mast*;

6) 'need': *Offenbar gibt es in unserem Land eine große* **Sehnsucht** *nach Leuten, die […] // Apparently there is a great* **need** *for people in our country, who […]*;

7) 'longing': *Borowski überkommt die* **Sehnsucht** *nach Schweden […] // Borovski gets filled with the* **longing** *for Sweden […]*;

8) 'nostalgia': *Und die* **Sehnsucht** *nach einem vergangenen Amerika, das vielen Anhängern Trumps als das bessere erscheint // And the* **nostalgia** *for a past America that seems as something better to many supporters of Trump* (it is remarkable that the

emotions *Nostalgie* and *Sehnsucht* are differentiated by the German language speakers, e.g.: *Was auf spätere Betrachter wie **Nostalgie** und **Sehnsucht** nach dem Ritual wirkt, ist in Wirklichkeit das Gegenteil [...] // The thing that affects the later viewers is actually something different to **nostalgia** and the **longing** for the ritual [...]*);

9) 'grieving (mourning) for a lost person': *Voller **Sehnsucht** nach der verlorenen Geliebten irrt er durch die Schweizer Bergwelt und sucht Erlösung // **Mourning** for his beloved, he wanders through the Swiss mountains and seeks redemption.*

Considering the analysis of the factual material, one can state that there is a close correlation between the concepts SEHNSUCHT and LIEBE (love; romance), e.g.: *Liebe ist eine Hoffnung, eine Sehnsucht, kein Faktum // Love is hope, desire, not a fact.* However, the concept SEHNSUCHT contains the senses of love as a feeling between two different genders. These senses are part of one of the integral sense clusters of the concept, namely 'passionate attraction', meaning love and physical (sexual attraction), and irresistible desire to be close to the person you adore, e.g. *[...] aber als ich weiterlese, wird mir deutlich, dass mit der Sehnsucht nach Neuem durchaus auch die Sehnsucht nach dem anderen Geschlecht gemeint ist // [...] as I go on reading, it becomes clear to me that the desire for something new also means the desire for some other gender*; *Gelbe Rosen stehen für die Sehnsucht nach heißen Küssen // Yellow roses mean the desire for hot kisses.* In the "naive" perception of the representatives of the German language community the emotion *Sehnsucht* is an amalgam of these feelings and natural attractions (needs), e.g.: *Die Sehnsucht nach Liebe, Sex und Zärtlichkeit ist groß, auf die Schnelle aber kein geeigneter Partner zu Hand // The desire for love, sex and tenderness is great, but for a quick romance there is not an available partner.*

Taking into account all mentioned above, one can consider translating the American film by Elia Kazan *A Streetcar Named Desire* into German as follows: *Endstation Sehnsucht*, as the English noun *desire* renders a range of emotions, but first and foremost the passionate wish, including love and sexual attraction (NWDTEL, 1993, p. 259). On the other hand, it seems inadequate to translate the film into Ukrainian as *Tramvai Bazhannia* and into Russian as *Tramvai Zhelaniye* since *desire* is much more than a neutral *bazhannia* (Rus. *zhelaniye*) 'wish'. Therefore, it would be better to use lexemes *prystrast'* 'passion' or *kokhannia* 'love'.

The emotion *Sehnsucht* is so specific that its translation often requires the use of attributive specifications or contextual substitution, e.g.:

1) *Ich schwelge nicht in Erinnerungen und habe auch keine **Sehnsüchte** // I do not dive into dreams and I have no **passionate aspirations***;

2) *Dass jemand seinen **Sehnsüchten** so viel Raum gab [...] // That someone gives their **inner aspirations** such a vast space [...]*;

3) *Sie haben eine **Sehnsucht** nach Neugier geweckt // They woke an **intensive attraction** to inquisitiveness*;

4) *Wenn Menschen ihren Job nicht mögen oder ihre Ehefrau [...] dann kommt eine **Sehnsucht** nach einem anderen Leben zum Ausdruck [...] // When people do not love their work or their wives [...], a **burning need** for other life realizations arise [...]*;

5) *In der Türkei werden Menschen gefoltert, Leben zerstört, **Sehnsüchte** okkupiert // In Turkey people are tortured, lives are ruined, **wishes, hopes and feelings** are alienated;*

6) *So ist das eben mit den **Sehnsüchten** – ein wenig Verklärung gehört dazu // This is how it works with **inner aspirations, wishes and hopes**, some inconsiderable transformations are needed here*;

7) *Jetzt hab ich den ganzen Tag **Sehnsucht** nach ihr und muss sie mir aus dem Kopf schlagen // Now **I am longing** for her all day long and have to stop thinking about her.*

Identifying the senses of ethno-cultural concepts can appear as the most difficult case for an "alien" linguo-culture, when one specific concept is denoted by another one. For instance, one of the edges of the concept SEHNSUCHT, the concept FERNWEH, bears unique senses (Mizin, Letiucha, & Petrov, 2019, p. 64–67). Therefore, a representative of the Ukrainian-language community finds it difficult to understand the meaning of the following sentence: *Die Sehnsucht hat viele Facetten, Fernweh gehört auch dazu // Desire has many facets, wanderlust belongs here, too.*

The concept SEHNSUCHT contains profound senses, e.g.: *Blaue Blumen stehen für sehr tiefe Gefühle und die Sehnsucht nach Unendlichkeit // Blue flowers stand for very deep feelings and desire stands for infinity.* Deep emotions and feelings are secret, intimate, i.e. they always contain a small part of a certain individual, e.g.: *In dieser Komposition mischen sich Sehnsucht, Demut und Vertrauen, und wurden verwoben von der Sopranistin // In this composition desire, humility and trust are mixed and they were interwoven by a soprano.* Depending on the emotional situation that tunes an individual to experience a certain emotional state, the concept SEHNSUCHT activates positive or negative senses in the consciousness of an individual.

A profound and mysterious nature of the emotion *Sehnsucht* can even transform into a maniac state when one of the passions turns into a mania causing the manic-suicidal depression (Bloch, 1967). This psychopathological state is denoted in German as *Todessehnsucht.*

Thus, the contrastive translation analysis demonstrated that the concept SEHNSUCHT contains senses that form a wide range of emotions characterized by different intensity: basic and complex, positive and negative, representing culturally relevant fragment of the Germans' emotional state. This concept is represented by emotions that can be conventionally embraced by the following sense clusters: 1) 'intensive inner affection' (attraction); 2) 'passionate (sexual) attraction'; 3) 'desire for life changes (alternatives)'; 4) 'longing (nostalgia) for a certain life alternative, often utopian; 5) 'longing (yearning) for another person, often hopeless'.

The fixation of these clusters as reference information about the concept SEHNSUCHT may form rather an incomplete idea in the target language community about this German emotion. Therefore, taking into account that there are no similar concepts in the target linguo-culture, the closest analogies of the concept should be found, i.e. identify the range of concepts that most closely correlate with the concept SEHNSUCHT. For this purpose, it would be methodologically correct to carry out a psycholinguistic (association) experiment. However, it requires the involvement of material and human resources to engage German language speakers as respondents. In

Ukraine, for example, it is actually impossible to carry out such an experiment, as it requires the involvement of at least 100 respondents. Therefore, it is necessary to apply alternative procedures that along with associational ones can be considered as methodologically reliable.

Today, corpus-based methods are considered to be an alternative to the association methods. The former exploit statistic data that can considerably improve the reliability of the results and conclusions of linguistic research. By means of such data there were identified the most frequent for the word query *Sehnsucht* (1) co-occurrent-like forms; (2) co-occurrents and (3) left- and right-hand collocates.

1. The most frequent co-occurrent-like forms: *Bedürfnis* (0.20), *Neugier* (0.17), *Wut* (0.16), *Dankbarkeit* (0.16), *Melancholie* (0.15), *Liebe* (0.14), *Neugierde* (0.14), *Leidenschaft* (0.14), *sehnen* (0.14), *Verzweiflung* (0.13), *Trauer* (0.13), *Zuneigung* (0.13), *Hoffnung* (0.13), *Lust* (0.12), *Gier* (0.12), *Einsamkeit* (0.12), *Gefühle* (0.12), *Angst* (0.12), *Verbundenheit* (0.12), *Vorfreude* (0.12), *Freude* (0.12), *Begeisterung* (0.11), *Sorge* (0.11), *Emotionen* (0.11), *Zufriedenheit* (0.11), *Lebensfreude* (0.11), *Zuversicht* (0.10), *Misstrauen* (0.10), *Träume* (0.10), *Fantasie* (0.10), *Überzeugung* (0.10), *Enttäuschung* (0.10), *Bedürfnisse* (0.10), *Ängste* (0.10), *Motivation* (0.09), *Hoffnungen* (0.09), *Wunsch* (0.09), *Skepsis* (0.09), *Erwartungen* (0.09), *Freiheit* (0.08), *Heimat* (0.08).

2. The most frequent co-occurrents: *nach* (17,512), *Liebe* (1,514), *Endstation Sehnsucht* (1,218), *Heimat* (1,003), *die* (873), *und* (777), *Freiheit* (701), *Geborgenheit* (666), *groß* (639), *Endstation* (625), *Leben* (616), *Frieden* (539), *stillen* (507), *tiefe* (484), *einer* (453), *dem* (449), *Menschen* (442), *Welt* (393), *weckt* (346), *Ferne* (342), *nach mehr* (340), *voller* (337), *Ausdruck* (325), *Einsamkeit* (292), *ist* (290), *Gott* (287), *Natur* (285), *wächst* (272), *größer* (265), *Wunsch* (265), *Die* (245), *gestillt* (240), *alten* (236), *Glück* (226), *unerfüllte* (220), *diese* (218), *Wärme* (218), *erfüllt* (218), *stillt* (217), *eine* (211), *Fernweh* (211), *Entschleunigung* (210), *Heimweh* (210), *Sonne* (208), *einem* (207), *Melancholie* (206), *Meer* (202), *große* (201), *Hoffnung* (200), *Erfüllung* (193), *danach* (190), *Ruhe* (188), *Zeiten* (187), *Jennifer – Sehnsucht nach was Besseres* (176), *Schmerz* (176), *unstillbare* (166).

3. The most frequent left-hand collocates:

– nominative: *Endstation* (1,019), *Café* (84).

– adjectival and adverbial: *tiefe* (738), *große* (681), *voller* (463), *unerfüllte* (294), *unstillbare* (238), *nostalgische* (154), *diffuse* (131), *uralte* (123), *menschliche* (114), *gewisse* (112), *wachsende* (103), *heimliche* (94), *ungestillte* (77), *alte* (52), *spirituelle* (50), *unbändige* (49), *starke* (49), *unendliche* (48), *ewige* (48), *irrationale* (47), *verbreitete* (44), *nostalgischen* (43), *Selige* (40), *geheime* (38), *verwurzelte* (36), *stille* (33), *unbestimmten* (32).

– verbal: *weckt* (56).

4. The most frequent right-hand collocates:

– nominative: *nach dem Leben* (149), *Torre* (77), *Flügel* (15), *Gottes* (12).

– adjectival and adverbial: *groß* (6.2).

– verbal: *gestillt* (53), *kennt* (46), *getrieben* (38), *stillen* (37), *wecken* (35), *gespürt* (34), *weckt* (28), *packt* (28), *erwartet* (27), *treibt* (25), *erfüllten* (24), *geweckt* (19),

singen (18), *steckt* (17), *darstellt* (15), *bleibt* (13), *geprägt* (10), *erzählen* (9.5), *erfüllt* (8.9), *wächst* (7.7), *warten* (5.5), *blieb* (4.2), *zieht* (4.2), *erzählt* (4.0).

The previously mentioned frequency indices of syntagmatic and paradigmatic combinability of the word query *Sehnsucht* corroborate to a great extent the results of the foregoing contrastive translation analysis of the fragments of concordances containing the word in question.

Thus, by the frequency criterion, the first ten of co-occurrent-like forms of the word query under consideration include the following nominative tokens: *Bedürfnis* 'need', *Neugier* 'curiosity', *Wut* 'fury; rage; wrath', *Dankbarkeit* 'gratitude', *Melancholie* 'melancholy; sadness, yearning', *Liebe* 'love; romance', *Neugierde* 'interest (often to the opposite sex)', *Leidenschaft* 'passion', *Verzweiflung* 'despair', *Trauer* 'grief; mourning'. The only verbal token here is *sehnen*. This can be accounted for by the fact that the verb *sich sehnen* 'being sad; strive' is one of the components of the composite *Sehnsucht*. The common characteristic of these tokens is the fact that they denote emotions represented in the main sense clusters of the concept SEHNSUCHT. This fact is in full compliance with the fact that co-occurrent-like forms are the words that have similar distribution to that of the word query, so they have similar meaning.

On the other hand, the most frequent nominative co-occurrents, i.e. words which demonstrate the same combinability as the word query, include not only nouns denoting emotions, but also those naming abstract existential notions, e.g.: *Heimat* 'Motherland', *Freiheit* 'freedom', *Geborgenheit* 'security; feeling secure, safe', *Leben* 'life', *Frieden* 'peace', *Menschen* 'people', *Welt* 'world', *Ferne* 'distance', *Gott* 'God', *Natur* 'nature'. However, the most frequent is still the emotion of *Liebe* 'love; romance'. The most frequent adjectival tokens are though the word-forms of *groß* 'great', *tiefe* 'deep', *voller* 'full', while verbs include *stillen* 'to still, *weckt* 'wakes', *wächst* 'grows'.

The aforementioned statistic data correlate with the frequency of left- and right-hand collocates of the word query *Sehnsucht*. Thus, the most frequent attributes of the noun *Sehnsucht*, its left-hand collocates, are *tiefe* 'deep', *große* 'great', *voller* 'full', *unerfüllte* 'unfulfilled', *unstillbare* 'unquenchable', *nostalgische* 'nostalgic', *diffuse* 'blurry', *uralte* 'ancient', *menschliche* 'human', *gewisse* 'certain', *wachsende* 'increasing', *heimliche* 'secret', etc.

The right-hand collocates are mostly verb tokens. The most frequent of them is the lemma *stillen* 'to still; to quench' and its word-forms *gestillt*, the verb *wecken* 'to wake up, to rouse' and its word-forms *weckt* and *geweckt*, the tokens *getrieben* and *triebt* of the verb *treiben* 'to cause, to drive', the word-form *gespürt* of the verb *spüren* 'to feel', the token *packt* of the verb *packen* 'to embrace', the lemma *warten* 'to wait' and the token *erwartet* of the verb *erwarten* 'to wait', the word-form *erfüllten* and *erfüllt* of the verb *erfüllen* 'to fill in; fulfil', etc.

To illustrate the co-occurrent profile of the word query *Sehnsucht*, it would be reasonable to provide the most frequent and representative results of the digital processing of the word (see: Table 1; Table 2 in Appendix).

The illustration of the co-occurrent profile of the word query *Sehnsucht* made it possible to reveal that the set of the most frequent tokens represent both syntagmatic

and pragmatic distribution of the latter. These tokens form the peak 'nodes' of the profile (see Fig. 1).

Figure 1

Peak "nodes" of the co-occurrent profile of the word query Sehnsucht
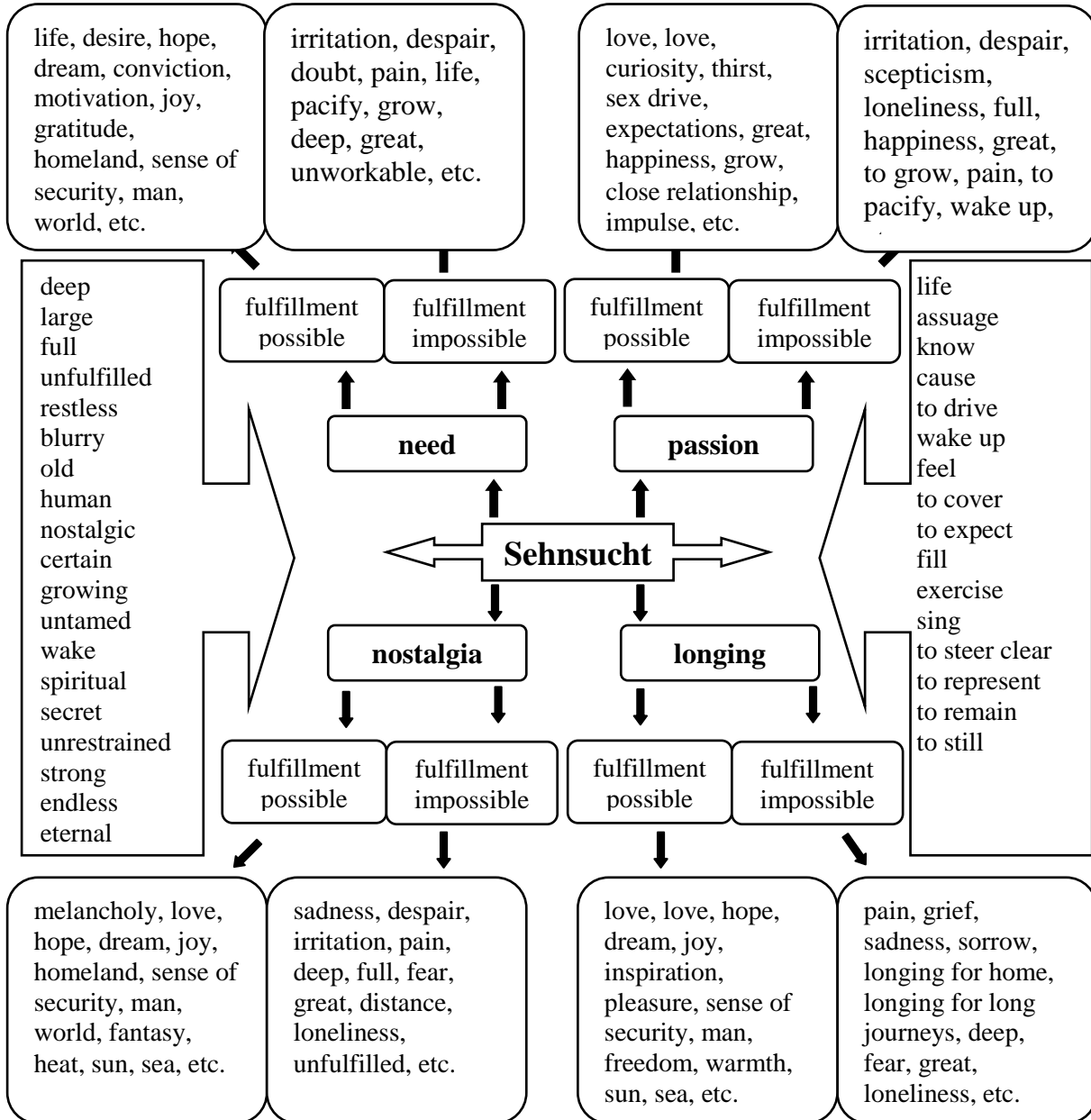
To create a concentrated co-occurrent profile of the word query in question, it should be noted that the digital data unambiguously prove the emotion *Sehnsucht* to be an intensive one. Therefore, a neutral *need* would be reasonable to replace by *affection* or *desire*, and *nostalgia* by *sadness* or *longing*. Thus, we can distinguish between three content fragments of the lemma *Sehnsucht*: '1) deep passionate affection to another person, including the sexual attraction (usually hopeless); 2) irresistible striving, a strong desire for life changes and alternatives (usually unfulfillable, utopian); 3) deep sadness, nostalgic longing for someone or somebody

impossible to reach or lost, including the grieving and mourning for a lost person'. These fragments comprise the co-occurrent profile of the word query *Sehnsucht* in the concentrated form.

The co-occurrent profile is actually a relevant definition of the emotion *Sehnsucht*. Defining this emotion is a highly important stage of research, as there is no similar specific emotion in the target language community, which results in the fact that there are no language means to denote this emotion, while dictionary definitions are mostly inaccurate and incomplete. Moreover, the definition analysis is one of the initial stages of both contrastive linguo-cultural and psycholinguistic study of specific emotions. Thus, the adherents of Contrastive Linguoculture start studying linguo-culture concepts, in particular emotional ones, with exploring their names (etymological, definitional and contextual analysis). In fact, the same procedure is carried out by psychologists when they study the features of mental and verbal categorization of specific emotions.

Another important result of the research is that the actual definition of the lexeme *Sehnsucht* denoting the relevant ethno-specific concept can facilitate **a** more adequate perception of the concept by representatives of the target language communities, which is especially important for successful communication on the cross-cultural level. As soon as the analysis of the language objectification of the concept SEHNSUCHT revealed that it is represented by numerous emotional and non-emotional concepts, it is necessary to determine which concepts correlate with them most closely. These concepts can create a close to adequate perception of the German specific concept SEHNSUCHT when introduced to the target linguo-cultures. Such concepts are distinctly traced in three fragments of the concentrated co-occurrent profile, they are as follows: PASSION, DESIRE and SADNESS.

It means that the concept SEHNSUCHT represents the senses of a social emotion where the positive (passion and desire) transforms immediately into the negative (sadness), since the prospects of individual's realization are annulled by the utopian character of these prospects. In other words, "sweet" fantasies, hopes and dreams are neutralized by the "bitter" impossibility for them to come true. It is the reason why psychologists define this emotion as "bitter-sweet" (Scheibe, Freund, & Baltes, 2007, p. 779). Although this emotion *Sehnsucht* is considered to be specific to the German linguo-culture, it is known to other language communities, though in an incomplete and fragmental form (Scheibe, Blanchard-Fields, Wiest, & Freund, 2011, p. 605). It is obvious that each person may experience such emotional state when harsh reality is replaced by "sweet" dreams for a short period, resulting in happy hope and sad hopelessness simultaneously.

4. Conclusions

The paper attempts to test the corpus-based method which is one of the fragments of contrastive linguo-culture analysis of the German specific concept SEHNSUCHT. Two research procedures helped identify that the concept SEHNSUCHT contains a wide range of emotions of different intensity representing the linguo-culturally relevant fragment of the Germans' emotional world.

It was revealed that the main emotional senses of the concept SEHSUCHT are as follows: 1) 'affection'; 2) 'desire'; 3) 'wish'; 4) 'passionate hope'; 5) 'inner need'; 6) 'need'; 7) 'nostalgia'; 9) 'grief (mourning) for a lost person; 10) 'passionate attraction'; 11) 'sexual attraction to the other gender'. These senses create the following sense clusters: 1) 'intensive inner affection'; 2) 'passionate (sexual) affection'; 3) 'yearning for life changes (alternatives)'; 4) 'longing (nostalgia) for a certain life alternative, often utopian one'; 5) 'longing (grief, mourning) for another person, often hopeless'.

On the basis of the corpus statistic data about the frequency of co-occurrent-like forms, co-occurrents and left- and right-hand collocates of the word query *Sehnsucht*, the co-occurrent profile of the word was developed: '1) a deep passionate affection to another person, including sexual one (usually hopeless); 2) irresistible striving, a strong desire for life changes and alternatives (usually unfulfilled, utopian); 3) deep sadness, grief for a lost person'. The latter is simultaneously a relevant definition of the lexeme *Sehnsucht.* The basic semantic properties of the definition objectify the main cognitive features of the concept SEHNSUCHT that point out the concepts, which correlate most closely with it, they are PASSION, DESIRE and SADNESS. The amalgam of these emotional concepts creates an original fragment of the Germans' emotional world represented by the concept SEHNSUCHT.

The tested research method can be applied not only in contrastive linguo-cultural, but also in psycholinguistic studies aimed at the analysis of mental and verbal categorization of specific emotions.

References

Adolphs, S. (2006). *Introducing Electronic Text Analysis: A practical guide for language and literary studies*. London: Routledge. https://doi.org/10.4324/9780203087701

Bahn, D., Kauschke, Chr., Vesker, M., & Schwaryer, G. (2018). Perception of Valence and Arousal in German Emotion Terms: A Comparison between 9-year-old Children and Adults. *Applied Psycholinguistics, 39*(3), 463–481. https://doi.org/10.1017/S0142716417000443

Belica, C. (2011). Semantische Nähe als Ähnlichkeit von Kookkurrenzprofilen. In A. Abel & R. Zanin (Hrsg.), *Korpora in Lehre und Forschung* (pp. 155–178). Bozen-Bolzaro: Freie Universität.

Bloch, R. (1967). Über die Bedeutung der Todessehnsucht für psychogene Störungen des Ernährungstriebes. *Zeitschrift für Psychosomatische Medizin und Psychoanalyse, 13*(1), 63–69.

Citron, F., Weekes, B. S., & Ferstl, E. C. (2014). How are Affective Word Ratings Related to Lexicosemantic Properties? Evidence from the Sussex Affective Word List. *Applied Psycholinguistics, 35*, 313–331. https://doi.org/10.1017/S0142716412000409

Cowen, A. S., & Keltner, D. (2017). Self-report Captures 27 Distinct Categories of Emotion Bridged by Continuous Gradients. *Proceedings of the National Academy of Sciences, 114*(38), 7900–7909. https://doi.org/10.1073/pnas.1702247114

DKW. (1997). *Der kleine Wahrig. Wörterbuch der deutschen Sprache*. Gütersloh: Berstelsmann Lexikon.

Du, S., Tao, Y., & Martinez, A. M. (2014). Compound Facial Expressions of Emotion. *Proceedings of the National Academy of Sciences, 111*(15), 1454–1462. https://doi.org/10.1073/pnas.1322355111.

DWDS *Digitales Wörterbuch der deutschen Sprache*. Retrieved from http://www.dwds.de/ressourcen/korpora/

Edgar, A., & Sedgwick, P., (eds). (2007). *Cultural Theory: The Key Concepts*. London: Routledge.

Garnham, A. (1985). *Psycholinguistics: Central Topics*. London & New York: Methuen.

Gawda, B. (2019). The Structure of the Concepts Related to Love Spectrum: Emotional Verbal Fluency Technique Application, Initial Psychometrics, and Its Validation. *Journal of Psycholinguistic Research,* 48, 1339–1361. https://doi.org./10.1007/s10936-019-09661-y

Izard, C. E. (2011). Forms and Functions of Emotions: Matters of Emotion–Cognition Interactions. *Emotion Review, 3*, 371–378. https://doi.org/10.1177/1754073911410737

Каліщук Д., Лазука О. Особливості вербалізації концепту freedom в американському політичному дискурсі доби «холодної війни». *East European Journal of Psycholinguistics,* 2015. Т. 2, № 1, С. 52–58. Retrieved from http://eepl.at.ua/_ld/0/66_eejpl_journal_2.pdf

Kotter-Grühn, D., Scheibe, S., Blanchard-Fields, F. & Baltes, P. B. (2009). Developmental Emergence and Functionality of "Sehnsucht" (Life Longings): The Sample Case of Involuntary Childlessness in Middle-aged Women. *Psychology and Aging, 24*(3), 634–644. https://doi.org/10.1037/a0016359

Kövecses, Z. 1990. *Emotion Concepts*. New York: Springer.

Kulpina, V., & Tatarinov, V. (2018). Dictionary of Linguoculturology Terms as a Solution to the Current Research Problem. *Open Journal for Studies in Linguistics*, *1*(1), 15–20. https://doi.org/10.32591/coas.ojsl.0101.02015k

Kuperman, V., Estes, Z., Brysbaert, M., & Warriner, A. B. (2014). Emotion and Language: Valence and Arousal Affect Word Recognition. *Journal of Experimental Psychology: General, 143*, 1065–1081. https://doi.org/10.1037/a0035669

LCC *Leipzig Corpora Collection: Deutsches Nachrichten-Korpus basierend auf Texten gecrawlt 2018.* Retrieved from http://corpora.uni-leipzig.de/de/res?word=Sehnsucht&corpusId= deu_newscrawl-public_2018

Levenson, R. W. (2011). Basic Emotion Questions. *Emotion Review, 3*, 379–386. https://doi.org/10.1177/1754073911410743

Ling. (2002). *Sistema Elektronnyih Slovarey [System of Electronic Dictionaries]. ABBYY Lingvo 8.0.* Software House.

Lomas, T. (2016). Towards a Positive Cross-cultural Lexicography: Enriching Our Emotional Landscape through 216 "Untranslatable" Words Pertaining to Well-being. *The Journal of Positive Psychology, 11*(5), 546–558. https://doi.org/10.1080/17439760.2015.1127993

Маслова, В. А. Когнитивная лингвистика. Минск: ТетраСистемс, 2005.

Mayer, S., Scheibe, S. & Riediger, M. (2008). (Un)Reachable? An Empirical Differentiation of Goals and Life Longings. *European Psychologist, 13*(2), 126–140. https://doi.org/10.1027/1016-9040.13.2.126.

Mizin, K., Letiucha, L., & Petrov, O. (2019). Deutsche linguokulturelle Konzepte im Lichte der germanisch-ostslawischen Kontraste: Methode zur Feststellung von spezifischen bzw. einzigartigen Bedeutungen. *Germanoslavica, 30*(1), 49-70.

Mizin, K., & Letiucha, L. (2019). The linguo-cultural concept TORSCHLUSSPANIK as the representative of ethno-specific psycho-emotional state of Germans. *Psycholinguistics-Psiholingvistika, 25*(2), 234–249. https://doi.org/10.31470/2309-1797-2019-25-2

NWDTEL. (1993). *New Webster's Dictionary and Thesaurus of the English Language*. Danbury CT: Lexicon Publications.

Power, M. (2010). *Emotion-Focused Cognitive Therapy*. Chichester: Wiley.

Scheibe, S., Freund, A. M., & Baltes, P. B. (2007). Toward a developmental psychology of Sehnsucht (life longings): The optimal (utopian) life. *Developmental Psychology, 43*(3), 778–795. https://doi.org/10.1037/0012-1649.43.3.778

Scheibe, S., Blanchard-Fields, F., Wiest, M. & Freund, A. M. (2011). Is longing only for Germans? A cross-cultural comparison of Sehnsucht in Germany and the United States. *Developmental Psychology, 47*(3), 603–618. https://doi.org/10.1037/a0021807

Spiegel Online. (2004, October 25). *"Habseligkeiten" ist schönstes deutsches Wort ["Belongings" is the most beautiful German word]*. Retrieved from http://www.spiegel.de/kultur/gesellschaft/0,1518,324670,00.html

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. https://doi.org/10.1002/acp.2350030113

Talmy, L. (2007). Foreword. In M. Gonzalez-Marquez, I. Mittelberg, S. Coulson & M. J. Spivey (Eds.), *Methods in Cognitive Linguistics* (pp. 11–21). Amsterdam: John Benjamins.

