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PRESENTATION

Alfa is pleased to announce its third issue of 2019. At the end of this year, we have a set of nine original articles and two critical reviews of recent publications. In this small universe we have represented different tendencies in contemporary studies in Linguistics. The description and interpretation of linguistic phenomena at different structural levels, from various theoretical-methodological perspectives, remain strong. At the same time, we find studies in which language is modalized and determined by fields of related knowledge — cognition studies, teaching-learning, translation, research ethics. If everything goes through language, language cannot be untouched through and within these dialogues.

The first three articles in this issue have a strong descriptive component. The study by Yida, Simões and Vasconcelos fits into the investigations that begin to explore the richness of the collection built by the ALiB project. The authors analyze the phenomenon of non-final postonic vowel syncope, in proparoxytones, in the speech of 64 inhabitants of the interior of Paraná. From the perspective of Pluridimensional Dialectology and the autosegmental phonological model, they identify the influence of the adjacent context on the process of erasure.

Mora-Bustos investigates a syntactic process in Mazahua, a native language of central Mexico — the existence of a complex structure in which a matrix sentence and a relative clause articulate through a cleft construction. The unprecedented analysis of this language aspect was made from data collected in life stories, narratives and reports.

Recent questions in linguistic studies permeate the article by Sánchez Abchi and Mier: the influence of language sociolinguistic status on the acquisition of rules within the linguistic system. Their aim is to evaluate the distribution and degree of appropriateness of the use of certain verb tenses in written narratives produced by children who have Spanish as an inheritance language. In order to measure the possible impact of the context of language acquisition and use, the authors compare data of this group with another one composed by children living in a context in which Spanish is the majority language.

Maia's study investigates the influence of discursive context on sentence processing: it seeks, more specifically, to determine whether information of a semantic and discursive nature acts after a stage of syntactic interpretation or if it interferes in the process at an earlier stage, thus influencing the parsing of the sentence. The evaluation is done through experiments using the eye-tracking technique, with Brazilian Portuguese speakers.

Beyond the boundaries of the linguistic system, Knoll and Fuzer propose to understand the relationships between the multimodal aspects that characterize the infographic genre and the meaning production observed there. Their analysis explores advertising sphere infographics from the perspective of *Grammar of Visual Design*, concluding that variable verb-visual aspects combine to produce different degrees of salience.

Rodrigues and Barros bring results of the elaboration of a bilingual (Portuguese-French) terminological dictionary of terms of the domain “real estate lease agreements”. The dictionary, built on a corpus of real estate lease agreements in both focused languages, aims to meet the specific needs of translators working in this domain. In the article presented here, the authors focus on the dictionary microstructure.

The articles by Woelfer and Tomitch and by Fuza and Menegassi confirm an expanding trend of studies that focus on processes related to language teaching and learning.

Woelfer and Tomitch discusses the relationships between working memory capacity, reading proficiency, and processing of verbal and pictorial information in English as a foreign language (EFL) reading. The objective is to evaluate the extent to which these skills determine or influence learners’ reading comprehension. Through the analysis of tests applied to sixty Brazilian students, the authors show that there are positive correlations between the independent variables, and that these effectively condition the reading comprehension.

Fuza and Menegassi, in turn, analyze the organization of proposed reading questions in a collection of textbooks from grades 6 to 9, in terms of their ordering and sequencing. Starting from a general evaluation of the collection, which addresses different textual / discursive genres, the authors bring a new sequencing proposal for activities on chronicles and painting, from the 6th grade book. The study is within the scope of Applied Linguistics research, more specifically from the perspective of interactionist reading.

Closing the set of original articles, Chimentão and Reis discuss the intricate and controversial issues related to research ethics. The discussion focuses on the universe of research in social and human sciences, advocating for these domains (and perhaps beyond them) research practices that surpass the bureaucratic model defined within the health sciences. The study has the merit of highlighting the need to rethink the place and role of the research participant subject, whose voice should have secured space in the process. Thus, the authors defend the construction of an emancipatory research.

The issue is completed with two reviews of recently published works. In the first, by Saparas and Ikeda, we have an evaluation of the book *A conquista da opinião pública: como o discurso manipula as escolhas políticas* (The Conquest of Public Opinion: How Discourse Manipulates Political Choices), by Patrick Charaudeau, in its translation into Brazilian Portuguese.

In the second, Pessotto introduces us to the work *Para conhecer Semântica* (To Know Semantics), authored by Ana Quadros Gomes and Luciana Sanchez Mendes, an introductory guide to one of the fundamental areas of language studies.

With this expressive set of studies, we have completed another year of work, certain to have fostered the dissemination of the best in linguistic research. Alfa's team is made up of many highly qualified and dedicated specialists. And generous in their willingness to apply their knowledge to the construction of this space of diffusion and dialogue. I take this moment to thank deeply for the commitment and invaluable collaboration of this team, with special thanks to those who acted as evaluators of the dozens of papers submitted to us.

And I wish you all an enriching reading!

Rosane de Andrade Berlinck

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ORIGINAL ARTICLES

SYNCOPE OF NON-FINAL POSTONIC VOWELS IN THE INLAND OF PARANÁ: AN AUTOSEGMENTAL AND VARIATIONAL ANALYSIS FROM ALIB DATA

Vanessa YIDA*
Dayse de Souza Lourenço SIMÕES**
Celciane Alves VASCONCELOS***

▪ ABSTRACT: In this paper, we aim to describe and analyze the phenomenon of syncope of postonic vowel in non-final context, based on data collected in interviews conducted by the project *Linguistic Atlas of Brazil* (ALiB), in sixteen points of inquiry located in the inland of Paraná, with a total of 64 informants. Thereby, we evaluate the frequency and possible linguistic and extralinguistic factors that can condition syncope/maintenance of non-final postonic vowel of proparoxytones in eleven lexical items: *lâmpada* ('light bulb'), *elétrico* ('electric'), *fósforo* ('match'), *pólvora* ('gunpower'), *abóbora* ('pumpkin'), *árvore* ('tree'), *sábado* ('Saturday'), *número* ('number'), *fígado* ('liver'), *vômito* ('vomit') and *hóspede* ('guest') that are part of the Phonetic-Phonological Questionnaire (QFF in Portuguese) of the ALiB Questionnaire (ALiB PROJECT NATIONAL COMMITTEE, 2001). The investigation rests on the perspective of Pluridimensional Dialectology (THUN, 1998) and in light of the autosegmental phonological model for the syllable, in analysis of the syllabic pattern of Brazilian Portuguese (COLLISCHONN, 1996; BISOL, 1999). We found out that the phonological context of postonic vowels and adjacent segments may interfere in the conditioning of syncope, while the extralinguistic variables are not productive for this process in our *corpus*.

▪ KEYWORDS: Linguistic Atlas of Brazil. Syncope. Proparoxytones. Syllable. Pluridimensional Dialectology.

Introduction

Proparoxytones, a less productive accentual pattern in the context of Brazilian Portuguese (hereinafter BP), tend to a phonic reduction in the segment following the

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tonic syllable, which undergoes the syncope of non-final unstressed vowel, turning words into paroxytones. As demonstrated by Silva Neto (1956 [1938]), the tendency to reduce proparoxytones was already common in Vulgar Latin, and was documented in *Appendix Probi*. This phenomenon went through several phases of Portuguese and, currently, can be observed in popular speech.

Ilari (2004) documents that many divergent forms have evolved in different ways in Romance languages and have originated from Classical Latin (proparoxytones) and from Vulgar Latin (paroxytone words), namely: *óculos* ('eyeglasses') and *olho* ('eye'), *artículo* ('article') and *artelho* ('articulation'), *partícula* ('particle') and *partilha* ('sharing'), *coágulo* ('clot') and *coalho* ('rennet'). In relation to the transition from Latin to Portuguese, Ali (1964) postulates that some phonemes within words have disappeared, as in: *dedo* (*digitu*) ('finger'), *verde* (*viride*) ('green') etc. Coutinho (1976, p. 32, author's emphasis, our translation) highlights the characteristic of Vulgar Latin as a "tendency to avoid proparoxytone words: *masclus (masculus), domnus (dominus), caldus (calidus), fricda (frigida), virdis (viridis)*"[1], which underwent reduction. The philologist already asserted that the sonority of the tonic vowel could be reflected in the final syllable or extended to the nearest consonant, sustaining the permanence of some words in the proparoxytone form.

Câmara Jr. (1985, p. 35, author's emphasis, our translation), in turn, ratifies what the aforementioned scholars affirm: "Portuguese words stressed in the antepenultimate syllable rarely come from the evolution in Vulgar Latin (e.g. *pêssego* ('peach'), from Latin *persi*(*cum*)."[2] According to the linguist, most of the proparoxytones come from Classical Latin borrowings, processed primarily from the sixteenth century, among them, some Greek words adapted to the structure of Classical Latin.

The author also explains that, even in the standard language, there is a tendency to reduce and, in popular speech, this phenomenon operates through "[...] suppression of the phonic segment between the stressed vowel and the final vowel (e.g.: *Petrópis* for the toponym *Petrópolis*; *exérço* instead of *exército* ('army'); *glóbo* replacing *glóbulo* ('globule')"[3] (CÂMARA JR., 1985, p. 35, author's emphasis, our translation).

What the above mentioned linguists and philologists defend clarifies the fact that the reduction of proparoxytones is not a linguistic process restricted solely to Portuguese spoken in Brazil by poorly educated speakers, but it comes from a historical process, which is part of the evolution of the language, in stable variation, as Gomes (2011) also observed.

[1] In the original: "*tendência a evitar as palavras proparoxítonas: masclus (masculus), domnus (dominus), caldus (calidus), fricda (frigida), virdis (viridis)*" (COUTINHO, 1976, p. 32).

[2] In the original: "*[...] os vocábulos portugueses de acentuação na antepenúltima sílaba raramente provêm da evolução no latim vulgar (um exemplo é pêssego, do lat. persi(cum).*" (CÂMARA JR., 1985, p. 35).

[3] In the original: *"[...] supressão do segmento fônico compreendido entre a vogal acentuada e a vogal final (ex.: Petrópis para o topônimo Petrópolis; exérço em vez de exército; glóbo substituindo glóbulo)"* (CÂMARA JR., 1985, p. 35).

Therefore, we outline the general goal of this research: to describe the syncope process of one or more non-final postonic segments in proparoxytones, analyzing the syllabic pattern of BP based on an autosegmental phonological model for the syllable and in the light of the Pluridimensional Dialectology, from oral data collected by the Linguistic Atlas of Brazil Project (hereafter ALiB) in the inland of Paraná.

In order to do this, we aim to: i) present the frequency of the maintenance of proparoxytones and syncopated variants in the inland of Paraná; ii) demonstrate, under the autosegmental phonological model for the syllable, which postonic syllabic structures benefit or inhibit syncope in proparoxytone forms; iii) examine the possible extralinguistic factors (gender and age group) and locality that influence the incidence of the phenomenon; iv) contribute to studies about phonetic and phonological facts concerning BP, in order to eliminate possible linguistic prejudice.

From the objectives outlined above, the research questions that lead this work emerge:

(i) Is the use of the syncopated form of proparoxytones productive even by speakers living in urban environments?
(ii) Can social factors, such as gender and age group, favor the process of deletion in the informants' speech in the inland of Paraná?
(iii) Is the geographical distribution of syncope of proparoxytones able to demonstrate the vitality of the process in any locality of Paraná?

After a brief summary of the linguistic-historical panorama regarding the reduction of proparoxytones, we proceed to the literature review that documents this phenomenon in regional speech studies.

The reduction of proparoxytones in regional studies

Research on regional speeches, conducted by dialectologists, has demonstrated that, in addition to the recording of the reduction of proparoxytones in Vulgar Latin, such phenomenon takes place in the vocabulary of speakers living in several areas of Brazil.

Amaral (1982 [1920]), in relation to the *caipira* dialect, finds out that the speakers presented a tendency to reduce the forms that are not recurrent in linguistic uses. In proparoxytones,[4] the tendency is to suppress the vowel of the penultimate syllable and even the whole syllable, making the word a paroxytone (*rídico*[5] = ridículo ('ridiculous'), *legite* = *legítimo* ('lawful'/'legal'), *cosca* = *cócega* ('tickle'), *musga* = *música* ('music').

[4] How proparoxytone words are also known.

[5] It is worth pointing out that Dicionário Aurélio documents *ridico* as a syncopated form of *ridículo*, marking it as a "*brasileirismo familiar mineiro*" ('familiar brasilianism from Minas Gerais'), meaning "stingy" (FERREIRA, 2010).

Regarding the popular speech in Alagoas and Pernambuco, Marroquim (2008) comments that words, when changing from Latin to Portuguese, have transgressed the phonetic rule of stressed vowel conservation, moving it forward, as in: *límitem* > *limíte*; *océanum* > *oceáno*; *íntegrum* > *intéiro*; *cátedra* > *cadéira*. In the study of the popular Northeastern speech, in the chapter dealing with phonetics, the researcher exemplifies that, with the variants *fôrgo* for *fôlego* ('breath') and *córgo* for *córrego* ('stream').

The same dialectologist stated that, following the Principle of Least Effort, the Romans avoided proparoxytones by deleting unstressed vowels after the tonic ones. These words were listed in *Appendix Probi* and Marroquim (2008) compared them to the phenomenon that occurs in the speech of *caboclos*: *sábado* ('Saturday') not *sabo* etc.

In the work *O linguajar carioca*, Antenor Nascentes (1953 [1922], p. 37, author's emphasis, our translation) observes that similarly to what happened in Vulgar Latin change to Portuguese, postonic vowels in proparoxytones also underwent syncope, e.g. "*arvore-arve*, *passaro-passo*, *polvora-porva*, *marmore-marme*, *Alvaro-Arvo*, *abobora-abobra* (or *aborba*)"[6].

Other dialectological and variational works record the phenomenon of reduction of proparoxytones in addition to the above mentioned fundamental works. In the next section, we present recent research, taking into account linguistic and extralinguistic conditionings that may influence this process.

Reduction of proparoxytones in other variational studies

The reduction of proparoxytones was documented by Araújo (2012) in a *corpus* consisting of 11 lexical items of the Phonetic-Phonological Questionnaire – PPQ (Questionário Fonético-Fonológico – QFF) (ALiB PROJECT NATIONAL COMMITTEE, 2001), in interviews with 200 informants, in 25 Brazilian capitals participating in the ALiB project.

The extralinguistic variables take into account age group (band I - 18 to 30 year-olds and band II - 45 to 60 year-olds), gender (male and female) and schooling (elementary and university level), since four profiles of informants with higher education are added to the inquiries of the ALiB project in each capital. The author did not work with the possible linguistic conditioning for the phenomenon.

For the statistical analysis, the GoldVarb X program was utilized. In a second round of data, 94% of the occurrences of non-suppression of the postonic and 6% of occurrences of deletion were found. In the statistical analysis by region, the researcher observed that the favoring of syncope occurred primarily in Florianópolis and Boa Vista. Belo Horizonte, São Paulo, Rio de Janeiro, Curitiba, Recife, Salvador, João Pessoa, Fortaleza, Natal, Manaus, Macapá, Belém and Porto Velho did not present speakers

[6] In the original: *"arvore-arve, passaro-passo, polvora-porva, marmore-marme, Alvaro-Arvo, abobora-abobra (ou aborba)"* (NASCENTES, 1953 [1922], p. 37).

that favored deletion. In short, Araújo (2012) concludes that the variable schooling (elementary level) favored syncope, as well as locality and age group (band II).

Castro (2008) conducted an investigation about the reduction of proparoxytones in 65 localities that form the *corpus* of *Atlas Linguístico do Paraná* – ALPR ('Linguistic Atlas of Paraná', AGUILERA, 1994). Castro (2008) analyzed the questions whose answers should be the words *árvore* ('tree')*, útero* ('uterus')*, eucalipto* ('eucalyptus')*, eclipse* ('eclipse')*, amigdalas* ('tonsils')*, relâmpago* ('lightning')*, glândula* ('gland') and *estômago* ('stomach'). *Eclipse* and *eucalipto* were selected, according to the author, because when the speaker pronounces them, he/she usually inserts an epenthetic vowel /i/, producing *eclipise* and *eucalipito.*

The variant *árvore* was recorded in all localities, and in 93% of the responses, paroxytones (*arve*, *arvre*, *auve*) were obtained. The reduction of proparoxytones prevailed in the variants *árvore*, *útero*, *eucalipto* and *eclipse*. In the items *amígdalas* and *glândula*, paroxytones and proparoxytones came up in an even way, whereas the reduced form for *amígdalas* was less frequent.

In general, the aforementioned researcher concludes that paroxytone forms predominate in the ALPR (except for *estômago*, which favors the maintenance of the proparoxitone form). Other extralinguistic variables chosen by the author were schooling and gender of the informant, whose numbers did not evince great differences.

Starting from the study on Fortaleza speech, Aragão (2000) conducted a study named "Social Dialects of Ceará", through interviews, spontaneous conversations and interaction between doctor and patient. Data were analyzed according to the variables: a) gender; b) age group (10-11, 14-15, and 18-25 year-olds); c) schooling (former primary, gymnasium, high school), in order to describe and analyze proparoxytones in the speech in Fortaleza, correlating linguistic and sociolinguistic contexts.

In the analysis of social factors, minor differences were verified regarding age group, possibly due to the short age interval between them, as suggested by the author. As for the gender factor, the dialectologist found a small difference between women (71.42% of reductions) and men (69.76%). Regarding schooling, results did not support the idea that education might have influence on the maintenance of proparoxytones, since the students with a higher level of education registered a major percentage of proparoxytones reduction.

In a study based on Variational Sociolinguistics, Amaral (2002) utilizes a *corpus* of 40 informants from the rural area of São José do Norte, located in Rio Grande do Sul, to investigate the syncope of proparoxytones in order to thoroughly examine linguistic and social factors that favor/disfavor the phenomenon. As for that, the author analyzed the process by means of a quantitative analysis, using the VARBRUL program package.

Among the independent variables applied to verify the deletion or maintenance of the non-final postonic syllable, the one that stood out was the subsequent phonological context – proparoxytones that exhibit /r/ or /l/ in the resyllabification, generating a consonantal group in C + /l/ or /r/, as in *petla* (*pétala*) ('petal') or *arvri* (*árvore*) ('tree'). When analyzing the vowel articulation features, the researcher detected that syllables with labial /o/ and /u/ favor syncope, while coronal /e/ and /i/ do not have as much weight. The results concerning previous syllable structure demonstrated that light syllables (with CV structure – *pétala*) favor reduction, while closed CVC structures (*véspera* – 'eve') are unfavorable. The place of articulation of the segment previous to the target vowel was examined as "preceding phonological context", revealing that the velar consonant /k/ constitutes a more favorable environment for deletion, followed by a labial consonant in onset context, as in: *óclus* – *óculos* ('glasses').

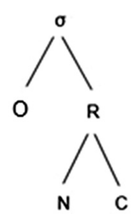
Regarding social variables, schooling proved to determine the reduction of proparoxytones. In relation to the type of interview, syncope was more frequent in informal than formal contexts; as for gender, the results demonstrated a slight difference, somewhat more significant for men, who delete more. Age group was more significant in determining deletion between older and younger speakers, while the intermediate age groups avoided reduction.

After presenting the panorama of the studies regarding the reduction of proparoxytones, based on oral data, we proceed to the discussion of the theories that underlie our analysis.

Theoretical contribution - Autosegmental phonological model - syllable treatment

From the 1970s, the syllable acquired phonological status in linguistics studies, says Collischonn (1996). According to the mentioned scholar, based on the theory proposed by Selkirk (1982), the arboreal representation of the syllable is organized as follows:

Figure 1 – Internal syllable structure



Source: Selkirk (1982), adapted by the authors.

The syllable consists of elements called syllabic constituents, namely: onset (O) and rhyme (R). Rhyme, therefore, is formed by a nucleus (N) and a coda (C). All categories can be empty except the nucleus.

Syllables can also be categorized as light or heavy. The way a syllable is formed determines the syllabic weight. The syllables that present rhymes consisting of solely one vowel (solely the nucleus) are light, and those with nucleus and coda - vowel and consonant or vowel and glide - are heavy.

Lima (2008) comments on the phonotactic constraints based on the syllabic structure, exemplifying with the restriction of the obstruents in coda position in BP. Speakers tend to avoid this segment in a syllabic coda by inserting an epenthetic vowel /i/, forming the CV pattern. Phonotactic constraints may limit the positions of the segments in the syllable structure, involving the onset, nucleus, or coda. Processes involving rhyme, that is, nucleus and coda, are more frequent, according to the author.

The template, according to Selkirk (1982), is universal for all languages. It is up to each language to take advantage of each part of the template, according to particular restrictions. It is a distinctive characteristic of languages, Collischonn (1996, p. 101-102, our translation) affirms that "languages differ in terms of the number of segments allowed in each syllabic constituent [...]", and also adds: "[...] the mold is a general statement about the possible structure of syllables in a given language"[7].

In the case of Portuguese, if there is more than one consonant in the left of the syllable rhyme, a complex onset occurs, which, according to Bisol (1999), admits a maximum of two elements, while the nucleus always consists of a vowel and, in coda position, a maximum of two segments are listed. According to Lima (2008), solely /r/ and /l/, sound or nasal consonants (besides glides), are permitted in the BP to occupy a coda position. In the following item, the syllabic constituents of the onset and the phonological process of syncope are detailed.

The phenomenon of syncope based on an autosegmental phonological model for the syllable

Syncope consists of the deletion of a phoneme or phonemes within a word. According to Quednau (2002, p. 79, our translation), there were systematic processes of syncope in the evolution of Lusitanian Romance: "1) syncope of the postonic vowel of Latin proparoxytones, with reduction of the word to become a paroxytone and possible subsequent evolution of the resulting consonant group as in apicula> apicla> abelha ('bee') [...]; 2) syncope of sound consonant between vowels, as in mala> maa> má ('bad') [...]"[8]. In a more recent period, the researcher continues, the "stop syncope as the first member of the consonant group in erudite words, as in excepção> exceção ('exception') [...]"[9] still recorded. In this study, we are interested in the deletion of one or more segments in the postonic syllable(s), reducing them to paroxytones, following the phonotactic rules of the language, which determine the positions of each segment in one

7 In the original: *"as línguas diferem quanto ao número de segmentos permitido em cada constituinte silábico [...]", e ainda completa: "[...] o molde é uma afirmação geral a respeito da estrutura possível de sílabas numa determinada língua*" (COLLISCHONN, 1996, p. 101-102).

8 In the original: "*1) síncope da vogal postônica dos proparoxítonos latinos, com redução do vocábulo a paroxítono e possível evolução posterior do grupo consonântico resultante, como em apícula> apicla> abelha [...] ; 2) síncope de consoante sonora entre vogais, como em mala> maa> má[...]*" (QUEDNAU, 2002, p. 79).

9 In the original: "*síncope da oclusiva como primeiro membro de grupo consonântico, em vocábulos eruditos, como em excepção>exceção [...]"* (QUEDNAU, 2002, p. 79).

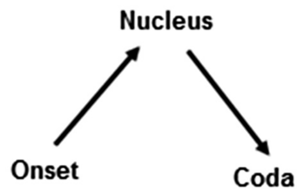
syllable. Thus, as Amaral (2002, p. 102, our translation) explains, the consonantal group that results from the process must "[…] constitute a well-formed onset (ár.vo.re> ar.vre ('tree'), re.lâm.pa.go> re.lam.po) ('lightning') or a well-formed coda (pé.ro.la> per.la) ('pearl')"[10]. For this, the syncope triggers the phonological processes of assimilation, resyllabification and restructuring of metric feet, clarifies Lima (2008).

In BP, the onset position allows up to two segments by the system, which can be stop or fricative labial consonants (first position), followed by lateral liquid or vibrant liquid (second position), forming the obstruent + liquid sequence, in the examples: br, cr, cl, tl etc. When forming a well-formed onset, the segments obey the Sonority Sequencing Principle (SSP), according to Clements (1990 *apud* AMARAL, 2002), arranged according to the scale:

(More sonorous) vowels> glides> liquid> nasal> obstruents **(Less sonorous)**

The nucleus, in BP, must be constituted by segments of higher sonority (vowels), while its edges are formed of the segments of lower sonority, that is, increasing from onset to nucleus, and decreasing from nucleus to coda, as shown in the diagram:

Figure 2 – Scheme according to degrees of sonority



Source: Lima (2008), adapted by the authors.

Thus, sequences of segments in *nt* (nasal> obstruent) are never in the onset position, as they violate the sound sequence (nasal is louder than obstruent and, in an onset position, the movement should increase). Amaral (2002) postulates that the speakers present this internalized phonatory rule, so it is possible to predict syncope in proparoxytones, the insertion and deletion of certain segments in the words. Lima (2008) explains that the phonological processes occur in the rhyme, therefore, the deletion of the postonic vowel occurs in this syllabic position; when the nucleus is erased, the onset segment can be incorporated into the next syllable or undergo syncope as well.

Lima (2008) postulates that, in the resyllabification process, the floating consonantal segment of the postonic syllable moves to the onset position of the following syllable, or to the coda of the preceding stressed syllable. Consequently, the syllabic foot undergoes

[10] In the original: "*[...] constituir um ataque bem-formado (ár.vo.re > ar.vre, re.lâm.pa.go > re.lam.po) ou uma coda bem-formada (pé.ro.la > per.la)*" (AMARAL, 2002, p.102).

a restructuring process, making paroxytone the previously proparoxytone word. The assimilation occurs when the segments assimilate characteristics of the precedent (progressive assimilation) or subsequent (regressive assimilation) segment, listing as examples "*cócega > cóska*" ('tickle') for the former, and "*físico> fisco*" ('physical') for the latter. In this way, it is inferred that the characteristics of the segments that make up the syllabic structure and its adjacent ones interfere in the resyllabification after the deletion of the postonic vowel, a process that is examined in this work in the variety spoken in the state of Paraná.

In the following item, the studies that support the theory of Pluridimensional Dialectology are reviewed, since the extralinguistic and social factors, as well as the locality in which the phenomena are documented, may also interfere in the phonological processes registered in popular BP.

Pluridimensional Dialectology

Dialectology, as a discipline, has the task of identifying, describing and situating the uses in which a language is diversified, according to the spatial, chronological and sociocultural distribution (CARDOSO, 2002). Through the method of Linguistic Geography, in predetermined spaces, the testimonies of dialectal reality are systematically collected and mapped. Essentially, according to Contini and Tuaillon (1996, p. 7, our translation), "Dialectology aims essentially at studying geolinguistic variation"[11]. In its genesis, it was characterized by the monodimensional aspect of analysis of the linguistic variation phenomenon, by the primacy conferred at the diatopic (spatial) level as the object of investigation. It began with the great national Atlases of Georg Wenker (1881) in Germany, and it was systematized with the publication of the Linguistic Atlas of France by Gilliéron and Edmont (1902-1910). From these studies, several others were developed in Europe and America, following the one-dimensional orientation.

Social, historical and cultural transformations, the change in the degree of human mobility, formerly characterized by isolation and sedentarism; the evolution of the media, human migration from rural to urban environments, among other factors, influenced the dynamics of the language. With the beginning of the sociolinguistic studies in the 60s, by William Labov, progressively, Dialectology began to include social factors. Thus, Pluridimensional Dialectology, according to Thun (1998, p. 369, our translation) "is characterized by the enlargement of the field of observation and by a work in more developed productivity"[12].

In addition to the diatopic dimension, other parameters that condition the variation, such as social factors, external to the language, are considered, opening up ways to

[11] In the original: "*la dialectologie a pour tache essentielle d'étudier la variation geolinguistique*" (CONTINI; TUAILLON, 1996, p. 7).

[12] In the original: "*caracteriza pelo alargamento do campo de observação e por um trabalho em produtividade mais desenvolvido*" (THUN, 1998, p. 369).

analyze linguistic facts according to diasexual, diagenerational and diastratic variables, among others. The first one refers to the way in which male and female speakers utilize language; the second one concerns the influence of age group in the linguistic uses; the latter refers to the degree of schooling and its impact on linguistic registers (CARDOSO, 2010).

Immersed in this new panorama of studies that guides geolinguistic studies, in 1996 national ALiB project[13] arose, which, among other objectives, aims to "[…] describe, on the basis of systematically collected empirical data, the linguistic reality of the country, in respect of Portuguese, providing up-to-date linguistic data not solely of diatopic diversity, but also of diagenerational, diastratic, diageneric and diaphasic variation"[14] (CARDOSO *et al*., 2014a, p. 23, our translation). The first results of the project referring to the interviews conducted in 25 Brazilian capitals were published in 2014 (CARDOSO *et al*., 2014a, 2014b).

For our study, given the ALiB methodology for surveys in inland localities, we solely verified diasexual, diagerational and diatopic variables. In the item below, the methodological procedures that guided our analysis are outlined.

Methodological procedures

The corpus of this research consists of data extracted from the database of the ALiB project, whose collection is conducted *in loco* and follows the assumptions of Pluridimensional Dialectology (THUN, 1998), which associates traditional Dialectology with Sociolinguistics. The interviews, transcripts and revisions were conducted by the Paraná team of the ALiB project, under the coordination of Dr. Vanderci de Andrade Aguilera.

We selected eleven lexical items, namely: *lâmpada* (*lamp*), *elétrico* (*electric*), *fósforo* (*match*), *pólvora* (*gunpowder*), *abóbora* (*pumpkin*), *árvore* (*tree*), *sábado* (*saturday*), *número* (*number*), *fígado* (*liver*), *vômito* (*vomit*), *hóspede* (*host*) of the Phonetic-Phonological Questionnaire (QFF) of the ALiB Questionnaire (ALiB PROJECT NATIONAL COMMITTEE, 2001). We selected all the proparoxytone items discussed in the QFF of this project, which, in turn, rests on other geolinguistic corpora studies, such as the published linguistic atlases, in order to facilitate the intercomparison of linguistic phenomena in several studies. The answers given throughout the interview were recorded, either in the first or second response, as in other parts of the recording.

We emphasize that the QFF presents directed questions, eliciting the linguistic environment for the study of proparoxytone words, providing short and direct answers, besides being a moment of the interview in which the speaker pays more attention

13 To know more about Project ALiB, access: <https://alib.ufba.br/>.

14 In the original: "*descrever, com base em dados empíricos, sistematicamente coletados, a realidade linguística do país, no que tange à língua portuguesa, fornecendo dados linguísticos atualizados não só da diversidade diatópica, mas também da variação diageracional, diastrática, diagenérica e diafásica*" (CARDOSO *et al.*, 2014a, p. 23).

to his/her speech, in a continuum from a less formal to a more formal level. In the following section, extracted from the transcripts of the ALiB project, we present an interview model:

INQ.- What is the name of the thing that is put in fireworks so that they burst?
INF.- *Pólvora* ('gunpowder').

The sample of this research consisted of 64 informants, distributed in 16 localities in the inland of the state of Paraná: Nova Londrina, Londrina, Terra Boa, Umuarama, Tomazina, Campo Mourão, Cândido de Abreu, Piraí do Sul, Toledo, Adrianópolis, São Miguel do Iguaçu, Imbituva, Guarapuava, Morretes, Lapa and Barracão.

Informants are stratified according to the social variables presented in Table 1.

Table 1 – Informants' profile

Informant	Schooling	Age Group	Gender
01	Elementary	I (18-30 year-olds)	Male
02	Elementary	I (18-30 year-olds)	Female
03	Elementary	II (50-65 year-olds)	Male
04	Elementary	II (50-65 year-olds)	Female

Source: Database of ALiB (2001), adapted by the authors.

In order to observe the syncope or maintenance of the non-final postonic vowels, we collected the items by listening to the interviews and subsequent tabulation of the data. With the spreadsheet set up, we quantified the data in percentage and absolute numbers.

Then, for the items that presented a significant syncope index, we outlined models of representations of the syllabic restructuring, analyzing the syllabic pattern of BP based on an autosegmental phonological model for the syllable.

Finally, the quantitative analysis of the extralinguistic variables gender and age group, and the distribution in the sixteen points of inquiry surveyed were contemplated by means of the organization of a comparative table of the productivity of proparoxytonic realizations and syncopated forms.

Data analysis

Quantitative analysis of maintenance and/or syncope of the postonic vowels

Most of the items under study were isolated from prosodic contexts larger than the phonological word, which is a characteristic of the ALiB Phonetic-Phonological Questionnaire, in order to observe whether postonic syncope is related to the formation and shape of the foot.

The syncope processes verified consist of the deletion of the non-final postonic vowel, which sometimes culminates in the deletion of other segments. Thus, as cases of syncope, we consider the deletion of non-final postonic vowel and syncope of non-final postonic vowel allied to the deletion of consonant in the onset position of the last syllable. In others, we include the other phenomena observed during the collection, but which do not fit the analyzed process, such as the apocope. Finally, as non-answer, we grouped the cases in which the questioner did not pose the question and in which the informants were not able to respond or preferred other items that were not pertinent to the study, as in question 127 of the QFF, in which the informants recorded the verbal forms (*vomitô, gomitô, vomitá, vomitado*).

Table 1 lists the data obtained in absolute and percentage numbers.

Table 1 – Results obtained in the perceptual analysis of the data

Variants	Total records						Non-answer
	Maintenance		Syncope		Others		Total
	Total	%	Total	%	Total	%	
Lâmpada	62	98.41	1	1.59	-	-	1
Elétrico	58	95.08	2	3.28	1	1.64	4
Fósforo	58	82.86	10	14.28	2	2.86	-
Pólvora	53	86.89	8	13.11	-	-	4
Abóbora	58	77.4	16	21.4	1	1.3	-
Árvore	60	83.3	12	16.7	-	-	1
Sábado	64	98.5	1	1.5	-	-	-
Número	64	100	-	-	-	-	-
Fígado	58	95.08	3	4.92	-	-	3
Vômito	43	81.13	-	-	10	18.87	13
Hóspede	55	96.5	2	3.5	-	-	7
	633	**90.17**	**55**	**7.83**	**14**	**2**	**33**

Source: Database of ALiB (2001), adapted by the authors.

The pattern that emerges from Table 1 indicates that the reduction of proparoxytones in relation to productivity evinced the preference in words like: *abóbora* (16 occurrences), *árvore* (12), *fósforo* (10) and *pólvora* (8), with less occurrences in: *fígado*, *hóspede* and *elétrico*, and the *hápax legomena* (a record) of the stigmatized variants for *lâmpada* and *sábado*. The maintenance of the proparoxytone was hegemonic for the items *número* and *vômito*, making up 100% of the occurrences, indicating a possible unfavorable context for syncope, which will be analyzed below.

In the study by Castro (2008), reduction was also predominant in variants for *árvore*. The results of the research conducted by the aforementioned researcher on the corpus of the ALPR (1994) in the inland of Paraná indicated the predominance of the reduced forms; in contrast, the current linguistic scenario, based on the ALiB data in places in the inland of the state of Paraná,[15] demonstrates the primacy of maintaining proparoxytone forms. The percentages of maintenance of standard variants (90.2%) and of syncopated forms (7.7%) were obtained, numerical dimensions close to the percentage of the research in capitals with the ALiB corpus, conducted by Araújo (2012).

In the following section, we analyze the process of ressyllabification, based on the analysis of the syllabic pattern of BP according to the autosegmental phonological model for syllables (COLLISCHONN, 1996; BISOL, 1999).

Examination of syllabic restructuring for syncopated variants

We proceeded to the analysis of the phenomenon according to the order of the items listed in Table 1.

a) Reduction of the proparoxytone in *lâmpada*:

We recorded solely one case of reduction of the proparoxytone *lâmpada* ('lamp') in the *corpus*, possibly an idiosyncrasy of the speaker, since, when verifying the whole interview, we could observe his/her tendency to delete word final segments.

The unstressed non-final dorsal postonic vowel /a/ undergoes syncope, therefore, the bilabial stop consonant (obstruent) /p/ becomes a floating segment and attempts ressylabification in the final syllable, in onset position, but this complex onset in /pd/ is not allowed in BP. Therefore, the alveolar stop consonant (also obstruent) /d/ of the final syllable is deleted and the /p/ segment is resyllabified, forming a restructured syllable according to the syllabic pattern of BP: lâm.pa.da> lâm.pØ.da > lâm.pØ.Øa> lâm.pa. In fact, Lima (2008, p. 93, author's emphasis, our translation) certifies in his research regarding the following phonological context that obstruents and nasals in a complex onset position do not favor the process, since "[…] these segments are not licensed for second position of a complex onset. Thus, in our data, when a vowel was deleted, the obstruents were deleted along with the postonic vowel (*relâmpago* > *relampu*; *lâmpada* ('lamp') > *lampa*)"[16].

[15] Among the places of ALiB inquiry in the interior of Paraná, seven points coincide with ALPR: Adrianópolis, Barracão, Campo Mourão, Guarapuava, Lapa, Londrina, Umuarama.

[16] In the original: "[...] *estes segmentos não estão licenciados para segunda posição de um ataque complexo. Assim, em nossos dados, quando uma vogal era apagada, as obstruintes apagaram junto com a vogal postônica (relâmpa**g**o > relampu; lâmpa**d**a > lampa)*" (LIMA, 2008, p. 93).

The author complements that the favorable context in this position is the one formed by the vibrant liquid vowel (more propitious) or the lateral liquid vowel, a statement that was verified throughout the present study.

b) Reduction of the proparoxytone in *elétrico*:

Solely two occurrences of the reduced forms for the proparoxytone *elétrico* in the corpus were obtained. After the deletion of the coronal postonic vowel /i/, the onset on obstruent /t/, followed by a vibrant liquid /r/ remains a floating segment, but can not be added to the posterior syllable in onset position, since this position is not allowed according to the rules governing the syllabic mold of BP; obstruent /k/ is syncopated and the last syllable is formed by complex onset, in /tr/: *elé.tri.co> elé.trØ.co> elé.trØ.Øo> elé.tro.*

c) Reduction of the proparoxytone in *fósforo*:

The standard form *fósforo* underwent syncope of the unstressed non-final postonic labial vowel /o/, and obstruent /f/ became a floating segment, forming a complex onset /fr/ in the subsequent syllable: *fós.fo.ro* ('match'*)> fós.fØ.ro> fós.fro*, with three occurrences. On the other hand, six records were obtained for the reduced variant *fósfo*, adding the process to the deletion of the vibrant liquid consonant; with this, in the resyllabification, the floating consonant /f/ forms a simple onset in the last syllable: *fós.fo.ro> fós.fØ.Øo> fós.fo*. Also, an informant recorded the syncopated variant *fósso*, which reveals the addition of the syncope phenomenon to the phonological process of total progressive assimilation of the contiguous alveolar fricative consonant /s/ by the labiodental consonant /f/, given the familiarity of the sonorous features of the two fricative segments: *fós.fo.ro> fós.fØ.Øo> fós.fo> fós.so*.

d) Reduction of the proparoxytone in *pólvora*:

The proparoxytone variant *pólvora* went through syncope in the non-final postonic labial vowel /o/, making the obstruent /v/ a floating segment, which is integrated with the vibrant liquid consonant /r/ in the following syllable, producing a new syllable according to the BP syllabic template: pól.vo.ra> pól.vØ.ra> pol.vra, in solely one of the records. The speakers from Paraná favored, as a syncopated variant, the reduced form *pórva*, with seven occurrences. The rhotacism of /l/ for /r/ through regressive assimilation of the vibrant feature and the subsequent deletion of the consonant /r/: pól.vo.ra> pól.vØ.ra> *pór.vra> pór.vØa> pór.va were added to the process of syncope of the labial vowel /o/. In fact, Câmara Jr. (1985) emphasizes the variation between the use of the consonant /r/ or /l/, with preference for the first one, indicating cases of free variation documented in the literature, for *frecha* rather than *flecha* ('arrow'). In fact, the data reveal this inclination by speakers from Paraná towards the use of /r/ (in *pórva*) rather than /l/ (in *pólva*) as a syncopated variant.

e) Reduction of the proparoxytone in *abóbora*:

In the work *O linguajar carioca* (The carioca language), Antenor Nascentes (1953) emphasizes the tendency for the reduction of *abóbora* to *abóbra*, which is similar to the process that occurred in Vulgar Latin. In the process, the labial non-final postonic vowel /o/ was deleted and the obstruent /b/ became a floating segment, going through the process of resyllabification to the following syllable. Thus, the syllable forms a complex onset /br/, in a well-formed construction, permitted by BP phonotactics: abó.bo.ra> abó.bØ.ra> abó.bra. This phonological process proved to be productive in our *corpus*, adding up to fifteen occurrences among the recorded cases of syncope.

We highlight that the following phonological context, formed by a vibrant liquid, has been documented in Lima (2008) and Amaral (2002) as a favorable environment for syncope. In this way, the simple onset becomes a complex one, by means of the stop /b/ in the first position, followed by the vibrant liquid /r/. The complex onsets formed by the vibrant in the second syllabic position are more productive than those formed by the lateral (tl, dl, for example), as reinforced by the researchers.

In addition to the syncope of the postonic vowel, a case of syncope of the non-final postonic vowel added to the regressive metathesis was recorded, according to Hora, Telles and Monaretto (2007), in: abó.bo.ra> abó.bØ.ra> abó.bra> abró.ba. It represents a phenomenon of reordering segments in the phonological sequence, which is not as recurrent as assimilation or deletion, as explained by Hora, Telles and Monaretto (2007). Ali (1964) highlights that metathesis was productive in Old Portuguese, privileged by the syllabic context formed by a vibrant. Because it is not within the scope of this research, we refrain from delving deeper into the study of this phenomenon.

f) Reduction of the proparoxytone in *árvore*:

The standard form *árvore*, in turn, became *arve* following the syncope of the non-final labial vowel /o/ and the deletion of the vibrant /r/, located in the onset position of the final syllable. The speakers preferred the paroxytone word formed by this phenomenon, which constitutes a simple onset by the fricative /v/, with eight occurrences: ár.vo.re> ár.vØ.Øe> ár.ve. Nascentes (1953) documents this reduced variant in Old Portuguese.

Two syncopated variants *alve* were recorded, resulting from the syncope of the postonic vowel and the liquid /r/, in addition to the exchange of vibrant /r/ for lateral /l/, possibly caused by hypercorrection. Azambuja (2012) explains that hypercorrection is a mistake made by the speaker who wants to censor certain linguistic traits through the imitation of characteristics which, in his/her own view, constitute the standard form, because of an ideological construct.

Two forms were also obtained with syncope of labial vowel /o/ and resyllabification of floating fricative /v/, generating a complex onset in the following syllable: ár.vo.re> ár.vØ.re> ár.vre. Indeed, in the research conducted in the inland of Paraná, Castro (2008) and, similarly, Ramos and Tenani (2009), in the variety spoken in the Northwest of São Paulo State, already acknowledged the reduced variants *árve* and *árvre.*

g) Reduction of the proparoxytone in *sábado*:

Marroquim (2008) documented that the *caboclos* in Alagoas and Pernambuco, by means of the Principle of Least Effort, similarly to the Romans in relation to Vulgar Latin, avoided the use of proparoxytones, e.g.: *sábado> sábo*. One can consider this process, since a syllabic structure CV.CV with a simple onset was formed, also simplifying the duration of emission of the word as a whole, reducing the number of syllables. Lima (2008) agrees with this prerogative, in relation to the simplification of the word, by the decrease of the number of syllables added to the simple syllabic structuring.

After the syncope of the dorsal postonic low vowel /a/, obstruent /b/ became a floating segment and lost its syllabic nucleus. Resyllabification of this segment in onset position in the following syllable is forbidden by the phonotactics of BP, as it would form the cluster /bd/. Consequently, alveolar stop segment /d/ also undergoes syncope and bilabial /b/ can assume the onset position in the following syllabic structure: sá.ba.do> sá.bØ.do> sá.bØ.Øo> sá.bo.

We assume that the reason why there is solely one record of reduction in this word in our *corpus* is the familiarity speakers have with this expression in their daily life, attested by the absence of non-answer to the question. Because it is an expression that can be easily seen in calendars and personal organizers, the speaker possibly tends to maintain its standard written form.

h) Reduction of the proparoxytone in *número*:

Maintenance of the proparoxytone for the word *número* has proved to be hegemonic in this study. We justify the non-realization of deletion in this word with the configuration of the syllable after the hypothetical syncope of its non-final postonic vowel, since the deletion of coronal vowel /e/ would turn bilabial nasal consonant /m/ into a floating segment, producing a consequent resyllabification and formation of a prohibited syllable onset /mr/.

However, in his research, Amaral (2002) attested the nasal consonant in onset position in *número* and such phenomenon can be verified in European Portuguese, according to Silva (2014, p. 90, our translation), who makes reference to them (the most vibrant nasal in the onset) as "anomalous consonant groups occurring in postonic position"[17]. However, in general, speakers of BP tend to avoid reduction of non-final

[17] In the original: "*grupos consonantais anômalos ocorrendo em posição postônica*" (SILVA, 2014, p. 90).

postonic vowels when the vowel is preceded by a nasal consonant and followed by a vibrant liquid consonant in the subsequent syllable onset. Another possible explanation for the maintenance of *número* in our corpus is the speakers' familiarity with this expression, reinforced by the absence of non-answers to the question.

i) Reduction of the proparoxytone in *fígado*:

Three occurrences of the reduced variant *figo* were recorded. The canonical form *fígado* went through syncope of the postonic low vowel /a/; obstruent /g/ had its resyllabification in the following syllable restricted, as the onset /gd/ is not permitted according to the sonority scale, consequently forcing the deletion of obstruent /d/. Obstruent /g/ takes the simple onset position in the resyllabification, restructured as a light syllable formed by CV: fí.ga.do> fí.gØ.do> fí.gØ.Øo> fí.go. If the Principle of Least Effort is taken into account, according to Lima's (2008) analysis, the syncopated word in question was simplified in relation to the number of syllables and its structuring in CV.CV.

j) Reduction of the proparoxytone in *vômito*:

The word *vômito* did not present cases of syncope in its postonic segments. The explanation for the absence of deletion in these words is the syllable configuration after the hypothetic deletion of its non-final postonic vowel. Deletion of coronal vowel /i/ would make bilabial nasal /m/ a floating consonant; the resyllabification of these segments and the formation of a complex onset in the following syllable in /mt/ would violate the phonotactically motivated rules of BP, and the sonority scale (nasal > obstruent - the nasal is more sonorous than the obstruent /t/).

In fact, Lemle (1978) cites *elétrico* and *vômito* as words not prone to suppression. Amaral (2002, p. 108, our translation) claims that "[...] proparoxytones more resistant to syncope have /i/ as a postonic vowel and the surrounding contexts do not represent well-formed consonant groups"[18]. Such prerogative may extend to the analysis of the word *vômito* [*mt*]. In the present study, the forms *vômi* and *vumíto* were recorded; in the first, the deletion of the last syllable makes the word a paroxytone, in the latter, the displacement of stress, probably in analogy to the verb *vomitar*, also forms a paroxytone. Both examples maintain well-formed consonant groups, not transgressing the analysis made by the researcher.

k) Reduction of the paroxytone in *hóspede*:

Solely two reductions of proparoxytone *hóspede* were pronounced by the speakers from Paraná. Coronal non-final postonic vowel /e/ suffered deletion and obstruent /p/

[18] In the original: "[...] *as proparoxítonas mais resistentes à síncope têm o /i/ como vogal postônica e os contextos circundantes não representam grupos consonantais bem-formados*" (AMARAL, 2002, p. 108).

became a floating segment; in the resyllabification in the onset of the subsequent syllable, it would form a cluster forbidden by BP phonotactics: /pd/ (obstruent-obstruent). The coronal vowel of the last syllable, which constitutes the nucleus of the rhyme, remains, and obstruent /d/ undergoes syncope, so that a syllable in CV is formed, allowed by the phonological rules governing the system: hós.pe.de > hós.pØ.de> hos.pØ.Øe> hós.pe.

Regarding the analysis of syncope, we found that the most productive reduced variants were formed after the deletion of the postonic vowel and consequent deletion of the consonant in the following syllable in thirty-one cases. The phenomenon of the deletion of non-final postonic vowel proved to be efficient in twenty-four reduction occurrences.

In addition to the analysis according to the autosegmental phonological model for the syllable, we observed the extralinguistic factors that may influence certain processes. Thus, in the following section, we investigate whether variables such as gender, age group and locality motivate the syncope or maintenance phenomena.

Analysis according to extralinguistic variables

Sociolinguistic research generally highlights "a greater feminine awareness of the social *status* of linguistic forms"[19] (PAIVA, 2007, p. 35, our translation). Therefore, in general, women are more sensitive to the more prestigious variants and tend to utilize them more than men.

Table 2 – Maintenance or syncope according to the variable gender

Gender	Total of occurrences	Maintenance		Syncope	
		Total	%	Total	%
Female	351	330	94.02	21	5.98
Male	337	303	89.9	34	10.1

Source: Database of ALiB (2001), adapted by the authors.

Data from Chaves (2011), Head (1986), Amaral (2002), Lima (2008) and Castro (2008) indicate that male informants have a higher rate of syncope application. In contrast, the research conducted by Aragão (2000) demonstrates that women registered more non-standard forms.

In fact, as expected, women tended to maintain proparoxytones, accounting for 330 maintenance records and solely 21 cases of syncope, while men presented 303 occurrences of the standard form and 34 syncopated variants (as shown in Table 2).

Percentage data reveal that the gender variable was somewhat more prevalent in relation to the maintenance of the proparoxytone, the most socially prestigious form,

[19] In the original: "*uma maior consciência feminina do status social das formas linguísticas*" (PAIVA, 2007, p. 35).

accounting for 94.02% of the responses given by women, against 89.9% by men. The rate of registration of stigmatized variants was higher among men, accounting for 10.1% of the responses, while females registered 5.98% of syncopated variants. Albeit the difference does not seem to be significant, we found that the data predisposes the interpretation of a tendency among women to speak favoring prestigious forms, according to Castro (2008, p. 117, our translation).

> [...] there is a minimal superiority of women in the use of prestigious (proparoxytone) forms, and a somewhat lower number in the use of stigmatized forms (paroxytones), which is in harmony with previous research findings that demonstrate greater adhesion of female speakers to forms of prestige.[20]

On the other hand, the variable age group allows one to observe indications of the stage in which a certain variant is found in a linguistic system, thus, the relation between the age of the speakers within the sample and the production of change may demonstrate signs that this phenomenon is in a process of stable variation or change in progress.

Table 3 – Maintenance or syncope according to the variable age group

Age group	Number of occurrences	Maintenance		Syncope	
		Total	%	Total	%
Band 1	336	303	90.18	33	9.82
Band 2	352	330	93.75	22	6.25

Source: Database of ALiB (2001), adapted by the authors.

The data presented in Table 3 demonstrate that age group is an extralinguistic variable which is not very significant for the application or retention of the syncope phenomenon, since the difference between maintenance and the percentage of reduced variants in Bands 1 and 2 is around just over 3%. Similarly, Chaves (2011) and Lima (2008) affirmed that age group is not responsible for conditioning the realization of the observed phenomenon.

Maintenance of proparoxytones prevailed in both age groups, recorded in 90.18% of valid responses for Age group 1 and in 93.75% of the responses for Age group 2. Syncope presented little productivity, with 9.82% in Age group 1 and 6.25% in Age group 2. Age group 1 subtly favors the least prestigious form in comparison to Band 2, which is in accordance with the research by Araújo (2012) and Amaral (2002), in which individuals of the second age group favored syncope. Given the small difference

[20] In the original: "[...] *observa-se uma mínima superioridade das mulheres no uso das formas de prestígio (proparoxítonas), e um número ligeiramente menor no uso das formas estigmatizadas (paroxítonas), o que se harmoniza com constatações de pesquisas anteriores que apontam maior adesão de falantes do sexo feminino às formas de prestígio*" (CASTRO, 2008, p. 117).

in percentage between the bands, it is not possible to assure whether it would be a process of stable variation or change in progress.

In Table 4, the possible influence of locality on either maintenance or syncope was measured.

Table 4 – Maintenance or syncope according to the variable locality

Locality	Total occurrences	Maintenance		Syncope	
		Total	%	Total	%
Nova Londrina	43	39	90.7	4	9.3
Londrina	42	41	97.6	1	2.4
Terra Boa	43	41	95.35	2	4.65
Umuarama	44	39	88.64	5	11.36
Tomazina	45	39	86.67	6	13.33
Campo Mourão	41	41	100	-	-
Cândido de Abreu	41	38	92.69	3	7.31
Piraí do Sul	43	42	97.67	1	2.33
Toledo	41	36	87.8	5	12.2
Adrianópolis	41	37	90.25	4	9.75
São Miguel do Iguaçu	45	43	95.56	2	4.44
Imbituva	45	42	93.33	3	6.67
Guarapuava	46	40	86.96	6	13.04
Morretes	42	42	100	-	-
Lapa	45	39	86.67	6	13.33
Barracão	41	34	82.93	7	17.07

Source: Database of ALiB (2001), adapted by the authors.

We can infer from Table 4 that the syncopated variants obtained the highest record by the speakers from Barracão, adding up to seven occurrences (17.07%) of valid answers for the research in that location. We also note that, at this point of inquiry, the highest non-answer rate was obtained. This city is located in the Southwest of Paraná, on the triple border between Argentina, Santa Catarina and Paraná, with solely 9,735 inhabitants[21] (IBGE, 2010). Given its "small town" character, one could suggest a relative influence of location on the characteristics of the speech of the *barraconenses*.

Subsequently, in other localities, such as Lapa, Guarapuava and Tomazina, six occurrences of syncope were obtained, and in Toledo and Umuarama, five. Each one is located in a region in the inland of Paraná. The lowest reduction rates were recorded in

[21] Available at: https://cidades.ibge.gov.br/brasil/pr/barracao/panorama. Access on: Feb. 2019.

São Miguel do Iguaçu and Terra Boa, with two occurrences each, and in Londrina and Piraí do Sul, with one occurrence of the stigmatized form. Our attention was drawn to the absolute record of the maintenance of proparoxytones by the residents of Campo Mourão and Morretes, with the hegemony of the standard variant.

When we contrast our data, with its predominance of prestigious forms, to the results obtained by Castro (2008), which presented a majority of stigmatized variants, we can suggest a social change brought about by urbanization and manifested in the speech of the inhabitants of Paraná.

Final remarks

As pointed out by Câmara Jr. (1985), the syllable in which the syncopated nucleus is found is a non-final atonic. Still, in response to the initial research questions, we verified that the results indicate that, in general, the maintenance of proparoxytones was mostly present in the urban speech of speakers from the inland of Paraná, in comparison to other studies. When we contrast our research with the work of Castro (2008), which, on the contrary, indicated the strength of the non-standard variant, we were able to verify that the geographic reach of prestige forms in the inland of Paraná was clearly evidenced, revealing the vicissitudes through which the language runs. A conjecture to explain the formation of this new linguistic panorama is reflected in the fact that society has undergone many changes, such as intense urbanization and schooling, culminating in the modification of social references that have secured a place in speech.

Regarding the syncope of non-final postonic vowels, as a phonological process, we determined its conditioning to the maintenance of the same syllabic positions of the floating segments that, by means of resyllabification, occupied the syllable onset position, forming a syllabic template that respects the structure of the system and follows specific formation conditions. In accordance with the processes of evolution in the formation of Portuguese, reduction was performed preferably after the postonic vowel and the consonant in the final syllable were deleted.

It is possible to affirm that the characteristics of the segments that form the syllabic structure and its adjacent segments can interfere in resyllabification, which explains the preference for deletion of certain segments of postonic syllables by the speakers. The following phonological context, with a liquid in the onset position, which, after the phenomenon, becomes the second consonant of a complex onset, favored the deletion process, provided that the pattern of the BP syllabic template was respected. In this context, obstruents also conditioned syncope, except in cases in which vowel deletion would incur an onset not permitted by the system.

Regarding the observed social variables, factors such as gender and age group proved to be fruitless quantitatively as determinants of the processes under investigation, albeit women and Band 2 preferably chose the standard canonical form, with a small differential percentage in comparison to men and Band 1. As for the localities, there was a prevalence of the prestigious form in the speech of speakers from Paraná, and in Barracão, in the Southwest, the highest rate of non-standard variants was recorded.

With this work, we hope to contribute to the revival of studies on phonological processes and geolinguistic investigations of variation, thus promoting respect for the multiple forms of expression, extending such deference to the speakers themselves.

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YIDA, V.; SIMÕES, D.; VASCONCELOS, C. Syncope of non-final postonic vowels in the inland of Paraná: an autosegmental and variational analysis from ALiB data. **Alfa**, São Paulo, v. 63, n.3, p.491-515, 2019.

- *RESUMO: Este estudo busca descrever e analisar o fenômeno da síncope da vogal postônica não final no falar paranaense interiorano, com base em dados coletados em entrevistas realizadas pelo Projeto Atlas Linguístico do Brasil (ALiB), em dezesseis pontos de inquérito situados no interior do Paraná, totalizando 64 informantes. Desse modo, foram avaliadas a frequência e possíveis fatores linguísticos e extralinguísticos que podem condicionar a síncope/manutenção da vogal postônica não final das proparoxítonas em onze itens lexicais: lâmpada, elétrico, fósforo, pólvora, abóbora, árvore, sábado, número, fígado, vômito, hóspede, que constam do Questionário Fonético-Fonológico (QFF) do Questionário do ALiB (COMITÊ NACIONAL DO ALiB, 2001). A investigação fundamenta-se na perspectiva da Dialetologia Pluridimensional (THUN, 1998) e à luz do modelo fonológico autossegmental para a sílaba, em análise do padrão silábico do português brasileiro (COLLISCHONN, 1996; BISOL, 1999). Constatamos que o contexto fonológico das vogais postônicas e segmentos adjacentes podem interferir no condicionamento da síncope, enquanto as variáveis extralinguísticas não se mostraram producentes para esse processo em nosso corpus.*

- *PALAVRAS-CHAVE: Atlas Linguístico do Brasil. Síncope. Proparoxítonas. Sílaba. Dialetologia Pluridimensional.*

REFERENCES

AGUILERA, V. de A. **Atlas Lingüístico do Paraná**. Curitiba: Imprensa Oficial do Estado, 1994.

AMARAL, A. **O dialeto caipira:** gramática, vocabulário. São Paulo: Hucitec/INL, 1982 [1920].

AMARAL, M. P. do. A síncope em proparoxítonas: uma regra variável. *In*: BISOL, L.; BRESCANCINI, C. (org.). **Fonologia e variação:** recortes do português brasileiro. Porto Alegre: EDIPUCRS, 2002. p. 99- 126.

ALI, M. S. **Gramática histórica da língua portuguesa**. São Paulo: Melhoramentos, 1964.

ARAGÃO, M. do S. S. As palavras proparoxítonas no falar de Fortaleza. **Acta Semiotica et Linguistica**, São Paulo, v.8, p.61-88, 2000.

ARAÚJO, A. A. de. A redução das proparoxítonas a partir dos dados do Projeto Atlas Linguístico do Brasil. **Revista (CON)TEXTOS Linguísticos,** Vitória. v.6, n.7, p.7-19, 2012.

AZAMBUJA, E. B. Fatos de "hipercorreção" como um observatório do funcionamento ideológico e da memória discursiva da/na língua. *In*: ENCONTRO DE ESTUDOS DE LINGUAGEM, 4., 2011. **Anais** [...], Pouso Alegre: ENELIN, 2012. p. 1-9.

