# The Language of the Weather Forecast in Italian and Spanish Television Broadcasts: Linguistic-Descriptive Analysis of the End of Winter on RTVE and TG5 Television Channels

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**Abstract.** Weather information is of great importance to society due to the impact of the physical environment on everyday life. As a result, popular tradition has disseminated many proverbs related to human activities that have been the subject, over time, of scientific studies, with the aim of verifying the veracity of such predictions. For this reason, this article initially presents a brief bibliographical and regulatory analysis of the evolution of atmospheric language and a presentation of the bodies that regulate its communication in Spain and Italy. Subsequently, a corpus of weather reports extracted during the month of December 2022 from an Italian and Spanish news channel will be illustrated with the aim of studying the communication of weather forecasts from a macro- and microstructural linguistic level, given the lack of studies in both languages in this respect. For this purpose, Speechnotes will be used for the transcriptions and Skecth Engine for the creation of the corpus. As a result of the analysis, Spanish news programmes devote more time to the space of time, show a much higher speed of locution than the Italian corpus, provide a greater number of mechanisms to show probability and uncertainty, and a great variety of linguistic-discursive strategies to exemplify the scientific context. We also find a recurrent gerund, which we will call "atmospheric gerund". In Italian, on the other hand, we find a greater deixis, more synthetic information, and less dynamism in the interaction with the data.

**Keywords:** atmospheric language, atmospheric forecasting, probability, technicalities, scientific context.

Ваєхо Рубен Гонзалес. Мова прогнозу погоди в італійському та іспанському телевізійному мовленні: Лінгводескриптивний аналіз прогнозів погоди наприкінці зими на телеканалах RTVE та TG5.

Анотація. Метеорологічна інформація має велике значення для суспільства через вплив, який умови фізичного середовища мають на повсякденне життя. Як наслідок, народна традиція поширила велику кількість прислів'їв, пов'язаних з діяльністю людини, які з часом стали предметом наукових досліджень, спрямованих на перевірку правдивості таких прогнозів. З цієї причини в цій статті спочатку представлено короткий бібліографічний та нормативно-правовий аналіз еволюції атмосферної мови та презентацію органів, які регулюють її поширення в Іспанії та Італії. Згодом буде проілюстровано корпус повідомлень про погоду, витягнутих протягом грудня 2022 року з італійського та іспанського новинних

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каналів, з метою вивчення комунікації прогнозів погоди на макро- та мікроструктурному мовному рівні, враховуючи відсутність досліджень в обох мовах у цьому відношенні. Для цього буде використано *Speechnotes* для транскрипції та *Skecth Engine* для створення корпусу. В результаті аналізу було виявлено, що іспанські програми новин приділяють більше часу часовому простору, демонструють значно вищу швидкість локуції, ніж італійський корпус, надають більшу кількість механізмів для відображення ймовірності та невизначеності, а також велику різноманітність лінгвістично-дискурсивних стратегій для ілюстрації наукового контексту. Ми також знаходимо повторюваний герундій, який назвемо "атмосферним герундієм". З іншого боку, в італійській мові ми знаходимо більше дейксису, більше синтетичної інформації та менше динамізму у взаємодії з даними.

**Ключові слова:** атмосферна мова, атмосферне прогнозування, ймовірність, формальності, науковий контекст.

## Introduction

Traditionally, the concentration of work in the countryside and the sea has led to the development of a popular scientific belief that, through observation, attempts were made to predict the coming weather. The repetition with which these physical changes occurred has led to popular knowledge that has been transmitted, in linguistic terms, in the form of popular sayings and has given rise to specific studies, such as the structure and images used in the Spanish, French and Basque languages (Calzacorta Elorza, 1999); or the study of meteorological proverbs in León (Rúa Aller & García Armesto, 2010-2011), those relating to Castilla-La Mancha (García Mouton, 2012) and those from Asturias (Álvarez Pérez, 2013). While traditionally they have been highlighted as fixed expressions, their variability has been demonstrated through experimental and corpus studies (Mancuso et al., 2020).

As for the pair that concerns us, Italian and Spanish, the paroemias of the month of January have been analysed (Peña Huélamo, 1999); the functional and lexicographic study of symmetrical and asymmetrical polysemy in corpuses, which highlights the lack of study of phraseological polysemy between the two languages (Dal Maso, 2019); the frequency of use and context of Spanish and Italian paroemias in journalistic texts, determining that the use in Italian is greater and that the images or metaphors provided generally lack idiomatic use, compared to other types of proverbs (Sidoti, 2020). Likewise, Raimondi (2012) highlights, in his analysis of the reception of the communication of weather forecasts by Italian and Spanish citizens, the great disparity in the quality of communication between the two countries, since in Italy there is no unification of atmospheric information and the different regional services do not coordinate with each other.