Vater, H. (2006). On the Mental Lexicon. *Studi Linguistici e Filologici Online, 4*(1), 175–204.

Воркачев С. Г. Любов как лингвокультурный концепт. М.: Гнозис, 2007.

Wierzbicka, A. (1999). *Emotions Across Languages and Cultures: Diversity and Universals*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511521256

References (translated and transliterated)

Adolphs, S. (2006). *Introducing Electronic Text Analysis: A practical guide for language and literary studies*. London: Routledge. https://doi.org/10.4324/9780203087701

Bahn, D., Kauschke, Chr., Vesker, M., & Schwaryer, G. (2018). Perception of valence and arousal in German emotion terms: A comparison between 9-year-old children and adults. *Applied Psycholinguistics, 39*(3), 463–481. https://doi.org/10.1017/S0142716417000443

Belica, C. (2011). Semantische Nähe als Ähnlichkeit von Kookkurrenzprofilen. In A. Abel & R. Zanin (Hrsg.), *Korpora in Lehre und Forschung* (pp. 155–178). Bozen-Bolzaro: Freie Universität.

Bloch, R. (1967). Über die Bedeutung der Todessehnsucht für psychogene Störungen des Ernährungstriebes. *Zeitschrift für Psychosomatische Medizin und Psychoanalyse, 13*(1), 63–69.

Citron, F., Weekes, B. S., & Ferstl, E. C. (2014). How are affective word ratings related to lexicosemantic properties? Evidence from the Sussex Affective Word List. *Applied Psycholinguistics, 35*, 313–331. https://doi.org/10.1017/S0142716412000409

Cowen, A. S., & Keltner, D. (2017). Self-report captures 27 distinct categories of emotion bridged by continuous gradients. *Proceedings of the National Academy of Sciences, 114*(38), 7900–7909. https://doi.org/10.1073/pnas.1702247114

DKW. (1997). *Der kleine Wahrig. Wörterbuch der deutschen Sprache*. Gütersloh: Berstelsmann Lexikon.

Du, S., Tao, Y., & Martinez, A. M. (2014). Compound facial expressions of emotion. *Proceedings of the National Academy of Sciences, 111*(15), 1454–1462. https://doi.org/10.1073/pnas.1322355111

DWDS *Digitales Wörterbuch der deutschen Sprache*. Retrieved from http://www.dwds.de/ressourcen/korpora/

Edgar, A., & Sedgwick, P., (Eds). (2007). *Cultural Theory: The Key Concepts*. London: Routledge.

Garnham, A. (1985). *Psycholinguistics: Central Topics*. London & New York: Methuen.

Gawda, B. (2019). The Structure of the Concepts Related to Love Spectrum: Emotional Verbal Fluency Technique Application, Initial Psychometrics, and Its Validation. *Journal of Psycholinguistic Research, 48,* 1339–1361. https://doi.org./10.1007/s10936-019-09661-y

Izard, C. E. (2011). Forms and functions of emotions: Matters of emotion–cognition interactions. *Emotion Review, 3*, 371–378. https://doi.org/10.1177/1754073911410737

Kalishchuk, D., & Lazuka, O. (2015). Osoblyvosti verbalizatsii contseptu freedom v amerykanskomu politychnomu dyskursi dobu "kholodnoyi viyny" [Verbalizing the Concept of Freedom in the Cold War U. S. Political Discourse]. *East European Journal of Psycholinguistics, 2*(1), 52–58. Retrieved from http://eepl.at.ua/_ld/0/66_eejpl_journal_2.pdf

Kotter-Grühn, D., Scheibe, S., Blanchard-Fields, F. & Baltes, P. B. (2009). Developmental emergence and functionality of "Sehnsucht" (life longings): The sample case of involuntary

childlessness in middle-aged women. *Psychology and Aging, 24*(3), 634–644. https://doi.org/10.1037/a0016359

Kövecses, Z. 1990. *Emotion Concepts*. New York: Springer.

Kulpina, V., & Tatarinov, V. (2018). Dictionary of Linguoculturology Terms as a Solution to the Current Research Problem. *Open Journal for Studies in Linguistics*, *1*(1), 15–20. https://doi.org/10.32591/coas.ojsl.0101.02015k

Kuperman, V., Estes, Z., Brysbaert, M., & Warriner, A. B. (2014). Emotion and language: Valence and arousal affect word recognition. *Journal of Experimental Psychology: General, 143*, 1065–1081. https://doi.org/10.1037/a0035669

LCC *Leipzig Corpora Collection: Deutsches Nachrichten-Korpus basierend auf Texten gecrawlt 2018.* Retrieved from http://corpora.uni-leipzig.de/de/res?word=Sehnsucht&corpusId= deu_newscrawl-public_2018

Levenson, R. W. (2011). Basic emotion questions. *Emotion Review, 3*, 379–386. https://doi.org/10.1177/1754073911410743

Ling. (2002). *Sistema Elektronnyih Slovarey [System of Electronic Dictionaries]. ABBYY Lingvo 8.0.* Software House.

Lomas, T. (2016). Towards a Positive Cross-cultural Lexicography: Enriching Our Emotional Landscape through 216 "Untranslatable" Words Pertaining to Well-being. *The Journal of Positive Psychology, 11*(5), 546–558. https://doi.org/10.1080/17439760.2015.1127993

Maslova, V. A. (2005). *Kognitivnaya lingvistika [Cognitive Linguistics]*. Minsk: TetraSistems.

Mayer, S., Scheibe, S. & Riediger, M. (2008). (Un)Reachable? An empirical differentiation of goals and life longings. *European Psychologist, 13*(2), 126–140. https://doi.org/10.1027/1016-9040.13.2.126

Mizin, K., Letiucha, L., & Petrov, O. (2019). Deutsche linguokulturelle Konzepte im Lichte der germanisch-ostslawischen Kontraste: Methode zur Feststellung von spezifischen bzw. einzigartigen Bedeutungen. *Germanoslavica, 30*(1), 49-70.

Mizin, K., & Letiucha, L. (2019). The Linguo-Cultural Concept TORSCHLUSSPANIK as the Representative of Ethno-Specific Psycho-Emotional State of Germans. *Psycholinguistics-Psiholingvistika, 25*(2), 234–249. https://doi.org/10.31470/2309-1797-2019-25-2

NWDTEL. (1993). *New Webster's Dictionary and Thesaurus of the English Language*. Danbury CT: Lexicon Publications.

Power, M. (2010). *Emotion-Focused Cognitive Therapy*. Chichester: Wiley.

Scheibe, S., Freund, A. M., & Baltes, P. B. (2007). Toward a developmental psychology of Sehnsucht (life longings): The optimal (utopian) life. *Developmental Psychology, 43*(3), 778–795. https://doi.org/10.1037/0012-1649.43.3.778

Scheibe, S., Blanchard-Fields, F., Wiest, M. & Freund, A. M. (2011). Is longing only for Germans? A cross-cultural comparison of Sehnsucht in Germany and the United States. *Developmental Psychology, 47*(3), 603–618. https://doi.org/10.1037/a0021807

Spiegel Online. (2004, October 25). *"Habseligkeiten" ist schönstes deutsches Wort ["Belongings" is the most beautiful German word]*. Retrieved from http://www.spiegel.de/kultur/gesellschaft/0,1518,324670,00.html

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. https://doi.org/10.1002/acp.2350030113

Talmy, L. (2007). Foreword. In M. Gonzalez-Marquez, I. Mittelberg, S. Coulson & M. J. Spivey (Eds.), *Methods in Cognitive Linguistics* (pp. 11–21). Amsterdam: John Benjamins.

Vater, H. (2006). On the Mental Lexicon. *Studi Linguistici e Filologici Online, 4*(1), 175–204.

Vorkachev, S. G. (2007). *Lyubov' kak lingvokul'turniy kontsept [Love as a Linguocultural Concept]*. Moscow: Gnozis [in Russian].

Wierzbicka, A. (1999). *Emotions Across Languages and Cultures: Diversity and Universals.* Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511521256

Appendix

Table 1

The most frequent co-occurrent-like forms and co-occurrents of the word query Sehsucht

Co-occurrent-Like Forms		Co-occurrents	
emotions	*non-emotions*	*emotions*	*non-emotions*
Basic emotions:	*Zuversicht* 'confidence; assurance'	*Liebe* 'love; romance'	*Heimat* 'Motherland'
Bedürfnis 'need'		*Wunsch* 'wish'	*Freiheit* 'freedom'
Neugier 'curiosity'	*Traum* 'daydream; dream'	*Fernweh* 'yearning for faraway places'	*Geborgenheit* 'security; feeling secure, safe'
Wut 'fury, rage; wrath'	*Fantasie* 'fantasy'	*Heimweh* 'homesickness'	*Leben* 'life'
Dankbarkeit 'gratitude'			*Frieden* 'peace'
Melancholie 'melancholy; sadness; longing'	*Überzeugung* 'conviction'	*Melancholie* 'melancholy; sadness; longing'	*stillen* 'to still'
Liebe 'love; romance'	*Motivation* 'motivation'		*tief* 'deep'
Neugierde 'curiosity (often to the opposite sex)'	*Skepsis* 'scepticism, unbelief'	*Hoffnung* 'hope'	*Mensch* 'human being'
Leidenschaft 'passion'		*Schmerz* 'pain'	*Welt* 'world'
Verzweiflung 'despair'	*Erwartung* 'expectation'		*wecken* 'wake up'
Trauer 'grief; mourning'			*Ferne* 'distance'
Marginal emotions:	*Freiheit* 'freedom'		*voll* 'full'
Zuneigung 'affection; attachment'	*Heimat* 'Motherland'		*Ausdruck* 'expression; face expression'
Hoffnung 'hope'	*Einsamkeit* 'loneliness'		*Einsamkeit* 'loneliness'
Lust 'delight; intimate pleasure; lust; desire'	*Verbundenheit* 'attachment'		*Gott* 'God'
Gier 'appetite, greed'			*Natur* 'nature'
Angst 'fear'			*wachsen* 'to grow'
Vorfreude 'anticipation'			*groß* 'great'
Freude 'joy'			*alt* 'old'
Begeisterung 'enthusiasm; inspiration; excitement'			*Glück* 'happiness'
			unerfüllt 'unfulfilled'
			Wärme 'warmth'
			Entschleunigung 'slowing down'
			Sonne 'sun'
			Meer 'sea'

Table 2

The most frequent left- and right-hand collocates of the word query Sehnsucht

Left-Hand Collocates		Right-Hand Collocates
tief 'deep'		*Leben* 'life'
groß 'great'		*stillen* 'to still'
voll 'full'		*kennen* 'to know'
unerfüllt 'unfulfilled'		*treiben* 'to cause, drive'
unstillbar 'unquenchable'		*wecken* 'to wake up'
diffus 'vague, blurry'		*spüren* 'to feel'
alt 'old'		*packen* 'to embrace'
menschlich 'human'	>*Sehnsucht*<	*erwarten* 'to expect'
nostalgisch 'nostalgice'		*erfüllen* 'to fill, fulfill'
gewiss 'certain'		*singen* 'to sing'
wachsend 'growing'		*stecken* 'to stick in'
ungestillt 'unsatisfied'		*darstellen* 'to depict; portray'
wecken 'wake up'		*bleiben* 'to stay'
heimlich 'secret'		*prägen* 'to shape; form; remember'
spirituell 'spiritual'		
unbändig 'unrestrained'		
stark 'strong'		
unendlich 'endless'		
ewig 'eternal'		

ASSESSING COLLEGE WRITING:
DO STUDENTS CONNECT WITH THE TEXT?

Taleen Nalabandian
ORCID: 0000-0002-2478-7341
Scopus Author ID: 57204876281
taleen.nalabandian@ttu.edu
Texas Tech University, USA
Roman Taraban
ORCID: 0000-0002-1815-4687
Scopus Author ID: 6603757476
roman.taraban@ttu.edu
Texas Tech University, USA
Jessica C. Pittman
ORCID: 0000-0003-4681-3691
jessica.pittman@ttu.edu
Texas Tech University, USA
Sage Maliepaard
ORCID: 0000-0003-0305-6790
sage.maliepaard@ttu.edu
Texas Tech University, USA

Abstract. Reading-response research has shown that students respond to a text by engaging various cognitive and emotional processes. The aim of the current study was to examine students' written reactions to an assigned reading as a way to determine (1) whether students connect with the reading and (2) the differing cognitive styles they may utilize in their reactions. The methods applied two text-analytic procedures to 238 student reactions to an ethics case study. The procedures were language style matching, which is a metric of engagement, and the categorical-dynamic index, which is a metric of analytic and experiential processing. We predicted that students who more strongly connected–or engaged–with the text would also demonstrate greater analytic thinking in their written response and, conversely, those who weakly connected with the text would express a more informal response based on experience. The data were analyzed using correlation statistics. The results showed that students whose writing more closely matched with the linguistic style of the case study were more likely to use an analytical style of writing, and students whose writing weakly matched the linguistic style of the case study were more likely to use an informal narrative style of writing. Future research should examine the extent to which language style matching and an associated analytic cognitive style are emergent skills that develop over the course of a college experience.

Keywords: language style matching, categorical-dynamic index, academic writing, computerized text analysis, LIWC.

Налабандан Талін; Тарабань Роман; Пітман Джессіка; Меліопард Саж. Оцінювання письма в коледжі: чи вникають студенти у текст?

Анотація. Дослідження, базовані на читацькому відгуку, показали, що студенти реагують на текст, залучаючи різні когнітивні й емоційні процеси. Метою цього дослідження було вивчити письмові реакції студентів на обов'язкове читання як спосіб визначити (1), чи студенти вникають в читання та (2) різні когнітивні стилі, які вони можуть використовувати у своїх реакціях. Методи передбачали застосування двох текстово-аналітичних процедур до аналізу 238 реакцій студентів на тематичне дослідження з етики. Процедури були такі: відповідність стилю мови, що є критерієм залучення; і категорійно-динамічний покажчик, який є критерієм аналітичної та емпіричної обробки. Ми прогнозували, що студенти, які більше прив'язані до тексту чи залучені у нього, також демонструватимуть більш аналітичне мислення у своїй письмовій відповіді, і, навпаки, ті, хто менше вникають у текст, дадуть більш неформальну відповідь на основі досвіду. Дані було піддано кореляційному аналізу. Результати показали, що студенти, письмо яких більше відповідає лінгвістичному стилю в їхніх кейс-стаді, були виявляли більшу тенденцію до використання аналітичного стилю письма, а студенти, чиє письмо слабко відповідало лінгвістичному стилю тематичного дослідження, були більш схильні до використання неформального розповідного писемного стилю. Майбутні дослідження повинні вивчити, якою мірою відповідність мовного стилю та пов'язаний із цим аналітичний когнітивний стиль можна вважати новими навичками, які розвиваються протягом навчання у ЗВО.

Ключові слова: відповідність стилю мови, категорійно-динамічний індекс, науковий писемний стиль, комп'ютеризований аналіз тексту, LIWC.

1. Introduction

In college instruction, there is a triarchy of activities consisting of reading, writing, and assessment. College instructors often ask students to read textbooks, novels, poetry, journal articles, and case studies. Typically, these reading assignments are coupled with classroom tests or writing assignments and are followed with instructor assessments. Some assessments are rather superficial and straightforward, like those involving multiple-choice tests, in which there is essentially no writing, and the assessments are focused on content knowledge. In more substantive contexts, students are required to do background reading followed by reflective writing, consisting of submissions to course discussion boards, reaction papers, essays, research reports, or theses. In a typical written composition, assessment evaluates mechanics, like spelling, vocabulary, and grammar; quality, including organization and fluency; and content, including accuracy, coverage, creativity, insight, and critical analysis.

Beyond mechanics, quality, and content, there are other more subtle aspects of writing assessment. In their compositions, an instructor could ask, for instance, did students identify with the characters in a novel; did they empathize with a victim in a newspaper article; did they agree with an editorial; and did they react to and contest the claims of a journalist? These issues fall under the category of reader responsiveness – the "cold and hot cognition" (Wyatt et al., 1993) that students experience in reading. According to reader-response theory (Mart, 2019; Rosenblatt, 2016), readers are active, not passive. Readers question, react, respond, summarize, criticize, hypothesize, interpret, and analyze texts. There is an active relationship between reader and text that develops over the course of reading.

The general research question in this study is whether students, after reading, connect with the text in their written reactions. There is a basis in reading-response theory for expecting that students would develop a relationship to the text while reading. The question addressed here is whether this relationship is also evident in their written reactions. A number of studies using text analytic methods have shown that people's thinking is reflected in the language that they use (Jordan & Pennebaker, 2019; Jordan, Sterling, Pennebaker, & Boyd, 2017; Pennebaker, Chung, Frazee, Lavergne, & Beaver, 2014), therefore, it should be possible to recover students' reactions to a text by analyzing the language that they use in expressing those reactions.

The work of Pennebaker and colleagues has shown that the small words that individuals use are associated with differences in confidence, leadership, power, status, analytic thinking, and academic success, among others (Ireland & Pennebaker, 2014; Jordan et al., 2019; Kacewicz, Pennebaker, Davis, Jeon, & Graesser, 2014; Pennebaker, 2011; Pennebaker et al., 2014). The *small* words are generally function words, such as pronouns, articles, prepositions, and conjunctions. In the present paper, we apply two well-researched algorithmic procedures from the Pennebaker corpus of research. One procedure measures language style matching (Ireland & Pennebaker, 2010). The second procedure measures categorical-dynamic processing (Pennebaker et al., 2014). These two procedures provide the primary data for the current study. We analyzed students' written reactions using these two linguistic metrics to examine i) students' level of connection or engagement with an assigned reading, and ii) what cognitive styles students employed in their reactions. In the next subsections, we present an overview of these procedures, before turning to an analysis of students' compositions.

1.1. Language Style Matching

Language style matching is a form of verbal mimicry in which pairs or groups of individuals use language in a similar fashion. In this paper, we use the acronym LSM to refer to a method to assess those stylistic similarities in language use among individuals. Rather than focusing on what individuals say (i.e., the content words), LSM analyzes the way individuals say things. Specifically, LSM examines the similarity of function word use between individuals or texts. Function words, such as articles (e.g., *a*, *an*, *the*), tend to be small words that are easily processed (Segalowitz & Lane, 2000) and not necessarily used with conscious awareness (Pulvermüller et al., 2008). They cover more than half of the vocabulary of daily speech (Pennebaker, 2011) and correlate with social behaviors as diverse as social bonding and deception (Chung & Pennebaker, 2007). In brief, function words serve as a convenient and informative correlate of psychological processes.

LSM has been studied in various contexts, such as attraction, conflict, mental health, social media, and police interrogations. As an example of LSM in interpersonal attraction, speed-dating couples who used similar function words during their date were more inclined to interact with their partner at a future time and remain in a relationship months after their initial encounter (Ireland et al., 2011). Considering LSM in interpersonal conflict, an archival analysis of poems

written by literary couple Sylvia Plath and Ted Hughes showed that the couple's language style was more likely to match during the positive periods of their relationship and less likely to match toward its dissolution (Ireland & Pennebaker, 2010). Regarding LSM in mental health, analysis of email conversations demonstrated that depressed individuals, who tend to socially withdraw and isolate themselves (Segrin, 2000; Segrin & Abramson, 1994), were less likely to linguistically match or engage with their correspondents (Baddeley, 2011). Further, LSM in social-media user communities has been shown to predict community identity and to affect quantity and quality of participation (Ludwig et al., 2014). In police interrogations, criminal suspects who ultimately confess showed increased language style matching as the interrogations unfolded (Richardson et al., 2014). Suspects who did not confess did not show a pattern of increased language style matching.[1] Thus, scores of research has established LSM as providing a reliable marker of engagement (Niederhoffer & Pennebaker, 2002).

Calculations within the LSM algorithm are comparable to those of an inverse Canberra distance metric (Lance & Williams, 1967). The algorithm determines the degree of function word similarity between two individual texts or groups of texts (Ireland & Pennebaker, 2010). The calculation of LSM for a pair of texts requires several steps. First, one sums the percentages of nine function word categories for each of two texts one wants to compare. The nine categories are i) personal pronouns, ii) impersonal pronouns, iii) articles, iv) prepositions, v) auxiliary verbs, vi) adverbs, vii) conjunctions, viii) negations, and ix) quantifiers (see Table 1 for examples). Next, one applies equation (1) to each of the nine function word categories to calculate partial LSM scores for each category. Equation 1 is expressed using the adverb category as an example:

$$\text{LSM}_{adverb} = 1 - [(|\text{adverb}_{text\,1} - \text{adverb}_{text\,2}|)/(\text{adverb}_{text\,1} + \text{adverb}_{text\,2} + .0001)] \quad (1)$$

The LSM score for each text is the average of the LSM scores for each of the nine specified function word categories:

$$\text{LSM} = \Sigma\, \text{LSM}_{categories} / 9 \quad\quad\quad (2)$$

LSM scores range between the values of 0 and 1, much like correlations, where higher values denote greater similarity between texts.

Table 1
Examples of Language Categories for Calculating LSM

Language Categories	Examples
Adverbs	*nearly*, *rarely*, *supposedly*

[1] The application on this webpage can be used to test the degree to which any two samples of language are similar in their language styles: http://www.utpsyc.org/synch/

Articles	*a*, *an*, *the*
Auxiliary Verbs	*become*, *ought*, *might*
Conjunctions	*because*, *nor*, *while*
Impersonal Pronouns	*everyone*, *someone*, *whoever*
Negations	*ain't*, *shouldn't*, *wasn't*
Prepositions	*above*, *beside*, *into*
Personal Pronouns	*my*, *she*, *them*
Quantifiers	*extra*, *least*, *majority*

1.2. Categorical-Dynamic Index

In addition to measuring linguistic synchrony between student responses and their assigned reading, it is also possible to uncover varying cognitive styles apparent in student responses using a metric known as the Categorical-Dynamic Index (CDI). The CDI assesses the degree to which a person relies on analytic thinking or narrative thinking (Pennebaker et al., 2014). In particular, the categorical component of the CDI represents analytic thinking, a deeper level of reflection and logic-based reasoning (Jordan & Pennebaker, 2017). Categorical writing, or analytic thinking, is linguistically defined by higher frequencies of articles and prepositions (Pennebaker et al., 2014). Because articles–indicative of abstraction–help introduce nouns, while prepositions–indicative of complexity–help associate nouns and pronouns with other words, these grammatical categories are characteristic of more formal or analytic thinking (Pennebaker et al., 2014). In contrast, the dynamic component of the CDI represents narrative thinking, which is much more instinctual and experience-based (Jordan & Pennebaker, 2017). Dynamic writing, or narrative thinking, is linguistically defined by higher frequencies of pronouns, adverbs, auxiliary verbs, negations, and conjunctions (Pennebaker et al., 2014). Such function words serve to identify people (e.g., pronouns) and their various actions (e.g., adverbs; Blackburn, 2012) and are reflective of a more informal writing style that refers to the "here and now" (Pennebaker et al., 2015).

Similar to the body of literature surrounding LSM, research examining the CDI has been applied to different contexts, such as academics, politics, and gender. For instance, the CDI was employed as a correlate of academic success, wherein students who used greater categorical language in their college admission essays were more likely to achieve higher college GPAs (Pennebaker et al., 2014). On the other hand, students who incorporated greater dynamic language in their essays were more likely to have lower GPAs (Pennebaker et al., 2014). Additionally, studies assessing political language using the CDI have found that language used by Trump, other US presidents, and non-US political leaders (obtained from public speeches, debates, etc.) tends to be less analytic, or incorporates fewer articles and prepositions (Jordan & Pennebaker, 2017; Jordan et al., 2019). Moreover, other research demonstrates how the grammatical categories that make up the CDI reliably reflect gender. Women tend to use language consistent with the dynamic component, while men tend to use language consistent with the categorical

component of the CDI (Newman et al., 2008; Pennebaker et al., 2014). Women's use of dynamic language, which focuses more on people, is consistent with feminine stereotypes relating to affiliation, whereas men's use of categorical language, which is less personal and focuses more on objects, is consistent with masculine stereotypes relating to assertion (Leaper, 2014).

Calculation of CDI for a text or group of texts uses the same function word categories as LSM, excluding quantifiers, and is carried out in two steps. First, the frequencies of the eight function word categories are tabulated. Next, the frequencies are then combined according to Equation (3):

$$\text{CDI} = (30 + \text{articles} + \text{prep} - \text{ppron} - \text{ipron} - \text{auxverb} - \text{conj} - \text{adverb} - \text{negate}) \quad (3)$$
(Note. prep: preposition; ppron: person pronouns; pron: impersonal pronouns; auxverb: auxiliary verbs; conj: conjunctions; negate: negations)

Higher scores on the CDI indicate higher rates of categorical language and lower rates of dynamic language, while lower scores on the CDI indicate lower rates of categorical language and higher rates of dynamic language.

To further parse the CDI into its two separate components, the analytical (Categorical) component is calculated by averaging the frequencies of articles and prepositions, whereas the narrative (Dynamic) component is calculated by averaging the frequencies of personal and impersonal pronouns, auxiliary verbs, conjunctions, adverbs, and negations, as demonstrated in Equations (4) and (5), respectively:

$$\text{Categorical} = (\text{articles} + \text{prep})/2 \quad\quad\quad\quad (4)$$

$$\text{Dynamic} = (\text{ppron} + \text{ipron} + \text{auxverb} + \text{conj} + \text{adverb} + \text{negate})/6 \quad (5)$$

2. Methods

The current study used a dictionary-based method of computerized text analysis to analyze student responses to a case study presenting an ethical dilemma in the field of engineering, as described in more detail below. LSM was used to establish whether students connected with the text. The CDI was used to further analyze the synchrony between students and text. The categorical component of the CDI is based on analytic thinking which is characterized by logic-based reasoning and deliberation. We therefore hypothesized that

1. Students who linguistically matched more with the given case study would be more likely to score higher on the *categorical* component of the CDI (i.e., higher analytical thinking) in their responses.
2. Conversely, we hypothesized that students who linguistically matched less with the case study–who tend to adopt an informal language style– would be more likely to score higher on the *dynamic* component of the CDI (i.e., provide a more informal gut reaction of the case study).

2.1. Writing Sample

The writing sample in this study was comprised of undergraduate student responses ($N = 238$) to an online case study titled "Which is More Important: Environmental Concern or Economic Growth?" authored by Dr. Sudipta Majumdar (Faculty of Management Studies, ICFAI University, Jharkhand, India). The case study consists of 503 words, with a Flesch-Kinkaid Grade Level of 10.00 and a Flesch Reading Ease score of 54.7[1] and depicts differing environmental and economic consequences of a company drilling for oil in the rural town of Maharashtra, India. Guidelines were provided on the website for composing a response (e.g., determining what knowledge, skills, interdisciplinary perspectives, and cultural insights are necessary to establish viable solutions). On average, student responses consisted of 340.54 words ($SD = 101.84$). The case study, guidelines, and student comments can be found at https://ethicalengineer.ttu.edu.

2.2. Procedures

The independent measures in the present study include the percentages for the nine language categories in Table 1 within each student's response. Percentages were computed using the Linguistic Inquiry and Word Count (LIWC; Pennebaker et al., 2015) software, and were then applied to Equations 1 and 2 in order to estimate language style matching between each student's comment and the case study "Which is More Important: Environmental Concern or Economic Growth." This variable is termed LSM-Case Study. In order to provide a contrasting measure for LSM-Case Study, the mean percentages for the nine language categories were computed across the corpus of 238 comments. LSM was then calculated, again using Equations 1 and 2, between each student's comment and the overall mean. This variable is termed LSM-Peers. Importantly, LSM-Peers provides a sense of the student vernacular, that is, the typical speech patterns used in the corpus of comments. Further, Equation 3 was applied to create a measure of CDI-Overall for each student comment, and Equations 4 and 5 to create measures of CDI-Categorical and CDI-Dynamic, respectively, for each student comment. The means and standard deviations are shown below in Table 2.

Table 2
Means and Standard Deviations (SD) for LSM and CDI Variables

Measures	Mean (*SD*)
LSM-Case Study	0.65 (0.05)
LSM-Peers	0.86 (0.05)
CDI-Overall	27.10 (6.43)
CDI-Categorical	12.66 (1.32)
CDI-Dynamic	4.70 (0.77)

Note. Values are non-standardized.

---

[1] https://www.webfx.com/tools/read-able/flesch-kincaid.html

Prior to calculating correlation coefficients, the data were checked for normality. All variables were normally distributed except LSM-Peers, which was negatively skewed. Upon further examination of the data, the negative skew appeared to be influenced by a univariate outlier. Therefore, the outlier was excluded from the sample, which effectively reduced the negative skew of LSM-Peers, transforming the variable to a more normal distribution. Values for all variables were then standardized based on z-scores.

3. Results and Discussion
3.1. LSM and CDI

To test associations between LSM and the CDI, Pearson correlation coefficients were calculated using IBM SPSS v. 24[1]. Adopting the conventional standard in statistical analysis, correlations with *p*-values less than 0.05 were considered significant. There was a significant negative correlation between LSM-Case Study and LSM-Peers. Although we had not made a specific prediction, this finding shows that students who were higher in LSM-Case Study were lower in LSM-Peers. In other words, being in synchrony with a text differs from writing in a typical peer manner, and that connecting with a text represents a specific style or genre of writing. Further support for a dissociation between connecting with a text and writing like a peer is found in the highly significant positive correlation between LSM-Case Study and CDI-Overall, and a significant negative correlation between LSM-Peers and CDI-Overall. An examination of Equations 3, 4, and 5 indicates that CDI-Overall is a strong measure of analytic thinking not of a narrative reaction. Therefore in general, the pattern of correlations suggests that the typical vernacular of students is somewhat disorganized and incoherent and that, out of this corpus of writing, some student responses emerge as more closely matching and connecting to the text and more amenable to an analytic (categorical) style.