BISOL, L. A sílaba e seus constituintes. *In*: NEVES, M. H. M. (org.). **Gramática do português Falado.** Campinas: Editora Humanista: FFLCH/USP, 1999. p. 701-742.

CÂMARA JR. J. M. **História e estrutura da língua portuguesa**. 4. ed. Rio de Janeiro: Padrão, 1985.

CARDOSO, S. A. M. *et al*. **Atlas Linguístico do Brasil**. Londrina: EDUEL, 2014a. v.1.

CARDOSO, S. A. M. *et al*. **Atlas Linguístico do Brasil**. Londrina: EDUEL, 2014b. v.2.

CARDOSO, S. A. M. **Geolinguística**: tradição e modernidade. São Paulo: Parábola Editorial, 2010.

CARDOSO, S. A. M. A Geolingüística no terceiro milênio: monodimensional ou pluridimensional? **Revista GELNE**, Fortaleza, v.4, n.2, p.1-16, 2002. Disponível em: https://periodicos.ufrn.br/gelne/article/download/9088/6442/0. Acesso em: 22 jan. 2019.

CASTRO, V. S.. A redução das proparoxítonas no português popular do Brasil: estudo com base em dados do Atlas Linguístico do Paraná. **Estudos Linguísticos**, São Paulo, v.37, n.2, p. 113-121, maio-ago. 2008.

CHAVES, R. G. **A redução de proparoxítonos na fala do Sul do Brasil.** 2011. 173f. Dissertação (Mestrado em Letras) - Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, 2011. Disponível em: http://fonapli.paginas.ufsc.br/files/2013/03/Disserta%C3%A7%C3%A3o-RaquelChaves.pdf. Acesso em: 10 fev. 2019.

COLLISCHONN, G. A sílaba em português. *In*: BISOL, L. (org.). **Introdução a estudos de fonologia do português brasileiro**. Porto Alegre: EDIPUCRS, 1996. p. 99-131.

COMITÊ NACIONAL DO PROJETO ALiB. **Atlas Lingüístico do Brasil:** Questionários 2001. Londrina: Eduel, 2001.

CONTINI, M.; TUAILLON, G. Introduction. *In*: ATLAS LINGUISTIQUE ROMAN [ALiR]. **Présentation**. Roma: Istituto Poligrafico e Zecca dello Stato, 1996. v.1. p. 1-18.

COUTINHO, I. de L. **Pontos de gramática histórica**. 7. ed. rev. Rio de Janeiro: Ao Livro Técnico, 1976.

FERREIRA, A. B. de H. **Dicionário Aurélio da língua portuguesa**. 5 ed. Curitiba: Positivo, 2010.

GILLIÉRON, J.; EDMONT, E. **Atlas Linguistique de la France**. Paris: Honoré Champion, 1902-1910.

GOMES, D. K. A síncope das vogais postônicas não-finais: variação na fala popular urbana do Rio de Janeiro. **Diadorim**: Revista de Estudos Linguísticos e Literários, Rio de Janeiro, n.8, p. 81-102, 2011.

HEAD, B. F. O destino de palavras proparoxítonas na linguagem popular. *In*: ENCONTRO DE VARIAÇÃO LINGÜÍSTICA E BILINGÜISMO NA REGIÃO SUL, 4., 1986, Porto Alegre. **Anais** [...] Porto Alegre: UFRS, 1986. p. 38-56.

HORA, D. da; TELLES, S.; MONARETTO, V. N. O. Português brasileiro?: uma língua de metátese?. **Letras de Hoje**, Porto Alegre, v.42, n.2, p.178-196, set. 2007.

ILARI, R. **Lingüística românica**. 3. ed. São Paulo: Ática, 2004.

LEMLE, M. Heterogeneidade dialetal: um apelo à pesquisa. **Linguística e ensino do vernáculo**, Rio de Janeiro, v. 53/54, p.60-94, abr./set. 1978.

LIMA, G. de O. **O efeito da síncope nas proparoxítonas:** análise fonológica e variacionista com dados do sudoeste goiano. 2008. Dissertação (Mestrado em Linguística) - Programa de Pós-Graduação em Linguística, Universidade Federal de Uberlândia, Uberlândia, 2008.

MARROQUIM, M. **A língua do Nordeste:** Alagoas e Pernambuco. 4. ed. Maceió: EDUFAL, 2008.

NASCENTES, A. **O Linguajar Carioca**. 2. ed. Rio de Janeiro: Organizações Simões, 1953 [1922].

PAIVA, M. da C. Transcrições de dados linguísticos. *In*: MOLLICA, M. C. **Introdução à Sociolinguística:** o tratamento da variação. 3. Ed. São Paulo: Contexto, 2007. p. 101-116.

QUEDNAU, L. R. A síncope e seus efeitos em latim e em português arcaico. *In*: BISOL, L.; BRESCANCINI, C. (org.). **Fonologia e variação**: recortes do português brasileiro. Porto Alegre: EDIPUCRS, 2002. v. 1. p. 79-98.

RAMOS, A. P.; TENANI, L. E. Análise métrica do apagamento das vogais postônicas não finais no dialeto do noroeste paulista. **Estudos Linguísticos,** São Paulo, v.38, n.1, p.21-34, jan.-abr. 2009. Disponível em: http://www.gel.org.br/estudoslinguisticos/volumes/38/EL_V38N1_02.pdf. Acesso em: 13 fev. 2017.

SELKIRK, E. The syllable. *In*: HULST, H.; SMITH, N. **The structure of phonological representation**. Dordrecht: Foris, 1982. v. 2. p. 337-383.

SILVA, T. C. **Fonética e fonologia do português**: roteiro de estudos e guia de exercícios. 10. ed. São Paulo: Contexto, 2014.

SILVA NETO, S. da. **Fontes do latim vulgar**. Rio de Janeiro: Acadêmica, 1956 [1938].

THUN, H. La géographie linguistique romane à la fin du XXe siècle. *In*: ENGLEBERT, A.; PIERRARD, M.; ROSIER, L.; Van RAEMDONCK, D. **Actes do XXIIe Congrès International de Linquistique et de Philologie Romanes.** Bruxelas: Max Niemeyer Verlag, 1998. p. 367-409.

WENKER, G. **Sprachatlas von Nord - und Mitteldeutschland:** Auf Grund von systematisch mit Hülfe der Volksschullehrer gesammelten Material aus circa 30000 Orten. Abtheilung I Lieferung 1. Strasbourg/London: Karl J. Trübner, 1881.

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CLEFT SENTENCES IN MAZAHUA (OTO-MANGUEAN)

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▪ ABSTRACT: The purpose of this paper is to describe the structure of the cleft sentences in the Mazahua language of San Pedro Potla (located in Temascalcingo, Estado de Mexico). This study has been carried out under the approach of Lambrecht (2001), who considers that the cleft sentence is a complex structure formed by a matrix clause and a relative clause; this binary clause expresses a single semantic proposition. Considering the latter, cleft sentences are formed by the ŋgè mark, the focused phrase and the relative clause. To give an account of the objective, it is necessary to consider certain features of the grammar of the language as word order, types of relative clauses, and grammatical functions of ŋgè. Through the types of cleft sentences it can be shown that, in some contexts, the topicalized information also appears clefted. The data correspond to stories, narrations, and tales.

▪ KEYWORDS: Information. Focus. Topic. Structure. Otopamean.

Introduction

The purpose of this paper is to present a description of the cleft sentences shown in (1). These kinds of cleft sentences are found in Mazahua in order to give an account of focalized information. A cleft sentence is a structurally complex sentence formed by a matrix clause, a copula, and a relative clause; the latter's relativized argument is coindexed with the copula's predicate argument (LAMBRECHT, 2001). What will be shown throughout this paper is the diverse structural distribution of the grammatical elements that, in turn, constitute a cleft sentence. In Mazahua, a cleft sentence, like the one in (1), is formed by the *ŋgè* form that co-occurs with the focalized information, a relative clause (between brackets [])—which is introduced by a subordinate—and a phrase that shows the focus, like in (1a) y (1b). At the same time, these sentences also show the topicalized information, as in (1c) and (1d).

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(1) a.

FOC RC			FF
ŋgè[=ø	mí=k^{h}àa	kòral]	à-tȁnsĩa
FOC=SUB	3PSR=be	farmyard	LOC-ranch

‘It was in the ranch where there was a farmyard.’ (Txt)

b.

	FOC RC			FF	
mbò=ø=náŋg^{w}aɗi,	ŋgè[=múk^{h}a	ø=mbắɾã=hi	=Ø	mí=ŋgè	pìtʃe]
luego=3PST=run	FOC=when	3PST=know=PL=SUB		STA.PST-be	ghost

‘Then he ran, it was when they knew he was a ghost.’ (Txt)

c.

TOP RC	TF
ŋgè[=k’ɨ	mí=héʔe]=k’ɨ
TOP=SUB	3PSR=dress=DEMSG

‘That’s what they dressed.’ (Txt)

d.

			TOP CR	TF
ndá=ø=ŋgɨ̀kɨ	téʃe	jò=^{h}wă^{h}mã,	ŋgè[=k’ɨ́	ø=pὲp^{h}i=^{ʔ}ja]=k’ɨ́
TOT=3PST=harvest	all	ARTPL=cornfield	FOC=SUB	3PRS=work=PTL=DEMSG

‘She harvested all the cornfields, that is the one that works.’

It is important to point out that this paper presents the first descriptive approach to cleft sentences . Previous research such as Stewart (1966), López Marín (2002), Guzmán (2011), Knapp (2013), Mora Muñoz and Mora-Bustos (2017) presented general descriptions of relative clauses; nevertheless, these authors did not take into consideration cleft sentences. Within the Otopame subgroup, Palancar (2018, 2009) typifies cleft sentences in Otomí; therefore, this paper will only be considered as a referential piece of information.

Mazahua o *Jñatjo*, ISO 639-3, is a language that belongs to the Otopame subgroup, that in itself belongs to the Otomangue family. This language is related to Otomí, Matlatzinca, Tlahuica, Pame, and Chichimeco. According to data gathered from INEGI (which stands for Instituto Nacional de Estadística y Geografía in Spanish), in 2015 there were 147,088 native speakers of this language. A considerable amount of speakers are located in the northwestern and midwestern part of Estado de México; in broad terms, 15 municipalities are included in both states: Estado de México and Michoacán. On one hand, the municipalities located in Estado de México are Atlacomulco, Temascalcingo, Villa de Allende, Villa Victoria, Almoloya de Juárez, Donato Guerra, El Oro, Ixtapan del Oro, Ixtlahuaca, Jiquipilco, Jocotitlán, Morelos, San Felipe del Progreso and Valle de Bravo. On the other, in the state of Michoacán, the municipalities of Susupuato y Zitácuaro (KNAPP, 2008) are located. All of the examples here presented have been compiled by the author and they are part of narrations, interviews and life accounts of Mazahua native speakers in San Pedro Potla, a municipality in Temascalcingo, Estado de México.

In structural terms, the sentences in (2) are fitting for the non-clefted correlate of the sentence in (1). According to Lambrecht (2001), from the semantic perspective, the matrix clause as well as the relative one in (1) are considered as a whole and they express a simple proposition in a logical manner — that can also be present in the form of a simple clause, like the one in (2) — this without changing the conditions of truth.

(2) a. mí=kʰàa kòral à-tȁnsĩa
3PSR=be farmyard LOC-ranch
'There was a farmyard on the ranch.' (Txt)

b. mbò=ø=náŋgʷaɗi, ø=mbắɾã=hi Ø=mí=ŋgè pìtʃe
then=3PST=run 3PST=know=PL SUB=STA.PSR=be ghost
'Then he ran, they knew he was a ghost.' (Txt)

c. mí=héʔe=k'ɨ
3PSR=dress=DEMSG
'They dressed that.' (Txt)

d. ndá=ø=ŋgɨkɨ téʃe jò=ʰwăʰmã, ø=pɛ̀pʰi=ˀja=k'ɨ́
TOT=3PST=harvest all ARTPL=cornfield 3PRS=work=PTL=DEMSG
'She harvested all the cornfields, she works.' (Txt)

The idea that holds this paper together is born from the fact that cleft sentences are formed by *ŋgè*, a relative clause, and a focus or topic phrase. These sentences have a mandatory grammatical correlate that cannot be divided o clefted. The *ŋgè* form, in morphological terms, works as a clitic that co-occurs in sentences to denote focus and topic. Cleft sentences present a wide variety of word order of its components within its configuration; the structure of cleft sentences is related to the order of the constituents of the language, the structure of the relative clauses, and the grammatical functions of the *ŋgè* form. Taking this statement as a starting point, this paper will be organized in the following way: Grammatical characteristics of Mazahua. Focus and topic. Cleft sentences. Basic cleft sentences. QU cleft sentences. Inverted cleft sentences. Incomplete cleft sentences. Conclusions.

Grammatical characteristics

In this segment of the paper, some relevant grammatical characteristics will be briefly described in order to give an account of the topic to be developed. Mazahua's most defining linguistic characteristic is that it is a tonal language; the level tones that are rooted in the proclitics are contrastive. It is a nominative-accusative language and has head-marking, which is to say that the grammatical relations are codified in the verb head through a complex ensemble of proclitics and suffixes. The proclitics codify time, aspect, mode (TAM)[1], and person that also cross-references with the referent found in the noun clause that expresses the grammatical subject, while the suffixes exhibit the grammatical relations of direct and indirect object[2]. The morphosyntactic configuration that the active intransitive verbs present is different to that of the one found in the patientive and stative verbs (BARTHOLOMEW, 1965; STEWART, 1966; AMADOR HERNÁNDEZ, 1976; KNAPP, 2008, 2013; PALANCAR, 2009; LÓPEZ MARÍN; MORA-BUSTOS, 2015). Within the group of intransitive verbs there is a cleft system generated from the semantics and syntax of the verb units. In (3) there is a template of the verbal word.

(3) NEG/AF=PTL=CUAN2=ADV=INT/CSL=TAMP=CUAN1=VERBO-OBJ/IO=LIM=E=PL/DU =PTL=LOC=DEM

In (4), some grammatical contexts are presented to illustrate the structure of the verbal word presented in (3). The verbs *péɾdona* 'forgive', (4a), and *mbéɲe* 'remember', (4c), are transitive; the proclitic codifies time, aspect, mode (TAM) and person; the suffix, for its part, expresses the direct object. Furthermore, the suffix of the ditransitive verbs *ʃípʰi* 'tell' and *ʃókɨ* 'open' in (4b) expresses the dative or indirect object. In the grammatical units that express concepts of property *nó* 'old' in (4c) and *t'í* 'boy' in (4d), the proclitics *ma*= and *mi*= codify time, aspect and mode (TAM); whereas the suffixes *–zi* and *-kʰo* express the grammatical subject of the sentence. In (4d) *hȁndã* 'see' is an intransitive verb; the proclitic codifies time, aspect, mode, and person.

(4) a. mà-ˀjêŋkˀʷa ˀjá=ɾà=péɾdona-ts'ɨ
TADV-before NEG=3.PST=forgive-2OBJ
'Before they did not forgive you.' (Txt)

b. má=ʃí-pʰi *nù=délegado*=ø ɾà=ʔẽ̌hẽ ʃókɨ-zɨ
IMP.ir=go-3DAT ARTSG=delegado=SUB 3.FUT=come open-1DAT
'Go tell the delegate to come and open me.' (Txt)

c. já=má-tʃ'í-nó-zɨ, já=ɾí=mbéɲe
PTL=STA.PST-DIM-old-1OBJ PTL=1PSR=remember
'It was older, I remembered it.' (Txt)

[1] Proclítics that encode TAM and person

	Presente	Neutral Past	Pasat	*Future*
1 person	rí=	mí=	ró=	rá=
2 person	í=	mí=	ì=	rì=
3 person	ø=	mí=	ó=	rà=

[2] Object and indirec object suffixes

	Objet	*Indirect Objet*
1 person	/-gV/, /-kV/, /-kʰV/, /-zV/, /-tsV/	/-kV/, /-NgV/, /-zV/, /-tsV/
2 person	/-k'V/, /-ts'V/	/-ʔk'V/, /-ts'V/, /-k'V/
3 person	ø-	/-pV/, /-mbV/, /-p'V/, /-pʰV/

d. mù=ɾó=hȁn=go=ʰme   ná=hóʔo   kʰà=mí=tá-t’í-kʰo=ʰme
when=1PST=see=1E=PL.EXC   STA.PRS=well   still=STA.PSR=AU-boy-1OBJ=PL.EXC
‘When we saw it well, we were still young.’ (Txt)

The full noun phrases that express the grammatical relations appear in a post-verbal position. In regards to the basic order of constituents, this language presents an order VOS, VOS-OI and VS[3]. Taking into consideration pragmatic factors, the full noun phrases that state grammatical relations are placed in different positions. In the examples of (5), the object appears in the post-verbal position (5a), (5b), (5d), (5e); the subject is set up after the object, (5b), in post-verbal position, (5c), or pre-verbal (5c), (5d). In ditransitive constructions, like the one in (5b), *ɾìtʃʰɔ̀mbɨ núɲíi* ‘you touch his head,’ the indirect object appears exhibited in the *-mbɨ* suffix; the verb has space to place a suffix as a morpheme, so that in ditransitive constructions the dative is codified.

V   O
(5) a. mbò=ɾà=ˀjɛ̆ɛ   ín-màle
then=3PSR-beat   3POSS-wife
‘Then he was beating his wife.’ (Txt)

V   O   S   V
b. ʃo=mì=pɔ̀ʔɔ   ɓìʒi   nù=ɓ̀ɛzo=k’ɨ;   ɾì=tʃʰɔ̀-mbɨ
also=3PSR=sell   guitar   ARTSG=man=DEMSG   2PST=touch-3DAT
O
nú=ɲíi
ARTSG.3POS=cabeza
‘That man also sold guitars; you touch his head.’ (Txt)

V   S   S   V
c. ó=ŋgɨt’ɨ=k’ɨ;   nú=nɨ́ɨ;   nù=ts’í-t’í   já=Ø=ndȕũ
3PST=pull=DEMSG   ARTSG.3POS=mother   ARTSG=DIM-boy   PTL=3PST=die
V   V
ó=mbot́’ɨ,   já=Ø=zɨ́t’ɨ
3PST=kill   PTL=3.PST=suck
‘His mother pulled him; the little boy has already died, killed him, sucked him.’ (Txt)

[3] Within the disposition of the order of the constituents, letter X is used to point out the adjunct, that is, grammatical forms that do not develop as grammatical relations (subject, direct object and indirect object).

V X V O X
d. mí=sʰə̂t’ə=hi à-ndàɾe, mí=pàa tű̃n=hi kʰòho mà-ˀnáŋgʷaɾɨ,
3PSR=come=PL LOC-river 3PSR=go bring=PL mushroom DIR-other.side
X
à-mànu
LOC-over.there
‘They came to the river, they were going to bring mushrooms to the other side, over there.’ (Txt)

S V O X
e. nù=pàpa nì-máma tá=mí=pàa tű̃n=hi kʰòho mà-ˀnáŋgʷaɾɨ
ARTSG=father 2POSS-mother until=3PSR=go bring=PL mushroom DIR-other.side
‘Your mom’s dad was going to bring mushrooms to the other side.’ (Txt)

The position of the relative clause is post-noun[4]. In (6a), the relative clause is put immediately after the noun *ndʒɨ́nɨ* ‘ox’ (the relative clause is between brackets []); in (6b), it is found after the demonstrative *k’ɨ*, ‘that’.

(6) a. kʰò=mì=ŋgè-ndʒɨ́nɨ [ø=mí=jǎɓɨ=k’ɨ], kʰò=mì=ŋgè-ndʒɨ́nɨ
maybe=STA.PSR-be-ox SUB=3PSR=hit=DEMSG maybe=STA.PSR=be-ox
[ø=mí-ʔɛ̀s’i=k’ɨ]
SUB=3PSR-spur on=DEMSG
‘Maybe it was ox that hit that, maybe it was ox that was spuring on that.’(Txt)

b. iˀjá=ø=tʰɔ́mɨ=k’ɨ [ø=ɾó=sàʔa]
NEG=1PRS=own=DEMSG SUB=1PST=eat
‘I do not owe that I ate.’ (Txt)

The language does not have a catalogue of relative pronouns, so it has to resort to a relativization strategy through demonstrative and determiners[5]: *k’ɨ̀* in (7a), *k’ò*, in (7b); *jò* in (7c) and *nù* in (7d). Throughout this paper, these morphemes have been annotated as subordinates.

(7) a. ø=ʃàha nà-mástɾo [k’ɨ̀=ˀjá=ø=pʰɛ̂tʃi ˀjòɓɨ ˀjɛ́ʔɛ]
3PST=bath ARTINDF-teacher SUB=NEG=3PSR=know move hand
‘A teacher bathed who did not know how to move his hands.’ (Txt)

b. mí=ɓɨ̀ɓɨ nà-péˀji [k’ò=ná=tá-nóho]
3PSR=be ARTIND-tejocote SUB=STA.PRS=AU-big
‘There was a tejocote that was big.’ (Txt)

[4] To have a general perspective of relative clauses, see Keenan (1985).

[5] Demonstratives and articles that appear as a relativization strategy have been annotated as subordinates. Givón (1979) and Comrie (1981), among others, have established some criteria about which grammatical unit can be considered as a relative pronoun.

c. ɾí=hòɗɨ=ʰme jò=tée [jo=ʃí=ø=ɲã̂=hi ʰɲã̂tʰõ]
1.PRS=look for=PL.EXCL ARTPL=people SUB=still=3PRS=speak=PL mazahua
'We are looking for people who still speak Mazahua.' (Txt)

d. ø=èmbé=Ø ò=tʃʰέ=ßi nù=k'íʰmi [nù=ø=pʰὲ-ɓèʲɲa
3PRS=say=SUB 3PST=find=DU ARTSG=víbora SUB=3.PRS=become-lady
k'íʰmi]
viper
'They say they found the viper that becomes a lady.' (Txt)

Relative clauses that possess an antecedent denoting a human entity appear with a group of free morphemes, such as *nùk'o* in (8a), *nùk'ɨ* in (8b), (9b) and *k'òhé* in (9a). The relative clause in (8a) has an external head; *k'o* 'those' is the head of the relative clause and functions syntactically as the direct object of the main clause *míkhɔ́nt'ɨhik'o* 'they paid those', the relative clause is after the head and is introduced by the subordinate *nùk'o*; in (8b), the head *nàhóʔo ndíʃunù* 'good woman' is found inside the relative clause and the subordinate *nùk'ɨ* is outside the construction.

(8) a. mí=kʰɔ́nt'ɨ=hi=k'o [nùk'ó mí=ótʰo ndɛ̂tʃʰõ=ˀja]
3PSR=pay=PL=DEMPL SUB 3PSR=no.have corn=PTL
'They paid those who did not have corn.' (Txt)

b. nùk'ɨ́ [ɾà=tʰìtsi téʃe nù=ŋgùmɨ nà=hóʔo] ndíʃu=nù
SUB 3.FUT=clean all DETSG=house STA.PRS=good woman=DEMSG
'The woman who is good who will clean the whole house.' (Txt)

In the relative clauses of (9), the head is not expressed in the sentence, neither internally nor externally. The head of these sentences is recovered in the discourse (for further details on relative clauses, see MORA MUÑOZ; MORA BUSTOS, 2017).

(9) a. [k'òhé mí=pàa ɓɛ̀pʰi] mí=pʰɨ̀t'ɨ=hi kò=tʃírio ø=èmbé-hi=ø
SUB 3PSR=say work 3PST=bit=PL INS=chirrión 3PSR=say-3.PL=SUB
'They said that they were beaten with a chirrion to those who were going to work.' (Txt)

b. [nùk'ɨ́ já=Ø=hùßila] jà=zànma zànma já=Ø=kʰɔ́n-kɨ=hi
SUB PTL=3PST=retire PTL=month month PTL=3PST=earn-1DAT=PL
'Those who have already retired are paid monthly.' (Txt)

From this section, dedicated to the description of several of the grammatical attributes pertinent to the description of cleft sentences, there are some features to be highlighted: noun phrases express grammatical relation that move from their basic or natural position; relative clauses appear generally in post-noun position; these relative clauses are characterized by their internal and external head; there are also relative clauses without a head. The language, since it does not have a catalogue of relative pronouns, uses the strategy of the determiners and demonstratives.

Within the status of the stative verbs of the *ŋgè* kind, proclitics such as *mi* (10a), (10b), (10c), (10e) and *ɾi* (10d) express simple and imperfect past. The grammatical subject is evident in the suffix *ts'*, second person of (10a), *ts* first person in (10b) and (10c); the third person of (10d) and (10e) is codified in a null morpheme. The catalogue of suffixes is illustrated in the chart in note 2.

(10) a. A: ¿mí=ŋgè-ts'=ke tʃáʔa?
2PSR=be-2SBJ=2SBJ.E mask
'¿Were you mask?'(Txt)

b. B: hȁã, mí=ŋgè-ts=ko tʃáʔa
AF 1PSR=be-1SBJ=1SBJ.E mask
'yes, I was mask.' (Txt)

c. nùtskó mí=ŋgè-ts=ko ùnìka ʃùt'í k'à=nù=ŋgùmɨ
1PRON 1PSR=be-1SBJ=1SBJ.E only girl LOC=ARTSG=house
'I was the only girl in the house.' (Txt)

d. kʰò ɾì=ŋgè ɓɛ̀zo mbè Ø=hɨ́ʃɨ=tʰo à-kʰánu
maybe 3PST=be man but 3PST=whistle=DEL MAN-like.that
'Maybe he was a man, but he just whistled like that.' (Txt)

e. mí=ŋgè=tʰo ndàˀɲi nà=ndètʃʰo
3PSR=be=DEL path STA.PRS=right
'It was a great right path.' (Txt)

The *ŋgè* form appears, as well, with the meaning of the verb 'to be' in interrogative sentences, like the one in (11). Direct interrogative sentences, like the ones in (11a), (11b) and (11c) present the QU form as if it were an explicit marking of interrogation. *ŋgè* as the verb 'to be' appears without the proclitic that codifies TAM, this feature is recovered in discourse; however, the suffix that expresses the subject in (11c) appears suffixed to this verb. The catalogue of TAM proclitic is exemplified in the chart of note 1.

(11) a. ¿kʰò=ŋgè nù=sèbèɾiano?
Q=be ARTSG=Severiano
'¿Who is Severiano?' (Txt)

b. ¿kʰó=ŋgè nù=pà=nu?
Q=be ARTSG=day=DEMSG?
'¿What day was that?' (Txt)

c. ¿kʰó=ŋgè-ts'=k'e=ˀja?
Q=be-2SUBJ=2SUBJ.E=PTL
¿Maybe is it you?' (Txt)

The *ŋgè* verb form appears in equative constructions[6], as well, like in (12). This kind of *ŋgè* construction has a function similar to that of a copulative verb. Morphologically, the proclitic that codifies TAM and the suffix that expresses the grammatical subject are not bounded to this form. *ŋgè* develops within this type of construction as a proclitic that clings to the noun phrase, which in turn expresses the identity of the subject. *ŋgenupaɾientenu* 'your relative', in (12a); *ŋgenaɓeʰɲa* 'a lady', in (12d). The entity on which it is predicated, pragmatically, has already been mentioned before in the discourse and the referent is known by the speakers; in the examples in (12), this information is expressed with the demonstratives *nu* (12a), *nuk'ɨ* (12b) *k'ɨ* (12c) and the noun phrase *naɓeʰɲa* 'a lady' in (12d).

(12) a. ó=ndə́mbaɗì-zɨ, ó=ʃì-tsi: ŋgè=nú=pàɾiente=nu
3PST=run around-1OBJ 3PST=say-1DAT be=ARTSG.2POSS=relative=DEMSG
'He ran around to me, he said: that's your relative.' (Txt)

b. ¿ˀjá=ŋgè=nùk'ɨ́ ʈʰéhe?
NEG=be=DEMSG cough?
¿Is that not cough?' (Txt)

c. A: Íjo, ˀjá=ɾí=pɑ̃̌ɾã kʰò=ŋgè=k'ɨ
NEG NEG=1PRS=know who=be=DEMSG
'No, I do not know who that is.' (Txt)

d. B: ŋgè=nà=ɓɛ̃̌ɲa=k'o Ø=mbòt'ɨ=hi=k'ɨ mí=ɓɨ́n=ts'ɛ
be=ARTINDF=lady=SUB 3pst=kill=PL=SUB 3PSR=be=REFL
'It was a lady who killed that she was alone.' (Txt)

The noun phrases express only third person grammatical subjects. In this kind of construction, these phrases are found in the initial position: *nuʃût'í ùɓíɓɨ́ nímànú* 'the girl who is there' in (13a), *nùjò t'iʔi òkɑ̃̌ɾɑ̃̌nú* 'those children who are there' (13b); in interrogative sentences, the interrogative pronoun appears at the beginning of the construction and the *ŋgè* form is enclitized in this pronoun, *kʰòŋgè* 'who was' in (13c). In the constructions that express possession, *mĕʔe* 'it is hard' in (13d), *ŋgè* is proclitized in the phrase that expresses specification, whether it be identification, equality or similarity.

6 Concepts such as equation and predication have been taken from Mikkelsen (2005).

(13) a. nù=ʃût'í=nù Ø=ɓíɓɨ ní=mànú ŋge=ʃût'í nù=lùpe=nu
ARTSG=girl=SUB 3PRS=be LOC=over there be=girl ARTSG=Guadalupe=DEMSG
'The girl who is there is the daughter of Guadalupe.' (Txt)

b. nùjò t'iʔi=Ø ò=kȁ̂ɾȁ̂=nú ŋgé=hí ì-ɓɛ̀tʃɨ
DEMPL child=SUB 3PST=be=LOC be=PL 1POSS-grandchildren
'Those children who are there are my grandchildren.' (Txt)

c. mbè ˀjá=ɾó=hȁndĩ-ʰme, ¿kʰò=ŋgè=ɓɛ̀zo kʰò=ŋgè?
But NEG=1PST=see-1-PL.EXCL who=be=man who=be
'But we did not see it, was it a man or who was?' (Txt)

d. mɨ̀=nà-mĕʔe ŋgè=tée; kʰà=ŋgè=mí-ʰjôo kʰà=ø=ndṓm-bɨ
COND=STA.PRS-duro be=people who=be=1POSS-dad who=3PST=touch-3DAT
ín-ɲíʔi
3POSS-head
'If it is hard, it is people; it was my dad who touched his head.' (Txt)

Until now, it has been said that the *ŋgè* form appears in different types of sentences, and it can function as a full verb when it possesses the meaning of the verb 'to be'. In these specific contexts, *ŋgè* is considered in a stative sense and appears with the TAM modifying proclitic and the suffix that expresses the grammatical subject. *ŋgè* also appears in equative and predicative constructions; in such constructions, there are no TAM proclitics nor the ones that correspond to the subject with this form; the temporal reference is recovered in the discourse and the specified or indexed entity belongs to the third person.

Focus and topic

Lambrecht (1994, 2001), starting from the concepts of assertion and presupposition, defines focus as the the component of a pragmatically structured sentence in which assertion differs from presupposition[7]. That is to say that in a communicative situation, when a speaker produces a statement, he performs a *pragmatic assertion* or simply an *assertion*, which is the proposition expressed by a sentence that the addressee expects to know, think, or is considered as a given after hearing the emission of a sentence; while the *pragmatic presupposition* is defined as the ensemble of lexical-grammatical propositions evoked that the speaker assumes the addressee already knows, thinks or is already considered as a fact at the moment of the statement. Focalized information

[7] Van Valin and LaPolla's (1997) definition of focus differs from Halliday's (1967); according to the latter, the focalized information is a sort of emphasis that the speaker marks somewhere in their message, which means that focal information is new information that the speaker presents in the discourse.

is part of the assertion that is not within the pragmatic presupposition; it is, instead, the part of the information that cannot be predicted or recovered from context.

Focus is, by definition, the unpredictable part of the proposition. Nevertheless, it is important to consider that in an emission the focalized information is not the only thing that is communicated, but rather the expressed information is associated with the ensemble of pragmatic suppositions. Any constituent or part of a sentence is susceptible to focalization. This means that both arguments and adjuncts can be potentially focalized.

The *ŋgè* form generally appears with *tʰo* as its delimiter. This marking is located at the beginning of the construction or before the phrase is focalized. In (14) there are examples in which the grammatical relations are focalized; the subject of an intransitive construction *ŋgètʰo nùtʃ'índádĩntsʰimi* 'only one little church' in (14a), and the subject of a transitive construction *ŋgètʰo nùánhel nézgo* 'only Angel and I' in (14b).

(14) a. ŋgè=tʰo nù=tʃ'í-ndá-ɗĩntsʰimi mí=ɓɨ́ɓɨ́=bə
FOC=DEL ARTSG=little-big-church 3PSR=be=LOC
'Only one little church was here.' (Txt)

b. ŋgè=tʰo nù=ánhel nézgo, ɾí=jé=ɓe, Ø=tȕ̃ns'ɨ jé=kágʷama
FOC=DEL DETSG=ángel 1PRON 1PRS=two=DU.EXC 1PRS=carry two=caguama
'Only Angel and I, the two of us alone, carry two caguama.' (Txt)

In (15a), *ŋgè* focalizes the direct object, *ŋgètʰo zàa* 'only the tree' and in (15b) the indirect object, *jáŋgèʃtʰo…nùhjôo* 'only [...] his dad'. The focalized constituent tends to be at the beginning of the sentence, like in (15a); however, the focus marking is not adjacent to the focalized constituent, like in (15b).

(15) a. ŋgè=tʰo zàa mí=ʔós'ɨ, ˀjá=mí=ʔós'ɨ nù=ˀjăɗɨ
FOC=DEL tree 3.PSR=cross NEG=3PSR=cross ARTSG=bridge
'Only the tree was crossing, the bridge was not.' (Lit. the bridge did not cross) (Txt)

b. já=ŋgèʃ=tʰo ɾó=kòs-p'ɨ nù=ʰjôo
PTL=FOC=DEL 1PST=warn-3DAT 3POSS=dad
'I only warned his dad.' (Txt)

The scope of the focus marking is performed at a narrow and wide level[8]; in the examples in (15), the scope of this focus marking is narrow so that *ŋgè* reaches the adjuncts of the *màʃɔ̀mɨ* 'only at night' kind, like in (16a). The scope of this focalizer is wide in (16b) and (16c). In the first example, it covers the whole sentence *øɓɨ̀ɓɨ nìʰjôˀja* 'only your dad lives', and, in the second, the scope is on the subordinate sentence *nùkùlak'o øndɔ̀ɓɨ àkʰànu* 'only Nicholas fell like that'.

8 See Van Valin y LaPolla (1997) for types of focus.

(16) a. ˀjá=ʃĩ ɾì=ndʒódɨ mà-ndé-mpá, ʃĩ=ŋgè=tʰo mà=ʃɔ̀mɨ
NEG=no longer 2.PRS=walk TADV-middle-day yet=FOC=DEL TADV=night
'You will no longer walk during the day, only at night.' (Txt)

b. já=ŋgè=tʰo ø=ɓɨ̀ɓɨ nì-ʰjô=ˀja
PTL=FOC=DEL 3PRS=live 2POSS-dad=PTL
'Only your dad lives.' (Txt)

c. í=kʰá-kʰo=ø ŋgè=tʰo nù=kùla=k'o ø=ndɔ̀ɓɨ à-kʰànu
1=PST-make-1E=SUB FOC=DEL ARTSG=nicolas=DEMSG 3PSR=fall MAN-like that
'I thought that only Nicholas fell like that.' (Txt)

Lambrecht himself (1994, 2001) defines topic from Gundel's (1977) proposal, who mentions that "An entity, E, is the topic of a sentence, S, if in using S the speaker intends to increase the addressee's knowledge about, request information about, or otherwise get the addressee to act with respect to E. A predication, P, is the comment of a sentence, S, if in using S the speaker intends P to be assessed relative to the topic of S". Based on Lambrecht's definition, topic is characterized as the "theme, issue or matter of interest" that the referent — in charge of codifying new information — adds continuously to the emission discourse. In order for a proposition to be understood as the matter that the referent of the topic is talking about, then this referent needs to be obviously part of a pragmatic presupposition, which means that this referent must have already been discussed or must be available in the context.

It is possible to say that the proposition "X is under discussion" or that "X is being predicated" if it is being evoked in the propositional structure of a construction that contains a X as topic. What must be presupposed when talking about topicalized information is not the topic itself, neither its referent, but rather the status of the referent as a possible core of interest or like a core fact of the conversation. The topic's referent is active or accessible in the discourse. The topic is an element contained in the pragmatic presupposition[9].

In the examples in (17), the *ŋgè* form appears with the topicalized information that is also expressed in the demonstrative *k'o* 'that'. In the same way that *ŋgè* is a focus marking, it appears as a topic marking at the beginning of the construction, like *ŋgèʃtʰók'o* 'only that' in (17a) and *ŋgèʃtʰók'o* 'only [...] that' in (17b).

(17) a. ŋgèʃ=tʰó=k'o, ˀjá=pʰe ndá=ɾí=sánt'ɨ
TOP=DEL=DEMPL NEG=still TOT=1PRS=be hungry
'Only that, I'm still not hungry.' (Txt)

b. já=ɾó=kʰìns=tʰo nù=pɾìmaɾia, ŋgè=tʰó=k'o ɾó=kʰìns'i
PTL=1PST=finish=DEL ARTSG=primary TOP=DEL=DEMPL 1.PST=achieve
'I finished primary school, I only achieved that.' (Txt)

9 The discussion regarding topic and focus is similar to that given in Mora Bustos (2008).

The *ŋgè* form functions as an emphasis marking, like in (18). *ŋgè* emphasizes or shows the information expressed in the verb phrase *mípés'ɨ* 'had' in (18a); furthermore, *ŋgè* highlights the information of the adjuncts *màʃàßàɾo màndòŋgʷo* 'on Saturdays, on Sundays' in (18b).

(18) a. ó=ɓéʒi k'ɨ́nù ʃískomɨ=k'ɨ=ŋgè mí=pés'ɨ
3PST=perder ARTSG.3POSS paper=SUB=ENF 3PSR=have
'He lost that document he had.' (Txt)

b. ø=pèʒe ŋgè=mà-ʃàßàɾo mà-ndòŋgʷo
3PST=conunt ENF=TADV-saturday TADV-sunday
'He counted on Saturdays, on Sundays.' (Txt)

To summarize, *ŋgè* is compatible with constituents with the pragmatic meaning of focus, topic, and emphasis; morphologically it is configured as an enclitic and it is generally located at the beginning of the phrase or sentence of which it has scope or is able to reach. The grammatical relations and the adjuncts are susceptible to appear under the scope of this marking.

Cleft sentences

Lambrecht (2001) recalls the classifications in Jespersen (1937) in order to reorganize cleft sentences in English. In (19) there is a contrast regarding this structure's classification. This paper takes into consideration Lambrecht's (2001) classification. It is assumed — as mentioned by Lambrecht (2001) — that these labels have to be understood in translinguistic studies in an abstract level. Here, these labels are used to give an account of the distributions of the parts of the cleft sentences. It is appropriate to remember that cleft sentences are characterized by their structure because they are formed by bi clausal sentences specialized in the focus marking. These can also be paraphrased in a simple sentence, since both constructions share the same propositional content, and are similar in semantic terms.

	Jespersen (1937)	Lambrecht (2001)
(19) a.	Cleft	It cleft
b.	Pseudocleft	WH cleft
c.	Reverse pseudocleft	Reverse WH cleft

The division of labels is as follows: basic cleft sentences, QU cleft sentences, and inverted cleft sentences. In (20) there are examples of all of these cleft sentences. The structure of a basic cleft, (20a), is formed by the focus marking (FOC); while the QU cleft, (20b), corresponds to the relative clause, the focus marking and the focalized phrase; and in the inverted cleft, (20c), these elements are exhibited following this distribution: focalized sentences, focus marking, and relative clause.

(20) a.
FOC CR FF
ɾó=^{h}wá^{h}nɨ=^{h}me=^{ʔ}ja, ŋgè[=ø ɾó=sí=^{h}me nù=sánto]=k'ɨ
3PST=choose=PL.EXC=PTL FOC=SUB 1PST=carry=PL.EXC ARTSG=saint=DEMSG
'We chose it, it is that saint that we carry.' (Txt)

b.
CR FOC FF
[nùk'ɨ ø=nèe ɾà=mbè^{ʔ}je à-k^{h}ànu] ŋgè=nù=máɾsela
SUB 3FUT=want 3FUT=leave MAN-like this FOC=ARTSG=marcela
'The one who wants to leave like this is Marcela.' (Txt)

c.
OF FOC CR
[k^{h}óm-p^{h}íɲo=k'ò ø=k^{h}àa k'à-ɓât^{h}ɨ] ŋgè[=k'o
bitter-herb=SUB 3=PRST-be LOC-flat FOC=SUB
nda=mi=si=hi=^{ʔ}ja=k'o]
TOT=3PSR=drink=PL=PTL=DEMPL
'Those bitter herbs that are on the flat were the ones that they were drinking.' (Txt)

So far, there have been three kinds of cleft sentences in the language: basic cleft, (21a); QU cleft, (21b); and inverted cleft, (21c). In subsequent portions of the paper, it will be shown that within the first group of these constituents a cleft subgroup has been left out.

(21) a. FOC FF RC
b. RC FOC FF
c. FF FOC RC

Basic cleft sentences

This is the most common type of cleft. The *ŋgè* focus marking is located at the beginning of the sentence, like in (22); this marking is proclitized in relation to the focalized phrase. In the same way, the subordinate is proclitized in association to the verb phrase at the end of the sentence. Adverbs like *ʔjá* 'not' in (22b) and *ʃĩ* 'no longer' in (22c) come before the focus marking. The location of these grammatical units depends on the reach that they themselves have inside the whole construction.

(22) a.
FOC FF RC
ŋgè=nà=ts'í-ɓɔ̀s'ɨ [k'ɨ̀=ɾí=k^{h}áʔa]
FOC=ARTINDF=DIM-help SUB=1PRS=do
'It's a little help what I do.' (Txt)

b. ˀjá=ŋgè=ə̂ʰnə [k'ɨ̀=ɾì=sàʔa]
NEG=FOC=turkey SUB=2FUT=eat
'It's not turkey what you'll eat.' (Txt)

c. ˀjá=ʃí=ŋgè=séɾbesa [k'ɨ́=ɾí=sɔ̀ʔɔ]
NEG=no longer=FOC=beer SUB=1PSR=taste
'It was no longer beer what I tasted.' (Txt)

Within the basic cleft construction, three subtypes have been left out, like in (23). The feature that typifies these constructions is related to the position of *ŋgè* as proclitic, which also codifies the information that is focalized or topicalized.

(23) i. FOC RC FF
ii. TOP RC=FT
iii. TOP RC FT: anaphora or cataphora.

In the cleft of subtype one (i), as in (24), on one hand, the *ŋgè* focus marking is located at the beginning of the construction and the subordinate is enclitized in *ŋgè*. On the other, the focalized phrase is at the end of the construction. In (24a), there is an adjunct, *àkʰànu* 'like this' and in (24b) there is a syntactic argument *nùʃískəmɨk'ɨ* 'that document,' and both of them are focalized.

FOC RC FF
(24) a. ŋgè[=k'ɨ̀ mí=pèʒe=hi] à-kʰànu
FOC=SUB 3PSR=tell=PL MAN-like this
'That's what they told.' (Txt)

b. ŋgè[=k'ɨ́ ɾa=tsʰá-kɨ àɾkate] nù=ʃískəmɨ=k'ɨ
FOC=SUB 3FUT=do-1DAT authority ARTSG=paper=DEMSG
'That document is what will make me the authority.' (Txt)

In the cleft of subtype two (ii), the *ŋgè* marking is located at the beginning of the cleft sentence and this is the way in which the subordinate is enclitized. In this kind of cleft (25), *ŋgè* is the topic marking. The demonstratives are the morphological units that express the topic *k'o* or *k'ɨ*. These demonstratives are generally enclitized in the matrix verb of the relative clause, like (25a), (25c), (25d), (25e), or they appear in the construction's last syntactic form, like in (25b). The *k'o* form works as a subordinate and a demonstrative inside the same cleft sentence, like in (25a) and (25b). The same happens with the enclitic *k'ɨ*, which appears as subordinate and demonstrative in (25c) and (25e). In an idiosyncratic way, both *k'o* and *k'ɨ* co-occur indistinctively as subordinates and demonstratives in (25d) and (25e).

TOP RC=FT
(25) a. ŋgèhe[=k'o ó=ˀjă-kɨ]=k'o, mbè=ó=ndȕns'ɨ=tʰo k'ò=mèɾio=ˀja
FOC=SUB 3PST=give-1DAT=DEMPL but=3PST=take=DEL ARTPL=money=PL
'That's what he gave me, but he took the money.' (Txt)

b. ʃĭ=ɾí=mbĕn=tʰo=k'o, ŋgè=tʰo[=k'o mí=kâ̂ɾã á-ɓâtʰɨ]=k'o
still=1PRS=remember=DEL=DEM FOC=DEL=SUB 3PSR=live LOC-flat=DEMPL
'I still remember that, those were the ones who lived on the flat.' (Txt)

c. kʰá=ø=mbèʃ-pe=hi à-ɓòndo, ŋgè[=k'ɨ mí=kʰá-pʰɨ]=k'ɨ
just=3PST=tell-3DAT=PL LOC-México FOC=SUB 3PSR=do-3DAT=DEMSG
'They just told him in Mexico, that was the one that did that to him' (Txt)

d. ŋgè[=k'ɨ́ ɾí=pɛ̂pʰi=ʰme]=k'o, ɾí-ʃɔ̀ɾɨ=ʰme
FOC=SUB 1PRS-work=PL.EXCL=DEMPL 1PRS-study=PL.EXCL
'That's what we work, what we study.' (Txt)

e. hé=ŋgè=tʰo[=k'o ɾó=ʔəɾə]=k'ɨ, ŋgè=tʰó=[k'ɨ ʃí=ɾí=mbĕɲe]=k'ɨ
MOD=FOC=DEL=SUB 1PST=hear=DEMSG FOC=DEL=SUB still=1PRS=remember=DEMSG
'That's what I heard, that's what I still remember.' (Txt)

In prosody[10] terms, the cleft of subtype three (iii) is distributed in two intonational phrases. Instinctively, in the first phrase, the focus marking and the relative clause can appear; whilst in the second appears the focalized phrase, like in (26a). Otherwise, in the first one, the focalized phrase can turn up, and in the second the focus marking and the relative clause, like in (26b). In (26a), the referent of the focalized phrase is cataphoric in regards to the *k'ɨ* subordinate, while in (26b) the opposite happens: the referent of the focalized phrase in regards to the subordinate *k'o* is anaphoric. In the examples in (26), the comma (,) indicates that there is a pause between the two intonational groups that integrate the cleft sentences of subtype three.

TOP RC (TF:cataphora)
(26) a. ŋgè[=k'ɨ̀ mí=ɗă-kɨ kʷée,] mì=tá-ɓùɾu
FOC=SUB 3PSR=give-1DAT courage 1PSR=AU-dunky
'It was what gave me courage, I was silly.' (Txt)

TOP RC (FT:anaphora)
b. k'ò=ŋgàpita ø=émbe=hi, ŋgè[=k'ò mí=mànda=hi]
ARTPL=capitain 3PST=tell.3DAT=PL FOC=SUB 3PST=be in charge=PL
'They were called the captains, they were the ones who was in charge.' (Txt)

10 The properties related to the intonation of the sentence construction can be seen in Prieto (2003).

QU cleft sentences

This kind of cleft is formed by the subordinates that morphologically adjunct themselves like a bound morpheme, *k'ɨ* in (27a) and (27b) and as well as a free morpheme, *nuk'ɨ* in (27c), (27d) and *nuk'ó* in (27e). These subordinates appear at the beginning of the construction and are proclitized in the cleft's matrix verb. Furthermore, the focus marking of *ŋgè* appears as a bounded form to the focalized phrase that is at the end of the construction.

		RC	FOC FF	
(27)	a.	[k'ɨ̀=mí=ʔí-tsi=ɣo=k'ɨ]	ŋgè=nù=kùla	
		SUB=3PSR=teach-1DAT=1E=DEMSG	FOC=ARTSG=Nicolas	

‘Who taught me that was Nicolas.’ (Txt)

b.	[k'ɨ̀=ø=ɓɨ́ɓɨ	à-ndɨ̀ɓɨ]	ŋgè=ní-ˀjɔ̀ɓe	
	SUB=3PRS=live	LOC-down	FOC=1POS-brother	

‘Who lives down is my brother.’ (Txt)

c.	[nùk'ɨ́	ø=t'ű́n-ʃɨ̀tʰɨ=hi]	ŋgè=mí-ˀjɔ̀ɓe	é-ʃúßa
	SUB	3PSR=carry-back=PL	FOC=1POS-brother	PN-Juan

‘Who they were carrying was my brother Juan.’ (Txt)

e.	[nùk'ɨ	ɾí=hòɗɨ=ɣo]	ŋgè=nú=ì-ʃískɔmɨ	
	SUB	1.PRS=look for=1E	FOC=ARTSG=1.POSS-paper	

‘What I'm looking for is my document.’ (Txt)

d.	[nùk'ó	ø=ʰɲȁndã=k'ɨ]	ŋgè=nì-màle=ɣe	sà-màndo
	SUB	3PST=see=DEM	FOC=2POSS-grandmother=2e	LOC-Manto

‘Who saw that was your grandmother from Manto.’ (Txt)

The interrogative sentences exemplified in (11) are different to the cleft sentences exemplified in (28). As it was previously shown, the direct interrogative sentences present an explicit QU form, *kʰò* ‘who’ in (28a), *hà* ‘where’ in (28b), and *hà* ‘which’ in (28c) appear at the beginning of the construction. In these forms, the *ŋgè* form is proclitized and, subsequently, the subordinate introducing the relative clause is found. The focalized phrase corresponds to the information expressed by the QU form.

		FF (Q) CF RC		
(28)	a.	¿kʰò=ŋgè[=k'ɨ	ɾà=tʃáɾ-ko=ʰme	nà=méɾio?]
		who=be=SUB	3FUT=give-1OBJ=PL.EXC	INDFSG=money

‘Who are the ones who are going to give us money?’ (Txt)

b. ¿hà=ŋgè=kʷˀa[=Ø mí=ɓɨ́ɓɨ nú=ŋgúmɨ=k'ɨ?]
where=be=LOC=SUB 3PSR=be ARTSG.3POSS=house=DEMSG?
'Where was his house?' (Txt)

c. ¿hà=ŋgè[=k'ɨ í=sǐ=hi à-ʰɲíɲi?]
which=be=SUB 2PRT=take LOC-Temascalcingo
'Which one did they take from Temascalcingo?' (Txt)

Reverse cleft sentences

In this kind of cleft, as shown in (29), the syntactic unit focalized (phrases and sentences) is located at the beginning of the sentence. The subordinates *k'ɨ* and *k'o* are enclitized in the *ŋgè* focus marking and the relative clause is at the end of the sentence. In this type of cleft, the phrases like *nùt'ǒʃkʰòho* 'white mushroom' in (29a) and *nùpèɾpetuo sòkoro* 'the Perpetuo Socorro' in (29b) and sentences such as *téʃek'o nùk'ó øpȁɾã* 'all that they know' in (29c) are focalized. In (29d) the head of the relative clause *ɾàmàʔa k'òsèɲoɾaˀja* 'those ladies are going to go' is focalized and the cleft is right in between this relative clause.

FF FOC RC
(29) a. nù=t'ǒʃ-kʰòho ŋgè[=k'ɨ já=ɾó=hȁndã=ˀja]
ARTSG=white-mushroom FOC=SUB PTL=1PRS=see=PTL
'The white mushroom is what I'm seeing.' (Txt)

b. nù=pèɾpetuo sòkoro ŋgè[=k'ɨ́ ø=ɓɨ́ɓɨ à-hɔ̀mɨ] ŋgèhe[=k'ɨ
ARTSG=perpetuo socorro FOC=SUB 3PRS=be LOC-ground FOC=SUB
ø=kʰá-pʰɨ mbàʃua]
3PRS=do-3DAT party
'The Perpetuo Socorro is the one down there, She is the one who makes the party.' (Txt)

c. téʃe=k'o nùk'ó ø=pȁɾã ŋgè[=k'ɨ já=ɾá=mȁmã]
all=DEMPL SUB 3PRS=know FOC=SUB PTL=3FUT=say
'All that they know is what they will say.' (Txt)

d. ɾà=màʔa k'ò=sèɲoɾa=ˀja k'ò=[ŋgè=k'o ɾà=ʰjɛ́zi ɾà=mbéʰɲe k'ò=ndèʃɨ]
3FUT=go DEMPL=lady=PTL SUB=FOC=SUB 3FUT=leave 3FUT=gather ARTPL=wheat
'Those ladies are going to go who are the ones who will leave and gather those wheats.' (Txt)

Pseudocleft sentences

The clefts in (30) have been considered pseudocleft (PAVEY, 2004). The reason is based on the fact that the focalized phrase is not expressed; in the examples in (30) it is implicit in the discourse. In (30a) it is about a person that works in the corn fields; in (30b), the information that is asked about is known, but it is not explicit in the cleft. These incomplete cleft sentences are formed by the focus or topic *ŋgè* marking and the relative clause introduced by the subordinates *k'o*, *Ø*, and *k'a*.

(30) a. Ø=hə̀ɾə=tʰo nù=kòral=ʰja=nu, ŋgèʃ=tʰo[=k'o ɾó=ʔə̀ɾə à-kʰànu]
3PRS=be=DEL ARTSG=farmyard=PTL=LOC FOC=DEL=SUB 1PST=hear MAN-like this
'The farmyard is still there, that's what I heard.' (Txt)

b. ŋgè=tʰo[=Ø ɾì=ʔɔ̌nɨ nù=pɾɨ̀mu nàcho=Ø Ø=ɓɨ́ɓɨ à-ʃóˀɲi]
FOC=DEL=SUB 3PST=ask ARTSG=cousin Ignacio=SUB 3PRS=vivir LOC=arriba
'That's what cousin Ignacio who lives above asked him.' (Txt)

c. ¿ŋgè=k'a ì=pǎ̃ɾã=nu?
be=LOC 2PST=meet=DEM
'It's where you met that?' (Txt)

Summarizing, a cleft sentence in Mazahua is formed by *ŋgè*, a focalized or topicalized phrase, and a relative clause. These constructions show the focalized information and, in certain contexts, they also show the topicalized information. The cleft clauses have a great variety of forms. The focus marking and the focalized phrase are distributed among different positions within the cleft, like in (31). Oftentimes, the subordinate, like the one in (31), is configured as a null or zero morpheme (Ø). Because it has resorted to the relativization strategy through demonstratives and determiners, the system is considerably wide, even though there is a tendency to use demonstratives as subordinates.

FOC FF RC
(31) a. hó=ŋgè=áŋgeze [ø=ó=zókɨ-zɨ, ó=pẽ̀n-ke ʰɲɑ̃́n-kʰími]
ASEV=FOC=3PRON SUB=3PST=leave-1DAT 3PST=send-1DAT speech-God
'It was he who left me, he sent me greetings.' (Txt)

FOC RC FF
b. ˀjá=ʃí=ɾó=nû=k'o=ˀja=k'o, mbè=ŋgè[=ø mí=plàtika=ʰme] à-kʰànu
NEG=yet=1PST=see=1E=PTL=DEMPL but=FOC=SUB 3PSR=talk=PL.EXCL MAN-like this
'I did not see it anymore, but that's what they told us.' (Txt)

(RC) FOC FF RC
c. kʰò=ŋgè pìegɾa mì=ʔɨ́t'ɨ=ˀja
SUB=FOC stone 3PSR=throw=PTL
'It was stone that he threw' (Txt)

By taking the non-clefted correlate as the starting point, it is possible to focalize or topicalize the information expressed in the grammatical relations and the adjuncts. The subject, *jòpàle* 'the grandparents' (32a); the direct object, *jo* 'that' (32b), *k'ɨ* 'that' (32c); an adjunct, *àkʰànu* 'like this' (32d); and sentences like *mù ɾà ɸèɲi àmànu* 'when it reflects over there' in (32e) are all focalized.

(32) a. jò=pàle ŋgè[=jo mì=sùfɾi nà=kʰʷàna tʰíʰmi]
ARTPL=grandparent FOC=SUB 3PSR=suffer STA.PRS=truth hungry
'The grandparents were the ones who were very hungry.' (Txt)

b. ŋgè[=jo ɾá=tʃʰà̰-mbã=hi=jo mbà=nù=ts'íke jò=sʰònɨ]
FOC=SUB 3PSR=mix-3DAT=PL=DEMPL for=ARTSG=bit ARTPL=nixtamal
'That was what we mixed for a bit of nixtamal.' (Txt)

c. ŋgè[=k'ɨ já=he=ɾì=tsʰá-pʰɨ nù=ʰɲônɨ=ˀja]=k'ɨ
FOC=DEMSG PTL=LOC=2FUT=do-3DAT ARTSG=food=PTL=DEMSG
'That is what you will do him for food.' (Txt)

d. ŋgè=à-kʰànu[=k'ɨ ɾí=kʰá=ʰme nù=ɓɛ̀pʰi à-ˀɲɛ̰̀ŋkʰʷa]
FOC=MAN-like this=SUB 1PRS=do=PL.EXC ARTSG=work LOC-here
'That's how we do the work around here.' (Txt)

e. ʰɲà̰ndã=hi nà=hóʔo, mù=ɾà=ɸèɲi à-mà.nu ŋgè[=ø
IMP.see=PL STA.PRS=well well=3FUT=reflect LOC-DIR.over there FOC=SUB
ɾà=ʰjə̂ɓə sɛ́ʔɛ]
3FUT=fall cold
'See well, when it reflects over there, it will fall cold.' (Txt)

Conclusions

As it was mentioned in the beginning of this paper, this is an incipient description —and consequently, general — of cleft sentences. For example, it has been mentioned that cleft sentences express focalized, topicalized and emphasized information. The subordination system must be described in detail; it is simply not enough to say that the language uses demonstratives and determiners as a relativization strategy. The ensemble of cleft sentences is considerable large, therefore the labels proposed by Lambrecht have been really useful, meaning that they are not a carbon copy of English structure. The grammatical units under the scope of the focus include noun phrases, verb phrases and complete sentences, but it is not yet clear what happens with the scope of the topic.

Having identified a numerous variety of cleft sentences, many questions have been brought up that at some point should be answered; for example, which are the conditions of use of these constructions, which is to say, under what communicative contexts are they expressed. Another pressing question to answer is in what way are these constructions associated with the information structure. Finally, cleft sentences are complex constructions that imply the consideration of specific grammatical aspects of the language's grammar in order to be described. Up until this point, it can only be said that each type of cleft is formed by specific grammatical units. Nevertheless, there are still matters to explore such as prosody, kinds of relative clauses, time, aspect and mode, among other different topics.