However, over time, awareness of new communicative methods and the study of language in the media has cast doubt on the scientific context of these linguistic forms. In fact, this cultural perception shown through different linguistic mechanisms has been overshadowed in the scientific study of forecasts, which have omitted popular imprecision in favour of exact knowledge with stereotyped and literal language, and outside the consideration of the rest of human contingencies (García

Gabaldón, 1994). Specifically, in weather forecasts we find, initially, a technical language that is far from the understanding of the non-expert and, on the other hand, more accessible information to which everyday concepts are added for a better understanding by the non-expert, although they may be susceptible to misinterpretation (Raimondi, 2010). However, a recurring theme among scholars in weather forecasting has been probability (Nadav-Greenberg & Joslyn, 2009; Crespo, Revilla & Elizaga, 2014; World Meteorological Organization, 2008), whose use in communications is under constant tension, as more effective communication is required to enable the receiving public to understand the uncertainty and scientific activity behind the forecasts (Hall, 2017).

As for the official bodies in charge of meteorological communication, in Spain there is the Agencia Estatal de Meteorología (AEMET) and in Italy there is the Aeronautica Militare. Since its creation in 1987, AEMET had focused its efforts on responding mainly to the needs of aviation. In 1955, a change of manoeuvre was decided and in 1956, with the appearance of the weather bulletin on television, meteorological communication began to be opened to the population. Spain was one of the first signatories to the constitution of the WMO (World Meteorological Organisation), although its international collaboration intensified when Azcárraga was vice-president of the organisation between 1959 and 1967 (Palomares Calderón de la Barca, 2015).

In the Italian case, since Italy joined the WMO, the Military Aeronautics has traditionally been officially in charge of the national meteorological service by means of Law 1237 of November 1950. Alongside it, information has been supplemented by national and regional meteorological services included in the Regional Agencies for the Protection of the Environment (ARPA), the Civil Protection and research bodies such as the National Research Centre (CNR). However, although it is still in the drafting phase, the National Agency for Meteorology and Climatology (Agenzia nazionale per la meteorologia e climatologia), of a civil nature and known as ItaliaMeteo, appeared with the law 205/2017 (2018 budget law), with the aim of reinforcing and centralising services at national level.

Both AEMET and the Aeuronatica Militare have numerous publications by scientists and meteorologists, in the form of repositories and specialised journals. However, only AEMET has a document aimed at homogenising the terms used in meteorological forecasts and their wording, the Manual on the use of meteorological terms, to reform and further adapt the messages addressed to citizens, making a correct and concrete use of the language. The result of the revision of its predecessor in 1992, which in turn was based on the Glossary of Terms drawn up in 1963 by the National Meteorological Service, it has seen the collaboration of the Spanish Association (AME), the Association Meteorological Meteorological of Communicators (ACOMET) and the Fundéu, in the revision of new terms in the forecasts. Among the main modifications are the elimination of the terms risk in terms of probability and moderate, for reasons of danger and for not being relevant, respectively; and instead of possible, the construction "low probability" will be used<sup>1</sup>.

The mechanism of probability, which corresponds to an intralinguistic translation where the meteorologist translates data into discourse, is also related to the rhetorical discourse used. In this regard, we must consider that the final phase of weather prediction corresponds to the selection of useful information for viewers, and this has led to two phenomena: on one hand, viewers absorb the specialized language of meteorology without fully understanding the scientific meaning of the terms, and on the other hand, there is an excessive use of language stemming from a lack of knowledge or sensationalistic intentions (Martín León, 2018). Lastly, as evidence of the impact of weather on current communicative discourse, metaphors or images of atmospheric phenomena hold great relevance in the news today. However, this is not a recent phenomenon, as early as the 1990s, news programs already incorporated adjectives and adverbs that highlighted the narrated action and captured the viewer's attention, along with a language that approached everyday speech, making the viewer feel connected through clichés ("dar luz verde"), idiomatic expressions ("quitar hierro al asunto"), Latinisms ("in situ"), and euphemisms ("perder la vida") (Marín, 2020, p. 12).