Table 3
Correlations between Standardized LSM and CDI Variables

	LSM-Peers	CDI-Overall	CDI-Categorical	CDI-Dynamic
LSM-Case Study	-.145*	.604**	.257**	-.665**
LSM-Peers		-.261**	-.169**	.260**
CDI-Overall			.748**	-.955**
CDI-Categorical				-.517**

*Note. *p<.05. **p<.01.*

---

[1] https://www.ibm.com/support/pages/ibm-spss-statistics-24-documentation

Turning to our specific predictions, hypothesis 1 is supported by a significant positive correlation between LSM-Case Study and CDI-Categorical. The correlation shows that students who linguistically matched more with the given case study were more likely to score higher on the *categorical* component of the CDI, illustrating greater analytic thinking in their responses. Hypothesis 2 is also supported, as indicated by a highly significant negative correlation between LSM-Case Study and CDI-Dynamic as well as a significant positive correlation between LSM-Peers and CDI-Dynamic. These results indicate that students who linguistically matched less with the case study and more with their peers were more likely to score higher on the *dynamic* component of the CDI, providing a more informal gut reaction of the case study. As additional support for the reliability of these findings, CDI-Overall is significantly correlated with CDI-Categorical and significantly negatively correlated with CDI-Dynamic, and CDI-Categorical and CDI-Dynamic are significantly negatively correlated. In summary, students who shared greater linguistic style with the case study were more likely to use a categorical or analytical style of writing, and students who shared greater linguistic style with their peers were more likely to use a dynamic or narrative style of writing.

3.2. Qualitative Examples

The pattern of significant correlations between the LSM and CDI variables may implicate LSM as a potential linguistic marker of academic writing quality. For instance, a student whose response was higher on CDI-Overall (40.00) and whose language style highly matched that of the case study (LSM-Case Study = 0.73) analyzed the case study in more depth and successfully addressed most aspects of the assigned prompt (i.e., discussed how the stakeholders were impacted, how cultural insights and interdisciplinary perspectives provide viable solutions, their ethical decision; see Excerpt 1). In contrast, a student whose response was lower on CDI-Overall (26.73) and whose language style highly matched that of their peers (LSM-Peer = 0.93) discussed the case study with much less detail and only addressed two of the prompt questions regarding stakeholders and their ethical decision (see Excerpt 2). In fact, this student's focus on stakeholders (i.e., how *people* in the case study were affected) is quite consistent with dynamic (narrative) language. The juxtaposition of the two student responses emphasizes not only their linguistic differences but how such linguistic differences might inform the quality of students' written work. However, our current design does not include measures of assessment quality. Thus, future research must focus on operationally defining assessment quality and whether LSM serves as a reliable and valid predictor of the construct.

Excerpt 1. High LSM-Case Study and High CDI-Overall Student Response:
In Dr. Majumdar's case study, Which is more important - Environmental Concern or Economic Growth, the stakeholders, Mr. Amit Mathur, the local farmer, big oil companies, and the nearby towns in Trombay, are all drastically impacted when oil had been discovered on the farmer's land. After paying the land owner 11,000 INR, Mr. Mathur was able to begin the process

of drilling for oil. The land owner, in retrospect, had not been informed of the repercussions of drilling such as toxic waste from salt and heavy metals. Although the land surrounding Trombay during this time had seen an increase in industrial development, thus creating more jobs and boosting the economy, the people of Trombay had encountered serious water pollution due to the waste being dumped into nearby water canals and old wells. Additionally, Dr. Majumdar's case study offers substantial evidence on the negative effects of drilling for oil without properly disposing of toxic waste near communities. If the oil companies were to try to fix the pollution problem, they would need to establish a pipeline or a railroad to properly dispose of the toxic waste. Environmental Engineers, for example, specializing in this area could educate the surrounding towns on how to avoid the toxins, and possibly repair the canal system filled with heavy metals. In the US, our government holds tight regulations on the oil companies, such as the EPA, to govern all aspects within fracking and drilling to ensure the welfare of the surrounding geographic area and its inhabitants. In order to further protect the people, and in turn the environment from dangerous pollutants, there must be a global standard on the regulation of properly disposing of the toxic waste, that is both environmentally friendly and cost-effective.

Excerpt 2. High LSM-Peer and Low CDI-Overall Student Response:
My position on this topic is that environmental concern is more important than economic growth, which is what all ethical engineers should agree with. Engineers are ethically obligated to protect the environment even if it goes against economic growth of the company. Some of the stakeholders in this issue include: the environment, the farmers, people who live nearby, the oil workers, and the oil companies. The environment is negatively impacted because the drilling process leaves hazardous materials such as drilling mud and brine which can be harmful to flora and fauna in the area as well as soaking into the underground water. The people who live nearby and the farmers are being negatively impacted in that the drilling mud and brine from the drilling process get into the drinking water, which can cause serious health concerns. The only positive impacts for the farmers are that the oil companies may be paying them to use the land, and the oil companies being in the area has boosted the industrial development and economic growth of the surrounding area. The oil companies have only positive outcomes for them, including selling oil and natural gas for profit for not very much put in. Oil workers also have positive outcomes, as they get paid by these big oil companies.

4. Conclusions

Reader-response research has shown that students interact with a text in many different ways (e.g., cognitively, emotionally). The present research builds on reader-response theory by examining student responses to an ethics case study to

determine their level of engagement with the case study and how such engagement could inform cognitive styles in their responses. We analyzed the association between language style matching (of student responses and the case study) and the Categorical-Dynamic Index, which–to our knowledge–has not yet been examined in the current literature. Our results demonstrated that students whose responses linguistically matched with the case study (or assigned reading) were more likely to use an analytic language style in their reactions. Conversely, students whose responses linguistically matched with typical peer responses were more likely to adopt a narrative, non-analytic, reaction to the case study.

Informal qualitative analyses of specific responses, guided by the patterns in the correlation results, suggested that language style matching might serve as a correlate of writing quality. Greater synchrony with an assigned reading and pronounced use of analytic language in one's reading response may be reliably associated with the quality of said response. Furthermore, college students, on average, may use a more informal language style early on in their academic career. Resonating and responding to an author and text in an analytic manner may be an emergent skill that develops with time and practice. Future research will focus on establishing whether the quality of student responses can be recovered from measurements of language style in student responses.

The two types of cognitive styles conveyed in the student responses considered here (i.e., analytic vs. narrative) demonstrate an interesting dichotomy in communication. Some types of problems, such as those that are well-defined and objective, may lend themselves to an analytic response. Relatedly, some contexts demand logical and measured analysis, such as those in science. In other instances, like everyday conversation, email, and social media, there is more latitude for conversational discourse and gut reactions. Students in the present academic context may face a dilemma in deciding whether to frame their responses in a more formal analytic manner or a more informal personal manner.

References

Baddeley, J.L. (2012). *E-mail communications among people with and without major depressive disorder* (Unpublished doctoral dissertation). Austin: University of Texas at Austin.

Blackburn, K.G. (2015). *The narrative arc: Exploring the linguistic structure of the narrative* (Unpublished doctoral dissertation). Austin: University of Texas at Austin.

Chung, C., & Pennebaker, J. W. (2007). The psychological functions of function words. In K. Fiedler (Ed.), *Frontiers of social psychology. Social communication* (p. 343–359). New York: Psychology Press.

Ireland, M. E., & Pennebaker, J. W. (2010). Language style matching in writing: Synchrony in essays, correspondence, and poetry. *Journal of Personality and Social Psychology*, *99*(3), 549. https://doi.org/10.1037/a0020386

Ireland, M.E., Slatcher, R. B., Eastwick, P. W., Scissors, L. E., Finkel, E. J., & Pennebaker, J. W. (2011). Language style matching predicts relationship initiation and stability. *Psychological Science, 22*(1), 39-44. https://doi.org/10.1177/0956797610392928

Inbar, Y., Cone, J., & Gilovich, T. (2010). People's intuitions about intuitive insight and intuitive choice. *Journal of Personality and Social Psychology, 99,* 232–247. https://doi.org/10.1037/a0020215

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

Jordan, K. N., Sterling, J., Pennebaker, J. W., & Boyd, R. L. (2019). Examining long-term trends in politics and culture through language of political leaders and cultural institutions. *Proceedings of the National Academy of Sciences*, *116*(9), 3476–3481. https://doi.org/10.1073/pnas.1811987116

Kacewicz, E., Pennebaker, J. W., Davis, M., Jeon, M., & Graesser, A. C. (2014). Pronoun use reflects standings in social hierarchies. *Journal of Language and Social Psychology*, *33*(2), 125-143. https://doi.org/10.1177/0261927X13502654

Lance G.N., Williams W.T. (1967): Mixed-data classificatory programs I - Agglomerative systems. *Australian Computer Journal, 1,* 15–20.

Leaper, C. (2014). Gender similarities and differences in language. In T. M. Holtgraves (Ed.), *The Oxford handbook of language and social psychology*. (pp. 62-81). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199838639.013.002

Ludwig, S., de Ruyter, K., Mahr, D., Wetzels, M., Brüggen, E., & De Ruyck, T. (2014). Take their word for it: The symbolic role of linguistic style matches in user communities. *MIS Quarterly: Management Information Systems, 38*(4), 1201-1217.

Mart, C. T. (2019). Reader-response theory and literature discussions: A Springboard for exploring literary texts. *The New Educational Review*, *56,* 78–87. https://doi.org/10.15804/tner.2019.56.2.06

Niederhoffer, K. G., & Pennebaker, J. W. (2002). Linguistic style matching in social interaction. *Journal of Language and Social Psychology*, *21*, 337–360. https://doi.org/10.1177/026192702237953

Pennebaker, J. W. (2011). *The secret life of pronouns: How our words reflect who we are*. New York, NY: Bloomsbury.

Pennebaker, J.W., Booth, R.J., Boyd, R.L., & Francis, M.E. (2015). *Linguistic Inquiry and Word Count: LIWC2015.* Austin, TX: Pennebaker Conglomerates.

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*. https://doi.org/10.1371/journal.pone.0115844

Pulvermüller, F., Shtyrov, Y., Hasting, A. S., & Carlyon, R. P. (2008). Syntax as a reflex: Neurophysiological evidence for early automaticity of grammatical processing. *Brain and Language*, *104*, 244-253. https://doi.org/10.1016/j.bandl.2007.05.002

Richardson, B. H., Taylor, P. J., Snook, B., Conchie, S. M., & Bennell, C. (2014). Language style matching and police interrogation outcomes. *Law and Human Behavior*, *38*(4), 357–366. https://doi.org/10.1037/lhb0000077

Rosenblatt, L. M. (2016). *Literature as exploration*. Modern Language Association.

Segalowitz, S. J., & Lane, K. C. (2000). Lexical access of function versus content words. *Brain and Language*, *75*, 376-389. https://doi.org/10.1006/brln.2000.2361

Segrin, C. (2000). Social skills deficits associated with depression. *Clinical Psychology Review, 20,* 379- 403. https://doi.org/10.1016/S0272-7358(98)00104-4

Segrin, C. & Abramson, L. Y. (1994). Negative reactions to depressive behaviors: A communication theories analysis. *Journal of Abnormal Psychology, 103*, 655–668. https://doi.org/10.1037/0021-843X.103.4.655

Shaw, H., Taylor, P., Conchie, S., & Ellis, D. A. (2019, March 6). Language Style Matching : A Comprehensive List of Articles and Tools. https://doi.org/10.31234/osf.io/yz4br

Wyatt, D., Pressley, M., El-Dinary, P. B., Stein, S., Evans, P., & Brown, R. (1993). Comprehension strategies, worth and credibility monitoring, and evaluations: Cold and hot cognition when experts read professional articles that are important to them. *Learning and Individual Differences*, *5*(1), 49-72. https://doi.org/10.1016/1041-6080(93)90026-O

ASSOCIATIVE AND GENDER ASPECTS OF THE EMOTIONAL CONCEPT OF *JEALOUSY* IN THE UKRAINIAN LINGUISTIC CULTURE

Olena Petiak
ORCID: 0000-0002-0635-493X
lenapetyak@gmail.com
Khmelnytskyi National University, Ukraine

Abstract. The article deals with the associative and gender features of the perception by marriage partners of the emotional concept of "jealousy" within the framework of the Ukrainian linguistic culture. Associative and gender features of the studied concept were found out as a result of data analysis of free word association test held with 100 Ukrainian speaking students, graduate students, and teachers (50 men and 50 women) at Khmelnytskyi National University, Ukraine. The respondents were in official marriage; their age was from 18 to 65. With the help of the free word association test the connections of the concept of "jealousy" in the Ukrainian language consciousness and the semantic zones of this stimulus word were determined. An important step was to take into account the opinions of the researchers regarding the possible difference between manifestations and the emergence of jealousy in men and women. Psycholinguistic ideas about jealousy are manifested in the ambivalence of emotions, the semantic clues of which are the polar properties of "love" ("care") – "hatred" ("doubt", "suspicion"). The gender factor affects the structure of the associative field of the concept of "jealousy" and determines both its quantitative indicators and its "semantic content". Qualitative analysis of the results of the free word association test helped to separate male and female world images and made it possible to talk about gender stereotypes regarding jealousy in the everyday linguistic consciousness of marriage partners.

Keywords: word association test, jealousy, concept, linguistic culture.

Анотація. У статті йдеться про асоціативні та гендерні особливості сприйняття шлюбними партнерами емоційного концепту «ревнощі» в межах української лінгвокультури. Дослідження проводилось серед студентів, викладачів та співробітників Хмельницького національного університету, які перебувають в статусі офіційного шлюбу. За допомогою вільного асоціативного експерименту визначені зв'язки концепту «ревнощі» в українській мовній свідомості, смислові зони даного слова-стимулу. Важливим етапом було врахування думок досліджуваних стосовно qмовірної різниці між проявами та виникнення ревнощів у чоловіків та жінок. Психолінгвістичні уявлення про ревнощі виявляються в амбівалентності емоцій, семантичними ознаками якої є полярні властивості «кохання» («турбота») – «ненависть» («сумнів», «підозра»). Гендерний чинник має вплив на структуру асоціативного поля концепту «ревнощі» та зумовлює і кількісні показники в структурі організації асоціативного поля концепту, і його «семантичне наповнення». Якісний аналіз результатів вільного асоціативного експерименту допоміг сформувати окремі фрагменти чоловічої і жіночої картин сприйняття світу в мовній свідомості та дав можливість розмірковувати про гендерні стереотипи стосовно ревнощів у повсякденній мовній свідомості шлюбних партнерів.

Ключові слова: асоціативний експеримент, ревнощі, концепт, лінгвокультура, ревнощі.

1. Introduction

Jealousy is one of the most destructive phenomena in the history of mankind connected with the sphere of family relationship. It has been present in the minds of people for the whole period of human history. The features of the phenomenon of jealousy lie in its multi-componentiality, since the attempts to explain it are integrated in the field of various fields of science, particularly, psychology, psycholinguistics, cultural studies, etymology, philosophy, religion, ethics, sociology (Pines, 1992). Jealousy is associated with mistrust, various types of aggression – verbal, physical, hostile, instrumental (Havryliv, 2019), envy, greed, perseverance, temper, paranoia, selfishness, sex (Shevtsov, Hupalovska, 2020), and love. Ambivalence and uncertainty of jealousy are deeply rooted in the public consciousness of many peoples, including the Ukrainian ethnos (Terekhova, 2018), and are reflected in some Biblical excerpts (Men, 2018). With the spread of jealousy at certain stages of human development, the researchers concluded that it is traced in the cultures where gender differentiation is encouraged (Foucault, 2000).

Jealousy is characterized by a combination of negative emotional states that arise when you lose the ability to own something or someone. They have historically determined roots, since each culture contains regulations on what should be unquestionably owned by a person and should be divided. Therefore, the causal field of jealousy of one culture will not necessarily cause jealousy among representatives of other cultures. Jealousy is what a person feels who passionately wants to own the object of his love or affection without separation and at the same time experiences fear of loss. As Rubinstein stated, in jealousy passionate love is combined with fierce hatred (Rubinstein, 2006, p. 511), experiencing jealousy is so strong that it's sometimes stronger than the feeling of love itself." (Ilyin, 2007, p. 346). The motive for jealous relationships is the fact "that someone loves not us but somebody else (or pretends to annoy or bring sufferings to a partner)" (Ilyin, 2007). Fromm believed that stubborn madness and fixation on each other is not at all proof of the power of love, but only indicates immeasurable preliminary loneliness (Fromm, 1995).

Thus, among basic feelings which accompany jealousy are fundamental emotions of fear and anger: the fear to lose a valuable relationship and a feeling of being safe, the anger is present, because someone else is considered to be better than the person – object of jealousy (Isard, 2002). Consequently, jealousy is a combination of love, hatred, envy, fear, and anger. But if love is excluded, then every meaning of jealousy is lost. Due to this love can be defined as a key pretext for jealousy and the main communicative linguistic category. Jealousy is considered to be an aspect of love, its secondary structure, its sub-category. Marital jealousy occupies a peculiar place (Isard, 2002; Maslow, 2008), as it is in "the middle" of hatred and love. To be faithful in love themselves (to destroy the idea of infidelity even in your thoughts) or to cope with jealousy, the person needs to have some life

experience and mature soul, self-sustainability and a balanced psyche which means self-actualization (Maslow, 2008, p. 214). It should be mentioned that those people don't need each other in general understanding as average lovers: they may be very close but may separate without any harm to themselves or a partner when it is necessary. Self-actualized personalities may enjoy the communication with each other and be ready "to philosophically accept long separation" at the same time. (Maslow, 2008, p. 220).

Jealousy is a complex, ambivalent feeling that a person experiences, requires exceptional loyalty and devotion to only one, and truly or falsely doubts them. This feeling arises when the personality is suspicious that they are deprived of the monopoly for love and loyalty of a person from whom they expect it (Kubryakova, 1995). The emotional concept of "jealousy" is the result of a person's complex cognitive and emotional mastery of linguistic and non-linguistic reality. The dialectical understanding of this phenomenon, that is, the interpretation of the cultural space, involves the use of not only linguistic, but also psychological, historical, social, general cultural data that modern science has (Khomulenko, Kuznetsov, 2019). Jealousy is a mental structure, reinterpreted in Ukrainian linguistic culture and is updated in the national consciousness in certain social conditions (Kristjansson, 2002).

2. Methods

The relevance of the study is explained by the need to investigate the associative-gender aspects of the emotional concept of "jealousy" as an element of the ethnic identity (Lyubimova, 2017) of a linguistic personality. The purpose of this research was to define the associative semantic space content of jealousy as reflected in male and female linguistic consciousness of the Ukrainian participants in marriage. Thus, associative and gender features of the emotional concept of "jealousy" were explored as a result of data analysis of free word association test held with 100 Ukrainian speaking students, graduate students, and teachers (50 men and 50 women) at Khmelnytskyi National University (Ukraine). The respondents were in official marriage; their age was from 18 to 65. The results of this study reflect gender differentiation, since there is sexual proportionality of the respondents.

To receive efficient results of free association test, we created a two-part questionnaire. The first part contained "introductory" questions (age, gender, marital status, official marriage duration) necessary to define the age and social group of the research objects. The second part contained three stages where the respondents had to:

1. indicate the first five associations which come to their mind as a response to the "jealousy" word-stimulus;

2. write down first five reactions which come to their mind as a response to "a jealous person" expression;

3. answer a question if there is any difference in male and female jealousy experience; if the difference exists, demonstrate how it is revealed and demonstrated.

When interpreting the results of free word association test and other questions of the questionnaire, the received data was consolidated to define the semantic core of the associations.

3. Results and Discussion

Table 1 shows the results of the study.

Table 1
Results of word association test

Associative responses of respondents to the words-stimuli "jealousy" and "jealous"			
Word-stimulus "jealousy"		Word-stimulus "jealous"	
Reaction	**Amount (%)**	**Reaction**	**Amount (%)**
Mistrust	32.0	Man	15.8
Black color	19.2	Owner	8.5
Anger	1.4	Angry	12.0
Bad feeling	6.3	Othello	8.5
Fear	2.3	Egoist	6.8
Hatred	6.0	Mistrustful	32.0
Evil	2.0	Rough	6.0
Uncertainty	13.8	Individualist	3.0
Ownership	17.0	Aggressive	7.4

The results obtained from the first and second stages of the word association test research show that jealousy is represented as a negative phenomenon associated with mistrust (32.0%), black color (19.2%), anger (1.4%), bad feeling (6.3%), fear (2.3%), hatred (6.0%), evil (2.0%), uncertainty (13.8%) and ownership (17.0%). A group of respondents (1.6%) believe that jealousy provides incentives for the feelings, provokes passion in the relationships. Respondents wrote the following associations with the word stimulus "a jealous person": a man (15.8%), owner/master (8.5%), angry (12%), Othello (8.5%), egoist (6.8%), mistrustful (32%), rough (6%), individualist (3.0%), aggressive (7.4%).

The question about the difference between male and female jealousy demonstrated that 72% of respondents reject the probability of its existence. It means that there is no difference between male and female jealousy. The rest of respondents (28%) believe that this difference lies mainly in the individual features of jealousy and in the fact that women have mostly emotional manifestations of jealousy, while men – mostly behavioral. Thus, respondents believe that jealous men being owners by nature do not want to share their beloved wife with anyone. At the same time, as it turned out, male jealousy is painful: men do not hide their

jealousy from partners. Female jealousy, as respective respondents reported, is cruel, emotional, aggressive, evil, insidious, women have more reasons for jealousy (imaginary or real). They are able to revenge on their rival, being more agile in the ways to be jealous or hide this feeling.

4. Conclusions

The results of our research show that the emotional concept of "jealousy" plays a role in the Ukrainian linguistic culture. The study confirmed that the concept of "jealousy" is ambivalent, but more often negatively marked ethical phenomenon that has a range of semantic features. The concept is a complex mental construct having its linguistic expression and ethno-cultural specifics. Universal features of jealousy are manifested when implemented in scientific discourse uncovering its essential characteristics.

The conceptualization of jealousy in the minds of contemporary Ukrainians is similar to the general scientific and ethical, philosophical, and religious understanding of this phenomenon by other peoples. Jealousy is associated with the notions of "love", "mistrust", "negative feeling", "uncertainty", "anger". It was found out that general understanding of the concept by married partners is connected with age, education and personal occupation.

Among common gender features revealed for jealousy, as reported by the participants, were "feeling of anger", "desire to own their partner without sharing", "indignation", "insult", "mistrustfulness", "anger", "hesitations in fidelity and love", "fear of loss". The gender factor affects the structure of the associative field of the concept by determining both its quantitative indicators of the concept and its "semantic content". Qualitative analysis of the results of the free word association test helped to separate male and female world images and made it possible to talk about gender stereotypes regarding jealousy in the everyday linguistic consciousness of marriage partners.

References

Гаврилів О. Непряма вербальна агресія. *East European Journal of Psycholinguistics*. 2019. Т. 6, № 2. С. 7–20. https://doi.org/10.5281/zenodo.3637704

Изард К. Э. Психология эмоций. Нижний Новгород : Питер, 2002.

Ильин Е. П. Эмоции и чувства. С.-Петербург : Питер, 2016.

Кубрякова Е. С. Начальные этапы становления когнитивизма: лингвистика – психология – когнитивная наука. *Вопросы языкознания*, 1995. № 4. С. 3-15.

Маслоу А. Мотивация и личность. Москва: Питер, 2008 .

Мень А. Мировая духовная культура. Нижний. Новгород: Нижегородская ярмарка, 1995.

Рубинштейн С. Л. Основы общей психологии. Санкт-Петербург: Питер, 2006.

Фромм Э. Состояние человека. Москва: Смысл, 1995.

Фуко М. Історія сексуальності. Харків : Око, 2000.

Хомуленко Т., Кузнецов А. Психолингвистическое значение концепта «вера». *Psycholinguistics-Psiholingvistika*. 2019. Вип. 25, № 1. С. 338-362.

Шевцов А., & Гупаловська В. Психосемантичний зміст поняття сексуальності в мовній свідомості дорослих. *Psycholinguistics-Psiholingvistika*, 2020, *Вип. 27, № 1*. С. 310-334. https://doi.org/10.31470/ 2309-1797-2020-27-1-310-334.

Pines A. (1992). Romantic Jealousy: *Understanding and Conquering the Shadow of Love*. New York: St. Martin's Press.

Kristjansson K. (2002). *Justifying Emotions: Pride and Jealousy*. L.: Routledge.

Lyubimova, S. (2017). Etymological memory of a word in designating sociocultural stereotype. *East European Journal of Psycholinguistics, 4*(1), 140-149. https://doi.org/10.5281/zenodo.821718

Terekhova, D. (2018). An experimental study of the lingual consciousness of Ukrainians and Russians (Dynamic aspect). *East European Journal of Psycholinguistics, 5*(1), 92-110. https://doi.org/10.5281/zenodo.1436306

References (translated and transliterated)

Havryliv, O. (2019). Nepriama verbalna agressiya [Indirect verbal aggression]. *East European Journal of Psycholinguistics, 6*(2), 7–20. https://doi.org/10.5281/zenodo.3637704.

Izard, K. E. (2002). Psikhologiya Emotsii [*Psychology of Emotions*]. Nizhny Novgorod: Piter, 446.

Ilyin, E. P. (2016). *Emotsii i Chuvstva [Emotions and Feelings]*. S.-Petersburg: Piter.

Kubryakova, E. S. (1995). The initial stages of the formation of cognitivism: linguistics-psychology-cognitive science. *Voprosy Linguistiki*, *4,* 3-15.

Maslow, A. (2008). *Motivatsiya i Lichnost* [*Motivation and Personality*]. Moscow: Piter.

Men, A. (1995). Mirivaya Dukhovnaya Kultura [*World Spiritual Culture*]. Nizhny Novgorod: Nizhegorodskaya Yarmarka.

Rubinstein, S. L. (2006). Osnovy Obshchey Psikhologii [*Fundamentals of General Psychology*]. S.-Petersburg: Piter.

Fromm, E. (1995). *Sostoyaniye Cheloveka* [*The Human Condition*]. Moscow: Sense.

Foucault, M. (2000). *Istoriya Sexualnosti [The History of Sexuality]*. Kharkiv: Oko.

Khomulenko, T., Kuznetsov, A. (2019). Psycholinguistic meaning of the concept of "Faith". *Psycholinguistics-Psiholingvistika*, *25*(1), 338-362. https://doi.org/10.31470/2309-1797-2019-25-1-338-362.

Shevtsov, A., & Hupalovska, V. (2020). Psychosemantic content of the concept of sexuality in the linguistic consciousness of adults. *Psycholinguistics-Psiholingvistika*, *27*(1), 310–334. https://doi.org/10.31470/2309-1797-2020-27-1-310-334.

Pines, A. (1992). Romantic Jealousy: Understanding and Conquering the Shadow of Love. New York: St. Martin's Press.

Kristjansson, K. (2002). Justifying Emotions: Pride and Jealousy. L.: Routledge.

Lyubimova, S. (2017). Etymological Memory of a Word in Designating Sociocultural Stereotype. *East European Journal of Psycholinguistics*, *4*(1), 140–149. https://doi.org/10.5281/zenodo.821718.

Terekhova, D. (2018). An Experimental Study of the Lingual Consciousness of Ukrainians and Russians (Dynamic Aspect). *East European Journal of Psycholinguistics*, *5*(1), 92–110. https://doi.org/10.5281/zenodo.1436306.
.

REFLECTIVE STYLE AND SPEECH PRODUCTION DURING ACADEMIC TASK SOLVING IN UNIVERSITY STUDENTS

Olena Savchenko
savchenko.elena.v@gmail.com
Vadym Hetman National Economic University of Kyiv, Ukraine
ORCID: 0000-0002-7069-7419
Heorhii Kalmykov
ORCID: 0000-0002-1378-5236
Donbass State Pedagogical University, Ukraine
Liudmyla Malimon
ORCID: 0000-0002-2964-6580
malimon.ludmila@eenu.edu.ua
Lesya Ukrainka Eastern European National University, Ukraine

Abstract. The aim of the article is to examine the relationship between students' reflective information processing style and speech production during academic tasks solving. The study applies *Index of Learning Styles Questionnaire* (Felder & Solomon, 2001) to examine four pairs of learning styles, notably active – reflective, sensing – intuitive, visual – verbal and sequential – global. The study applies functional analysis suggested by Naydonov (2008). The students were asked to solve the academic tasks aligned with their knowledge of the academic module. The study applies analysis of fourteen categories according to the following two criteria, notably considering the content/meaning of students' responses and type of solution. The findings indicate that students with a high level of reflective and verbal style less frequently apply category text (34.55±12.39), comparatively with students with a low level of reflective та verbal style (65.94±4.13). Students with a high level of reflective and verbal style more frequently apply category tools (6.61±1.96) and less frequently category intentions (1.69±1.78) comparatively with students with a low level of reflective and verbal style (1.06±.78 and 2.30±.71, respectively). Category models are more frequent in students with a medium level of reflective style (3.61±.99), comparatively with students with a high (2.05±2.76) and a low (2.69±1.01) level. Therefore, speech production in categories of *models* and *tools* evaluates the best solutions in the academic setting, providing an efficient academic task solving.

Keywords: *reflection, reflectivity, reflective style, speech, content and meaning-oriented analysis.*

Савченко Олена, Калмиков Георгій, Малімон Людмила. Рефлексивний стиль як каталізатор мовленнєвої продукції студентів у процесі розв'язання навчальних задач

Метою дослідження є вивчення взаємозв'язку між рефлексивним стилем обробки інформації та мовленнєвою продукцією студентів у дискурсі, який формується під час розв'язування ними навчальних задач. У дослідженні використаний «Опитувальник стилів навчання» (Felder & Solomon, 2001) для вивчення чотирьох пар стильових властивостей, а

саме: активний – рефлексивний, чуттєвий – інтуїтивний, візуальний – вербальний, послідовний – глобальний. У дослідженні застосовувався функціональний аналіз, запропонований М. Найдьоновим (2008). Студентам було запропоновано розв'язати навчальні завдання з певного навчального модуля. У дослідженні застосовувався аналіз за чотирнадцятьма категоріями, які відображали два критерії, зокрема: урахування змісту/смислу відповідей та типу рішення студентів. Отримані результати свідчать, що студенти з високим рівнем рефлексивного і вербального стилів рідше використовують категорію *текст* (34.55±12.39) у порівнянні зі студентами з низьким рівнем рефлексивного і вербального стилів (65.94±4.13). Студенти з високим рівнем рефлексивного та вербального стилів частіше використовують категорію *засіб* (6.61±1.96) та значно рідше категорію *намір* (1.69±1.78), ніж студенти з низьким рівнем рефлексивного та вербального стилів (відповідно, 1.06±.78 та 2.30±.71). Категорія *модель* частіше зустрічається у мовленнєвій продукції студентів з середнім рівнем рефлексивного стилю у порівнянні зі студентами з високим (2.05±2.76) та низьким рівнем (2.69±1.01). Отже, застосування категорій *модель* та *засіб* забезпечує прийняття більш ефективних рішень у процесі навчання, більш успішне розв'язання навчальних завдань.