Abbreviations

1 first person, 2 second person, 3 third person, ADV adverb, AF affirmation, ART article, ASEV assertive, AU augmentative, COND conditional, COM comitative, CSL cislocative, CUANT quantification, DAT dative, DEF definite, DEL delimitative, DEM demonstrative, DET determiner, DIM diminutive, DIR directional, DU dual, E, emphatic, EXCL exclusive, STA stative, FF focus phrase, FOC focus, FUT future, IMP imperative, INDF indefinite, INS instrumental, INT intensification, LOC locative, MAN manner, MOD mode, NEG negative, OBJ object, IO indirect object, PART partitive, PL plural, POSS possessive, PRON pronoun, PSR recent past, PRS present, PST past, PTL punctual, Q question marker, RC relative clause, REFL reflexive, SBJ subject, SG singular, SUB subordinate, TADV adverbial time, TAM.P time, aspect, mode and person, TOP topic, TF topic phrase, TOT totalizer, V verb, X adjunct.

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MORA-BUSTOS, A. Construcciones escindidas en Mazahua (Otomangue). **Alfa**, São Paulo, v. 63, n.3, p.517-539, 2019.

- *RESUMEN: El objetivo de este trabajo es describir la estructura de las construcciones escindidas en la lengua mazahua de San Pedro Potla (Temascalcingo, Estado de México). Este estudio se ha realizado bajo el planteamiento de Lambrecht (2001), quien considera que la construcción escindida es una estructura oracional compleja que está formada por una cláusula matriz y una cláusula relativa; esta cláusula binaria expresa una sola proposición semántica. Teniendo en cuenta esta consideración, se ha identificado una serie extensa de construcciones escindidas, éstas están formadas por la marca ŋgè, la frase focalizada y la cláusula relativa. Para dar cuenta del objetivo ha sido necesario atender ciertos aspectos de la gramática de la lengua como orden de constituyentes, tipos de cláusulas de relativo,* *subordinantes y funciones gramaticales de ŋgè. A través de las clases de construcciones escindidas se puede mostrar que, en ciertos contextos, igualmente, aparece escindida la información topicalizada. Los datos corresponden a historias de vida, narraciones y relatos.*

▪ *PALABRAS-CLAVE: Información. Foco. Tópico. Estructura. Otopame.*

REFERENCES

AMADOR HERNÁNDEZ, M. **Gramática del Mazahua de San Antonio Pueblo Nuevo**. 1976. Thesis (Doctor in Linguistics) - Escuela Nacional de Antropología e Historia, Ciudad de México, 1976.

BARTHOLOMEW, D. **The reconstruction of Otopamean (México).** 1965. Dissertation (Master) - University of Chicago, Chicago, 1965.

COMRIE, B. **Universales del lenguaje y tipología lingüística:** sintaxis y morfología. Madrid: Gredos, 1981.

GIVÓN, T. **On understanding grammar**. Londres: Academic Press, 1979.

GUNDEL, J. Where do cleft sentences come from? **Language,** Baltimore, v.53, n.3, p.543-559, 1977.

GUZMÁN, M. Cláusulas relativas en Mazahua. **Diario de campo,** [*s.l.*], v.3, p.24-33, 2011.

HALLIDAY, M. A. K. Notes on transitivity and theme in English. **Journal of Linguistics**, Cambridge, v.3, n.1, p.37–81, 1967.

JESPERSEN, O. **Analytic Syntax**. London: Allen and Unwin, 1937.

KEENAN, E. L. Relative clauses. *In*: SHOPEN, T. (ed.). **Language typology and syntactic description**: complex constructions. Cambridge: Cambridge University Press, 1985. p.141-170.

KNAPP, M. **Fonología segmental y léxica del mazahua**. México: Instituto Nacional de Antropología e Historia, 2008.

KNAPP, M. **Doctrina y enseñanza en la lengua mazahua.** Estudio filológico y edición interlineal del texto bilingüe de Nájera Yanguas. México: Instituto Nacional de Lenguas Indígenas, 2013.

LAMBRECHT, K. **Information structure and sentence form:** topic, focus and the mental representations of discourse referents. New York: Cambridge University Press, 1994.

LAMBRECHT, K. A framework for the analysis of cleft constructions. **Linguistics,** Hawthorne, v.39, n.3, p.463-516, 2001.

LÓPEZ MARÍN, A. **Estructura de la frase nominal en el Jñatjo (Mazahua) de la zona norte**. 2002. Dissertation (Master) - Centro de Investigaciones y Estudios Superiores en Antropología Social, Ciudad de México, 2002.

LOPEZ MARÍN, A.; MORA-BUSTOS, A. Los adverbios en mazahua de San Pedro Potla. **Forma y Función,** Bogotá, v.28, n.2, p.183-213, 2015.

MIKKELSEN, L. **Copular clauses:** specification, predication and equation. Philadelphia: John Benjamins North America, 2005.

MORA BUSTOS, A. **La transitividad en construcciones subordinadas introducidas por 'que'**. Muenchen: Lincom, 2008. (Studies in Romance Linguistics).

MORA MUÑOZ, G.; MORA-BUSTOS, A. Estrategias de relativización en mazahua. **Signos lingüísticos,** México, v.12, n.25, p.53-91, 2017.

PALANCAR E. Clefts in Otomi: extended uses of the copular construction. **International Journal of American Linguistics,** New York, v.84, n.1, p.93-145, 2018.

PALANCAR, E. **Gramática y texto del hñoñho:** Otomí de San Ildefonso Tultepec Querétaro. México: Universidad Autónoma de Querétaro: Plaza y Valdez, 2009.

PAVEY, L. **The English it-cleft construction:** a role and reference grammar analysis. 2004. Dissertation (Master) - University of Sussex, Brighton, 2004.

PRIETO, P. (coord.). **Teorías de la Entonación**. Barcelona: Ariel, 2003.

STEWART, D. **Gramática del mazahua**. Correcciones y comentarios de Doris Bartholomew. México: Instituto Lingüístico de Verano, 1966.

VAN VALIN, R.; LAPOLLA, R. **Syntax:** structure, meaning and function. Cambridge: Cambridge University Press, 1997.

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VERBS USAGE AND NARRATIVES. AN ANALYSIS OF THE VERBAL SYSTEM IN SPANISH HERITAGE SPEAKERS' PRODUCTIONS

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▪ ABSTRACT: This article aims to study the use of verb tenses in written narratives produced by Spanish heritage speakers (SHS) children, growing up in a multilingual context. We analyze the distribution and level of adequacy of verb tenses, focusing on two problematic aspects for heritage speakers: the contrast "perfective/ imperfective" and the use of the subjunctive. Moreover, we compare the heritage speakers' texts with narratives produced by children growing up in a Spanish monolingual context. Participants were 165 children (8.6 -13.7 years old): 118 SHS children and 47 children growing up in a Spanish-speaking context. Results showed a similar distribution of verb tenses and level of adequacy in both groups. However, the SHS group presented some particular uses of past tenses and seemed to be less accurate in the aspectual opposition and in the use of subjunctive mode.

▪ KEYWORDS: Spanish heritage speakers. Verb tenses. Written narratives. Subjunctive mode. Aspect contrast.

Introduction

The term "heritage speaker" refers to a bilingual who grows up in a family where a minority language is spoken, but who is dominant in the majority – usually the school – language. In this article, we aim to study the usage of verbs in narratives produced by Spanish heritage speakers (SHS) growing up in a multilingual context, such as Switzerland. Switzerland is a country with four official languages (German, French, Italian, and Romansch) and with a large presence of migrant languages. Spanish in Switzerland is a relatively important migrant language: Today 2.2 % of permanent residents in Switzerland declare speaking Spanish as one of their principal languages (SWISS FEDERAL STATISTICAL OFFICE, 2017). Spanish is spoken by

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first and second- generation immigrants, but also by speakers growing up in binational families. For them, Spanish is a family language (SÁNCHEZ ABCHI, 2018). Even when Spanish-speaking immigrants in Switzerland are normally well integrated into the host society and incorporate the majority languages into their linguistic repertoire, they still sustain an important loyalty to their language of origin (LÜDI; PY, 2003). Nevertheless, for heritage Spanish-speaking children, the majority language is clearly dominant. Different factors – such as linguistic input or formal education (VALDÉS, 2001) – could influence the command of the heritage language, eventually resulting in an incomplete acquisition, language attrition in adulthood or sensitivity to cross-linguistic influence. In this respect, heritage speakers could present singularities in different aspects such as syntax, lexicon, morphology, etc. (see review in MONTRUL, 2012).

Some areas of the language system seem particularly affected in heritage speakers' language since they suppose the interaction of different linguistic aspects (SORACE; FILLIACI, 2006, MONTRUL, 2009). These areas could be defined as "links" between languages components, like morphology, syntax or pragmatics- and are necessary in the comprehension and the production of language. For example, the use of co-referring expressions in texts involves both syntax elements and discourse process (SORACE; FILIACI, 2006). The use of linguistic resources depending on different areas are at a vulnerability interface and seem to be more difficult to acquire or more sensitive to language attrition for heritage speakers. With regard to the verbal system, the mastery of aspect contrast 'perfective vs imperfective' and the subjunctive mood have been reported as posing problems to heritage speakers (MONTRUL, 2007; 2009).

The temporal information in a language may be expressed through grammatical morphemes; using lexical items, and by discourse strategies (HICKMANN, 2003). In Spanish, the temporal expression encodes temporal and aspectual relations so that the control of the variability of the verbal systems poses a challenge to children (UCCELLI, 2009). Spanish has a synthetic morphology and the control of the paradigm requires attention to mark number, person, tense (past, present and future), aspect (perfective, imperfective, perfect and progressive), and mood (indicative, subjunctive and imperative).

The analysis of the verbal system usage is relevant because of its function in conceptualizing and placing events in time. Verb tenses serve a variety of important roles in discourse: They may have expressive functions; for instance, the "historical present" – the use of the present tense in a past-tense narrative – serves as intensifying, vivifying, or emphatic device. Verb tense can also have metalinguistic functions (e.g. signaling text type) or textual functions - like grounding, creating cohesion, marking boundaries, or modulating pace or discourse-structuring-. Discourse studies have also focused on the function of aspectual forms. Indeed, whereas the background (states and habitual processes) is characterized by verbs in the imperfective aspect, the foreground is characterized by verbs in the perfective aspect (punctual events). The use of the different verb forms contributes to mark narrative boundaries, to accelerate actions or to slow the narrative down.

In this study we will explore the use and adequacy of verb usage in written narratives produced by SHS children, growing up in the French-speaking and in the German-speaking parts of Switzerland. We will also compare their texts with written productions by Spanish speaking children growing in up a monolingual context, in order to identify possible differences. We will particularly focus on the contrast "perfective/ imperfective" in narratives and the use of the subjunctive since these two aspects have been reported as problematic for heritage speakers (HS).

Verb tenses and narratives in Spanish

A narrative refers to events which are temporally and causally related, as well as chronologically organized, with a past-time orientation. Narrative events are articulated (local and globally) by cohesion mechanisms (SHAPIRO; HUDSON, 1991). Cohesion refers specifically to linguistic devices – such as pronouns, discourse connectives and verb tenses-, used to build coherence.

In a narrative, the use of verbal forms can pose difficulties because children must have a cognitive representation of the chain of events, temporo-causal connections, and activate the correct verb form to construct a coherent text. Indeed, verbal forms are related to the enunciation: the simple past tense indicates that the event is a preceding event with respect to the time in which it is spoken, whereas the present indicates simultaneity. In the case of subordinate clauses, the main sentence verb governs the tense selection in the subordinate clause, according to the '*consecutio temporum'* rules (RAE, 2010, 24.3.1.a: 465-466).

The diversity and the richness of the verbal system in Spanish is not an obstacle for its early acquisition (SEBASTIÁN; SLOBIN, 1994): from early ages, children use a variety of verb tenses in their texts. The use of the verbal system has been particularly studied in narrative productions. Sebastián (1991) analyzed the temporal reference system in oral narratives produced by Spanish speaking children on the base of the Frog story (MAYER, 1969). The author compared texts produced by 3, 4, 5, and 9 years old children and a group of adults. Sebastián observed that even the youngest children – from 3 years old – could use a large repertoire of verbal forms in Spanish. However, the use can be different from adults, since the pattern of use is associated with age. Young children had difficulties to be constant in the temporal line of the narrative and tended to mix present and past in their texts. When they succeeded in maintaining the verbal tense in their productions, it was mostly the present tense, since their productions were mainly descriptions of images. Four- and five-year-old children, on the other hand, used predominantly the past in their texts and could recognize the difference between different past tenses.

The study of Spanish verb tenses in written narratives has been comparatively less addressed than in oral productions (SÁNCHEZ ABCHI; SILVA; BORZONE, 2009; BENÍTEZ; VELÁSQUEZ, 1999-2000). At the beginning of the learning of the writing system, the low-level processes involved in writing – like the codification or the graphic and motor process – could impose constraints in the activity and affect the whole text production, because it is necessary to pay attention to many factors at the same time. When the low-level processes (codification, motoric demands, etc.) are not automated, they could consume more cognitive resources, and then, the linguistic resources – like the use of verb tenses – could be affected (BERNINGER; SWANSON, 1994). A study comparing written and oral narratives at the beginning of the school (SÁNCHEZ ABCHI; SILVA; BORZONE, 2009) observed that young children used more verbs in oral production. Moreover, in the oral modality, the present tense was frequently used to open and close the stories. The authors observed that the difference in the usage of verbal tenses among modalities (oral vs written production) tended to be less pronounced with age, as long as the low-level processes involved in writing get automated and consume less cognitive resources. In Spanish, to the best of our knowledge, no study has analyzed the use of verbal forms in written narratives by heritage speaking children.

Verb tenses in Indicative mood

The verb system in Spanish is very rich and the different verb tenses can have different semantic values and meanings according to the context and the communicative situation. In a study about the distribution of tense and aspect in oral Spanish narratives, Silva-Corvalán (1983) observed that there was a relationship between the selected verb forms and the narrative context. Silva-Corvalán specifically focused on the alternation historical present/preterit in narratives. Historical present was used to introduce events in the past as if they occur contemporarily with the speaking moment. Present tense – like imperfect – has an imperfective aspect and then it allows the contrast with the preterit, with a perfective aspect. It has been pointed out that the historical present tends to make the narratives more vivid, because of transposition of oral strategies (WOLFSON, 1978 *apud* SILVA CORVALÁN, 1983), but this is not always the case in written texts. Indeed, in written narratives produced by adults, it was observed that the historical present simply introduced a descriptive style (SILVA-CORVALÁN, 1994).

The past tense, in turn is also typically and frequently used in narratives, mostly for written texts. The past tense in the indicative mood, in Spanish, has many forms[1]:

a) Imperfect: veía, ‘saw’.
b) Preterit (or indefinite): “vio”, ‘saw’.
c) Present perfect: “ha visto” ‘has seen’. This form is less frequent in vast regions from Spain and from America (CARTAGENA, 1999).
d) Past perfect or pluperfect: “había visto”, ‘had seen’.

[1] We exclude from this list the “Pretérito anterior” (e.g. *hube visto*), because its use is marginal and it is considered like an archaism (RAE, 2010).

The differences between imperfect vs preterit/present perfect are associated with the aspectual opposition perfective/imperfective, which in Spanish – unlike English or German – is expressed on the morphology of the verb. The imperfect is used to describe the situation, the background of the action, while the preterit is used to convey the events that make the story progress (RAE, 2010; DI TULLIO, 1998, 2005; VEIGA RODRIGUEZ; ROJO SÁNCHEZ, 1998). In the narratives, the description of the setting and the feelings of the characters are typically expressed in imperfect, and these functions appear early in the discourse, in opposition to more sophisticated functions of this tense, like the expression of simultaneity of actions (for a review see ÁLVAREZ, 2005). Imperfect conveys actions that are unbounded, without a specified beginning or end, in opposition to perfective, that indicates that the actions are clearly bounded (MONTRUL, 2002; MONTRUL; SLABAKOVA, 2003). In Spanish, children start making clear differences between process, states, and complete actions before starting school (SEBASTIÁN, 1991; SEBASTIÁN; SLOBIN, 1994; MUELLER GATHERCOLE; SEBASTIÁN; SOTO, 1999). However, the opposition appears as clearly established in the early school years (SÁNCHEZ ABCHI; SILVA; BORZONE, 2009). The appropriate use of aspect contrast is observed earlier in Spanish than in other romance languages, like French, where some specific differences between the verbal tenses in written and oral productions seem to delay the acquisition (FAYOL, 1998).

The mastery of the contrast perfective vs imperfective in past tenses has been reported as problematic for L2 learners (MONTRUL; SLABAKOVA, 2003) and it can be influenced by the task (LISKIN-GASPARRO, 2000). Likewise, the aspectual opposition seems to pose difficulties for adult heritage speakers (SILVA-CORVALÁN, 1994; MONTRUL, 2002). Indeed, adult HS are less accurate in aspect use than adult native speakers and tend to use imperfect in place of the preterit and the other way round. Moreover, the use of verbal tenses is also oriented by dialectological preferences (SLOBIN; BOCAZ, 1988; SEBASTIÁN; SLOBIN, 1994; SÁNCHEZ ABCHI; SILVA; BORZONE, 2009). For instance, the present perfect is not very frequent in the oral language in vast regions from Spain and from America (CARTAGENA, 1999).

The pluperfect, also past perfect, is less frequently used in narratives from young children, even in L1 (BOCAZ, 1989). The pluperfect refers to an event of the timeline that happened before the actions expressed in preterit, an event previous to the past action. The opposition "past/ previous action in the past" is certainly complex. Besides, the past perfect requires attention to three different temporal points simultaneously. Indeed, the acquisition of past perfect in L1 is relatively later than other forms of past.

Finally, the simple future tense of indicative conveys a future action independent on other actions, with an "eventual" meaning (GILI GAYA, 1965). Nevertheless, the future is not a typical verb tense of narratives and it is not expectable to observe it with a high frequency in the texts.

Subjunctive mood

In Spanish, the verbal morphology can also express the modality, as we can see in the opposition of Indicative vs Imperative vs Subjunctive. The oppositions between moods reflect semantic and pragmatic differences. Subjunctive Mood has a variety of functions in Spanish. Simplifying, it is assumed that the subjunctive conveys virtual not verified information or something unrealistic. However, their functions and uses are broader.

Indeed, the varieties of semantic contexts that require subjunctive mood vs indicative mood constitute a challenge for the acquisition and they could pose problems even in L1. Indeed, the morphology of subjunctive has been observed by the age of two (PÉREZ-LEROUX, 2008). However, the adequate pragmatic selection of the subjunctive mood could span for a longer period in the acquisition.

In the independent clauses, indicative mood is usually the default mood; but, for the dependent clauses, it is necessary to choose between indicative and subjunctive, according to the modality and the semantic contexts. Thus, the use of subjunctive involves both, syntactic information and discourse-pragmatic. For this reason, it can be said that its acquisition is in a vulnerability zone (IVERSON; KEMPCHINSKY; ROTHMAN, 2008).

The subjunctive mode could also suppose difficulties for L2 speakers and for heritage speakers (ADRADA-RAFAEL, 2017; IVERSON; KEMPCHINSKY; ROTHMAN, 2008). The use of this mood by HS has been broadly reported and constitutes a typical example of language loss or incomplete acquisition (SILVA-CORVALÁN, 1994; LYNCH, 1999; MONTRUL, 2009). The meanings and forms in subjunctive are often confused in oral productions and the morphology is affected. A tendency to simplification – the overuse of a more common form at the expense of other tenses – has also been identified in the discourse of heritage speakers (SILVA-CORVALÁN, 1994; OCAMPO, 1990). Thus, Silva-Corvalán (1994) observed that the presence vs absence of some forms seems to differentiate the generations of heritage speakers, who tend to lose some forms through the diachronic development of the language. In the same line, Lynch (1999) observed an expansion of the indicative over the subjunctive in some discourse contexts through the generations of Cuban origin speakers in Miami.

The reduction in the use of the subjunctive in heritage speakers seems more evident in variable contexts – where the use of an indicative form could be possible – in opposition to contexts where only the subjunctive is acceptable. As a consequence, there is a gradual process in the loss of the mood, that could be schematically described as it follows: a) it begins with a decrease of subjunctive in the contexts in which the variation is possible; b) the loss of semantic nuances follows; c) next, there is an elimination of formal restrictions; d) finally, the mood disappears (OCAMPO, 1990).

The loss of subjunctive in HS has been explained by two hypotheses: the vulnerability zone and the regression hypotheses (MONTRUL, 2009). The first one poses that subjunctive is more likely to be affected because it is at a vulnerability zone (the articulation of morphology, semantic and pragmatic areas). According to the regression hypothesis, the order of acquisition is related to the order of language loss. Since the subjunctive is acquired later, it is affected before in the eventual process of linguistic loss.

The present study

In this paper, we will address the adequacy in the use of verb tenses in written narratives, produced by SHS children, who grow up in the German and French speaking cantons of Switzerland. We will particularly focus on the contrast aspect and subjunctive mood. Likewise, we will analyze the narratives produced by children growing up in a monolingual context where Spanish is the majority language and compare their written productions with the texts produced by heritage speakers. Heritage speakers are typically more proficient in oral than in written competences (VALDÉS, 2001) and they have less practice in writing in the heritage language than children whose school language is Spanish. The comparison of HS and monolinguals could offer us a better perspective about the eventual impact of both, the amount of input in Spanish and the frequency in writing practices on the verbal tense adequacy in narratives. Similarly, since Spanish and French are two Romance languages, it is possible to find differences between the speakers of the French and the German speaking cantons. In this sense, the following research questions are addressed in this study:

Do heritage speakers and monolinguals show differences in the level of adequacy of verb tenses used in their narratives?

Do heritage speakers and monolingual differ in the use of aspectual contrast perfective / imperfective and in the use of subjunctive mode?

Are there any differences between heritage speakers who grew up with French and German as majority languages?

Results are organized in two sections. In the first section, we will analyze the general level of adequacy of verbs in use, comparing the texts of heritage speakers and those produced by children growing up in a Spanish speaking country. We also pay attention to possible differences between heritage speakers with different majority languages (French vs German). In the second section, we will explore, in detail, the frequency and the distribution of usage of every verbal tense in the narratives. In the case of the texts written in past, we will focus on the aspectual contrast perfective-imperfective. Finally, we will analyze the use of different moods (indicative vs subjunctive), in order to identify eventual differences with native speakers.

Methodology

Participants

A total of 165 children (aged between 8.6 -13.7), participated in the study, distributed in two groups: a) 118 SHS children growing up in Switzerland (henceforth HSG) and b) 47 children growing up in a Spanish-speaking context, the group of comparison (CG).

HSG: This group consisted of 83 children growing up in the German-speaking part of Switzerland and 35 from the French-speaking region of the country[2]. They all attend public school and, in parallel, non-compulsory courses of Spanish as a heritage language (Language and Culture of Origen Courses), in nine different institutions.

Even when all participants were heritage speakers of Spanish, the group was very heterogeneous: 65.25% came from bi-national families (one Swiss parent and one parent with migrant origin), and 34.75% were immigrants, born in Switzerland or arrived in Switzerland at an early age (average age at immigration was 5.3). Besides Switzerland, the countries of origin of at least one of the parents were Spain or a country from Latin-American. This suggests a great diversity of Spanish varieties in children repertoire, and not only European Spanish varieties. All children participated with parental consent and, according to the teachers' reports, they had no known physical, linguistic or psychological impairments.

Language and Culture of Origen Courses (LCO). HSG children attended LCO courses. Language and Culture of Origen Courses (LCO) exist in Switzerland for different languages, and they are recommended by the education policies in the country. LCO courses generally meet for two hours per week and constitute a complementary but not compulsory teaching of minority languages. Spanish LCO courses existing in Switzerland are organized by the Spanish embassy and/or by non-governmental organizations – frequently parent associations (SÁNCHEZ ABCHI; CALDERÓN, 2016).

Parent Questionnaire. Children's families completed a questionnaire about the child's linguistic background in the HSG (see Appendix 1). Parents were asked to provide information about the country of origin, the early family literacy practices (frequency of storytelling in Spanish and in the school-language before the start of formal schooling), the percentage of Spanish input at home and the time children have attended the LCO courses. Concerning early literacy practices, the frequency of storytelling in school language and in HL was comparable: 44% of families claimed telling stories in French or German every day, while 42% of the families did the same in Spanish.

Parents were also required to estimate the percentage of presence of the different languages at home. According to the answers, the mean presence of Spanish at home was estimated to be 42% (S.D. 27%). The questionnaires allowed us to determine the

[2] The French speaker group is smaller, but it is proportional to the population distribution of different linguistic regions in Switzerland. Note that in the German part of Switzerland, standard German is taught at school, but children speak Swiss-German dialect among them, due to the diglossia in this region.

level of education and the language knowledge of the parents. Slightly more than half of the mothers (50%) and fathers (53%) of the HSG children had a university education level and about one third (34%, resp. 36%) followed a vocational education. The rest stopped education after primary or secondary school.

CG: 46 children, from the province of Córdoba, Argentina participated in the study. They have grown up in a monolingual context and all of them speak Spanish at home. They attend a school where most of the courses are in Spanish, but they study other languages as well: they attend 6 hours of Italian and 2 hours of English a week. The family level of education was also controlled and results showed similarities to the SHG: 54% of mothers and 61% of fathers have finished the university, while a 13% of mothers and 2% of fathers have reached a tertiary level education. The rest of the parents (33% of mothers and 37% of fathers) have stopped their studies after finishing the secondary level.

Task and procedure

For the writing task, all participants should watch a three minutes silent animated short film, “Something fishy” (KONYHA, 2002). A synopsis of the story is provided in Appendix 2. After watching “Something fishy”, all participants were asked to write this story in Spanish. The study took place in a classroom environment.

Analysis of empirical information

In the first place, the length of texts -in number of words- was estimated. The total of finite verbs in the texts was gauged, in order to calculate the media of verbal tenses per text, according to the length of the productions.
In order to gauge the percentage of adequacy of verb tenses use, the following criteria were applied:

1) Maintenance of temporal reference in the narratives. We tracked the maintenance of verbal tense in opposition to the alternation between “present” and “past” indistinctively (SEBASTIÁN; SLOBIN, 1994). We considered the dominant verbal tense in every text (SEBASTIÁN, 1991; SÁNCHEZ ABCHI; SILVA; BORZONE, 2009). So, for instance, in texts with two verbs in past and five in present, it was considered that the story was written in present. Accordingly, the forms in past were counted as errors.

2) Adequate usage of conjugated forms in a narrative context, according to the *consecutio temporum* rules (CARRASCO GUTIÉRREZ, 1999; RAE, 2010). These grammatical rules govern the selection of tense and mood in the subordinate clauses, according to the verb tense and mood in the main clause.

3) Morphological deviations in relation to the regularization of irregular verbs were not considered.

For the second part of the study, the frequency of different verb tenses used in narrative production was considered. The results of the three groups were compared with paired T-test, in order to identify possible significant differences.

Results

Adequacy in the verbal tense usage

The narratives were analyzed in relation to the level of adequacy of verbal tense usage – that is, the maintenance of a temporal line in the stories and the respect of the rules of the *consecutio temporum*. The means and standard deviations (SD) in the percentage of adequacy are presented in table 1.

Table 1 – Percentage of verbal tense adequacy. Means and SD

HSG German		**HSG French**		**HSG Total**		**C.G**	
%	SD	%	SD	%	SD	%	SD
90.97	13.06	85.96	15.62	89.97	13.71	89.01	15.91

Source: Author's elaboration.

The results of heritage speakers and monolinguals are very similar, with no significant difference (t (73) =-.357, p=.72). However, when results for German and French speakers were observed separately, we find that German speakers perform significantly better than French-speaking children (t (113) =2, 058 p< .042). The main factor that impacts on the level of adequacy is the tendency to alternate in the same text present and past, that is, the story does not maintain a temporal line. Table 2 presents the percentages of texts in every group that alternates present and past in the construction of the story.

Table 2 – Alternation of present and past in the narratives

groups	**HSG German**	**HSG French**	**HSG Total**	**CG**
%	28.8	52.9	36	43.5

Source: Author's elaboration.

As we see in table 2, an important percentage of children in every group tend to mix the reference maintenance. Nevertheless, the percentage is higher for the French heritage speakers group (HSG French), which could actually explain the difference in the percentage of adequacy. In previous studies that focused on oral narratives produced by adults, it has been observed that the alternation "historical present/ past" reflected an aspectual distinction (SILVA-CORVALÁN, 1983), which is not the case of our study. In most of the narratives of our *corpus*, present tense and past tense seem to be switched randomly. The following example illustrates the alternation in children texts:

(1) “Ese estaba todo feliz comiendo unas plantas. De repente viene detrás de él una piraña. Y esa lo persiguió mucho tiempo. Después el langostino se metió dentro de una botella. La piraña se escapa. y después esta con sus amigos. allí y comen al tiburón.”[3] (Felipa, HSG, 11.7)
‘This was all happy eating some plants. Suddenly a piranha comes behind him. And this one runs after him a long time. Then the shrimp went into a bottle. The piranha runs away. And then it is with its friends. There they eat the shark.’

In other cases (2), the introduction of the imperfect to describe the characters (*eran pirañas*) produces a switch to the past in the rest of the text, and the initial present is abandoned.

(2) “...hasta que un tiburón se acerca. y el pez se va a la manada. y la manada eran pirañas. y se comieron todos el tiburón. y el calamar los vio.” (Celeste, HSG, 13.8)
‘…until a shark approaches him. The fish goes with the school. And the school were piranhas. And all they ate the shark. And the squid saw them.’
The differences between past and present tense alternation is equally high in both groups and no significant differences were found (t (80) .868, $p < .05$). As a result, we cannot assume this to be a typical characteristic of heritage speakers’ or monolinguals’ narrative production, but a characteristic of children narrative production in general.

Frequency and distribution of verbal tenses

The narrative productions were coded for type of inflectional form on all finite verbs. We could identify the use of present, imperfect, preterit, present perfect, past perfect (pluperfect) in indicative mood and some verbs in the subjunctive mood. The frequency distributions of verbs by tense, aspect, and mood are displayed in Table 3.

[3] Spelling and punctuation were corrected in the texts, in order to make the narratives easier for the reader to understand.

Table 3 – Distribution of verbal tenses in the groups

			German HSG	French HSG	C.G.
		N	83	35	47
Mode	**Total Finite Verbs**	Count	1226	520	659
Indicative	**Present**	% (SD)	28.41 (38.64)	43.90 (39.87)	39.27 (38.9)
	Imperfect	% (SD)	29.8 (21.6)	22.9 (19.2)	20 (13.9)
	Preterit Indefinite	% (SD)	36.40 (27.27)	27.50 (24.27)	38.86 (31.76)
	Present Perfect	% (SD)	3.69 (14.14)	4.10 (12.25)	.80 (3.40)
	Pluperfect	% (SD)	0.18 (1.2)	0.60 (1.99)	0.15 (1.04)
	Future	% (SD)	0.07 (0.7)	.13 (.77)	0
Subjunctive	**Present**	% (SD)	.58 (1.87)	0.35 (1.44)	.44 (2.13)
	Imperfect	% (SD)	0.19 (1.00)	.27 (1.62)	.43 (1.67)
	Perfect	% (SD)	0.72 (.65)	0	0

Source: Author's elaboration.

Present tense

Present is highly frequent in the *corpus*, not only because some children tend to mix past and present in their stories, as discussed in the previous section, but also because some narratives are completely written in present. Indeed, 18% of the texts in the German HSG, 22% in the French HSG and 25% in the CG are written in the historical present: the events seem to take place at the moment of narrating (SILVA-CORVALÁN, 1994). The example (3) illustrates this use of present:

> (3) "(...) El langostino ve una planta. y la quiere comerla. Pero el no ve que atrás de él hay una piraña. La piraña persigue al langostín. El langostín se esconde en una botella. Así la piraña no lo puede comer. Atrás de la piraña aparece un tiburón. El tiburón persigue a la piraña…" (Muti, HSG, 11,7)

‘The shrimp sees a plant and wants to eat it. But he does not see that there is a piranha behind him. The piranha runs after the prawn. The prawn hides in a bottle. So the piranha cannot eat him. Behind the piranha a shark comes. The shark runs after the piranha…’

In our *corpus*, as it was observed by Silva-Corvalán (1994), texts written only (or mostly) in historical present show a more descriptive style. However, they are adequate, from the perspective of verbal tense maintenance.

Another function of present in our *corpus* is to introduce the narrator’s perspective, like in (4) and (5), even when the rest of the story is written in past.:

(4) “Lo que pasa en la película es que había...”
‘What it happens in the film is that there was…’

(5) “Lo que yo veo es que el pez rosa estaba...”
‘What I see is that the pink fish was…’

These expressions - usually at the beginning of the story- reveal an oral language style, very close to the context of production. The narrator presents him or herself as a “witness” of the film events. These expressions are present in all the groups, but they are not very frequent.

Future tense

The expression of the future is almost absent in the texts. This seems logical, because of the characteristics of narrative texts, which are canonically written in past or in historical present. We only found two occurrences of future in indicative mood and both of them in the HSG. The first case (6) is a periphrastic future with the verb “ir” ‘go’ plus infinitive:

(6) “Pero como ve que **va a venir** otra vez el pez.” (Soraya, HSG,10)
‘But he sees that the fish is going to come again.’

In the French speaker group, we found a synthetic form:

(7) “la langosta decide de salir de su escondite pensando que ya no lo podrán comer porque están llenos...” (Gala, HSG, 12.3)

‘The lobster decides to quit his hiding-place, thinking that they could not eat him because they are filled’

In both cases the future tense is used adequately since the texts are written in historical present and then the tense agreement principle is respected.

The past tenses

Imperfect, present perfect and preterit in Indicative mood are the most frequent verbal tenses in the narratives. Preterite (or indefinite) has the same temporal value than the present perfect. In our *corpus*, the preterite is much more frequent than the present perfect, which could be explained by dialectal preferences (SEBASTIÁN; SLOBIN, 1994; SÁNCHEZ ABCHI; SILVA; BORZONE, 2009). Indeed, in the *corpus*, the present perfect is mostly observed in texts produced by children with an origin in Spain. However, we also found it in texts written by Latin American children, maybe because of the influence of verbal tenses from majority languages. Indeed, the passé compose in French, is preferred in oral modality; while Perfekt – is the only the composed form used in Swiss- German – the spoken language in the German-speaking part of Switzerland). In some cases, children mix both forms in their texts, as in the example (8):

(8) "El Pescado rosado también **nadó y nadó** atrás de él. El cangrejo **se escondió** en una Botella. Había un tiburón atrás del pescado rosado. El pescado rosado **ha nadado** y el tiburón también..." (Lucas, HSG, 11.5)

'The pink fish also swam and swam behind him. The crab hid in a bottle. There was a shark behind the pink fish. The fish has swum and also the shark…'

In the example, "nadó", "se escondió" are preterite, and "ha nadado" present perfect. This alternation was only observed in the HS group, but not in the control group. It suggests that the majority languages verbal system (French and German) could influence the tense selection in the texts.

The pluperfect

The pluperfect (or past perfect) in indicative mood is scarcely present in the *corpus*. We only found five occurrences in the HSG and one case among the monolinguals' texts, all of them in older children. The example (9) illustrates the use of the pluperfect in the texts:

(9) "La langosta se rio de los peces que *habían engordado* tanto." (Sofía, HSG, 10.5)
'The lobster laughed at the fishes that had gained so much weight'

However, this verbal tense is not always used properly. The example (10) shows an inappropriate use, where an indefinite or present perfect should have been used, instead of a past perfect:

(10) "Cuando el pez *había encontrado* sus amigos, se acercaban todos juntos al tiburón."

'When the fish had found its friends, all together approached to the shark.' (Patricia, HSG, 13)

In another text (11), the position of the adverb is problematic because it is placed between the auxiliary verb (habían) and the participate (comido), according to the typical syntactic order in the school language (French in this case):

(11) "Los pez habían *mucho* comido."
'Fish had *a lot* eaten.' [the fish had eaten a lot] (Sebastián, HSG, 12.8)

The acquisition of past perfect in L1 is relatively later in comparison with other forms of past (BOCAZ, 1989), which also explain its low frequency in the *corpus* and the difficulties to use it appropriately. Indeed, the opposition "past/ previous action in the past is certainly complex probably because the past perfect requires attention to three different temporal points at the same time (SEBASTIÁN; SLOBIN, 1994).

Aspect: Perfective vs Imperfective

In order to analyze the aspectual opposition "perfective vs imperfective", we selected those texts that had been written only in past, without alternation with present or with only one occurrence in present. We selected only these texts to better understand the opposition "event/ background", since in the texts mixing present and past indistinctively the opposition could be masked. The criterion reduced the *corpus* importantly: 47 texts produced by German HSG (57% from the original group); 11 by French HSG (31,4%) and 23 texts (50%) written by the comparison group.

In general, children from all the groups used imperfect and perfect tense adequately in their texts. However, among the German heritage speakers, we found some wrong usages of the imperfect and indefinite, even in texts produced by older children. In the example (12) the child uses the indefinite or the past perfect when she should have used the imperfect since it introduces the initial situation of the story:

(12) "La historia se trata de un pez que **buscó** [*instead of buscaba*] comida. (...) Ha visto muchos esqueletos de peces muertos. y tenía miedo [*instead of ha* tenido miedo]."

'The story is about a fish that looked for food (…) He has seen much dead fish's skeletons and he was frightened'. (Nadja, HSG, 12.7)

The example (13), conversely, illustrates the opposite case: the usage of imperfect instead of indefinite:

(13) "Era una vez un pez rojo y chiquito. él le gustaba comer hojas (...). Más tarde **venía** [*instead of* vino] una pez más grande. El pez chiquito **tenía** [*instead of* tuvo] miedo. y se fue corriendo."

'Once upon a time, there was a little red fish (…) Later a bigger fish came. The little fish was frightened and run away'. (Natascha, HSG 11.2)

This confusion was observed in 12 texts in the HSG, but it was totally absent in the CG. The difference between groups will be later discussed.

Subjunctive Mood

The use of the subjunctive in the productions was marginal in all the groups. We could have expected that children growing up in a German-speaking context could have more difficulties since this language has not this mode, but the few cases observed don't allow us to do this type of interpretation. Besides, subjunctive was strongly constrained by the story plot and, consequently, it is observed always in the same contexts:

a) With with the verb "esperar" 'await' in the main clause and temporal clauses introduced by "hasta que", as in the example (14):

(14) "(la) piraña esperaba hasta que saliera."
'The piranha awaited until (he) leaves.' (Nicolás, HSG, 12,2)

b) With the verb "esperar", without conjunction to introduce a subordinated clause, as in (15). In all these cases, the verb "esperar" could be translated like "wait" or "expect".

(15) "Esperaba que saliera."
'he waited/expected that (it) goes out'.

c) With final clauses, starting with "para que" (which could be translated as 'so that'), such as in the example (16). In Spanish, this kind of subordinate clauses should always be in the subjunctive.

(16) "Tres algas metieron las hojas para que no se las **comiera**."
'Three seaweeds hid the leaves so that he could not **eat** (subj) them.' (Álvaro, HSG, 10.5)

As seen in table 3, Subjunctive mood appears very rarely in the texts of all the groups. However, it seems to pose more problems for the HSG. Three types of mistakes were identified:

a) The replacement of subjunctive morphology by indicative (cf. example 17):

(17) "La piraña espero que se **sale."** (instead of "saliera")
'The piranha awaited that (he) **leaves** indic*' (Sebastián, HSG, 8.9)
We only found one case in the whole corpus.

b) Conversely, we found two cases (one case in the HSG and another one in the CG) of the use of Subjunctive where indicative should have been used.

(18) “El langostino se metió adentro de la botella más cerca **que haya**.”
‘The prawn hid in the bottle which was subj* nearest.’ (Melisa, CG, 9.6)
‘The prawn hid in the nearest bottle.’

c) The confusion of times of the subjunctive: present subjunctive instead of imperfect subjunctive.

(19) “La piraña esperaba que **salga*** (instead of “saliera”) el cangrejo...”
‘The piranha waited that the crab leaves.’ (Esther HSG, 12,6)

This case, that involves the mastery of the *consecutio temporum* rules, was the most frequent: six occurrences in the HSG and two in the CG. Even when we are analyzing very few cases, due to the constraints of the story, we observe more difficulties in the use of the subjunctive in the HS.

Discussion

The objective of this article was to analyze the use of verb tenses in written narratives produced by SHS children. Likewise, we were interested in the eventual differences with narratives written by Spanish speakers growing up in a context where Spanish is the majority language. This comparison should allow us to better identify the characteristics of verbal system use in heritage speakers’ productions.

As a whole, the results of the first part of our study show that there are no significant differences in the level of adequacy of verb tenses between monolinguals and heritage speakers from the experimental groups. Moreover, the frequency and the distribution of different verb tenses are similar in the different groups. In this respect, we can assume that nor the amount of input in Spanish, neither the constraints of writing system seem to affect heritage speakers in the adequate use of verb tenses in their narrative productions. This could be in relation to the knowledge of the use of verb tenses in narrative productions in general.

In contrast, when we analyze more precisely the use of some verb tenses, it is possible to observe differences between HS and the experimental group. Regarding the aspectual contrast imperfective/ perfective, and to a large extent, HSG children express the contrast between backgrounds and foreground adequately in their narratives. However, while some wrong uses of imperfect and perfect tenses appear in their productions, these confusions are totally absent in monolinguals’ texts. In line with the observations of Montrul (2009), heritage speakers seem to be less accurate in the use of the aspectual opposition. Nevertheless, these results are opposed to those observed in a previous study about oral personal experiences produced by pre-school SHS growing up in a German-speaking context (SÁNCHEZ ABCHI, 2015). According to this study, 3 and 5 years old- heritage speakers could express appropriately the aspectual contrast in their texts, when they were asked to tell a story orally, confirming the fact that the aspectual opposition is acquired in early stages of children development. Even when their narratives were much simpler than the texts analyzed in the present contribution, the divergence suggests a tendency to lose accuracy in the command of aspect contrast as children get older.

Another difference between groups was found in the indistinctive use of preterit and present perfect in many texts produced by heritage speakers. This confusion is absent in monolinguals' texts. On one side, this difference could be explained by dialectological reasons, since present perfect is not a common verbal tense in the Argentinean children from comparison group (SÁNCHEZ ABCHI; SILVA; BORZONE, 2009), and consequently comparison group children are simply not exposed to the risk of confusion. However, it is worth noting that this confusion appears in heritage speakers with very different origins. Not only speakers with peninsular origins -where the present perfect is frequent- but also children from different regions tend to mix both forms indistinctively in their productions.

On the other side, another possible explanation could be the influence of the majority language. In French, the composed form – *passé composé* – is more frequently used in oral narratives, while the simple form – *passé simple* – is reserved for written stories. In respect of Swiss German, only the composed form – *Perfekt* – is used. The incidence of the majority language seems to have an impact in the selection of the verb tense, mostly because it masks the semantic and pragmatic nuances that distinct present perfect and preterit for a Spanish native speaker (BERMÚDEZ, 2005).

Another important difference between groups refers to the use of subjunctive mode in the texts. It is important to clarify that the task – rewriting a story– was not specifically conceived to assess the use of the subjunctive. However, some passages of the story plot could be better explained with the use of the subjunctive mode, for instance, the parts referring to "wait for" something to happen. Indeed, the verb "esperar" or, 'wait for', in the principal sentence typically requires a verb in subjunctive in the subordinate clause. This was consistent with the fact that the subjunctive occurrences appeared always in the same narrative contexts in children's productions.

Moreover, in all the groups, the frequency of subjunctive mode was very low, without differences between HS with French or German as a majority language. The differences between HS and the control group don't concern the frequency but the adequate use of forms. We identified two types of difficulties in the use of the subjunctive in texts: a) the confusion of indicative and subjunctive morphology and b) the confusion of present and imperfect subjunctive. The first difficulty was largely reported among heritage speakers in previous studies (MONTRUL, 2007), but there were only two cases among the heritage speakers in this study. The second difficulty was also reported by Silva-Corvalán (1994) in adult heritage speakers from different generations, which supports the possibility of a loss of command of the mode. However, since our study concerns children heritage speakers, and the subjunctive mood is acquired later on in a child, we hypothesize that the difficulties observed can be -at least partially- explained by the fact that the subjunctive is not yet completely acquired. The little differences with the comparison group, even when existing; suggest the possibility of incomplete – or in the process –acquisition. In order to better assess the command of the mood in this population, future studies are needed to specifically test the use of subjunctive mood with an “ad hoc” task, such as completing sentences in different grammatical contexts.

To summarize, three different forces seem to operate on the verb tense selection in narratives written by SHS children: a phenomenon of loss of command for the aspectual contrast; an incomplete – or in process – acquisition concerning the use of subjunctive and, finally, the influence of the majority language for the distribution of some past tenses. In future research, the use of verb tenses in different textual genres – argumentative, expositive texts – should be also explored in order to better understand the use of the Spanish verbal system in children heritage speakers.

ABCHI, V.; MIER, V. Tiempos verbales y narración: un análisis del sistema verbal en las producciones de hablantes de español como lengua de herencia. **Alfa**, São Paulo, v. 63, n.3, p.541-564, 2019.

- *RESUMEN: Este artículo se propone estudiar el empleo de los tiempos verbales en narraciones escritas, producidas por niños hablantes de español como lengua de herencia (ELH), que crecen en un contexto plurilingüe. En esta contribución, analizamos la distribución y el nivel de adecuación de los tiempos verbales, con un foco particular en dos aspectos problemáticos para los hablantes de lengua de origen: el contraste perfectivo/ imperfectivo y el uso del subjuntivo. Asimismo, comparamos los textos de hablantes de lengua de herencia (LH) con narrativas producidas por niños que crecen en un contexto monolingüe español. Los participantes fueron 165 niños (edades 8.6 -13.7): 118 niños ELH y 47 niños que crecían en un contexto en el que el español es la lengua mayoritaria. Los resultados mostraron un nivel de adecuación en el empleo de los verbos y una distribución similar de los tiempos utilizados en ambos grupos. Sin embargo, los niños del grupo ELH utilizaron formas particulares de los tiempos del pasado y eran menos precisos en la oposición del aspecto y en el uso del modo subjuntivo.*

- *PALABRAS CLAVE: Hablantes de español como lengua de herencia. Tiempos verbales. Narraciones escritas. Modo subjuntivo. Aspecto verbal.*

REFERENCES

ADRADA-RAFAEL, S. Processing the Spanish imperfect subjunctive: Depth of processing under different instructional conditions. **Applied Psycholinguistics**, Cambridge, v. 38, n. 2, p. 477-508, 2017.

ÁLVAREZ, E. Aprender a narrar: formas temporales y sus funciones en un niño de siete a nueve años de edad. **Bells**: Barcelona English language and literature studies, Barcelona, v. 14, 2005.

BENÍTEZ, R.; VELÁZQUEZ, M. Un Análisis Microestructural de la Producción Escrita de Alumnos de 6º y 8º año de Educación General Básica. **Lenguas Modernas**, Santiago, n. 26-27, p.95-118, 1999-2000.

BERMÚDEZ, F. Los tiempos verbales como marcadores evidenciales: El caso del pretérito perfecto compuesto. **Estudios filológicos**, Valdivia, n.40, p.165-188, 2005.

BERNINGER, V.; SWANSON, L. Modifying Hayes and Flower's model of skilled writing to explain beginning and developing writing. **Advances in Cognition and Educational Practice**, New York, n.2, p.57-81, 1994.

BOCAZ, A. Desarrollo de la referencia temporal adverbial. **Lenguas Modernas**, Santiago, n.16, p.23-40, 1989.

CARTAGENA, N. Los tiempos compuestos. *In*: BOSQUE, I.; DEMONTE, V. **Gramática descriptiva de la lengua española**. Madrid: Espasa, 1999. v.2. p. 2935-2975.

CARRASCO GUTIÉRREZ, A. El tiempo verbal y la sintaxis oracional. La consecutio temporum. *In*: BOSQUE, I.; DEMONTE, V. **Gramática descriptiva de la lengua española**. Madrid: Espasa, 1999. v.2. p.3061-3128.

DI TULLIO, Á. **Manual de Gramática del Español**. Buenos Aires: Edicial, 1998.

FAYOL, M. L´emploi de formes verbales du passé dans les récits: un apprentisage long et difficile. **Langage et Pratiques**, Lausanne, n.21, p.17-22, 1998.

GILI GAYA, S. **Nuestra lengua materna**: observaciones gramaticales y léxicas. San Juan: Instituto de Cultura Puertorriqueña, 1965.

IVERSON, M.; KEMPCHINSKY, P.; ROTHMAN, J. Interface vulnerability and knowledge of the subjunctive/indicative distinction with negated epistemic predicates in L2 Spanish. **Eurosla Yearbook**, Amsterdam, v.8, n.1, p.135-163, 2008.

HICKMANN, M. **Children's discourse**: Person, place and time across languages. Cambridge: Cambridge University Press, 2003.

KONYHA, E. (dir.). **Something fishy** [video]. Canada: Brainchild Studios Inc, 2002. 3 min.

LISKIN-GASPARRO, J. The use of tense-aspect morphology in Spanish oral narratives: Exploring the perceptions of advanced learners. **Hispania**, Baltimore, n.83, p.830-844, 2000.

LYNCH, A. **The subjunctive in Miami Cuban Spanish**: Bilingualism, contact, and language variability. 1999. 225f. Thesis (Doctor in Philosophy) - University of Minnesota, Minneapolis, 1999.

LÜDI, G.; PY, B. **Être bilingue**. 3. éd. Berne: Peter Lang, 2003.

MAYER, M. **Frog, where are you?**. New York: Dial Press, 1969.

MONTRUL, S. A. Is the heritage language like a second language?. **Eurosla Yearbook**, Amsterdam, v.12, n.1, p.1-29, 2012.

MONTRUL, S. Knowledge of tense-aspect and mood in Spanish heritage speakers. **International Journal of Bilingualism**, London, v.13, n.2, p.239-269, 2009.

MONTRUL, S. Interpreting mood distinctions in Spanish as a heritage language. *In*: POTOWSKI, K.; CAMERON, R. (ed.). **Spanish Contact:** Policy, social and linguistic Inquiries. Amsterdam: John Benjamins, 2007. p.23-40.

MONTRUL, S. Incomplete acquisition and attrition of Spanish tense/aspect distinctions in adult bilinguals. **Bilingualism**: Language and Cognition, Cambridge, v.5, p.39-68, 2002.

MONTRUL, S.; SLABAKOVA, R. Competence similarities between native and near-native speakers. **Studies in second language acquisition**, Cambridge, v.25, n.3, p.351-398, 2003.

MUELLER GATHERCOLE, V. C.; SEBASTIÁN, E.; SOTO, P. The early acquisition of Spanish verbal morphology: Across-the-board or piecemeal knowledge? **International Journal of Bilingualism**, London, v.3, n.2-3, p.133-182, 1999.

OCAMPO, F. El subjuntivo en tres generaciones de hablantes bilingües. *In:* BERGEN, J. J. **Spanish in the United States**: Sociolinguistic Issues. Washington: Georgetown University Press, 1990. p.39-48.

PÉREZ- LEROUX, A.T. Subjuntivo y conciencia de la subjetividad en la adquisición del lenguaje y la teoría de la mente. **Revista de Logopedia, Foniatría y Audiología**, Barcelona, v.28, n.2, p.90-98, 2008.

REAL ACADEMIA ESPAÑOLA Y ASOCIACIÓN DE ACADEMIAS DE LA LENGUA ESPAÑOLA [RAE]. **Nueva gramática de la lengua española**: Manual. Madrid: Espasa, 2010.

SÁNCHEZ ABCHI, V. Spanish as a heritage language in Switzerland. *In*: POTOWSKI, K. (ed.). **The Routledge Handbook of Spanish as a Heritage Language**. New York: Routledge, 2018. p.504-516.

SÁNCHEZ ABCHI, V. Développement de capacités narratives des enfants bilingues: l'acquisition de l'espagnol dans le contexte suisse-allemand. **Schweizerische Zeitschrift für Bildungswissenschaften,** Fribourg, v.37, n.1, p.21-37, 2015.

SÁNCHEZ ABCHI, V.; CALDERÓN, R. La enseñanza del español como lengua de origen en el contexto suizo: Desafíos de los cursos LCO (Lengua y Cultura de Origen). **Textos en Proceso**, Stockholm, v.2, n.1, p.79-93, 2016.

SÁNCHEZ ABCHI, V. S.; SILVA, M. L.; BORZONE, A. M. El empleo de los tiempos verbales en la re-narración: Un estudio de las producciones orales y escritas de niños pequeños. **Boletin de Lingüística,** Caracas, v.21, n.32, 2009.

SEBASTIÁN, E. El desarrollo del sistema de referencia temporal en español: un paseo por la morfología verbal. **Anales de Psicología**, Múrcia, v.7, n.2, p.181-196, 1991.

SEBASTIÁN, E.; SLOBIN, D. Development of linguistic forms: Spanish. *In:* BERMAN, R.; SLOBIN, D. (ed.). **Relating events in narrative:** A crosslinguistic developmental study. Hillsdale, NJ: Lawrence Erlbaum, 1994. p. 157-186.

SHAPIRO, L. R.; HUDSON, J. A. Tell me a make-believe story: Coherence and cohesion in young children's picture-elicited narratives. **Developmental psychology,** Washington, v.27, n.6, p.960-974, 1991.

SILVA-CORVALÁN, C. The gradual loss of mood distinctions in Los Angeles Spanish. **Language variation and change**, Cambridge, v.6, n.3, p.255-272, 1994.

SILVA-CORVALÁN, C. Tense and aspect in oral Spanish narrative: Context and meaning. **Language**, v.59, n.4, p.760-780, 1983.

SLOBIN, D.; BOCAZ, A. Learning to talk about the movement time and space: The development of narrative abilities in Spanish and English. **Lenguas Modernas**, Santiago, n.15, p.5-24, 1988.

SORACE, A.; FILIACI, F. Anaphora resolution in near-native speakers of Italian. **Second Language Research**, London, v.22, p.339-368, 2006.

SWISS FEDERAL STATISTICAL OFFICE. **Languages and Religions**. 2017. Available at: https://www.bfs.admin.ch/bfs/fr/home/statistiques/population/langues-religions/langues.html. Access on : 5 nov. 2019.

UCCELLI, P. Emerging temporality: past tense and temporal/aspectual markers in Spanish-speaking children's intra-conversational narratives. **Journal of Child Language**, Cambridge, v.36, n.5, p.929-966, 2009.

VALDÉS, G. Heritage language students: Profiles and possibilities. *In:* PEYTON, J. K.; RANARD, D. A.; MCGINNIS, S. (ed.). **Heritage Languages in America**: Preserving a National Resource. Language in Education: Theory and Practice. Washington: Center for Applied Linguistics, 2001. (Language in Education, 96). p.37-80.

VEIGA RODRÍGUEZ, A.; ROJO SÁNCHEZ, G. El tiempo verbal. *In*: BOSQUE, I.; DEMONTE, V. **Gramática descriptiva de la lengua española**. Madrid: Espasa, 1999. v.2. p.2867-2934.

Appendix 1 - Questionnaire (translated version)

Name, Birth place and Birth Date

1) Languages spoken by the child, besides the school language

____

2) Which language does the child speak with the mother?_______________

3) Which language does the child speak with the father?_______________

4) Please estimate the percentage of presence of Spanish at home and the percentage of other languages:

German / French	%
Swiss German	%
Spanish	%
Other Languages	%
Total:	100%

5) When did your child begin the courses of Spanish as a heritage Language?
(Month and year)
Please indicate the hours per week: _________

6) When your child was still not able to read by himself or herself, did somebody read books to him or her in Spanish or in the School Language?

In German/ French (If in another language, please indicate it)		**In Spanish**	
Almost never		Almost never	
Once or twice a year		Once or twice a year	
Once or twice a week		Once or twice a week	
Almost every day		Almost every day	

Is the mother Swiss? If not, how long has the mother lived in Switzerland? Country of origin:

Is the father Swiss? If not, how long has the father lived in Switzerland?

Country of origin:

7) Level of education of Parents. Please mark the education level already completed.

Mother		**Father**	
Primary School		Primary School	
Secondary school I (9 years of compulsory education)		Secondary school I (9 years of compulsory education)	
Secondary school II (12 years of education).		Secondary school II (12 years of education).	
Vocational education		Vocational education	
University		University	

Appendix 2: Plot of "Something fishy"

On the seabed, there is a lobster/ a shrimp

The lobster is looking for food (seaweeds and seagrass) but without success.

Suddenly, a pink fish -a piranha- appears, with the intention to eat the lobster.

The lobster sees the piranha and becomes frightened

The lobster runs away, followed by the piranha, and seeks refugee in an empty bottle.

Since the piranha cannot catch the lobster, the latter is safe.

The piranha is still trying to catch the lobster.

Suddenly, a big fish –a shark– appears. He wants to eat the piranha.

The piranha becomes frightened and smiles a little nervously.

The piranha runs away, followed by the shark, and tries to meet its family / a shoal of piranhas.

The shark meets the shoal of piranhas and it is eaten by them.

The piranhas have eaten enough and they are satisfied.

The lobster appears to provoke them. But the piranhas scare it and the lobster flees.

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SENTENCE PROCESSING AND DISCOURSE CONTEXT

Marcus MAIA*

▪ ABSTRACT: The time course of sentence comprehension subprocesses is investigated in order to assess whether the parser is strictly syntactic in its early phases or whether semantic, pragmatic and discursive information is quickly accessed in time to influence the syntactic analysis. Two experimental studies are reported testing speakers of Brazilian Portuguese, to assess the effects of discursive context in sentence processing. The first experiment revisits the processing of ambiguously attached Prepositional Phrases and finds effects of the previous discourse only in the final off-line measures, which monitor interpretation. The second experiment uses the eye-tracking technique to gauge the antecedent search for the subject of clauses with inflected infinitive verbs, detecting effects of the previous discourse both in the final off-line measure and in the on-line gaze fixation average times. Possible reasons for differences between the effects of discursive information in the two experiments are discussed.

▪ KEYWORDS: Sentence processing. Discourse effects. Eye-tracking.

Introduction

Fundamentally, what is known today about the processing of human language has been discovered through laboratory experimentation. Comprehension and Production studies, using the experimental method and different techniques and tasks, have allowed psycholinguists to test theoretical hypotheses, carefully controlling independent variables and linguistic materials, in different types of designs, measuring decision rates and reaction or reading and listening times with millisecond precision. Influential models such as the Garden-Path theory (FRAZIER; FODOR, 1978; FRAZIER, 1979; FRAZIER; RAYNER, 1982, among many other studies) could be established by measuring the time course of reading or listening comprehension, in self-paced tests and eye-tracking experiments, which were carefully designed and applied under laboratory conditions.

Experimental studies designed according to the Garden Path theory were able to establish default assumptions and metrics of sentential processing, which had been applied even in the absence of specific discursive or pragmatic contexts. For example, we learn that the parser does not wait for a sentence to end in order to start processing

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phrase structuring that allows its interpretation, that is, the parser is incremental, making quick decisions about the analysis of the linguistic input.

Sentence processing research has been able to advance significantly by experimentally investigating the immediate decisions made by the parser when it is confronted with structurally ambiguous constructs. The classic example of Tom Bever (1970) "The horse raced past the barn fell!" contains a paradigmatic example of the preference of the syntactic processor for simpler structures. Since "raced" can be ambiguously analyzed as simple past or past participle, simple past is preferred. The preferential analysis is the one that analyzes "raced" as the main verb of the sentence, leading to a garden-path effect, when later the reader or the listener finds out the form "fell" in the sentence. It is then necessary to re-analyze "raced" as a participle. As we have seen, in the English language, the nominal form of past participle and the form of simple past are homonymous in regular verbs. Because of this homonymy, there is ambiguity in understanding sentences whose verbs present these forms, and these sentences can be analyzed as both main and subordinate adjective clauses.