#### Method

The aim of this study is to study the communication of weather forecasts in Italian and Spanish news programmes from a macro- and microstructural linguistic point of view, given the lack of studies in both languages. Although it is assumed that uncertainty is inherent to the predictive discourse (Gill, 2008), and being aware that meteorological communication has two aspects, that is, the creation of the content by the official information source and its transmission by the media (García-Legaz Martínez, 2007), we have focused on the latter, since it is responsible for directly transmitting the message and creating expectations in the population through the nature of the communication.

For this purpose, a corpus has been compiled in Sketch Engine with the transcriptions derived from two news channels, one Italian and one in Spanish, using the Speechnotes software (https://speechnotes.co/es/), which is freely available and whose function is available in both languages. For reasons of availability in the video library of the news channels, the time span of the study covers the month preceding the emptying of the corpus, i.e., from 20 February to 20 March, coinciding with the end of winter. In the case of Spain, the news programmes of the TVE television channel were selected as the most watched of those offering free access to the video library. Specifically, the 9.30 p.m. news programme was chosen, as it was the only one that regularly offered space for weather forecasts. In this corpus, there are 34 310

<sup>&</sup>lt;sup>1</sup> In this regard, we gather the considerations of Prior et al. (2011) in their study on translation and adapt them to the interlinguistic translation of discourse on probability, whereby the recipient will complete the decontextualization of indefinite adjectives through their experience and encyclopedic knowledge.

tokens and 2 hours, 35 minutes, and 21 seconds of transcription. In the Italian case, the news programmes of the TG5 television channel were chosen, as the news programmes of the Mediaset Group are the most followed in Italy after those of RAI, whose video library was incomplete. In particular, the 8 a.m. news programmes were chosen because they were the only ones that regularly provided information on weather forecasts. In this corpus, there are 7,149 tokens and 38 minutes and 47 seconds of transcription.

Finally, we have indicated the examples with the structure date\_month\_language (18\_03\_sp/22\_02\_it) and the presenters as [pres.1] and [pres.2], corresponding to the general news presenter who gives way to the weather forecast space and the meteorologist, respectively. The study and the analysis carried out are presented below.

#### **Results and Discussion**

#### Macrostructure/ superstructure

The first notable difference concerns the speaking speed of the presenters in both news programmes, which is quite different from the speaking speed of the rest of the news items in the general section. Specifically, we have calculated the average number of words per minute of both corpuses, and we have compared it with that of the last three news items of the general section of the last news programme, that of 20 March 2023, to obtain differences. In the Spanish corpus, we find an average of 199 words per minute, while in the news of the general section the calculation is 150 words per minute, which creates an additional speech difference of 32.29% more. In the Italian case, on the other hand, the average of the corpus is 173 words per minute and that of the analysed news items 160 words per minute, which creates a difference in speaking speed of 8.07%. As for the time spent, in the Spanish corpus the average duration of the news programmes is 56:23, where 5:42 are devoted to the weather news, which represents 10.10% of the total space. In Italian, on the other hand, the average length of the news programmes is 35:31 and the average length of the forecasts is 1:24, with the total time devoted to the weather representing 3.75% of the television programme.

In the Italian news programme, the presenters remain still and present the discourse based on different images with visual information that is displayed on a single screen, i.e., in order of appearance, a general map of the country with the symbols of the atmospheric elements, a graph with the minimum and maximum temperatures, a graph with thermal information to show the masses of air and, on occasions, a final graph with visual information on alerts or highly relevant data.

In Spanish, on the other hand, there are different screens in the studio, which facilitates the physical movement of the broadcasters around the available space. The screens offered depend on the phenomena that are the protagonists of the meteorological information at the time of the broadcast, where graphs can be found

on the current squall (Juliette), the longest-lasting cyclone (Freddy), wave height graphs in the presence of thick sea storms, the haze that has affected part of the country in the weeks prior to the broadcast of the news programme and the air quality as a result of sand and dust in suspension; and snowfall warnings, snow levels and the situation of reservoirs used for consultation as a cause of the winter's outcome. In general order of appearance, the atmospheric information is provided by means of a graph of minimum and maximum temperatures, wind, isobars, and precipitation, accumulated or recorded precipitation, cloudiness, rain and wind, and a graph with atmospheric symbols to explain the meteorological situation area by area. Finally, we highlight the photos sent in by fans, which are displayed at the end of the news programme as a review.