Ключові слова: рефлексія, рефлексивність, рефлексивний стиль, мовлення, змістово-смисловий аналіз, психосемантичні засоби.

1. Introduction

Reflection has a pivotal role for cognitive processes and personal development. Several attempts have been made to define reflection as mental processes. Reflection is defined as an important factor of the individual efficiency. Reflection performs different functions having a strong impact on the outcomes of the individual activity. Moreover, reflection has different shades of meaning aligned with various spheres of individual activity. In particular, reflection as a feature has an impact on development of self-conception; reflection as a process has an effect on critical evaluation of reality and analysis of requirements and possibilities of the situation. Reflection as a mental state is aligned with cognitive processes, and regulates cognitive processing of information. Reflection as a mechanism provides reflection and regulation of individual intentions towards self-development. Reflection as an ability related to individual readiness to perceive, analyze and regulate mental processes. Finally, reflection is considered as an important predictor of individual development and self-realization.

The main difficulties aligned with theoretical approached to reflection are various definition even within one suggested framework. In particular, there are different definitions of reflection as a feature, notably systemic ability (Karpov, 2004); predictor of individual self-determination and self-development (Sharov, 2006), predictor of thinking (Semenov & Stepanov, 1989), form of cognitive process (Schedrovitskii, 2003), way of human existence (Rubinstein, 2003). The existing body of research on reflection suggests that reflection is the characteristics of individual style, aligned with making decision and behavioral strategies of the life problem solving.

Style is a stable individual feature, which predicts the characteristics of the individual activity. Kholodnaya (2004) suggests several types of style features, which characterize the individual intelligence, notably information processing,

intellectual styles, and epistemological styles. The reflective style is represented at the four levels: as information processing style (Felder & Solomon, 2001), decision making in the situation of ambiguity (Kagan, 1965) style of problem solving (Savchenko, 2015), styles of existence (Rubinstein, 2003; Starovoitenko, 2007).

The attitude to the information processing before the information could be applied is defined as reflective style of information. Felder and Solomon (2001) suggest four pairs of style feature, notably active–reflective, sensing–intuitive, visual–verbal, and sequential–global. Kagan (1965) points out that reflectivity is the attitude to the correct decision making in a multiple choice situation. Moreover, this style is slow and contrasting the impulsive style. Savchenko (2015) suggests four styles for problem solving, particularly active, avoiding, constructive–reflective, and deconstructive–reflective. Extensive research has shown that reflection has an ambivalent nature, and might have both a positive and negative impact on the individual efficiency (Savchenko, 2016). Rubinstein (2003) points out two ways of personality's attitude towards the world, notably trivial and reflective. Recently investigators have examined the effects of individual awareness on individual existence, and furthermore, defined four types of personality, in particular personality in everyday life, active personality, reflective personality, and creative personality with valuable ideas. (Starovoitenko, 2007). Currently, there are no data on effect of reflective information processing style on individual speech and academic task solving in students.

The aim of the study is to examine the relationship between reflective information processing style and academic task solving.

Evidence of recent research shows that there is a strong association between reflection and language abilities and skills (Vygranska, 2019). Moreover, reflection is views as a robust predictor of language competence. Bosa (2017) argues that reflection as a component of language competence; Kulyk points out that reflective abilities are predictors of speech development; Zalevskaya (2015) considers reflection in the context of meta-speech. The objective of the empirical study in the current paper is to examine the relationship between reflective style and speech production in students.

2. Methods

The study applies "Index of learning styles questionnaire" (Felder & Solomon, 2001) to examine four pairs of style feature, notably active–reflective, sensing–intuitive, visual–verbal та sequential–global. Students' speech was also recorded in the study. Students were commenting their hypothesizing and making decisions during academic task solving. The study applies functional analysis suggested by Naydonov (2008). The students were asked to solve the academic tasks aligned with their knowledge of the academic module. Students were solving eight close tasks (participants knew that there is a predetermined solution in the task) and one open task (participants knew that there is no predetermined solution) at different complexity level. The close tasks also include multiple choice tasks. Students were asked to express their thoughts, emotions and intentions during the academic task

solving. Students' speech was recorded and then transcribed. The time was limited up to 12 minutes. The researcher controlled the time for students' responses. The study applies analysis of fourteen categories according to the flowing two criteria, notably considering the content/meaning of students' responses and type of solution. The results of students' responses analysis according to their content are illustrated in Table 1.

Table 1
Analysis of students' responses according to their content

Types of solution		Types of solution	
Category	Content	Category	Content
Text	Repeating information from the task during reading the text	Solution	Implementing solution
Images	Generating possible solutions	Operation	Verbal expressing of separate actions
Intentions	Evaluating ideas and choosing one possible solution	Schema	Verbal expressions of the consequence of actions
Models	Evaluate the best solutions in the current academic setting	Tools	Considering limitations and exploring the relationship between concepts

The results of students' responses analysis according to their content are illustrated in Table 2.

Table 2
Analysis of students' responses according to their meaning

Types of solution		Types of solution	
Category	Meaning	Category	Meaning
Attitude	Differentiate fact from opinion	Argumentation	Give evidence-based argumentation for ways of solution
Specifying	Stating the task specifically	Evaluation	Evaluate alternative ways of solution
Assumptions	Specify short and long-term alternatives	Implementation	Evaluate long-term results based on final solution

Participants. A total sample of 91 participants from Kherson State University was recruited through the Students' Union, 33 first-year students, 33 second-year students, and 25 fourth-year students. The inclusion criteria for participants were to be over 18 years old and to be currently a student of Kherson State University. The mean age of the participants was 21,5±2,7.

3. Results and Discussion

The descriptive statistics of speech production is presented in Table 3.

Table 3
Descriptive statistics of speech production during academic task solving

Category content	Descriptive statistics		Category meaning	Statistics	
	Mean	SD		Mean	SD
Text	57.70	12.69	Attitudes	13.36	8.15
Images	8.32	6.26	Specifying	11.89	7.72
Intentions	2.16	2.16	Assumptions	16.51	10.22
Models	3.26	3.29	Argumentation	27.00	14.75
Solution	15.05	8.54	Evaluation	15.05	10.30
Operations	11.17	8.93	Implementation	16.18	8.61
Schema	0.95	2.91			
Tools	1.39	2.67			

It is apparent from this table that *text* is the the most expressed category according to the content. Considering that meaning of the category *text* is repeating information from the task, we can infer that repeating and reproducing information from the task is an important phase in the academic task solving. The frequency of the category *text* (57.7±12.69) is much higher than categories of *solution* (15.05±8.54) and *operations* (11.17±8.93), respectively $\varphi*=6.18$ and $\varphi*=6.96$; p< .001. Closer inspection of the table also shows that categories of *solution* (15.05±8.54) and *operations* (11.17±8.93) are much higher than categories of *schema* (0.95±2.91), *tools* (1.39±2.67), *intentions* (2.16±0.95), and *models* (2.16±2.16). Interestingly, the fast solution without deep analysis and evaluation of *tools* and *models* was observed in academic activity in students.

The findings show that that the high frequency of the category *operations* (11.17±8.93) is observed. It means that verbal expression of students' operations is more preferable for students than planning, modeling and analyzing existing tools. These findings corroborate with previous research indicating students' verbal activity in the self-regulation of the cognitive processing (Savchenko, 2016). The results show that category of *images* (8.32±6.26) is more frequent than categories of *schema* (0.95±2.91), tools (1.39±2.67), and *intentions* (2.16±0.95), respectively ($\varphi*=2.56$; $\varphi*=2.31$; p< .01 and $\varphi*=1.9$; p=.03. The category of *images* indicates the students' tendency to define the primary direction in evaluating alternative ways for

the academic task solution. However, this tendency restricts searching for alternative ways of solution and develops the readiness for making decision. What stands out in the table is that the categories according to the meaning were equally distributed in the students` speech. The category of *argumentation* has a higher frequency (27±14.75) comparatively with other categories (27±14.75). This frequency of this category is much higher than frequency of the categories s*pecifying* (11.89±7.72), *evaluation* (15.05±10.30), *implementation* (16.18±8.61), and *assumption* (16.51±10.22). This result may be explained by the fact that giving evidence-based argumentation for ways of solutions is aligned with the efficient strategy for solution and making decision.

Table 4 illustrates the relationship between speech activity and academic task solving.

Table 4
Correlation between speech activity and efficient academic task solving in students

Category content	Correlation		Category meaning	Correlation	
	r	p		r	p
Text	-.12	.256	Attitudes	-.25	.02*
Images	-.48	.66	Specifying	.15	.15
Intentions	-.14	.89	Assumptions	-.11	.31
Models	.23	.03*	Argumentation	.24	.03*
Solutions	.20	.06	Evaluation	-.31	.003*
Operations	-.11	.92	Implementation	.29	.006*
Schema	-0,08	0,481			
Tools	-0,18	0,1			

Note. *p<.05, **p<.01

Closer inspection of the table shows that no correlation was found between frequency of the category *text* and efficient academic task solving (r=-.12, p<.01). A possible explanation for this might be that repeating the information from the task may not be a robust predictor of efficient academic task solving, since repeating may indicate the automatic reproducing information without deep understanding.

A positive correlation was found between category of *models* and efficient academic task solving (r=.23; p<.05), therefore, evaluating the best solutions in the current academic setting is a positive predictor of an efficient final solution. Evidence consistently suggests that efficient academic task solving is more aligned with meaning categories than content categories. Particularly, the level of efficiency is more high in students with frequent categories of *argumentation* (r=.24; p<.05) and i*mplementation* (r=.29; p<.01) than with categories of *attitudes* (r=-.25; p<.05) and *evaluation* (r=-.31; p<.01)..

Argumentation in different phases of the academic task solving has a positive impact on efficient solution, since it is aligned with deep understanding of the academic task content.

Moreover, argumentation facilitates capturing relationship between different parts of the task, and specify short and long- term alternatives. One unanticipated finding was that there is a negative correlation between attitudes and academic task solving, since the negative attitudes related with previous experience might have a poor impact on the solution of the task. Another possible explanation might be that a negative attitude is aligned with much cognitive efforts, which has a poor impact on final results. The argumentation aligned with a personal experience might be also a negative predictor of academic task solving since it activates the deep levels of reflection.

Therefore, evidence consistently suggests that *argumentation*, *modeling*, *implementation*, *absence of attitudes* are robust predictors of the efficient academic task solving.

The relationship between styles of reflection and students` speech was explored by One-Way ANOVA and Two-Way ANOVA, Statistica 17.00.

The results indicate that reflective style is not related with students` speech in terms of content category (F=.64) and meaning category (F=.51). The results also show that the most developed style in students is sequential style. Furthermore, sequential style is related to meaning category (F=2.0; p<.02).

Table 5 illustrates the results of Two-Way ANOVA.

Table 5
Relationship between students' information processing style and speech production during academic task solving

Information processing style	F	p	F	p
	Content categories		Meaningful categories	
Reflective and sequential information processing style				
Reflective	1,19	0,29	0,28	0,99
Sequential	3,07	0,0003	0,55	0,85
Reflective / Sequential	1,61	0,03	0,57	0,93
Reflective and sequential information processing style				
Reflective	1,98	0,02	0,35	0,96
Verbal	2,17	0,01	0,48	0,89
Reflective /Verbal	2,35	0,0003	0,89	0,60

What stands out in the table is the relationship between information processing style and content categories. Moreover, the developed reflective style might be an important condition for other styles, notably sequential and verbal. Table 6 illustrates the relationship between students` information processing style and content categories.

Table 6

Students' information processing style and content categories

Content categories	F	p	F	p
	Reflective / Sequential		Reflective / Verbal	
Text	2,05	0,09	2,54	0,05
Intentions	0,76	0,56	2,63	0,04
Models	0,14	0,96	2,67	0,04
Tools	6,34	0,000	6,79	0,000

Evidence consistently suggests that students with a high level of reflective та sequential styles, often apply category *tools.* It means that they consider limitations and explore the relationship between concepts during academic task solving.

Students with a high level of reflective and verbal style less frequently apply category *text* (34.55±12.39), comparatively with students with a low level of reflective та verbal style (65.94±4.13). Students with a high level of reflective and verbal style more frequently apply category *tools* (6.61±1.96) and less frequently category *intentions* (1.69±1.78), comparatively with students with a low level of reflective and verbal style (respectively, 1.06±.78 and 2.30±.71). The findings indicate that category *models* is more frequent in students with a medium level of reflective style (3.61±.99), comparatively with students with a high (2.05±2.76). and a low (2.69±1.01) level. It is in line with the idea of optimal representation of different reflective elements in an efficient individual cognitive activity (Karpov, 2004). Speech production in categories of *models* evaluates the best solutions in the current academic setting providing an efficient academic task solving.

4. Conclusion

Reflective syle of information processing might not be an independent factor, effecting content and meaningful categories in students` speech. However, information processing reflective style has an effect on verbal and sequential styles, which are the robust predictors of speech production. Therefore, this study set out to capture the relationship between students` reflective information processing style and speech production during academic tasks solving. The research has shown that reflective style is an important inner condition for other information processing styles, which have a positive effect on speech production. The findings of this study suggest that content categories of *models* and *tools* are closely aligned with an efficient academic task solving. Therefore, evaluating the best solutions in the current academic setting, considering limitations, and exploring the relationship between concepts have a strong effect on positive outcome of academic task solving. The study should be repeated using experimental conditions and capturing cause-effect of information processing style on task solving in the academic settings.

153

References

Боса, В. П. Мовленнєва компетентність майбутніх учителів іноземних мов: методологія проблеми. Восточный Европейский научный журнал: международный польский научный журнал. 2017, 11(27), Ч. 3, 8-13.

Залевская А. А. «Рефлексия» и «языковое сознание»: вопросы терминологии. *Вестник Тверского государственного университета. Серия «Филология».* 2015, 4, 29–36.

Карпов А. В. Психология рефлексивных механизмов деятельности. М. : Изд-во «Институт психологии РАН», 2004.

Кулик О. Поняття рефлексії, її сутність та роль у методиці навчання української мови. Українська мова і література в школі. 2014. № 3. С. 2–7.

Найдьонов М. І. Формування системи рефлексивного управління в організаціях. К.: Міленіум, 2008.

Рубинштейн С. Л. Бытие и сознание. Человек и мир. СПб.: Питер, 2003.

Савченко О. В. Рефлексивна компетентність особистості. Херсон : ПП Вишемирський В. С., 2016.

Савченко О. В. Стиль розв'язання проблемно-конфліктної ситуації як аспект аналізу життєвого шляху особистості. *Вісник Одеського національного університету. Серія : Психологія.* 2015, Т. 20, 2 (36), Ч. 1, 142–152.

Семенов И. Н., Степанов С. Ю. Рефлексия в организации творческого мышления и саморазвития личности. *Вопросы психологии.* 1983, № 2, 35–42.

Старовойтенко Е. Б. Культурная психология личности. М.: Академический проспект : Гаудемус, 2007.

Холодная М. А. Когнитивные стили. О природе индивидуального ума. СПб. : Питер, 2004.

Шаров А. С. Онтология психологических механизмов рефлексии. Вестник Омского государственного педагогического университета : электрон. науч. журнал. 2006. URL: http://sfrik.omskreg.ru/res.

Щедровицкий Г. П. Процессы и структуры в мышлении: курс лекций. Из архива Г. П. Щедровицкого. Т. 6. М. : «Путь», 2003.

Felder R.M. & Solomon B.A. Index of learning styles questionnaire. North Carolina State University, 2001. Retrieved from http://www2.ncsu.edu/unity/lockers/users/f/felder/public/ILSdir/ILS-a.html.

Kagan, J. (1965). Reflection-impulsivity: the generality and dynamics of conceptual tempo. *Journal of Abnormal Psychology, 77,* 17–24.

Vygranka, T. (2019). The features of formation of speech competence of future philologists in the educational process of institution of higher education. *International Academy Journal Web of Scholar. 5*(35), 26-30. https://doi.org/10.31435/rsglobal_wos/31052019/6502

References (translated and transliterated)

Bosa, V. P. (2017). Movlennieva kompetentnist maybutnikh uchyteliv inozemnykh mov: metodolohiya problemy. *Vostochnyi Yevropeiskiy Nauchnyi Zhurnal: Mezhdunarodnyi Polskiy Nauchnyi Zhurnal*, *11*(27), 3, 8-13.

Zalevskaya, A. A. (2015). "Refleksiya" i "yazykovoe soznanie": voprosy terminologii ["Reflection" and "linguistic consciousness": issues of terminology]. *Vestnik Tverskogo Gosudarstvennogo Universiteta. Seriya "Filologiya", 4,* 29–36.

Karpov, A. V. (2004). *Psihologiya Refleksivnyh Mehanizmov Deyatelnosti [Psychology of reflective mechanisms of activity].* Moscow: Institute of Psychology of the Russian Academy of Sciences.

Kulyk, O. (2014). Poniattia refleksiyi, yii sutnist ta rol u metodytsi navchannia ukrayinskoyi movy [The concept of reflection, its essence and role in the methodology of teaching the Ukrainian language]. *Ukrayinska Mova i Literatura v Shkoli, 3,* 2–7.

Naydonov, M. I. (2008). *Formuvannia Systemy Refleksyvnoho Upravlinnia v Orhanizatsiyakh [Formation of Reflexive Management System in Organizations]*. Kyiv: Milenium.

Rubinshtejn, S. L. (2003) *Bytie i Soznanie. Chelovek i Mir [Genesis and Consciousness. Human and the World.]*. S.-Petersburg: Piter.

Savchenko, O. V. (2016). *Refleksyvna Kompetentnist Osobystosti [Personality`s Reflective Competence]*. Kherson: Vyshemyrskyi.

Savchenko, O. V. (2015) Styl rozvyazannia problemno-konfliktnoyi sytuatsiyi yak aspekt analizu zhyttievoho shliakhu osobystosti [Style of resolving a problem-conflict situation as an aspect of person's life experience analysis]. *Visnyk Odeskoho natsionalnoho universytetu. Seriya: Psykholohiya*, *Vol. 20, 2*(36), 1, 142–152.

Semenov I. N. & Stepanov S. Yu.(1983) Refleksiya v organizatsii tvorcheskogo myishleniya i samorazvitiya lichnosti [Reflection in the organization of creative thinking and personal self-development]. *Voprosy Psihologii*, *2,* 35–42.

Starovoitenko, E. B. (2007). *Kulturnaya Psihologiya Lichnosti [Cultural Psychology of the Person]*. Moscow: Akademicheskiy Prospekt: Gaudemus, 2007.

Kholodnaya, M. A. (2004). *Kognitivnye Stili. O Prirode Individualnogo Uma [Cognitive Styles. On the Nature of the Individual Mind]*. S.-Petersburg: Piter.

Sharov A. S. (2006) Ontologiya psihologicheskih mehanizmov refleksii [Ontology of psychological mechanisms of reflection]. *Vestnik Omskogo Gosudarstvennogo Pedagogicheskogo Universiteta.* Retrieved from http://sfrik.omskreg.ru/res.

Schedrovitskiy G. P. (2003) Protsessyi i strukturyi v myishlenii: kurs lektsiy [Processes and structures in thinking: a course of lectures.]. *Iz arhiva G. P. Schedrovitskogo. Vol. 6.* Moscow: Put.

Felder, R.M. & Solomon, B.A. (2001). Index of learning styles questionnaire. North Carolina State University. Retrieved from http://www2.ncsu.edu/unity/lockers/users/f/felder/public/ILSdir/ILS-a.html.

Kagan, J. (1965). Reflection-impulsivity: the generality and dynamics of conceptual tempo. *Journal of Abnormal Psychology*, *77,* 17–24.

Vygranka, T. (2019) The Features of Formation of Speech Competence of Future Philologists in The Educational Process of Institution of Higher Education. *International Academy Journal Web of Scholar*, 5(35), 26-30. https://doi.org/10.31435/rsglobal_wos/31052019/6502

THE DISCURSIVE CONSTRUCTION OF CERTAINTY AND UNCERTAINTY IN THE SCIENTIFIC TEXTS OF FORENSIC PSYCHIATRY

Rosa Scardigno
ORCID: 0000-0002-5725-6483
Scopus Author ID: 38862931400
rosa.scardigno@uniba.it
University of Bari Aldo Moro, Italy
Ignazio Grattagliano
ORCID: 0000-0001-5929-5868
Scopus Author ID: 56738914000
ignazio.grattagliano@uniba.it
University of Bari Aldo Moro, Italy
Amelia Manuti
ORCID: 0000-0001-5308-7494
Scopus Author ID: 38862224500
amelia.manuti@uniba.it
University of Bari Aldo Moro, Italy
Giuseppe Mininni
Scopus Author ID: 35300189100
giuseppe.mininni@uniba.it
University of Bari Aldo Moro, Italy

Abstract. A common ground between mental health and judicial-legal domains concerns concepts like "care", "control" and "possibility to foresee" human behaviour, with particular reference to the "social dangerousness". The connections between these sense-making practices can be traced by discursive modulation of "certainty/uncertainty". This study aimed to highlight the discursive peculiarities of a specific socio-cultural context and genre, namely scientific papers. The corpus of data consisted in a selection of 30 papers published by the BJP (from 1975 to 2015), on subjects concerning forensic psychiatry, subjected to Content Analysis and Critical Discourse Analysis. Results showed that the papers adopted two main socio-epistemic rhetorics. On one side, the enunciators proceeded in an "assertive" and rigorous manner through a social-epistemic rhetoric of "reassurance"; on the other side, they gave voice to rhetoric of the "limit", lacking any cognitive "closure".

Keywords: scientific communication, certainty/uncertainty, socio-epistemic rhetoric, diatextual analysis.

Скардіньйо, Роса; Ґратальяно Ігнаціо, Мануті Амелія, Мінінні Джузеппе. Дискурсивне конструювання визначеності та невизначеності у наукових текстах криміналістичної психіатрії.

Анотація. Точки дотику між психічним здоров'ям та судово-юридичною сферою включають такі концепти як «увага», «контроль» і «можливість передбачати» людську поведінку з конкретною прив'язкою до «соціальної небезпеки». Зв'язки між цими смислоутворювальними практиками можна простежити за допомогою дискурсивної модуляції «визначеність/невизначеність». Мета цього дослідження – висвітлити дискурсивні особливості особливого соціо-культурного контексту і жанру, а саме, наукових праць. Корпус даних включає вибірку із 30 наукових праць, опублікованих BJP (з 1975 по 2015 р.) на теми, що стосуються криміналістичної психіатрії, і до яких було застосовано контент-аналіз та критичний дискурс-аналіз. Результати засвідчили, що в наукових працях обрано дві провідні соціо-епістемічні риторики. З одного боку, мовці розпочинали рішуче та суворо, використовуючи соціально-епістемічну риторику «заспокоєння», з іншого боку, вони озвучували риторику «обмеження», позбавлену будь-якого когнітивного «завершення».

Ключові слова: наукова комунікація, визначеність/невизначеність, соціо-епістемічна риторика, діатекстуальний аналіз.

1. Introduction

This paper analysed some of the connections between two *sense-making* domains – the medical-psychiatric one and the legal one – evidencing the relationships between language, cognition and society. The research perspective adopted aimed to trace these connections through the discursive modulation of "certainty/uncertainty" featuring text-and-talk in interaction (Cantarini, Abraham, & Leiss, 2014). Accordingly, the research question that guided the study was focused on the interface between discursive psychology, social psychology, health psychology, forensic psychology and psychiatry (Mininni, Scardigno, & Grattagliano, 2014): if and to what extent did uncertainty feature psychiatric scientific texts when (mental) health problems intersect the judicial-legal horizon?

1.1. The discursive construction of the "social dangerousness" of the "mentally-ill"

The complex questions deriving from deviant and criminal human actions ask for new knowledge and languages emerging from the connections between Psychology/Psychiatry and Justice. Hence, when these disciplines need to converge, a particular "question of method" emerges, it concerns the distinction between *clinical truth* and *legal truth* (Grevi, 2006). The *assessment of the clinical truth* is the result of a psychological-psychiatric investigation, aimed to establish whether a certain person's discursive acts and behaviors are the expression of mental functions altered by either a psychiatric pathology or cognitive and/or affective-relational sphere.

Ascertaining the legal truth is the exclusive job and pertinence of the magistrate who must *jus-dicere*. A judge therefore "performs the law" by acquiring proofs (interrogations, inspections, witness statements, reports, admissions, objective feedback, etc.), most of which have a discursive nature. Their main objectives are to reconstruct the facts-crime in all its constituting moments and to

attribute any single, specific and clear responsibility.

Despite the exposed differences, a possible common discursive field concerns the connection among concepts like "care", "control" and the "possibility to foresee" human conducts, especially concerning deviant behavior, aggressiveness and violence. This connection is portrayed in the concept of "*social dangerousness*" (Shah, 1978; Steadman & Cocozza, 1974). It indicates the *probability* that a subject – already condemned as guilty and responsible by the judge – commits the crime again (with all its consequences in terms of custodial and non-custodial security measures and punishments stripping or limiting freedom), on behalf of the whole community.

Social dangerousness has two sides: the first one is only *judicial*. As such, it concerns subjects who were in the right mind when the crime was committed. The assessment of the probability they commit again a crime is therefore exclusively performed by the magistrate. The second one is *legal medical and psychiatric*, or psychological-forensic. It concerns subjects crippled by mental illness, and thus insane, when the fact happened. In this case, the probability of repeating a crime is assessed by the opinion of clinical and forensic psychologists. As for these problems, Law asks to Psychiatry, Clinical Psychology and Forensics for a broad control and social reasьб between control, care and predictability of human behavior increases the needs for measures limiting freedom for subjects affected by mental infirmity who committed a crime (Foucault, 1972) in the name of safety and social reassurance. The requests for certainty and probabilities that the Law makes to Psychiatry and Psychology, emphasize the complex relations between the claims for social defense – inherent the "social dangerousness" – and more wide-ranging therapeutic-rehabilitative opportunities, which must be guaranteed to the "dangerous lunatic".

An evolutional path can be traced from "danger" meant as an almost "natural" individual feature – intrinsic and unrelated to the treatment – to the so-called "conditioned to the cures". This conceptual turn grants several therapeutic possibilities but, on the other side, asks forensic and clinical psychiatrist and psychologist for new obligations, commitments and responsibilities (Catanesi, Carabellese, & Grattagliano, 2009).

There is a wide literature about the risk factors of violent behavior. Firstly, several investigations denounced increasing risks in patients affected by serious mental pathologies (Lindqvist & Allebeck, 1990; Marzuk, 1996) in several socio-cultural contexts (Lamb & Weimberger, 1998; Kaliski, 2002). In addition, researchers identified several risk factors that differently combined can significantly increase the probability of new violent acts. The most significant ones are: being male, schizophrenics (Walsh, Buchanan, & Fahy, 2002), affected by serious psychotic hallucinations (Junginger, 1996) or, anyway, with a heavy clinical history (Torrey, 1994).

Other factors significantly related to the risk of violent behavior are poor adherence to treatment and substance abuse (if the two factors are correlated, the risk further increases), as well as the association between substance abuse and

mental illness (Monahan, 1997; Swanson, Estroff, Swartz, Borum, Lachicotte, Zimmer, & Wagner, 1997; Swartz, Swanson, & Hiday, 1998; Rasanen, Tiihonen, & Isohanni, 1998; Mullen, 2000; Bennett, Holloway, & Farrington, 2008).

This survey of the literature, interweaving the languages of law and the forensic psychological and psychiatric sciences, shows the possibility of formulating scientifically-oriented opinions, albeit with different degrees of certainty, on social dangerousness as possible predictions of violent behavior. In view of the above, the main aim of the present study was to analyse some of the claims underlying these "two orders of sense-making" which share the challenge of social dangerousness. The study was intended to investigate if and to what extent some of the most consolidated discursive practices and linguistic registers used in this context were compatible with the expectations rooted into a specific socio-cultural context, that is the scientific community. Therefore, the study attempted to determine the lexical forms and the rhetoric-argumentative strategies that discursively organize the construction of knowledge in the forensic psychiatry environment.

1.2. The discursive plot of the "social dangerousness" of the mentally ill

Different linguistic-rhetoric modes construct traces of certainty and other ones, in a complementary manner, limit the applicability of the knowledge. Yet, a further question concerned the construction of the authors of scientific texts as socially "credible" sources. It is widely recognized that a scientific paper is legitimated as a declaratory act of sense-making by being assessed, controlled and classified within a scientific community. It is also indirectly recognized valid if it legitimizes the application of knowledge to real contexts of life and work.

2. Methods
2.1. Corpus, research question and data analysis

The corpus of data of the present study was a sample of 30 papers published by the prestigious *British Journal of Psychiatry* (BJP)[1] in the period from 1975 to 2018. We selected articles whose main subject was forensic psychiatry.

The articles were examined according to a dual procedure. Firstly, content analysis was carried out with the support of the T-Lab software (Lancia, 2004). Content analysis allowed to detect the occurrences and co-occurrences of the recurring lemma in the texts, following the intuitive hypothesis that a greater frequency of words corresponds to more argumentative salience, without forgetting that the meaning of a linguistic sign is always dynamic and contextual (Salvatore & Valsiner, 2011; Salvatore et al., 2017; Valsiner, 2007).

Therefore, on a second step, the corpus of data was subjected to a "diatextual" way of Critical Discourse Analysis (Fairclough, 2003; van Dijk, 2008; Wodak & Meyer, 2009), a perspective based on the understanding of language as a "social practice" profoundly embedded within the context of production.

---

[1] As reported in the homepage of its website, the British Journal of Psychiatry (BJP) is one of the world's leading psychiatric journals. It addresses to psychiatrists, clinical psychologists, and all professionals with an interest in mental health.