The Minimal Attachment Principle predicts that, in such cases, there is a preference for the main clause analysis, computing a smaller number of syntactic nodes than in the attachment of the clause as an adjunct, which would form a complex DP.

In Brazilian Portuguese (BP), the Minimal Attachment Principle was established in Maia *et al*. (2003), among other studies, through questionnaires and self-paced reading tests. In Maia (2013), equivalent garden-path constructions were investigated using the eye-tracking technique. Maia *et al.* (2003) reviewed a study by Ferreira and Clifton (1986), in which the [±animate] feature of the subject DP in English sentences is manipulated in order to determine whether the semantic or thematic information could be quickly accessed by the processing system, and thus avoiding a garden-path effect, comparing these constructions with non-reduced relative clauses, which are taken as baseline controls. The rationale of the study was that the inanimate DPs could not be taken as plausible agents and, in principle, would be able to provide the parser with semantic feedback, preventing it from analyzing the sentence as the main clause. Using the eye-tracking technique, Ferreira and Clifton (1986) found evidence against the immediate use of thematic information by the parser. Below, an example of the sets of phrases studied by them:

(1) The defendant examined by the lawyer was unreliable.
(2) The evidence examined by the lawyer was unreliable.

As discussed in Maia *et al.* (2003), the results presented by Ferreira and Clifton (year) support the claim that the inconsistent meaning in sentences such as in (2), in which the *the evidence* DP is inanimate and cannot take the *examined* form in the agentive sense, would not be enough to block the garden-path effect. The authors found the same reading patterns for the two types of sentences and concluded that readers always pursue the same main clause analysis as predicted by the Minimal

Attachment Principle (FRAZIER, 1979), regardless of the semantic information, in compliance with Frazier's proposal, which establishes this principle as universal and strictly syntactic. The study reported in Maia *et al.* (2003) aimed to assess whether the Minimal Attachment preference also occurs in Brazilian Portuguese since an equivalent homonymy also occurs in this language with some irregular or abundant verbs which have identical participles and third person present tense forms. Thus, sentences as (3) would instantiate cases where the reader/listener would be garden-pathed, if the verb form '*suspeita'* were analyzed as simple present and not as past participle.

(3) Mother suspect of son's murder runs away[1]

The study also manipulated the [± human] features of the subject DP in the clause, aiming at assessing whether the parser could use semantic information in time to avoid the garden-path effect. Off-line and on-line experiments were applied. In both a general preference for the Main Verb interpretation was established, demonstrating the Minimal Attachment Principle. The manipulation of animacy semantic features did not influence the average reading times of the critical segments in the self-paced reading task. Maia (2013) investigated the same question using the eye-tracking technique with similar results, supporting the Minimal Attachment Principle.

Those studies explored one of the central issues in Sentence Processing, namely, the time course of subprocesses of language comprehension. It means determining whether the parser is strictly syntactic and serial in its initial analysis or whether it rapidly accesses parallel semantic, prosodic, pragmatic and discursive information in time to influence the syntactic analysis.

In section 2, we briefly review studies that are especially relevant to our research on the influence of the discursive context in sentence processing. Two psycholinguistic studies with speakers of Brazilian Portuguese, to assess the effects of the discursive context in processing, conducted at the Laboratory of Experimental Psycholinguistics (LAPEX - UFRJ / CNPq), are presented in sections 3 and 4, respectively. The first study analyzes the parsing of ambiguously attached Prepositional Phrases and detects effect of the previous discourse only in the off-line measures. The second study addresses the search for antecedent for the empty subject of inflected infinitive verbs, detecting the effect of the previous discourse both in off-line and on-line measurements. Finally, in the last section, we present our final remarks, discussing possible reasons for the differences between the discursive effects in the two experiments.

Sentence Processing and Discourse Context

As reviewed above, sentence processing studies have preferentially focused on experimental investigations of decontextualized utterances; presuppositions and default

[1] In the original: "*Mãe suspeita de assassinato do filho foge.*"

principles of sentence processing have been established from on-line and off-line chronometric studies, exploring the access to different types of information, during sentence comprehension. However, in natural situations of verbal interaction, people rarely process decontextualized sentences. Sentences are enunciated and understood in specific pragmatic and discursive contexts. A productive line of research in the interface between the sentence and the preceding discourse in which the target material is produced demonstrates that discursive effects affect memory, with consequences for the analysis and interpretation of the sentence. In a highly cited paper, Sparks and Rapp (2010) review different linguistic cues that influence the activation and deactivation of concepts in memory, affecting language comprehension. According to these authors, these clues can be grouped in lexical, structural and gender-dependent factors.

In addition to the gauging of names and pronouns in the discourse to evaluate their impact on sentence comprehension, connectives have been usually included, among the relevant lexical clues, in order to assess their specific effects on sentence processing, influencing the coherence relations between the relevant segments. Sanders and Noordman (2000) experimentally demonstrate how different types of coherence relationships can affect text comprehension. Also exploring coherence relationships, Spark and Rapp (2010) discuss how text titles influence their reading, reviewing, among others, Hyöna and Lorch (2004), who demonstrate this effect through an eye-tracking experiment. In Brazilian Portuguese, Maia (2008) reports an eye-tracking image monitoring experiment in which 27 subjects were exposed, for 10 seconds, to a series of images containing [human animate], animated human [+ animated + human] elements. The independent variables of the experiment were two, namely: (1) Properties of the stimulus (couple, dog, nothing) and (2) Previous title (house, stones, nothing). The 3x2 experimental design combined the three levels of factor (1) with the three levels of factor (2), producing nine experimental conditions, each of which was tested in three subjects, totaling 27 subjects (9x3). The image presented for the subjects for ten seconds was the picture “Idílio”, by Tarsila do Amaral, and the image was manipulated with Photoshop software to generate three levels of independent variable (1). In one of them, the image presented a couple (original image), in a second type, the couple was replaced by a dog, and in the third there was neither the couple nor the dog. Independent variable (2), previous title, consisted of the presentation for five seconds before image display, of one of three screens, containing the title “House on the hill”, “Stones in the stream” or no title). The experimental task consisted of observing the image and immediately writing a paragraph, reporting the content of the image observed.

Each version could be preceded or not by written information that remained on the screen for 5 seconds, indicating the title of the image. Each subject then reported what he/she had seen, registering saccadic fixations and movements (on-line measurements), as well as the final report (off-line measurement). The results obtained allowed us to conclude that the previously presented topics (top-down effect), although influencing the off-line measure, do not surpass the bottom-up structural traits in the on-line scan. Structural cues, certainly, also affect the coherence of texts, but, as Sparks and Rapp

(2010) analyze, instead of using lexical items for this purpose, the organizational structure of the text is manipulated to obtain the effects desired(?). In addition to the basic syntactic constituents of the sentence, as subject, verb, object, adjuncts, higher-level structures such as narrative structure, plot, characters are also included in this category, often articulated with spatial and temporal dimensions, as well as with circumstances of cause and purpose, which have an impact on the mnemonic accessibility of textual elements. For example, Rapp and Taylor (2004) report story-based experiments, whose results indicate that accessibility to spatial information would be related to temporal information, and conclude that these dimensions interact, affecting the representation structure in memory.

The clues related to the textual genre constitute a specifically discursive factor. Different types of narrative can produce different types of mental modeling of discourse. As discussed by Sparks and Rapp (2010), the genre "tragedy" usually has an expected final outcome, while the comedy genre is usually more unpredictable. Expositional materials, such as scientific articles, textbooks, newspaper columns, are characterized by a detailed structuring of concepts and facts, triggering more specific and objective analyses of causes and consequences. Violations of expectation in texts impose surprise effects that undoubtedly affect processing. Wolfe (2005), among other works reviewed in Sparks and Rapp (2010), studies the organization of texts, in tests that indicate that the previous and the most recent semantic associations in the structure of a text influence the mnemonic model in a different way.

In general, prior knowledge of the receiver significantly influences the processing of the text. The knowledge of concepts and facts stored in long-term memory affects performance in the reading or listening comprehension of texts, being active, for example, in the construction of connections between concepts, in the interpretation of ambiguous constructions or in the evaluation of the degree interpretive statements. Even recent knowledge, for example, those that can be controlled in materials exposed in experiments often have effects on comprehension tasks. For example, the study by Snyder (2000) controls the presentation of sentences with different types of syntactic islands[2] in questionnaires for judgment, observing an effect of accommodation or satiation by the subjects, as they found instances of these islands in the questionnaire. The islands presented at the beginning were judged to be less acceptable than the islands at the end of the questionnaire, exemplifying a case of more recent experiences already affecting subsequent assessments. In Brazilian Portuguese, the study reported in Barile and Maia (2008) controlled not the presentation of materials in a chronometric experiment of acceptability judgment of sentences with syntactic islands, but the groups of subjects exposed to such sentences. One of the groups consisted of Linguistics students, with explicit knowledge of the grammatical phenomenon of the syntactic

[2] Syntactic islands, first described in Ross (1967) are phrasal contexts that block the extraction of constituents. For example, a question like "What book did John find the teacher who wrote it?" is generally judged as agrammatical, since the constituent 'Which book' would have moved from the position after the verb 'wrote', needing to jump on more than two barriers, according to grammatical theory.

islands, obtained in a Syntax course, part of their curriculum. The other group consisted of Engineering students, without any knowledge of this phenomenon. In the between-group analysis, the difference between the average decision times for the negative assessment of the experimental sentences was significant, demonstrating that the subjects of the Linguistics group, with metalinguistic awareness of island constructions, were more reluctant to reject islands than the Engineering group.

This section has established the dichotomy that has characterized the area of Psycholinguistics known as Sentence Processing, already alluded to in the Introduction, which will serve as a reference framework for evaluating the results of the experiments to be reported in the next section, in we which seek to measure effects of the previous discursive context on sentence processing. This area has been marked by an opposition between two classes of incompatible models. On the one hand, models based on the symbolic paradigm, such as the Garden Path Theory - GPT (FRAZIER; FODOR, 1978; FRAZIER, 1979; FRAZIER; RAYNER, 1982), assume a two-stage processor (parsing and interpretation), proposing initial, serial and incremental syntactic analysis, based on simplicity metrics, delaying the access to semantic and pragmatic information for the interpretative, post-syntactic phase. On the other hand, connectionist models, based on the network paradigm, propose that the processor activates multiple sources of information in parallel (MACDONALD; PEARLMUTTER; SEIDENBERG, 1994; TRUESWELL; TANENHAUS; GARNSEY, 1994; TRUESWELL; TANENHAUS; KELLO, 1993) that can compete with one another, producing activations with different weights. The studies reported below will be discussed in the general framework of this dichotomy, especially regarding the temporal course of access to linguistic information during the on-line comprehension of sentences in Portuguese, using chronometric methodologies designed to capture and analyze processes at the moment they are taking place.

Pressupositional effects in the processing of structurally ambiguous Prepositional Phrases

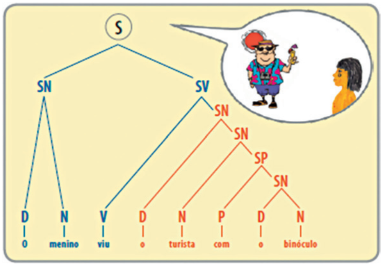
In this section, we will briefly report the study originally published in Maia *et al*. 2003, and also revised in Maia (2013). In this study we investigated a classic type of syntactic attachment ambiguity, as the sentence exemplified in (4) below, in which grammar allows both the attachment of the PP “with binoculars” as an adverbial adjunct, and as an adnominal attachment to the object DP, the tourist:

(4) The boy saw the tourist with binoculars[3]

Note that this sentence allows two syntactic analyses, which respectively produce two distinct interpretations, as illustrated below (MAIA, 2006):

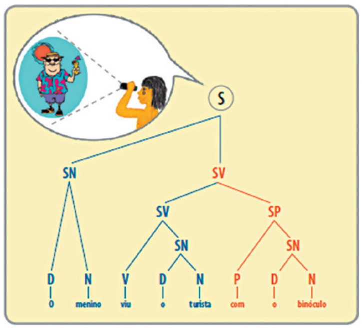
[3] In the original: “*O menino viu o turista com o binóculo.”*

Figure 1 – The tourist has the binoculars



Source: Maia (2006, p.98).

Figure 2 – The boy has the binoculars



Source: Maia (2006, p.99).

In English, Clifton, Speer and Abney (1991) use both self-paced reading and eye-tracking techniques to demonstrate a faster preference for the attachment of the PP to the verb than for the attachment to the DP, as predicted by the Minimal Attachment Principle. Crucially for the questions examined in the present article, Maia *et al.* (2003) also included in the test *design*, conditions that aimed at verifying whether attachment preferences could be influenced by the discursive context. The authors manipulated pragmatic presuppositions in order to make PP attachment to DP more or less plausible.

As reported in Maia *et al.* (2003) and revised in Maia (2013), questionnaires were applied to first establish the interpretation preferences of readers between the two grammatically possible analyses. The authors also manipulated the previous context. Forty undergraduate students received two versions of questionnaires containing 20 experimental sentences, as those exemplified below, distributed in a Latin square design among 40 fillers:

Chart 1 – Questionnaire study

1a - Context – Plausible:
Havia um turista no parque. O policial viu o turista com o binóculo. "There was one tourist in the park. The policeman saw the tourist with binoculars"
1b - Context +Plausible:
Havia dois turistas no parque. O policial viu o turista com o binóculo. "There were two tourists in the park. The policeman saw the tourist with binoculars"
Quem estava com o binóculo?

Source: Author's elaboration.

The -Plausible context, exemplified in (1a), mentions a single referent, whereas the +Plausible context, in (1b), mentions two referents, intending to increase the plausibility of a DP attachment of the PP. If there were two tourists in the park, it would be more likely to attach the PP to the DP. The results, presented in Table 1 (below), show the answers to the questions computed according to context effects:

Table 1 – Results and percentages per experimental condition

Plausibility	PP to VP	PP to DP
- Plausible	259 / 64,9%	141 / 35,1%
+ Plausible	219 / 54,9%	181 / 45,1%

Source: Author's elaboration.

It should be noted that, even in the + Plausible context, there is no preference higher than 50% for the DP ($p < 0,05$). Nevertheless, context had a robust influence on the answers: In the + Plausible context there was a significant increase in the preference for DP attachment ($t(399) = 2,90$; $p< 0,01$).

In the most plausible condition, there are less pronounced differences in favor of high attachment, computing a significantly higher number of low appositions, which indicates an interaction between the manipulation of the number of referents in the previous context and the choice of the low attachment of the PP, specifying the DP.

However, in a questionnaire study which is restricted to an interpretive evaluation which necessarily takes place after the on-line processing of the sentence, nothing can be learned about the processing phase *per se*. Even though, a significant interaction between the context and the attachment decision was observed, such a difference in interpretation could be reflecting a reanalysis effect, since the on-line processing of the sentence was not monitored. In other words, the parser could have committed itself to a minimal attachment analysis, and then revised its initial decision to consider the pragmatic factor, namely, the existence of more than one referent in the discourse.

In order to verify if this effect registered in the questionnaire study could also be identified already in the initial phase of the syntactic parsing, an online self-paced reading experiment was performed, which recorded the average reading times of the parts in which sentences were divided, allowing hypotheses to be formulated about the temporal course of processing.

A self-paced reading experiment was designed, in which 24 subjects were asked to read, in a natural and fast manner, two segmented sentences, as indicated by the oblique bars, in the examples below. Each subject was exposed to 16 experimental sentences, presented randomly with 32 distractors, totaling 48 sentences[4]. The experimental sentences were distributed in four conditions; namely, +PL (+ plausible low), +PH (+plausible high), –PL (–plausible low) and –PH (–plausible high).

Frame 2 – Examples of materials in the SPR study[5]

(2a) +PL: There were two tourists in the park./The policeman/saw the tourist /with an open wound.
(2b) +PH: There were two tourists in the park./The policeman/saw the tourist/with the black binoculars.
(2c) –PL: There was a tourist in the park./The policeman/saw the tourist/with an open wound.
(2d) –PH: There was a tourist in the park./The policeman/saw the tourist/with the black binoculars.

Source: Author's elaboration.

After reading each sentence, whose segments were presented in a non-cumulative manner, by pressing the yellow key in the button box[6] connected to an Apple Macintosh computer, there was an interpretation question about the sentence. The question should be answered by pressing either the green key (yes) or the red key (no) in the button box. The experiment intended to test two hypotheses: (a) the Minimal Attachment Principle, which predicts the immediate preference for high PP attachment; (b) the interference of non-structural factors, such as the pragmatic assumption, in on-line processing. Hypothesis (a) would be confirmed if the reading of the PP, presented in segment 4 of

[4] As it is generally the case in experimentation, fillers were included in a proportion of 2/3 of the set of the materials, in order to try to avoid that participants become aware of the questions being tested, which could cause satiation effects and influence results, leading to error.

[5] In the original:
(2a) +PL: *Havia dois turistas no parque./O policial/viu o turista/com a ferida aberta.*
(2b) +PH: *Havia dois turistas no parque./O policial/viu o turista/com o binóculo preto.*
(2c) –PL: *Havia um turista no parque./O policial/viu o turista/com a ferida aberta.*
(2d) –PH: *Havia um turista no parque./O policial/viu o turista/com o binóculo preto.*

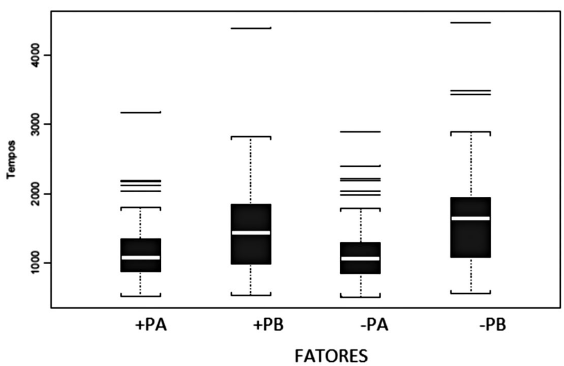
[6] A *button-box* is a device that allows the precise recording of reading or reaction times through button pressing, in psycholinguistic experiments.

each experimental sentence, was slowed under conditions where a low reading was forced than under conditions where high attachment was possible.

This should occur because, being operative in Portuguese, the Minimal Attachment Principle would determine that the attachment of the PP would be initially made, as default, to the VP. Initially committing to this analysis, the readers would enter a garden-path in the sentences in which the reading was forced low, needing to review their initial analyses. Both the surprise effect of being in the garden-path and the revision of the initial syntactic attachment decision would require more mental operations than would be required to process the sentences in which high attachment was admitted, determining the longest reading of PPs in low conditions. Hypothesis (b) would be confirmed if significant differences were detected in PP reading times between + P and -P conditions. For example, the PPs in the -PL condition should record higher average reading times than the PPs in the + PL condition, if the referential presupposition clue was taken into account quickly, just as it appears to have occurred in the off-line task .

As can be seen in the graph below, which indicates the average reading times of the critical segments (segment 4) for each condition, the experiment showed that the Minimal Attachment Principle is also operative in this type of ambiguous structure in Portuguese. The experiment showed that there was no significant interaction between the information regarding the pragmatic assumption and the preferential syntactic apposition of the PP. It should be noted that the conditions under which the low attachment was forced show the highest reading times, as predicted. The crosses -PH x -PL presented significant differences, as did the crosses + PH x + PL. Also the crossing of PH (+ PH and -PH) and PL (+ PL and - PL) was significant, indicating a main effect of the interaction between high or low PP attachment and reading times indicative of the garden-path effect and reanalysis, as predicted. However, the crosses -P x + P are not significant, neither with respect to the crossing of -PH x + PH (p = 0.8505), nor with respect to the crossing of -PL x + PL (p = 0.1244).

Graph 1 – Average reading times of critical segment 4



Source: Author's elaboration.

Graph 1 suggests that sentences with B (low attachment) have longer average reading times. An ANOVA[7] with a factor (whose levels were the types of sentences) showed a significant result (F (3,355) = 18,03, p = 0). This means that there are differences in reading times for each type of sentence. Since the sentences with B (low attachment) present longer reading times than the sentences with A (high attachment), the reading times were analyzed, considering the factor with levels A and B, using a 2x2 ANOVA. The results of the analysis with A vs. B and plausibility as factors within subject showed a main effect of A vs. B (high x low attachment), yielding significant results in the ANOVA (F (1,356) = 49.62, p = 0) with sentences A (1148.6ms) showing significantly lower reading times than the B phrases (1563.7ms). The main plausibility effect, in contrast, did not present a statistically significant result (F (1.356) = 1.61, p = 0.21).

These results indicate that the effect of the pragmatic assumption obtained in the off-line experiment did not occur in the syntactic parsing, but only in the interpretive phase of comprehension, suggesting that the parser is impervious to this type of non-structural information. As we shall see, in the next section, however, there is semantic information that, occurring prior to a critical area in the sentence, can, in effect, influence both its interpretation and the reading patterns in on-line measurement.

Semantic effects in the reading and interpretation of subjects of inflected infinitive verbs in Brazilian Portuguese

The report of the following experiment was translated and adapted from Modesto and Maia (2017), presenting an eye tracking study of the reading of sentences containing inflected infinitive verbs in Brazilian Portuguese. In that study, the authors examined the syntactic representation and processing characteristics of null subjects of inflected non-finite sentences in Brazilian Portuguese (BP). After reviewing the relevant syntactic, sociolinguistic, and psycholinguistic literature and discussing the diachronic peculiarities of BP, the authors analyzed the results obtained in the eye tracking experiment, arguing that they show that the controlled interpretation of the subject of the inflected infinitive is not only psychologically real, but also the preferred option in a task where the controlled reading is compared to the arbitrary reading. It is exactly the difference between these two readings, prompted by the context before the sentence in which the inflected infinitive verb was found, which we will focus on in this section.

The eye tracking experiment examined the reading of sentences consisting of a contextualizing subordinate clause, a main clause, and a final clause containing a sentence with a verb in the inflected infinitive. The objective of the experiment was

[7] ANOVA or Analysis of Variance is a statistical test that allows to measure differences between averages obtained for independent variances in an experiment, establishing main effects and interactions.

twofold. First, the authors sought to investigate the effect of mandatory control contexts on sentence processing in relation to contexts favoring indeterminate, arbitrary and referential readings. Secondly, the number agreement between the subject and the verb in the inflected infinitive was manipulated to assess whether the agreement in the singular would totally block a control reading of the sentence or whether a partial control interpretation would still be allowed.

The hypothesis was that the latencies of the first-pass reading measurements (Total Fixation Durations) would be longer in the non-control conditions than in the control conditions, reflecting the higher processing cost of not establishing a local control syntactic relationship, which should be the standard preference in sentence processing. Consistent with the hypothesis that the local control relationship should be preferred as the default in sentence processing, it was also expected that the latencies of the regressive measures for the contextualizing subordinate clauses should be longer in the conditions of non-control interpretation than in the control conditions, reflecting the higher cost of inferential processes vis-à-vis the computation of local grammatical relations. It was also predicted that the questions of interpretation (off-line), which always aimed at the reference of the empty category in the sentence with the inflected infinitive (PRO), should indicate preference for the interpretation of control in the experimental conditions of control, in contrast to the preference for uncontrolled inferential interpretation, under non-control conditions, since the off-line interpretation measure must, in principle, be able to capture post-syntactic integrative processes.

Method

Participants

Forty undergraduate students from the Federal University of Rio de Janeiro voluntarily participated in the experiment, for earning course credit. All were native BP speakers with normal or corrected vision and no history of reading problems.

Materials and Design

A total of 16 sets of experimental sentences as shown in Table 3 were created. Each sentence was followed immediately by an interpretation question that investigated the referent of the empty category in the subject position of the sentence with the verb in the inflected infinitive. Examples of the corresponding questions for the sentences exemplified in Table 3 are shown in Table 4. All experimental sentences consisted of an initial subordinate clause followed by a main clause and a sentence with the verb in the inflected infinitive. There were two independent variables crossing, in a 2x2 design, that is, the control context variable, which had two levels, mandatory control (O) or no control (N) and number agreement, which could be singular (S) or plural (P). The intersection of these two independent variables, each with two levels, generated four conditions: No Control Plural (NP), Obligatory control Plural (OP), No Control Singular (NS), Obligatory Control Singular (OS). The noncontrol conditions were additionally manipulated in terms of two subconditions: 8 sentences had a referential DP in the subordinate clause, which could potentially be the PRO controller, in the sentence with the inflected infinitive, and another set of 8 sentences did not include such referential DP in the subordinate clause, forcing an exclusively arbitrary interpretation for the PRO.

Obligatory control sentences always contained, in the initial subordinate clause, a verb whose cataphoric subject was the subject DP of the main clause. This DP constituted a semantically plausible subject for all the verbs in the sentence: the verb of the subordinate clause, the verb of the main clause and the inflected infinitive verb in the final clause of the sentence. Uncontrolled clauses, on the other hand, should not allow the possibility that the subject of the main clause could also be the cataphoric subject of the verb of the previous subordinate clause. Uncontrolled clauses always present a subject DP in the main sentence, which for semantic reasons could not be the controller of the empty category PRO in the non-finite clause. In the adjunct clause, in the uncontrolled clauses there was not a semantically plausible DP, neither was there a DP that could plausibly be a distant antecedent to the PRO. The independent variable ‘number’ included a level at which the DP subject and the main clause verb agreed in the plural (P) and a level at which the subject DP and the main clause verb agreed in the singular (S).

The verbs of the subordinate clauses, as well as the verbs in the inflected infinitive, were always in the plural. The experimental sentences were distributed in a Latin square, generating four versions of the experiment. In addition, other 32 sentences with different types of structures were created to serve as distractors. For both the experimental items and the distractors, the length of the sentence was controlled to be within a range of 25 to 30 metric syllables. The 48 sentences (16 experimental and 32 distractors) in each version were pseudorandomized to be presented in a fixed order, but always intercalating distracting sentences among the experimental sentences and ensuring that the first and last two sentences were never experimental sentences.

Frame 3 – Examples of experimental sentences[8]

Cond	Subordinate clause (adjunct)	Main Clause	Inflected infinitive verb clause
NP arb	*Como os feridos foram achados logo*	*os repórteres julgaram*	*Terem salvo muitas vidas*
NP ref	*Só quando os bebês foram examinados*	*Os cuidadores perceberam*	*Terem sujado as fraldas*
OP	*Como chegaram logo ao local da queda*	*Os bombeiros julgaram*	*Terem salvo muitas vidas*
NS arb	*Como os feridos foram achados logo*	*o repórter julgou*	*Terem salvo muitas vidas*
NS ref	*Só quando os bebês foram examinados*	*o cuidador percebeu*	*Terem sujado as fraldas*
OS	*Quem salvou muitas vidas? (A) o bombeiro (B) outras pessoas*		

Source: Author's elaboration.

[8] NP arb As the wounded were found soon, the reporters judged having saved many lives
NP ref Only when the babies were examined, the caretakers realized (they) had dirtied their diapers
OP As (they) arrived promptly at the scene of the fall, the firefighters realized (they) had saved many lives
NS arb As the wounded were found promptly, the reporter judged (they) had saved many lives
NS ref Only when the babies were examined, the caretaker realized (they) had dirtied their diapers.
Who saved many lives? (A) The firefighter (B) other people

Frame 4 – Examples of interpretation questions[9]

Cond		Interpretation question	
NP	arb	*Quem salvou muitas vidas?*	*(A) os repórteres* *(B) outras pessoas*
	ref	*Quem sujou as fraldas?*	*(A) os cuidadores* *(B) outras pessoas*
OP		*Quem salvou muitas vidas?*	*(A) os bombeiros* *(B) outras pessoas*
NS	arb	*Quem salvou muitas vidas?*	*(A) o repórter* *(B) outras pessoas*
	ref	*Quem sujou as fraldas?*	*(A) o cuidador* *(B) outras pessoas*
OS		*Quem salvou muitas vidas?*	*(A) o bombeiro* *(B) outras pessoas*

Source: Author's elaboration.

Procedures

A TOBII TX300 eye tracker monitored participants' eye fixations and movements. Subjects viewed the stimuli binocularly on a 23-inch monitor, 65cm apart. The sentences were written in font Courier New 28pt (True Type) and were displayed on the screen in a single line. Before starting the experiment, subjects read instructions

9 NP arb Who saved many lives? (A) the reporters (B) other people
NP ref Who dirtied the diapers? (A) the caretakers (B) other people
OP Who saved many lives? (A) the firefighters (B) other people
NS arb Who saved many lives (A) the reporter (B) other people
NS ref Who dirtied the diapers? (A) the caretaker (B) other people
OS Who saved many lives? (A) the firefighter (B) other people.

on how to perform the test. Participants were instructed to read the sentences at a very fast pace, but trying to understand the text, as they would be asked to answer an interpretation question at the end of each sentence. By pressing the spacebar on the keyboard, the participants monitored the duration of each sentence on the screen. To ensure a quick reading of the sentences, a timeout of 2 seconds was established, after which the sentence was replaced on the screen by the interpretation question. Participants were then instructed to try to read the sentences as quickly as possible and try to press the keyboard bar before the timeout. Thus, after reading the sentence, the subjects would typically press the bar before the timeout, to call another screen that contained a question with two possible answers, each preceded by (A) and (B). Subjects were instructed to press the key marked with (A) or with (B) on the keyboard. If the subjects took longer than the time limit to press the spacebar, the screen with the interpretation question would appear automatically. A timeout of 5 seconds was set for the interpretation questions screen.

After the instructions there was the calibration phase, which consisted in asking the subject to eye track a red ball moving (bouncing?) around the screen. If the calibration was successful, as indicated by a screen after the calibration session, the experimenter would initiate a training session; otherwise, a recalibration session would take place. The practice session consisted of three sentences that were observed by the experimenter. If the experimenter approved the subject's procedures and he confirmed that he understood the instructions well and could do the experiment, the instructor would start the experiment and leave the room. A complete session usually lasted 25 to 30 minutes.

Results and Discussion

The full results of this study and its respective statistical analyzes are available in Modesto and Maia (2017). In the present article, we intend to focus on the results that are more directly relevant to the topic we are discussing, regarding the influence or not of the discursive context in sentence comprehension.

Next, we present the differences found in the average fixation durations between the sentences in the OP, OS, NP ref, NP arb, NS arb and NS ref conditions, exemplified below:[10]

[10] OP: As (they) arrived promptly to the place of the fall, the firefighters judged having saved many lives
OS: As (they) arrived promptly to the place of the fall, the firefighter judged having saved many lives
NP ref: When the terrorists arrived to the base, the pilots realized (they) were armed.
NP arb: When the data arrived to the base, the scientists realized (they) were in orbit.
NS ref: Only when the babies were examined, the caretaker realized (they) had dirtied the diapers.
NS arb: When the selection was cancelled, the candidate judged (they) were ill intentioned.

OP: Como chegaram logo ao local da queda, os bombeiros julgaram terem salvo muitas vidas
OS: Como chegaram logo ao local da queda, o bombeiro julgou terem salvo muitas vidas
NP ref: Quando os terroristas chegaram na base, os pilotos perceberam estarem armados.
NP arb: Quando os dados chegaram na base, os cientistas perceberam estarem em órbita.
NS ref: Só quando os bebês foram examinados, o cuidador percebeu terem sujado as fraldas
NS arb: Quando o concurso foi cancelado, o candidato julgou estarem mal-intencionados.

Total fixation durations and percentages of decisions in off-line questions can be found in Table 2:

Table 2 – Total fixation durations and percentage of control decisions per condition

Cond	OP	OS	NS ref	NS arb	NP ref	NP arb
Duration	1459 ms	1550 ms	1584 ms	1667	1724	1806
Control Int	83%	62%	24%	29%	28%	36%

Source: Author's elaboration.

The results obtained for the averages of the total durations in the reading of those sentences, by condition, allows us to arrange them according to the following scale in ascending order of average fixation durations, in which significant differences between these durations were found in the statistical analysis.

Frame 5 – Ascending ranking of fixation durations per condition

OP < OS < NS ref < NS arb < NP ref < NP arb

Source: Author's elaboration.

Those sentences are now examined in detail. As explained above, the obligatory sentences O always contained, in the initial subordinate sentence, a verb whose cataphoric subject was the DP subject of the main sentence, which constituted a semantically plausible subject for all verbs in the sentence. Having a local controller for the empty category in the subject position of the sentence with the inflected infinitive (PRO have saved many lives), the OP clauses obtained the fastest reading as demonstrated in the heatmap of a typical reading in Figure 3:

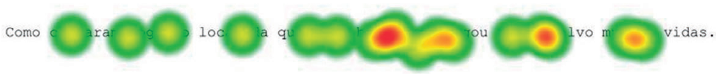
Figure 3 – OP: As (they) arrived at once in the place of the fall, the firefighters judged (they) had saved many lives

Source: Author's elaboration.

That is, when the processor encounters the DP firefighters, he/she evaluates its referential relevance as the subject of all verbs in the sentence (firefighters arrived, firefighters judged and firefighters saved many lives). This reference analysis has an impact on the reading during its realization, resulting in a resolution of the coreference with ocular fixation times relatively smaller than all other conditions. In the off-line measure, which sought to always probe the possibility of interpretation of control (the firemen saved), this condition obtains the highest rate of control interpretation.

Let us look now the heatmap of a sentence in the OS condition:

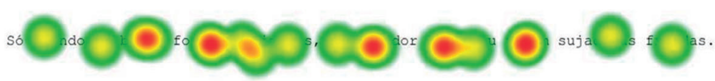
Figure 4 – OS: As (they) arrived at once at the place of the fall, the firefighter judged (they) had saved many lives



Source: Author's elaboration.

The sentences of this condition take significantly longer to read than the OPs, since number agreement is incompatible between the subject DP of the main clause and the inflected infinitive clause. However, partial control is still possible and the coreference in this condition is resolved at shorter reading times than in the N conditions, in which one tries to avoid the relation of control of the empty category in the subject position of the verb in the inflected infinitive. The number mismatch was intended to block the interpretation of the local control requiring, therefore, a more exhaustive visual search for a controller for the PRO. As they do not find a possible local controller in an N sentence, readers should invoke arbitrary reading as a last resort. In any case, this condition obtained the second highest rate of control interpretation, although partial, in the off-line measure. Accordingly, in NS ref, there is a progressive increase in the fixation durations in the reading of the sentence:

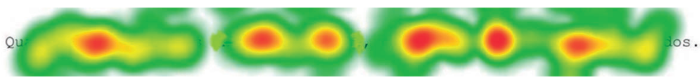
Figure 5 – NS ref: Only when the babies were examined, the caretaker realized (they) had dirtied the diapers



Source: Author's elaboration.

It should be noted that, in this sentence, we tried to block the possibility that the subject DP of the main clause (the caregiver) could not control the empty category in the subject position of the verb in the inflected infinitive through formal resources (agreement mismatch). However, in this condition a plausible DP (the baby) was placed in the subordinate clause to practice the action of the inflected infinitive verb (which had not dirtied diapers), unlike the subject DP of the main clause (the caregiver) that would not be likely to practice this action. This manipulation of plausibility, which is not present in the OS condition or OP condition, required longer fixation times than the previous conditions, indicating that the semantic processing occurred on-line, with consequences also for the off-line interpretive measure, which falls significantly in control percentage. In NS arb, as indicated in the heatmap below, the fixation durations rise even further:

Figure 6 – NS arb - When the selection exam was cancelled, the candidate judged (they) were ill intentioned

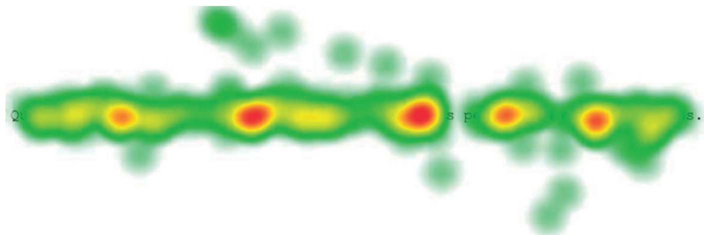


Source: Author’s elaboration.

In this case, the number agreement mismatch between the subject DP of the main clause (the candidate) and the verb in the plural inflected infinitive is maintained. However, unlike the NS ref condition, there is no plausible antecedent to control the verb in the inflected infinitive. The search for a referential antecedent causes even longer time periods for the resolution of the coreference in the sentence than in the previous conditions. Finally, the possibility of arbitrary interpretation (other people were malicious) seems to be accessed, as indicated by the low percentage of interpretation of control in the interrogative questions.

In the NP ref condition, the agreement between the subject DP of the main clause and the inflected infinitive verb seems to make the search for a local controller even more costly because it is misleading. Thus, the initial search for a local controller is discarded because it is not semantically plausible. The search then proceeds to find a possible controller in other areas of the sentence, finding greater semantic plausibility in the subject DP of the subordinate clause. Again, there is a semantic effect on the on-line measure. Fig. 7 shows the heatmap of a NP ref. sentence.

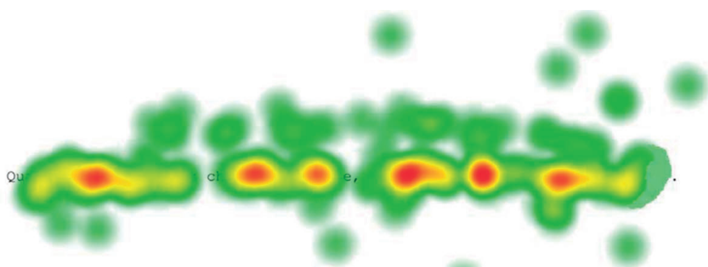
Figure 7 – NP ref: When the terrorists arrived at the base, the pilots realized (them) to be armed



Source: Author's elaboration.

Finally, Figure 8 illustrates the heatmap of an NP arb sentence, which demands the longest average fixations of all conditions, since there is no semantically plausible DP in the sentence that could be the appropriate controller for the PRO. The arbitrary interpretation of the PRO is the most costly for the processor because it requires intense visual scanning in the search for a plausible DP. The parser resorts to an arbitrary interpretation only when this search proves fruitless.

Figure 8 – NP arb: When the data arrived at the base, the scientists realized (they) were in orbit



Source: Author's elaboration.

Final remarks

In the present article, we sought to review the role of discursive context in sentence processing. Two experiments were presented with on-line and off-line measurements in which pragmatic or semantic plausibility factors were manipulated. In the first experiment, it was observed that the construction of the syntactic tree in the parsing process was not affected by manipulated assumptions, which sought to influence the attachment rates of a PP to the local DP and not to higher VP. The results of the self-paced reading study, as seen, did not indicate that the manipulated presuppositional factors were accessed in time to influence the sentence syntactic analysis, and it was only in the final measure, in the post-parsing interpretive phase, that an influence of pre-sentence presuppositions was observed. In the second study, on the other hand, it was possible to observe effects of the semantic reference of DPs in on-line, as well as in off-line measurements. As discussed in the previous section, the semantic plausibility that a DP could be selected by a verb as its agent determined significant differences in the visual scan of the sentence, with consequent differences in the mean times of ocular fixation in reading.

Before concluding, we shall suggest a possible explanation for this apparent conflict in the access to discursive semantic and/or pragmatic information by the syntactic processor. As we have seen, the field of sentence processing has been characterized by structural models such as the GP theory, which proposes that the initial analysis of the sentence is not influenced by semantic factors, in contrast to more interactive models that admit the influence of semantics already in the initial analytical processes.

In addition, we also speculate whether an evaluation of these models based on the two studies reported in this article is inconsistent or inconclusive, not allowing proof or rejection of either type of model. A closer comparative analysis of the two experiments presented here may offer reasons to assess this contradiction as only apparent, as indicated above. It should be noted that in the first experiment what is at stake is the construction of the syntactic tree by the parser, which offers a rapid analysis to be interpreted in a second more integrative moment of comprehension, when the interpretation of the sentence is made, precisely considering the syntactic structure composed by the parser. The initial syntactic analysis is proven to be rapid, performed on a millisecond scale. In order to achieve this speed, it is necessary to restrict the information that is initially accessed, and then revise the initial analysis, if necessary. The initial analysis must therefore be restricted to the minimum information needed to build the tree. On the other hand, in the second experiment, there is no syntactic tree construction, but the establishment of semantic references and coreferential relationships. As evaluated by Nicol (1988), in his seminal work about the sub-area of anaphoric coreference, it would be possible to think that the establishment of coreferential relations is an intermediate module between the structural syntactic analysis and the interpretative processes, in sentence comprehension. By all means, in order to process these relationships, it is necessary to inspect the structure, evaluating, for example, syntactic licensing, such as those proposed in the Binding Theory (CHOMSKY, 1981), but it is necessary to go beyond this structural inspection, in order to satisfy the interpretability of the sentence. If such an architecture of the processes of language comprehension is true, there is no longer any reason to believe that the two experiments are contradictory: the influence of the discursive context is not observed in the on-line capture of the initial tree-building syntactic analysis, but can be observed in on-line measurements, in the establishment of referential and co-referential relations that intermediate the structural processes and the interpretative phases of sentence comprehension.

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MAIA, M. Sentence processing and discourse context. **Alfa**, São Paulo, v. 63, n.3, p.565-588, 2019.

▪ *RESUMO: Investiga-se o curso temporal dos subprocessos da compreensão de frases, procurando-se determinar se o processador é estritamente sintático em sua análise inicial ou se já acessa informações de natureza semântica e discursiva a tempo de influenciar a análise sintática. São reportados dois estudos com falantes de português brasileiro, para aferir efeitos de contexto discursivo no processamento. O primeiro revisita o processamento de Sintagmas Preposicionais ambíguos e encontra efeito do discurso prévio apenas nas medidas finais, que monitoram a interpretação. O segundo usa a técnica de rastreamento ocular (eye-tracking) para aferir a busca de antecedente para o sujeito de oração com verbo no infinitivo flexionado, encontrando efeito do discurso prévio tanto na medida final ou off-line, quanto na medida on-line. Discutem-se possíveis razões para as diferenças entre os efeitos de informações discursivas nos dois experimentos.*

▪ *PALAVRAS-CHAVE: Processamento sintático. Efeitos do contexto discursivo. Rastreamento ocular.*

REFERENCES

BARILE, W.; MAIA, M. A. R. Aspectos prosódicos do QU in-situ no português brasileiro. **Revista Virtual de Estudos da Linguagem**, Porto Alegre, v. 6, p. 1-21, 2008.

BEVER, T. G. The Cognitive Basis for Linguistic Structures. *In:* HAYES, J. R. (ed.). **Cognition and the Development of Language**. New York: John Wiley, 1970. p.279-362.

CHOMSKY, N. **Lectures on government and binding**. Dodrecht: Foris, 1981.

CLIFTON, C. Jr.; SPEER, S. R.; ABNEY, S. P. Parsing arguments: Phrase structure and argument structure as determinants of initial parsing decisions. **Journal of Memory and Language**, Maryland Heights, n.30, p.251-271, 1991.

FERREIRA, F.; CLIFTON, C. Jr. The Independence of Syntatic Processing. **Journal of Memory and Language**, Maryland Heights, v. 25, p. 348-368, 1986.

FRAZIER, L. **On comprehending sentences:** Syntactic parsing strategies. 1979. Thesis (Doctor in Linguistics) - University of Connecticut, Indiana University Linguistics Club, Bloomington, Indiana, 1979.

FRAZIER, L.; FODOR, J. D. The sausage machine: A new two-stage parsing model. **Cognition**, Amsterdam, n.6, p.291-325, 1978.

FRAZIER, L.; RAYNER, K. Making and correcting errors during sentence comprehension: Eye movements in the analysis of structurally ambiguous sentences. **Cognitive Psychology**, Maryland Heights, v.14, p.178-210, 1982.

HYONA, J.; LORCH, R. F. Effects of topic headings on text processing: evidence from adult readers' eye fixation patterns. **Learning and Instruction**, Oxford, UK, v.14, n.2, p.131-152, 2004.

MAIA, M. Linguística Experimental: aferindo o curso temporal e a profundidade do processamento. **Revista de Estudos da Linguagem,** Belo Horizonte, v.21, p.9-42, 2013.

MAIA, M. *et al*. O Processamento de concate- nações sintáticas em três tipos de estruturas frasais ambíguas em português. **Fórum Linguístico**, Florianópolis, v.4, n.1, p.13-53, 2003.

MAIA, M. A. R. Processos bottom-up e top-down no rastreamento ocular de imagens. **Veredas**, Juiz de Fora, v.2, p.8-23, 2008.

MAIA, M. A. R. **Manual de Linguística:** subsídios para a formação de professores indígenas na área de linguagem. Brasília: MEC/SECAD, 2006. (Série Vias dos Saberes, 4).

MACDONALD, M. C.; PEARLMUTTER, N. J.; SEIDENBERG, M. S. The Lexical nature of syntactic ambiguity resolution. **Psychological Review**, Washington, n.101, p.676-703, 1994.

MODESTO, M.; MAIA, M. Representation and Processing of the Inflected Infinitive in Brazilian Portuguese: an eye-tracking study. **Revista de Estudos da Linguagem**, Belo Horizonte, v.25, p.1183-1224, 2017.

NICOL, J. **Coreference Processing during Sentence Comprehension**. 1988. Thesis (Doctor in Linguistics) - Massachusetts Institute of Technology, Cambridge, 1988.

RAPP, D. N.; TAYLOR, H. A. Interactive dimensions in the construction of mental representations for text. **Journal of Experimental Psychology:** Learning, Memory and Cognition, Washington, n.30, p.988-1001, 2004.

ROSS, J. R. **Constraints on Variables in Syntax**. 1967. Thesis (Doctor in Philosophy) - Massachusetts Institute of Technology, Cambridge, 1967.

SANDERS, T. J. M.; NOORDMAN, L. G. M. The role of coherence relations and their linguistic markers in text processing. **Discourse Processes**, Philadelphia, v.29, n.1, p.37-60, 2000.

SNYDER, W. An experimental investigation of syntactic satiation effects. **Linguistic Inquiry**, v.31, n.3, p.575-582, 2000.

SPARKS, J. R.; RAPP, D. N. Discourse processing: Examining our everyday language experiences. **Wiley Interdisciplinary Reviews:** Cognitive Science, Oxford, n.1, p.371-381, 2010.

WOLFE, M. B. W. Memory for narrative and expository text: independent influences of semantic associations and text organization. **Journal of Experimental Psychology Learning Memory & Cognition,** Washington, v.31, p.359-364, 2005.

TRUESWELL, J. C.; TANENHAUS, M. K.; GARNSEY, S. M. Semantic influences on parsing: Use of thematic role information in syntatic ambiguity resolution. **Journal of Memory and Language**, Maryland Heights, v. 33, p. 285-318, 1994.

TRUESWELL, J. C.; TANENHAUs, M. K.; KELLO, C. Verb-specific constraints in sentence processing: Separating effects of lexical preference from garden-paths. **Journal of Experimental Psychology: Learning, Memory and Cognition**, Washington, v.19, n.3, p.528-553, 1993.

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ANALYSIS OF INFOGRAPHICS OF THE ADVERTISING SPHERE: MULTIMODALITY AND COMPOSITIONAL METAFUNCTION

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▪ ABSTRACT: Multimodality, which is characteristic of texts that gather two or more semiotic codes (KRESS; van LEEUWEN, 2006), requires an approach that emphasizes the verbal-visuality (BRAIT, 2013) of these compositions. The aim of this study is to analyze categories of the compositional metafunction (KRESS; van LEEUWEN, 2006) from the perspective of multimodality in infographics of the advertising sphere, with the purpose of understanding how the selected messages, configured in infographics, are organized. In order to do so, it is necessary to: (i) characterize the selected infographics based on categories of the compositional metafunction; (ii) understand how the multimodal and functional aspects relate to each other in these texts; (iii) investigate how the multimodal aspects act in the production of meaning. The sample consisted of five infographics from the advertising area selected from the *Pinterest* website. The multimodal analysis of the texts is carried out from categories of the compositional metafunction, from the *Grammar of Visual Design* (KRESS; van LEEUWEN, 2006). The analysis shows that there is not only a visual focus but also a variable number of multimodal elements that, with their different sizes, colors, and communicative functions, contribute to the creation of various degrees of salience. Reading is done from the signifiers that stand out the most in the ad pieces, thus producing meanings.

▪ KEYWORDS: Multimodality. Compositional metafunction. Infographic. Advertising.

Introduction

In the media, the extensive use of images emphasizes the importance of understanding the meaning these resources in a text. Multimodality, characteristic of texts that gather two or more semiotic codes (KRESS; van LEEUWEN, 2006), such as words and images, requires an approach focusing attention on the verbal-visuality (BRAIT, 2013) of these compositions. Due to the complex process of production and interpre-

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tation of multimodal texts, since it covers diverse modes of meaning and a multiplicity of aspects that are part of a sociocultural universe, studies such as those developed within the perspectives of multiliteracies (LEMKE, 2010; ROJO; BARBOSA, 2015), and digital literacy, (BARTON; LEE, 2015) are needed.

Multiliteracy studies have proven to be valuable for the resignification of the teaching role in the contemporary context of new information and communication technologies, since teaching is a social process, and learning takes place as the subject interacts with different genres in various socio-cultural practices. Thus, analyzing genres from all different social context spheres[1] is in a particular manner to address them from a multiliteracies perspective, conceiving text as a constitutive artifact of social relations.

The objective of this study is to analyze categories of the compositional[2] metafunction (KRESS; van LEEUWEN, 2006) from the perspective of multimodality, namely, information value, framing, and salience, in infographics of the advertising sphere, in order to understand how the selected messages configured in infographics are organized. In order to do that, the infographics were characterized using the compositional metafunction categories; then, the relation between the multimodal and functional aspects in these texts and the role of multimodal aspects in the construction of meaning in the texts are discussed.

The sample of this qualitative study is composed of five infographics of the advertising sphere, selected from a search on the *Pinterest* website. As a theoretical-methodological contribution, the focus is on multimodality from the *Grammar of Visual Design* by Kress and van Leeuwen (2006), which offers useful categories for the study of languages in verbal-visual texts. Thus, the visual should be understood not only as consisting of the presence of images in texts but also formal and functional aspects as compositional elements, i.e., an essential feature to the meaning of the text.

The topicality of the theme is one of the justifying factors for this study, since it is perceived that infographics have been increasingly used in a variety of supports and genres, both in the advertising and journalistic sphere. Among the studies on infographics in journalism, it is worth mentioning: Teixeira (2007) who analyzed infographics in *Superinteressante* and *Saúde,* popular scientific magazines; Teixeira and Rinaldi (2008), whose study focused on the infographics section of an *Internet* portal; Modolo (2007) studied infographics in Brazilian magazines, providing a historical

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1 The concept of spheres of human activity, fields or spheres of language use, is based on Bakhtin (2010) who mentions these spheres repeatedly when dealing with genres. From the Bakhtinian dialogical theory, Sobral (2009, p. 121, our translation) explains that the spheres are "a socio-historical, ideological cutout of the world, [...] endowed with a greater or lesser degree of stabilization, depending on their degree of formalization or institutionalization, within society and history, according to specific conjunctures". Each sphere has its particularities regarding the production, reception, and circulation of discourses; however, they are not polarized, static or watertight, since one sphere can dialogue with others, exchanging characteristics, contents and forms of functioning, as occurs in the advertising and journalistic spheres.

2 The compositional metafunction, by Kress and van Leeuwen (2006), consists of the transposition or adaptation of the textual metafunction of Systemic-Functional Linguistics, proposed by Halliday (1985). While the textual metafunction encompasses the modes of organization and composition of the message, with a focus on the linguistic text, the compositional metafunction emphasizes the modes of organization and composition of multimodal texts.

retrospect on the production of infographics in the journalistic field. Multimodality studies have focused on micro-chronicles published in the Zero Hora newspaper (GEHRKE, 2015), infographics of magazines through the *Grammar of Visual Design* (PAIVA, 2009), and the analysis of an editorial cartoon (KNOLL, 2015).

Furthermore, the relevance of this theoretical-methodological approach is given by the increasingly diversified repertoire of genres that integrate everyday social practices, considering the virtual contexts of interaction. . Mobile media, such as notebooks, tablets and smartphones, provide the contact with multimodal and hypermedia texts that group several languages. Thus, even though the reading of images is generally undertaken intuitively by people, difficulties remain in the composition and interpretation of messages conveyed in this modality of meaning making.

The study of language, in this case, is performed as a formal and functional analysis of the modalities which compose the selected examples. It is important to note that the *Grammar of Visual Design*, by Kress and van Leeuwen (2006), originates from Halliday's *Systemic-Functional Grammar* (1985), a theory from which the authors developed categories for visual analysis, i.e., there is a direct relation between multimodality and linguistic studies. The infographic is a fundamentally graphic and visual ad piece whose analysis will be crucial for the understanding of the functioning of language in this highly diffused genre in the digital media.

Thus this study is justified by the wide circulation of infographics, in diverse discursive spheres (TEIXEIRA, 2007), from the journalistic to the educational field, both in distance and conventional education, in teaching materials, as an educational resource in the classroom. Furthermore, in the view of the lack of specific guidance on the production and reading of this genre, regarding its characteristics and functions, it is necessary to address language as a semiotic system constitutive of interaction. Therefore, the contribution of this work if to provide examples of application of the multimodality approach to the analysis of these texts, grounded on the *Grammar of Visual Design* principles, by Kress and van Leeuwen (2006). It is also noteworthy the currentness of studies on specific social network texts, which is due to the diffusion of mobile technologies (smartphone and tablets) and by the launch of several websites and applications of social networks in the last ten years, such as the *Pinterest*, created in 2010. The messages selected from this social network were probably produced specifically for the medium,[3] with all the linguistic, imagery and functioning particularities that a textual materiality has.

This study is composed of the following sections: first, the concepts of text and genre are discussed; then the infographic is characterized as a genre; in the following, the compositional metafunction and multimodality are described; next, the methodological framework is presented; and, finally, the multimodality in infographics is detailed, followed by the final considerations.

[3] Inference based on the specificity of the texts published and shared there, because the social network has restrictions to certain formats and image sizes.

Text and genre

In any other activity, but especially in teaching, texts should be seen as a deposit of messages or as a set of grammatical elements (KLEIMAN, 2004), because there is a doubly constitutive relationship between text (discursive tissue) and social context.

According to Bakhtin (2010, p. 307, our translation), text is “the immediate reality (the reality of thought and experiences), the only one from which these disciplines and this thought can come.” Thus understood, the text is a unit of manifestation, a product and, at the same time, process of human creation (FIORIN, 2006). For materializing discourses, a text is composed of language units (or other semiotic code) and a conventionally shared language, maintaining dialogical relations with texts that preceded it.

The set of categories proposed by Kress and van Leeuwen (2006) for the analysis of other modalities in association with verbal language derives from Systemic-Functional Linguistics, which is based on Halliday’s (1985) grammar, a perspective also known as Social Semiotics, for covering signs and meaning intrinsically bound to the social context in which the messages take place. For this reason, the concept of text should be revised from this perspective.

Hodge and Kress (1988) differentiated message, text, and discourse in order to emphasize the social action, the context, and the use involved when analyzing language. Thus, the message was defined as “the smallest semiotic form that has concrete existence”, because it has a source and an address (a goal), “a social context and a purpose” (HODGE; KRESS, 1988, p. 5).

In this sense, as Hodge and Kress (1988, p. 6) put it, from Halliday’s Systemic-Functional Linguistics (1985), semiosis “is the social process by which meanings are constructed and exchanged in messages”. The text is a larger semiotic unit, whose Latin origin of the term (*textus*) means “something woven together”, that is, it is the materiality formed by a set of messages that coexist together, because they operate in the same context and the same situation. For example, the page of a newspaper is a text composed of several messages that, together, are semi-semantically processed by the reader. The discourse is, according to Hodge and Kress (1988), broader than the text for it is the social process from which the text emerges as produced materiality. For social semiotics, there is no text without discourse, nor discourse without text; there is a constitutive relationship between them.

Added to this are the hypermediality and hypertextuality[4] of texts produced and shared using technological devices in mediated interactions, and the consequent increase in the networks of meaning and communicative flow complexity. Some

[4] As Xavier (2010, p. 207, our translation) put it, reading is a “process of co-production of meaning of texts and hypertexts.” Hypertext is defined as the unit “hybrid, dynamic and flexible language [unit] that dialogues with other semiotic interfaces, adds and conditions to its surface other forms of textuality” (XAVIER, 2010, p. 208, our translation). In this language technology, the presence of sounds, graphics, diagrams, *hyperlinks* occurs, all gathered in the same message. Thus, according to the author, the reading of hypertexts require more than simply decoding, because it involves a nonlinear, hyperconnected, and multidimensional path.

texts are produced and distributed directly in the cyberspace, which is also called network, arising "from the worldwide interconnection of computers"[5], involving not only machines or infrastructure, "but an ocean of information"[6] (LÉVY, 1999, p. 17, our translation). Along with the development of cyberspace, there is a set of techniques, social practices, interactions, values, and ways of thinking that develop, composing the cyberculture (LÉVY, 1999). Hence, the various genres in cyberspace are part of the cyberculture.

Because texts are not only the material products, but also semiotic units entirely dependent on the reality of social interactions, the plethora of languages not only represent meanings but also build them. Therefore, genres are culturally and historically constituted; that is, it is not possible to consider them separately from the context of communication. A genre is recognizable to participants in a given socio-historical instant.

Besides, it is necessary to highlight the heterogeneity of genres, resulting from the infinite potential for interaction: "genres include all sorts of everyday dialogues, as well as enunciations of public, institutional, artistic, scientific and philosophical life"[7] (MACHADO, 2005, p. 155, our translation). For Kress (2008), there is no communication apart from those engendered in some genre, because a message or a text respond to a social fact, which is the genre. In this sense, "genre is essential in all attempts to understand text, whatever its modal constitution"[8] (KRESS, 2008, p. 107, our translation).

For this work, the socio-rhetorical perspective of genres was prioritized. In this view, genres are social actions that: "(a) materialize a class of events; (b) share communicative purposes; (c) have specific prototypical features; (d) present innate logic; and (e) determine specific linguistic uses according to the discursive community"[9], as explained by Pereira and Rodrigues (2009, p. 6, our translation).

Bazerman (2005) defined genres as recognizable social facts (events) since they are based on recurrences as to form and, especially, function. For this linguist, genres "arise in social processes of people trying to understand each other well enough to coordinate activities and share meanings for their practical purposes"[10] (BAZERMAN, 2005, p. 31, our translation). Genres typify more than the textual form they encompass the configuration of social practices and interactions organizing activities and people.