This visual information functions as semiotic support for the presenter, as the graphs and maps serve to separate the structure from the oral discourse through their function as paratext, since each of them corresponds to a specific discourse, although the viewer who is already used to receiving meteorological information will be able to infer certain information from the colours and numbers. In this respect, the passage of screens generally takes place through calls to the viewer in the first-person plural in both Spanish and Italian: "diamo però un po' uno sguardo a quel che ci succederà nel corso della settimana" (20\_02\_it) and "vamos ya con las temperaturas que teníamos hoy" (20\_02\_sp), among many others.

Regarding the introduction of the space dedicated to forecasts and the interaction between the presenter of the general section and the bulletin presenter, in both cases there is a great discrepancy. Specifically, in the Spanish case, the opening of the dialogue is always carried out by the presenter of the bulletin through a statement or question and, therefore, the meteorologist's response is usually reduced to a ratification of the information (ex. 1), a complementation (ex. 2), a clarification (ex. 3) or a general explanation to the question before introducing his own speech (ex. 4). In the Italian case, the introductions are merely formal, as in "vediamo quali sono le previsioni per le prossime ore con Serena Giacomini, buongiorno" (20\_02\_it) or "e ora il momento delle previsioni del tempo con Martina Hamdy" (06\_03\_it), among others, apart from some statements by the newscaster which the meteorologist ratifies (e.g., 5 and 6).

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[pres. 1] "nos queda ya poco de este tiempo más primaveral de lo que toca" [pres. 2] "efectivamente, a los que les gusta el calor tienen malas noticias" (21_02_sp) [pres. 1] "Nuria, buenas, hablábamos de que teníamos frío y más que vamos a tener" [pres. 2] "y nieve a cotas bajas incluso" (26_02_sp)
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[pres. 1] "y que todo indica, Andrés, que va a seguir unos días" [pres. 2] "sí, al menos un par de días más hasta el lunes, donde incluso las temperaturas pueden volver a subir" (11\_03\_sp)

[pres. 1] "ha sido un fin de semana bastante caluroso, primaveral. ¿esto va a continuar?, ¿va a cambiar?"

- [pres. 2] "vamos a tener para todos los gustos porque lo cierto es que va a ser como una montaña rusa térmica" (13\_03\_sp)
- [pres. 1] "arriva il maltempo in Italia. Tutti i dettagli con Stefania Andriola, ben ritrovata"
- [pres. 2] "Buongiorno. Siamo sotto attacco e le perturbazioni sono due" (26\_02\_it)
- [pres. 1] "Eccola Sabrina Giacomini. Il meteo che ci ricorda come siamo proprio nel mese di marzo"
- [pres. 2] "Sì esatto, proprio così. Alta dinamicità atmosferica" (14\_03\_it)

Finally, only in the Spanish case are general conclusions of the meteorological information introduced both at the beginning and at the end of the speech and which support the macro-structure of the speech, giving a title to the information in the bulletin by way of a summary, such as the beginning of the speech after the presenter of the general space in "of course, it has been a very interesting day with these snowfalls that have occurred in different areas of the interior of the peninsula" (23\_02\_sp) and "efectivamente, Ana, vamos a tener que abrigarnos y ya no solo el fin de semana" (24\_02\_sp); and at the end, to close the speech, in "bueno, ya han visto que esta semana llega con subida de temperaturas y también con algo de lluvia" (06\_03\_sp) or "bueno, ya han visto que vamos sumando grados, cada vez más, y lo que está por venir" (07\_03\_sp), among many others.

#### Microstructure

The verb form par excellence is the future indicative in both corpuses, as in "el viento de levante nos dejará nubes acumuladas" (19\_03\_sp). However, we find numerous references to probability, which we mentioned earlier, and which has been the object of criticism. In this respect, among the different mechanisms we have found in the corpus to show uncertainty, we highlight:

- The use of *probable* and *probablemente*: "para el viernes todavía con precipitaciones en el noroeste va a nevar probablemente en distintas capitales de provincia" (20\_02\_sp) and "da un punto di vista termico probabilmente mite" (24 02 it);
- The use of the conditional: "de cara a la jornada del miércoles y jueves sí que llegaría un sistema frontal que solo nos dejaría lluvia en la zona occidental" (19\_03\_sp) and "e lunedì potrebbe portare un brusco calo delle temperatura" (21\_02\_it);
- The verb *poder*: "en el estrecho podría caer alguna gota despistada" (19\_03\_sp) and "mañana puede haber rachas próximas a los 90 100 kilómetros por hora" (15\_03\_sp);
- Indefinite adjectives: "y en Canarias también esperamos algo de lluvia, sobre todo hacia el centro" (16\_03\_sp), "por el norte, chubascos, que pueden ir acompañados de alguna tormenta puntual" (17\_03\_sp), "sabato ancora poche piogge" (23\_02\_it), "molto vento al centro sud e isole" (25\_02\_it) and "più che altro qualche debole pioggia" (25\_02\_it);