Using the "diatextual" lens within Critical Discourse Analysis (Mininni & Manuti, 2017; Mininni, Manuti, Scardigno, & Rubino, 2014), means firstly to highlight the "genre" of the discourse (Bakhtin, 1979). In this vein, the corpus of data analysed by the present study can be categorized as a special genre – namely that of scientific texts – answering to quite rigid criteria that define what is appropriate and widely accepted by a community of experts. Scientific texts can be conceived as a discursive event owing a peculiar argumentative intent, because they are the privileged means to introduce new discoveries into the scientific communities, to invite other scholars to share them and to accept or defend specific claims, to widespread any new knowledge (Hyland, 2001).

In view of the above, the research question that guided the study was to investigate if and to what extent did uncertainty feature psychiatric scientific texts when (mental) health problems intersect the judicial-legal horizon. Therefore, in line with this aim, data analysis was addressed to investigate how uncertainty was discursively constructed within these texts. In our opinion, the social dangerousness of the psychically ill is featured by an "order of the discourse" (Foucault, 1972) which engages forensic psychiatrists/psychologists on two levels: on the one hand, they are obliged to construct "certainties" on a theoretical-methodological level, which is shared by their scientific community. On the other hand, the references to the "dangerous mentally-ill person" could be dotted with many traces of uncertainty for two main reasons: first, the discursive "genre" involves variable levels of assertiveness; second, these matters bear a great responsibility for their applicative implications on judicial, ethical and social levels.

2.2. Interpretative Models

In view of a Critical Discourse Analysis we performed both *bottom-up* and *top-down* paths in order to achieve a more holistic reading of the data (Mininni, Manuti, Scardigno, & Rubino, 2014). Specifically, the interpretative models that responded to the research objectives and to the typology of texts, were firstly determining a "socio-epistemic rhetoric" (Berlin, 1993). This construction incorporates references to both the sociological tradition of the analysis of the "ideologies" and the semiotic investigation of the "sign systems". Therefore, this interpretative tool permits a *top-down* reading of the texts and can determine sense perspectives valid for specific groups of positioning. The fecundity of this construction firstly derives from the sense of the word 'rhetoric' that, in our cultural pre-construction, evokes both preoccupation and care for the word, as well as interest for the "style", that is the connecting category between the linguistic and psychological domains (Caffi, 2001).

For a *bottom-up* analysis, we proposed the discursive modulation analyzed by the pragmatic construct of "mitigation", meant as the efforts to lower one or more parameters of interactions (ivi). This "reduction" may basically occur on three levels, determined by Caffi with three images: as a reduction of the propositional content, when the enunciators hide behind *bushes*"; as attenuation of the illocutionary force, when they protect themselves using *hedges*"; as keeping

distance from the actantial or space-time viewpoint, when they enjoy the reserved nature guaranteed by the "*screens*". Other analytical tools concern non-propositional aspects, e.g. the expressions of comment and reformulation that, by acting as a "meta-discourse" (Crismore, Markannen, & Steffenson, 1993; Hyland, 1996; 1998), enable the receiver not only to organize the text coherently, but also to understand the enunciator's credibility.

3. Results
3.1. Content Analysis

The social-epistemic rhetoric was firstly incardinated on a lexicon. The tool "vocabulary" granted by the T-Lab software allowed to point out the most widely used lemmas in the BJP texts, along with their absolute frequencies, in order to better understand the extent to which the papers examined were focused on issues related to forensic psychiatry. As expected, the most frequent words brought out three domains of meaning (see Table 1).

Table 1
*Most used lemmas in the BJP texts and relevant absolute frequencies*

Research	Frequency	(Forensic) Psychiatry	Frequency	Social Dangerousness	Frequency
Study	546	Disorder	823	Risk	472
Factor	321	Mental	425	Criminal	356
Population	307	Patients	404	Violence	346
Data	233	Personality	369	Offence	333
Man	225	Behaviour	306	Violent	248
Woman	208	Health	247	Antisocial	245
Age	200	Psychiatric	245	Crime	237
		Schizophrenia	230	Homicide	237

The first semantic area referred to the activity of "research" in general, like basic social records ('sex' and 'age'). References to mental, behavioral and personality factors evoked the investigated disciplinary framework that is (forensic) psychiatry. In general, illness was identified as 'disorder', whereas 'schizophrenia' was the most specific diagnosis proposed by the corpus of articles. The mention to 'health' was fundamental in order to show the utility and the social importance of the focused subjects and the topics. Reference to violence, criminality and antisocial behavior provided the backdrop to "social dangerousness". The words 'risk' and

'homicide' as well as 'crime' and 'offence' highlighted both the pragmatic dimension and the social threat.

In order to examine the semantic networks activated in relation to specific words, defined as "focus" and chosen according to their frequency and saliency, the T-lab tool "word associations" was used. It allowed the statistic validity of the links between the lemmas to be verified in the elementary contexts (the periods) by calculating the cosine coefficient.

Figure 1
Word association – focus on word 'Psychiatric'
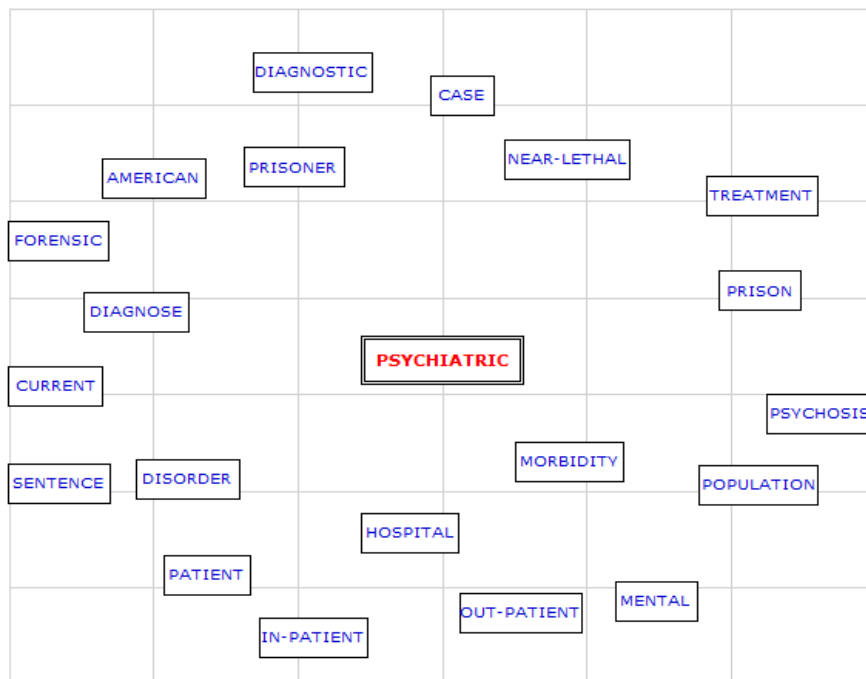
The emerging graph allowed us to point out the efforts to compose differing conceptual frameworks: the identification of persons as 'patients' and 'prisoners', the contexts of 'hospital' and 'prison', the presence of a lexicon referring both to the medical world – 'diagnose', 'diagnostic', 'treatment', 'morbidity' – and to the forensic domain – 'forensic', 'sentence' – highlight the complexity and the need to consider different theoretical-methodological perspectives.

This "dual" dimension also characterized the semantic network about the word 'health'. On the one hand, it appeared to be rooted in the public and social dimension ('service', 'public', 'department', 'problem', 'national', 'world', 'England'); on the other, it highlighted references to the forensic environment ('security', 'justice'). More generally, health was engaged in the need for its "management" ('care', 'prevention', 'information', 'system', 'initiative', and 'professional').

Content Analysis therefore revealed the holistic orientation of these scientific texts: this result both integrated the various disciplinary prospects, underlining at the same time the dialectic nature of argumentation.

Figure 2
Word association – focus on word 'Health'
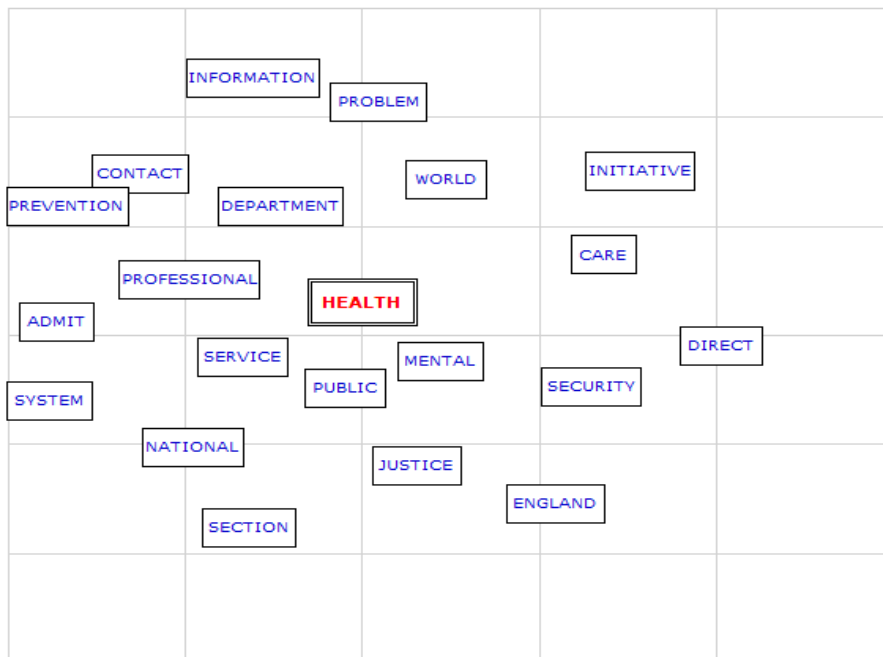
The semantic networks regarding the lemmas 'mental' and 'crime' reveal a particular dynamic between *logoi* and *antilogoi*: the two closest words to the former were 'illness' and 'health', the closest ones to the latter were 'violent' and 'non-violent'.

Figure 3
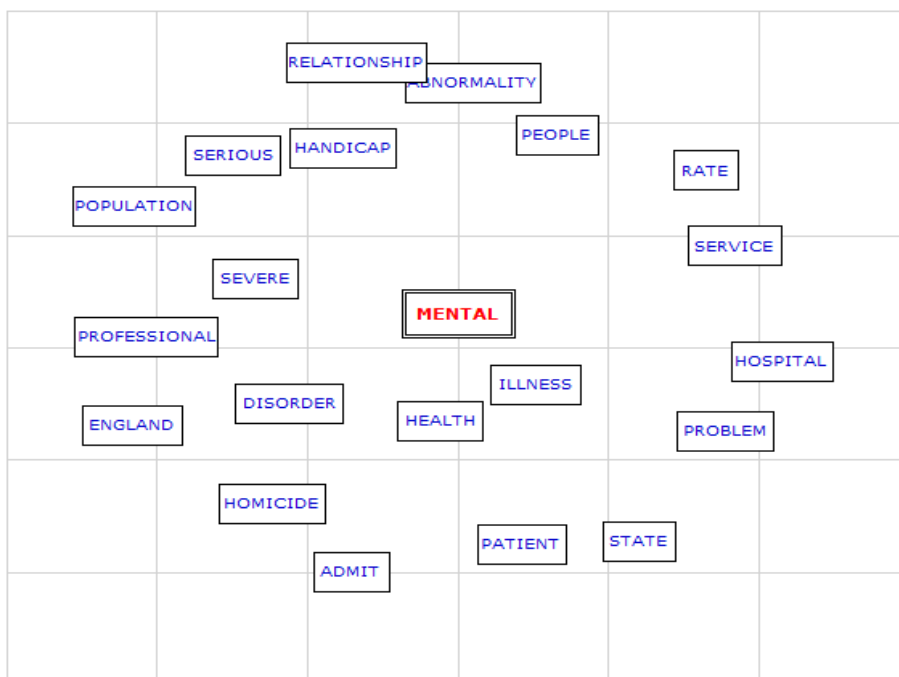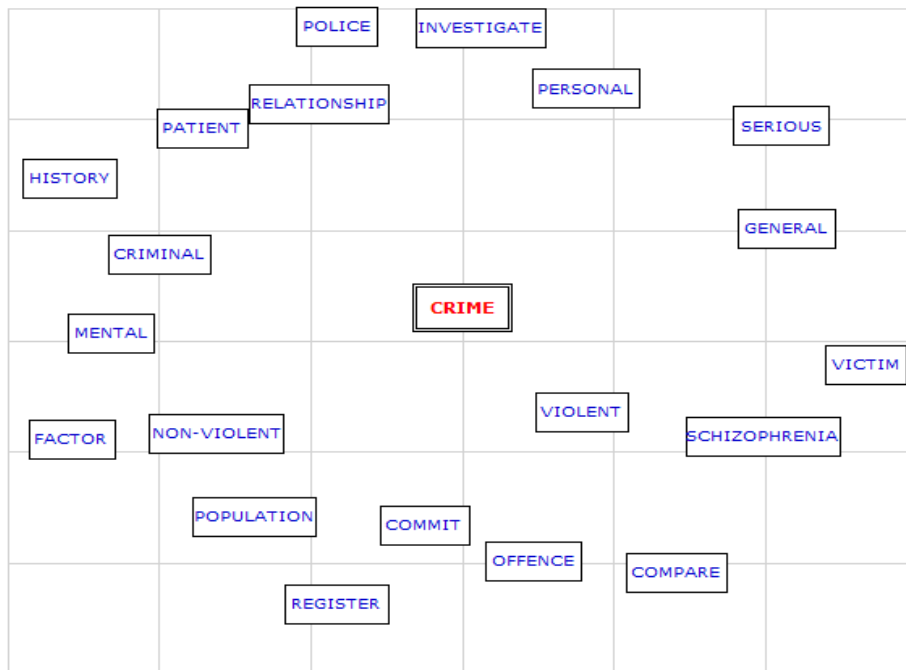*Word association – focus on word 'Mental'*

Figure 4
Word association – focus on word 'Crime'

Furthermore, while the former was connected to a lexicon that echoed problems and their relevant difficulties ('abnormality', 'handicap', 'disorder', 'severe', 'serious', 'problem'), and with the domain of services-structures ('service', 'hospital', 'professional', 'patient', 'state'), the latter referred to the investigative ('police', 'investigate', 'history') and cognitive side of research ('factor', 'register', 'population', 'general', 'compare').

3.2. Discourse analysis

The problematic and dilemmatic nature of the themes considered in the forensic psychiatry papers already found through Content Analysis preponderantly emerged from the Discourse Analysis. The analysis of the whole corpus of articles in the forty-year period emphasized the increasing complexity of the argumentation through two macro-environments of contents and discursive strategies: in other words, through two "social-epistemic rhetoric". These double macro-functions frame the analyzed texts balance between the "social reassurance" and the "awareness of the limits".

3.3. The rhetoric of social reassurance

The objective of the scientific communication was to produce reliable and valid theoretical-methodological frameworks and research contexts, in order to obtain control margins and predictability. Furthermore, in this field, some proposed contents were "applicable" to the daily life of people: if some information regarding a disease or a treatment was proposed as "certain", the scientific community was

more likely to transform words into reality; if uncertainty should prevail, the application of those cognitions will be enacted more "cautiously".

Most of the time, the opening words of papers emphasized the social relevance of the proposed themes through assertive strategies, such as the references to public and social life, to services and to legislation as well as to mass media. This trend complied with the "*mission*" assigned to the introduction in a scientific paper, which was mainly aimed at establishing the author's "research territory" and at creating a "niche" for their contribution to occupy (Gross, Harmon, & Reidy, 2002).

The position within a "niche" is usually supported through "quotations". This practice provided a solid grounding and a powerful enhancement of the proposed claims. Although quotations mainly showed what we can label a "problematic-critical" nature – aimed at highlighting the many possible scenarios and thus at keeping a high level of debate – they sometimes took an "assertive-narrative" object. In this case, they could guarantee the impression of being "grounded" in the scientific tradition and endorsed by some external" forms of legitimation (e.g. previous empirical evidences showing similar results and/or proposing consonant perspectives). Beside quotations, further external references were indicated, e.g. authorities or public services. They had the additional function of reassuring the interlocutors also in the "ethical" domain, in accordance with the scientific field.

In general, the "rhetoric of reassurance" was foremost established in the methodological approach. This kind of "methodolatry" sought a high degree of precision, through the references to percentage data and statistical analysis. In example 1, this mode offered the opportunity to compare the "values" concerning different pathologies, thus giving more credibility and certainty thanks to the use of the shared code of figures.

Ex. 1: "Humphreys et al. (1992) estimated that 20% [...] Volavka et al. (1997) estimated that 20% [...] Of the 17% of patients with a diagnosis of schizophrenia, 9% were violent in the first 20 weeks after discharge. This compares with a violence prevalence of 19% for depression, 15% for bipolar disorder, 17.2% for other psychotic disorders, 29% for substance misuse disorders and 25% for personality disorder alone" (Walsh et al., 2002, p. 491).

Other recurrent rhetorical strategies adopted by the authors of the texts to "assure" and "convince" the readers about the validity of their assumptions consisted of precise illustrations of the procedures, as well as of the exposition of the reasons for each choice. In this way, the reader was involved "behind the scenes" of the research, to further enhance the construction of a trust agreement with the scientific community.

More generally, the rhetoric of reassurance was carried out by textual meta-discourse markers, such as logic connectors, gloss practices ('however', 'also', 'in addition', 'therefore'), frame and endophoric markers ('for example', 'for two reasons', 'for three reasons', 'three main implications'). These linguistic expressions anticipated and/or state authors' intentions about the structure and evolution of the text; therefore, they favored the construction of expectations and enable a more aware reading of the same. The efforts to provide precise and meticulous

demonstrations, combined with the use of the meta-discourse, gave strength to argumentation, as it was based on legitimation and justification.

Though, while the textual meta-discourse principally acted upon the organizational level of the discourse, in the attempt to make clear connections, definitions and conclusion, authors also used the relational meta-discourse that was more clearly oriented to establish a relationship of trust between them and the ideal scientific community to whom their texts were addressed,. This objective was pursued by means of some specific argumentative strategies:

a) the strategy of **sincerity**, enabling the authors to either articulate reasons or provide clarifying inserts, sometimes contrasting even among themselves (e.g. "In contrast to one of our initial hypotheses");

b) the strategy of **dialogism**, which allows the authors to take in adequate esteem others' positioning (Hermans and Gieser, 2012) and to exhibit the capacity of dialogue among the various claims;

c) the strategy of **collaboration**, aimed to emphasize the "collaborative" nature of their own approach, as well as the "constructive" function of knowledge of their own text, considering the "model reader".

The whole corpus was characterized by the efforts of connection with the territorial services which operate prevention, treatment and/or detention: they were constructed through proposals, suggestions, references to duties and responsibilities, attempts to provide economic quantification of (missing) interventions and to attribute a numerical value to more "qualitative" factors.

3.4. The Rhetoric of Limitation

The social-epistemic rhetoric of "social reassurance" was mainly focused on the construction of an interpretative proposal of the dangerousness of the mentally ill as much "certain" as possible. To this purpose, in most sections the papers justified the limits of their own work, in line with the complexity of forensic psychiatry.

This function was constructed by means of various argumentative strategies working both "explicitly" and "implicitly". Sometimes long and argumentative lists of limits were found, expressed by lexical and syntactical expressions evidently related to uncertainty: for example, "Nevertheless, there is still uncertainty about […] It is doubtful whether it should be […] The ethical dilemma remains". Otherwise the provided explanations were presented as "uncertain", "possible" or "potential". Furthermore, their work was framed in a mainly incomplete scenario, made up of partial considerations, failures, lack of details. Therefore, it was almost impossible for readers to take a stance, to orient themselves and to seek certainties.

The rhetoric of the "limit" was also acted through the pragma-linguistic indicators of mitigation. In accordance with the "functional" typology proposed by Caffi (2001), "hedges" weakened the illocutionary force of the statements. They operated through modelizers of the epistemic commitment (Kochelman, 2007) (e.g. "perhaps", "probably"), subjectivizing (and thus restricting) epistemic certainties as well as through a massive use of modal verbs (at the conditional mode). On the

other hand, "bushes" decreased the enunciator's commitment to the contents by means of negation ("It is important not to be constrained by") and mitigated choices of lexicon, such as approximations ("somewhat", "approximately").

The social-epistemic rhetoric of the "limit" was also detectable through more holistic strategies aimed at reducing the range, the value or the certainty of their claims. These modes operated at a textual level and assumed an essential role, since they were focused on validating the argumentation:

a) **rearranging the hierarchy**, which consists of attributing importance to a rationale with the aim of replacing another one (e.g. "It is therefore important to highlight that the pathways and mechanisms leading to violence in patients with schizophrenia should not be reduced to one set of risk factors");

b) **dilution**, that is grading the level of precision. In other words, the Grice's maxim of quantity (1975) is openly violated, by using phrases such as "This usually involves […] but is intended to […] more were known […] It is generally assumed that… often";

c) **lateralisation**, which enables to extend the range of possibilities. Sometimes it may also act as exemplification, thus making a case "one of many" (e.g.: "For example, a child psychiatrist may be unimpressed […] But a criminologist or epidemiologist might take…").

As for the space-time management, authors can also "keep the distance" from the exposed position through the paradigm of **eventuality**: in this case, they aimed at opening possible worlds by constructing hypothetical statements. The texts presented many references and projections on future scenarios as possible contexts for doubt resolution. These discursive acts emphasized the impossibility of setting certainties "here and now" for the limited, partial or precarious results.

In addition, we found a continuous argumentation swinging, which ended up assuming a "sinusoidal" trend. In particular, this fluctuation involved both the assertive/uncertain style throughout the text and the "confirmation"/"disconfirmation" intention carried out by the literature. It even happened that the same factor was firstly assessed in terms of convenience and then in terms of problems, that being "the first" to have performed a certain activity represents either a source of pride, or a necessary cautious mention. This sinusoidal trend can create a feeling of "precariousness", in opposition with any search for stability and cognitive closure. Most of times, authors can even keep the distance from their own results and explicitly invoke "caution", especially when the application of results is at stake.

4. Discussion and Concluding Remarks

Forensic psychiatry must accept the challenges provided by two worlds that have to reciprocally enhance for an ambitious *enjeu*, namely the search for stability, order and justice. Discursive practices primarily try to give order to distant requests and domains as well as to settle disputes and problems. In the discursive "genre" examined here – the scientific paper – texts have a well-structured form that makes it reliable to the reader.

Dealing with the connections between psycho-pathological epidemiology and criminal behaviors, the enunciators proceed through an "assertive" and rigorous mode, in the attempt to produce effective contributions to the theoretical and empirical debate. Overall, the strategies adopted support the social-epistemic rhetoric of "**reassurance**" because the articles provide cognitive guarantees to the scientific community, firstly by connecting the accuracy of the proposed work to the solidity of the reported literature.

However, the research on social dangerousness of the mentally ill persons fails the cognitive "closure" that would come from the application of its results to the services, the institutional contexts and the pertinent laws. The so complex issues at stake suggest the enunciators to give voice/words to the social-epistemic rhetoric of the "**limit**". It operates in many ways, ranging from the role of the quotations in the introductions to the many declared shortcomings at the end of the paper. The authors confer a limited significance to their own results, with few certainties and much food for thought, deferring the possibility of contributing to decisive choices or actions to another (future) text; therefore, they avoid assuming definitive responsibilities and propose marginal applications for their results. In addition, expressions showing modesty, honesty and prudence are often recurrent. Such caution is suggested by the desire to obtain approval within the scientific community and to reduce the probability of criticism or refusal while encouraging a space of discussion between experts. This also means to emphasize the limits of scientific knowledge and to clearly inform the judicial system, redefining its expectations and interventions.

Our research tried to investigate the (un)certainties of law and psychiatry. The two social-epistemic rhetoric indicated in this paper corroborate the awareness that, in assessing the social dangerousness of the mentally ill person, the eventual "judicial" measures – claimed through the communicative register of law and justice – had to connect with the communicative language and register of the "social-sanitary" sciences in order to ascertain the mental functioning of the perpetrator and of the victim of crime, and to relate it to the context. For this reason, the forensic-psychiatric and psychological evaluation resulted also as a narration, an activity that focuses on the semantics, on the processes of symbolization and on the attribution used by the actors. It is time for the clinical world of psychology and psychiatry to better integrate with the forensic one: even if the hope of such an integration is accompanied by uncertainty, the probability of its success exceeds the one of tossing a coin.

References

Bakhtin, M.M. (1979). *Estetika Slovesnogo Tvorcestva [Aesthetics of Verbal Creativiveness]*. Moskow: Iskusstvo.

Bennett, T., Holloway, K., & Farrington, D. (2008). The statistical association between drug misuse and crime: A meta-analysis. *Aggression and Violent Behavior, 13*, 107–118. https://doi.org/10.1016/j.avb.2008.02.001

Berlin, J.A. (1993). Post-structuralism, semiotics, and social-epistemic rhetoric: Converging agendas. In T. Enos & S. Brown (Eds.), *Defining the new rhetoric* (pp. 137–176). Newbury Park, CA: Sage.

Caffi, C. (2001). *La mitigazione. Un approccio pragmatico alla comunicazione nei contesti terapeutici* [Mitigation. A pragmatic approach to communication within therapeutic contexts]. Münster: LIT Verlag.

Cantarini, S., Abraham, W., & Leiss, E. (Eds.) (2014). *Certainty-uncertainty – and the Attitudinal Space in Between* [SLCS 165]. Amsterdam: John Benjamin.

Catanesi, R., Carabellese, F., & Grattagliano, I. (2009). Cura e controllo. Come cambia la pericolosità sociale psichiatrica [Treatment and control. How has the concept of psychiatric social danger changed]. *Giornale Italiano di Psicopatologia*, *15,* 64–74. Retrieved from https://www.jpsychopathol.it/article/treatment-and-control-how-has-the-concept-of-psychiatric-social-danger-changed

Crismore, A., Markannen, R., & Steffenson, M. (1993). Metadiscourse in persuasive writing: A study of texts written in American and Finnish University students. *Written Communication*, *10*(1), 39-71. https://doi.org/10.1177/0741088393010001002

Fairclough, N. (2003). *Analysing Discourse: Textual Analysis for Social Research*. London: Routledge.

Foucault, M. (1972). *The Archaeology of Knowledge and The Discourse on Language*. New York: Pantheon Books.

Grevi, V. (2006). Prove [Proof]. In V. Grevi & G. Conso (Eds.), *Compendio di procedura penale* [Handbook of penal procedure] (pp. 313–406). Padua: Cedam.

Grice, P.H. (1975). Logic and conversation. In P. Cole & J.L. Morgan (Eds.), *Syntax and semantics, Vol. 3: Speech acts* (pp. 41–58). New York: Academic Press.

Gross, A.G., Harmon, J.E., & Reidy, M.S. (2002). *Communicating Science. The Scientific Paper from the 17th Century to the Present*. New York: Oxford University Press.

Hermans, H. J. M., & Gieser, T. (Eds.). (2012). *Handbook of Dialogical Self Theory*. Cambridge, U.K.: Cambridge University Press.

Hyland, K. (1996). Writing without conviction? Hedging in scientific research articles. *Applied Linguistics*, *17*(4), 433–454. https://doi.org/10.1093/applin/17.4.433

Hyland, K. (1998). Boosting, hedging and the negotiation of academic knowledge. *TEXT&Talk*, *18*(3), 349-382. https://doi.org/10.1515/text.1.1998.18.3.349

Hyland, K. (2001). Bringing in the reader: addressee features in academic articles. *Written Communication*, *18*(4), 549-574. https://doi.org/10.1177/0741088301018004005

Junginger, J. (1996), Psychosis and violence: the case for a content analysis of psychotic experience. *Schizophrenia Bulletin*, *22,* 91-103. https://doi.org/10.1093/schbul/22.1.91

Kaliski, S.Z. (2002). A comparison of risk factors for habitual violence in pre-trial subjects. *Acta Psychiatrica Scandinavica*, *106*(412), 58-61. https://doi.org/10.1034/j.1600-0447.106.s412.13.x

Kockelman, P. (2007) Agency: The Relation between Meaning, Power, and Knowledge. *Current Anthropology, 48*(3), 375-401. Retrieved from http://www.jstor.org/stable/10.1086/512998

Lamb, H., & Weimberger, L. (1998). Persons with severe mental illness in jails and prisons: A review. *Psychiatric Services*, *49,* 483-492. https://doi.org/10.1176/ps.49.4.483

Lancia, F. (2004). *Strumenti per l'analisi dei testi. Introduzione all'uso di T-LAB [Instruments for Text Analysis. Introduction to the Use of T-LAB]*. Milano: Franco Angeli.

Lindqvist, P., & Allebeck, P. (1990), Schizophrenia and crime: a longitudinal follow-up of 644 schizophrenics in Stockolm. *British Journal of Psychiatry*, *157,* 345-350. https://doi.org/10.1192/bjp.157.3.345

Marzuk, P. (1996), Violence, crime and mental illness: How strong a link? *Archives of General Psychiatry*, *53*, 481-486. https://doi.org/10.1001/archpsyc.1996.01830060021003.

Mininni, G., & Manuti, A. (2017). A rose is more than a rose… The diatextual constitution of subjects and objects. *Text & Talk*, *37*(2), 243-263. https://doi.org/10.1515/text-2017-0005

Mininni, G., Manuti, A., Scardigno, R., Rubino, R. (2014). Old roots, new branches: The shoot of diatextual analysis. *Qualitative Research in Psychology, 11,* 1–16. https://doi.org/10.1080/14780887.2014.925996

Mininni, G., Scardigno, R. & Grattagliano, I. (2014). The dialogic construction of certainty in legal contexts. *Language & Dialogue. Special issue Certainty and Uncertainty in dialogue*, *4*(1), 112-131. https://doi.org/10.1075/ld.4.1.07min

Monahan, J. (1997). Clinical and actuarial predictions of violence. In D. Faigman, D. Kaye & M. Saxs (Eds.) *Modern scientific evidence: the law and science of expert testimony* (pp. 300–318). New York: West.