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5 In the original: "*surge da interconexão mundial dos computadores*" (LÉVY, 1999, p. 17)

6 In the original: "*mas um oceano de informações*" (LÉVY, 1999, p. 17)

7 In the original: "*os gêneros discursivos incluem toda sorte de diálogos cotidianos, bem como enunciações da vida pública, institucional, artística, científica e filosófica*" (MACHADO, 2005, p. 155)

8 Mode refers to the semiotic mode or representation mode used in the composition of a text.

9 In the original: "*(a) materializam uma classe de eventos; (b) compartilham propósitos comunicativos; (c) possuem traços específicos prototípicos; (d) apresentam lógica inata; e (e) determinam usos linguísticos específicos de acordo com a comunidade discursiva*" (PEREIRA; RODRIGUES, 2009, p. 6)

10 In the original: "*emergem nos processos sociais em que pessoas tentam compreender umas às outras suficientemente bem para coordenar atividades e compartilhar significados com vistas a seus propósitos práticos*" (BAZERMAN, 2005, p. 31)

Each sphere of language use has its more or less numerous, but always dynamic, repertoire of genres, which are essential typifications in language use for the establishment of communication. In this sense, the use of infographics in advertising is related to specific conditions and purposes of this field of activity, which is reflected not only in its content but also in the semiotic resources used in its composition.

Infographic as a genre

One of the first infographics on record was published by the London newspaper *The Times* in 1806 to illustrate or reconstitute a murder (PELTZER, 1993). The infographic is sometimes seen as an aesthetic resource, a substitute for photographs or written texts, a text that arises for journalistic purposes, but spreads through various areas "whenever it is intended to explain something clearly, mainly when the text alone is not enough to do it in an objective way"[11] (TEIXEIRA, 2007, p. 112, our translation).

As Modolo (2007, p. 5, our translation) pointed out, the term infographic originated from informational graphics. The union between text and image results in a "visually attractive [message] to the reader, but with information forcefulness"[12]. For the author, however, the verbal text subsidizes the image, and not the contrary. For Paiva (2009), in this mode of composition, the diverse semiotic modalities are integrated in a proportional way, i.e., they act concomitantly in the production of meanings, which means that images or verbal texts are not complementary to each other, but essential resources to meaning. Among the graphic-textual resources, there are photographs, illustrations, icons, and maps, using elements that are part of graphic language and a sociocultural context (TEIXEIRA; RINALDI, 2008).

In the dictionary definition, an infographic is a "graphic creation that uses visual resources (drawings, photographs, tables, among others), combined with short texts to present information"[13] (RABAÇA; BARBOSA, 2002, p. 238, our translation). Dionísio (2006, p. 139, our translation) identified that this is one of the fastest-growing graphic creations in journalism and its reading "can be done in several ways"[14], starting from the verbal text, the imagery text, or the text as a whole. Because it is a fundamentally informative text, the infographic must be autonomous, that is, providing information even without the support of any other text, especially in electronic or hypertextual media, because they can act separately (TEIXEIRA; RINALDI, 2008), being even recontextualized.[15]

[11] In the original: "*sempre que se pretende explicar algo, de uma forma clara e, sobretudo, quando só o texto não é suficiente para fazê-lo de maneira objetiva*" (TEIXEIRA, 2007, p. 112)

[12] In the original: "*visualmente atraente para o leitor, mas com contundência de informação*" (MODOLO, 2007, p. 5)

[13] In the original: "*criação gráfica que utiliza recursos visuais (desenhos, fotografias, tabelas etc.), conjugados a textos curtos para apresentar informações*" (RABAÇA; BARBOSA, 2002, p. 238)

[14] In the original: "*a leitura de um gênero textual que contém infográfico pode ser realizada de várias formas*" (DIONÍSIO, 2006, p. 139)

[15] Recontextualization means taking a text out of its context of primary production and reinserting it in a secondary context, through an articulation between social practices (MOTTA-ROTH; LOVATO, 2011). For example, it is a

Drawing on Bazerman (2005), infographics are a genre because they are recognizable social facts. This means that the reader recognizes these texts as infographics due to both recurrences in their composition, which defines similarities between different exemplars and its mode of operation and purpose: the infographic necessarily unites verbal text and image to inform, explain or demonstrate something. As Kress (2008, p. 106) stated, genre is not only a linguistic concept. Although it was created by linguistics theorists, it applies to "all forms of representation and communication", which includes texts consisting only of images or the combination of linguistic signs and images.

Considering that genres typify not only texts but social and interactive practices, the situations or practices in which infographics can be constituted are also familiar to readers: infographics appear in newspapers and magazines (as support to other genres, such as news and reports), textbooks, airport signs, instruction manuals and, more recently, on social networking websites. In the latter case, its use has been expanded by the dissemination of information and communication technologies (ICT), since "this language, which privileges images, seems to fit more appropriately to the lifestyle of the population"[16] (MODOLO, 2007, p. 4, our translation).

In addition, a genre is recognizable by participants as a particular genre at a point in time, in the reality of interactions. This happens with infographics, recognized due to their specificities, which differentiate them from other texts. This recognition historically processed, as infographics were first produced and published in the journalistic sphere and, soon after, in the most diverse contexts of use, becoming part of the repertoire of genres of every society. Besides the communicative purpose, one of the main specificities of this genre is the combination between verbal text and image, which can be explained based on the concept of multimodality.

Multimodality

Since childhood, people are encouraged to draw, long before they write. Texts used in school are usually illustrated in support to verbal texts or even as a predominant resource in the early years. According to Kress and van Leeuwen (2006), however, in these situations, images are seen as a form of expression, rather than communication. An image should be considered for what it really is: a semiotic system conveying meanings and working autonomously as an image or in relation to a verbal text, in consonance, complement, support, contrast, repudiation or reaffirmation, for example, of what is verbally expressed.

There was a time when, due to the means of communication and production processes limitations, language was understood as verbal language. This contrasts with a contemporaneous view, in which a multiplicity of semiotic resources is not

practice of recontextualizing to remove an image from the *Pinterest* social network and take it to a classroom, to an Internet blog or to a textbook.

[16] In the original: "*essa linguagem, que dá preferência à imagem, parece encaixar-se mais adequadamente ao estilo de vida da população*" (MÓDOLO, 2007, p. 4)

only available but also in focus (KRESS; van LEEUWEN, 2001). Multimodality was defined by Kress and van Leeuwen (2006) as the feature of texts using more than one semiotic code, such as words and images (static or moving). Added to this, nowadays, "writing is in itself a form of visual communication", given the typography and colors used (KRESS; van LEEUWEN, 2006, p. 17). It is about understanding the relevance that forms, icons, drawings, photographs, frames, saturations, and colors, among other visual elements, have for the meaning of a text.

Given the information and communication technologies and the scope these new media have, there is no escape to the analysis and reading of written texts, which has motivated multimodal literacy (or multiliteracies) studies (KRESS; van LEEUWEN, 2001, 2006; KRESS, 2008; ROJO; BARBOSA, 2015). According to Lemke (2010, our translation), "a literacy is always a literacy in some genre and it must be defined with respect to the sign systems deployed, the material technologies involved and the social contexts of production, circulation and use of the particular genre"[17]. Thus, each genre requires a range of skills, both for its understanding and production.

The theory of multimodality has been developed in the field of social semiotics, which studies the exchange of messages inextricably bound to the context. Hodge and Kress (1988, p. 261) explained that "social semiotics focuses, in the first place, on human semiotics as an inherently social phenomenon in its origins, functions, contexts and effects" and emphasized that all possible semiotic systems are of interest to this field. The choice of signs and the construction of texts are driven by specific, communicative purposes.

With the *Design Grammar of Visual Design*, Kress and van Leeuwen (2006) provided language studies with a set of categories and options for multimodal text analysis. This grammar is based on *Systemic-Functional Grammar*, that is, the three metafunctions (meanings) that functionally organize language underlie it: the ideational, interpersonal and textual metafunctions (HALLIDAY, 1985). It is thus considered that "different systemic networks codify different species of meaning linked to different language functions. Grammar, therefore, organizes the options"[18], as Figueiredo-Gomes and Souza (2013, p. 288, our translation) observed, regarding Halliday's theory (1985).

The ideational metafunction refers to how experience of the world is organized in language; the interpersonal metafunction encompasses the way the participants interact socially through language (the forms of social distance from the reader, for example); the textual metafunction corresponds to the modes of organization of a text (HALLIDAY, 1985). Kress and van Leeuwen (2006) called these metafunctions representative, interactive and compositional, respectively.

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[17] In the original: "*um letramento é sempre um letramento em algum gênero e deve ser definido com respeito aos sistemas sígnicos empregados, às tecnologias materiais usadas e aos contextos sociais de produção, circulação e uso de um gênero particular*" (LEMKE, 2010).

[18] In the original: "*as diferentes redes sistêmicas codificam diferentes espécies de significado que se ligam às diferentes funções da linguagem. A gramática, portanto, organiza as opções [de escolha]*" (FIGUEIREDO-GOMES; SOUZA, 2013, p. 288)

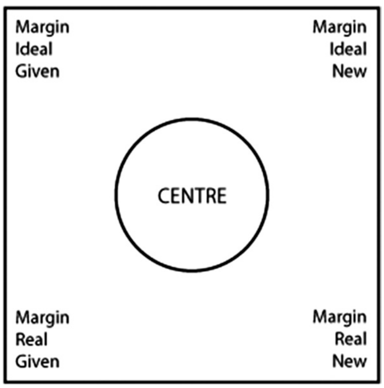
Meanings in texts are constructed simultaneously by these three functions. However, depending on particularities of the analyzed text and genre, one function may predominate over the others. In this study, due to research focus and previous reading of the samples, the analysis will be centered on the compositional metafunction of language.

The Compositional Metafunction of Language

In the compositional metafunction of language, Kress and van Leeuwen (2006) identified categories such as information value, framing, and salience.

The areas of an image determine the value of information, i.e., the way the elements are positioned and distributed in the layout[19] is a form of meaning making. Information value can be distributed from left and right, top and bottom, center, and margin (Fig. 1).

Figure 1 – Information value



Source: Kress and van Leeuwen (2006, p. 197).

According to this diagram, the left side of a multimodal text generally contains already known information, the Given, while the right side presents the New, therefore, it is the zone of prominence in relation to the first. The element located in the center of a multimodal text is the central one, whereas when located at the margins, it is marginal. In addition, there are the lower and upper axes: at the top of a text, the element is the Ideal (essentially an idealized or generalized information and also the most salient part), while, at the bottom, it is the Real, which usually has more specific or practical informative value than the Ideal (KRESS; van LEEUWEN, 2006).

Framing refers to the use of frames or lines that connect or disconnect certain elements of the image, creating meanings of belonging or exclusion between information.

[19] *Layout* is the visual arrangement of a graphic text (RABAÇA; BARBOSA, 2002).

The frame contributes to attribute value to information, i.e., elements organized by frames differ from others, and a unit can be established between grouped elements, highlighting to a greater or lesser degree other elements, according to the salience (KRESS; van LEEUWEN, 2006).

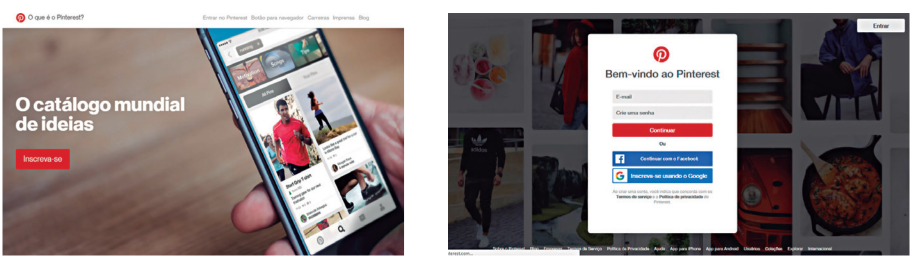
Salience is related to the visual weight of elements in a layout, because it is derived from a complex interaction between factors, such as relative size of elements, focus sharpness, contrast of tones, contrast of colors, and location of elements in the piece, perspective, and cultural factors - such as the use of a culturally valuable symbol (van LEEUWEN, 2006).

Research method

After delimiting the topic, the universe of analysis was defined. *Pinterest*, created in 2010, in the United States, is a social network in which people from various parts of the world collect, organize, publish, and share content related to varied themes and interests. The published content, called pin is necessarily visual: images, photographs, diagrams, graphics, infographics, maps, and illustrations. Image formats supported by the website include still image (PNG, JPG or JPEG) and moving image (GIF). Participants or users are any people who register for free on the social network, through a computer or mobile application (smartphone or tablet). This is how people publish, republish, save, comment on public *pins* and follow other users. All available texts on the website are found by searching for a specific topic. On the website, there are the profiles of content producers, who generally are ordinary people identified by name or surname, companies, design offices, social networks influencers (for example, bloggers), in short, any individual or company who has registered on the website. However, it is not possible to identify the primary source of content production.

The functioning of this social network is similar to a mural or panel of ideas (for this reason, every user has a board) on varied subjects such as professions, exercises, decoration, design, do it yourself (DIY), recipes, fashion, education, among others. On its home screen, *Pinterest* is defined as "the worldwide catalogue of ideas" (Fig. 2).

Figure 2 – Access screens



Source: Screenshot images. Available at: < https://br. *Pinterest*.com/>. Accessed on: 10 May 2017.

Social networking websites enable diverse response mechanisms, such as like, share, react, comment. As Rojo and Barbosa (2015, p. 123, our translation) state, "these publications/answers are also multimodal: they mix different languages (in addition to verbal, video, audio, static or moving images, etc.)[20]". In this way, it is a fruitful contemporary universe for the analysis of multimodal and hypertextual texts.

In this research, the words "infographic" and "advertising" were simultaneously inserted in the search field on the *Pinterest* website in May 2017. Hence, countless[21] publications of social network users have appeared. However, three selection criteria were established. The text should: i) contain, in its title or subtitle, the terms "advertising", "design", "brand" or "consumer",[22] ii) be written in Brazilian Portuguese; iii) present legible texts (good image resolution for reading). The first five infographics that fitted these criteria were included in the selection (see the five texts in the Appendix), following the order shown in the search results return. Infographics that did not fit any of the criteria were discarded (Chart 1).

Table 1 – *Corpus of* research

Leg.	**Title/subtitle**
C1	"The history of advertising"
C2	"What branding is: the personality of your brand"
C3	"Infographic - printed design x digital design"
C4	"10 kinds of incredible visual content that your brand should be creating right now."
C5	"Neuromarketing: 6 characteristics of the consumer's unconscious brain."

Source: Author's elaboration.

The qualitative research started with the exploratory method, with the theoretical deepening of the concept of infographic and the categories of multimodality. Then, the descriptive and interpretative method was used, and the multimodal analysis of the texts was performed; finally, the results were interpreted. In the analysis, formal and functional specificities of infographics and hypertexts were considered, since the collected infographics are virtually propagated, that is, in a social media whose content is published and shared in diverse genres.

The multimodality was analyzed based on the *Grammar of Visual Design*, by Kress and van Leeuwen (2006), which offers relevant analytical tools for this study. In view of the proposed objectives, the research focused on the compositional metafunction of language, that is, the use of language in the organization of a text. For Kress and

[20] In the original: "*essas publicações/respostas também podem ser multimodais: podem misturar diferentes linguagens (para além da verbal, vídeos, áudios, imagens de diferentes tipos, estáticas ou em movimento etc.)*" (ROJO; BARBOSA, 2015, p. 123)

[21] Countless because the *site* does not display the number of texts obtained through the search.

[22] Thus, images that possibly mistakenly categorized advertising content were avoided in the *corpus of* analysis.

van Leeuwen (2006), the analysis of integrated multimodal texts, i.e., texts in which meaning occurs through two semiotic modes simultaneously, as occurs in infographics, shall be performed through three systems: a) information value; b) framing; c) salience, as shown in Chart 2.

Chart 2 – Categories selected for analysis.

COMPOSITIONAL METAFUNCTION	
Information value	Relations between areas: left and right, top and bottom, center and margin.
Framing	Frames, lines, relationship between negative and positive space, continuity and discontinuity in colors.
Salience	Hierarchy of information: which elements stand out in visual importance?

Source: Author's elaboration based on Kress and van Leeuwen (2006).

In addition, the the analytical categories of linearity and nonlinearity, according to Kress and van Leeuwen (2006), were considered. The reading path possibilities are established by the cited characteristics and, above all, by information hierarchy. This category was also interpreted in light of the concept of hypertext, based on Lévy (1999) and Xavier (2010).

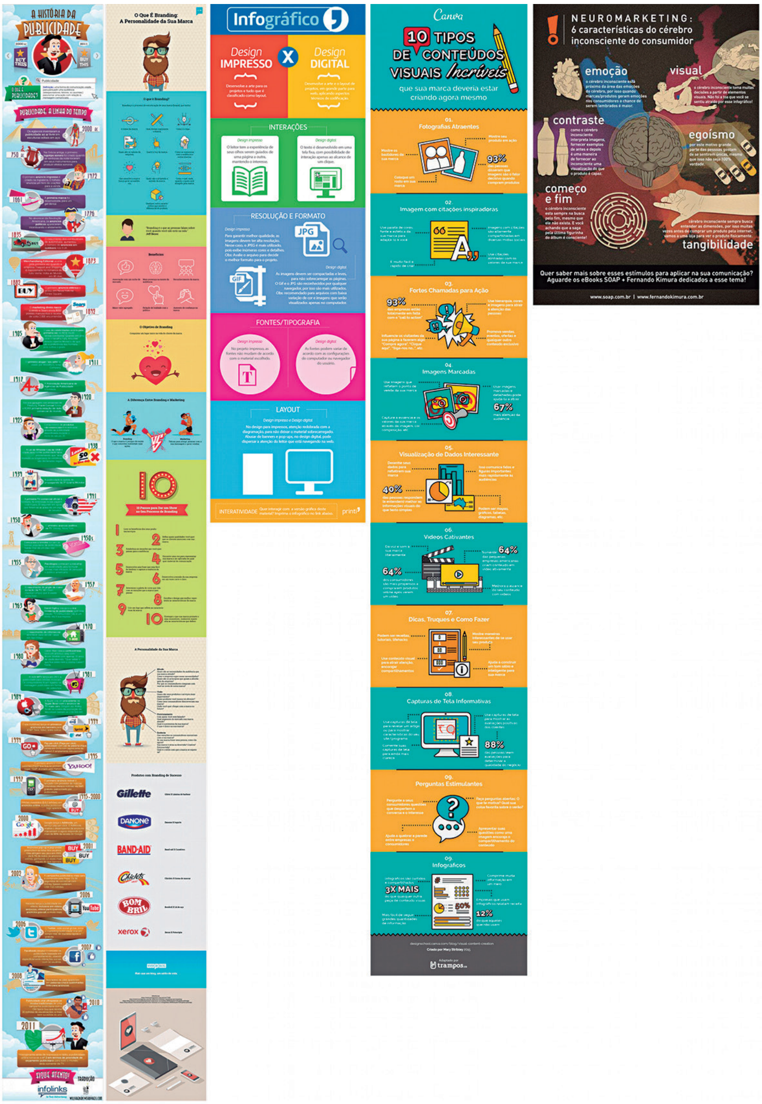
The *corpus* analysis procedures are systematized as follows: a) previous reading of the infographics; b) observations regarding the purpose of each infographic; c) identification and description of the compositional metafunction multimodal categories; d) considerations about the linearity and nonlinearity of the text; e) interpretation of results.

Multimodality in infographics

This section presents and discusses the results of the multimodal analysis of the infographics, which began by gathering information about the context of publication of the texts. In regards to the context of publication, besides what has already been stated concerning the *Pinterest* website, infographics are available for access by any person registered in this social network. However, as the verbal texts are written in Brazilian Portuguese, the scope is possibly restricted to individuals who understand or share, at least at some level, this language. Furthermore, as pins can be virtually saved on the social network or on the user's device (notebook, tablet or smartphone), they could, at any time, be recontextualized, that is, taken to another context of language use, including the classroom, as educational objects or multimodal resources, for example. The social network, in this sense, functions as a space for interaction between users through texts, comments and saved *pins* and, at the same time, as an object repository.

The function of the selected infographics of the advertising sphere corresponds to the synthesis, through verbal and visual resources, of content related to this sphere: C1 summarizes, in a timeline, the history of advertising; C2 clarifies the concept of branding; C3 makes distinctions between printed and digital design; C4 lists 10 types of visual content in which brands could invest; and C5 presents six definitions of neuromarketing that synthesize the consumer mind (Fig 3).

Figure 3 – Infographics (C1 to C5)



Source: Pinterest. Available at: <https://br. *Pinterest*.com/>. Accessed on: 10 May 2017.

Among the multimodal characteristics, it was observed that all ad pieces present images and verbal texts, with some variation in the amount of visual or verbal information. The shape of the infographics is also variable, the exception being that four of them (C1, C2, C3, and C4) present a much higher height than width. This affects the way these texts are read and is related to the media and social network in which they are inserted: the Internet. The access from mobile devices (smartphone and tablet) presents vertical navigation (displacement made by the user when moving the page or the text). When it comes to the *Pinterest* application for mobile devices, the verticalization of texts is frequent, since the possible text displacement is from top to bottom, and vice versa. This demonstrates how the characteristics of the context and media used in the production, publication, and reading of infographics have effects on multimodality.

Concerning the compositional metafunction categories, information value in terms of Given and New was analyzed. In C1, for example, just below the title, the year 2000 BC was presented on the left side as a Given, while the year 2011,[23] on the right, is the New, which matches the value of information according to Kress and van Leeuwen (2006): previous or already known information is Given, and the most recent or updated information is New. Furthermore, the question "What is advertising?" is Given, and the new information, that is, the answer to the question is New. In the events that form the timeline, the organization of Given and New changes as the position of the visual icon and the year changes. One line presents the icon and the year on the right, while the informed event is on the left; on the next line, the organization reverses, with icon and year on the left and event on the right. Thus, the reader's expectation is broken. At the same time, the visual balance of the multimodal text was favored; otherwise there would be poles with different weights if visual icons were concentrated on one side, whereas verbal texts were on the other side (Fig. 4).

Figure 4 – Example of Given and New in C1

Source: Available at: https://br.*Pinterest*.com/. Accessed on: 20 May 2017.

[23] Since the timeline runs until 2011, it is understood that this was the year in which the C1 infographic was produced.

The C3 infographic also presents a division between Given and New, that is, between the left and right sides of the image linked to the meanings of the text:, the characteristics of the printed design are presented as Given, and those of the digital design as New, which is more recent (the novelty) than the printed one. In C2 and C4, few relevant occurrences of the relation between the left and right sides of the ad piece were found, because the messages used a more vertically oriented structure (Ideal and Real).

The C5 infographic (Fig 5) differs from the other infographics in regards to the organization of the information value, because it uses, mostly, the center-margin system, which enables the orbital reading mode. In the center of the text is the illustration of a human brain and, from this image, with the support of a framing structure, verbal information is placed on the margins. The visual representation of the brain in the highest information value position contributes to draw the reader's attention to the textual topic. The center of the text is the brain, and secondary information is displayed from this representation, that is, its six characteristics are provided.

Figure 5 – Example of center-margin in C5

Source: Available at: https://br.*Pinterest*.com/. Access on: 20 May 2017.

By analyzing the lower and upper axes, it was observed that, in the five pieces, the title and, when available, the subtitle are located at the top of each infographic. The value of this information in the Ideal position is higher than the value of the information at the bottom, the Real (KRESS; van LEEUWEN, 2006). The Real, in C1, presents the "Stay tuned!" imperative, the signature of the person who made the ad piece and the address of the blog that translated it into Portuguese; in C2, sources of references used, accompanied by a set of icons that form a working table; in C3, there is the question "Do you want to interact with the graphic version of this material? Print the infographic on the link below", followed by the logo of the person who made the ad piece; in C4, the name and email address of the person who created it, and the logo ;

in C5, the question “Do you want to know more about [...]?” and the email addresses of the person who authored the text.

In intermediate position, that is, between the Ideal and the Real, there is the information that composes the multimodal content of the infographics (verbal texts and images that relate to the topic). From the point of view of Real and Ideal, information located at the bottom of infographics is, as advocated by Kress and van Leeuwen (2006), linked to a practical function: in this case, the references consulted, the authorship or the invitation and address to access more information.

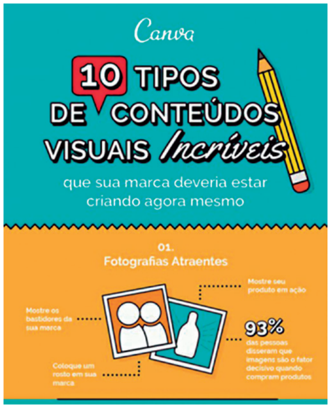
As for framing, in C1, there are textbox frames framing subtitles and blocks of verbal text. The boxes are differentiated by colors and present equivalent format for information of the same category (for the pre-industrial period, it was used purple, whereas, for the nineteenth century, red was used, for example), i.e., the color choice and frames were made in order to organize or categorize the message content. Framing frames the milestones in each season, reinforcing the idea of a timeline. In C2, the framing occurred through boxes filled with different colors for each information category (backgrounds). The use of indicative lines to categorize information and connect small blocks of verbal text to images with symbolic meaning were identified. For instance, mission points to the head of the represented man, vision points to one of his eyes, positioning points to the mouth, and essence points to his chest or heart (Fig 6). In C3, the same strategy is used, i.e., boxes of different colors for each information, except that there are other organizing frames and connecting lines within the colored box, as shown in Fig. 6 (keys, rectangular and circular frames, and dotted lines). The function of this resource in the infographic is to organize and segment information, especially those placed side by side, to confront them, reinforcing the comparisons and distinctions between printed design and digital design.

Figure 6 – Example of framing in C2 (left) and C3 (right)

Source: Available at: https://br.*Pinterest*.com/. Accessed on: 20 May 2017.

The C4 infographic uses the same framing feature as C3 and C2: distinct color backgrounds (color alternation) for particular categories of information and lines for separation and connection of elements. In this case, the lines connect visual icons and verbal texts (Fig. 7), ratifying the informative and demonstrative objective of the text, to indicate types of visual content for the brand.

Figure 7 – Example of framing in C4 (left)



Source: Available at: https://br.*Pinterest*.com/. Accessed on: 20 May 2017.

C5, in its turn, has the framing in a vertical line separating the visual icon from the title and subtitle, as well as uses a black rectangle to organize the background for an ad at the bottom. However, the frame that separates each of the six characteristics of the consumer's brain has a particular format in relation to the other analyzed samples, because of its undefined shape: it is a brushstroke or a stain that works as a background for the verbal text blocks. In addition, the brush strokes are in distinct colors for each information, which contributes to the differentiation of the reported characteristics. This fluid format of framing is linked to the textual topic: neuromarketing and the consumer mind.

In salience, the visual weight of elements in a layout, the occurrences indicated in Table 3 were found.

Table 3 – Salience in infographics

	ELEMENTS (verbal or image-oriented)	**SALIENCE**
C1	Title and subtitles	Larger size than other blocks of verbal text, typography, upper position (Ideal).
	Icons and illustrations	Colorful and larger in size (height) than text framing.
	Year	Typography is different and larger than text blocks.
C2	Title and subtitles	Larger size than other blocks of verbal text, typography, upper position (Ideal).
	Character - male human being	Larger size than the other verbal text blocks, centralized and superior position in the infographic, color contrast with uniform background (the figure is repeated in another frame in the piece).
	Icon of smiling heart	Larger size than the other blocks of verbal text, red color, centralized position and the fact that it is not only an iconic element, but a symbolic one (cultural factor).
	Number 10 (numeral)	Size, color and centralized position.
	Product Brands	Larger size than other visual elements, colors that contrast with the uniform background and the fact that they are images recognized by Brazilian readers (cultural factor).
C3	Title and subtitles	Larger size than other blocks of verbal text, typography, upper position (Ideal).
	Double-framed visual information (*versus* symbol - X - and icons within rectangles and circles)	High color contrast between background and verbal text and images.
	Visual icons that move on the ad piece	Use of GIF image, which moves as the reader hovers the cursor over the screen, stands out in relation to the static elements of the infographic.

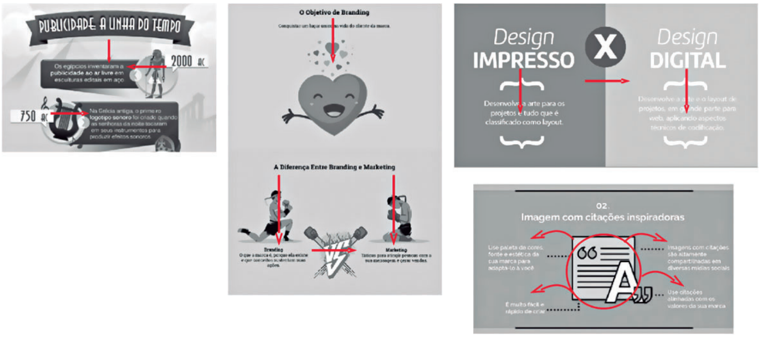
C4	Title and subtitles	Larger size than other blocks of verbal text, typography, upper position (Ideal).
	Pencil illustration	Larger size than other elements, color and upper position (Ideal).
	Sets of visual icons in each framing	Larger size than the other verbal text blocks, centralized position and colors.
	Percentages in each framing	Different typography of the rest of the verbal text, size, color and shadow effect.
C5	Title and subtitles	Larger size than the other verbal text blocks.
	Brain Illustration	Center position and size larger than other illustrations.
	Illustrations for each characteristic	Secondary salience, by the marginal position, by the light tones that contrast with the background and with the framing, by the use of culturally recognizable images.

Source: Author's elaboration.

The choice of highlighting these elements in relation to others within the text can be explained by the need to establish a visual hierarchy that indicates points of greatest attraction in the multimodal message. It is these points that contribute to establishing, as far as possible, a reading path.

The reading paths of the C1, C2, C3, and C4 infographics are initially vertical, i.e., the infographic is read from top to bottom. In a second moment, considering each framing in the pieces that present it, as a unity of meaning, there are alternative paths of reading that are established by the position of the verbal and imagery elements, either in Given-New or Ideal-Real terms, or even, from the center to the margins. In the frames, the reading paths were indicated, as shown in Fig. 8.

Figure 8 – Details of C1, C2, C3 (from left to right) and C4 (below)[24]



Source: Author's elaboration.

The case of the C5 infographic differs from the previous ones, a fact that is already observed in the image, less vertical (or less high) than the other samples - the exception being C4, in which a reading path is observed from the center to the margins, similar to C5. Besides having a more harmonic format regarding the relation between width and height, C5 is organized on the center-margin system, described by Kress and van Leeuwen (2006). For this reason, its reading takes place on a particular path: from the center to the margins. In addition, it was found that, once the title and subtitle were read, and the central figure was visualized, it does not matter which marginal element will be read first, because there is no required sequence for reading the message (Fig 9).

Figure 9 – Reading path in C5[25]

Source: Author's elaboration.

24 The infographics were displayed in gray to highlight the route.

25 The infographics were displayed in gray to highlight the route.

Additionally, the visual weight of the elements contributes to establishing whether the function of the images is to support a verbal text or centralize the main information and, in the reverse sense, having the verbal text as their support. In other words, based on the most salient elements, the role of images in these infographics can be perceived. Among what was found with the analysis of the texts, it was pointed out that the verbal titles are always salient. When there is an image closely associated with the title, this image also presents salience. The images (predominantly illustrations, icons, and some symbols) have salience, but are not self-explanatory, because they require verbal text to build the message and add meaning. In other words, the infographics of the analyzed sample do not work without one of its modalities, since it is a multimodal resource in which both verbal and imagetic components are mutually supportive. In the same way, without icons, illustrations, symbols, and, mainly, without the use of framing, there would be no infographic, but rather a linear verbal text.

Final considerations

The multimodal analysis combines useful categories to describe images and their functioning when conjoined with verbal texts. Of the categories proposed in the *Grammar of Visual Design* by Kress and van Leeuwen, those related to the compositional metafunction of language were investigated: information value; framing and salience. Regarding the information areas, it was found that there were recurrences regarding the division between Given and New and Ideal and Real in almost all infographics. In this sense, an infographic that showed center-margin system predominance was highlighted. In relation to framing, its fundamental importance to categorize, classify, and even rank information in the messages was detected. Salience, in its turn, occurs by the combination of several multimodal elements, such as size, color, texture, position, cultural factors associated with images, among others.

The process of nonlinear reading of the advertising infographic, a genre that becomes a hypertext in the cyberspace, integrating cyberculture, makes it a "*self-service*" reading, as well defined by Xavier (2010). In the analyzed infographics, there is not only one focus but also a variable number of multimodal elements that acquire diverse sizes, colors, and communicative functions in a visual configuration, which contributes to the creation of different degrees of salience. Reading is done from the signifiers that are emphasized in the ad pieces, thus, producing meanings.

Text reading paths are predominant in the vertical direction, from top to bottom, explained by the media or technological devices in which they are generally consumed, i.e., the applications accessed through a smartphone. In this sense, the infographic whose reading path is orbital and whose format presents lower height than the other texts is differentiated; after all, this text can be accessed and read without the displacement of the page or screen by the reader, both on the smartphone and the computer.

Finally, for a future study, the development of an analysis of the other language metafunctions, as well as the expansion of the *corpus* of study are intended.

KNOLL, G.; FUZER, C. Análise de infográficos da esfera publicitária: multimodalidade e metafunção composicional. **Alfa**, São Paulo, v. 63, n.3, p.589-612, 2019.

▪ *RESUMO: A multimodalidade, característica dos textos que reúnem dois ou mais códigos sígnicos (KRESS; van LEEUWEN, 2006) requer um enfoque que enfatize a verbo-visualidade (BRAIT, 2013) dessas composições. O objetivo deste estudo é analisar categorias da metafunção composicional (KRESS; van LEEUWEN, 2006) pela perspectiva da multimodalidade em infográficos da esfera publicitária, com a finalidade de compreender como se organizam as mensagens selecionadas que se configuram em infográficos. Para tanto, pretende-se: caracterizar os infográficos selecionados com base em categorias da metafunção composicional; compreender como os aspectos multimodais se relacionam aos aspectos funcionais nesses textos; averiguar como atuam os aspectos multimodais na produção dos sentidos. A amostra foi composta por cinco infográficos da área da publicidade selecionados a partir do site Pinterest. A análise multimodal dos textos será realizada a partir de categorias da metafunção composicional, da Gramática do Design Visual (KRESS; van LEEUWEN, 2006). A análise demonstra que não há somente um foco visual, mas um número variável de elementos multimodais que, com seus diferentes tamanhos, cores e funções comunicativas, contribuem para a criação de diferentes graus de saliência. A partir dos significantes que mais se destacam nas peças, a leitura é efetuada, produzindo-se significados.*

▪ *PALAVRAS-CHAVE: Multimodalidade. Metafunção composicional. Infográfico. Publicidade.*

REFERENCES

BAKHTIN, M. M. **Estética da criação verbal**. Trad. do russo: Paulo Bezerra. 5. ed. São Paulo: WMF Martins Fontes, 2010.

BARTON, D.; LEE, C. **Linguagem online**: textos e práticas digitais. São Paulo: Parábola, 2015.

BAZERMAN, C. **Gêneros textuais, tipificação e interação**. Organizado e traduzido por: Angela Paiva Dionísio e Judith Chambliss Hoffnagel. São Paulo: Cortez, 2005.

BRAIT, B. Olhar e ver: verbo-visualidade em perspectiva dialógica. **Bakhtiniana**, São Paulo, v. 8, n. 2, p. 43-66, 2013.

DIONÍSIO, A. P. Gêneros multimodais e letramento. *In*: KARWOSKI, A. M. *et al*. (org.). **Gêneros textuais**: reflexões e ensino. 2. ed. Rio de Janeiro: Lucerna, 2006. p. 119-132.

FIGUEIREDO-GOMES, J. B.; SOUZA, M. M. de. Gramaticalização e metafunções da linguagem: uma análise da expressão *é que*. **D.E.L.T.A.**, São Paulo, v. 29, n. 2, p. 281-310, 2013. Disponível em: http://www.scielo.br/pdf/delta/v29n2/05.pdf. Acesso em: 10 out. 2019.

FIORIN, J. L. Interdiscursividade e Intertextualidade. *In*: BRAIT, B. (org.). **Bakhtin**: outros conceitos-chave. São Paulo: Contexto, 2006. p. 161-193.

GEHRKE, N. A. **Foto do dia ou microcrônica verbo-visual**: um gênero na perspectiva da Escola de Sidney. 2015. 212 f. Tese (Doutorado em Letras) - Universidade Federal de Santa Maria, Santa Maria, 2015.

HALLIDAY, M. A. K. **An Introduction to Functional Grammar**. Baltimore: Edward Arnold, 1985.

HODGE, R.; KRESS, G. **Social Semiotics**. New York: Cornell University Press, 1988.

KLEIMAN, Â. B. **Leitura**: Ensino e pesquisa. São Paulo: Pontes, 2004.

KNOLL, G. F. Multimodalidade, texto e contexto: categorias úteis à análise da charge. **(Con)textos Linguísticos**, Vitória, v. 9, n. 12, p. 57-74, 2015.

KRESS, G. **Literacy in the New Media Age**. London; New York: Routledge, 2008.

KRESS, G.; van LEEUWEN, T. **Reading Imagens**: the grammar of visual *design*. London: Routledge, 2006.

KRESS, G.; van LEEUWEN, T. **Multimodal discourse**: the modes and media of contemporary communication. London: Arnold, 2001.

LEMKE, J. L. Letramento metamidiático: transformando significados e mídias. **Trabalhos em Linguística Aplicada**, Campinas, v. 49, n. 2, s.p., jul./dez. 2010. Disponível em: http://www.scielo.br/scielo.php?pid=S0103-18132010000200009&script=sci_abstract&tlng=pt. Acesso em: 10 out. 2019.

LÉVY, P. **Cibercultura**. São Paulo: Ed. 34, 1999.

MACHADO, I. Gêneros discursivos. *In*: BRAIT, B. (org.). **Bakhtin**: conceitos-chave. São Paulo: Contexto, 2005. p.151-167.

MÓDOLO, C. M. Infográficos: características, conceitos e princípios básicos. *In*: CONGRESSO BRASILEIRO DE CIÊNCIAS DA COMUNICAÇÃO DA REGIÃO SUDESTE, 12., 2007, Juiz de Fora. **Anais** [...] Juiz de Fora: Intercom, 2007. Disponível em: http://www.intercom.org.br/papers/regionais/sudeste2007/resumos/R0586-1.pdf. Acesso em: 10 abr. 2019.

MOTTA-ROTH, D.; LOVATO, C. O poder hegemônico da ciência no discurso de popularização científica. **Calidospópio**, São Leopoldo, v. 9, n. 3, p. 251-268, set./dez. 2011.

PAIVA, F. A. **A leitura de infográficos da Revista Superinteressante**: procedimentos de leitura e compreensão. 2009. 204 f. Dissertação (Mestrado em Estudos Linguísticos) – Universidade Federal de Minas Gerais, Belo Horizonte, 2009.

PELTZER, G. **Jornalismo iconográfico**. Lisboa: Planeta, 1993.

PEREIRA, R. A.; RODRIGUES, R. H. Perspectivas atuais sobre gêneros do discurso no campo da Linguística. **Letra Magna**, São Paulo, ano 5, n. 11, p. 1-18, 2009.

RABAÇA, C. A.; BARBOSA, G. **Dicionário de comunicação**. São Paulo: Ática, 2002.

ROJO, R.; BARBOSA, J. P. **Hipermodernidade, multiletramentos e gêneros discursivos**. São Paulo: Parábola, 2015.

SOBRAL, A. **Do dialogismo ao gênero**: as bases do pensamento do círculo de Bakhtin. Campinas: Mercado de Letras, 2009.

TEIXEIRA, T. A presença da infografia no jornalismo brasileiro: proposta de tipologia e classificação como gênero jornalístico a partir de um estudo de caso. **Fronteiras**: estudos midiáticos, São Leopoldo, v. 9, n. 2, p. 111-120, maio/ago 2007. Disponível em: http://revistas.unisinos.br/index.php/fronteiras/article/view/5847. Acesso em: 10 abr. 2019.

TEIXEIRA, T; RINALDI, M. Promessas para o futuro: as características do infográfico no ciberjornalismo a partir de um estudo exploratório. *In*: ENCONTRO NACIONAL DE PESQUISADORES EM JORNALISMO, 6., 2008. São Paulo. **Anais** [...] São Paulo: UMESP/SBPJor, 2008. Disponível em: http://ddiprojeto2.xpg.uol.com.br/as_caracteristicas_do_infografico_no_ciberjornalismo.pdf. Acesso em: 24 mar. 2019.

van LEEUWEN, T. **Introducing social semiotics**. London; New York: Routledge, 2006.

XAVIER, A. C. Leitura, texto e hipertexto. *In*: MARCUSCHI, L. A.; XAVIER, A. C. (org.). **Hipertexto e gêneros digitais**: novas formas de construção de sentido. 3. ed. São Paulo: Cortez, 2010. p. 207-220.

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BILINGUAL TERMINOLOGICAL DICTIONARY OF REAL ESTATE LEASE AGREEMENTS: DEVELOPMENT OF TRANSLATOR-ORIENTED MICROSTRUCTURE

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▪ ABSTRACT: This paper presents some findings of a research on the terminology of real estate lease agreements written in Portuguese and French, in which we have developed a bilingual terminological dictionary of terms of the mentioned domain[1]. The main objective of this research is to develop a proposal for a French-Portuguese Dictionary of Terms from Real Estate Lease Agreements (DFPCLI) focused on translators' specific needs, and the results demonstrated here refer to the microstructure of that dictionary. Translators' needs were studied in Fromm (2007), and Xatara, Bevilacqua and Humblé (2011). The terms were collected from a corpus of French and Portuguese real estate lease agreements, and terminological data was taken from a wide bibliography of the domain in France and Brazil. Our research is guided by the theoretical principles of the Descriptive Terminology, particularly Cabré (1993, 1999), Faulstich (1995), Barros (2004), among other authors. The DFPCLI aims at contributing to terminological studies in Brazil and is a useful tool for the work of translators dealing with those documents, where Brazilian and French cultures meet.

▪ KEYWORDS: Terminology. Bilingual Terminological Dictionary. Microstructure. Real Estate Lease Agreements.

Introduction

Commercial and cultural relations between Brazil and France are intense. French companies settle in Brazil and vice versa, students from both countries cross the Atlantic to join exchange programs and internships, and these academic or commercial relationships lead entrepreneurs, company employees, merchants and students to lease properties when they move to the other country. To do so, they sign real estate lease agreements, and understanding them well is obviously an imperative condition. When

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[1] This work is part of a line of research known as Terminology, developed by the Program in Linguistic Studies at Universidade Estadual Paulista - UNESP / São José do Rio Preto, SP.

leasing is done by institutions or companies, there is often a need for legal translations of these documents.

Based on this situation, there is a demand for translations, including sworn translations, of real estate lease agreements in the French-Portuguese language pair, and thus a growing demand for terminological works that may help translators in this task.

To that end, we have developed a proposal[2] for a dictionary of terms used in real estate lease agreements entitled *French-Portuguese Dictionary of Terms from Real Estate Lease Agreements*, hereafter DFPCLI[3], aimed at translators' needs. This work aims at contributing to the development of terminological studies in Brazil and clearing the communication between Brazilian and French landlords and tenants, and mainly providing a useful tool for translators' job.

The theory supporting our investigation has a descriptive nature, especially the Communicative Terminology Theory (TCT). Our reflections have been initiated with an analysis of the specialists' communication reflected in real estate lease agreements, in order to collect the French terms and their Portuguese equivalent terms that make up DFPCLI. Once observed in the corpus, all terminological data related to the terms comprising the dictionary was recorded in our entries in order to provide the translator with a faithful and up-to-date picture of the terminology used by experts in those documents.

Methodology

The DFPCLI was generated from French and Portuguese real estate lease agreements. All the documents composing our corpus were taken from *web* and real estate agencies and law firm websites. Then we have designed two corpora (Fr-Pt) with those documents for collecting the terms that make up the list of terms in French, as well as their equivalents in Portuguese.

The survey of terminological data[4] was carried out using a wide bibliography of the real estate lease area in Brazil and France, as well as Law and Economics dictionaries and our corpus of agreements.

In this paper, we present results related to the microstructure of DFPCLI, i.e., the information set composing the entries. Since our terminographic dictionary targets translators, we identified the main information searched by these professionals when using a bilingual dictionary.

[2] The *French-Portuguese Dictionary of Terms from Real Estate Lease Agreements*, DFPCLI, presented here arises from a doctoral research funded by Sao Paulo Research Foundation - FAPESP, completed in 2017 at Universidade Estadual Paulista Júlio de Mesquita Filho / UNESP, São José do Rio Preto.

[3] The complete work is at the library of Universidade Estadual Paulista Júlio de Mesquita Filho / UNESP, São José do Rio Preto.

[4] Part of our research related to terminological data collection of the French terms was carried out during an internship in France, at *Université Sorbonne Nouvelle – Paris 3* with the guidance of Professor Isabelle de Oliveira and financial support of FAPESP with a Fellowship for Research Internships Abroad (BEPE).

In order to create our proposed microstructure we considered evaluations given by our target audience, which are detailed below.

Translators' Main Needs When Checking a Dictionary

Terminographic work is necessarily a result of combining various expectations, i.e., the ones of terminographers, publishers, market, and mostly of the target audience. Considering that professional translators are the main recipients of our dictionary of terms from real estate lease agreements, getting data on their main needs regarding the use of dictionaries was a premise of our project.

Given the relevance to our research, we mention here two works which served as a foundation to develop the microstructure of our dictionary: *VoTec: a construção de vocabulários eletrônicos para aprendizes de tradução* (VoTec: The Construction Of Electronic Vocabularies For Translation Learners), by Fromm (2007), and *Dicionários na Teoria e na Prática – como e para quem são feitos* (Dictionaries In Theory And In Practice - How And For Whom They Are Made), organized by Xatara, Bevilacqua, and Humblé (2011).

Fromm carried out an opinion poll of 177 translators, addressing several aspects of the use of dictionaries by these professionals, listing their needs and preferences. As a result, the author compiled a list of items considered important in bilingual dictionaries used by translators.

With regard to the information set of the dictionary microstructure, the author raised the following numbers: 10% of respondents only seek the equivalent of the lexical / terminological unit; 11% seek equivalent and definition; and 65% seek the equivalent, definition and an example of the lexical / terminological unit in use (FROMM, 2007). For the majority of translators consulted (65%), therefore, the most sought information in a bilingual dictionary is: equivalent, definition and context of use of the lexical or terminological unit.

In parallel to these notes, the translators listened in the book *Dicionários na Teoria e na Prática – como e para quem são feitos* (XATARA; BEVILACQUA; HUMBLÉ, 2011) raised the following aspects of a dictionary as the most sought after in their everyday job:

- meaning of lexical units and use confirmation (CARBONI, 2011, p.161).
- definitions, quotations, synonymy, antonymy (REUILLARD, 2011, p.170).
- spelling confirmation, meaning, synonyms (BRIGHENTI, 2011, p.157).
- meanings of the lexical unit, spelling, equivalent (COIMBRA, 2011, p.158).
- spelling, meaning, grammatical class, context of use (HUFF, 2011, p.158).
- meanings, equivalents and idioms and locutions (LANDO, 2011, p.159).
- definition, equivalents, quotations (AZENHA JUNIOR, 2011, p.162).

We have noted that both works have similarities regarding translators' needs when using dictionaries, especially in relation to the importance of definition, contexts of use, semantic relations, equivalents, spelling, and grammatical class. Other aspects pointed out by professional translators indicate that their queries in dictionaries also aim at verifying the existence of synonyms. Based on these data and in an effort to meet the needs highlighted by the target audience of our dictionary, we developed the microstructure of DFPCLI.

The Proposed Microstructure

Microstructure of a terminographic work is the structure of the entry, its internal organization. For our dictionary, we designed two types of entries, the *main* one, whose headword is a privileged term very common in our corpus, and the *referral* one, whose headword is a variant form, less used in the documents reviewed. In this work, we will only present the development process of main entries of DFPCLI.

Our proposed microstructure consists of four macro-fields:

Macro-field 1 presents the French term and the terminological data related to it, i.e.: *grammatical category / definition / context*, which we consider permanent paradigms since they appear in all entries; and *other denominations / note / referral*, which are considered occasional paradigms in this work, since they only appear when there is such information for the term described in the entry;

Macro-field 2 presents the Portuguese equivalent term and the terminological data related to it in Portuguese (it is the same terminological data set which composes Macro-field 1);

Macro-field 3, where information about issues relating to equivalence is entered, to the extent that the terms may have some kind of difference in the two cultures; and finally

Macro-field 4, where we record the classification symbol of the term, which refers to its position in the conceptual system.

We can see this data arranged in the following example entry:

Macro-field 1[5]

Assemblée des Copropriétaires	
n.f.	
Définition	Dans tout immeuble divisé en appartements ayant des propriétaires distincts, il existe une assemblée de copropriétaires, qui doit se réunir une fois par an au moins et se prononcer sur les questions importantes qui dépassent la compétence du syndic. Seule, l'assemblée peut modifier le règlement de copropriété. Les décisions sont prises à une majorité différente suivant leur nature et leur importance. (LEMEUNIER, 1988, p.30).
Contexte	*Ces charges, taxes et impositions donneront lieu au versement d'une provision trimestrielle payable au bailleur en même temps que chacun des termes de loyer, le décompte définitif étant établi tous les ans après approbation des comptes par l'<u>assemblée des copropriétaires</u> et au vu des comptes définitifs.* (CCLIF)

Macro-field 2[6]

Equivalente em português	**Assembleia geral**
s.f.	
Definição	Assembleia geral é a reunião de condôminos, prévia e regularmente convocada, de acordo com o determinado em Lei e na Convenção, para apreciar e deliberar sobre assuntos de interesse do Condomínio. (CARVALHO, 1985, p.49).

5 Translation: Assembly of co-owners. Feminine Noun. Definition: In every building divided into separate apartments, there is an Assembly of co-owners that must meet at least once a year and discuss important issues that go beyond the building manager's competence. Just the Assembly can modify the co-owner regulation. Decisions are made by a different majority according to their nature and importance. (LEMEUNIER, 1988, p.30.). Context. These charges and fees are included in the payment of a quarterly provision due to the lessor at the same time of each rental terms, and the final discount will be set every year after the account approval by the Assembly and based on the definitive accounts. (CCLIF)

6 Translation: Portuguese Equivalent Term. General Meeting. Feminine Noun. Definition. General Assembly is the meeting of joint owners, previously and regularly convened, in accordance with the Law and the Convention, to consider and deliberate on issues of interest to the Condominium. (CARVALHO, 1985, p.49). Context. The call notice, even briefly, must clearly state the subjects to be discussed, and should also list the location, day and time of the General Assembly, in the first and second call. (CARVALHO, 1985, p.51). Other denominations. Variant. Condominium Assembly. The law now allows the tenant to have a voice and vote in ordinary or extraordinary <u>Condominium Assemblies</u>, which will result in greater engagement between people residing in the building, regardless of their condition. (SOUZA, 2014, p.418). Note. The General Meeting can be divided into ordinary and extraordinary, the first happens every year, with the resolution on the common expenses of the condominium (service providers' labor taxes, wages, costs related to energy, water, gas, sewage, indoor residual spraying and cleaning of common areas, hydraulic and fire protection equipment, lift maintenance, etc.), and the extraordinary assemblies occur as necessary, when convened by the building manager or Advisory Council, to deliberate on serious and urgent matters. (CARVALHO, 1985, p.50-51). None of the Portuguese equivalent terms appears in the studied Brazilian real estate lease agreements or in Brazilian Tenancy Law. However, the privileged form General Meeting is the term used in Brazilian Civil Code, in condominium section. Furthermore, it is more frequent on the web, in a ratio of 4 occurrences of the privileged form to 1 occurrence of the variant.

Contexto	*O edital de convocação, mesmo sumariamente, deve indicar com clareza os assuntos a serem debatidos, indicando ainda, obrigatoriamente, o local, dia e hora da realização da Assembleia Geral, em primeira e segunda convocações.* (CARVALHO, 1985, p.51).
Outras denominações	Var. Assembleia de condomínio *Permite agora a lei que o locatário tenha voz e voto nas assembleias de condomínio, ordinárias ou extraordinárias, o que vai produzir maior integração entre os que residem no edifício, independentemente de sua condição.* (SOUZA, 2014, p.418).
Nota	A assembleia geral pode se dividir em ordinária e extraordinária, a primeira realiza-se todo ano, com a deliberação a respeito das despesas ordinárias do condomínio (impostos trabalhistas dos prestadores de serviços, salários, relativas a consumo de luz, água, gás, esgoto, dedetização e limpeza das áreas comuns, aparelhos hidráulicos e de proteção contra incêndio, manutenção de elevadores, etc.), as extraordinárias ocorrem conforme necessidade, por convocação do Síndico ou Conselho consultivo, para deliberar sobre assuntos graves e urgentes. (CARVALHO, 1985, p.50-51). Nenhum dos equivalentes em português ocorre nos contratos de locação de imóveis brasileiros estudados, nem na Lei do Inquilinato brasileira. A forma privilegiada, no entanto, *assembleia geral*, é o termo utilizado no Código Civil Brasileiro, na parte referente aos condomínios. Além disso, é mais frequente na *web*, em uma proporção de 4 ocorrências da forma privilegiada para 1 da variante.

Macro-field 3[7]

Observações sobre equivalência	O termo em francês se refere ao grupo de condôminos que formam a assembleia deliberativa. Em português, o termo denomina a reunião dos condôminos, evento no qual eles discutem, visando a resolução de questões pertinentes. Consideramos esses termos não como equivalentes absolutos, mas termos que funcionam na comunicação e recobrem os aspectos necessários para a recomposição do conteúdo do texto na outra língua.

Macro-field 4[8]

Lugar no sistema conceitual	1.5.6.1

Source: Rodrigues (2017, p.98).[9]

7 Translation: Notes on Equivalence. The French term refers to the group of joint owners that make up the deliberative assembly. In Portuguese, the term refers to the meeting of joint owners, where they discuss the resolution of relevant questions. We consider that these terms are not absolute equivalents, instead they are terms that work in communication and cover the necessary aspects for writing the text content in the other language.

8 Translation: Place in concept system.

9 All entry examples shown in this paper have been taken from this work.

The four macro-fields we have just described characterize the microstructure organization of the main DFPCLI entries. We describe below each of the parts that compose the macro-fields and their functions, detailing our terminological decisions considering the initial project and featuring other entry examples from our dictionary.

The French Term and Its Portuguese Equivalent Term

We propose that the entry term is highlighted (in bold) to make it easier for the user to view it. The term Assembly of co-owners[10] in the example shown is the first information in Macro-field 1, and thus in the entry. Since the main query orientation of our work is from French to Portuguese, the term is presented in French, in alphabetical order.

The term that heads the entry is called privileged term, i.e., it is the one that has more occurrences in our corpus of real estate lease agreements. The variant or synonymous form[11] is the one that presents the least number of occurrences in our corpus and only appears in the entry under Other denominations[12] field, as shown in Portuguese part of the example.

In Macro-field 2, the first information shown is the Portuguese equivalent term, General Meeting[13]. It is highlighted in bold, so that it is quickly seen by the user.

The same criterion of use frequency for establishing privileged terms and variant or synonymous forms in French was adopted in the Portuguese part. Thus, the term presented as main equivalent, shown in micro-field Portuguese Equivalent Term[14], is the one that has the highest number of occurrences in our corpus of real estate lease agreements compared to its variants and synonyms in Portuguese.

We believe it is important for translators to be aware of what forms are preferred in the type of document they are translating, so that they can make better translation choices and write a more usual target text in the given domain.

Grammatical category

Pointed out by translators as important information in a dictionary, the grammatical category is part of our microstructure model. We have chosen to select just nouns for our term set. Hence these nouns head the entries in our dictionary. Along with the grammatical category, we have added the gender of the term in both languages.

10 In the original: *Assemblée de copropriétaires*

11 The conceptual distinction between the terms *variant* and *synonym* adopted in our work will be discussed in “Other denominations” section of this paper.

12 In the original: “*Outras denominações”*

13 In the original: “*Assembleia Geral”*

14 In the original: “*Equivalente em português”*

In the entry presented above, the information *n.f.* (*nom féminin*) comes right below the term *Assemblée de copropriétaires*, and *s.f.* (*feminine noun*) is below the Portuguese equivalent term General Meeting.

Gender information is crucial since it does not always match in both languages. For instance, here are some units from our terminological set:

FRENCH	PORTUGUESE
abonnement n.m.	assinatura s.f.
avenant n.m.	adição s.f.
congé n.m.	denúncia s.f.
échéance n.f.	vencimento s.m.
expulsion n.f.	despejo s.m.[15]

The gender of these terms does not match in French and Portuguese. For example, French terms *échéance* and *expulsion* are feminine, while their Portuguese equivalents, respectively *vencimento* and *despejo*, are masculine. In the other cases, the opposite happens: masculine forms in French, *abonnement*, *avenant* and *congé,* are feminine in Portuguese, *assinatura*, *adição* and *denúncia*, respectively.

In the studied term set, we have also noted the existence of three *pluralia tantum* cases in French, i.e., terms that are always used in plural: *arrhes* (deposit), *dépens* (costs), and *honoraires* (fees). The Portuguese equivalents of these terms are also always used in plural: *arras*, *custas*, and *honorários*. These terms are recorded in our dictionary in plural form, unlike all other terms, which have been lemmatized in singular substantive form (base form).

Gender differences and cases of *pluralia tantum* can lead translators to make mistakes when writing the target text. Therefore, we believe it is highly important for these professionals that such cases are shown in entry structure.

Definition

In a terminographic work, the definition is one of the main elements sought by the translator, since it describes the semantic-conceptual content of the terms. For this reason, we entered the definition of the French term as the first information right after grammatical category, as we can see in *Assemblée des copropriétaires* entry aforementioned.

The arrangement of the definition in entry microstructure was determined according to the importance of this data to translators, who want to know the semantic-conceptual content of the term in source language and verify if it matches the meaning conveyed in

[15] Translation: subscription; rider; notice; expiration; eviction.

their working text. Similarly, we have entered the definition of the Portuguese equivalent term right after the grammatical category data.

Placing the definition in macro-field relative to the equivalent term allows the user to make queries from Portuguese to French direction. Our terminographic project allows queries in both languages, since a list of Portuguese terms in alphabetical order is presented, which makes it easier to search in this language.

The definitions shown in DFPCLI were taken from specialized real estate lease works and Law and Economy dictionaries, since writing our own definitions was not one of our goals for our project, considering the limits, specially the deadlines, which restrain a doctoral research.

This decision, in turn, allowed us to work with definitions developed by experts in the referred domains, which we believe have given conceptual expertise to the information within the entries and, as a result, helped us focus on the main goal of our project, i.e., to develop the essential parts of our dictionary, whose microstructure we describe in this paper.

Context of Use

Translators consider that contexts of use are valuable in a dictionary because they show the real use of a term, which helps them to understand the term from a pragmatic, syntactic and semantic perspective. In the DFPCLI, contexts of use are taken from documents originally written in French and Portuguese by experts in the domain, i.e., from real estate lease agreements or reference works in the area.

We intend to provide translators with an example of the actual use of terms in both languages and advise them on possible differences when necessary. Here is an example:

LOCATAIRE

[...]