- Use of expressions such as "alguna precipitación por Sanabria, pero nada, van a ser cuatro gotas" (09\_03\_sp) and "se podría escapar en el sur peninsular, pero anecdótico" (26 02 sp);
- Use of negation to mitigate the effect: "va a ser un día parecido al de hoy, no va a llover mucho en ningún punto del país" (05\_03\_sp) and "avremo anche piogge sparse non di particolari intensità" (19 03 it).

As far as verb forms are concerned, we highlight a very specific use of the gerund in the Spanish corpus, which we will call here "gerundio atmosférico" (atmospheric gerund) due to its notable recurrence in the forecasts. Consider phrases such as "Tramontana mañana soplando en Mahón" (24\_02\_sp), "nubes aumentando en la Región de Murcia Comunidad Valenciana y archipiélago balear" (05\_03\_sp) or "avance de pronóstico con el resto de ese sistema frontal el de mañana afectando al Pirineo" (12\_03\_sp), among many others. From a grammatical point of view, it is an incorrect use of the gerund of simultaneity as there are not two actions, so that in the first case we want to express "mañana soplará", "que las nubes aumentarán" and "que afectará", respectively.

In terms of terminology, the forecast includes a whole catalogue of geographical reference names, typical of meteorological information, to which the viewer is not accustomed. Thus, in Spanish there is talk of "zonas de la ibérica" (26\_02\_sp), "interior peninsular" (28\_02\_sp), "archipiélago balear" (20\_02\_sp), "sistema bético" (17\_03\_sp), "la ibérica riojana" (21\_02\_sp), "islas de más relieve" (06\_03\_sp), "área pirenaica" (13\_03\_sp), "zona prepirineo" (12\_03\_sp), "ibérica turolense" (17\_03\_sp), "las Béticas" (18\_03\_sp), "Maestrazgo" (17\_03\_sp), "capital oscense" (20\_03\_sp), "fachada atlántica" (04\_03\_sp) or "litoral mediterráneo" (14\_03\_sp), entre otros. We also find the same pattern in the Italian corpus with "settori tirrenici" (20\_02\_it), "levante ligure" (22\_02\_it), "versante tirrenico" (24\_02\_it), "isole maggiori" (27\_02\_it), "regioni settentrionali" (03\_03\_it), "mari di Ponente" (01\_03\_it), "settori di Ponente" (02\_03\_it) or "regioni centrali tirreniche" (05\_03\_it), among others.

On the other hand, there is a veritable array of names for the same element. Thus, winds can be "cierzo" (25\_02\_sp), "tramontana" (25\_02\_sp), "alisios" (09\_03\_sp), "poniente" (09\_03\_sp), "levante" (14\_03\_sp), "viento de norte" (23\_02\_sp), "viento de componente este" (07\_03\_sp) or "viento de terral" (11\_03\_sp); clouds may be "lenticular" (07\_03\_sp) or "cumulonimbus" (09\_03\_sp); a warning can be "naranja" (27\_02\_sp), "rojo" (26\_02\_sp) or "amarillo" (06\_03\_sp); an "asociado" (04\_03\_sp) or "ocluido" (06\_03\_sp) front; an "aislada" trough (22\_02\_sp); and "mar combinada", "mar de fondo" and "mar de viento" type of swell (12\_03\_sp). The same for the Italian case, e.g., for "Bora" (26\_02\_it), "Scirocco" (16\_02\_it), "Tramontana" (01\_03\_it), "Libeccio" (08\_03\_it), "Maestrale" (10\_03\_it).