Mullen, P. (2000). Forensic mental health. *British Journal of Psychiatry*, *176*, 307–311. https://doi.org/10.1016/s0160-2527(00)00057-1

Rasanen, P., Tiihonen, J., Isohanni, M. (1998). Schizophrenia, alcohol abuse and violent behaviour: A 26-year follow-up study of an unselected birth cohort. *Schizophrenia Bulletin*, *24,* 437-41. https://doi.org/10.1093/oxfordjournals.schbul.a033338

Salvatore, S., Gelo, O.C., Gennaro, A., Metrangolo, R., Terrone, G., Pace, V., Venuleo, C., Venezia, A., & Ciavolino, E. (2017). An automated method of content analysis for psychotherapy research: A further validation. *Psychotherapy Research, 27*(1), 38–50. https://doi.org/10.1080/10503307.2015.1072282

Salvatore, S., & Valsiner, J. (2011). Idiographic science as a nonexisting object: The importance of the reality of the dynamic system. In S. Salvatore, J. Valsiner, A. Gennaro, & J.B. Travers Simon, (Eds.), *YIS: Yearbook of idiographic science* (Vol. 3) (pp. 7-26). Rome: Firera & Liuzzo.

Shah, S.A. (1978). Dangerousness and Mental Ilness: Some Conceptual, Prediction and Policy Dilemmas. In C. Frederick (Ed.) *Dangerous behaviour: A problem in Law and mental health* (pp. 153-191). Rockville, MD: NIMH, Washington.

Steadman, H. J., & Cocozza J. J. (1974). *Careers of the criminally insane: Excessive social control of deviance*. Lexington, MA: Lexington Books, D.C. Heath.

Swanson, J., Estroff, S., Swartz, M., Borum, R., Lachicotte, W., Zimmer C., & Wagner, R. (1997). Violence and severe mental disorder in clinical and community populations: the effects of psychotic symptoms, comorbidity and lack of treatment. *Psychiatry*, *60,* 1–22. https://doi.org/10.1080/00332747.1997.11024781

Swartz, M., Swanson, J., & Hiday, V. (1998), Violence and severe mental illness: The effects of substance abuse and nonadherence to medication. *American Journal of Psychiatry*, *155,* 226-231. https://doi.org/10.1176/ajp.155.2.226

Torrey, E. (1994). Violent behaviour by individuals with serious mental illness. *Hospital & Community Psychiatry*, *45*, 653-662. https://doi.org/10.1176/ps.45.7.653

Valsiner, J. (2007). *Culture in minds and societies. Foundations of cultural psychology*. New Delhi: Sage.

Van Dijk, T.A. (2008). *Discourse and Power*. Houndsmills: Palgrave.

Walsh, E., Buchanan, A., & Fahy, T. (2002). Violence and schizophrenia: examining the evidence. *British Journal of Psychiatry*, *180,* 490-495. https://doi.org/10.1192/bjp.180.6.490

Wodak, R., & Meyer, M. (2009). *Methods of critical discourse analysis*. Thousand Oaks, CA: Sage.

THE PHRASE "KRIVORAZBRANA TOLERANTNOST" IN BULGARIAN MATERNITY FORUM COMMUNICATION

Bilyana Todorova
ORCID: 0000-0001-7854-3425
Scopus Author ID: 57200216276
b_stoianova@hotmail.com
South-West University "Neofit Rilski", Bulgaria

Abstract: The aim of the research is to present the meaning and the scope of the phrase "krivorazbrana tolerantnost" (misunderstood tolerance), which functions as a cliché in everyday communication. The corpus is excerpted from the largest Bulgarian forum platform – bg-mamma and investigates the use of 55 phrases between 2006 and 2017. "Krivorazbrana tolerantnost" is used in public communication to express disagreement with someone's behaviour/point of view or fear of the changing habits or traditions. Using the cognitive ethnolinguistic approach as well as corpus-based discourse techniques, the paper focuses on the corpus uses of the phrase, its pragmatic influence on the dialogue and the people or the topics which are usually an object of misunderstood tolerance according to *bg-mamma* forum users. The results show that the context meaning of the phrase usually is over-tolerance or too much permissiveness and it is used in conversations, discussing the rights and liberties of different groups and minorities. As the tolerance itself is a kind of forcing oneself to accept something one does not support or believe in, its meaning and the contextual meaning of the investigated collocation are close.

Keywords: misunderstood tolerance, pragmatic use, public discourse, forum communication.

Біляна Тодорова. Вираз «krivorazbrana tolerantnost (невірно інтерпретована толерантність)» у комунікації на форумах матерів у Болгарії

Анотація. Мета дослідження – представити значення та наповненість виразу "krivorazbrana tolerantnost" (невірно інтерпретована толерантність), який функціонує як кліше у повсякденному спілкуванні. Корпус відібрано із найбільшої болгарської платформи для форумів – *bg-mamma* і проаналізовано вживання 55 виразів між 2006 та 2017 роками. "Krivorazbrana tolerantnost" (невірно інтерпретована толерантність) вживається у публічному спілкуванні для вираження незгоди з чиєюсь поведінкою чи поглядом або для вираження страху перед зміною звичок чи традицій. Застосовуючи етнолінгвістичний підхід разом із корпусно-базованими методами аналізу дискурсу, увагу в дослідженні зосереджено на вживанні цього виразу в корпусі, його прагматичному впливі на діалог, людей чи теми, які є зазвичай об'єктом невірно інтерпретованої толерантності, згідно з користувачами форуму *bg-mamma*. Результати доводять, що контекстуальним значенням виразу зазвичай є надмірна толерантність або надмірна вседозволеність, і він використовується у розмовах при обговоренні прав та свобод різних груп та меншин. Оскільки власне толерантність – це спосіб спонукання себе прийняти щось, що людина не схвалює чи у що не вірить, то її значення та контекстуальне значення досліджуваного виразу є близькими.

Ключові слова: невірно інтерпретована толерантність, прагматичне вживання, публічний дискурс, спілкування у форумі.

1.Introduction

1.1. Tolerance as a concept

The word *толерантност* (tolerance, toleration) in Bulgarian (as in English) is of Latin origin – the Latin word is *tolerantia* "a bearing, supporting, endurance."[1] Its popularity in the Bulgarian context is relatively late – the first use of the root of the word is in 1883 when the adjective *толерантен* 'tolerant' is mentioned (Todorova, 2019). The noun is used in 1890 in the *Balkan dawn* newspaper[2] which is the first lasting daily Bulgarian newspaper published in Plovdiv from 1890 to 1894 and from 1 to 4 October 1900. The adjective was more popular in the first decades of the 20th[h] century and it is the preferred word in dictionaries whereas the noun is presented as a derivative from the adjective. In Bulgarian, it has the same root as in other languages. However, the suffix in Bulgarian is the same as in the other East Slavic languages and differs from the West Slavic and South Slavic languages (maybe because of the Russian influence in the period).

Because of its global popularity, the concept of tolerance becomes very important but ambiguous in its understanding. Definitions in Bulgarian dictionaries are few and they often duplicate. For example, the definition in the Official Dictionary of Bulgarian language includes firstly the adjective: *tolerant* – "who shows lenity, latitude toward other opinion, character, religion, etc." [3], and the noun is explained as: *tolerance*[4] – abstract noun from tolerant. Latitude and leniency are seen as close synonyms, but as a whole, the word is not well explained and the definitions are the same.

As it was said, the use of the word is more frequent nowadays, as *tolerance* is one of the main values of the pluralist liberal democracy. It may be seen in *UNESCO's Declaration of Principles of Tolerance*, where tolerance is defined as: "respect, acceptance and appreciation of the rich diversity of our world's cultures, our forms of expression and ways of being human." At the same time, it is outlined that "the practice of tolerance does not mean toleration of social injustice or the abandonment or weakening of one's convictions."[5]

Tolerance is also understood as a minimal concept that involves non-interference with practices or forms of life of others, including granting equal legal and political rights even if one disapproves of them." (Nizah et al., 2015, p. 366). Therefore tolerance is a result of a conscious decision, it is not necessarily naturally inherent in humans, it is an understanding related to the development of human civilisation and the idea of human rights, pluralism, democracy and the rule of law. That is why it is used in contexts connected to the minority groups and their 'social inclusion'.

---

[1] According to Latdict - ability to bear/endure pain/adversity; patience, fortitude, tolerance. http://www.latin-dictionary.net/definition/37271/tolerantia-tolerantiae

[2] In Bulgarian "Балканска зора", № 66

[3] http://ibl.bas.bg/rbe/lang/bg/%D1%82%D0%BE%D0%BB%D0%B5%D1%80%D0%B0%D0%BD%D1%82%D0%B5%D0%BD/

[4] http://ibl.bas.bg/rbe/lang/bg/%D1%82%D0%BE%D0%BB%D0%B5%D1%80%D0%B0%D0%BD%D1%82%D0%BD%D0%BE%D1%81%D1%82/

[5] UNESCO's Declaration of Principles on Tolerance, 16 November 1995 http://portal.unesco.org/en/ev.php-URL_ID=13175&URL_DO=DO_TOPIC&URL_SECTION=201.html

Meanwhile, we have recently observed the growing of exclusion narratives and inclinations. The minority rights are contradicted to the need of majority to save their own positions, traditions and privileges.

It is known that the intolerant, racist and nationalistic statements are a part of the public discourse in many European countries and they are gaining more popularity. These attitudes have attracted the attention of a large number of discourse-oriented researchers (Wodak & Reisigl, 2001, Tateo, 2008; Dijk 2015; Brindle, 2016; Musolf, 2017, etc.). At its centre is the *fear of others*, whose roots are often in the past, which is a reality at the present and is oriented to the future. As Arias & Bryla (2018, p. 2) said: "although the fear of the other which Shteyngart is writing about in his memoir is *felt* in the present, it is in fact located in the future, operating as an open-ended threat, or an always valid possibility, whose affective force is so strong that it refuses to be rationalized". The fear of the others results in the so-called "hate speech" which is a part of Bulgarian public speech as well.

In Bulgarian few authors are tempted by the topic of tolerance these days. The first one is Elka Dobreva who was interested in the concepts of tolerance, intolerance and null tolerance in the print press. Her definition of the term is: "Tolerance is considered in cases when the tolerated subject (1) does not approve of or like certain qualities or actions of the tolerated person, but (2) voluntarily refuses to pursue, restrict or terrorize the tolerated person." (Dobreva, 2009, p. 23)[1]. The problem is also discussed by Eftimova (2016), Kreychova & Stalyanova (2017), Todorova (2019), but as a whole, it is not well developed in the Bulgarian context by researchers.

The word tolerance („толерантност") is used in political and media discourse and at the same time in everyday communication. The informal public or private discourse is extremely interesting for the researcher because official texts are usually more neutral and premeditated (politically correct) and therefore informal discourses represent more specific meanings of the investigated lexeme. This is especially true when the collocations containing this word are used expressively as clichés, as ready-made phrases.

2. Methods and Theoretical Frame of the Research

The main theoretical frame of the research is a cognitive ethnolinguistic view of Jerzy Bartminski. The Cognitive Ethnolinguistic School of Lublin investigates different concepts, one of which is *tolerance*. According to Bartminski (2002, p. 380), ethnolinguistics is "a branch of linguistics that deals with language in its relations to the history of particular communities (environmental, regional, national) and their culture, esp. to group mentality, behaviours, and value systems". The advantage of the investigation of some important concepts and values from this view is the investigation not only of their literal meaning in dictionaries but the subjective ethno specific features which the word possesses in speech. In some kind, it is close to the CDA approach, as it is evaluative as well. As we know CDA "is not

---

[1] Translation is mine, B.T.

interested in investigating a linguistic unit per se but in studying social phenomena which are necessarily complex and thus require a multi-disciplinary and multi-methodical approach" (Wodak & Meyer, 2001, p. 2).

The method is close to the ethnographic point of view: "In practice, ethnography as a methodology and distinct approach involves the direct entry of the researcher into a particular context and their participation in or observation of local practices over an extended period] …[This involves collecting several kinds of data in addition to observation, such as participants' accounts of their own practices, various types of narratives, images, documents, etc. (Wodak & Savski, 2018, p. 94).

Bartminski and Chlebda (2008) point out four basic types of data that guide inquiries into the content of axiological concepts: lexicographic data, texts, derived from excerpts from public discourse, corpus data (language corpora and Internet searches), and experimental data (see more in: Niebrzegowska-Bartminska, 2018, p. 17). In this paper, the focus is only on the corpus data, and especially on the use of the phrase "криворазбрана толерантност" (misunderstood tolerance) in the largest Bulgarian forum, bg-mamma.

3. The study
3.1. Aim, objectives and corpus of investigation

The aim of the research is to show the meaning and the scope of the phrase "криворазбрана толерантност" (misunderstood tolerance). The corpus is excerpted from the largest Bulgarian forum platform – *bg-mamma. Bg-mamma* communication is (partly) anonymous, dialogic, asynchronous and topic-centred. However, some active users form spontaneous communities united by shared topics of interests and their relationships become closer – they express their points of view defending or attacking some positions of the previous posts. So the hypothesis is that the investigated phrase as many others may function as a means to approve the previous negative reaction or as a means for expressing discrepancy. The interpersonal aspect of researched forum communication is very interesting because of the plausible and context-dependent meaning of the investigated phrase. By the help of the search engine of the platform all uses of the investigated phrase are collected – these are 55 uses of the phrase between 22.08.2006 – 04.06.2017. The phrase is not a part of any dictionary and it couldn't be found by the search engine of the Bulgarian reference corpus BulTree Bank[1].

The research includes also the inspection of the immediate context – the topic of the conversations, the positions defended, etc. The context observation will present the pragmatic function of the uses as well as the social prejudices and stereotypes they promote. The full description of these uses may reveal the meaning of the phrase according to forum users.

As a result, the following objectives of the research are formulated:
- To describe the pragmatic functions of the phrase

---

[1] http://webclark.org/ 19.04.2020

- To reveal the liberties which are not acceptable according to users who are writing in the platform and the objects of the so-called *криворазбрана толерантност.*
- To reveal the general meaning of the phrase.

The complex adjective 'криворазбран' is formed by the word „крив" (curved, awry, guilty) and „разбран" the past passive participle of the verb „разбера" (understand)". In Bulgarian context the word „криворазбран" is known from the 19th century because of the one of the most significant Revival's comedies "Криворазбраната цивилизация" ("The Phoney civilization") by Voynikov. In the comedy the traditional Bulgarian values and understandings are defended and the influence of the modern foreign manners and trends is denied. Therefore the word „криворазбран" accepts the meaning of "not properly understood, distorted, perverted"[1].

3.2. Clichés in Communication

As it was said before, the use of the phrase is widespread in public discourse as well as in everyday communication. The meaning of isolated lexemes has been explained, but the meaning of the whole ready-made phrase is more important. The hypothesis is that the pragmatic function of the collocation is to express disagreement with someone's behaviour or point of view or fear of the changing habits or traditions. The phrase functions as a cliché and the preliminary observations show that it usually presents anti-liberal attitudes.

Clichés are often used to express a pragmatic meaning because of their potential to save time, to express approval or disapproval, emotions, etc. The pragmatic force of ready-made phrases is mentioned in Steinbrich (2016, p. 129) who claims that "set groups exhibit pragmatic functions and include proverbs, sayings, clichés, catchphrases and slogans". Pragmatic meanings of one phrase may be different and they depend on the immediate context.

It is known that by the help of different linguistic means we may express agreement, disagreement, mitigation, etc. Like pragmatic markers, all uses with pragmatic function organise or modify the conversation and reveal the personal attitude of the speaker. Therefore the research includes the investigation of discussed topics in which the phrase is used as well as the investigation of positions which their authors support. The background of the use of the phrase and the semantic confusion it contains presuppose their use in negative contexts. However, data research may reveal the relationship between the author's expectations and their realisation.

4. Results and Discussion

The use of the phrase is in the conversation and usually, it appears in some discussions when people confess something or argue with somebody. People express their point of view defending or attacking the positions of the previous

---

[1] In the paper the phrase is translated as 'misunderstood tolerance' (thereafter MT)

posts. As a result, the investigated phrase **may function both as a means of approving the previous negative reaction** (1, 2) or as **a means for expressing discrepancy** (3):

(1) *именно. криворазбрана толерантност е да се търпи парадирането с религиозност особено сега, когато територията на цяла една държава е окупирана от религиозни терористи. ако някой иска да промотира религията си - да го направи с добри действия и добро отношение, а не с "вижте ме колко по-различен съм от вас и колко по-права е вярата ми.*(Indeed. A misunderstood tolerance is to endure the swaggering religiosity, especially now when the territory of the whole country is occupied by religious terrorists. If someone wants to promote their religion – they should do so with good deeds and a good attitude, not with "look how different I am and how better my faith is.)

(2) *Абсолютно съм съгласна, точно така е! Напоследък забелязвам едно много странно явление - интелигентни и възпитани родители с ужасно лигави деца, които или са оставени на "самотек" да си правят каквото си искат (от някаква криворазбрана толерантност ли що ли) или когато родителя прави някакъв плах опит да се наложи настава голяма драма и нищо не се получава...*(I absolutely agree, that's right! I have noticed recently a very strange phenomenon - intelligent and educated parents with terribly naughty children who are either left alone to do whatever they want (this is a sort of misunderstood tolerance maybe) or when the parent makes some sort of timid attempt to decide something then a big drama starts and nothing happens ...)

The use of means of expressing approvement like *именно (indeed), абсолютно съм съгласна, точно така е (I absolutely agree, that's right!)* show that the posts are responses, reactions to previous opinions and support the presented negative position.

(3) А. Не казвам, че е редно да крещи така, когато в къщата ѝ има дете. Но не съм и сигурна, че това е единственото нещо, което дразни дъщерята.

Б.Ами разбира се, че не е само крещенето, тя си го казва, влаченето на различни любовници у дома просто не е редно. Аман от криворазбрана толерантност. (A. Just a minute. I don't say she should scream in such a way when her child is at home. But I'm not sure it is the only thing that annoys the daughter.

B. Well, of course, it's not just screaming. She confesses – inviting different lovers at home is just unacceptable. I am sick and tired of misunderstood tolerance.)

The first user tries to excuse the behaviour of the mother who screams at her daughter. The second user doesn't accept the excuse and adds another problem – the "amoral" behaviour of the mother. The author finishes with an investigated phrase, combined with an identifier "аман"[1]expressing annoyance, boredom[2] and often used to show disapproval, impatience and even rejection.

---

[1] From Arabic through Turkish aman 'mercy, protection'.
[2] https://ibl.bas.bg/rbe/lang/bg/%D0%B0%D0%BC%D0%B0%D0%BD/

Consequently, the investigated syntagm functions as a cliché, it's highly expressive and may approve or disapprove of the previous post(s). Usually, it is used with a combination of other expressive phrases (*аман, писна ми, (enough of/ sick and tired of*) etc.). The topic of the conversation may be different and there are some hotspots – school aggression, social privileges, minority rights, etc. To present the proper analysis, the author has collected the uses and has divided them according to the topic, investigating the most unacceptable liberties according to bg-mamma users.

4.1. Thematic division of the topics of misunderstood tolerance:
Religious liberties
17 out of 55 examples concern religion, more often the Muslim one. In some cases, only the extremist parts of the religious groups are objects of misunderstood tolerance according to users. In other cases, the opinions are more general and unspecified, or they are connected to religious elements and symbols. In fact, although the bigger part of Bulgarians are Orthodox Christians, there has been a Muslim minority for a long time as Bulgaria had been a part of the Ottoman Empire. Most of the time Orthodox Christians and Muslims have been living in peace (except for the so-called *Възродителен процес 'Process of Rebirth'* in 1989). However, the collective memory of the times when the Bulgarian territory was a part of the foreign Muslim empire is still alive and helps people to see the Muslim religion as a threat for the secular state and for the local traditions and habits.

Кога ли в някоя мюсюлманска държава ще публикуват книга примерно с заглавие "аз и хомосексуалното ми братче" или "жените равни на мъжа"? Не разбирам до кога с тази криворазбрана толерантност у защо ние трябва да приемаме тяхните ценности и порядки? (Whenever in a Muslim country will they publish a book entitled "Me and My Homosexual Little Brother" or "Women Are Equal to Men", for example? I do not understand how long this misunderstood tolerance will continue, why should we accept their values and habits?)

LGBT rights
People with alternative sexual orientation are also seen as tolerated. Such discussions are usually started at the time of the year when *Sofia Pride* event takes place. However, the Istanbul Convention ratification, which was postponed because of mass protest and the Law of Child protection also triggered some fears about possibility LGBT people to receive some excessive rights. 9 out of 55 examples are linked with the people with a different sexual orientation:

Относно еднополовите връзки ние с ММ и двамата сме крайно нетолерантни и смятаме това за извращения, а гейпарадите за натрапена показност в името на криворазбрана „толерантност"...(Concerning same-sex relationships, we (my husband and I) are both extremely intolerant, and we consider them to be perverse, and the gay parades for intimidation in the name of misunderstood "tolerance" ...)

Children's rights

As the investigated platform *bg-mamma* is a maternity forum, most of the users express their opinion of parenting, children's education, etc. Although in Bulgarian traditional view children are very special and the attitude towards them is positive and even indulgent, there are a lot of people who are supporters of stronger parenting models and educational practices. 7 out of 55 examples concern kids and their behaviour.

На мен ми се струва, че от криворазбрана свобода, толерантност, разбиране на децата и др. подобни още от ранна възраст положението с днешната младеж, че и деца на по 5-6г. е такова. (It seems to me that because of misunderstood freedom, tolerance, understanding of children, etc. from the very early age, there is such a situation with young people and with children who are 5 or 6 years old.)

Roma people rights

According to the Bulgarian National Statistical Institute,[1] 280 979 Roma people lived in Bulgaria in 2011. They are perhaps more as "one part of the Muslim Roma in Bulgaria is also Turkish speaking and they identify in most of the cases as Turks" (Kyuchukov, 2019, p. 32). Roma minority has specific culture and traditions, Roma people usually live separated in ghettos on the outskirts of towns and villages. They are often accused (even in public) because of their mentality, low education, early marriages, high birth rate, high unemployment rate, etc. Nationalistic parties, some of which are a part of the Bulgarian coalition government, use anti-Roma rhetoric and their members often speak about the Roma threat. 5 out of 55 examples are connected to the Roma people, their behaviour and their liberties:

сега вече са РОМИ по тяхно настояване - хитри, мързеливи, крадливи, озлобени, не зачитащи нищо и никого, все за нещо сме им длъжни, те са продукт на новата ни демокрация и нейната така наречен толерантност, която е криворазбрана. (now they are Roma people at their insistence - cunning, lazy, thieving, enraged, not respecting anything and anybody, we always owe them something, they are the product of our new democracy and its so-called tolerance which is misunderstood.)

Refugees/Asylum seekers/ Migrants' rights

5 out of 55 uses are linked with the behaviour of the refugees/asylum seekers/migrants. In the forum texts, these terms are used as synonyms. The opinions are usually extreme and the users present their disagreement with the habits of the people from these groups:

Аман от криворазбрана толерантност, бих казала аз! Може някой цяла нощ да ти крещи, хвърля боклуци по главата, и цапа, но е нужно да мълчиш, защото трябва да си толерантен. Хората от Овча купел, също са принудени да търпят дивотиите на сирийските бежанци, щото видите ли такъв им бил манталитета на тях и трябва да се примирим. Идват на орди с десетте си деца всеки, размахват ни пръст, че нямали условия за живот, нямали работа,

---

[1] https://censusresults.nsi.bg/Census/Reports/2/2/R9.aspx

нямали пари, и пак трябва да сме толерантни, да ги обгрижваме , да ги издържаме. (Enough of misunderstood tolerance, I would say! Someone may scream all night, they throw junk on people's heads and make a mess, but you have to keep silent because you have to be tolerant. People from Ovcha Kupel Quarter are also forced to endure the oddities of Syrian refugees, excusing their actions because of their traditions and culture, and we must put up with them. They come in hordes with their ten children, scolding us that they have no living conditions, no jobs, no money, and we have to be tolerant, caring, we have to finance them.)

The topics are often mixed – for example the migrants' problem is connected to the one concerning religious liberties. The fear of radical Islam results in the fear of Muslims as a whole. As Arias & Bryla (2018, p. 2) write: "A similar fear of otherness understood not as physical presence but as a *what if* scenario may be detected in the anti-refugee discourse of social and political spaces of present-day Europe":

Таис, аз живея от 15 години в Германия, имам и немски паспорт, чувствам се добре тук и досега нямах никакво намерение да се връщам в България. Признавам си обаче, че ако този ужас с тези мюсюлмански бежанци от мъжки пол тук продължи още няколко години, аз най-вероятно ще се върна в България, защото чисто и просто като жена мен ме е страх от тях. Работя в социалния сектор и виждам как се държат и какви пренеции имат, и най-лошото е, че имам чувството, че голяма част от хората тук си мислят, че са длъжни да ги търпят от някаква криворазбрана толерантност. (Tais, I have lived in Germany for 15 years, I also have a German passport, I feel good here and so far I have had no intention of returning to Bulgaria. However, I confess that if this horror with the Muslim male refugees will continue here for a few more years, I will most likely return to Bulgaria, because purely and simply as a woman, I am afraid of them. I work in the social sector and I see how they behave and what they have, and the worst part is that I get the feeling that most of the people here think they have to be tolerant with them because of some misunderstood tolerance.)

Miscellaneous

The rest of the excerpted uses concern different topics, including concrete groups of people like aggressive people, smokers, non-professionals, pedophiles, drug addicted and some abstract notions like *пошлостта* (vulgarity), *свободията* (too much freedom), etc. What is common in them is the negative connotation to these people/ideas. However, there are 3 uses out of 55 in which the meaning of the phrase is 'the lack of tolerance' and in these cases, the discussed groups of people are seen as insufficiently tolerated, as suffered by the others.

In conclusion, the thematic division has shown who is affected by the so-called *криворазбрана толерантност* (MT). The results make it clear that there are several types of people, qualities or things who/which are objects of "misunderstood tolerance": the so-called "others", who break the social norms – social parasites, aggressive children, children who have a lot of claims and pretensions; homosexual people, vegans, etc.; those who do not behave professionally when they have to –

some doctors or teachers, etc.; those who are seen as privileged according to users; those who threat the demographic and religious picture of society; those who break a kind of moral norms; those who break the social norms in a physical aspect – for example, people who smell, etc. (See Figure 1, where all the uses are listed).[1]

Figure 1
Thematic division of the topics of the misunderstood tolerance
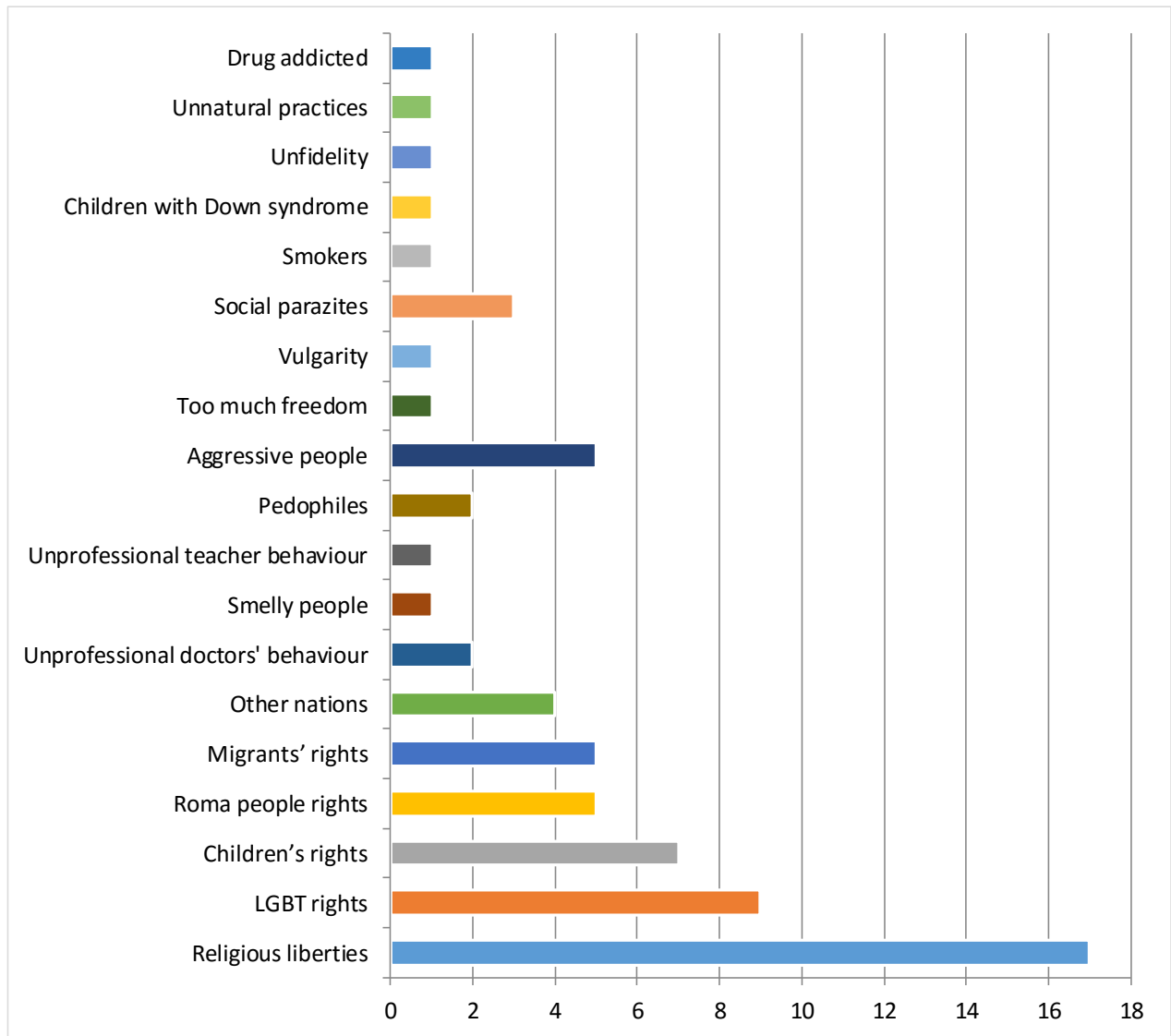
4.2. The meaning of the phrase *криворазбрана толерантност* 'misunderstood tolerance'

Having in mind the contextual uses of the phrase, one may conclude that the phrase usually means over-tolerance or too much permissiveness. As was argued before, there are some exceptions when it means the lack of tolerance (3 out of 55). In fact, except for some additional connotations, the definition of misunderstood

---

[1] The total number of uses exceeds 55 as some uses refer to more than one topic.

tolerance looks the same as the definition of tolerance. The majority of users mean that:

- Because of MT people suppress themselves;

- Because of it they are inclined to understand/do not correct unacceptable behaviour; to defend the rights of those who are guilty, so as to expose people to dangers;

- MT stiffens and people suffer because of it;

- Because of MT people deny their natural instincts;

- Because of MT people accept those who are different, therefore the MT makes people meek, good, modest;

- Because of MT people say things politely and do not tell the truth

- Last, but not least: the manifestation of MT leads to the lack of respect for the symbols and national pride.