Contexte	*Le <u>locataire</u> déclare bien connaître les lieux ainsi que les équipements privatifs et communs dont ils bénéficient, pour les avoir visités en vue des présentes et reconnaît leur conformité avec les éléments ci-dessus mentionnés sans qu'il soit nécessaire d'en faire plus ample désignation.* (CCLIF)[16]

As seen in *Locataire* entry, we show a context to the user, as well as the source from which it was taken with the acronym *CCLIF* (Corpus of French Real Estate Lease Agreements). However, some Portuguese equivalent terms do not appear in Brazilian real estate lease agreements, even though they exist in the terminology of the domain

16 Translation: Tenant. Context. The tenant declares to know well the building and the private and common equipment available there, having visited it according to this contract, and recognizes its compliance with the above mentioned elements without the need of further designation. (CCLIF)

in Brazil. In such cases, we have chosen to provide a context from the bibliography specialized in real estate leasing.

Other Denominations

Micro-field *Outras denominações* (Other denominations) is intended to record the variant or synonymous forms of a term, being included both in Macro-field 1, relative to data about the French term, and Macro-field 2, relative to the equivalent term. According to the theoretical alignment of our research, the phenomenon of synonymy is absorbed within Terminology and accepted as a natural feature of a term set, just as it happens in general language. "It is necessary to acknowledge synonymy is a real phenomenon within natural specialized communication and provide criteria to establish the distinct value of units, if applicable."[17] (CABRÉ, 1999, p.122). In this sense, cases of variation or synonymy have been recorded in our entries whenever our researches pointed to data of this nature.

It is worth specifying that we have used a distinction between the terms *variant* and *synonym* in our work. "We consider variant those terms that maintain the same linguistic base, with only some formal changes in spelling, morphological, syntactic order etc., in which it is still possible to recognize the main term. In short, there are two forms for the same term."[18] (RODRIGUES, 2017, p.58). On the other hand, we have considered synonyms the cases of "[…] two different terms that call the same concept, such as *époux* and *conjoint*, in which the units have a different linguistic base, represented in two different terms."[19] (RODRIGUES, 2017, p.59).

Thus, we understand the phenomenon of variant as a linguistic expression that covers the same concept, but presents a change from the formal perspective in relation to the privileged term, keeping intact the essential core of a term, as in the following cases:

bail commercial - bail à usage commercial;
carte d'identité - carte nationale d'identité;
dommages et intérêts - dommages-intérêts.[20]

There is a slight variation in the form of these terms, but their linguistic expressions are very similar. These are changes in peripheral elements of the linguistic expression, not in the main and core elements of the term structure.

[17] In the original: "*Tiene que admitir la sinonimia como un fenómeno real dentro de la comunicación especializada natural y aportar criterios para establecer el distinto valor de las unidades, si es este el caso.*" (CABRÉ, 1999, p.122).

[18] In the original: "*Entendemos como variante aqueles termos que mantêm a mesma base linguística, com apenas algumas alterações formais de ordem ortográfica, morfológica, sintática etc., em que ainda seja possível reconhecer o termo principal. Em suma, são consideradas duas formas de um mesmo termo.*" (RODRIGUES, 2017, p.58).

[19] In the original: "[...] *dois termos diversos que denominam o mesmo conceito, como époux e conjoint, em que as unidades apresentam base linguística diferente, configurando-se em dois termos diferentes*." (RODRIGUES, 2017, p.59).

[20] Translation: commercial lease; identity card; losses and damages

There is also another very interesting type of variation in our findings. It is the acronym of an expanded form. Here are some cases found in our terminology:

Constat de risque d'exposition au plomb – CREP;
Diagnostic de performance énergétique – DPE;
Habitation à loyer modéré – HLM.[21]

These examples of variation are based on the formal aspect of the term, but more specifically on its reduced, abbreviated, brachigraphic character. This type of variant appears very often in our corpus, which leads to the need to register this form since the translator may come across an acronym and may not recognize the expanded form of the term in the context. Here is an example:

CONSTAT DE RISQUE D'EXPOSITION AU PLOMB

[...]

Autres dénominations	*Var. CREP* Un dossier de diagnostic technique comprenant un diagnostic de performance énergétique (DPE) et pour les biens concernés un état des risques naturels, miniers et technologiques et un constat de risque d'exposition au plomb (CREP). (CCLIF)[22]

In this example, we can see the brachiographic variant *CREP* recorded in *Autres dénominations* micro-field. The variant or synonymous forms recorded in this micro-field appear as headwords in related entries in our dictionary.

The variants usually have some aspect of their meaning that is different from the privileged form according to the specific contexts of use in which they occur, users who use them, time and place the communication happens. We want these specific characteristics of each variant to be clear for translators, not only by explicitly recording sociolinguistic and cultural differences, but also by indicating a context where the variant is being used. We decided to record the context of the variant form in the same micro-field because we consider it more practical for the user to quickly see a real example of the variant in use.

Another important piece of information we also recorded in this field is the occurrence of synonymous forms. Although we know there is a conceptual difference between synonyms (interchangeability of concepts in all contexts) and quasi-synonyms (interchangeability in specific contexts), we adopted the word *synonyms* since we have taken into account the reading habit of dictionary users in Brazil. Let's see it:

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[21] Translation: Certificate of Risk of Lead Exposure; Energy Efficiency Diagnosis; Public housing (freely translated)

[22] Translation: Certificate of Risk of Lead Exposure. Other denominations. Variant. CREP. A technical diagnostic file consisting of an Energy Efficiency Diagnosis (DPE, the acronym in French) and the assets referred to in a Natural, Mining and Technological Risk Certificate and a Certificate of Lead Exposure (CREP, the acronym in French). (CCLI)

BAIL

[...]

Autres dénominations	Syn. contrat de location *Le propriétaire est tenu de délivrer au locataire le logement en bon état de réparations de toute espèce et les équipements mentionnés au <u>contrat de location</u> en bon état de fonctionnement*. (CCLIF)[23]

The terms *bail* and *contrat de location* (lease agreement) in real estate lease agreements cover the same concept. The difference identified between them in the studied domain is restricted to a pragmatic question, since the latter is much less frequent than its correlate.

However, only mentioning the synonymy is insufficient for the translator, who also needs data on the difference, especially the pragmatic one, between the privileged term and its synonym. In fact, although we do not make theoretical distinction between synonyms, quasi-synonyms and variants in our dictionary, the pragmatic distinction is highly valuable to translators.

For this reason, we have proposed the micro-field *nota* (note) as part of the entry microstructure, where data about synonyms and variants found in our terminological set can be recorded.

Note

This micro-field is intended to record a very important type of information for translators: data about the use of terms, linguistic and extra-linguistic information, conceptual difference between synonymous forms, etc., which may influence translators' choice of which linguistic expression to use, or even help them better understand the terms. Faulstich (1995) explains that it is fundamental to observe the variations arising from the use and, in a broader sense, from the social aspect the term reveals.

> The underlying principle of socio-terminological research is a record of variant(s) which takes into account social, situational, spatial, and linguistic contexts in which the terms occurs; it also considers the frequency of use if it is the method chosen by the specialist. Variants work as Var. type tags in the body of an entry and are the result of different uses that the community, in its social, linguistic and geographical diversity, makes of the term.[24] (FAULSTICH, 1995, p.7).

[23] Translation: Other denominations. Synonym. Lease agreement. The owner shall deliver the property to the tenant in good condition, with repairs of all kinds and the equipment mentioned in the lease agreement in good working order.

[24] In the original: "*O princípio subjacente da pesquisa socioterminológica é o registro de variante(s) que leva em conta os contextos social, situacional, espacial e lingüístico em que os termos circulam; não abandona também a freqüência de uso, se for este o método escolhido pelo especialista. As variantes funcionam como marcas do tipo Var., no corpo de*

These aspects pointed out by the author are essential to guide a translator, who must choose between different forms of a term for his/her target text. In our dictionary, we try to provide the translator with enough data for this choice, registering them in the field described here.

The field *nota* (note) has an intra-linguistic nature, i.e., it brings information about the term itself and not about its relation to the equivalent in other language. One piece of the information contained therein refers to how much the term is being used in the documents, which is particularly important for translators, since the adoption of a less used term can harm readability in target text. Here is an example:

CAUTION

[...]

Note	Les termes *caution* et *garant* designent tous les deux le même concept. Néanmoins, par rapport à l'usage, les termes ne sont pas utilisés à la même fréquence dans le *corpus* étudié (*caution* à 192 occurrences et *garant*, 14). Du terme *caution* dérive le mot *cautionnement,* très important dans le domaine des baux. De cette façon, le terme *caution* se fait plus présent dans le domaine de la location immobilière, quoique les deux termes puissent être utilisés dans des expressions comme «se porter caution» et «se porter garant», celle-ci sans aucune occurrence dans les contrats.[25]

In this example, we can see how much the terms are used in our corpus of real estate lease agreements, which highlights specialists' preferred use.

Another type of information recorded in *nota* (note) micro-field has a linguistic character, here understood as formal (orthographic, morphological, foreignisms, etc.). Here is the case of the term *budget*:

BUDGET

[...]

Note	Mot en anglais.[26]

um verbete e são resultantes dos diferentes usos que a comunidade, em sua diversidade social, lingüística e geográfica faz do termo." (FAULSTICH, 1995, p.7).

25 Translation: Note. The terms *caution* and *garant* (guarantor) designate the same concept. However, in terms of use, they are not used as often in the studied corpus (*caution* had 192 occurrences, and *garant* 14). From the term *caution* comes the word *cautionnement* (contract of guarantee), which is very important in lease contracts. Thus, the term *caution* is more frequent in real estate leasing domain, although both terms may be used in expressions such as "se porter caution" and "se porter garant" (being guarantor), the latter without any occurrence in our contracts.

26 Translation: Note. Word in English.

Budget is an English term and is used in this language in French real estate lease agreements, so it is shown to the translator that the term appears in English in this type of document.

We have also recorded other linguistic information important to translator's work. Here is the case of the term *honoraires* (fees):

HONORAIRES

[...]

Note	Le terme *honoraires* au sens de rémunération des professionnels libéraux est toujours utilisé au pluriel. Honoraire (au singulier) est un adjectif qui signifie « à titre honorifique », «qui a le titre sans exercer la fonction: un magistrat honoraire, un professeur honoraire». (BISSARDON, 2009, p.46).[27]

Finally, the micro-field relative to notes is only filled when there is some information considered, in our work, relevant to the user, whether it has a linguistic, pragmatic, cultural or conceptual nature. Data we record in this micro-field helps the translator in his or her translation choices.

Referrals

When the distribution of entries is in alphabetical order, as in our work, some existing semantic-conceptual relations between terms may not be easily noted. Terms such as *bailleur* and *locataire*, closely linked from a conceptual perspective, are far from each other within the dictionary, which makes it difficult to recover the relationship between them. So the referral we indicate in some entries constitutes important information to users, since it guides them to other terms related to the searched term, complementing it, comparing it to others or differentiating it from others. According to Cabré (1993, p.315), "[…] one term refers to another to stimulate its priority use, to discourage a denomination or to highlight the existence of alternatives on the same sociolinguistic level."[28] Thus, we have chosen to point out to the user some semantic relations considered relevant in the scope of this work.

Therefore, considering the target audience needs and the features of the studied domain terminology, we have organized referrals in our proposed dictionary with two indications, *ver* (see) and *confronte* (compare). The two types of referral were adopted based on a criterion widely used in terminographic practice: whether the consultation is required or optional.

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[27] Translation: Note. The term *honoraires* (fees), meaning independent professionals' remuneration, is always used in plural. *Honoraire* (singular) is an adjective that means 'for honorable purposes', and refers to 'someone who has a title but doesn't practice the function: an honorary magistrate, an honorary teacher'. (BISSARDON, 2009, p.46).

[28] In the original: "[…] *un término remite a otro para potenciar su uso prioritario, para rechazar una denominación o señalar la existencia de alternativas al mismo nivel de consideración sociolingüística.*" (CABRÉ, 1993, p.315).

Referral *ver* (*v.*) is considered mandatory, since translators only accesses the information wanted by following the path indicated by the referral. Barros explains that "The use of *ver* is usually linked to the need (obligation) to check another entry to find the desired information."[29] (BARROS, 2004, p.180). Here is an example of referral *ver*, in French *voir* (*v.*):

ASSURANCE INCENDIE

[...]

V. Assurance contre l'incendie[30]

In the entry above[31], we can see the record of a mandatory referral *voir* (v.) sending the user to the main entry *assurance contre l'incendie,* (fire insurance) where he/she will find all the information about the term.

The referral *confronte* (cf.), in French *confer,* is optional and aims at increasing the user's knowledge about the term searched, according to its relation with other terms. Just as the referral *queira ver* (please refer to), the referral *confronte* (compare) is not mandatory, according to Barros. "This consultation is not mandatory, since the data conveyed by the definitional statement of the entry [...] is enough to understand its conceptual content."[32] (BARROS, 2004, p.181). Let's see an example:

Equivalente em português	**Benefício de ordem**
	[...]
	Cf. Benefício de divisão[33]

The terms whose relation is indicated in this entry through referral *confronte (cf.)* are benefits concerning the guarantor. The headword of the entry, *Benefício de ordem* (Benefit of order), assures the guarantor that the warrantee is first called to pay the debt, even if it means that the warrantee will have to sell off his own assets. Only after that, the guarantor can be called upon to assume the obligations not met by the warrantee.

The term *Benefício de divisão* (Benefit of division) is intended for guarantors that jointly assume the same security deposit and guarantees that they are each charged for only one part of the debt. If guarantors waive this right, each of them can be individually called upon to pay the total debt.

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29 In the original: "[...] *a utilização de ver se encontra em geral ligada à necessidade (obrigação) de consulta a um outro verbete para se encontrar a informação que se deseja.*" (BARROS, 2004, p.180).

30 Translation: Fire insurance.

31 The entry in the example is a referral entry.

32 In the original: "*Essa consulta não é, entretanto, obrigatória, uma vez que os dados veiculados pelo enunciado definicional do verbete [...] são suficientes para a compreensão de seu conteúdo conceptual.*" (BARROS, 2004, p.181).

33 Translation: Benefit of division.

For translators, we consider it is worth checking the term indicated to broaden their knowledge about the domain, but it's not a mandatory check to understand the conceptual configuration of the term they were initially searching for.

In micro-field *remissão* (referral) mandatory or optional search guidelines were recorded, which seeks to recompose to the user a network of related concepts.

Notes on Equivalence

Macro-field 3, *Observações sobre equivalência* (Notes on Equivalence), is where we record information about term equivalence, as its name suggests, considering the semantic-conceptual aspect of the terms, the cultural aspect influencing the establishment of terminologies in both countries (France and Brazil) and the use of the term by specialists in both languages.

Based on the theoretical principles of our work, the equivalent term shown in our dictionary was taken from actual communication contexts between specialists in real estate lease area in Brazil, in order to locate the expression actually used in the everyday interactions. In this respect, we agree with Cabré (1993, p.246) that "[...] Terminology is not in any way the translation of forms from one language to another based on allegedly equivalent denominations, but looking for denominations that users of a language actually employ when referring to a concept [...]"[34]

In this procedure, we have found, in Portuguese equivalent set, a high rate of total equivalence, which means according to Dubuc's criteria (1992) that these terms cover the same concept as the French terms, they are used at the same level of expertise, they have the same sociolinguistic value and are employed in the same domain, i.e., in real estate lease agreements or legislation concerning tenancy in Brazil.

Nevertheless, we must acknowledge that the real estate lease agreement is a component of the real estate industry and it has its own characteristics, such as a specific type of wording, a particular language level and terminology, and it conveys the parties' concerns and desires regarding the rental transaction, as well as their rights and duties. As such, it addresses aspects of the leasing that are not necessarily identical or perhaps not even exist in other cultures.

In our research, we have found that a small number of terms does not have an equivalent term in Portuguese. It is a set of 15 terms.

Among them, we observe some cases whose extra-linguistic reality does not exist in Brazil, but the term that denominates the French reality has been coined in our country in scientific papers, newspapers, etc. Although the identified reality doe<u>s not</u> exist in Brazil, a denomination in Portuguese has already been coined to refer to such French reality. In those cases, we have chosen to show this information to the user in *Observações sobre a equivalência* (Notes on equivalence) macro-field. Let's see an example:

[34] In the original: "[...] *hacer terminología no es en ningún caso traducir las formas de una lengua a otra sobre la base de unas denominaciones pretendidamente equivalentes, sino recoger las denominaciones que los usuarios de una lengua emplean realmente para referirse a un concepto* […]" (CABRÉ, 1993, p.246).

REVENU MINIMUM D'INSERTION

[...]

Définition	Mesure instituée par la loi du 30 novembre 1988 en France dans le cadre de la lutte contre la pauvreté. L'allocation, d'un montant variable, bénéficie à toute personne de plus de 25 ans, français ou étranger ayant un titre de séjour de 3 ans ou moins. Elle est d'un montant variable selon les ressources et la taille de la famille. Elle est accordée pour une période de 3 mois à 1 an. Elle s'accompagne d'un contrat prévoyant des activités d'insertion sous forme d'un travail ou d'une formation pour le bénéficiaire. (SILEM, 2008, p.678).[35]
Equivalente em português	**"Renda mínima de inserção"**
	[...]
Contexto	*Ao analisar a construção social (mesmo que inconsciente) da relação do Estado (e da coisa pública) com a política social de <u>Renda Mínima de Inserção</u> (RMI) francesa e como consequência as representações sociais e análises feitas sobre o programa, espera-se compreender assim o Programa Renda Mínima de Inserção (RMI) francesa pela dimensão cognitiva, ou seja, mapeando as representações sociais que perpassam os discursos da sociedade francesa sobre o programa, podendo então relacionar ao caso brasileiro, do porquê da associação do programa Bolsa Família ao assistencialismo.* (FLORES, 2013, s/p).[36]
Observações sobre equivalência	Não encontramos registros da existência da realidade cultural denominada pelo termo *revenu minimum d'insertion* no Brasil. O termo *renda mínima de inserção* foi cunhado em língua portuguesa por jornalistas e estudiosos para denominar uma realidade social ocorrente na França.[37]

In the entry shown above, we can see the coined form in Portuguese used to describe the French reality *revenu minimum d'insertion*, i.e., "renda mínima de inserção"

[35] Translation: Minimum income of insertion. Definition. Measure established by the Act of November 30, 1988 in France in the context of the fight against poverty. The grant of a variable amount benefits any person over 25 years old, French citizen or foreigner with a residence permit of 3 years or less. It is a variable amount depending on income and family size. It is granted for a period of 3 months to 1 year. It is accompanied by a contract that sets out insertion activities, including jobs or training for the beneficiary. (SILEM, 2008, p.678).

[36] Translation: Portuguese Equivalent Term. Minimum income of insertion. Context. By analyzing the social (albeit unconscious) construction of the relationship between the State (and of public affairs) and the French Social Policy of Minimum income of insertion (RMI, in the French acronym) and, thus, the social representations and analyzes about the program, we hope to understand the French Minimum income of insertion (RMI) Program from a cognitive perspective, i. e., mapping the social representations that permeate the French society discourses about the program, and then relating it to the Brazilian case, the reasons for the Bolsa Familia program association to welfare programmes. (FLORES, 2013, n/p).

[37] Notes on Equivalence. We found no records proving the existence of the cultural reality named by the French term *revenu minimum d'insertion* in Brazil. The term *renda mínima de inserção* (minimum income of insertion) was coined in Portuguese by journalists and scholars to name a social reality occurring in France.

(minimum income of insertion), but the concept was not found in real estate leasing in Brazil. Information about the concept absence in Brazil is recorded in Macro-field 3, *Observações sobre equivalência* (Notes on Equivalence).

Discussing further about terms that do not have equivalents, when the reality denominated by a French term does not happen in Brazil, we have verified that some terms do not have any form of linguistic expression in Portuguese to denominate the foreign phenomenon. These are cases of total absence of equivalence (DUBUC, 1992). Here is an example:

SUPPLÉMENT DE LOYER DE SOLIDARITÉ

[...]

Equivalente em português	**Sem equivalente em português**
Observações sobre equivalência	O termo em francês denomina uma realidade muito específica do mercado da locação na França. As pessoas de baixa renda podem obter, por intermédio do Estado, um tipo de locação chamada de *HLM, habitation à loyer modéré*. Trata-se de um tipo de habitação social, cujos valores locatícios são mais modestos. Para serem beneficiados por esse programa, os candidatos à *HLM* não podem ter renda superior a um determinado teto. Caso o locatário tenha uma renda superior a esse teto máximo, ele deve pagar um acréscimo no aluguel chamado “supplément de loyer de solidarité”. Essa realidade não existe no Brasil.[38]

In this entry, there is a case of total absence of equivalence in Portuguese, i.e., this social and cultural reality does not exist in Brazil and there is no Portuguese term coined to refer to this French reality. For such cases, we have chosen to explicitly indicate the absence of equivalence with the statement “Sem equivalente em português” (No equivalent in Portuguese) and include clarifications about this.

The comparative analysis of the two terminological sets have shown there is a type of equivalence in which a single linguistic expression in French has two equivalents, such as the term *caution* whose equivalents in Portuguese can be *fiador* (guarantor) and *caução* (security deposit).

Given that in the scope of real estate lease agreements the French term *caution* refers to two different concepts with two different equivalent terms in Portuguese, we consider that it would be clearer to the user if the data were recorded in different entries.

[38] Translation: No equivalent in Portuguese. Notes on Equivalence. The French term refers to a very specific reality of the leasing market in France. Low-income people can get, through the State, a type of leasing called *HLM, habitation à loyer modéré*. It is a type of public housing, whose leasing values are more affordable. To take advantage from this program, HLM applicants cannot have an income above a certain ceiling. If the tenant has an income beyond this ceiling, he must pay an increment over the rent called “*supplement de loyer de solidarity*”. This reality does not exist in Brazil.

Thus, for our dictionary we have created the entries *caution*¹ (see below) and *caution*², and inserted a mention about the existence of each other.

CAUTION	
[...]	
Définition	Personne qui s'engage envers le créancier, à titre de garantie, à remplir l'obligation du débiteur principal, pour le cas où celui-ci n'y aurait pas lui-même satisfait et qui, n'étant en principe tenue qu'à titre subsidiaire, peut exiger que le débiteur principal soit d'abord discuté dans ses biens. (CORNU, 2009, p.138).[39]
Equivalente em português	**Fiador**
	[...]
Definição	Na terminologia jurídica designa precisamente a pessoa que se obriga pelo pagamento da obrigação de outrem, prometendo cumpri-la ou pagá-la no caso em que o devedor não a cumpra. (SILVA, 2006, p.609).[40]
Observações sobre equivalência	A expressão linguística *caution* denomina dois conceitos diferentes em francês, um deles refere-se ao equivalente em português *fiador*, o outro conceito refere-se ao equivalente *caução*, em português.[41]

We have decided to elaborate two different entries for each concept because the common practice in Terminology considers there are two different terms in such cases, and therefore each one must have its own entry. This situation then must be recorded within *Observações sobre equivalência* (Notes on equivalence) micro-paradigm, where there will be an explanation about the existence of another entry with the same headword, but with a different equivalent.

Another phenomenon is observed between the terms *bail professionnel* and *bail commercial*, whose concepts are denominated by a single equivalent in Portuguese, *contrato de locação não residencial* (non-residential lease agreement).

The Portuguese term covers two concepts which in French are denominated separately. *Contrato de locação não residencial* refers to contracts that are not used for housing, so they are not residential. This classification includes commercial and industrial activities, self-employed professionals, schools, non-governmental organizations, etc.

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39 Translation: Guarantor. Definition. A person who pledges with the creditor, as collateral, to fulfill the main debtor's obligation in the event that he fails to do so and who, being in principle bound only alternatively, may require the main debtor's assets to be challenged first. (CORNU, 2009, p.138).

40 Translation: In legal terminology, it accurately designates the person who is obliged to pay another person's duty, promising to fulfill it or to pay it if the debtor does not fulfill it.

41 Notes on Equivalence. The linguistic expression *caution* names two different concepts in French, one of them refers to the Portuguese equivalent *fiador*, the other concept refers to the Portuguese equivalent *caução*.

In French, the real estate lease domain has a different classification. It includes residential lease, commercial lease, professional lease, mixed lease (professional and residential) and seasonal lease. As such, the concept of leasing for commercial activity is denominated by the term *bail commercial*, while the concept of a lease agreement for professional activity, in particular for self-employed professionals, is denominated by the term *bail professionnel*.

Therefore, we have created an entry for each of the terms in French, where we have registered the same Portuguese equivalent term. The equivalent term is assigned a superscript number in order to identify what is the concept for each term in French. Here is an excerpt from the entry *Bail commercial*:

BAIL COMMERCIAL

[...]

Equivalente em português	**Contrato de locação não residencial¹**
Observações sobre equivalência	Na terminologia locatícia francesa, os termos *bail commercial* e *bail professionnel* referem-se ao contrato de locação destinado ao estabelecimento onde se desenvolvem atividades de empresas comerciais (lojas, restaurantes, etc.) e de profissionais liberais (advogados, cabeleireiros, etc) respectivamente. Na terminologia locatícia brasileira, a locação para essas duas categorias de estabelecimentos comerciais é designada por um mesmo termo, qual seja, *contrato de locação não residencial*.[42]

We have decided to record information regarding equivalence between French and Portuguese terms indicating to the user the difference between the types of real estate lease agreements in France and Brazil.

Observações sobre equivalência (Notes on equivalence) is a very important macro-field in our dictionary, since it is where we register conceptual, usage and cultural differences regarding equivalents. For translators, this macro-field is highly valuable as it clarifies doubts beyond the conceptual aspect.

Classification symbol

Macro-field 4 of the microstructure designed for DFPCLI is intended to record the *Símbolo de classificação* (Classification Symbol), i.e., the concept localization code within the concept system. Here is an excerpt from the concept system of DFPCLI where classification symbols appear:

[42] Translation: Notes on Equivalence. In French leasing terminology, the terms *bail commercial* and *bail professionnel* refer to the lease agreement intended for a facility where the activities of commercial companies (shops, restaurants, etc.) and independent professionals (lawyers, hairdressers, etc.) are performed, respectively. In Brazilian leasing terminology, the leasing in these two categories of commercial facilities is designated by the same term, *contrato de locação não residencial* (non-residential lease agreement).

1 – *Contrat de location d'immeubles*
[...]
1.3 – *Fautes*
1.3.1 – *Défaillance*
1.3.2 – *Fautes du locataire*
1.3.2.1 – *Abandon de domicile*
1.3.2.2 – *Abandon des lieux*
1.3.2.3 – *Abus de jouissance*[43]

We have noted that each concept is related by coordination (symbols 1.3.1 and 1.3.2, for example, coordinated between themselves) or by subordination (symbols 1, 1.3, 1.3.2, 1.3.2.1, the most specific ones being subordinated to the most general ones). In the entry, this symbol indicates the location of a term within the concept system which a user may access to recover semantic relations between terms.

The classification symbol appears only at the end of the entries, because this information is only accessed if the translator has an interest in checking the relation of a concept with the others, and it is not a mandatory access in all queries. Let's see an example of the classification symbol recorded in field *Lugar no sistema conceitual* (Place in concept system):

ASSURANCE HABITATION[44]

[...]

Lugar no sistema conceitual	1.8.3.4

Since classification symbol marks the place of the concept within the system, all expressions that call the same concept, whether they are privileged forms, variants or synonyms, have the same symbol.

Final remarks

Throughout this article, we have addressed the development of DFPCLI, French-Portuguese Dictionary of Terms from Real Estate Lease Agreements, especially regarding the proposed microstructure of main entries in our dictionary.

One of the premises of our terminographic project was to meet our target audience needs, i.e., translators who deal with the task of translating real estate lease agreements. The first aspect to be considered is the speed of consultation, since these professionals

[43] Translation: Real estate lease agreements. 1.3 - Faults. 1.3.1. - Default. 1.3.2 - Tenant's fault. 1.3.2.1 - Abandonment of domicile. 1.3.2.2 - Abandonment of property. 1.3.2.3 - Abuse of enjoyment

[44] Translation: Home Insurance.

usually work with tight deadlines, but other requirements also need to be taken into account, as we have seen in professionals' evaluations regarding bilingual dictionaries available in the market.

In fact, our dictionary intends to meet the professionals' expectations regarding the types of information they care about, namely: grammatical category, definition, context of use, equivalence, existence of synonyms and/or variants, cultural, linguistic or extralinguistic information that may interfere in translation choices. In addition to these data, we have also inserted referrals and classification symbols that indicate where the terms are located within the concept system.

This model have been designed for the record of privileged terms data, i.e., terms that specialists in the area prefer to use and that have a higher occurrence rate in our corpus of real estate lease agreements.

Translators working with the French-Portuguese language pair are not always familiar with the terminology of real estate lease agreements. For this reason, a specialized bilingual dictionary based on the demands of this target audience can become an important work tool for them.

Real estate lease agreements are documents reflecting the concerns of the communities where the leasing transaction is being carried out. Thus, such agreements in Brazil and France do not always address exactly the same aspects of real estate leasing, as the agreements in each country are embedded in a particular sociocultural framework. Through our terminographic work, DFPCLI, we aim at reducing the distance between the Brazilian and French contracting parties in terms of understanding the terminology of real estate lease agreements, and perhaps reducing the communicative distance and, ultimately, the human distance between the two countries.

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▪ *ABSTRACT: Este artigo apresenta resultados obtidos em pesquisa sobre a Terminologia de contratos de locação de imóveis em âmbito português-francês. Esse trabalho se insere na linha de pesquisa Terminologia, do Programa de Estudos Linguísticos da Universidade Estadual Paulista – UNESP, e se refere especificamente à elaboração de um dicionário terminológico bilíngue de termos do referido domínio. O objetivo principal dessa pesquisa é a elaboração de uma proposta de Dicionário Francês Português de Termos de Contratos de Locação de Imóveis (DFPCLI) voltado às necessidades específicas de tradutores e, nesse* *artigo, apresentamos resultados referentes à microestrutura do dicionário. As necessidades dos tradutores foram observadas em Fromm (2007) e Xatara, Bevilacqua e Humblé (2011). A extração dos termos se deu a partir de córpus de contratos de locação de imóveis em francês e português e os dados terminológicos foram retirados de vasta bibliografia do domínio na França e no Brasil. O alinhamento teórico de nossa pesquisa é a Terminologia Descritiva, em especial a TCT, Cabré (1993, 1999), e Faulstich (1995), Barros (2004), dentre outros. O DFPCLI pretende-se uma contribuição aos estudos terminológicos no Brasil e configura-se como uma ferramenta útil ao trabalho dos tradutores desses documentos no encontro das culturas brasileira e francesa.*

- *KEYWORDS: Terminologia. Dicionário terminológico bilíngue. Microestrutura. Contratos de locação de imóveis.*

REFERENCES

AZENHA JUNIOR, J. Os usuários e suas demandas. *In*: XATARA, C.; BEVILACQUA, C. R.; HUMBLÉ, P. R. M (org.). **Dicionários na teoria e na prática:** como e para quem são feitos. São Paulo: Parábola editorial, 2011. p.162.

BARROS, L. **Curso básico de terminologia**. São Paulo: Ed. da USP, 2004.

BISSARDON, S. **Guide du langage juridique:** vocabulaire, pièges et difficultés. Paris: LexisNexis Litec, 2009.

BRIGHENTI, M. Os usuários e suas demandas. *In*: XATARA, C.; BEVILACQUA, C. R.; HUMBLÉ, P. R. M (org.). **Dicionários na teoria e na prática:** como e para quem são feitos. São Paulo: Parábola editorial, 2011. p.157.

CABRÉ, M. T. **La terminología:** representación y comunicación: elementos para una teoría de base comunicativa y otros artículos. Barcelona: IULA, 1999.

CABRÉ, M. T. **La terminología:** teoría, metodología, aplicaciones. Barcelona: Editorial Antártida/Empúries, 1993.

CARBONI, C. S. Os usuários e suas demandas. *In*: XATARA, C.; BEVILACQUA, C. R.; HUMBLÉ, P. R. M (org.). **Dicionários na teoria e na prática:** como e para quem são feitos. São Paulo: Parábola editorial, 2011. p.161.

CARVALHO, A. J. F. **O condomínio na prática**. Rio de Janeiro: Editora Liber Juris, 1985.

COIMBRA, S. A. C. Os usuários e suas demandas. *In*: XATARA, C.; BEVILACQUA, C. R.; HUMBLÉ, P. R. M (org.). **Dicionários na teoria e na prática:** como e para quem são feitos. São Paulo: Parábola editorial, 2011. p.158.

CORNU, G. **Vocabulaire juridique**. Paris: Presses Universitaire de France, 2009.

DUBUC, R. **Manuel pratique de terminologie**. Quebec: Linguatech, 1992.

FAULSTICH, E. Socioterminologia, mais que um método de pesquisa, uma disciplina. **Ciência da Informação,** Brasília, v.24, n.3, 1995. Available in: http://revista.ibict.br/ciinf/article/view/566/567. Access on: 05 nov. 2019.

FLORES, M. S. **Representações sociais sobre a renda mínima de inserção (RMI) francesa e dimensões cognitivas do sistema social**. 2013. Available in: http://www.bv.fapesp.br/pt/bolsas/141295/representacoes-sociais-sobre-a-renda-minima-de-insercao-rmi-francesa-e-dimensoes-cognitivas-do-sis/. Access on: 08 abr. 2017.

FROMM, G. **VoTec:** a construção de vocabulários eletrônicos para aprendizes de tradução. 2007. 215f. Thesis (Doctor in Letters) – Faculdade de Filosofia, Letras e Ciências Humanas, São Paulo, 2007.

HUFF, D. D. Os usuários e suas demandas. *In*: XATARA, C.; BEVILACQUA, C. R.; HUMBLÉ, P. R. M (org.). **Dicionários na teoria e na prática:** como e para quem são feitos. São Paulo: Parábola editorial, 2011. p.158.

LANDO, I. M. Os usuários e suas demandas. *In*: XATARA, C.; BEVILACQUA, C. R.; HUMBLÉ, P. R. M (org.). **Dicionários na teoria e na prática:** como e para quem são feitos. São Paulo: Parábola editorial, 2011. p.159.

LEMEUNIER, F. **Dictionnaire Juridique:** 2000 termes juridiques, locutions latines, sigles et abreviations. Paris: La maison du dictionnaire, 1988.

REUILLARD, P. C. R. Os usuários e suas demandas. *In*: XATARA, C.; BEVILACQUA, C. R.; HUMBLÉ, P. R. M (org.). **Dicionários na teoria e na prática:** como e para quem são feitos. São Paulo: Parábola editorial, 2011. p.170.

RODRIGUES, K. **Proposta de modelo de dicionário francês-português de contratos de locação de imóveis brasileiros e franceses.** 2017. 306f. Thesis (Doctor in Linguistic Studies) – Instituto de Biociências, Letras e Ciências exatas, Universidade Estadual Paulista, São José do Rio Preto, 2017.

SILEM, A.; ALBERTINI, J.-M. **Lexique d'économie**. Paris: Dalloz, 2008.

SILVA, D. P. e. **Vocabulário jurídico**. 27.ed. Rio de Janeiro: Forense, 2006.

SOUZA, S. C. **A Lei do inquilinato comentada**. Rio de Janeiro: Forense, 2014.

XATARA, C.; BEVILACQUA, C. R.; HUMBLÉ, P. R. M. **Dicionários na teoria e na prática:** como e para quem são feitos. São Paulo: Parábola Editorial, 2011.

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WORKING MEMORY CAPACITY, READING PROFICIENCY, AND THE PROCESSING OF VERBAL AND PICTORIAL INFORMATION IN ENGLISH AS A FOREIGN LANGUAGE READING

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▪ ABSTRACT: This study investigates interplays among working memory capacity (WMC), reading proficiency, and the processing of verbal and pictorial information in English as a foreign language (EFL) reading. Participants were sixty Brazilian public-school students aged 15-17 years old (*M* = 16.3, *SD*. = 64). Instruments comprised a background questionnaire, an EFL reading proficiency test, a WMC test, a reading comprehension test, and a retrospective questionnaire. Quantitative and qualitative analyses revealed a positive correlation between the independent variables (i.e., EFL reading proficiency and WMC), as well as a significant association between each of the independent variables and the dependent variable (i.e., reading comprehension). Results indicated that: (1) WMC limitations appear to constrain the processing of non-illustrated expository texts; (2) low EFL reading proficiency may hamper the efficiency of pictorial information processing; and (3) WMC limitations in the processing of pictorial information seem to be compensated by the activation of background knowledge.

▪ KEYWORDS: Working memory capacity. English as a foreign language reading. Literal comprehension. Inferential comprehension.

Introduction

Reading comprehension, from a language processing perspective, comprises an array of cognitive processes whose implementation enables individuals to construct textual mental representations. Our focus in this study is on the construction of mental representations of one specific textual genre: cartoons.

As defined by Pagliosa (2005, p.116, our translation), "[…] cartoons are aimed at criticizing customs and at focusing on a generic reality. They are atemporal, that is, do

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not know the limits of time imposed by the criticism to characters, facts and political events."[1] On top of that, we propose that the criticism conveyed in cartoons results from tacit relationships established between texts and illustrations. Thus, we assert that the identification of their main ideas demands from readers the execution of interactive cognitive processes through which referential connections must be established between verbal and pictorial information.

Considering the above, we conceptualize text, in this study, as a unit of meaning derived from the integration of information that can be solely represented in the verbal code, or in both, the verbal and pictorial codes (HALLIDAY; HASAN, 1976), with the communicative function to convey messages to readers. Furthermore, illustrations are understood, in this study, as representations in the form of graphical displays that may portray all or some of the content of their accompanying texts (GYSELINCK; TARDIEU, 1999), and which are intended to help readers comprehend verbal information (LIU, 2004).

Therefore, based on the claim that more skilled readers and less skilled readers differ in the execution of the processes involved in reading comprehension (GAGNÉ; YEKOVICH; YEKOVICH, 1993), and that the same holds true among high and low spans (i.e., high and low working memory capacity readers, respectively) (DANEMAN; CARPENTER, 1980; JUST; CARPENTER, 1992), this study, which is a result of a masters' research of its first author (WOELFER, 2016), seeks to investigate relationships among reading proficiency in English as a Foreign Language (EFL), working memory capacity (WMC) and the interactive processing of verbal and pictorial information in the reading comprehension of cartoons. Based on this rationale, the following set of hypotheses is raised:

Hypothesis 1 (H1): there is a positive correlation between EFL reading proficiency, as measured by means of answers to questions about important information presented in non-illustrated expository texts, and WMC, as measured by means of a version of the Reading Span Test. That is, individuals who present higher EFL reading proficiency are those who also present higher WMC.

Hypothesis 2 (H2): there is a significant association between EFL reading proficiency, as measured by means of answers to questions about important information presented in non-illustrated expository texts, and the inferential comprehension of cartoons, as measured by means of answers to questions about the relationships between their texts and illustrations. That is, individuals who present higher EFL reading proficiency are more able to infer meaning from texts containing verbal and pictorial information.

Hypothesis 3 (H3): there is a significant association between WMC, as measured by means of a version of the Reading Span Test, and the inferential comprehension of cartoons, as measured by means of answers to questions about the relationships between

[1] In the original: "*Cartum: voltado para a crítica de costumes, focalizando uma realidade genérica e por isso ao mesmo tempo atemporal, isto é, desconhece os limites do tempo que a crítica a personagens, fatos e acontecimentos políticos impõe*." (PAGLIOSA, 2005, p.116).

their texts and illustrations. That is, higher spans are more able to infer meanings from texts containing verbal and pictorial information.

Reading comprehension of illustrated texts: previous studies

Previous research contends that the processing of illustrated texts involves distinct memory systems, codes and types of mental operations (MIYAKE; SHA, 1999; BADDELEY, 2000; PAIVIO, 2006). It has also been proposed that verbal and pictorial information have distinct mental representations (PAIVIO, 1971, 1986), whose memory traces are temporarily stored and processed in different components of working memory (WM) (BADDELEY; HITCH, 1974; BADDELEY; LOGIE, 1999; BADDELEY, 2000).

Considering these assumptions, an increasing number of studies on the role of illustrations in reading has been carried out (SCHALLERT, 1980; MAYER; ANDERSON, 1991; HEGARTY; JUST, 1993; MAYER; SIMS, 1994; FANG, 1996; CARNEY; LEVIN, 2002; PAN; PAN, 2009). Based on their findings, researchers have supported the general claim that the juxtaposition of verbal and pictorial information is beneficial in various aspects. Pan and Pan (2009), Carney and Levin, (2002), Fang (1996) and Schallert (1980), for instance, concluded that readers exposed to visuals and texts together present considerable improvements in reading comprehension. Mayer *et al*. (1996) found that captioned illustrations, used as or attached to scientific summaries, help guide learners' attention, improving the retrieval of explanative information from memory. Gyselinck and Tardieu (1999), in a review of experiments conducted by Mayer and Anderson (1991), Mayer and Sims (1994) and Hegarty and Just (1993), concluded that the conjoint presentation of written texts and illustrations seems to support the construction of elaborate mental representations of the text content. Lastly, Levie and Lentz (1982), in a meta-analysis including fifty-five experiments that compared learning from illustrated texts with learning from texts alone, concluded that highly related illustrations facilitate written information learning. The present study aims at expanding these findings by investigating the processing and storage of verbal and pictorial information executed by WM in EFL reading.

If illustrations are assumed to improve reading comprehension, it seems obvious that readers should be expected to easily achieve inferential comprehension when reading cartoons. However, we hypothesize that the illustrations found in texts of this genre represent an additional challenge to readers since they do not simply double code written information nor present new information explicitly. As opposed to that, we propose that they tend to attribute connotative meaning to their accompanying texts, increasing their semantic complexity. In that case, our assertion is that inference-making processes are required from readers so that they can go beyond the constraints of literal comprehension (i.e., mental representation solely based on text-based information) and achieve inferential comprehension (i.e., adding prior knowledge to text-based information and forming a personal meaningful mental representation of the text).

Having that in mind, we allege that the inferential comprehension of cartoons implies taxing extra cognitive resources from WM given the online execution of multiple processes and subprocesses needed for its achievement (i.e., switching attention among multiple pieces of information presented in different codes, binding them coherently through referential connections, building meaningful mental representations of them, etc.). Therefore, we predict that, due to individual differences in WM capacity, the requirements of this task may be detrimental to some readers (PASHLER, 1994; BAILER; TOMITCH, 2016). Thus, the present study proposes that EFL reading proficiency and WMC have a close relationship with the inferential comprehension of cartoons.

Cognitive processes involved in reading comprehension

Davies (1995, p.1) defines reading as a private activity in which readers get engaged in a continuous meaning-making process based on the ideas of a "[…] writer who is distant in space and time." In addition, we operationalize reading as an array of interactive cognitive process that involves the construction of mental representations derived from the integration of the reader's prior knowledge with the writer's ideas conveyed in the text. However, we contend that readers differ in reading comprehension performance depending on the structures of the mental representations they build. These structures can be predominantly based on discourse-level information, (i.e., *textbase*), or on inferential-level information (i.e., *situation model*): the first being constrained to information encoded from within and across clauses, sentences and paragraphs forming a coherent whole, and de latter encompassing the retrieval of readers' prior knowledge from long-term memory[12](LTM), that, in the form of inferences, attributes elaborations to the first (KINTSCH; VAN DIJK, 1978; VAN DEN BROEK *et al*., 1999; LINDERHOLM; VAN DEN BROEK, 2002).

In addition to that, the *Interactive Reading Model* (RUMELHART; MCCELLAND, 1981) proposes that reading comprises a synthesis of data-driven (i.e., bottom up) and conceptually-driven (i.e., top down) processes and subprocesses that in close cooperation allow readers to most appropriately interpret a text. This model represents an alternative to the *Bottom-up Reading Model* (GOUGH, 1972) and the *Top-down Reading Model* (GOODMAN, 1967): it attributes equal importance to the role of text-based and prior knowledge-based information in the reading comprehension process. The processing of information from these distinct sources can occur either alternately or simultaneously, whenever they are needed to implement comprehension (AEBERSOLD; FIELD, 1997).

[2] Long-Term Memory (LTM) refers to the relatively stable and long-lasting portion of knowledge stored in memory that is consisted of: (a) knowledge whose meaningfulness is rooted and dependent on associations that are made with specific episodic experiences undergone by individuals (i.e., episodic memory); (b) knowledge which is purely conceptual, generic and autonomous from specific episodic experiences (i.e., semantic memory); and (c) knowledge that encompasses expertise on how to perform a wide range of activities (i.e., procedural knowledge) (SEARLEMAN; HERRMANN, 1994; BADDELEY, 2001).

Thus, cartoons can be regarded as a type of text whose effective mental representation depends on interactions operated between both low-level (i.e., decoding and literal comprehension) and high-level reading processes (i.e., inferential comprehension and comprehension monitoring) (GAGNÉ; YEKOVICH; YEKOVICH, 1993).

Acknowledging that illustrations should not always be regarded as mere embellishments, but as potential sources of information in the printed discourse, the Interactive Reading Model, in our point of view, is the model that better accounts for the parallel processing of verbal and pictorial information. It more coherently matches the conception of text adopted in this study, since it proposes that nonlinguistic and linguistic aspects act together in the activation of the units of prior knowledge necessary for the achievement of successful reading comprehension (RUMELHART; MCCELLAND, 1981).

In a word, the Interactive Reading Model was adopted as a theoretical reference to discuss the reading comprehension of cartoons because it neither puts overreliance on bottom-up nor on top-down processes. Quite the reverse, it attributes importance to all low and high-level processes that, according to Carrell, Devine and Eskey (1998), are of equivalent importance: whereas low-level processes keep readers sensitive to important novel information provided by texts, high-level processes, through the activation of relevant prior knowledge, scaffold readers to adequately interpret them.

Reading comprehension: an interplay between declarative and procedural knowledge

Consonant with Gagné, Yekovich and Yekovich (1993) and Tomitch (2012), successful reading comprehension involves interactions between declarative and procedural knowledge. According to these researchers, declarative knowledge, within the language domain, comprises conceptual knowledge about letters, phonemes, morphemes, words, ideas, schemas and topic or subject matter. Procedural knowledge, on the other hand, comprises knowledge of *how* to read, (i.e., operational expertise for the use of declarative knowledge of the language domain), and can be broken down into four component processes: decoding and literal comprehension, (i.e., low-level processes), and inferential comprehension and comprehension monitoring, (i.e., high-level processes). As proposed by this framework, the lower the use of cognitive resources to operate low-level reading processes, the higher the availability of these resources for the execution of high-level processes such as inference generation (GAGNÉ; YEKOVICH; YEKOVICH, 1993; TOMITCH, 2012). Thus, skilled reading can be associated with the automatization of low-level processes that allows individuals to derive meanings from between the lines of texts.

Having these assumptions in mind, we maintain that the reading comprehension of verbal information, when limited by low English as a foreign language (EFL) reading proficiency, may be detrimental to the linkage processing between verbal and pictorial information in illustrated texts. More precisely, we assume that poor interactive processing between verbal and pictorial information may result in failures in the construction of multidimensional mental representations of cartoons.

Working memory capacity and the processing of verbal and pictorial information

The interactive real time operation of low and high-level reading processes, as well as the maintenance of the products derived from these operations, would appear miraculous if human beings did not depend on the availability of cognitive resources for their execution. These resources which according to several researchers are constrained to a limited capacity (DANEMAN; CARPENTER, 1980; JUST; CARPENTER, 1992; ROSEN; ENGLE, 1998; BADDELEY, 2012) must be managed in a way so that text-based and prior-knowledge-based information can be simultaneously maintained and manipulated in working memory (WM) at the moment the reader is processing the text. Because of these reasons, we incorporated to our theoretical framework a WM model that, in our point of view, seems to more completely account for the processing of texts containing verbal and pictorial information: *The Multicomponent Model of Working Memory* (BADDELEY, 2010, 2012, 2015).

Originally derived from the seminal model proposed by Baddeley and Hitch (1974), The Multicomponent Model of Working Memory holds two main assumptions: (1) that WM is a hypothetical limited capacity system that stores and manipulates information needed for performing complex cognitive activities; and (2), that WM is not a unitary system, but a system that comprises multi-specialized subsystems, including a supervisory component, namely *Central Executive* (CE), and at least three support components, namely *Phonological Loop* (PL), *Visual-Spatial Sketchpad* (VSSP) and *Episodic Buffer* (EB).

According to this framework, the PL operates the storage and processing of phonological mental representations, the VSSP operates the storage and processing of visual-spatial mental representations, and the EB operates the storage of multidimensional episodic mental representations (BADDELEY, 2010). The framework also postulates that the three support subsystems execute their functions under independent capacity limitations. That is, the activation of mental representations that exceeds the maximum threshold in one of the subsystems does not demand cognitive resources from the other two subsystems, not hampering their functioning.

The CE is considered the most complex component of the model. It is conceived as a limited-capacity subsystem whose function is to control and regulate WM (BADDELEY; LOGIE, 1999). Some of its specific functions are: (a) coordinating the three support subsystems; (b) focusing attention; (c) inhibiting and suppressing irrelevant information; (d) dividing attention; (e) switching attention between tasks; (f) binding visual-spatial and phonological mental representations held by the EB; and (g) establishing the interface between LTM and WM (BADDELEY; LOGIE, 1999; BADDELEY, 2010, 2012).

The PL is regarded as a limited-capacity subsystem that, operated by the CE, serves as a passive store and as an active rehearsal processor of phonological mental representations derived from the encoding of verbal input or from information of this nature retrieved from LTM. As described by Baddeley (2010), the PL maintains and refreshes information through online vocal or subvocal rehearsals so that it can be kept available for processing.

The VSSP is conceived as a subsystem of limited capacity that, operated by the CE, serves as a passive store and as an active rehearsal processor of visual-spatial-like memory traces. These traces, according to the model, are derived from the encoding of visual and spatial input or from the retrieval of information with these features from LTM. According to Logie (1995), the VSSP can be fractionated into two functionally separate subsystems namely, the *visual cache* and the *inner scribe*: the first regarded as a passive visual subsystem used for storage, and the latter, as an active spatially-based subsystem used for rehearsal. Nonetheless, "[…] the precise nature of the visual-spatial rehearsal remains unclear." (BADDELEY, 2012, p.13), a fact that puts the division in the VSSP into question.

The EB is regarded as a passive modality-free and limited-capacity subsystem that serves as a storage for information in the form of multidimensional episodes which are accessible through conscious awareness (BADDELEY, 2010, 2012). As well as the PL and the VSSP, the EB is also operated by the CE and said to interconnect perception, LTM and WM (BADDELEY, 2010).

Considering the interactivity among the various components proposed by this theoretical view, a good metaphor to refer to WM would be that of a *workspace* (LOGIE, 1996; MIYAKE; SHAH, 1999). Under this view, maintenance and processing of information involves dynamic procedures that are executed by different segments, and that can be applied to a wide range of activities for which WM is important.

The incorporation of this WM model in the theoretical framework of this study was made because, as previously mentioned, research has shown that the successful comprehension of texts such as cartoons depends on the implementation of active interrelations between various mental processes. These processes can be attributed to different components of WM, including the ones of higher relevance in this study: the storage and processing of verbal information in the PL, the storage and processing of pictorial information in the VSSP, and the binding process of verbal and pictorial information operated by the CE whose multidimensional outcomes are assumed to be held in the EB.

The Dual-Coding Theory

In what concerns the studies we have revised, the binding process of multi-coded information in the Episodic Buffer is not clearly described in the WM framework proposed by Baddeley and colleagues. Because of that, we added some further explanations on this issue which are based on an additional information processing theory: *The Dual-Coding Theory* (DCT) (PAIVIO, 1971).

According to DCT, "[…] human cognition is unique in that it has become specialized for dealing simultaneously with language and with nonverbal objects and events." (PAIVIO, 2006, p.53). Following this basic premise, Paivio (1971, 1986) proposed that memory has two distinct but interconnected systems which are responsible for the processing of information in general: the *Verbal System* and the *Imagery System*. Following the logic, the theory proposes that the Verbal System is responsible for the processing of verbal memory traces, whereas the imagery system, for the processing of nonverbal memory traces. Besides, the DCT predicts that the functioning of these two distinct systems is independent from each other, but that due to interconnections, one can trigger activity in the other, thus allowing for the simultaneous processing of verbal and nonverbal memory traces. To us, it seems possible to speculate that the Central Executive of Baddeley's WM model would be the subsystem responsible for the execution of these interconnections, given its inherent functions to manage processing and storage in the Phonological Loop, in the Visual-Spatial Sketchpad, and also to bind and storage of multidimensional representations in the Episodic Buffer (BADDELEY, 2010).

Based on this body of propositions, the DCT was included in the theoretical framework of this study because it brings clearer explanations on the simultaneous processing of verbal and pictorial information in memory. These explanations enable us to propose elaborations on the effects of this dual-coding process in EFL reading comprehension.

In sum, the term that has been more often cited in our theoretical rationale, and that seems to more completely integrate the frameworks previously presented is *interaction*. The main idea that all frameworks seem to share is that from the very first moment that readers start moving their eyes over the text, complex interactive processes involved in the maintenance and manipulation of various sources of information are simultaneously executed within a workspace of limited capacity. Individual differences that readers might present in terms of comprehension tend to be closely related to many variables including the ones investigated in this study: individual differences in working memory capacity (WMC) and in English as a foreign language (EFL) reading proficiency. For this reason, the controlling idea that guides the rationale of this study is that individuals depend on proficient reading and on enough cognitive resources to break the barriers imposed by the metaphors so commonly present in cartoons.

Method

Participants. Participants of the study were Brazilian public-school students (N=60) aged 15-17 years old (M = 16.3, $SD.$ = 64). All of them provided assent and consent forms, thus complying with the requirements of Resolution 466/12 on ethics in research with human beings in Brazil. No data collection was carried out prior to the study's approval by the Ethics Review Board (*Comitê de Ética em Pesquisa com Seres Humanos da Universidade Federal de Santa Catarina - CEPSH-UFSC)*, issued on June 15th, 2015, under the number 45350315.1.0000.0121.

Materials. Materials comprised a non-illustrated expository text, and a cartoon. The first was a 214-word-lenght text adapted from *David Luiz: I Only Wanted to See People Smiling* (ITRI *et al*., 2014). The second was a 15-word-length cartoon created by Gary Markstein (2011), entitled *Cellphones May Cause Cancer?*

Instruments and procedures for data collection. Instruments for data collection included: (a) an EFL Background Questionnaire; (b) an EFL Reading Proficiency Test; (c) a version of the Reading Span Test (RST); (d) a Reading Comprehension Test; and (e) a Retrospective Questionnaire.

The EFL Background Questionnaire. The EFL Background Questionnaire (TOMITCH, 2014) comprised 16 questions about participants' past and recent experiences concerning the study and contact with the English language in both in and out-of-school settings. It included 5 open-ended questions, 9 multiple-choice questions, and 2 Likert-scale questions. The questionnaire was group administered and took the first 20 minutes of the first session.

The EFL Reading Proficiency Test. The EFL Reading Proficiency Test comprised 6 open-ended questions rated 1 point each and was designed on the basis of Pearson and Johnson's (1978) taxonomy for comprehension tasks. According to this taxonomy, question-answer relations are classified as: (a) *textually explicit*; (b) *textually implicit*; and (c) *scriptally implicit*. Whereas textually explicit questions are applied to assess readers' literal comprehension, textually implicit and scriptally implicit questions are applied to assess readers' inferential comprehension (CHIKALANGA, 1992). The test was group administered and took the last 20 minutes of the first session. Participants read the non-illustrated expository text for 10 minutes and after that were given the questions. The text upon which the questions were elaborated was made available to participants, however, the time to finish the test was limited to 10 minutes.

The Reading Span Test (RST). The RST used in this study was a computerized Brazilian version of Daneman and Carpenter's (1980) original test, adapted by Tomitch (2003). Tomitch's RST comprises a sequence of 60 unrelated sentences retrieved from popular magazines ended with different words each and ranged from 13 to 17 words in length. The test was administered individually in the second data collection session and lasted no longer than 20 minutes. Familiarization sessions preceded the conduction of the actual test. Participants, under the monitoring of the first author of this study, were instructed to read each of the sentences out loud and with no pauses as soon as they appeared on the computer screen. Such a procedure aimed at avoiding the use of idiosyncratic strategies (FRIEDMAN; MIYAKE, 2004). Participants were told that immediately after reading each sentence, the researcher would push a button to project the next sentence. Also, participants were required to simultaneously pay attention to the sentences, try to understand each of them and memorize their last words. It was explained to them that, posteriorly, the last words should to be recalled and written down in the exact order they were presented at the end of each set. The RST sentences were arranged in three sets of 2 sentences, three sets of 3, three sets of 4, three sets of 5 and three sets of 6 sentences. Participants were informed that at the end of each set, question marks would be displayed on the computer screen, signaling that they would have to write down all final words recalled.

The WM span measure was strict, that is, based on the level at which words were precisely recalled on at least two out of the three sets (DANEMAN; CARPENTER, 1980), in the identical order they were presented (FRIEDMAN; MIYAKE, 2004). As suggested by Masson and Miller (apud TOMITCH, 2003), half point was attributed to those participants who recalled at least one set of a certain level.

Previous studies found results that significantly correlated RST scores with different aspects of the reading comprehension process in both L1 (TOMITCH, 2003; SANCHEZ; WILEY, 2006), and in L2 (ALPTEKIN; ERÇETIN, 2009; FONTANINI; TOMITCH, 2009; BAILER; TOMITCH; D' ELY, 2013; OLIVEIRA, 2016; PROCAILO, 2017). Thus, because research has shown that the RST has high and consistent correlations with real-world higher-order cognitive abilities (HEITZ; UNSWORTH; ENGLE, 2005; YUAN *et al*., 2006), being a tool that provides a measure of WMC that correlates well with reading comprehension, we concluded that it would properly assess participants' working memory capacity in this study.

The Reading Comprehension Test. The Reading Comprehension Test contained two open-ended questions and was aimed to identify participants' individual differences in terms of the construction of meanings from cartoons. It was designed on what proposes Gagné, Yekovich and Yekovich (1993) in relation to the component processes of decoding, literal comprehension and inferential comprehension, previously mentioned. The test took the first 10 minutes of the third session and was group administered. First, participants were given 2 minutes to read the text of the cartoon presented without its illustration. A glossary prepared on the basis of results obtained in the pilot study was made available to them. Second, participants were given 3 minutes to report the main idea of what they had just read. To do that, participants could check the text and the glossary. In the third step, participants were required to read the complete version of the cartoon for more 2 minutes. Afterwards, for 3 minutes, they were instructed to report what they considered to be the cartoons' main idea, having in mind both its verbal and pictorial information. In this step, participants were not allowed to revisit the text and the glossary.

The Retrospective Questionnaire. The Retrospective Questionnaire adapted from Tomitch (2003) was a five-minute task administered in groups right after the Reading Comprehension Test. It was aimed to analyze both participants' perceptions over the cartoon's complexity, and their ability to establish relationships between text and illustration.

Data analysis. This study followed a mix-method design. Data obtained by means of the EFL Background Questionnaire and the Retrospective Questionnaire were qualitatively analyzed, and data obtained by means of the EFL Reading Proficiency Test, the RST and the Reading Comprehension Test were quantitatively analyzed.

Qualitative analysis. Data from the EFL Background Questionnaire were carefully compared, contrasted and turned into percentages in order to obtain a more detailed portrait of the sample investigated. Likewise, data from the Retrospective Questionnaire were analyzed so as to examine participants' comprehension monitoring and also to figure out which cognitive processes were involved in the reading comprehension of the cartoon.