It is worth noting that the terminology present in both corpuses refers not only to technical terms, but also to their collocations, which help to decorate the specialised language used. Not without reason, through the corpus we know that the air *se desploma*, *avanza* and *empuja*; that the Dana "se desgaja de la circulación atmosférica"; that a squall *circula*; that showers *se desplazan*, *salpican*, *llegan* and

escapan; and that fronts se conforman, se cuelan, se acercan, afectan, cruzan, se aproximan, avanzan and se retiran; among many others. However, this knowledge that is transmitted is not always easy for the spectator to recognise. Sometimes, linguistic-discursive mechanisms are used to deal with the knowledge-unknowledge sphere. In this respect, in our analysis we found a great divergence between the two corpuses. In Italian, communication is more synthetic and relies solely on connectors such as quindi, infatti and dunque, as well as verbs that produce a consequence such as portare and fare. In Spanish, on the other hand, we find a large presence of strategies, such as constructions (por ello and por eso), explanatory expressions (es decir), question-answer sequence, comparisons, conjunctions (pues), conjunctive locutions (ya que and así que), prepositional locution (gracias a and debido a) and adverbial locutions (de hecho, por ejemplo and por tanto), as well as verbs that also imply consequence, such as those already mentioned for the Italian case (provocar, permitir and hacer). In the following, we show examples for each of the strategies we have found in our analysis.

#### Connectors:

ecco che le temperature caleranno da nord a sud, **quindi** i valori si riporteranno [...] (14\_02\_it)

queste nevicate in serata tenderanno a scendere **infatti** sarà possibile qualche fiocco di neve (26 02 it)

Ma tenderanno a diradarsi a sollevarsi nel corso della giornata, **dunque** pomeriggio prevalentemente soleggiato (20\_02\_it)

#### Verb forms denoting consequence:

[ciclón Freddy] lo cierto es que **va a provocar** importantes precipitaciones (08\_03\_sp) y luego tenemos esa línea de inestabilidad situada sobre Galicia que va a hacer que ahí las precipitaciones se reactiven (16\_03\_sp)

la perturbazione numero 8 del mese che in questo momento **sta portando** molte nuvole molte precipitazioni (27\_02\_it)

#### **Constructions:**

por ello la Agencia Estatal de Meteorología aún tiene activado los avisos por esas temperaturas bajas (04\_03\_sp)

[el Cierzo] no permitía que el aire frío se posara en el valle y bajaran las temperaturas, **por** eso han subido justo en esa zona (03\_03\_sp)

#### Explanatory expressions:

máximas mañana que estarán cinco o seis grados más altas que las de hoy, **es decir**, son valores que no son propios para esta época del año (15\_03\_sp)

tenemos los datos los embalses de uso consultivo se encuentran al 42% de su capacidad, **es decir,** 15 puntos por los últimos diez años (21\_02\_sp)

#### Question-answer sequence:

una semana con ese tren de borrascas, ¿qué queremos decir con eso? bueno tenemos un anticiclón situado sobre el archipiélago canario (06\_03\_sp)

¿cómo pueden subir así las temperaturas? Bueno, pues por dos motivos tenemos una masa de aire cálido y el viento un viento de componentes suroeste (07\_03\_sp)

#### Comparisons:

hemos notado que han bajado, pero **no eran tan bajas como** en jornadas anteriores (26 02 sp)

va a ser como una montaña rusa térmica van a oscilar bastante las temperaturas (13\_03\_sp)

#### Conjunctions:

el lunes será 20 de marzo, primavera astronómica, **porque** el 1 de marzo empezó la primavera meteorológica (17\_03\_sp)

dovremo ancora far i conti con il maltempo **perché** sull'Italia insiste questa perturbazione (28\_02\_it)

## Conjunctive locatives:

la temperatura del mar estará rondando los 13 grados, **así que** en el aire 30, en el mar 13 (10\_03\_sp)

ya que estamos hablando de nevadas queremos hacer un apunte internacional (23\_03\_sp)

## Prepositional locution:

las máximas sí que suben excepto en el litoral mediterráneo, **debido** también **al** role de vientos (14 03 sp)

con temperaturas que como ven, pues, van a ir subiendo en Bilbao también **gracias al** viento de suroeste (06\_03\_sp)

# Adverbial expressions:

allá sumamos otros ingredientes también, **por ejemplo**, la nuclear, la solar, [...] (09\_03\_sp) ha empeorado la calidad del aire. **De hecho**, de ayer a hoy ha aumentado la concentración (21\_02\_sp)

se va hacia el Mediterráneo central, **por lo tanto**, la precipitación en Baleares va a menos (28\_02\_sp)

Both discourses are characterised by a strong deixis, which accompanies the visual information provided by the maps and graphs, by means of different grammatical elements, such as adjectives "occidente asturiano" (24\_02\_sp), "cantábrico oriental" (28\_02\_sp), or "l'Emilia occidentale" (22\_02\_it), etc.;

prepositions, which stand out notably in the Italian case, as in "e più giù anche la campagna" (28\_02\_it), "poi più giù anche Toscana" (18\_03\_it) and "e poi è più giù Abruzzo" (23\_03\_it), among many others; and nouns with the cardinal points: "se empieza a retirarse hacia el norte" (03\_03\_sp), "borrascas por el noroeste" (06\_03\_sp), or "riguarderanno il nord ovest" (09\_03\_it), among many others.