5. Conclusions

The uses of the phrase „криворазбрана толерантност" (misunderstood tolerance) in the *bg-mamma* forum present that its meaning often covers the meanings of the tolerance itself. As was said before *tolerance* means 'to accept the people who are different'. At the same time, it is clear that the majority of people, these who represent the so-called *normality,* sometimes feel endangered and they think that some liberties are unacceptable, that tolerance is in fact over-tolerance. It is a widespread opinion that all the people must have the same rights and the same obligations. The objective evaluation of the rights and obligations is very difficult indeed. As a result, the subjective comments will be used in the public sphere representing the sense of existing injustice; indicating some attitudes and positions to some social phenomena. The fear of others, as well as the fear of the loss of harmony, the loss of the present social order, are at the centre of these inclinations. It is important for politicians, journalists, researchers to have these opinions in mind as the language use expresses some social inclinations which may be important for all of us. They will help some social discussions which address the "hot issues" in society to be started so the social tension to be overcome and the problems to be properly solved.

References

Arias, R. and Bryla, M. (2018) Orientation towards otherness in the social and literary spaces of today's Europe. Palgrave Communication, *4*(18), Retrieved from https://www.nature.com/articles/s41599-018-0070-3. https://doi.org/10.1057/s41599-018-0070-3

Bartmiński, J. (2009) Aspects of Cognitive Ethnolinguistics, Sheffield: Equinox.

Bartminski, J. and Chlebda, W. (2008) Jak badac jezykowo-kulturowy obraz swiata Słowian i ich sasiadów?, Etnolingwistyka, *20,* 11–27.

Brindle, A. (2016) The Language of Hate: A Corpus Linguistic Analysis of White Supremacist Language. Abingdon: Routledge.

Добрева Е. (2009) Толерантност, нетолерантност и нулева толерантност в съвременния български печат (Критически лингвосемиотичен анализ). В. Търново: Фабер.

Ефтимова А. (2016) Двойственият език в медиите: езикът на политическата коректност vs езика на омразата. София: Парадигма.

Kreytchova, El., Stalyanova, N. (2017). The Power of Public Speech. Sofia: Paradigma.

Kyuchukov, H. (2019). Aquisition of Turkish Grammatical Categories in Bilingual Context. *East European Journal of Psycholinguistics, 6*(1), 32–46. https://doi.org/10.5281/zenodo.3375406

Musolff, A. (2017) Language aggression in public debates on immigration. Journal of Language Aggression and Conflict, 5(2), 175–177. https://doi.org/10.1075/jlac.5.2.01mus

Niebrzegowska-Bartmińska, S., (2018) What data are relevant to ethnolinguistic analyses?, Ethnolinguistics, 29, 11–29. https://doi.org/10.17951/et.2017.29.11

Nizah, M., Jawan, J., Singh, Sarjit, S., Samsu, K. (2015) Framing Ethnic Tolerance, Political Tolerance and Voting Behaviour. Mediterranean Journal of Social Sciences, 6(4), 365–373. https://doi.org/10.5901/mjss.2015.v6n4s1p365

Steinbrich, P. (2016) Creating Academic Text: The Use of Lexical Syntagms by L2 Undergraduate Students of English. In: H. Chodkiewicz, P. Steinbrich, (Eds.). Working with Text and Around Text in Foreign Language Environments, (pp.125–141). M. Krzemińska-Adamek. Springer. https://doi.org/10.1007/978-3-319-33272-7_8

Tateo, L. (2008) The "fascist" discourse in computer mediated communication: the "dual strategy" model of the Italian Extreme Right. Psicologia & Sociedade, 20(2).

Тодорова Б. (2019) Някои наблюдения върху концепта ТОЛЕРАНТНОСТ в българския език. In: Ed. by S. Niebrzegowska-Bartmińska & D. Pazio-Wlazłowska, (Eds.). Wartości w językowo-kulturowym obrazie świata Słowian i ich sąsiadów. Jedność w różnorodności. Wokół słowiańskiej aksjosfery. (pp. 307–320). Lublin: UMCS.

Van Dijk, T. (2015) Racism in the Press. In: N. Bonvillain, (Ed.). Handbook of Linguistic Anthropology. (pp. 384–392). London: Routledge,

Wodak, R. & K. Savski (2018) Critical Discourse–Ethnographic Approaches to Language Policy. In: J. W. Tollefson and M. Pérez-Milans, (Eds.). The Oxford Handbook of Language Policy and Planning. (pp. 93–112). NY: Oxford Univ. Press. https://doi.org/10.1093/oxfordhb/9780190458898.013.4

Wodak, R., Meyer M. (2001) Methods of Critical Discourse Analysis. London: SAGE. http://dx.doi.org/10.4135/9780857028020

Wodak, R., Reisigl, M. (2001) The Semiotics of Racism. Approaches in Critical Discourse Analysis. Vienna: Passagen Verlag.

References (translated and transliterated)

Arias, R. and Bryla, M. (2018) Orientation towards otherness in the social and literary spaces of today's Europe. Palgrave Communication, *4*(18), Retrieved from: https://www.nature.com/articles/s41599-018-0070-3. https://doi.org/10.1057/s41599-018-0070-3

Bartmiński, J. (2009) Aspects of Cognitive Ethnolinguistics, Sheffield: Equinox.

Bartminski, J. and Chlebda, W. (2008) Jak badac jezykowo-kulturowy obraz swiata Słowian i ich sasiadów?, Etnolingwistyka, *20,* 11–27.

Brindle, A. (2016) The Language of Hate: A Corpus Linguistic Analysis of White Supremacist Language. Abingdon: Routledge.

Dobreva, E. (2009) Tolerantnost, netolerantnost i nuleva tolerantnost v savremennia balgarski pechat (Kriticheski lingvosemiotichen analiz). V. Tarnovo: Faber.

Eftimova, A. (2016) Dvoystveniyat ezik v mediite: ezikat na politicheskata korektnost vs ezika na omrazata. Sofia: Prosveta.

Kreytchova, El., Stalyanova, N. (2017). The Power of Public Speech. Sofia: Paradigma.

Kyuchukov, H. (2019) Aquisition of Turkish Grammatical Categories in Bilingual Context. *East European Journal of Psycholinguistics, 6*(1), 32–46. https://doi.org/10.5281/zenodo.3375406

Musolff, A. (2017) Language aggression in public debates on immigration. Journal of Language Aggression and Conflict, 5(2), 175–177. https://doi.org/10.1075/jlac.5.2.01mus

Niebrzegowska-Bartmińska, S., (2018) What data are relevant to ethnolinguistic analyses?, Ethnolinguistics, 29, 11–29. https://doi.org/10.17951/et.2017.29.11

Nizah, M., Jawan, J., Singh, Sarjit, S., Samsu, K. (2015) Framing Ethnic Tolerance, Political Tolerance and Voting Behaviour. Mediterranean Journal of Social Sciences, 6(4), 365–373. https://doi.org/10.5901/mjss.2015.v6n4s1p365

Steinbrich, P. (2016) Creating Academic Text: The Use of Lexical Syntagms by L2 Undergraduate Students of English. In: H. Chodkiewicz, P. Steinbrich, (Eds.). Working with Text and Around Text in Foreign Language Environments, (pp.125–141). M. Krzemińska-Adamek. Springer. https://doi.org/10.1007/978-3-319-33272-7_8

Tateo, L. (2008) The "fascist" discourse in computer mediated communication: the "dual strategy" model of the Italian Extreme Right. Psicologia & Sociedade, 20(2).

Todorova, B. (2019) Nyakoi nablyudenia varhu kontsepta TOLERANTNOST v balgarskia ezik. In: Ed. by S. Niebrzegowska-Bartmińska & D. Pazio-Wlazłowska, (Eds.). Wartości w językowo-kulturowym obrazie świata Słowian i ich sąsiadów. Jedność w różnorodności. Wokół słowiańskiej aksjosfery. (pp. 307–320). Lublin: UMCS.

Van Dijk, T. (2015) Racism in the Press. In: N. Bonvillain, (Ed.). Handbook of Linguistic Anthropology. (pp. 384–392). London: Routledge.

Wodak, R. & K. Savski (2018) Critical Discourse–Ethnographic Approaches to Language Policy. In: J. W. Tollefson and M. Pérez-Milans, (Eds.). The Oxford Handbook of Language Policy and Planning. (pp. 93–112). NY: Oxford Univ. Press. https://doi.org/10.1093/oxfordhb/9780190458898.013.4

Wodak, R., Meyer M. (2001) Methods of Critical Discourse Analysis. London: SAGE. http://dx.doi.org/10.4135/9780857028020

Wodak, R., Reisigl, M. (2001) The Semiotics of Racism. Approaches in Critical Discourse Analysis. Vienna: Passagen Verlag.
.

CONTENT AND LANGUAGE INTEGRATED LEARNING IN TERTIARY EDUCATION: PERSPECTIVES ON TERMS OF USE AND INTEGRATION

Olena Zarichna
ORCID: 0000-0002-6999-0538
olenazarichna1977@gmail.com
Vinnytsia Mykhailo Kotsiubynsky State Pedagogical University, Ukraine
Svitlana Buchatska
ORCID: 0000-0001-6063-5858
svitusik@gmail.com
Vinnytsia Mykhailo Kotsiubynsky State Pedagogical University, Ukraine
Liudmyla Melnyk
ORCID: 0000-0002-4025-0106
rozdoba_l@ukr.net
Vinnytsia Mykhailo Kotsiubynsky State Pedagogical University, Ukraine
Tetiana Savchuk
ORCID: 0000-0003-1644-5357
tetsav777@gmail.com
Vinnytsia Mykhailo Kotsiubynsky State Pedagogical University, Ukraine

Abstract. This paper reports on a classroom investigation into a tertiary variation of content and language integrated learning (CLIL) as well as addresses the conceptual and methodological parameters of this method as distinguished from the other two content-based English-taught courses: ESP and EMI. A special challenge for this research was to study the functionality of CLIL in the university settings in terms of content retention and language acquisition as well as the development of communicative culture in university students. With this purpose we conducted a pilot project on CLIL also designing a triple vector observation scheme (content retention; language acquisition; communication culture) and adding the high order thinking skills dimension as a pivotal learning goal in a CLIL-based English classroom. The project comprised 8 syllabi-based sub-modules that featured scientific content and was conducted among 78 humanities majors at Vinnytsia Mykhailo Kotsiubynsky State Pedagogical University, Ukraine. Findings show that students' cognitive and communicative needs do not find sufficient support in the existing L2 courses to which CLIL may serve as a solution. Introduction of CLIL even at the level of a variable sub-module may considerably raise students' satisfaction with L2 courses and provide a reliable backing in the development of their academic thinking and communicative culture.

Keywords: Content and Language Integrated Learning (CLIL), English for Specific Purposes (ESP), English as a Medium of Instruction (EMI), content-based instruction, Basic Interpersonal Communication System (BICS), Cognitive Academic Language Proficiency (CALP), high order thinking skills.

Зарічна Олена, Бучацька Світлана, Мельник Людмила, Савчук Тетяна. Предметно-мовне інтегроване навчання у контексті вищої школи.

Анотація. У статті викладено результати дослідження предметно-мовного інтегрованого навчання (CLIL) в університетському контексті, розглянуто концептуальні та методологічні параметри цього методу у порівнянні з іншими двома англомовними дисциплінами, що зорієнтовані на навчання предметного змісту англійською мовою - ESP (Англійська мова професійного спрямування), EMI (викладання фахових дисциплін англійською мовою). Особливим завданням цього дослідження було вивчити функціональність методики CLIL в університетському середовищі щодо запам'ятовування контенту, засвоєння мови та розвитку комунікативної культури студентів. Із цією метою нами було здійснено пілотний CLIL-проєкт, для якого було створено тривекторний план спостереження з додаванням аспекту застосування операцій мислення вищого порядку, що є надважливою навчальною метою в контексті вивчення іноземної мови із застосуванням методики CLIL. До проєкту було залучено 78 студентів гуманітарних спеціальностей Вінницького державного педагогічного університету імені Михайла Коцюбинського, навчання здійснювалося на основі 8 тематичних субмодулів програмного змісту, які включали науковий контент. Результати дослідження показали, що когнітивні та комунікативні потреби студентів не дістають належного відгуку в поточних курсах іноземної мови, що може бути виправлено за допомогою CLIL. Упровадження CLIL бодай на рівні варіативних субмодулів може значно посприяти тому, аби студенти отримали очікувану користь від курсів іноземної мови й надати надійну підтримку в розвиткові культури їхнього наукового мислення і спілкування.

Ключові слова: *предметно-мовне інтегроване навчання (CLIL), англійська мова професійного спрямування (ESP), викладання фахових дисциплін англійською мовою (EMI), предметно-орієнтоване навчання, базові навички міжособистісного спілкування (BICS), когнітивна навчально-мовна компетентність (CALP), мислення вищого порядку.*

.

1. Introduction

As a specific representation of the interdisciplinary approach in pedagogy, CLIL (Content and Language Integrated Learning) has received a wide range of interpretations on both theoretical and practical level. Incorporated in the form of a bilingual education scheme or a binary class system (subject teachers and language teacher working together in one classroom sharing study time and introducing material together in two different languages), it preserves its essence as an educational attempt to cater for the learner's need to simultaneously handle foreign language skill building, general knowledge acquisition, development of critical, creative and academic thinking as well as communicative competences.

The relevance of this issue is determined by the fact that the existing university EFL syllabi, being oriented at the "average" learner, does not pose sufficient and satisfying cognitive and linguistic challenge to high achieving representatives of the student population. This is the situation to which CLIL may serve as a solution.

Apart from the 4Cs (Content, Cognition, Communication, Culture) the theory of CLIL as a comprehensive approach also attaches functional concepts which we found relevant for this study. The theory of BICS (Basic Individual Communicative Skills) and CALP (Cognitive Academic Language Proficiency) by J. Cummins (Cummins, 1984) simultaneously reflects the core idea of CLIL and the algorithm of content learning: moving from cognitively undemanding context imbedded communication occurring at the initial stage of language learning to cognitively

demanding context reduced communication involving added cognitive effort at the advanced stages of language acquisition. The learner, according to O. Meyer (Meyer, 2010), gradually passes the transition from BICS to CALP and thus mastering content, language, communicative and academic skills and knowledge.

1.1. Statement of Purpose

Despite very explicit definitions of CLIL as well as provenly successful practices (Fortanet-Gómez & Bellés-Fortuño, 2008; Yang, 2016; Jiang, Jun Zhang, & May, 2019), interpretations of its essence in Ukrainian and foreign academic writings reveal certain conceptual discrepancies: it is either being rebranded into a variation of ESP or its aspect or is just seen from the point of view of the guiding methodology, i.e. of creative teamwork, project work or problem-based learning combined (Grigorieva & Salekhova, 2014; Znanetska, 2012). Another point of confusion, which we intend to bring into focus in this article, is lack of clear differentiation between the school and university formats of CLIL, ESP and EMI, which is critical for understanding the place of the three approaches in Ukrainian tertiary education. So, the research interests we attempted to cover in this article are represented in the following questions:

1. *What is the place and role of CLIL as an innovative method in the tertiary education in Ukraine as compared and contrasted with the classical ESP and EMI courses, as well as school CLIL?*
2. *What are the challenges that CLIL implementers are to face?*
3. *How does the conception of CLIL correlate with students' needs and learning goals?*

1.2. Literature Review and Discussion

Contriving to draw a division line between ESP and CLIL, scholars have come to varied conclusions: Fortanet-Gómez & Bellés-Fortuño (2008) argue that ESP has the single aim of teaching and learning a foreign language, while CLIL places importance on content matter as well as the status of the language. Lasagabaster & Sierra (2010) refer to CLIL as umbrella term, signifying an innovative educational approach by which a subject is taught in an additional language. The same idea is expressed by K. Grigorieva and L. Salekhova (Grigorieva & Salekhova, 2014). K. Graham (2018) practically equates CLIL and EMI viewing both as a variation of CBI (content-based instruction).

While addressing the first question on the place and role of CLIL in Ukrainian tertiary education we attempted to draw a division line between three types of content-based EFL courses, i.e. ESP, EMI and actually CLIL referring to the content type, language acquisition model plus specific vocabulary and dominating methodology.

The first conclusion we have made was that school CLIL and university CLIL should be clearly differentiated. On the stage of secondary education the scope of subject matter the curricula encompass are exceedingly varied ranging from exact sciences to the humanities and arts. Learning a subject or a topic by means of a

foreign language is claimed as hard or soft CLIL and there are no other subject-language blends in the school curricula. At the university level, though, the situation is different: there are two other types of content-language blends which are not supposed to be confused with CLIL: a) ESP courses the aim of which is to train students to communicate in their professional field and make a rich input of the respective terminology; b) EMI courses in which English is used to teach academic subjects in countries or jurisdictions in which the majority of the population's first language is not English (Dearden, 2015). To paraphrase, EMI courses are typically professional degree courses taught in English. If we regard these two course types from the point of view of content-language ratio, we will clearly observe a self-sufficient construct in which ESP caters for the language acquisition and EMI for content learning. In this seemingly exhaustive scheme of content-based courses at the university level is CLIL to be perceived but as an unnecessary redundancy? The answer to this question naturally comes from an even superficial course content analysis. As an example, an EMI course of Political Science largely and primarily pertains to professional themes modified and changed with different frequency and intensity as well as expert knowledge acquisition. ESP courses involve miscellaneous text material for teaching grammar and terminology, but with a less heavy focus on in-depth profession-specific training and actually without the objective to ensure it as the main consideration is language. However, students of Psychology doing an ESP course learn the same type of content as those doing EMI: the knowledge essential for their degree qualifications, i.e. knowledge not provided to students majoring in Geography or Primary Education.

The literature review and a systematic analysis of the existing approaches and practices in the CLIL domain have led us to a set of assumptions that further determined our course of research in conducting a pilot CLIL project at university level.

1. Unlike school CLIL which means mastering a subject through a foreign language as a medium, university curricular have two other content-language courses: EMI and ESP, whose difference from CLIL is still to be determined and. The specificity of university CLIL is not only in the double content-language focus but also in the fact that it should be introduced only as interdisciplinary subject matter. If the content suggested relates directly to the students' degree specialization, it automatically becomes ESP or EMI. This may either be a comprehensive course not referring to any concrete specialty (e.g. "Media Literacy", "Academic Mobility" etc.) or a thematic complementation to the EGP or ESP courses providing extra-syllabus content relevant for any modern information consumer as well as information creator, regardless of which degree course they are doing. Importantly, CLIL content is to be viewed as *non-major* and *cross-curriculum* content.

2. As CLIL is not to refer to students' professional field it is only possible in the format of soft CLIL. To this format we may refer the recently created psychological, biological, economic and historic content, principally new and engaging, which supplements the background knowledge of a specific topic as well as of a specific subject. Generally, the content base of the existing EGP university courses is subdivided into topics, the major aim of which is to enrich the students'

vocabulary for them to be able to name things and phenomena that they already tacitly know. That is to re-teach them the subject matter that they previously learnt. CLIL offers the type of knowledge that is completely or partially new, explicated and introduced into students' picture of the world. In this regard namely CLIL may constitute the developmental aspect of language education at tertiary level.

3. The major challenges CLIL implementers currently face are related to the course structure and also chronology of language learning occurrences. ESP courses are taught primarily in the first two years of a degree course while the disciplines referring to students' professional domain and thus the specific content with its terminology that can be used for ESP practices appears later, in the third year, for example. This means that if CLIL should be implemented in Ukrainian tertiary education, the scheduling of the curricula should be done in correlation between degree and ESP courses. To further on, the frequently mentioned dilemma of who should teach CLIL – a subject or a language teacher has an outcome in the English teacher having to master professional trivia of the field their students major in. CLIL endeavors are not submitted to a local board of experts for approval, thus the schools and universities that propose them are essentially self-referential or rely heavily on the set book CLIL content. On account of this situation, any teacher, also in collaboration with students, can decide to set up CLIL in this or that variation. It has not been specified what kind of assessment system is to be applied concerning language vs. content point distribution.

A summary table of the conceptual features of CLIL, EMI and ESP in comparison and contrast is introduced in *Appendix*.

2. Methods
2.1. Context of research and participants

Finding institutional support in conducting this research at Vinnytsia Pedagogical University we launched a pilot CLIL project comprising 8 syllabi-based sub-modules featuring scientific content. First-year humanities majors meeting the threshold English proficiency level (N=78, divided into 7 groups) and 3 EGP teachers gave their consent to participation in this study. By the time this research was conducted the students had undertaken 1 semester of the EGP course. The homogeneous versus mixed-ability contingent was selected on the assumption that language inadequacy in the project participants may appear to be a serious impediment in meeting the research goals.

2.2. Data collection and analysis

To maximally cater for the objectives of the research, a mixed-method design was employed. Data was collected through 1) direct observation structured according to an observation plan; 2) a post-observation questionnaire survey designed to locate the students' learning motivation and impressions of the project; 3) a semi-structured post-observation interview and field notes content analysis.

2.3. Pilot Project Design

The CLIL was introduced as a variative component to each of the staple program units following the BICS→CALP principle and employing a wide range of

active methods of learning. Avoiding banalty, redundancy and thus reappearance of the already studied or the obvious, we specifically aimed at the students' using the newly received knowledge, introducing it into practical solutions, negotiation, persuasion, reflection on the subject matter. The assignments were deliberately designed so that the learners make extensive use of the H.O.T.s, summarize and analyse their cognitive and emotional experiences, synthesize and re-dimension the subject-matter areas dealt with in the course of the project.

Table 1
Provisional syllabus unit contents

Staple Topic	University. Student Life.
Content focus (Thread)	Culture Shock: Stages, Features, Solutions.
Language input	Psychological terminology. Adjectives describing emotional states. Present Simple active and passive. Grammar structures used for expressing advice and opinion: *should, had better, why not…, a good idea is…, in my view, as far as …. is concerned etc.*
H.O.T. output:	Prognostic thinking; analysis; critical thinking; emotional intellect competences, comparison, categorization, classification.
Communicative competences	Ethical communication, persuasion techniques.
BICS stage	1) Entry discussion. 2) Creating infographic images of individual experience of culture shock with their further analysis (cause-effect-solution algorithm). 3) Creating a group summary poster.
CALP stage	1) Introduction of the subject matter with the preliminary focus on language and scaffolding. 2) Activities facilitating comprehension and retention of the content alongside with language skill-building. 3) Self-evaluation and feedback.

Sample Task #1 (BICS stage)

Team 1. You will receive a list of questions for a survey. Move around the classroom and interview your fellow-students. Analyze the answers of the respondents and deliver a team report on the data collected.

Team 2. Answer the questions of the interviewers. Try to remember your first time at university in detail. Be specific about the things you did as well as your feelings.

Sample Task #2 (CALP stage)

You are a student counselor. Analyze the following problems first-year students face. Identify the stage of culture shock, specify the symptoms. Discuss possible solutions.

Name	Problem	Solution
Anna S.	*I feel very lonely here. I miss my home and my old friends. I don't go out a lot and I feel very different from others.*	
Roma F.	*My roommate really annoys me! He takes my things, even my laptop, doesn't clean up the mess and is sooooo noisy! I can't really change my room now, can I?*	
Ivan L.	*University is ok. I already have some friends here. We go out from time to time. I have learnt to cook, so I don't go hungry anymore.*	
Vira D.	*It's so exciting here! There's so much to do and see! I feel as if I've been born again! The course is fantastic, the guys are awesome! It's true that student years are the best!*	

Sample Task #3 (CALP stage):

You are a group of investors ready to allocate funds for three projects for freshmen. These aim to relieve the challenges of culture shock experienced by students in their first year at university. Each team is responsible for compiling a list of benefits of one project and a list of challenges of the other two. The task is to persuade the other teams that the project your team is in favour of is the most relevant in the present-day context.

Team 1: Counseling service for first-year students run by psychology majors.
Team 2: Tour club and field trips for freshmen organized by geography and PE majors.
Team 3: Debating society.

3. Results and Discussion

Classroom observation was completed according to a set of criteria featuring the triple learning goals and desired learning outcomes. The predominance of interactive methods in CLIL's classroom design determines a special status of the communicative culture of learners which led us to add a cultural dimension to the research procedure and enable to locate students' most typical communicative behaviors. With the research purpose only, the teachers were requested to fill in the observation forms after each CLIL session and also produce a set of field notes describing their impressions of the aspects not featured in the form. The latter were

processed and added to research results. To ensure the validity of the research the observation was before the launch of the CLIL component and after it. The results of the observation are presented below.
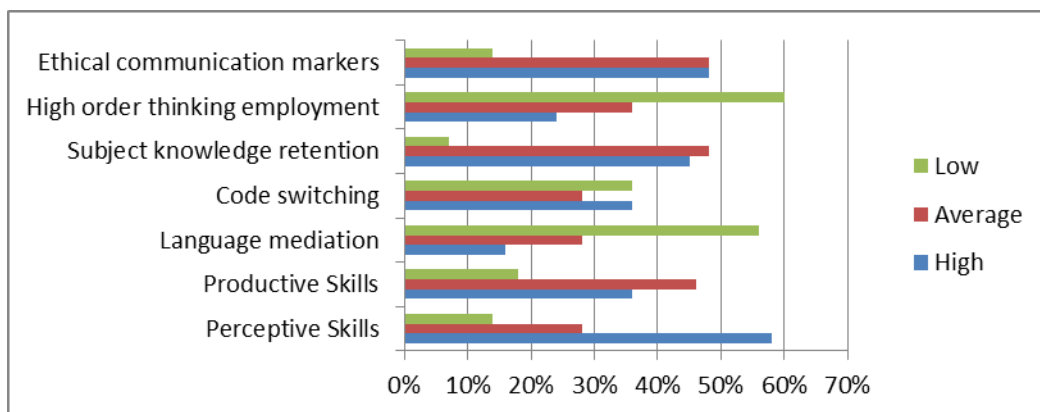
Figure 1
Classroom observation report form (Before)
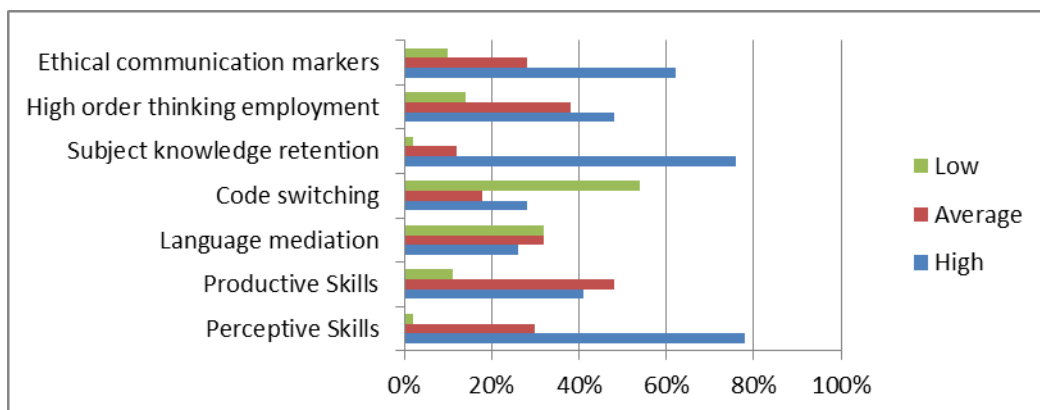

Figure 2
Classroom observation report form (After)

Table 2
Types of the students' communicative behaviors

	Communication Styles		
	Inertial Style (14% before; 8% after)	Monopolization Style (38% before; 24% after)	Ethical Style (48% before; 68 after)
Perceptiveness to other thinking cultures	Passive position in interpersonal communication.	Rigid position in perceiving the partners' viewpoints.	Readiness to accept different opinions. Demonstrating the value of

191

			communication.
Responsiveness	Lack of communicative initiative; minimized feedback to the partner's remarks.	Egocentric strategies in cognitive and discussion strategies realized in regular interruptions, simulation of attention.	Discourse markers demonstrating a dialogical disposition: interpretation and paraphrasal of the partner's remarks; high feedbacking on the partner's remarks; non-verbal markers of cooperative behaviour.
Cognitive flexibility	Passive position in the content study; Reproductive style of reflection; Low diversity of perspective.	Developing their own perspectives; No account is made of the others' remarks. Demonstration of prejudice and antipathy.	Demonstrating tolerance towards other students' views and perspectives; Readiness to adapt and transform their perspectives with regard to their partners''.

The post-observation questionnaire survey was centered around three motivation biases: pragmatic, cognitive and that reflecting the need for personal growth. The post-observation interview enabled to collect the teachers' and students' feedback to the project and their reflections and perspectives on the benefits and restrictions of content-based approach in Ukrainian university settings.

The questionnaire contained nine items on a five-point Likert scale ranging from "strongly agree" to "strongly disagree" which tapped into students' self-identified English learning needs which might be met through introduction of CLIL. The data derived were then finally submitted to descriptive analysis through SPSS and are summarized in the table below.