Quantitative analysis. One dependent variable (i.e., the reading comprehension of cartoons) and two independent variables (i.e., EFL reading proficiency and WMC) were investigated in this study. The scores inherent to these variables were obtained by means of the Reading Comprehension Test, the EFL Reading Proficiency Test, and the RST, respectively. All participants were submitted to all tests so as to ensure dependency among the variables investigated.

Descriptive statistics were initially obtained so that data distribution could be verified and hypothesis 1 (H1) be tested. Results indicated that data did not satisfy the assumptions of parametric tests, given the high kurtosis of -1.32 (SE=.60) for both EFL reading proficiency and WMC. Additionally, the outputs of the Kolmogorov-Smirnov normality test also came out significant (p<.001) for both, EFL reading proficiency and WMC. Thus, a Spearman's rho test (LARSON-HALL, 2010) was used to examine the correlation between the two independent variables of the study, which was expected to be positive and statistically significant.

To test hypotheses 2 and 3 (H2 and H3), participants' scores obtained in the EFL Reading Proficiency Test, (min=1.0/max=6.0), and in the RST, (min=2.0/max 6.0), which originally composed two continuous variables, were initially converted into two categorical variables, each of them subdivided into two levels. In terms of reading proficiency, participants were subdivided as less proficient readers and more proficient readers. In terms of WMC, as lower spans and higher spans. These subdivisions were based on the scores inherent to each of these variables in comparison with the means of distributions separately calculated for the EFL Reading Proficiency Test and the RST.

That being the case, the following Chi-square factorial design (FIELD, 2009) set was employed to test H2 and H3: (a) a 2 (EFL reading proficiency level: less proficient readers, more proficient readers) X 2 (reading comprehension level: literal comprehension, inferential comprehension) to test H2; and (b) a 2 (reading span level: lower spans, higher spans) X 2 (reading comprehension level: literal comprehension, inferential comprehension), to test H3. As previously mentioned, this study had WMC and EFL reading proficiency as independent variables, and reading comprehension as the dependent variable. It was expected that results would show positive and statistically significant associations between each the two independent variables and the dependent variable.

A pilot study was carried out prior to the main study. Participants were public-school students (*N*=4) aged 15-18 years old (*M*= 17,25, *SD*. = 50). All of them provided assent and consent forms and did not participate in the main study.

Results

As previously reported, this study followed a mixed-method design. However, due to length constraints, focus is going to be given to the quantitative analyses since they are the ones that more directly address the hypotheses raised in the study. To start with, we present descriptive statistics for the EFL Reading Proficiency Test, the RST, and the Reading Comprehension Test.

Participants' scores obtained in the EFL Reading Proficiency Test, (min=1.0/max=6.0), showed that more proficient readers comprised 45%, (min=4.0/max=6.0), whereas less proficient readers constituted 55%, (min=1.0/max=3.0), of the sample (*M* = 3.66, *SD*. = 1.56). The standard deviation intrinsically related to the cumulative frequency revealed that 27 participants (45%) obtained varied scores above the mean and that 33 of them (55%) obtained similar variance of scores below it. These outputs revealed heterogeneity in terms of EFL reading proficiency among participants.

Participants' scores in the RST, (min=2.0/max=6.0), demonstrated that higher spans represented 41.6%, (min=3.0/max=3.5), whereas lower spans represented 58.4%, (min=2.0/max=2.5), of the sample (*M* = 2.59, *SD*. = .43). As cited in Woelfer (2016), even though there is no much agreement among researchers regarding standardized measurements to classify individuals' WM span, in studies such as those carried out by Tomitch (2003) and Bailer, Tomitch and D'Ely (2013), participants who scored 3.0 or below were considered lower spans, whereas those who scored 3.5 or above, were considered higher spans. In this study, we decided to classify the sample based on participants' scores in comparison with the mean of distribution (*M* = 2.59). As a result, more than a half of the sample (35 participants) obtained WM span measures between 2 and 2.5, while the others (25 participants) obtained measures between 3 and 3.5. A well as for reading proficiency, results revealed heterogeneity in relation to WMC among participants.

Participants' answers to the Reading Comprehension Test were evaluated by three MA students from the area. Based on a common set of criteria, they separately rated participants' answers as literal or inferential comprehension. A Fleiss' Kappa analysis revealed a statistically significant interrater reliability (i.e., the three raters agreed in 162 out of 180 ratings). When there was no rating agreement, we opted for the category indicated by two out of the three raters.

As for H1, we proposed that there would be a positive correlation between EFL reading proficiency and WMC. That is, participants who presented higher EFL reading proficiency would also be those who would present higher WMC.

The Spearman's rho test revealed a weak, but still statistically significant correlation between EFL reading proficiency and WMC (*rs* (58) =.321, *p* =.012, two tailed). Considering these results, the null hypothesis was rejected and H1 was confirmed.

Concerning H2, we proposed that there would be a significant association between EFL reading proficiency and the inferential comprehension of cartoons. That is, participants who presented higher EFL reading proficiency would be more able to infer meaning from texts containing verbal and pictorial information.

The Chi-square test of independence (χ^2) was run based on the number of participants classified in each level of the two categorical variables: less proficient readers and more proficient readers, in terms of EFL reading proficiency, and literal and inferential comprehension in terms of reading comprehension. Table 1 summarizes the observed frequencies.

Table 1 – 2X2 Contingency Table of Observed Counts and Percentages for EFL Reading Proficiency X Reading Comprehension

			Comprehension		
			Literal	Inferential	Total
Proficiency	Less Proficient	Count	19	14	33
		% within Proficiency	57.6%	42.4%	100.0%
		% within Comprehension	79.2%	38.9%	55%
		% of total	31.7%	23.3%	55%
	More Proficient	Count	5	22	27
		% within Proficiency	18.5%	81.5%	100.0%
		% within Comprehension	20.8%	61.1%	45%
		% of total	8.3%	36.7%	45%
Total		Count	24	36	60
		% within Proficiency	40.0%	60.0%	100.0%
		% within Comprehension	100.0%	100.0%	100.0%
		% of total	40.0%	60.0%	100.0%

Source: Elaborated by the authors based on SPSS analyses.

According to the observed counts and percentages shown in Table 1, 40% of the sample achieved literal comprehension, being 31.7% of it consisted of less proficient readers, and 8.3% consisted of more proficient readers. The remaining 60% achieved inferential comprehension, being 23.3% of it consisted of less proficient readers, and 36.7% consisted of more proficient readers. Within the percentages of EFL reading proficiency, 81.5% of all more proficient readers achieved inferential comprehension, while the same was achieved by 42.4% of all less proficient readers.

Overall, the counts and percentages presented by this contingency table show that inferential comprehension was superior among more proficient readers. Indeed, 22 out of the 27 more proficient readers achieved inferential comprehension, while only 5 of them did not. Among less proficient readers the difference was balanced. As observed above, 14 out of 33 less proficient readers achieved inferential comprehension, while 19 of them did not.

For the most part, results were statistically significant ($\chi^2(1) = 9.4$, p =.002), with an effect size of w=.39. Furthermore, the χ^2 had a significant associated probability value of <0.05, indicating that the relationship between the two variables was unlikely to have arisen due to sampling error. Besides that, the medium to large effect size revealed that the strength of the relationship between the two variables was found to be from moderate to strong.

Considering the outcomes of the statistical test, the null hypothesis was rejected and H2 was confirmed: there is a significant association between the inferential comprehension of cartoons and EFL reading proficiency. Moreover, considering the comparison between the critical value expected at α =0.05, ($\chi^2(1) = 3.83$), and the obtained value, ($\chi^2(1) = 9.4$, p =.002), the Chi-square test for independence revealed that, indeed, there is a significant association between these two variables.

In what concerns H3, we proposed that there would be a significant association between WMC, and the inferential comprehension of cartoons. That is, higher spans would be more able to infer meanings from texts containing verbal and pictorial information.

The Chi-square test of independence (χ^2) was run based on the number of participants classified in each level of the two categorical variables: lower and higher spans in terms of WMC, and literal and inferential comprehension in terms of EFL reading comprehension. Table 2 summarizes the observed frequencies.

Table 2 – 2X2 Contingency Table of Observed Counts and Percentages for WMC X Reading Comprehension

			Comprehension		
			Literal	Inferential	Total
WMC	Lower Spans	Count	18	17	35
		%within WMC	51.4%	48.6%	100.0%
		%within Comprehension	75.0%	47.2%	58.3%
		% of total	30.0%	28.3%	58.3%
	Higher Spans	Count	6	19	25
		%within WMC	24.0%	76.0%	100.0%
		%within Comprehension	25.0%	52.8%	41.7%
		% of total	10.0%	31.7%	41.7%
Total		Count	24	36	60
		%within WMC	40.0%	60.0%	100.0%
		%within Comprehension	100.0%	100.0%	100.0%
		% of total	40.0%	60.0%	100.0%

Source: Elaborated by the authors based on SPSS analyses.

According to the observed counts and percentages shown in Table 2, 40% of the sample achieved literal comprehension being 30% of it consisted of lower spans, and 10%, consisted of higher spans. The remaining 60% of the sample achieved inferential comprehension, being 28.3% of it consisted of lower spans, and 31.7% consisted of higher spans. Within the percentages of WMC, 76% of all higher spans achieved inferential comprehension, while the same was achieved by 48.6 % of all lower spans.

Overall, the counts and percentages presented by the contingency table above show that the relationship between WMC and reading comprehension was clearly visible among higher spans. Indeed, 19 out of the 25 higher spans achieved inferential comprehension, while only 6 of them did not. But the same conclusion could not be straightforwardly taken in relation to the lower spans. This is because even though 18 out of the 35 lower spans did not achieve inferential comprehension, and that this number represented more than a half of this subgroup, the rest of the participants, that is, 17 of them did achieve it.

Despite this fact, results were found to be statistically significant ($\chi^2\,(1) = 4.57$, p =.033), with an effect size of w=.27. Additionally, the χ^2 had an associated probability value of <0.05, indicating that the relationship between the two variables was unlikely to have arisen due to sampling error. Furthermore, the small to medium effect size revealed that the strength of the relationship between the two variables was found to be from weak to moderate.

Considering the results of the statistical test, the null hypothesis was rejected and H3 was partially confirmed: there is a significant association between the inferential comprehension of cartoons and WMC. Additionally, taking into consideration the comparison between the critical value expected at α =0.05, ($\chi^2\,(1) = 3.83$), and the obtained value, ($\chi^2\,(1) = 4.57$, p =.033), the Chi-square test for independence revealed that, indeed, there is a significant association between these two variables. However, even though results were statistically significant, it was possible to observe that the strength of such a relationship was not more than weak to moderate.

Main Findings and Pedagogical Implications

Acknowledging that results from correlational and association tests do not reveal cause-effect relationships between variables, results, overall, confirmed the three hypotheses raised in this study, implicating the following main findings: (1) *Working memory capacity (WMC) limitations seems to impose constraints to the processing of non-illustrated expository texts*; (2) *pictorial information processing may be constrained by limitations in terms of English as a foreign language (EFL) reading proficiency*; and (3) *background knowledge appears to compensate for WMC limitations in the processing of pictorial information*. We now elaborate on each of these conclusions.

First, the study revealed a positive and statistically significant correlation between the scores of the Reading Span Test (RST) and the EFL Reading Proficiency Test.

This result matches the assumption of the Multicomponent Conceptual Framework of WM (BADDELEY; HITCH, 1974; BADDELEY, 2010, 2012, 2015) in that individual differences in the Central Executive (CE) and the Phonological Loop (PL) supplies account for individual differences in terms of language processing. Additionally, the literature also points out that these differences tend to be even more salient among less proficient readers of a foreign language given their higher dependence on working memory (WM) over the cognitive control of mechanisms that sustain the use of that language (LINCK *et al*., 2013). Besides, this result is consonant with the capacity-constrained view of WM (JUST; CARPENTER, 1992, p.124) in that "[…] capacity limitations would affect performance only when the resource demands of the task exceed the available supply." Based on these views, the observed differences in terms of EFL reading proficiency measures may be attributed to individual differences in terms of the total amount of activation available in WM to carry out language processing, or as explained by Logie (1996, p.36), determined "[…] by an available budget of activation."

Bearing this rationale in mind, one might enquire which pedagogical implications should be considered taking into account the context in which data was collected in this study. To reason on that, we would like to initially emphasize that obtaining WMC measures at schools so as to identify one the of the potential sources of difficulties in EFL reading seems to us a very delicate question. Delicate because students would have to be informed the test scores and differences among scores could be misinterpreted since they quantify an aspect of memory labeled *capacity*. Based on our teaching experience at different educational institutions, on the heterogeneity of these settings, and on our acknowledgement that *capacity* is a too broad concept that cannot be simply defined as WMC, we see that the use of such a test should be carefully discussed by educators prior to being adopted. In the case of this study, we predicted possible misinterpretations and controlled for that by providing students with plenty of information about the test and the scores. Considering this problematic issue, what EFL teachers, without having precise data at hand, could do in order to help students whose WMC imposes limitations to reading comprehension?

Well, as stated by Alptekin and Erçetin (2009), the processing of a foreign language imposes heavier demands on readers' WM and such an argument becomes even more significant if we consider the sample investigated in this study: 27 out of 60 participants were more proficient readers and 33 of them less proficient readers. Also, 25 out of the 60 participants were higher spans whereas 35 of them, lower spans. This portrayal somehow mirrors the reality of many schools since we had a heterogenous sample regarding EFL reading proficiency and WMC. Thus, conceiving reading comprehension as a set of componential processes that are operated interactively (GAGNÉ; YEKOVICH; YEKOVICH, 1993), we would advise teachers to provide students with the necessary conditions for them to initially overcome difficulties in terms of basic reading processes such as decoding and literal comprehension. That can be done, for instance, through the provision of initial input in terms of vocabulary and contextualized grammar topics. The provision of basic linguistic input creates conditions for the simultaneous management of sub products of both form and meaning that WM operates during the reading process (BAILER; TOMICH; D'ELY, 2013). Without this provision, the WM budget of activation may be insufficient to sustain the information needed for comprehension to take place. Also, as proposed by Hegarty and Just (1993), we suggest that students be taught how to build pictorial diagrammatic representations of expository texts so as to map their main and supporting ideas. These visual depictions can be useful by: (a) functioning as external cues to make students aware of the hierarchical relationships among ideas of the text; (b) serving as external memory aids that facilitates recall, thus liberating WM resources for information processing, rehearsal or retrieval from LTM; and (c) providing students with mnemonic devices that can be used to activate information in memory.

Second, results showed a statistically significant association between participants' categorical classifications in terms of EFL reading proficiency, and of reading comprehension. Among those who obtained higher EFL reading proficiency scores, the great majority (i.e., 22 out of 27) presented inferential comprehension of the cartoon. This result demonstrates that the processing of verbal information may trigger the processing of pictorial information, helping readers make sense of illustrated reading materials (PAIVIO, 1971, 1986). It also provides support to our hypothesis that the depth to which pictorial information is processed seems to be affected by the level of EFL reading proficiency.

However, there is a controversial issue that creates a counterpoint to our reasoning. As proposed by the Multicomponent Conceptual Framework of WM (BADDELEY, 2000, 2010, 2012), the real time storage and processing of speech like memory traces in the Phonological Loop (PL), and of visual-spatial like memory traces in the Visuospatial Sketchpad (VSPP) do not compete for a common supply of cognitive resources. Each of these subsystems executes the aforementioned functions under the control of the Central Executive (CE) (BADDELEY, 2015, 2017) with resources from their own supplies (BADDELEY, 2000, 2012). Besides, the PL and the VSSP are assumed to have both functions mitigated by the CE supply as well. Considering the tenets of this WM framework, and in order to elaborate on the abovementioned controversy, we contend that a possible high consumption of cognitive resources from the PL among low proficient readers to execute low level reading processes involved in the accomplishment of the Reading Comprehension Test used in this study may not have necessarily compromised the total amount of VSSP resources needed for the accomplishment of its operations. Nevertheless, we assert that the operations involved in the execution of this test might have increased the attentional demands imposed to the CE to manage the functions of the PL among these readers. Such demands may have consumed a higher amount of the CE supply to focus attention on the operation of low-level processes such as decoding and literal comprehension. In that case, the high consumption of the total amount of resources of the CE to operate the functions of the PL possibly affected the management efficiency of this subsystem in the VSSP (i.e., the amount of attentional resources left in the CE to operate the functions of the VSSP may have been insufficient). In other words, the efficacy of pictorial information storage and processing managed by the CE in the VSPP appeared to be restricted by the storage and processing of verbal information managed by the CE in the PL. Thus, individual differences in the comprehension of pictorial information, such as those observed in the participants' answers to the Reading Comprehension Test, may be associated with individual differences in terms of EFL reading proficiency.

Given these points, what may be considered relevant to EFL teachers who are the ones who tackle with the difficult task of teaching reading to heterogeneous and numerous groups of students? Well, we will elaborate on the use of illustrations in EFL classes. As we are proposing in this study, pictorial information processing seems to be constrained by limitations in terms of EFL reading proficiency. Considering that straightforwardly departing from verbal information may be demotivating to students who struggle with poor decoding, we would advise EFL teachers to lay the initial foundation of reading comprehension through contextual guessing based on pictorial information (MANOLI; PAPADOPOULOU, 2012). This can be done through pre-reading activities using illustrations. The sensorial capture of multi-coded information yields interactive processing in memory, scaffold readers to access the linguistic complexities of expository texts, induce them to comprehend new concepts and reduce possible cognitive overloads in terms of phonological processing (SCHALLERT, 1980; CARNEY; LEVIN, 2002; PAN; PAN, 2009).

Lastly, results showed a statistically significant association between participants' categorical classifications in terms of WMC, and of reading comprehension*.* Among those who obtained higher WM span scores, a significant majority (i.e., 19 out of 25 participants) presented predominant inferential comprehension. However, to our surprise, practically half of all lower spans (i.e., 17 out of 35 participants) came out to reach some levels of inferential comprehension as well, suggesting that they were able to tackle with their WMC limitations. Taking that into account, our contention is that the activation of background knowledge on the theme of the cartoon (i.e., driving and talking on cell phones) might have alleviated potential cognitive overloads imposed to the CE and to the VSSP in the processing and storage of pictorial information. Logie (1996, p.39) somehow endorses this rationale by defining WM as a "[…] capacity-constrained system acting as a workspace for information processing and temporary storage, but whose operation can be supplemented by contributions from LTM." Put differently, it might be that because the pictorial information depicted in the cartoon used in the study presented a highly familiar set of visual elements and contained a widely debated theme that underlay its core meaning, optimal conditions were possibly generated for schema activation, which in turn, might have alleviated the processing demands imposed on WM. If this line of reasoning holds true, we can assume that WM easily managed most of the necessary mental operations within the total amount of resources available in the CE and in the VSSP, allowing even lower spans to achieve some levels of inferential comprehension. Furthermore, consistent with previous studies (TOMITCH, 1990; ALPTEKIN, 2006), schema activation, in the case of this study probably cued by pictorial information, might have served the CE in the processing of the verbal information found in the cartoon. Considering that, even lower spans, who by any possibility counted on the activation of background knowledge, were potentially able to infer meaning from the cartoon since they were scaffolded by reliable predictions based on its illustration. If that was the case, we suggest that the retrieval of background knowledge from LTM may compensate for WMC limitations in the processing of pictorial information and that it may simultaneously assist phonological processing.

Now, once again, what do all these assertions exactly say to EFL teachers who directly deal with students in the school context? Well, to answer that it is important to list some of the propositions presented in this study: (a) illustrations may make part of printed pieces of discourse; (b) they are interactively processed along with verbal information; (c) they are incorporated into multidimensional mental models of the text in memory. Based on that, we would advise teachers to carefully choose the visuals to be used in class, evaluate whether they can in fact promote schema activation (i.e., activation of background knowledge) to help readers predict meanings prior to going into the details of the written text, and whether these resources can indeed trigger the parallel processing of verbal pictorial information. Also, considering the current context in which illustrations and images in general are easily found due to advances in technology, we would advise teachers to make use of them as resources in active student-centered tasks. By doing that, it may be that a higher number of students, independently of their reading proficiency and WMC levels, instead of feeling powerless, can play active roles in the meaning-making process involved in EFL reading.

To conclude, the findings of the study speak in favor of H1, showing evidence of a positive and statistically significant correlation between WMC and EFL reading proficiency. Furthermore, they sustain H2 and H3 revealing a statistically significant association between EFL reading proficiency, WMC and the inferential comprehension of cartoons. In spite of these findings, the strength of the correlation between the variables tested in H1 was just weak. Likewise, the association between the variables tested in H3 was from weak to moderate. Because we ran WMC scores in the testing of both hypotheses, we speculate that, maybe, the version of the RST used in this study may have been insensitive to capture participants' real capacity to process and maintain information in real time. Because Tomitch's (2003) RST was originally designed to obtain WMC scores from adults, it may not have been ideal to obtain such measures from adolescents. Based on that, we advise future studies to apply versions of the RST especially designed to obtain scores from this specific population. We also advise the use of WMC composite scores (i.e., scores representing the average of multiple measures of WMC). Composite scores may provide more reliable measures for researchers to test the correlation and association between variables. We also advise future studies to assess the reading comprehension of illustrated texts using multiple measures. This procedure may provide a larger amount of data for researchers to examine the relationship between WMC and the processing of verbal and pictorial information. I may also help researchers clarify the extent to which background knowledge compensates for WMC limitations in the processing of pictorial information.

WOELFER, S.W.; TOMITCH, L. M. B. Capacidade da memória de trabalho, proficiência leitora, e o processamento de informações verbais e pictoriais na leitura em inglês como língua estrangeira. **Alfa**, São Paulo, v. 63, n.3, p.637-662, 2019.

- *RESUMO: Este estudo investiga relações entre capacidade da memória de trabalho (CMT), proficiência leitora e processamento de informações verbais e pictoriais na leitura em língua inglês como língua estrangeira (ILE). A amostra investigada foi composta por sessenta estudantes brasileiros de ensino médio entre 15-17 anos (M= 16.3, SD. = 64). Os instrumentos de coleta de dados incluíram: um questionário de experiências prévias, um teste de proficiência leitora em ILE, um teste de CMT, um teste de compreensão leitora, e um questionário retrospectivo. As análises indicaram uma correlação positiva entre as variáveis independentes (i.e., proficiência leitora em ILE e CMT), e associações significativas entre cada uma dessas variáveis com a variável dependente (i.e., compreensão leitora). Os resultados indicaram que: (1) limitações da CMT podem restringir o processamento de textos expositivos não ilustrados; (2) limitações em proficiência em ILE tendem a comprometer a eficiência do processamento de informações pictoriais; (3) limitações da CMT no processamento de informações pictoriais parecem ser compensadas pela ativação de informações do conhecimento prévio.*

- *PALAVRAS-CHAVE: Capacidade da memória de trabalho. Leitura em Inglês como língua estrangeira. Compreensão literal. Compreensão inferencial.*

REFERENCES

AEBERSOLD, J. A.; FIELD, M. L. **From reader to reading teacher**: issues and strategies for second language classrooms. New York: Cambridge University Press, 1997.

ALPTEKIN, C. Cultural familiarity in inferential and literal comprehension in L2 reading. **System**, Oxford, v.34, n.4, p.494–508, dez. 2006. Available in: https://doi.org/10.1016/j.system.2006.05.003. Access on: 20 maio 2014.

ALPTEKIN, C.; ERÇETIN, G. Assessing the relationship of working memory to L2 reading: does the nature of comprehension process and reading span task make a difference? **System**, Oxford, v.37, n.4, p.627-639, dez. 2009. Available in: https://doi.org/10.1016/j.system.2009.09.007. Access on: 16 maio 2014.

BADDELEY, A. D. Modularity, working memory and language acquisition. **Second Language Research**, London, Special Issue, v.33, n.3, p.1-13, jun. 2017. Available in: http://dx.doi.org/10.1177/0267658317709852. Access on: 20 set. 2017.

BADDELEY, A. D. Working memory in second language learning. *In*: WEN, Z. E.; MOTA, M. B.; MCNEIL, A. (ed.). **Working memory in second language acquisition and processing**. Bristol: Multilingual Matters, 2015. p.17–28.

BADDELEY, A. D. Working memory: theories, models, and controversies. **Annual Review of Psychology**, Palo Alto, n.63, p.1-29, jan. 2012. Available in: https://doi.org/10.1146/annurev-psych-120710-100422. Access on: 13 mar. 2014.

BADDELEY, A. D. Working memory. **Current Biology**, London, v.20, n.4, p.136-140, fev. 2010. Available in: https://doi.org/10.1016/j.cub.2009.12.014. Access on: 24 mar. 2014.

BADDELEY, A. D. The concept of episodic memory. **Philosophical Transactions:** Biological Sciences, London, v.356, n.1413, p.1345-1350, set. 2001. Available in: http://www.jstor.org/stable/3067094. Access on: 4 fev. 2014.

BADDELEY, A. D. The episodic buffer: a new component of working memory? **Trends in Cognitive Sciences**, Oxford, v.4, n.11, p.417-423, nov. 2000. Available in: https://doi.org/10.1016/S1364-6613(00)01538-2. Access on: 23 ago. 2014.

BADDELEY, A. D.; HITCH, G. Working memory. *In*: BOWER, G. H. (ed.). **The psychology of learning and motivation**: advances in research and theory. New York: Academic Press, 1974. v.8, p.47-89.

BADDELEY, A. D.; LOGIE, R. H. The multiple-component model. *In*: MIYAKE, A.; SHAH, P. (ed.). **Models of working memory**: mechanisms of active maintenance and executive control. New York: Cambridge University Press, 1999. p.28-61.

BAILER, C.; TOMITCH, L. M. B. Behavioral and neuroimaging studies on multitasking: a literature review. **Alfa**, São Paulo, v.60, n.2, p.417-436, 2016. Available in: https://doi.org/10.1590/1981-5794-1608-8. Access on: 28 maio 2018.

BAILER, C.; TOMITCH, L. M. B.; D’ELY, R. C. Working memory capacity and attention to form and meaning. **Letras de Hoje**, Porto Alegre, v.48, n.1, p.139-147, jan./mar. 2013. Available in: http://revistaseletronicas.pucrs.br/ojs/index.php/fale/article/view/11944/8891. Access on: 20 jan. 2015.

CARNEY, R. N.; LEVIN, J. R. Pictorial illustrations still improve students´ learning from text. **Educational Psychology Review**, New York, v.14, n.1, p.5-26, mar. 2002. Available in: https://doi.org/10.1023/A:1013176309260. Access on: 4 abr. 2014.

CARRELL, P. L.; DEVINE, J.; ESKEY, D. E. (ed.). **Interactive approaches to second language reading.** Cambridge: Cambridge University Press, 1998.

CHIKALANGA, I. A suggested taxonomy of inferences. **Reading in a Foreign language,** Hawaii, v.8, n.2, p.697-709, Primavera 1992. Available in: https://eric.ed.gov/?id=EJ474556. Access on: 5 jun. 2017.

DANEMAN, M.; CARPENTER, P. A. Individual differences in working memory and reading. **Journal of Verbal Learning and Verbal Behavior,** Maryland Heights, v.19, n.4, p.450-466, ago. 1980. Available in: http://dx.doi.org/10.1037/0278-7393.9.4.561. Access on: 23 maio 2014.

DAVIES, F. **Introducing reading**. London: Penguin, 1995.

FANG, Z. Illustrations, text, and the child reader: what are pictures in children´s storybooks for? **Reading Horizons,** Michigan, v.37, n.2, p.130-142, nov./dez. 1996. Available in: https://scholarworks.wmich.edu/reading_horizons/vol37/iss2/3. Access on: 2 fev. 2014.

FIELD, A. **Descobrindo a estatística usando o SPSS**. Porto Alegre: Artmed Ed., 2009.

FONTANINI, I.; TOMITCH, L. M. B. Working memory capacity and L2 university students: comprehension of linear texts and hypertexts. **International Journal of English Studies,** Murcia, v.9, n.2, p.1-18, 2009. Available in: http://revistas.um.es/ijes/article/view/90721/87521. Access on: 25 ago. 2015.

FRIEDMAN, N. P.; MIYAKE, A. The relations among inhibition and interference control functions: a latent-variable analysis. **Journal of Experimental Psychology: Genera**l, Washington, v.133, n.1, p.101−135, mar. 2004. Available in: http://dx.doi.org/10.1037/0096-3445.133.1.101. Access on: 22 jan. 2016.

GAGNÉ, E. D.; YEKOVICH, C. W.; YEKOVICH, F. R. **The cognitive psychology of school learning**. New York: Harper Collins, 1993. (College Publishers).

GOODMAN, K. S. Reading: a psycholinguistic guessing game. **Journal of the Reading Specialist**, New York, v.6, n.4, p.126-135, maio 1967. Available in: http://dx.doi.org/10.1080/19388076709556976. Access on: 5 abr. 2014.

GOUGH, P. B. Theoretical models and processes of reading. *In*: KAVANAGH, J. F.; MATTINGLY, I. G. (ed.). **Language by Ear and by Eye**. Cambridge: MIT Press, 1972. p.661-685.

GYSELINCK, V.; TARDIEU, H. The role of illustrations in text comprehension: what, when, for whom, and why? *In*: VAN OOSTENDORP, H.; GOLDMAN, S. R. (ed.). **The construction of mental operations during reading.** Mahwah: Lawrence Erlbaum Associates Publishers, 1999. p.195-218. Available in: https://pdfs.semanticscholar.org/752c/873d8681c3f4adc9a9a940fd571045e5a90b.pdf. Access on: 18 jul. 2014.

HALLIDAY, M.; HASAN, R. **Cohesion in English**. London: Longman, 1976.

HEGARTY, M.; JUST, M. A. Constructing mental models of machines from texts and diagrams. **Journal of Memory and Language**, New York, v.32, p.717-742, dez. 1993. Available in: http://dx.doi.org/10.1006/jmla.1993.1036. Access on: 10 fev. 2014.

HEITZ, R. P.; UNSWORTH, N.; ENGLE, R. W. Working memory capacity, attention control, and fluid intelligence. *In*: WILHELM, O.; ENGLE, R. W. (ed.). **Handbook of understanding and measuring intelligence.** Thousand Oaks: Sage Publications, 2005. p.61-67.

ITRI, B. *et al*. Davi Luiz: I only wanted to see people smiling. **Folha de São Paulo,** São Paulo, set. 2014. Available in: http://www1.folha.uol.com.br/internacional/en/sports/worldcup/2014/07/1483313-david-luiz-i-only-wanted-to-see-people-smiling.shtml. Access on: 10 dez. 2014.

JUST, M. A.; CARPENTER, P. A. A capacity theory of comprehension: individual differences in working memory. **Psychological Review**, Michigan, v.99, n.1, p.122-149, jan. 1992. Available in: http://dx.doi.org/10.1037/0033-295X.99.1.122. Access on: 28 jul. 2014.

KINTSCH, W.; VAN DIJK, T. A. Toward a model of text comprehension and production. **Psychological Review**, Michigan, v.85, n.5, p.263-294, 1978. Available in: http://dx.doi.org/10.1037/0033-295X.85.5.363. Access on: 23 jun. 2014.

LARSON-HALL, J. **A guide to doing statistics in second language research using SPSS**. New York: Routledge, 2010.

LEVIE, W. H.; LENTZ, R. Effects of text illustrations: a review of research. **Educational Communication and Technology**, Washington, v.30, n.4, p.195-232, dez. 1982. Available in: http://www.jstor.org/stable/30219845. Access on: 27 jun. 2014.

LINDERHOLM, T.; VAN DEN BROEK, P. The effects of reading purpose and working memory capacity on the processing of expository text. **Journal of Educational Psychology**, Arlington, v.94, n.4, p.778-784, dez. 2002. Available in: http://dx.doi.org/10.1037/0022-0663.94.4.778. Access on: 24 out. 2014.

LINCK, J. A. *et al*. Working memory and second language comprehension and production. **Psychonomic Bulletin & Review**, Austin, v.21, n.4, p.861-883, ago. 2013. Available in: https://doi.org/10.3758/s13423-013-0565-2. Access on: 13 fev. 2015.

LIU, J. Effects of comic strips on L2 learners' reading comprehension. **TESOL Quarterly**, Washington, v.38, n.2, p.225-243, Summer 2004. Available in: http://www.jstor.org/stable/3588379. Access on: 26 mar. 2014.

LOGIE, R. H. The seven ages of working memory. *In*: RICHARDSON, J. T. E. *et al*. (ed.). **Working memory and human cognition**. Oxford: Oxford University Press, 1996. p.31-65.

LOGIE, R. H. **Visual-spatial working memory**. Hove: Erlbaum, 1995.

MANOLI, P.; PAPADOPOULOU, M. Reading strategies versus reading skills - two faces of the same coin. **Procedia - Social and Behavioral Sciences**, Istanbul, v.46, p.817-821, 2012. Available in: https://doi.org/10.1016/j.sbspro.2012.05.205. Access on: 21 abr. 2016.

MARKSTEIN, G. Cellphones may cause cancer. **The English blog**. 2011. Available in: http://jeffreyhill.typepad.com/.a/6a00d8341d417153ef014e89094ed4970d-popup. Access on: 19 out. 2014.

MAYER, R. E.; ANDERSON, R. B. Animations need narrations: an experimental test of a dual-coding hypothesis. **Journal of Educational Psychology**, Arlington, v.83, n.4, p.484-490, dez. 1991. Available in: http://dx.doi.org/10.1037/0022-0663.83.4.484. Access on: 23 maio 2014.

MAYER, R. E.; SIMS, V. K. For whom is a picture worth a thousand words? extensions of a dual-coding theory of multimedia learning. **Journal of Educational Psychology**, Arlington, v.86, n.3, p.389-401, set. 1994. Available in: http://dx.doi.org/10.1037/0022-0663.86.3.389. Access on: 29 set. 2014.

MAYER, R. E. *et al*. When less is more: meaningful learning from visual and verbal summaries of science textbook lessons. **Journal of Educational Psychology,** Arlington, v.88, n.1, p.64-73, mar. 1996. Available in: http://dx.doi.org/10.1037/0022-0663.88.1.64. Access on: 17 abr. 2014.

MIYAKE, A.; SHAH, P. (ed.). **Models of working memory:** mechanisms of active maintenance and executive control. New York: Cambridge University Press, 1999.

OLIVEIRA, D. A. **Working memory capacity and mental translation in EFL reading comprehension.** 2016. 184p. Dissertation (Master in English) – Universidade Federal de Santa Catarina, Florianópolis, 2016. Available in: https://repositorio.ufsc.br/handle/123456789/168075. Access on: 13 jul. 2018.

PAGLIOSA, E. L. B. **Humor**: um estudo sociolinguístico cognitivo da charge. Porto Alegre: ediPUCRS, 2005.

PAIVIO, A. U. Dual coding theory and education. *In*: PATHWAYS TO LITERACY ACHIEVEMENT FOR HIGH POVERTY CHILDREN: A READY TO LEARN RESEARCH AGENDA, 1996, Michigan. **Conference**. Michigan: [*S.l.*], 2006. Available in: https://neuropedagogie.com/images/pdf/paivio.pdf. Access on: 24 ago. 2014.

PAIVIO, A. U. **Mental representations:** a dual coding approach. Oxford: Oxford University Press, 1986.

PAIVIO, A. U. **Imagery and verbal processes**. New York: Holt, Rinehart, and Winston, 1971.

PAN, Y.-C.; PAN, Y.-C. The effect of pictures on the reading comprehension of low-proficiency Taiwanese English foreign language college students: an action research study. **Journal of Science, Foreign Language**, [*S.l*], v.25, n.3 p.186-198, jan. 2009. Available in: https://js.vnu.edu.vn/FS/article/view/2426. Access on: 29 out. 2014.

PASHLER, H. Dual-task interference in simple tasks: data and theory. **Psychological Bulletin**, Washington, v.2, n.116, p.220-244, 1994.

PEARSON, P. D.; JOHNSON, D. D. **Teaching reading comprehension**. New York: Holt: Rinehart and Winston, 1978.

PROCAILO, L. **Reading digital texts in L2 working memory capacity, text mode, and reading condition accounting for differences in processes and products of reading**. 2017. Tese (Doutorado em Inglês) – Universidade Federal de Santa Catarina, Florianópolis, 2017. Available in: https://repositorio.ufsc.br/handle/123456789/187261. Access on: 27 ago. 2018.

ROSEN, V.; ENGLE, R. Working memory capacity and suppression. **Journal of Memory and Language**, New York, v.39, n.3, p.418-436, out. 1998. Available in: http://englelab.gatech.edu/1998/working-memory-capacity-and-suppression.pdf. Access on: 9 dez. 2014.

RUMELHART, D. E.; MCCLELLAND, J. L. Interactive processing through spreading activation. *In*: LESGOLD, A.; PERFETTI, C. (ed.). **Interactive processes in reading.** Hillsdale: Erlbaum, 1981. p.37-60.

SANCHEZ, C. A.; WILEY, J. An examination of the seductive details effect in terms of working memory capacity. **Memory & Cognition**, Austin, v.34, n.2, p.344-355, mar. 2006. Available in: https://doi.org/10.3758/BF03193412. Access on: 22 nov. 2014.

SEARLEMAN, A.; HERRMANN, D. **Memory from a broader perspective.** Singapore: McGraw-Hill, 1994.

SCHALLERT, D. L. The role of illustrations in reading comprehension. *In*: SPIRO, R. J.; BRUCE, B. C.; BREWER, W. F. (ed.). **Theoretical issues in reading comprehension**: perspectives from cognitive Psychology, Linguistics, Artificial Intelligence, and Education. Hillsdale: Erlbaum, 1980. p.503–524.

TOMITCH, L. M. B. **Memorial de atividades acadêmicas**. 2014. Tese (Memorial em Magistério Superior) - Universidade Federal de Santa Catarina, Florianópolis, 2014.

TOMITCH, L. M. B. **7º período:** produção textual acadêmica. Florianópolis: UFSC/CCE/DLLE, 2012.

TOMITCH, L. M. B. **Reading**: text organization perception and working memory capacity. Florianópolis: SC/PGI/UFSC, 2003. (ARES - Advanced Research in English Series).

TOMITCH, L. M. B. Schema activation and text comprehension. **Fragmentos:** Revista de Língua e Literatura Estrangeiras, Florianópolis, v.3, n.2, p.29-43, jan. 1990. Available in: https://periodicos.ufsc.br/index.php/fragmentos/article/view/2128/4087. Access on: 18 set. 2015.

VAN DEN BROEK, P. *et al*. The landscape model of reading: inferences and the online construction of memory representation. *In*: VAN OOSTENDORP, H.; GOLDMAN, S. R. (ed.). **The construction of mental representations during reading.** New Jersey: LEA, 1999. p.62-87.

YUAN, K. *et al*. Working memory, fluid intelligence and science learning. **Educational Research Review**, Amsterdam, v.1, n.2, p.83-98, jan. 2006. Available in: doi: 10.1016/j.edurev.2006.08.005. Access on: 6 dez. 2014.

WOELFER, S. W. **Constructing meaning from cartoons:** the effects of EFL reading proficiency and working memory capacity on the processing of verbal and pictorial information. 2016. 181p. Dissertation (Master in English) - Universidade Federal de Santa Catarina, Florianópolis, 2016. Available in: https://repositorio.ufsc.br/xmlui/handle/123456789/167472. Access on: 25 set. 2017.

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ORDERING AND SEQUENCING IN READING QUESTIONS: A CHRONICLE AND PAINTING PROPOSAL FOR TEXTBOOKS

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▪ ABSTRACT: The present study analyzes types of questions and their sequencing in a compilation of textbooks designed for 6th to 9th grades, particularly in the section "*Cruzando Linguagens"* (Across Languages). The latter asks questions for the reading of different genres sharing similar themes. Thereafter, a new sequencing of questions is proposed for one of the activities suggested by the 6th grade textbook, targeted at chronicle and painting genres. This study focuses on views about reading from an interactionist perspective, Applied Linguistics studies, and the practice of ordering and sequencing of reading, as advocated by Solé (1998) and broadened by Menegassi (2018, 2010a, 2010b, 2010c, 2010d, 2016), Fuza and Menegassi (2018, 2017) and Fuza (2017). From the proposed questions, only one may usually allow intertextual thematic dialogue. Hence, the following was suggested: (i) analysis of textbook questions related to chronicle and painting; (ii) a new sequencing of questions; and (iii) review of thematic gaps Subsequently, a theoretical and methodological proposal of ordering and sequencing questions was developed, focusing on intertextual dialogue allowing readers to: establish dialogue between texts of similar theme; craft textual, inferential and interpretive answers comprising the main ideas of the texts; produce meanings related to the themes in order to reach textual and inferential comprehension, as well as interpretation, allowing relative thematic emptying.

▪ KEYWORDS: Ordering. Sequencing. Reading questions. Textbook.

Introductory remarks

Reading questions are one of the most used tools in a classroom. Their study is of paramount importance, as it helps to construct a critical fluency of learner-reader's reading and also exert some influence in their writing production. On that account, authors whose theories center on Psychollinguistics and Applied Linguistics, with

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emphasis on the interactionist perspective in reading, such as Solé (1998), Fuza and Menegassi (2018, 2017), Fuza (2017), Menegassi (1995, 2008, 2010a, 2010b, 2010c, 2010d, 2011, 2016) and Rodrigues (2013), discuss about building questions as means for teachers to guide learners during reading in an ordering and sequencing[1] process of activities that enable understanding of nuances in a text.

In Solé (1998, p. 155, our translation), reading practice is characterized as "a crucial strategy for active reading."[2] It is necessary that teachers understand the question procedures based on "ordering and sequencing criteria"[3], as they "make teachers conscious about the theoretical-methodological approaches involved in this process"[4] (MENEGASSI, 2010a, p. 167, our translation).

Menegassi (2010b) states that textbooks are conventionally the source of reading narrative texts in class. According to Fuza and Rodrigues (2017), this is because textbooks have been more prominently used in Brazilian schools and, as such, they have sparked some scholars' interest as well as concern over the last decades. The authors' point of view is that "teachers and learners should make conscious use of textbooks"[5] (FUZA; RODRIGUES, 2017, p. 189, our translation) in order to improve didactic competence in the learning environment.

Analyzing the activity, Menegassi (2010b) found lack of concern with thematic unit of the text and of the textual exploration, which indicates the need to rethink about the thematic issue in classroom practices. In this paper, ordering and sequencing join hands with the concept of exhaustion of the theme (BAKHTIN, 1986) as the first component to determine the constitution of an utterance; in other words, by "exhausting" the theme of a given utterance, one is able to reply to acts of language (CEREJA, 2005). It must be emphasized that official documents, such as Common Core State Standards[6] (BRASIL, 2017), the reading standards, for instance, require learners to be capable of reflecting upon the themes of a text. This is also featured in the document Reference Guidelines of Portuguese Language[7] (BRASIL, 2011, p. 22, our translation), in which the relation between texts during reading is described as: "Recognizing different manners of dealing with information when comparing texts of a theme"[8] and "Recognizing distinct points of views among two or more opinions on

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1 "Sequencing" is the sequence of reading questions that result in the production of a text, in which information and ideas matured from the questions merge into a final text, a complete thought about the genre of choice, as presented by Fuza and Menegassi (2017).

2 In the original: "*estratégia essencial para uma leitura ativa*" (SOLÉ, 1998, p. 155).

3 In the original: "*critérios de ordenação e sequenciação*" (MENEGASSI, 2010a, p. 167).

4 In the original: "*conscientização do professor sobre as determinações teórico-metodológicas envolvidas nesse processo*" (MENEGASSI, 2010a, p. 167).

5 In the original: "*utilização consciente do LD, por parte de professores e alunos*" (FUZA; RODRIGUES, 2017, p. 189).

6 In the original: "*Base Nacional Comum Curricular.*"

7 In the original: "*Matriz de Referência de Língua Portuguesa.*"

8 In the original: "*Reconhecer diferentes formas de tratar uma informação na comparação de textos que tratam do mesmo tema*" (BRASIL, 2011, p. 22).

the same fact or theme."[9] Hence, it is imperative that reading practices be developed in learning environments, with emphasis on study of textual theme.

For the present research, Cereja and Cochar's (2015) Brazilian Portuguese textbook compilation Portuguese Languages[10], used by Brazilian learners from 6th to 9th grades, was used as *corpus*. The textbooks are used throughout the country, as well as recommended and approved by the Textbook National Program[11] (BRASIL, 2015). They are also largely used in Palmas (TO) and Maringá (PR) regions. A total of 16 reading activities from the textbook section Across Languages[12] were analyzed as samples of the relation between texts with similar themes and different genres.

Subsequently, in order to analyze the types of questions as well as their sequencing, four activities from the 6th grade textbook were specifically selected. Only one of them was highlighted as a topic for discussion and proposal of a new ordering and sequencing of questions due to space limitation. This activity illustrates how the proposal may be applied to other segments and other textbooks.

Reading approaches and reading questions

Due to taking reading questions as learning tools, it is pertinent to study them, given the possibilities for learners to develop fluent reading. Marcuschi (2001, 2008) grouped comprehension questions into nine categories: The color of Napoleon's white horse, Copy, Objective, Inferential, Global, Subjective, Anything goes, Impossible, and Metalinguistic. Dialogue is established between those types of questions and reading approaches. For instance, text-based questions fall into the "Copy" category, which are activities focused on transcribing information from the text. Reader-centered questions may be of "Subjective" or "Anything goes" categories, as they are superficially related to the text: "the answer is on learner's account, there is no way to test its veracity"[13] and "anything goes, there is no wrong answer"[14] (MARCUSCHI, 2008, p. 271, our translation). The categorization is groundbreaking, and so are Pearson and Johnson (1978) as well as Heaton's (1991) studies on reading questions; however, they do not guide this research in terms of the discussion presented herein.

There are some aspects that interfere in the work with reading questions: "a) the reading concept of choice; b) the reading-work methodology based on the reading

[9] In the original: "*Reconhecer posições distintas entre duas ou mais opiniões relativas ao mesmo fato ou ao mesmo tema*" (BRASIL, 2011, p. 22).

[10] In the original: "*Português Linguagens"*

[11] In the original: "*Programa Nacional do Livro Didático* – PNLD"

[12] In the original: "*Cruzando Linguagens"*

[13] In the original: "*sendo que a resposta fica por conta do aluno e não há como testá-la em sua validade*" (MARCUSCHI, 2008, p. 271).

[14] In the original: "*qualquer resposta, não havendo possibilidade de se equivocar*" (MARCUSCHI, 2008, p. 271).

concept of choice; c) the reading goal; d) the chosen genre; e) sorting and sequencing of questions about the text [...]"[15] (MENEGASSI, 2010a, p. 167, our translation).

According to Fuza (2010), during the reading process, reading approaches[16] are not subsequent steps, one after another, but rather, they relate so as to allow for dialogue among author-text-reader. Many different approaches coexist in Applied Linguistics literature, but three of them stand out: text-focused reading, reader-focused reading, and interaction-focused reading (MENEGASSI, 2010a).

Aside from the approaches, it is observed that questions also interfere in reading. In the present case, reading questions are related to the theme; in other words, the focal point is how to work with similar themed texts that belong to different genres.

Reading questions are concrete utterances determined by elements, such as: "1) semantic exhaustiveness of the theme; 2) the speaker's plan or speech will; 3) typical compositional and generic forms of finalization." (BAKHTIN, 1986, p. 76). The first being responsible for complete or partial exhaustiveness of speech, thus enabling the subject responsive stance to the text. Consequently, exhaustion of the theme consists of "a primary and essential component to speech genre production, guiding the producer during this process, and subsequently, the interlocutor-respondent during the process of responsive comprehension, thereby enabling verbal social interaction"[17] (MENEGASSI, 2010b, p. 82, our translation). Therefore, every utterance has its own theme.

While in class, the teacher may contribute for learners to reach conclusions about the theme of a given text through reading questions, by fully exploring it, questioning the conditions of text-production, and thinking about the utterance under study. Bakhtin (1986) proposes that exhaustion of the text can be complete or relative. These concepts will be further explained during reading approaches discussion.

The text-based approach, which establishes a dialogue with the first part of the reading process, is referred to as decoding (MENEGASSI, 1995) in which reading is viewed as a process of decoding letters and sounds. According to Menegassi (2010a), the more a learner-reader response identification questions, the less s/he is able to produce meanings, and, consequently, s/he is not able to mature critically, particularly when dealing with texts. It is common for such questions to be presented in disarray without considering other steps of the reading process. As a result, the entire process is limited to decoding instead of being the first step[18].

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15 In the original: "*a) o conceito de leitura escolhido; b) a metodologia de trabalho com a leitura em função do conceito definido; c) o objetivo da leitura; d) o gênero textual escolhido; e) a ordenação e a sequenciação das perguntas oferecidas sobre o texto* [...]" (MENEGASSI, 2010a, p. 167)

16 We use the term "approach" because it is related to methodological perspective applied in classrooms, which is the focus of this research, whereas "concept" is closer to reading theories (MENEGASSI, 2010a).

17 In the original: "*elemento primário e essencial à produção de gênero discursivo, orientando o produtor, no seu processo de construção, e o interlocutor-respondente, no seu processo de compreensão responsiva, para que se estabeleça a interação verbal social*" (MENEGASSI, 2010b, p. 82)

18 Santos and Kader (2009) state that text-focused reading, carried out through mechanical activity and linguistic code access, is most promising, especially in the beginning of the learning process. Thus, text-focused reading should be done according to the objective of the activity.

In reader-focused reading, reading is considered an act of giving meaning to a text, depending on the reader's previous experiences when addressing a given text. As stated by Leffa (1996), reading quality is measured by the reader's reaction quality. Despite having an active role, the social aspects of reading are discarded and any interpretation is valid (MENEGASSI; ANGELO, 2010). Reader-focused reading is at no specific step, since information comes from reader's previous knowledge.

Interaction-focused reading establishes a dialogue among author-text-reader, promoting dialogue and the construction of comprehension, as well as an active response to the text. The latter becomes something akin to "an interlocution space intervened by contextual and intertextual elements, being seen as a result of absorption and transformation of other texts"[19] (DELL'ISOLA, 1996, p. 71, our translation).

According to Colomer and Camps (2002, p. 173, our translation), assessment comprehension is still "an unclear and vague terrain that corresponds exactly [...] to minimal understanding of what it means to comprehend a text and how to teach it"[20]. Menegassi (2016, p. 47, our translation) states that "using different reading concepts and models […] to teach the learner how to perform critical thinking activities is the teacher's job, as it provides better learning conditions for learners"[21]. In addition, according to Solé (1998, p. 116, our translation), despite reading being an internal process, it should be taught: "learners should experience a reading process/model that allows them to see 'strategies in action' in a significant and functional situation"[22].

Rodrigues (2013) discusses about the relevance in proposing reading models to learners and about teachers being responsible to make an activity plan, which should include a special place for reading questions: "teachers dedicate most part of their interventions into devising questions to learners who, obviously, dedicate themselves to responding them, or at least trying to"[23] (SOLÉ, 1998, p.110, our translation). Menegassi (2008, p. 46, our translation) states that reading questions are important, as they allow the teacher to guide the learner throughout reading, "they also serve to teach the reader, guide his/her learning, and contribute to reader's education and development"[24]. Furthermore, the criteria of sorting and sequencing of questions allow for "a more efficient cognitive development for the learner-reader, once the teacher

[19] In the original: "*espaço de interlocução no qual intervêm elementos contextuais e intertextuais, uma vez que é resultado de absorções e transformações de outros textos*" (DELL'ISOLA, 1996, p. 71)

[20] In the original: "*um terreno nebuloso e impreciso que corresponde exatamente* [...] *ao pouco esclarecimento existente sobre o que significa entender um texto e como se pode ensinar a fazer isso*" (COLOMER; CAMPS, 2002, p. 173)

[21] In the original: "*aplicar conceitos e modelos de leituras* [...] *ensinando o aluno a realizar atividades críticas, são obrigações do professor, para garantir melhores condições de aprendizagem aos estudantes*" (MENEGASSI, 2016, p. 47)

[22] In the original: "*os alunos têm de assistir a um processo/modelo de leitura, que lhes permita ver as 'estratégias em ação' em uma situação significativa e funcional*" (SOLÉ, 1998, p. 116)

[23] In the original: "*os professores dedicam a maior parte das suas intervenções a formular perguntas aos alunos e estes, logicamente, dedicam-se a respondê-las, ou pelo menos a tentar*" (SOLÉ, 1998, p.110)

[24] In the original: "*servem também para ensinar o leitor, para orientá-lo na sua aprendizagem, para auxiliá-lo na sua formação e desenvolvimento*" (MENEGASSI, 2008, p. 46)

has been made aware of the theoretical-methodological approaches involved in this process"[25] (MENEGASSI, 2010a, p. 167, our translation).

Creating a dialogue with Solé's (1998) types of questions and retrieving the (literal and inferential) comprehension and interpretive steps involved in the reading process (MENEGASSI, 2010d, 1995), Menegassi (2010a, 2011, 2016) categorized questions into: textual questions, inferential questions, and interpretive questions.

Textual questions center on the text. However, they are not copy questions, in which ideas must be extracted from the text, but it is the reader's responsibility to seek answers within it. This activity requires readers to comprehend and understand the cognitive organization of sentences, and not only the ability to match information stated by the question itself in accordance with the response found in the text (MENEGASSI, 2010a). By Marcuschi's (2001, 2008), this is different from decoding and copy questions.

Inferential questions may be deduced from the text. Despite having a connection with the text, the reader needs to link the elements from the text, thus reaching some type of inference. There is no response in the text, but in the correlation between text and reader's inference. This allows an answer to be built based on the relationship "thinking about the text and seeking for a reply outside it"[26] (MENEGASSI, 2010a, p. 180, our translation).

Interpretive questions have the text as reference and require reader's previous knowledge and opinion to intervene, thereby creating a personal answer. As stated by Menegassi (2010a), not any response can be accepted, since meanings are born from the dialogue between questions.

With regards to exhaustion of the theme, Bakhtin (1986) defines it, at first, as something complete, present in aspects of human life that create attitudes and responses characterized by factual actions; speech genres are standardized and the creative element is missing almost completely. Menegassi (2010c) introduces the speech genre Question Answer as an example of complete exhaustion. As a result of standardizing the speech genre, one's creativity is restricted in accordance to the question and the construction of the response. As suggested by Fuza (2017) and Angelo (2015), the scope of interpretive questions is that textual answers and text-inferred responses are inclined to reach complete exhaustion, given that creativity in thematic exposure is limited due to question category. Textual questions are focused on finding and copying information; whereas inferential ones, despite presenting reader's previous knowledge, depend on deduction made from the text (MENEGASSI, 2010a).

Relative exhaustion is marked by creativity and interpretation of facts, which contribute to the making of a counter-word. According to Bakhtin (1986, p. 77, author's italics), "by becoming the *theme* of the utterance, the subject achieves a relative finalization under certain conditions, when the problem is posed in a particular way, on

25 In the original: "*um trabalho de desenvolvimento cognitivo mais eficaz no aluno-leitor, a partir da conscientização do professor sobre as determinações teórico-metodológicas envolvidas nesse processo*" (MENEGASSI, 2010a, p. 167)

26 In the original: "*pensar sobre o texto e buscar resposta fora dele*" (MENEGASSI, 2010a, p. 180)

the basis of a particular material, with particular aims set by the author, that is, already within the boundaries of a *specific authorial intent*"[27] .

Questions and answers have their inherent utterance.to be explored in class. The genre itself will require relative finalization because of its limitations as a concrete utterance imposed by the situation of communication. Interpretive responses, in turn, have relative exhaustion, since the question itself encourages creativity and nurturing of ideas, "guiding the interlocutor-teacher not only to categorize learner's reply as right or wrong, but to agree, disagree, counter argue, request additional explanation, thus following up the enunciation chain"[28] (ANGELO, 2015, p. 56, our translation).

The relative exhaustiveness of the theme "is present in spheres in which speech genre necessarily displays creative elements"[29] (MENEGASSI, 2010c, p. 82, our translation), as it is the case of secondary genres which appear in conditions with more complex and organized cultural interaction.

Menegassi (2010c, p. 82, our translation) claims that "genre itself is not something relative, but the composing theme itself has this characteristic due to the author's speech plan and intention, as well as the idea determined by the author"[30]. Therefore, theme is an element closely related to the genre, the first of its components. Sobral and Giacomelli (2016) consider theme unit, style and compositional form as part of a dialogue, thus making it possible to "comprehend the *theme* as a whole, the meaning the utterance creates is beyond words"[31] (SOBRAL; GIACOMELLI, 2016, p. 1085, authors' italics, our translation).

In her theoretical-methodological proposal, Fuza (2017) presents reading questions for texts with similar themes but of distinct genres, expressing the necessity of rethinking the theme issue in the learning environment, especially in regards to textbooks. In light of what has been discussed so far, and with the intent of organizing the information presented to this point, we have assembled in Chart 1 the reading approaches, their characteristics and steps in the reading process, and types of questions.

[27] In the original: "ao se tornar *tema* do enunciado ganha uma relativa conclusibilidade em determinadas condições, em certa situação do problema, em um dado material, em determinados objetivos colocados pelo autor, isto é, já no âmbito de uma ideia *definida pelo autor*" (BAKHTIN, 1986, p. 77, author's italics)

[28] In the original: "*orientando o interlocutor-professor a não apenas classificar o dizer do aluno como certo ou errado, mas a concordar, discordar, contra-argumentar, solicitar complementação, dando continuidade ao elo da cadeia enunciativa*" (ANGELO, 2015, p. 56)

[29] In the original: "*está presente nas esferas em que o gênero discursivo apresenta necessariamente elementos criativos*" (MENEGASSI, 2010c, p. 82)

[30] In the original: "*o gênero em si não é relativo, mas o tema que o constitui apresenta essa característica, em função do projeto de dizer do autor, da finalidade marcada, da ideia definida pelo autor*" (MENEGASSI, 2010c, p. 82)

[31] In the original: "compreender o *tema* do enunciado como um todo, aquilo que o enunciado, para além da língua, cria em termos de sentido" (SOBRAL; GIACOMELLI, 2016, p. 1085, author's italics)

Chart 1 – Reading approaches: characteristics, steps in the reading process and types of questions

READING FOCUS	CHARACTERISTICS	READING PROCESS STEP	TYPES OF READING QUESTION	EXHAUSTION OF THE THEME
Text	- Reading as a process of decoding letters and sounds; - “Ascendant” reading (bottom-up): process that goes from the text to the reader; - Reader recognizes words and ideas and copies information from the text; - reader scans the text and finds similar constructions that repeat words in the question; - Text is made complete, exact and unique, the reader is not able to take part in constructing meaning.	Decoding step	Questions to extract information from the text; copy questions. Responses are extracted/ information is copied from the text.	Complete
Reader	- Reading as a way to add information to the text; - “Descend” reading (top-down): process that goes from the reader to the text; - reader has a pivotal role in the process; - |Learner’s reading is highly valued, every and any interpretation is considered valid.	There is no specific step in this case because information comes from reader’s previous knowledge and its relation to the text.	Questions that add information to the text.	Complete
Text-reader interaction	- Reading as interaction between (author) text-reader, establishing a dialogue; - Reading enables constructing comprehension and active answer to the text; - Reader creates meanings and senses, looking for and giving significance; - Reader as a cowriter; - Text is a place for dialogue.	Step at literal comprehension level.	1. Questions of textual answers: responses are in the text, but cannot be copied, as decoding questions.	Complete
		Step at inferential comprehension level.	2. Questions of inferential answers: responses are deduced from the text. Despite having a connection, the reader needs to link the elements from the text in order to create some inference.	Complete and relative
		Interpretation step.	3. Questions of interpretive answer: responses relate the text and the reader’s previous knowledge, making it a personal reply.	Relative

Source: Adapted from Fuza and Menegassi (2017, p. 268).