## **Conclusions**

The meteorological information holds great importance in determining the conditions of our physical environment. As a result of long observation, a popular knowledge rooted in specific areas has been generated and transmitted in the form of proverbs. This has traditionally led to a certain level of understanding of meteorological phenomena as part of the wisdom of the citizens, although the communication provided in the news broadcasts, at times, enjoys a high level of specialization. Consider notes on "la dana" such as "la dana se acaba desgajando de la circulación general atmosférica" and "la depresión aislada en niveles altos se vuelve un poco más errática", or in the case of storms, which "se distancian un poco el anticición y la borrasca" and "circulan con sus respectivos frentes" (excerpted from our corpus). This can lead to a lack of understanding on the part of the recipient if no information is provided about the phenomena or explanations about their origin or consequences. In this regard, no style guides dedicated to meteorological communication for oral bulletins have been found, beyond the guidelines on their drafting by AEMET, so the forecaster must intralinguistically translate the official forecast and, in this way, freely adapt the communication to the target audience.

Furthermore, the weather report is a special section with very special characteristics due to the limited time available to the presenters, which is why the visual and semiotic space is used as support to present the information. Therefore, aware that weather forecasts employ a specific language, encompassing both technical terms and efforts to adapt the communication to the viewer, in the future, we hope to compare these results by expanding the study to various news broadcasts from different national and regional, public and private channels, and for longer periods, with the aim of analyzing the language associated with the different seasons more thoroughly.

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# References

- Álvarez Pérez, X. A. (2013). Distribución geoparemiológica de refranes meteorológicos asturianos. *Lletres Asturianes*, 109, 67-102. <a href="https://www.divulgameteo.es/fotos/meteoroteca/Refranes-meteorol%C3%B3gicos-asturianos.pdf">https://www.divulgameteo.es/fotos/meteoroteca/Refranes-meteorol%C3%B3gicos-asturianos.pdf</a>
- Calzacorta Elorza, J. (1999). Estructura de los refranes meteorológicos castellanos, franceses y vascos. *Paremia*, 8, 95-102. <a href="https://www.divulgameteo.es/uploads/Estructura-refranes-meteorol%C3%B3gicos.pdf">https://www.divulgameteo.es/uploads/Estructura-refranes-meteorol%C3%B3gicos.pdf</a>
- Crespo, E., Revilla, J. C., & Elizaga, F. (2014). Meteorología y sociedad: uso y evaluación de la información meteorológica. *Comunicación y Sociedad*, 27(2), 169-194. http://dx.doi.org/10.15581/003.27.2.169-194
- Dal Maso, E. (2019). Estudio funcional y lexicográfico de la polisemia simétrica y asimétrica en un corpus bilingüe de locuciones meteorológicas del español y del italiano. *Lingue Linguaggi*, *33*, 41-53. <a href="http://dx.doi.org/10.1285/i22390359v33p41">http://dx.doi.org/10.1285/i22390359v33p41</a>
- García Gabaldón, J. (1994). Modos del tiempo (de la producción a la comprensión del discurso audiovisual informativo). In J. A. Fernández Roca, C. J. Gómez Blanco & J.M. Paz-Gago (Eds.), Semiótica y modernidad: actas del V Congreso Internacional de la Asociación Española de Semiótica (pp. 471-480). Universidad de La Coruña.
- García-Legaz Martínez, J. (2007). ¿Quién predice el tiempo? Reivindicación del "pronóstico reservado". *Meteored*, 1-3. <a href="https://www.divulgameteo.es/uploads/Pron%C3%B3sticoreservado.pdf">https://www.divulgameteo.es/uploads/Pron%C3%B3sticoreservado.pdf</a>
- García Mouton, P. (2012). Refranes meteorológicos en el Atlas lingüístico (y etnográfico) de Castilla-La Mancha. *Géolinguistique*, *13*, 127-138. https://digital.csic.es/bitstream/10261/123075/3/Refranes\_meteorol%c3%b3gicos\_Atlas.pdf
- Gill, J. (2008). Cómo pueden comunicar la incertidumbre en la predicción los proveedores de servicios. *Boletín de la OMM*, 237-347. <a href="https://www.tiempo.com/ram/4839/cmo-pueden-comunicar-la-incertidumbre-en-la-prediccin-los-proveedores-de-servicios/">https://www.tiempo.com/ram/4839/cmo-pueden-comunicar-la-incertidumbre-en-la-prediccin-los-proveedores-de-servicios/</a>
- Hall, A. (2017). ¿Un día perfecto para tender la colada, o probabilidad de lluvia del 10%?, Cómo hablar sobre riesgo e incertidumbre en las predicciones del tiempo por Alexander Hall, ganador del Premio Pictet. *Boletín de la OMM*, 66(1), 58-61. <a href="https://public.wmo.int/es/resources/bulletin/%C2%BFun-d%C3%ADa-perfecto-para-tender-la-colada-o-probabilidad-de-lluvia-del-10-c%C3%B3mo">https://public.wmo.int/es/resources/bulletin/%C2%BFun-d%C3%ADa-perfecto-para-tender-la-colada-o-probabilidad-de-lluvia-del-10-c%C3%B3mo</a>
- Mancuso, A., Elia, A., Laudanna, A., & Vietri, S. (2020). The role of syntactic variability and literal interpretation plausibility in idiom comprehension. *Journal of Psycholinguistic Research*, 49, 99–124. <a href="https://doi.org/10.1007/s10936-019-09673-8">https://doi.org/10.1007/s10936-019-09673-8</a>
- Nadav-Greenberg, L. & Joslyn, S. L. (2009). Uncertainty forecasts improve decision making among nonexperts. *Journal of Cognitive Engineering and Decision Making*, *3*(3), 209–227. https://doi.org/10.1518/155534309X474460
- Peña Huélamo, F. J. (1999). La meteorología en las paremias hispano-italianas del mes de enero. *Paremia*, 8, 375-380. https://cvc.cervantes.es/lengua/paremia/pdf/008/059\_pena.pdf
- Palomares Calderón de la Barca, M. (2015). Breve historia de la Agencia Estatal de Meteorología. AEMET. <a href="https://www.aemet.es/documentos/es/conocenos/nuestra\_historia/breve\_historia\_AEMET.pdf">https://www.aemet.es/documentos/es/conocenos/nuestra\_historia/breve\_historia\_AEMET.pdf</a>