Table 3
Questionnaire survey data analysis

Motivation bias	%	Specific motivation markers
Pragmatic	12%	Becoming a more knowledgeable and interesting communicant able to hold intelligent conversation and thus be more socially attractive.
	16%	Acquiring knowledge that may become a benefit in the context of communication, networking and career development in future.
	6%	Obtaining material for instruction and sharing that may favor the teacher's status and authority.
Total:	**34%**	
Cognitive	8%	Learning vocabulary and content that never appear through mainstream EGP and ESP courses.
	18%	Compensating for lack of factual knowledge about the material world and social phenomena experienced by pedagogy and philology majors.
	10%	Receiving "insider" knowledge of the subject, considering issues that refer to the inner structure, action mechanisms or background history of the subject.
Total:	**36%**	
Personal growth	8%	Personal growth and self-actualization through learning principally new things that do not occur in the content of other degree or non-degree courses.
	11%	Acquiring confidence through the feeling of growth appearing from expanding the world outlook.
	11%	Enrichment of general knowledge as well as language and communication skill building.
Total:	30%	

Both the students and the teachers involved in the CLIL pilot project brought forward two main conditions which should be observed in the pursuit of successful CLIL implementation: 1) Students' language proficiency must be sufficient in order to be able to grasp the linguistically loaded and academic subject matter. 2) Course material must have reference to knowledge that will be useful for future professional activity or at least contain some interesting, new and original information that may expand students' awareness of the surrounding world.

Interview Excerpt 1:

Teacher 1: *Having to deal with language obstructions in cognition facilitates retention of knowledge and makes the process of cognition more exciting and memorable.*

Teacher 2. *CLIL gives a chance to actualize your intellectual potentials in high achieving students, who find it engaging to face an intellectual challenge and give vent to their ideas and perspectives. They have aptitude for high order thinking but do not get enough possibility to make use of it during a mainstream task-oriented EFL course.*

Interview Excerpt 2:

Student 1. *This is the kind of content through which identify our attitude to something and thus we cognate ourselves. It is a self-discovery in a way.*

Student 2. *CLIL being focused on content allows us not to focus on the accuracy of our speech. We just use it as a tool for cognition and communication.*

4. Conclusions

In response to the first research question we set, it should be mentioned that the concept of CLIL in the university settings has to be distinguished from its counterparts – EMI and ESP. A systematic study of the relevant literature and the comparative analysis of the three approaches has led us to their clear differentiation according to which CLIL appears to be possible as a non-degree interdisciplinary course or syllabus component introduced to non-majors of the field.

The pilot project revealed unique potentials of CLIL in terms of acquisition of knowledge, expanding the awareness of students in non-degree areas, language skill building and high order thinking skills development. It may serve to the advantage of the high achieving contingent of the student population conferring them an opportunity to learn and develop to their full potential. Alongside rather than instead of the already existent EFL university courses CLIL may enhance diversification of university syllabi and lead student and teachers to an effective collaborative scheme of learning and development.

References

Григорьева К.С., Салехова Л.Л. Реализация принципов предметно-языкового интегрированного обучения с помощью технологий Web 2.0 в техническом вузе. *Вестник РУДН. Серия ИНФОРМАТИЗАЦИЯ ОБРАЗОВАНИЯ.* 2014. № 2. С. 11–18.

Знанецька О.М. Основні дидактичні та методичні принципи викладання іноземної мови. *Актуальні проблеми викладання іноземних мов для професійного спілкування :*

Матеріали Всеукр. наук.- практ. конф., 6–7 квіт. 2012 р. : У 3 т. Д. : Біла К.О., 2012. С. 60–62. Retrieved from: http://www.confcontact.com/2012edu/2012edu_tom1.pdf.

Barrios, E., Lara, M. (2020). CLIL methodology, materials and resources, and assessment in a monolingual context: an analysis of stakeholders' perceptions in Andalusia. *The Language Learning Journal, 48*(1), 60–80.

Cummins, J. (1984). Bilingualism and Special Education. In *Issues in Assessment and Pedagogy.* Clevedon: Multilingual Matters.

Dafouz, E., Nunez, B., Sancho, C., & Foran, D. (2007). Integrating CLIL at the Tertiary Level: Teachers' and Students' Reactions in Diverse Contexts-converging Goals: *CLIL in Europe*, edited by D. Marsh and D. Wolff. (pp. 91–101). Frankfurt: Peter Lang.

Fortanet-Gómez, I. & Bellés-Fortuño, B. (2008). The relevance of discourse markers in teacher training courses for Content and Language Integrated Learning in higher education. In O. Martí Arnáinz, & M. P. Safont Jordá (Eds), *Achieving multilingualism: Wills and ways. Proceedings of the First international conference on multilingualism (ICOM)* (pp. 149–159). Castelló de la Plana: Universitat Jaume I.

Graham, K. M, Choi, Y., Davoodi, A., Razmeh, S., & Dixon L.Q. (2018). Language and Content Outcomes of CLIL and EMI: A Systematic Review. *LACLIL*, *11*(1), 19–37.

Jiang, Li., Jun Zhang, L., & May, S. (2019). Implementing English-Medium Instruction (EMI) in China: Teachers' Practices and Perceptions, and students' Learning Motivation and Needs. *International Journal of Bilingual Education and Bilingualism. 22*(2), 107–119.

Meyer, O. (2010). Introducing the CLIL-Pyramid: Key Strategies and Principles for CLIL Planning and Teaching. *Basic issues in EFL Teaching and Learning*, 295–313.

Lasagabaster, D., & Sierra, J. (2010). Immersion and CLIL in English: More differences than similarities. *ELT Journal*, *64*(4), 367–375.

Yang, W. (2016). ESP vs CLIL: A Coin of Two Sides or a Continuum of Two Extremes? *ESP Today. Vol. 4*(1). P.43–68.

References (translated and transliterated)

Grigorieva K.S., Salekhova L.L. (2014). Realizatsia printsipov predmetno-yazykovogo integrirovannogo obucheniya s pomoshchyu tekhnologiy Web 2.0 v tekhnicheskom vuze. [Realisation of subject and language integrated learning principles using Web 2.0 technologies in higher technical school]. *Vesnik RUDY. Seriya Informatizatsyia Obrazovaniya, 2,* 11–18.

Znanetska, O. (2012) Osnovni dydaktychni ta metodychni pryntsypy vykladannia inozemnoyi movy [The main didactic and methodical principles of teaching foreign languages]. *Aktualni problemy ykladannia inozemnykh mov dlia professiynoho spilkuvannia*: materialy Vseukr. nauk.-prakt. konf., 6–7 kvit. 2012 r.: U 3 t. D.: Bila K.O. P. 60–62. Retrieved from http://www.confcontact.com/2012edu/2012edu_tom1.pdf

Barrios, E., Lara, M. (2020). CLIL methodology, materials and resources, and assessment in a monolingual context: an analysis of stakeholders' perceptions in Andalusia. *The Language Learning Journal, 48*(1), 60–80. https://doi.org/10.1080/09571736.2018.1544269.

Cummins, J. (1984). Bilingualism and Special Education. In *Issues in Assessment and Pedagogy.* Clevedon: Multilingual Matters.

Dafouz, E., Nunez, B., Sancho, C., & Foran, D. (2007). Integrating CLIL at the Tertiary Level: Teachers' and Students' Reactions in Diverse Contexts-converging Goals: *CLIL in Europe*, edited by D. Marsh and D. Wolff. (pp. 91–101). Frankfurt: Peter Lang.

Fortanet-Gómez, I. & Bellés-Fortuño, B. (2008). The relevance of discourse markers in teacher training courses for Content and Language Integrated Learning in higher education. In O. Martí Arnáinz, & M. P. Safont Jordá (Eds), *Achieving multilingualism: Wills and ways. Proceedings of the First international conference on multilingualism (ICOM)* (pp. 149–159). Castelló de la Plana: Universitat Jaume I.

Graham, K. M, Choi, Y., Davoodi, A., Razmeh, S., & Dixon L.Q. (2018). Language and Content Outcomes of CLIL and EMI: A Systematic Review. *LACLIL*, *11*(1), 19–37. https://doi.org/10.5294/laclil.v11i1.9268.

Jiang, Li., Jun Zhang, L., & May, S. (2019). Implementing English-Medium Instruction (EMI) in China: Teachers' Practices and Perceptions, and students' Learning Motivation and Needs. *International Journal of Bilingual Education and Bilingualism.* 22(2), 107–119. https://doi.org/10.1080/13670050.2016.1231166.

Meyer, O. (2010). Introducing the CLIL-Pyramid: Key Strategies and Principles for CLIL Planning and Teaching. In M. Eisenmann, T. Summer, (Eds.). *Basic issues in EFL Teaching and Learning*, (pp. 295–313). Universitätsverlag Winter GmbH Heidelberg.

Lasagabaster, D., & Sierra, J. (2010). Immersion and CLIL in English: More differences than similarities. *ELT Journal*, *64*(4), 367–375. https://doi.org/10.1093/elt/ccp082.

Yang, W. (2016). ESP vs CLIL: A Coin of Two Sides or a Continuum of Two Extremes? *ESP Today.* 4(1), 43–68. Retrieved from https://www.researchgate.net/publication/299615961_ESP_vs_CLIL_A_coin_of_two_sides_or_a_continuum_of_two_extremes.

Appendix

Conceptual Features of CLIL, ESP and EMI in Comparison and Contrast

	ESP	EMI	CLIL
Type of Content	Subject matter reflecting professional trivia, elements of expert knowledge and situations of professional communication partially duplicated in L1 degree courses.	Degree-based content, domain knowledge replicated from L1 curricular.	Interdisciplinary cross-curricular content designed for *non-majors* of the field.
Language acquisition model — Language Input	Lexis being of paramount importance, inc. terminology of the specific field and general academic vocabulary, relevant grammar patterns constitute an important aspect of language input as well.	Language learning does not occur as such since the former serves as a medium of communicating expertise and does not belong to the objectives of the course.	Double focus on language and content. Vocabulary and relevant grammar are introduced separately to relieve possible cognitive obstructions.

| Assessment Criteria | Receptive and productive EFL skills.

Vocabulary of the respective domain and relevant grammar. | As the skills related to language use are not subject to specialized instruction no assessment is envisaged. | Language Block: receptive and productive skills. Content Block: factual subject matter; high order thinking skills; communicative integrity |
|---|---|---|---|
| Methodological Principles | The didactical principles are those applied for language learning as such (illustrativeness, comprehensibility, communicative principle etc.). | No pre-ordained methodology in terms of language learning is applied. | The quality principles explicated by O. Meyer (Meyer, 2010):

1. Rich Input.
2. Scaffolding Learning.
3. Rich interaction and pushed output.
4. Adding the intercultural dimension.
5. Involve high order thinking skills.
6. Sustainable learning. |
| | Mode of learning: task-oriented. Degree of interactivity and collaborativity fluctuates with each individual teacher. | Mode of learning: task-oriented, teacher-fronted lecture sessions and seminars with little interactivity (Dafouz, Nunez, Sancho, & Foran, 2007) | Mode of learning: student-centered, set as a teacher-student collaborative enterprise, highly interactive. |

| **Dominating methodology** | Language learning is performed according to an algorithmic methodological scheme. Receptive and productive skills undergo special training through an elaborate set of exercises. | The methodology pertains to the immersion pattern which is introduced simultaneously with the syllabus-based theory of the major course. | BICS→CALP, group and pair work, active methods of learning, problem-based learning, project, presentation, team building games, use of graphic organizers, mind maps and infographics. |

BOOK REVIEW

**Susheel Kumar Sharma's Unwinding Self: A Collection of Poems.
Cuttack: Vishvanatha Kaviraj Institute, 2020, ISBN: 978-81-943450-3-9,
Paperback, pp. viii + 152.**

Rabindra Kumar Verma
Manipal University Jaipur, India
rkverma1984@gmail.com

Like his earlier collection, *The Door is Half Open*, Susheel Kumar Sharma's *Unwinding Self: A Collection of Poems* has three sections consisting of forty-two poems of varied length and style, a detailed Glossary mainly on the proper nouns from Indian culture and tradition and seven Afterwords from the pens of the trained readers from different countries of four continents. The structure of the book is circular. The first poem "Snapshots" indicates fifteen kaleidoscopic patterns of different moods of life in about fifteen words each. It seems to be a rumination on the variegated images of everyday experiences ranging from individual concerns to spiritual values. Art-wise, they can be called mini-micro-poems as is the last poem of the book.

While the character limit in a micro poem is generally 140 (the character limit on Twitter) Susheel has used just around 65 in each of these poems. Naturally, imagery, symbolism and cinematic technique play a great role in this case. In "The End of the Road" the poet depicts his individual experiences particularly changing scenario of the world. He seems to be worried about his eyesight getting weak with the passage of time, simultaneously he contrasts the weakness of his eyesight with the hypocrisy permeating the human life. He compares his diminishing eyesight to Milton and shows his fear as if he will get blind. He changes his spectacles six times to clear his vision and see the plurality of a reality in human life. It is an irony on the changing aspects of human life causing miseries to the humanity. At the end of the poem, the poet admits the huge changes based on the sham principles: "The world has lost its original colour" (4). The concluding lines of the poem make a mockery of the people who are not able to recognise reality in the right perspective.

The poem "Durga Puja in 2013" deals with the celebration of the festival "Durga Puja" popular in the Hindu religion. The poet's urge to be with Ma Durga shows his dedication towards the Goddess Durga, whom he addresses with different names like 'Mai', 'Ma' and 'Mother'. He worships her power and expresses deep reverence for annihilating the evil-spirits. The festival Durga Puja also reminds people of victory of the goddess on the elusive demons in the

battlefield. "Chasing a Dream on the Ganges" is another poem having spiritual overtones. Similarly, the poem "Akshya Tritya" has religious and spiritual connotations. It reflects curiosity of people for celebration of "Akshya Tritya" with enthusiasm. But the political and economic overtones cannot be ignored as the poem ends with the remarkable comments:

> The GDP may go up on this day;
> Even, Budia is able to
> Eat to his fill; Panditji can blow his
> Conch shell with full might.
> Outside, somebody is asking for votes;
> Somebody is urging others to vote.
> I shall vote for Akshya Tritya. (65–66)

On Reading Langston Hughes' 'Theme for English B'" is a long poem in the collection. In this poem, the poet reveals a learner's craving for learning, perhaps who comes from an extremely poor background to pursue his dreams of higher education. The poet considers the learner's plights of early childhood, school education and evolutionary spirit. He associates it with Dronacharya and Eklavya to describe the mythical system of education. He does not want to be burdened with the self-guilt by denying the student to be his 'guru' therefore, he accepts the challenge to change his life. Finally, he shows his sympathy towards the learner and decides to be the 'guru': "It is better to face/A challenge and change/Than to be burden with a life/Of self-guilt. /I put my signatures on his form willy-nilly" (11).

The poem "The Destitute" is an ironical presentation of the modern ways of living seeking pleasure in the exotic locations all over the world. It portrays the life of a person who has to leave his motherland for earning his livelihood, and has to face an irreparable loss affecting moral virtues, lifestyle, health and sometimes resulting in deaths. The poem "The Black Experience" deals with the suppression of the Africans by the white people. The poem "Me, A Black Doxy", perhaps points out the dilemma of a black woman whether she should prostitute herself or not, to earn her livelihood. Perhaps, her deep consciousness about her self-esteem does not allow her to indulge in it but she thinks that she is not alone in objectifying herself for money in the street. Her voice resonates repeatedly with the guilt of her indulgence on the filthy streets:

> At the dining time
> Me not alone? In the crowded street
> Me not alone?
> They 'ave white, grey, pink hair
> Me 'ave black hair – me not alone
> There's a crowd with black hair.
> Me 'ave no black money
> Me not alone? (14)

The poem "Thus Spake a Woman" is structured in five sections having expressions of the different aspects of a woman's love designs. It depicts a

woman's dreams and her attraction towards her lover. The auditory images like "strings of a violin", "music of the violin" and "clinch in my fist" multiply intensity of her feelings. With development of the poem, her dreams seem to be shattered and sadness know the doors of her dreamland. Finally, she is confronted with sadness and is taken back to the past memories reminding her of the difficult situations she had faced.

Replete with poetic irony, "Bubli Poems" presents the journey of a female, who, from the formative years of her life to womanhood, experienced gender stereotypes, biased sociocultural practices, and ephemeral happiness on the faces of other girls around her. The poem showcases the transformation of a village girl into a New Woman, who dreams her existence in all types of luxurious belongings rather than identifying her independent existence and finding out her own ways of living. Her dreams lead her to social mobility through education, friendships, and the freedom that she gains from her parents, family, society and culture. She attempts her luck in the different walks of human life, particularly singing and dancing and imagines her social status and wide popularity similar to those of the famous Indian actresses viz. Katrina and Madhuri Dixit: "One day Bubli was standing before the mirror/Putting on a jeans and jacket and shaking her hips/She was trying to be a local Katrina" (41). She readily bears the freakish behaviour of the rustic/uncultured lads, derogatory comments, and physical assaults in order to fulfil her expectations and achieves her individual freedom. Having enjoyed all the worldly happiness and fashionable life, ultimately, she is confronted with the evils designs around her which make her worried, as if she is ignorant of the world replete with the evils and agonies: "Bubli was ignorant of her agony and the lost calm" (42). The examples of direct poetic irony and ironic expressions of the socio-cultural evils, and the different governing bodies globally, are explicit in this poem: "Bubli is a leader/What though if a cheerleader./The news makes her family happy."(40), "Others were blaming the Vice-Chancellor/ Some others the system;/ Some the freedom given to girls;"(45), and "Some blame poverty; some the IMF;/ Some the UN; some the environment;/ Some the arms race; some the crony's lust;/ Some the US's craving for power;/Some the UK's greed. (46-47). Finally, Bubli finds that her imaginative world is fragile. She gives up her corporeal dreams which have taken the peace of her mind away. She yearns for shelter in the temples and churches and surrenders herself before deities praying for her liberation: "Jai Kali,/ Jai Mahakali, Jai Ma, Jai Jagaddhatri,/ Save me, save the world." (47).

In the poem "The Unlucky", the poet jibes at those who are lethargic in reading. He identifies four kinds of readers and places himself in the fourth category by rating himself a 'poor' reader. The first three categories remind the readers of William Shakespeare's statement "Some are born great, some achieve greatness, and some have greatness thrust upon them." At the end of the poem, the poet questions himself for being a poet and teacher. The question itself reflects on his ironic presentation of himself as a poor reader because a poet's wisdom is compared with that of the philosopher and everybody worships and bows before a

teacher, a "guru", in the Indian tradition. The poet is considered the embodiment of both. The poet's unfulfilled wish to have been born in Prayagraj is indexed with compunction when the poem ends with the question "Why was I not born in Prayagraj?" (52). Ending with a question mark, the last line of the poem expresses his desire for perfection. The next poem, "Saying Goodbye", is elegiac in tone and has an allusion to Thomas Gray's "The Elegy Written in a Country Churchyard" in the line "When the curfew tolls the knell of the parting day"; it ends with a question mark. The poem seems to be a depiction of the essence and immortality of 'time'. Reflecting on the poet's consideration of the power and beauty of 'time', Pradeep Kumar Patra rightly points out, "It is such a phenomena that nobody can turn away from it. The moment is both beautiful as well as ferocious. It beautifies and showcases everything and at the same time pulls everything down when necessary" (146). Apparently, the poem "The Kerala Flood 2018"is an expression of emotions at the disaster caused by the flood in 2018. By reminding of Gandhi's tenets to be followed by people for the sake of morality and humankind, the poet makes an implicit criticism of the pretentions, and violation of pledges made by people to care of other beings, particularly, cow that is worshiped as "mother" and is considered to be a symbol of fertility, peace and holiness in Hinduism as well as the Buddhist culture. The poet also denigrates people who deliberately ignore the sanctity of the human life in Hinduism and slaughter the animal cow to satisfy their appetites. In the poem, the carnivorous are criticized explicitly, but those who pretend to be herbivorous are decried as shams:

> If a cow is sacrosanct
> And people eat beef
> One has to take a side.
> Some of the friends chose to
> Side with cow and others
> With the beef-eaters.
> Some were more human
> They chose both. (55)

The poet infuses positivity into the minds of the Indian people. Perhaps, he thinks that, for Indians, poverty, ignorance, dirt and mud are not taboos as if they are habitual to forbear evils by their instincts. They readily accept them and live their lives happily with pride considering their deity as the preserver of their lives. The poem "A Family by the Road" is an example of such beliefs, in which the poet lavishes most of his poetic depiction on the significance of the Lord Shiva, the preserver of people in Hinduism:

> Let me enjoy my freedom.
> I am proud of my poverty.
> I am proud of my ignorance.
> I am proud of my dirt.
> I have a home because of these.
> I am proud of my home.

My future is writ on the walls
Of your houses
My family shall stay in the mud.
After all, somebody is needed
To clean the dirt as well.
I am Shiva,
Shivoham. (73)

In the poem "Kabir's Chadar", the poet invokes several virtues to back up his faith in spirituality and simplicity. He draws a line of merit and virtue between Kabir's Chadar which is 'white' and his own which is "thickly woven" and "Patterned with various beautiful designs/ In dark but shining colours" (50). The poet expresses his views on Kabir's 'white' Chadar symbolically to inculcate the sense of purity, fortitude, spirituality, and righteousness among people. The purpose of his direct comparison between them is to refute artificiality, guilt and evil intents of humanity, and propagate spiritual purity, the stark simplicities of our old way of life, and follow the patience of a saint like Kabir.

The poem "Distancing" is a statement of poetic irony on the city having two different names known as Bombay and Mumbai. The poet sneers at its existence in Atlas. Although the poet portraits the historical events jeering at the distancing between the two cities as if they are really different, yet the poet's prophetic anticipation about the spread of the COVID-19 in India cannot be denied prima facie. The poet's overwhelming opinions on the overcrowded city of Bombay warn humankind to rescue their lives. Even though the poem seems to have individual expressions of the poet, leaves a message of distancing to be understood by the people for their safety against the uneven things. The poem "Crowded Locals" seems to be a sequel to the poem "Distancing". Although the poet's purpose, and appeal to the commonplace for distancing cannot be affirmed by the readers yet his remarks on the overcrowded cities like in Mumbai ("Crowded Locals"), foresee some risk to the humankind. In the poem "Crowded Locals", he details the mobility of people from one place to another, having dreams in their eyes and puzzles in their minds for their livelihood while feeling insecure especially, pickpockets, thieves and strangers. The poet also makes sneering comments on the body odour of people travelling in first class. However, these two poems have become a novel contribution for social distancing to fight against the COVID-19.

In the poem "Buy Books, Not Diamonds" the poet makes an ironical interpretation of social anarchy, political upheaval, and threat of violence. In this poem, the poet vies attention of the readers towards the socio-cultural anarchy, especially, anarchy falls on the academic institutions in the western countries where capitalism, aristocracy, dictatorship have armed children not with books which inculcate human values but with rifles which create fear and cause violence resulting in deaths. The poet's perplexed opinions find manifestation in such a way as if books have been replaced with diamonds and guns, therefore, human values are on the verge of collapse: "Nine radiant diamonds are no match/ To the

redness of the queen of spades. . . . / … holding/ Rifles is a better option than/ Hawking groundnuts on the streets?" (67).The poet also decries the spread of austere religious practices and jihadist movement like Boko Haram, powerful personalities, regulatory bodies and religious persons: "Boko Haram has come/Obama has also come/The UN has come/Even John has come with/Various kinds of ointments" (67).

The poem "Lost Childhood" seems to be a memoir in which the poet compares the early life of an orphan with the child who enjoys early years of their lives under the safety of their parents. Similarly, the theme of the poem "Hands" deals with the poet's past experiences of the lifestyle and its comparison to the present generation. The poet's deep reverence for his parents reveals his clear understanding of the ways of living and human values. He seems to be very grateful to his father as if he wants to make his life peaceful by reading the lines of his palms: "I need to read the lines in his palm" (70).

In the poem "A Gush of Wind", the poet deliberates on the role of Nature in our lives. The poem is divided into three sections, perhaps developing in three different forms of the wind viz. air, storm, and breeze respectively. It is structured around the significance of the Nature. In the first section, the poet lays emphasis on the air we breathe and keep ourselves fresh as if it is a panacea. The poet criticizes artificial and material things like AC. In the second section, he depicts the stormy nature of the wind scattering papers, making the bed sheets dusty affecting or breaking the different types of fragile and luxurious objects like Italian carpets and lamp shades with its strong blow entering the oriels and window panes of the houses. Apparently, the poem may be an individual expression, but it seems to be a caricature on the majesty of the rich people who ignore the use of eco-chic objects and disobey the Nature's behest. In the third and the last section of the poem, the poet's tone is critical towards Whitman, Pushkin and Ginsberg for their pseudoscientific philosophy of adherence to the Nature. Finally, he opens himself to enjoy the wind fearlessly.

The poems like "A Voice" , "The New Year Dawn", "The New Age", "The World in Words in 2015", "A Pond Nearby", "Wearing the Scarlet Letter 'A'", "A Mock Drill", "Strutting Around", "Sahibs, Snobs, Sinners", "Endless Wait", "The Soul with a New Hat", "Renewed Hope", "Like Father, Unlike Son", "Hands", "Rechristening the City", "Coffee", "The Unborn Poem", "The Fountain Square", "Ram Setu", and "Connaught Place" touch upon the different themes. These poems reveal poet's creativity and unique features of his poetic arts and crafts.

The last poem of the collection "Stories from the Mahabharata" is written in twenty-five stanzas consisting of three lines each. Each stanza either describes a scene or narrates a story from the Mahabharata, the source of the poem. Every stanza has an independent action verb to describe the actions of different characters drawn from the Mahabharata. Thus, each stanza is a complete miniscule poem in itself which seems to be a remarkable characteristic of the poem. It is an exquisite example of 'Micro-poetry' on paper, remarkable for its

brevity, dexterity and intensity. The poet's conscious and brilliant reframing of the stories in his poem sets an example of a new type of 'Found Poetry' for his readers.

Although the poet's use of various types images–natural, comic, tragic, childhood, horticultural, retains the attention of readers yet the abundant evidences of anaphora reflect redundancy and affect the readers' concentration and diminishes their mental perception, for examples, pronouns 'her' and 'we' in a very small poem "Lost Childhood", articles 'the' and 'all' in "Crowded Locals", the phrase 'I am proud of' in "A Family by the Road" occur many times. Svitlana Buchatska's concise but evaluative views in her Afterword to Unwinding Self help the readers to catch hold of the poet's depiction of his emotions. She writes, "Being a keen observer of life he vividly depicts people's life, traditions and emotions involving us into their rich spiritual world. His poems are the reflection on the Master's world of values, love to his family, friends, students and what is more, to his beloved India. Thus, the author reveals all his beliefs, attitudes, myths and allusions which are the patterns used by the Indian poets" (150).

W. H. Auden defines poetry as "the clear expression of mixed feelings." It seems so true of Susheel Sharma's Unwinding Self. It is a mixture of poems that touch upon the different aspects of human life. It can be averred that the collection consists of the poet's seamless efforts to delve into the various domains of the human life and spot for the different places as well. It is a poetic revue in verse in which the poet instils energy, confidence, power and enthusiasm into minds of Indian people and touches upon all aspects of their lives. The poverty, ignorance, dirt, mud, daily struggle against liars, thieves, pickpockets, touts, politician and darkness have been depicted not as weaknesses of people in Indian culture but their strengths, because they have courage to overcome darkness and see the advent of a new era. The poems teach people morality, guide them to relive their pains and lead them to their salvation. Patricia Prime's opinion is remarkable: "Sharma writes about his family, men and women, childhood, identity, roots and rootlessness, memory and loss, dreams and interactions with nature and place. His poised, articulate poems are remarkable for their wit, conversational tone and insight" (138). Through the poems in the collection, the poet dovetails the niceties of the Indian culture, and communicates its beauty and uniqueness meticulously. The language of the poem is lucid, elevated and eloquent. The poet's use of diction seems to be very simple and colloquial like that of an inspiring teacher.

On the whole the book is more than just a collection of poems as it teaches the readers a lot about the world around them through a detailed Glossary appended soon after the poems in the collection. It provides supplementary information about the terms used abundantly in Indian scriptures, myths, and other religious and academic writings. The Glossary, therefore, plays pivotal role in unfolding the layers of meaning and reaching the hearts of the global readers. The "Afterwords" appended at the end, enhances readability of poems and

displays worldwide acceptability, intelligibility, and popularity of the poet. The Afterwords are a good example of authentic Formalistic criticism and New Criticism. They indirectly teach a formative reader and critic the importance of forming one's opinion, direct reading and writing without any crutches of the critics.

CALENDAR

INTERNATIONAL PSYCHOLINGUISTIC RESEARCH EVENTS

15th International Internet Conference
Psycholinguistics in the Modern World
Host institution: Hryhoriy Skovoroda Pereyaslav-Khmelnytskyi State Pedagogical University
Deadline for submitting abstracts: September 1, 2020
Location: Pereyaslav, Ukraine
Start Date: 22–23rd October, 2020
Contact: Nataliya Kharchenko
E-mail: psycholing.elab@gmail.com
URL: http://psychling.phdpu.edu.ua

12th International Congress of International Society of Applied Psycholinguistics ISAPL
New Perspectives in Psycholinguistic Research: Language, Culture, Technologies
Host institution: The University of Aveiro
Deadline for submitting abstracts: September 1, 2020
Location: Aveiro, Portugal
Start Date: 3-4th June, 2021
Contact: Leonor Scliar-Cabral
E-mail: 12isapl.congress.org@gmail.com

Cognitive Aspects of the Lexicon – CogALex
Deadline for submitting abstracts: August 15, 2020
Location: Barcelona, Spain
Start Date: 12th December, 2020
Contact: Michael Zock
E-mail: michael.zock@lis-lab.fr
URL: https://sites.google.com/view/cogalex-2020/home

Morphology in production and perception: Phonetics, phonology and spelling of complex words
MPP2021
Host institution: Heinrich-Heine-Universität Düsseldorf, Germany
Deadline for submitting papers: November 1, 2020
Location: Düsseldorf, Germany
Start Date: 8-10th February, 2021
Contact: Ingo Plag
E-mail: ingo.plag@uni-duesseldorf.de
URL: https://mpp2021.phil.hhu.de/

SIGNLL Conference on Computational Natural Language Learning – CoNLL 2020
Host institution: Association for Computational Linguistics
Deadline for submitting abstracts: July 17, 2020
Location: Punta Cana, Dominican Republic
Start Date: 11-12th November, 2020
Contact: Tal Linzen
E-mail: tal.linzen@jhu.edu
URL: https://www.conll.org/2020
URL: https://www.sowi.uni-kl.de/psycholinguistics/pif2020/