- Prior, A., Wintner, S., Macwhinney, B., & Lavie, A. (2011). Translation ambiguity in and out of context. *Applied Psycholinguistics*, 32(1), 93-111. https://doi.org/10.1017/S0142716410000305
- Raimondi, A. (2010). Impacto social de la comunicación de las predicciones del tiempo. *Actas de las Jornadas Científicas de la Asociación Meteorológica Española, 31*. <a href="https://pub.ame-web.org/index.php/JRD/article/view/2098/2313">https://pub.ame-web.org/index.php/JRD/article/view/2098/2313</a>
- Raimondi, A. (2012). ¿El público entiende las predicciones del tiempo? Resultados de una investigación desarrollada en Italia y España. In *XXXII Jornadas Científicas de la Asociación Meteorológica Española*, 1-19. <a href="https://repositorio.aemet.es/bitstream/20.500.11765/5816/1/Raimondi.pdf">https://repositorio.aemet.es/bitstream/20.500.11765/5816/1/Raimondi.pdf</a>
- Rúa Aller, F. J., & García Armesto, M. J. (2010-2011). Refranero meteorológico en León. *Tierras de León*, *130*, 193-230. <a href="https://www.divulgameteo.es/uploads/Refranero-meteorol%C3%B3gico-Le%C3%B3n.pdf">https://www.divulgameteo.es/uploads/Refranero-meteorol%C3%B3gico-Le%C3%B3n.pdf</a>
- Sidoti, R. (2020). Los pronósticos del tiempo en las paremias del español y del italiano: frecuencia de uso y contextos en la información periodística en línea. *Tonos Digital, 38*. https://digitum.um.es/digitum/bitstream/10201/86336/1/2417-6667-1-PB.pdf

## **Sources**

Organización Meteorológica Mundial. (2008). Directrices sobre la comunicación de la incertidumbre de las predicciones. <a href="https://library.wmo.int/doc\_num.php?explnum\_id=4686">https://library.wmo.int/doc\_num.php?explnum\_id=4686</a>