The fact that the questions fit into steps of the reading process justifies the relevance of the work with sequencing questions. Menegassi (2010a) proposes starting with textual questions, followed by inferential questions and interpretive ones. As a result, having the theme in mind, working with questions enables the learner to comprehend the theme in a textual and inferential manner, in complete connection with the theme, according to Bakhtin (1986). Once the reader has grasped the global comprehension of the text theme, s/he reaches the interpretive level, attributing self-thought meanings to the theme, which is relative exhaustion. Questions are organized in ascending order of difficulty, guiding the reader towards progressive reflection about the text and its theme (MENEGASSI, 2010a, 2011; RODRIGUES, 2013). Accordingly, textual theme is one of the constructive essences of questions and a proposal for working with two genres used in the Portuguese textbook is presented as a sample of what can be done in a situation of education training and reader development.

Work methodology

The analysis of reading activities on section Across Languages[32] has as theoretical-methodological support types of questions, ordering and sequencing model, as proposed by Menegassi (2008; 2010a, 2010b, 2010c; 2016), and mainly derived from Solé (1998).

The textbook chosen for this analysis is "Portuguese Languages"[33], by Willian Cereja and Thereza Cochar (2015) and it is used in Palmas (TO) and Maringá (PR) regions, cities where the authors of this paper originate from. According to the textbook Teacher's Guide, the aim is to carry out "a consistent reading work proposal with selective criteria of new texts, committed to forming competent readers of all kinds of texts and genres in social circulation."[34] (CEREJA; COCHAR, 2015, p. 275, our translation). There is focus on the enunciative perspective of language as "means of action and social interaction"[35] (CEREJA; COCHAR, 2015, p. 275, our translation).

In observing the sections of the textbook, one entitled "Across Languages" was chosen to be analyzed. It is a section introducing a number of genres, with a particular or similar theme; hence this section was selected for this research, considering the aforementioned dialogism assumptions. There is no mention of this section in the Teacher's Guide. Through analysis of the activities, texts with similar themes but from distinct genres were addressed; however, there is no reference as to the purpose of crossing such genres. Each textbook of the compilation has four sections, with a total of 16 activities, as shown in Chart 2:

32 In the original: "*Cruzando Linguagens*."

33 In the original: "*Português Linguagens*"

34 In the original: "*proposta de trabalho consistente de leitura com seleção criteriosa de novos textos, comprometida com a formação de leitores competentes de todos os tipos de textos e gêneros em circulação social*" (CEREJA; COCHAR, 2015, p. 275)

35 In the original: "*meio de ação e interação social*". (CEREJA; COCHAR, 2015, p. 275)

Chart 2 – Survey of featured genres and themes in the section "Across Languages"

Grade	Featured genres	Themes
6th	1. Movie and short story. 2. Painting and chronicle. 3. Cartoon and a passage of Malala's work. 4. Advertisement and news report.	1. Wisdom to overcome difficulties. 2. Loving animals. 3. Acting and thinking differently from others. 4. Animal extinction and animal trafficking.
7th	1. Painting and myth. 2. Cartoon and poem. 3. Movie and chronicle. 4. Robson Crusoe´´s images and passage.	1. Decision-making against the law. 2. The power of artistic freedom. 3. Prejudice can cause intolerance. 4. Craving adventure and the ability to improvise according to the situation.
8th	1. Painting and chronicle. 2. Poem and magazine article. 3. Chronicle and poem. 4. Movie and magazine article.	1. Children grown apart from their families. 2. Adolescence changes. 3. Language use. 4. Breaking social prejudice.
9th	1. Movie and chronicle. 2. Poem and illustrations. 3. Funk lyrics and chronicle. 4. Chronicle and chronicle.	1. Virtual world. 2. Love at any age. 3. Consumerism. 4. People's habit of living unhappy lives.

Source: Authors' elaboration.

The learner is engaged in the study of two texts: (i) the "Across Languages" section itself and (ii) another text, which is taken up at the beginning of the respective unit. The most studied genres are movie, painting (artwork, picture, canvas) and poem, used in order to establish dialogue with other genres that have already been read throughout the chapter, for instance: short story and chronicle, in a clear relation established between genres.

The overall "Across Languages" section, from textbooks aimed at 6th to 9th grades, has no sequencing of questions in accordance to the ordering and sequencing principles. Despite being focused on crossing languages, there is usually one reading question regarding the thematic connection between texts. In order to determine how the different categories, as well as how sequencing of reading questions are carried out, the results found in the 6th grade textbook are displayed on, Table 1 due to space limitations:

Table 1 – Types and total of reading questions from "Across Languages" section in 6th grade TB

READING QUESTION CATEGORY	N. of questions - Activity 1	N. of questions - Activity 2	N. of questions - Activity 3	N. of questions - Activity 4	N. of occurrences
Focus on text	7	2	4	1	14
Focus on reader	1	2	----	1	4
Focus on interaction (textual question)	9	2	2	1	14
Focus on interaction (inferential question)	4	6	----	5	15
Focus on interaction (interpretive question)	1	1	----	1	3
Total	**22**	**13**	**6**	**9**	**50**

Source: Authors' elaboration.

In view of the above, 15 questions of inferential answers (30%); 14 questions of text-focused and textual responses (28%); 4 reader-focused (8%); 3 questions of interpretive responses (6%) have been found. Out of the 50 questions in the "Across Languages" section, 32 focused on interaction (64%). It was noticed that there is a trend to propose to learners questions focused on interaction, thus establishing a dialogue with the enunciative perspective of language present in the Teacher's Guide. More important than addressing the types of questions, it is relevant to observe how they are sequenced in the activities, as it can be seen on Chart 3.

Chart 3 – Reading questions sequencing about chronicle and painting genres in "Across Languages" section on 6th grade TB

Activity	Featured genres	Sequencing of reading questions
2	Chronicle and painting	1a. Text-focused question. 1b. Reader-focused question. 2a. Reader-focused question. 2b. Text-focused question. 3. Textual question. 4a. Inferential question. 4b. Inferential question. 4c. Inferential question. 5a. Inferential question. 5b. Inferential question. 5c. Inferential question. 6. Inferential question. **7. (focus on dialogue between texts)** Textual question.

Source: Authors' elaboration.

From the analyzed activities, we observed that the reading question, which is related to the dialogue between texts (highlighted in bold on Chart 3), is usually located at the end of the script, it is either classified as textual or as having all three levels: textual question; inferential question; interpretive question. According to research, the questions do not follow sequencing, starting from textual comprehension and inferential questions until they reach the interpretive level, as suggested by reading process theories. Despite being entitled Across Languages[36], there is usually one question that enables the connection between texts, which will be analyzed in the following section. The textbook presents a new text in this section, in order to establish a dialogue between this text and the unit's opening text; however, there is only indication to the new text's reading questions, which demonstrates lack of thematic relation questions.

Analysis and theoretical-methodological proposal of thematic relation activities

In this section, we focus on the reading questions present in an activity, followed by the proposal of a new sequencing, centered on dialogue between texts, having the theme as the main principle. This is justified by the small number of questions related to intertextual dialogue. It is necessary to increase this amount in order to fully contemplate all steps of the reading process, which will, in turn, enable the learner-reader to understand the texts' theme unit and reconstruct meanings.

The selected activity is part of the 6th grade textbook, from Chapter 1 – The City Farmer[37] – which proposes the reading of the chronicle: City Boy[38], followed by a few reading questions:

City Boy

> Daddy, can I have a small goat at my farm?
>
> Sure.
>
> What about a guinea pig? A giant otter? A monkey? What about four dogs? Two hundred doves? An ox? A rhino?
>
> Not a rhino.
>
> Okay, but a horse is okay, isn't it?
>
> The farm is just a piece of land at Rio state, nothing big planned for now. But the boy needs to believe in the farm just like other people need to believe in Heaven. His Heaven is that of folkloric parties, the entire animal kingdom, and him, who was born in Rio and is made to live in this animal-less city.
>
> As a matter of fact, he himself denies that Rio is an animal-less city, he has the gift of finding them in the most unexpected places. He vanishes as soon as he goes through the door when visiting someone's house only to come back three seconds later with a cat or dog in hand. We walk through a street in Copacabana,

[36] In the original: "*Cruzando linguagens*"

[37] In the original: "*O fazendeiro da Cidade*"

[38] In the original: "*Menino de cidade*"

he disappears and comes back with a chickling. We set foot on Barra da Tijuca and within five minutes he's already caught a live crab.

He has an animal radar, finds all in the vicinity, going around as fast as a rocket; a hi to a parrot, a hello for the goose and the cat a little further ahead, restless and frustrated.

He can't tell one car brand from another and his soccer knowledge is limited to Garrincha and Nilton Santos, but he knows better than anyone what is a mastiff, a boxer and a dobermann. He remembers people according to their pets: that's Malhado's owner, that one's Lord's owner… On the phone, he asks about ducks, cats and other dogs, hundreds, thousands of dogs, dogs he'd want as companions, dogs that watch him on the street, at school, during meals, dogs that bark and jump in his dreams, dogs to no end.

His reading is particularly limited to: colored animal books. He does a poor job on written words, but his proficiency in talking about reptiles, batrachian and the like. is a little concerning. Son of an English mother, he can't tell fork from knife, but knows the difference between a seal and a walrus. When he asks for a piece of paper is to draw a zebra or a whale.

Needless to say, his frustration is heartbreaking, which is why we got him a saffron finch a while back as a consolation. One day, since he was told he'd have the bird taken if he continued to misbehave, he ran to the yard and opened its cage.

Next one was a great-billed seed finch who died from too much birdseed. Later on, he got a tiny and foolish turtle that was named Henriqueta in the bathroom sink. Never before had a turtle given so much trouble. He went to the city's dentist and, after arriving home, told his first terrible word to his dad: I'm desperate. He'd lost the turtle in the bus.

His life was now empty. What soothed him was calling grandma, who lived in another city, and asking about the ducks she "owned." Or visiting Poppy's future mom, a poodle that should be born in about half a year, promised to be his at all costs.

Another coping method: hunt for butterflies, moths, crickets, and carefully lodge them in empty cages, calling them by the names of dead or missing pets.

An uncle gave him a canary, but it was too much love and the little bird died. There was nothing to be done at the time, so he dedicated himself to drawing animals. Once in a while he'll perk up and get home in a frenzy to show something invisible in his hands: "Look at this cricket, so cool!"

But the cool crickets and butterflies either die or quietly leave their cages, and once again, he is left empty-handed and his soul in pieces.

He found another way: got a few saucers and planted bean sends in them. The bathroom is full of shy, green sprouts. And now he knows he has a farm.

(CAMPOS, 1992, p. 45-47, our translation)

Next, there is the "Across Languages" section with a painting and its respective questions:

***ACROSS LANGUAGES*[39]**

Look carefully at the painting on the right.
1. The painting shows a boy surrounded by many elements.
a) What are the elements around him?
b) Do you think it's a common scene from these days or from a distant past? Explain your answer using the elements from the painting.
2. The boy is giving a signal with his left hand.
a) What sound is he making with his mouth?
b) To whom is he signaling and making the sound?
3. Look at the dog's expression What does it want? Why?
4. The painting is named "The Stowaway." Hypothesize about:
a) Who is the stowaway?
b) Where do you think the boy is?
c) Why did he had to hide the dog?
5. Look at the suitcase on the boy's lap and the package next to him. Hypothesize about:
a) Where do you think he is going?
b) Will he stay long in there? Why?
c) What could be in the package next to him?
6. The boy could get in trouble by travelling with a "stowaway." In your opinion, why do you think he is taking that risk?
7. Compare the painting with the "City boy" chronicle. What are the similarities and differences between the boy in the chronicle and the boy in the painting, particularly regarding their relationship with animals?

(CEREJA; COCHAR, 2015, p. 81, our translation)

Figure 1 – *The clandestine passenger* (1920), by Norman Rockwell

Source: Brainly[40]

[39] In the original: *CRUZANDO LINGUAGENS*
Observe atentamente a pintura ao lado.
1. A pintura mostra um menino rodeado de vários elementos.
a) Que elementos estão à sua volta?
b) Você acha que essa cena poderia ter ocorrido nos dias de hoje ou em um passado distante? Justifique sua resposta com elementos da pintura.
2. O menino está fazendo um sinal com a mão esquerda.
a) Que som ele deve estar produzindo com a boca?
b) Para quem ele faz o sinal e produz o som?
3. Observe a expressão do cachorro. O que ele está querendo? Por quê?
4. O título do quadro é O passageiro clandestino. Levante hipóteses:
a) Quem é o passageiro clandestino?
b) Onde você acha que o menino está?
c) Por que esse passageiro teve de ficar escondido?
5. Observe a mala que está sob as pernas do menino e o pacote que está ao seu lado. Levante hipóteses.
a) Para onde você acha que ele está indo?
b) Ele vai demorar nesse lugar? Por quê?
c) O que pode haver no pacote ao seu lado?
6. Ao levar um 'passageiro clandestino', o menino pode ter problemas durante a viagem. Na sua opinião, por que ele prefere correr o risco?
7. Compare a pintura com a crônica, "Menino da cidade". Que semelhanças e diferenças há entre o menino da crônica e o menino da pintura quanto ao modo como se relacionam com os animais? (CEREJA; COCHAR, 2015, p. 81)

[40] Available at: https://brainly.com.br/tarefa/21647817. Access on: 4 nov. 2019.

As reported on Chart 3, and revealed by questions addressed to the painting, questions from 1 to 6 are specifically aimed at the work of art. It is only question 7 that proposes a dialogue between texts (painting and chronicle), while resuming what had been read at the beginning of the unit. Both texts are near, since they share a common theme: love for animals. In the "City boy" chronicle, the character would like to have a pet animal, but there is always something that keeps him away from animals. As for the painting, there is a boy that seems to have run away with a pet animal. Based on the painting, questions are exposed.

Questions 1a and 2b focus on text, as follows:

> **1.** The painting shows a boy surrounded by many elements.
> a) What are the elements around him?
> A.: In the painting, the boy is surrounded by an umbrella, a suitcase, a basket with a dog and a package.
> **2.** The boy is giving a signal with his left hand.
> b) To whom is he signaling and making the sound?
> A.: The boy is giving a signal with his left hand to the dog.[41]
> (CEREJA; COCHAR, 2015, p. 81, our translation).

In those cases, information present on text surface is identified, and the reader is not required to interpret.

Questions 1b and 2a, on the other hand, are addressed to the reader:

> 1. The painting shows a boy surrounded by many elements.
> b) Do you think it's a common scene from these days or from a distant past? Explain your answer using the elements from the painting.
> A.: The scene could have happened in a distant past, given the boy's clothing and hat.
> 2. The boy is giving a signal with his left hand.
> a) What sound is he making with his mouth?
> A.: He must be making the sound: "Shhhhh!."[42]
> (CEREJA; COCHAR, 2015, p. 81, our translation).

[41] In the original: *1. A pintura mostra um menino rodeado de vários elementos.*
a) Que elementos estão à sua volta?
R.: Na pintura o menino está rodeado por um guarda-chuva, uma mala, uma cesta com um cachorro e um pacote de embrulho.
2. O menino está fazendo um sinal com a mão esquerda.
b) Para quem ele faz o sinal e produz o som?
R.: O garoto faz o sinal com a mão esquerda para o cachorro. (CEREJA; COCHAR, 2015, p. 81)

[42] In the original: *1. A pintura mostra um menino rodeado de vários elementos.*
b) Você acha que essa cena poderia ter ocorrido nos dias de hoje ou em um passado distante? Justifique sua resposta com elementos da pintura.
R.: Essa cena poderia ter ocorrido em um passado distante, tendo em vista as roupas do garoto, o chapéu.
2. O menino está fazendo um sinal com a mão esquerda.
a) Que som ele deve estar produzindo com a boca?
R.: Ele deve estar produzindo: "Psiu!". (CEREJA; COCHAR, 2015, p. 81)

The learner-reader presents a possibility of meaning in order to have his/her reading accepted, thus revealing that any answer is possible, since interpretation is required: “the answer might be yes or no.”

Questions 3 and 7 are at the interaction level and are known as textual questions. In question 3: “Look at the dog’s expression. What does it want? Why?”, the learner looks at the dog’s expression, which implies it wishes to leave the basket (text), and is required to explain the reason why s/he believes the dog wishes to do so (imply). Question 7, aimed at establishing a dialogue between texts, focuses on implicit intertextuality. In other words, “the producer of text hopes the reader is capable of acknowledging the presence of intertext by activating the source text in his/her discourse memory”[43] (KOCH, 2009, p. 146, our translation). As regards intertextual relations, the textbook is responsible for leading the learner to establish them; however, no previous work on explicit intertextuality is carried out, since the focus is on thematic relations only, even if they are not very appropriate.

Questions 4, 5 and 6 are inferential, thus totaling seven questions. They require the learner to raise hypotheses. Despite being connected to the text, those questions lead the learner to correlate text and life, thus establishing inference. There is no answer in the text, but the correlation between text and reader’s inference. This allows an answer to be built based on the relationship “thinking about the text and seeking an answer outside it” (MENEGASSI, 2010a, p. 180). There are no questions at the interpretative level.

The following are questions at the interactive level:

Textual

3. Look at the dog’s expression. What does it want? Why?
A.: The dog wishes to leave the box, as it seems tired, with its tongue sticking out.
7. Compare the painting with the “City boy” chronicle. What are the similarities and differences between the boy in the chronicle and the boy in the painting, particularly regarding their relationship with animals?
A.: In the chronicle, the character would like to have a pet animal, but there is always something that keeps him away from animals. The boy depicted in the painting has a dog. Neither of them can leave their animals. In the chronicle, for instance, the character takes his turtle to the bus.

Inferential

4. The painting is called “The Stowaway.” Hypothesize about:
a) Who is the stowaway?
A.: The dog is the stowaway.
b) Where do you think the boy is?
A.: The boy is at a train station.
c) Why did he had to hide the dog?
A.: It had to hide because animals are probably not allowed to be on a train.
5. Look at the suitcase on the boy’s lap and the package next to him. Hypothesize about:

[43] In the original: *“o produtor do texto espera que o leitor seja capaz de reconhecer a presença do intertexto, pela ativação do texto-fonte em sua memória discursiva”* (KOCH, 2009, p. 146)

a) Where do you think he is going?
A.: He might be going to spend the holidays with his grandparents.
b) Will he stay long in there? Why?
A.: He probably will because he is taking a lot of luggage.
c) What could be in the package next to him?
A.: The package probably contains a present to whom will host the character.
6. The boy could get in trouble by travelling with a "stowaway." In your opinion, why do you think he is taking that risk?
A.: During his trip, the boy might have problems for taking the dog along, but he'd rather take it, as he can't leave his friend.

In an attempt to sequence potential answers to the question: "What is the text about?," by juxtaposing textual, inferential and interpretive answers (MENEGASSI, 2010a), we conclude the answer is not built properly, with an initial assertion, followed by an explanation about it, and examples illustrating the explanation (GARCIA, 1992, our translation). This does not lead to discursive organization that is suitable to the theme:

> 3. The dog wishes to leave the box, as it seems tired, with its tongue sticking out. 7. In the chronicle, the character would like to have a pet animal, but there is always something that keeps him away from animals. The boy depicted in the painting has a dog. Neither of them can leave their animals. In the chronicle, for instance, the character takes his turtle to the bus. 4.a. The dog is the stowaway. b. The boy is at a train station. c) It had to hide because animals are probably not allowed to be on a train. 5. a) He might be going to spend the holidays with his grandparents. b) He probably will take a long time to come back because he is taking a lot of luggage. c) The package probably contains a present to whom will host the character. 6. During his trip, the boy might have problems for taking the dog along, but he'd rather take it, as he can't leave his friend[44].

There is a miscellany of ideas that do not focus on establishing a dialogue between texts either, since answer to question 7 seems to be unattached to the other ones addressing the painting. While reading the questions, we have the impression the seventh is the only one aiming at the intersection of languages, of texts. All other questions

[44] In the original: 3. *O cachorro está querendo sair da caixa, pois parece cansado, com a língua de fora. 7. O personagem da crônica gostaria de ter um animal de estimação permanente, mas sempre acontece algo que o distancia dos bichos. Já o menino do quadro tem um cachorro. Ambos não conseguem se separar de seus animais, como acontece na crônica em que o personagem leva a tartaruga até no ônibus. 4.a. O passageiro clandestino é o cachorro. b. O menino está em uma estação de trem. c) Esse passageiro teve de ficar escondido porque provavelmente não permitem animais no trem. 5. a) Ele pode estar indo passar férias na casa dos avós. b) Provavelmente, ele vai demorar no lugar porque está levando várias malas. c) Provavelmente, no pacote deve haver um presente para quem vai receber o personagem. 6. O menino pode ter problemas durante a viagem por levar o cachorro, mas prefere levá-lo, pois não se separa de seu amigo*. (GARCIA, 1992)

exclusively focus on assessing the painting, thus not allowing for thematic discussion on both texts. This suggests the questions have failed and must be reviewed.

According to Fuza (2017), in an attempt to establish a thematic dialogue between texts, questions focusing on the chronicle only would be ideal, since it is the first text presented by the unit, as in the section Text study[45]. Thereafter, it would be feasible to have questions specifically addressing the painting. Subsequently, focus would be on interactive questions addressing both genres and themes.

With a view to demonstrating how to put reading into effect, we highlight reading questions present in the book, but with new sorting,[4] based on theory: focus on text, reader and interaction.

Questions about the chronicle[46]

Focus on text

1.(1.) The boy's interest in animals is expressed in the first paragraphs of the chronicle. What exactly proves this fact in the boy's speech?
2.(4.) The narrator is engaged to show how the boy sees the world.
a) What is the boy's knowledge about car brands? How about dog breeds?
3.(5.) Although the narrator does not give any information on the boy's age, it is noticeable he is a child at reading and writing learning age. What elements from the text prove that data about the boy?
4.(6.) In fact, the boy is given a few animals. One of them is a saffron finch.
b) How does the boy treat other animals he is given?
(CEREJA; COCHAR, 2015, p. 76-79, our translation).

Questions 1, 2, 3 and 4 focus on text, as they can be answered with text extracts. The learner must look for answers within the text. In question 1, for instance, the learner is lead to search the text for information about the boy's interest in animals. In the introduction, the boy asks his father for a number of animals: "Daddy, can I have a small goat at my farm? What about a guinea pig? A giant otter?" In general, these are questions of which answers are exclusively centered around the text, thus requiring the reader to pay close attention to data present on text surface, while acknowledging written symbols and connecting them with meaning. The reader must find information, thus withdrawing content from what is read (KLEIMAN, 1996; MENEGASSI; ANGELO, 2010).

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[45] In the original: *Estudo do texto*

[46] In the original: ***Perguntas para a crônica***
Foco no texto
1.(1.) O interesse do menino pelos animais é retratado logo nos primeiros parágrafos da crônica. O que, na fala do garoto, comprova esse fato?
2.(4.) O narrador se empenha em mostrar a maneira como o garoto vê o mundo.
a) Que conhecimento o menino tem sobre marcas de automóvel? E sobre raças de cachorros?
3.(5.) Embora o narrador não informe a idade do menino, é possível notar que se trata de uma criança em fase de aprendizagem de leitura e da escrita. Que elementos do texto comprovam esse dado sobre o garoto?
4.(6.) Na realidade, o menino ganha alguns animais, sendo um deles um canarinho-da-terra.
b) De que maneira o menino trata os outros animais de estimação que ganha? (CEREJA; COCHAR, 2015, p. 76-79).

According to Menegassi and Angelo (2010, p. 19), this reading approach has a well-defined ideological perspective. The more learners answer to text-identification questions, the less they will develop the ability to produce meaning. As a result, they will not mature their critical position when facing texts found in their social group, society as a whole and their own school. This is an approach seen as necessary to reader's education; however, having it as a strategy to teach reading does not allow for reader's development. For this reason, it is necessary to take the extraction/decoding stage as part of a process.

As for the theme, we found that questions allow the text to be fully explored, thus allowing learners to acknowledge the character is a child who likes animals and is more aware of dog breeds than car brands.

Focus on reader[47]

5.(4.) The narrator is engaged to show how the boy sees the world.
b) His mother allows him to be in touch with the English language. In your opinion, why does he mistake "knife" by "fork," but is able to distinguish the meaning of "seal" and "walrus?"
6.(6.) In fact, the boy is given a few animals. One of them is a saffron finch.
a) In your opinion, why does the boy decide to release the bird in view of the threat of giving the bird away if he behaved badly?
(CEREJA; COCHAR, 2015, p. 76-79, our translation).

Questions 5 and 6 focus on the reader: "In your opinion...," which might simply present a possibility of meaning. According to Menegassi (2010a), although questions focusing on readers require them to participate, they ignore the social aspects, while overly relying on the "guesses" they make and taking as possible any meaning readers present. This leads to a situation in which anything is allowed, which might be seen as dangerous, since reading mistakes can happen.

Questions focusing on readers must be part of the reading process, while establishing a dialogue with extraction questions, thereby allowing learners to step into comprehension and further interpretation of text. Regarding theme, the learner will offer an opinion about the proximity between the character and the English language, as well as about the attitude of letting the bird go in the event of bad behavior.

[47] In the original: ***Foco no leitor***
5.(4.) O narrador se empenha em mostrar a maneira como o garoto vê o mundo.
b) Por intermédio da mãe, o menino tem contato com a língua inglesa. Na sua opinião, por que ele confunde Knife (faca) e fork (garfo), mas sabe diferenciar o significado das palavras seal (foca) e walrus (morsa)?
6.(6.) Na realidade, o menino ganha alguns animais, sendo um deles um canarinho-da-terra.
a) Na sua opinião, por que, diante da ameaça de que, se continuasse a se comportar mal, ia dar o passarinho, o menino resolve soltar a ave? (CEREJA; COCHAR, 2015, p. 76-79)

Focus on interaction

Questions with textual answer[48]

7.(4.) The narrator is engaged to show how the boy sees the world.
c) The boy refers to people as “Malhados’s owner,” “Lord’s owner,” etc. What does this reveal about his interests?
8.(7.) The boy lives in a big city and, for this reason, does not have a close relationship to animals as much as he would like.
a) Who is Poppy? What does it represent to the boy?
b) How important are insects to the boy?
c) Is the boy satisfied with his attempts to have a close relationship with animals? Why?
9.(8.) At the end of the text, the boy begins to plant bean seeds. According to the narrator, green sprouts filling the bathroom make him feel as if he were a farm’s owner.
a) What does the bean sprouts farm represent to the boy?
b) From beginning to end, does the boy’s greatest wish change? Explain your answer.
c) Is the chronicle title “City boy” consistent with the boy’s characteristics as well as with the end of the story? Why?
(CEREJA; COCHAR, 2015, p. 76-79, our translation)

At the first level of interactive questions, as presented by Menegassi (2016), there are questions with textual answer, referred to by Solé (1998) as literal. Answers to those questions are directly found within the text. This does not imply answers are a copy, in which case the reader would merely copy a text extract and transfer it as the answer, as in questions focusing on text/extraction.

The reader is led to acknowledge, for instance, in question 7, that the boy is really interested in animals, since he calls people not by their name, but with reference to animals: “Malhado’s owner.” Question 8 reveals to the reader that the character does not have a close relationship with animals as much as he would like. In question 9, on the other hand, the learner needs to textually understand what is being read. For instance, s/he must realize what bean sprouts mean to the boy and whether the desire to be close to animals remains from the beginning to the end of the story. The following question: “Is the chronicle title “City boy” consistent with the boy’s characteristics as well as with the end of the story? Why”?, focuses on the text title, thus demanding the

48 In the original: ***Perguntas com resposta textual***
7.(4.) O narrador se empenha em mostrar a maneira como o garoto vê o mundo.
c) O menino se refere às pessoas como “o dono do Malhado”, “a dona do Lord”, etc. o que isso revela sobre os interesses dele?
8.(7.) O menino vive em uma grande cidade e, por isso, não convive com animais tanto quanto gostaria.
a) Quem é Poppy? O que ele representa para o garoto?
b) Que importância tem os insetos para o menino?
c) As tentativas do garoto de conviver com animais o deixam satisfeito? Por quê?
9.(8.) No final do texto, o menino começa a plantar semente de feijão. Segundo o narrador, os brotos verdes que enchem o banheiro o levam a sentir-se dono de uma “fazenda”.
a) O que a fazenda de brotos de feijão representa para o menino?
b) Do início para o fim do texto, o principal desejo do menino se modifica? Justifique sua resposta.
c) O título da crônica, “Menino de cidade”, é compatível com as características do garoto e com o final da história? Por quê? (CEREJA; COCHAR, 2015, p. 76-79).

reader to realize that, in fact, the boy lives in the city and his greatest wish is to be in the country with animals.

Questions with inferential answers[49]

10.(2.) In the sixth paragraph, the narrator states the land the boy refers to is only an empty land lot in the state of Rio de Janeiro.
a) Hypothesize about: Why does the boy call the land lot "farm?"
b) According to the narrator, "the boy needs to believe in the farm, as much as other people need to believe in Heaven." Why is the farm some type of Heaven to the boy?
11.(3.) In the chronicle, the narrator not only states facts, but also expresses opinions.
a) Whose opinion is it that animals do not exist in Rio de Janeiro?
b) Does the boy have his own opinion? Why?
c) In the paragraph before the last, what is the passage expressing, in the narrator's own words, the boy's feeling of frustration for not having a close relationship with animals?
(CEREJA; COCHAR, 2015, p. 76-79, our translation).

The second level of questions presented by Menegassi (2010a) comprises answers that can be inferred from the text. In other words, they are connected to the text, but require the reader to establish relations among several text elements, thereby producing some inference and associating text and his/her own knowledge. Therefore, the answer is not within the text, but it is rather a result of relating the text with inference produced by the reader. The latter must build an answer based on the relationship "thinking about the text and seeking an answer outside it." For instance, the fact that question 10a presents: "Hypothesize about: Why does the boy call the land lot "farm?," reveals the intention of leading the learner to infer some information, the idea that the character's wish is to have a small farm to raise his animals.

The third level of questions comprise interpretive ones, taking the text as reference; however, answers cannot be exclusively inferred from what is being read, they require reader's opinion intervention, resulting in clear production of meanings based on text meaning. Questions lead the reader to come up with a personal answer; however, not everything is allowed. There are no interpretive questions addressing the chronicle. This is because for meaning to be produced, there should be a correlation between those questions and textual as well as inferential ones, thereby causing the learner-reader to think about what is being read and thus associate text theme to his/her personal life. Answers would not be tied to the text, but rather to his/her personal life experiences, resulting in a particular textual interpretation.

[49] In the original: *Perguntas com resposta inferencial 10.(2.) No sexto parágrafo, o narrador afirma que o sítio ao qual o menino se refere é apenas um terreno do estado do Rio de Janeiro.*
a) Levante hipótese: Por que o menino chama o terreno de sítio?
b) Para o narrador, "o garoto precisa acreditar no sítio, como outras pessoas precisam acreditar no céu". Por que, para o menino, o sítio é uma espécie de céu?
11.(3.) Na crônica lida, o narrador, além de relatar fatos, também expressa opiniões.
a) De quem é a opinião sobre a inexistência de animais na cidade do Rio de Janeiro?
b) O menino também tem sua opinião? Por quê?
c) No penúltimo parágrafo, que trecho expressa, nas palavras do narrador, o sentimento de frustração do menino por não conviver com animais? (CEREJA; COCHAR, 2015, p. 76-79).

Interpretive questions “are always presented at the end, after other questions have led the learner-reader to work with the text”[50] (MENEGASSI, 2011, p. 29, our translation). Therefore, when reaching the answer, the reader has already been prepared to assign meaning to the theme; otherwise he might think of an answer in which everything is allowed. Hence, “this strategy reveals how building ordering and sequencing questions is key to the practice of reading assessment”[51] (MENEGASSI, 2011, p. 29, our translation).

Given the above, it is possible to apply those questions to the text, thinking about the thematic aspect, with the need to expand them to the interpretive level with a view to allowing the learner-reader to produce meaning about the theme.

Questions on the painting

Questions found in the textbook were reorganized at first, with the following reading approaches being taken into consideration: focus on text, reader and interaction:

Focus on text

1. The painting shows a boy surrounded by many elements.
a) What are the elements around him?
2. The boy is giving a signal with his left hand.
b) To whom is he signaling and making the sound?

Focus on reader

(3.) (1b) Do you think it’s a common scene from these days or from a distant past? Explain your answer using the elements from the painting.
(4) 2.The boy is giving a signal with his left hand.
a) What sound is he making with his mouth?

Focus on interaction

Questions with textual answer

(5.)3. Look at the dog’s expression. What does it want? Why?
(6) 4. The painting is named “The Stowaway.” Hypothesize about:
a) Who is the stowaway?

Questions with inferential answers

(7) 4. The painting is named “The Stowaway.” Hypothesize about:
b) Where do you think the boy is?

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50 In the original: “*são sempre apresentadas numa ordem final, depois que as demais perguntas levaram o aluno-leitor a trabalhar com o texto*” (MENEGASSI, 2011, p. 29)

51 In the original: “*essa estratégia demonstra como a construção, a ordenação e a sequenciação de perguntas é uma noção essencial à prática de avaliação de leitura*” (MENEGASSI, 2011, p. 29)

c) Why did he had to hide the dog?
(8) 5. Look at the suitcase on the boy's lap and the package next to him. Hypothesize about:
a) Where do you think he is going?
b) Will he stay long in there? Why?
c) What could be in the package next to him?
(9) 6. The boy could get in trouble by travelling with a "stowaway." In your opinion, why do you think he is taking that risk?

Those questions guide the learner to initially infer information connected to text surface (questions with focus on text), leading him/her to describe the elements surrounding the boy as well as the quiet sign he makes with his hands. Subsequently, there are questions allowing reader's own knowledge to be raised, questioning whether the scene can be thought to be possible at present times, as well as about the sound produced by the boy while making the sign with his hand (questions with focus on reader).

Interactive questions analysis reveals the learner is capable of fully exploring the theme; in other words, there are only questions focusing on text and inference, with neither of them reaching the interpretive level. Therefore, questions about the painting lead the learner to infer the dog wishes to leave the basket and the title points out to the figure of a stowaway. Furthermore, it is expected that inference leads to comprehension that the dog is a passenger being taken along by the boy surreptitiously. The interpretive level is not present in any questions, which highlights absence of text theme closure. This can be dealt with on the basis of the proposal aiming at a thematic dialogue.

Questions aimed at a thematic dialogue

New questions allowing for a correlation between both texts are rendered necessary, with the possibility of using question 7, following the sorting and sequencing of questions and thinking about texts theme. As a result, subsequently, new questions are proposed with focus on interaction, allowing for a thematic dialogue between texts to be established:

Textual

1. Why is the chronicle title: "City boy" and the painting title "Stowaway?"
A.: The chronicle title is "City boy" because the text depicts a boy who lives in the city, although his wish is to live in a small farm to raise animals. The painting is entitled "Stowaway" because it makes reference to a dog which is hidden by the boy during his trip.

2. Compare the painting with the "City boy" chronicle. What are the similarities and differences between the boy in the chronicle and the painting, particularly regarding their relationship with animals?
A.: The similarity between the boy in the chronicle and the painting is that both of them like animals and cannot leave them. The difference is that, in the chronicle, the character would like to have a pet animal, but there is always something that keeps him away from animals. The boy depicted in the painting has a dog.

Inferential

3. Why do characters of both texts wish to take their animals to all places?
A.: The characters wish to take their animals to all places because they do not want to be away from them.

Interpretive

4. What would you do in order to be close to your pet animal in the event of a trip?
A.: To be close to my pet animal, I would hide it in my luggage.

Questions 1 and 2 are known as questions with textual answer. They are centered around the text, but do not lead to extraction of ideas by the reader. The latter is required to understand it textually, fully organize the sentence, and does not need to match question information up with the answer in the text. For instance, question 1 examines texts titles, and it is the reader's responsibility to go back to what had been read, seeking complete textual understanding, given that the title "comprises global/total text meaning"[52] (COSTA, 2000, p. 82, our translation).

In question 2, the reader seeks similarities and differences between the boy in the chronicle and the painting, particularly regarding their relationship with animals. In that case, the goal is to establish a connection with question 1 answer, since it leads the learner to highlight that both texts depict boys who seem to like animals, and new information that suggest any similarities and differences between them. The learner remains within textual limits, but the text comprehension level is acknowledged, going beyond mere information extraction.

Questions 1 and 2 allow for a dialogue to be established between texts and were not randomly prepared. In a way, they take into account information that had been previously studied by the learner, at the time each text was examined by means of textbook questions, particularly in section Text study[53].

While questioning texts titles in question 1, it is expected that during separate reading of texts, readers will have had some contact with similar information, as questions have already been addressed:

52 In the original: "*contemplam o significado global/total do texto*" (COSTA, 2000, p. 82)

53 In the original: "*Estudo do texto"*

Chart 4 – Original and reformulated questions

Questions in the TB		A new proposal based on a thematic dialogue between texts
CHRONICLE	**PAINTING**	**Textual**
c) Is the chronicle title "City boy" consistent with the boy's characteristics as well as with the end of the story? Why? A.: The chronicle title is consistent with the boy's characteristics and the end of the story because the character is a boy who lives in the city, but dreams about having animals and living in the country.	4. The painting is named "The Stowaway." Hypothesize about: a) Who is the stowaway? A.: The dog is the stowaway. b) Where do you think the boy is? A.: The boy is at a station. c) Why did he have to hide the dog? A.: The stowaway was hidden because the boy is not allowed to travel with animals.	1. Why is the chronicle title: "City boy" and the painting title "Stowaway?" A.: The chronicle title is "City boy" because the text depicts a boy who lives in the city, although his wish is to live in a small farm to raise animals. The painting is entitled "Stowaway" because it refers to a dog which is hidden by the boy during his trip.

Source: Authors' elaboration.

Both of them are texts with different questions, but which allow those questions to share a common theme with a view to giving learners the opportunity to build meaning about the texts that have been read. The learner will have already studied in the chronicle whether the title is consistent with the character's characteristics, and will also have discussed, in the painting: "a) Who is the stowaway? b) Where do you think the boy is? c) Why did he have to hide the dog?" The new proposal for thematic questions allows the reader to assemble the textual general themes, thus building a whole of meaning.

The same process of thematic links is acknowledged in question 2. The latter aims at comparing similarities and differences between texts.

Chart 5 – Original and reformulated questions

Questions in the TB		**A new proposal based on a thematic dialogue between texts**
CHRONICLE 1. The boy's interest in animals is expressed in the first paragraphs of the chronicle. What exactly proves this fact in the boy's speech? A.: The boy asks his father for a number of animals: "Daddy, can I have a small goat at my farm? What about a guinea pig? A giant otter?". 4a) What is the boy's knowledge about car brands? How about dog breeds? A.: The boy is unaware of car brands, but has good knowledge about the difference between dog breeds. b) His mother allows him to be in touch with the English language. In your opinion, why does he mistake "knife" by "fork," but is able to distinguish the meaning of "seal" and "walrus?" A.: The boy might mistake knife by fork because those objects might not be too common in his daily routine. Animals, on the other hand, are familiar to him. c) The boy refers to people as "Malhados's owner," "Lord's owner," etc. What does this reveal about his interests? A.: This reveals he is highly interested in animals. 5. Although the narrator does not give any information on the boy's age, it is noticeable he is a child at reading and writing learning age. What elements from the text prove that data about the boy? A.: Elements proving he is a child are: "He does a poor job on written words" as well as the information that he likes coloring books depicting animals.	**PAINTING** 3. Look at the dog's expression. What does it want? Why? A.: The dog wants to run away from the basket. 4. The painting is named "The Stowaway." Hypothesize about: a) Who is the stowaway? A.: The stowaway is the dog who wants to leave the basket. However, the boy insists in taking it along in his trip.	2. Compare the painting with the "City boy" chronicle. What are the similarities and differences between the boy in the chronicle and the boy in the painting, particularly regarding their relationship with animals? A.: The similarity between the boy in the chronicle and the painting is that both of them like animals and cannot leave them. The difference is that, in the chronicle, the character would like to have a pet animal, but there is always something that keeps him away from animals. The boy depicted in the painting has a dog.

Source: Authors' elaboration.

Textual questions allow the reader to acknowledge characters' general characteristics, so as to allow for textual understanding of similarities and differences between them.

The answer for inferential questions can be inferred from the text, leading the learner to infer about what is being read, while thinking about the text and seeking an answer outside it. Question 3 is an example: "Why do characters of both texts wish to take their animals to all places?" The learner infers the reason why characters do not leave their animals. The learner not only interacts with what is being read, but also produces meaning on the basis of inference, whether authorized or unauthorized (MENEGASSI, 2010b), provided that they have some connection with the theme.

Chart 6 – Original and reformulated questions

Questions in the TB		**A new proposal based on a thematic dialogue between texts**
CHRONICLE	**PAINTING**	**Inferential**
2. In the sixth paragraph, the narrator states the land the boy refers to is only an empty land lot in the state of Rio de Janeiro. a) Hypothesize about: Why does the boy name the land lot "farm?" A.: The boy names the land lot a farm because the former is a place where one could socialize with animals. b) According to the narrator, "the boy needs to believe in the farm, as much as other people need to believe in heaven." Why is the farm some type of heaven to the boy? A.: To the boy, the farm is some type of heaven because it is paradise, a place where he will live with animals. 3. In the chronicle, the narrator not only states facts, but also expresses opinions. a) Whose opinion is it that animals do not exist in Rio de Janeiro? A.: The opinion that animals do not exist in Rio de Janeiro is expressed by people in general as well as by the narrator. b) Does the boy also have such an opinion? Why? A.: No, he doesn't. Because he finds animals all over the place. c) In the paragraph before the last, what is the passage expressing, in the narrator's own words, the boy's feeling of frustration for not having a close relationship with animals? A.: The passage is "and once again, he is left empty-handed and his soul in pieces."	b) Where do you think the boy is? c) Why did he have to hide the dog? 5. Look at the suitcase on the boy's lap and the package next to him. Hypothesize about: a) Where do you think he is going? A.: He might be going to spend the holidays somewhere, with his grandparents, for example. b) Will he stay long in there? Why? A.: He probably will because he is taking a big suitcase. c) What could be in the package next to him? A.: The package probably contains a present to whom will host the boy. 6. The boy could get in trouble by travelling with a "stowaway." In your opinion, why do you think he is taking that risk? A.: He'd rather take the risk because he does not leave his pet animal.	3. Why do characters of both texts wish to take their animals to all places? A.: The characters wish to take their animals to all places because they do not want to be away from them.

Source: Authors' elaboration.

While taking the thematic dialogue into account, the inferential question examines the characters' wish to take their animals along. Previous questions somehow state that notion, as they reveal characters' attachment to animals. Hence, it can be inferred that both of them have never wished to leave their animals.

Interpretive questions take the text as reference, but allow reader's previous knowledge and opinion to intervene. Thus, readers produce a personal answer about the theme presented by previous questions. For instance, question 4, "What would you do in order to be close to your pet animal in the event of a trip?" assumes the reader's personal answer, with a number of possibilities. The following is highlighted: "To be close to my pet animal, I would hide it in my luggage." However, answers are always connected to the theme. Importantly, it is observed that not any answer is taken as acceptable, since meanings are produced based on dialogue established with previous questions. This allows the learner to "think about what is being read and associate textual theme with his/her own personal experience, s/he is encouraged to relate the theme of the reference text to his/her social and personal life knowledge"[54] (FUZA; MENEGASSI, 2017, p. 278, our translation).

The interpretive question allows the reader to fully explore the theme in a relative manner, since his/her creativity and interpretation of facts are highlighted. This contributes to interlocutor's counterword to be manifested. In the present case, the question itself allows for creativity and expansion of ideas, while "guiding the interlocutor-teacher not only to categorize learner's answer as right or wrong, but to agree, disagree, counter argue, request additional explanation, thus following up the enunciation chain"[55] (ANGELO, 2015, p. 56, our translation). Furthermore, Fuza (2017) reinforces the need to offer to learners questions that fully explore the theme in a complete and relating manner, with a view to enhancing reader's development.

Final considerations

The present study aimed at analyzing types of questions and their sequencing. To this end, four activities were specifically selected from a textbook for 6th grade. One of them was highlighted for discussion and further proposal of a new sequencing of questions, thus revealing how ordering and sequencing can be put forward in other sections and textbooks. We sought to highlight how questions with an interactional focus could be worked up, so as to allow for intertextual thematic dialogue of different genres: chronicle and painting.

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[54] In the original: "*raciocinar sobre o que lê e a articular o tema textual com sua experiência pessoal [ele] é obrigado a relacionar o tema trabalhado no texto de referência com os conhecimentos de sua própria vida social e pessoal*" (FUZA; MENEGASSI, 2017, p. 278)

[55] In the original: "*orientando o interlocutor-professor a não apenas classificar o dizer do aluno como certo ou errado, mas a concordar, discordar, contra-argumentar, solicitar complementação, dando continuidade ao elo da cadeia enunciativa*" (ANGELO, 2015, p. 56)

In order to carry out a new proposal for the ordering and sequencing of TB reading questions on the basis of theme, reading questions found in the textbook were analyzed. There was only one question from the "Across Languages"[56] section capable of establishing intertextual dialogue between texts. For this reason, the following were suggested: (1) analysis of questions from the textbook, particularly those designed for the chronicle and painting; (2) new sequencing of questions, according to the reading process: focus on text, reader and interaction; (3) checking for potential thematic gap.

As a result, a theoretical-methodological proposal of ordering and sequencing of reading questions was put forward, focusing on intertextual dialogue. This allowed readers to: (1) establish a dialogue between texts sharing a similar theme; (2) come up with textual, inferential and interpretive answers comprising the main ideas of the texts; (3) produce meanings relative to the themes introduced in both texts, thus reaching textual and inferential comprehension, as well as interpretation of the text, which allowed for relative exhaustion of the theme.

The methodological proposal of working with questions, which establish a relationship between texts of different genres sharing a similar theme, explores not only deep textual examination, but also contributes to reader's development in terms of reading and writing of texts. This process results from the need to work, in class, with interactional questions comprising all reading process steps: questions with textual answer, questions with inferential answer, and questions with interpretive answer. Additionally, the sequencing of questions should be considered: initially, highlight questions with textual answer with a view to allowing the reader to learn how to work with texts. Subsequently, evince questions with inferential answer with a view to allowing the learner to establish relationships between the text and previous knowledge. Finally, focus on questions with interpretive answer with a view to enabling the learner to have the possibility of producing his/her own meanings relative to the theme.

Fuza and Menegassi (2017), Angelo and Menegassi (2014), Rodrigues (2013) and Menegassi (2016) advocate questions need to follow an ascending order of difficulty, leading the reader to engage in gradual reflection about the text interaction. Additionally, reading questions provide considerable cognitive benefits to develop reading and writing teaching and learning for Elementary School learners, as they require complete phrasal organization, such as retrieving the question "as means to expose the theme that led to the process of the response text production"[57] (MENEGASSI, 2016, p. 49, our translation).

[56] In the original: *Cruzando linguagens*

[57] In the original: "como uma maneira de expor o tema que conduziu ao processo de produção do texto da resposta" (MENEGASSI, 2016, p. 49)

FUZA, A.; MENEGAZZI, R. Ordenação e sequenciação de perguntas de leitura: proposta de trabalho para crônica e pintura no livro didático. **Alfa**, São Paulo, v. 63, n.3, p.663-695, 2019.

- *RESUMO: Analisam-se os tipos de perguntas e sua sequenciação, em uma coleção de livros didáticos do 6.º ao 9.º ano, na seção "Cruzando Linguagens", que apresenta perguntas de leitura para gêneros diferentes, mas com temáticas próximas. A partir disso, propõe-se nova sequenciação de perguntas para uma das atividades do livro do 6º ano, destinada aos gêneros crônica e pintura. O trabalho centraliza-se na perspectiva sobre leitura interacionista, nos estudos da Linguística Aplicada e da prática de ordenação e de sequenciação de leitura, discutida por Solé (1998) e ampliada por Menegassi (2008; 2010; 2016), Fuza e Menegassi (2018; 2017) e Fuza (2017). Dentre as questões da seção, geralmente, apenas uma delas possibilita o diálogo temático entre textos, sendo assim, sugeriu-se: análise das perguntas do livro, voltadas à crônica e pintura; nova sequenciação das perguntas; verificação das lacunas temáticas. Na sequência, desenvolveu-se a proposta teórico-metodológica de ordenação e sequenciação de perguntas, com foco no diálogo entre os textos, que possibilita ao leitor: estabelecer o diálogo entre textos com aproximação temática; elaborar respostas textuais, inferenciais e interpretativas, envolvendo as ideias principais dos textos; produzir sentidos quanto às temáticas apresentadas, alcançando as compreensões textuais e inferenciais e a interpretação, possibilitando tratar da exauribilidade temática relativa.*

- *PALAVRAS-CHAVE: Ordenação. Sequenciação. Perguntas de leitura. Livro didático.*

REFERENCES

ANGELO, C. M. P. **Mediações colaborativas e pedagógicas na sala de apoio à aprendizagem de língua portuguesa**. 391 f. Tese (Doutorado em Letras) - Programa de Pós-graduação em Letras, Universidade Estadual de Maringá, Maringá, 2015.

ANGELO, C. M. P.; MENEGASSI, R. J. Perguntas de leitura na prática docente em sala de apoio. **RBLA**, Belo Horizonte, v. 14, n. 3, p. 661-688, 2014.

BAKHTIN, M. M. The problem of speech genres. *In*: BAKHTIN, M. M. **Speech genres and other late essays**. Translated by Caryl Emerson and Michael Holquist. Austin: University of Texas Press. 1986. p. 60-102.

BRASIL. **Base Nacional Comum Curricular**: educação é a base. Brasília: MEC, 2017.

BRASIL. **Guia de livros didáticos**: Língua Portuguesa. Brasília: Ministério da Educação, Secretaria de Educação Básica, 2015.

BRASIL. **PDE**: Plano de Desenvolvimento da Educação: Prova Brasil: ensino fundamental: matrizes de referência, tópicos e descritores. Brasília: MEC/SEB/INEP, 2011.

CAMPOS, P. M. Menino de cidade. *In*: ANDRADE, C. D. de *et al*. **Elenco de cronistas modernos**. 12. ed. Rio de Janeiro: José Olympo, 1992. p. 45-47.

CEREJA, W. Significação e Tema. *In*: BRAIT, B. (org.). **Bakhtin**: conceitos-chave. São Paulo: Contexto, 2005. p. 201-220.

CEREJA, W. R.; COCHAR, T. M. **Português**: linguagens. 6.º ao 9.º anos. São Paulo: Saraiva, 2015.

COLOMER, T.; CAMPS, A. **Ensinar a ler, ensinar a compreender**. Tradução de Fátima Murad. Porto Alegre: Artmed, 2002.

COSTA, S. R. A construção de "título" em gêneros diversos: um processo discursivo, polifônico e polissêmico. *In:* ROJO, R. **A prática de linguagem em sala de aula**. Campinas-SP: Mercado de Letras, 2000, p. 67-90.

DELL'ISOLA, R. L. P. A interação sujeito-linguagem em leitura. *In*: MAGALHÃES, I. (org.). **As múltiplas faces da linguagem**. Brasília, DF: UNB, 1996. p. 69-75.

FUZA, A. F. **Proposta teórico-metodológica de ordenação e sequenciação de perguntas de leitura a partir do princípio temático**. Maringá, PR: Universidade Estadual de Maringá, 2017. Relatório Final de Estágio Pós-Doutoral.

FUZA, A. F. **O conceito de leitura da Prova Brasil**. 113f. Dissertação (Mestrado em Letras) – Programa de Pós-graduação em Letras, Universidade Estadual de Maringá, Maringá, 2010.

FUZA, A. F.; MENEGASSI, R. J. Perguntas de leitura e o princípio temático em crônica: proposta de ordenação e sequenciação. **Calidoscópio**, São Leopoldo, RS, v. 16, n. 1, p. 33-47, jan./abr. 2018.

FUZA, A. F.; MENEGASSI, R. J. Ordenação e sequenciação de perguntas na leitura do gênero discursivo panfleto institucional. **Diálogo das Letras**, Pau dos Ferros, v. 6, n. 1, p. 259-286, jan./jun. 2017.

FUZA, A. F.; RODRIGUES, P. C. Livro didático de língua portuguesa: dispositivo de ensino ou dispositivo de controle? **Caminhos em Linguística Aplicada**, Taubaté, v. 17, n. 3, p. 174-191, jul./dez. 2017.

GARCIA, O. M. **Comunicação em prosa moderna**. 15. ed. Rio de Janeiro: Fundação Getulio Vargas, 1992.

HEATON, J. B. **Classroom testin.** Londres: Longman, 1991. (Longman Keys to Language Teaching).

KLEIMAN, A. **Oficina de leitura**: teoria e prática. Campinas, SP: Pontes, 1996.

KOCH, I. G. V. **Introdução à linguística textual**. São Paulo: Martins Fontes, 2009.

LEFFA, V. J. **Aspectos da leitura**: uma perspectiva psicolingüística. Porto Alegre: Sagra DC Luzzatto, 1996.

MARCUSCHI, L. A. **Produção textual, análise de gêneros e compreensão**. São Paulo: Parábola Editorial, 2008.

MARCUSCHI, L. A. Compreensão de textos: algumas reflexões. *In*: DIONISIO, A. P.; BEZERRA, M. A. **O livro didático de português**. Rio de Janeiro: Lucerna, 2001. p. 46-59.

MENEGASSI, R. J. Ordenação e sequenciação de perguntas na aula de leitura. *In*: YAEGASHI, S. F. R. *et al.* (org.). **Psicopedagogia**: reflexões sobre práticas educacionais em espaços escolares e não-escolares. Curitiba: CRV, 2016. p. 41-60.

MENEGASSI, R. J. Produção, ordenação e sequenciação de perguntas na avaliação de leitura. *In*: CENTURION, R.; CRUZ, M.; BATISTA, I. M. (org.). **Linguagem e(m) interação:** línguas, literaturas e educação. Cáceres, MT: Ed. Unemat, 2011. p. 17-35.

MENEGASSI, R. J. Perguntas de leitura. *In*: MENEGASSI, R. J. (org.) **Leitura e ensino.** 2.ed. Maringá: Eduem, 2010a. p. 167-189.

MENEGASSI, R. J. Inferências e produção de sentidos na leitura. *In*: MENEGASSI, R. J. (org.). **Leitura, escrita e gramática no ensino fundamental**. Maringá: Eduem, 2010b. p. 66-88.

MENEGASSI, R. J. Exauribilidade temática no gênero discursivo. *In*: SALEH, P.; OLIVEIRA, S. (org.). **Leitura, escrita e ensino de língua em debate**. Ponta Grossa: UEPG, 2010c. p. 77-90.

MENEGASSI, R. J. O leitor e o processo de leitura. *In*: GRECO, E. A.; GUIMARÃES, T. B. (org.) **Leitura***:* aspectos teóricos e práticos. Maringá: Eduem, 2010d. p. 35-59.

MENEGASSI, R. J. Práticas de avaliação de leitura e a formação do leitor: reconstruindo conceitos no professor. *In*: ZOZZOLI. R. M. D. (org). **Leitura:** Revista do programa de pós-graduação em Letras e Linguistica, Maceió, n.42, p.35-65, jul./dez. 2008.

MENEGASSI, R. J. Compreensão e interpretação no processo de leitura: noções básicas ao professor. **Revista UNIMAR**, Maringá, v.17, n.1, p. 85-94, 1995.

MENEGASSI, R. J.; ANGELO, C. M. P. Conceitos de leitura. *In*: MENEGASSI, R. J. (Org.) **Leitura e ensino**. 2. ed. Maringá: Eduem, 2010. p. 15-40.

PEARSON, P. D.; JOHNSON. D. D. **Teaching reading comprehension**. New York: Holt, Rinehart & Winston, 1978.

RODRIGUES, A. **Perguntas de leitura e construção de sentidos**: experiência com o 6º ano do Ensino Fundamental. 2013. 223f. Dissertação (Mestrado em Letras) – Programa de Pós-Graduação em Letras, Universidade Estadual de Maringá, Maringá, 2013. Disponível em: http://www.ple.uem.br/defesas/pdf/aapsrodrigues.pdf. Acesso em: 10 out. 2019.

SANTOS, C. dos; KADER, C. C. C. Os modelos de leitura bottom-up, top-down e aproximação interativa. **Revista de Ciências Humanas**, Florianópolis, v. 10, n. 15, p. 1-18, 2009.

SOBRAL, A.; GIACOMELLI, K. Observações didáticas sobre a análise dialógica do discurso – ADD. **Domínios de Lingu@gem**, Uberlândia, v. 10, n. 3, jul./set. 2016.

SOLÉ, I. **Estratégias de leitura**. Porto Alegre: Artmed, 1998.

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BEYOND BUREAUCRATIC ETHICS IN QUALITATIVE RESEARCH INVOLVING HUMAN BEINGS[1]

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▪ ABSTRACT: Ethical commitments in studies involving human beings have been considered for a few decades. However, concerns to which researchers commonly restrict themselves are understood as typical of the so-called formal ethics (e.g. anonymity, informed consent, and absence of fraud). In this article, while defending that this type of ethics, also called bureaucratic ethics, needs to be superseded, we share and illustrate a materialized example of ethics advocated for in human science research, namely, the emancipatory ethics. This example is provided by the doctoral thesis of the first author, under the guidance of the second one, and presented with epistemological, ontological, methodological and ethical considerations from the beginning to the end of the inquiry process. This text is based on principles of emancipatory research (CAMERON *et al*., 1992), ethics of caring (NODDINGS, 1984), and ethical and methodological considerations from Denzin (1997) and Christians (2003) for social and human research. In short, this article demonstrates ways of distributing power and incorporating the voices of participants into research practice.

▪ KEYWORDS: Emancipatory Ethics. Empowerment. Foreign language teacher training.

Introduction

We begin this article by arguing that ethics should govern any and all human relationships, in view of its relevance to keeping respect, morality, integrity, and justice in the relationships we establish socially. From the educational viewpoint, we endorse the understanding of ethics "[…] as a mark of human nature, as something absolutely indispensable to human coexistence." (FREIRE, 1996, p.19-20, our translation)[2].

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[1] Text derived from the first author's doctoral research done under the advisory of the second author, through the Language Studies Graduate Program at the State University of Londrina.

[2] In the original: "[...] *enquanto marca da natureza humana, enquanto algo absolutamente indispensável à convivência humana*." (FREIRE, 1996, p.19-20)

In this way, research practices must also cater to ethical consideration. Historically, researchers in the Biological Sciences pioneered ethical considerations in research involving human beings, due to the need to protect research *subjects* (then) and *participants* (for some time now), in projects that could put their integrity or respect at risk. In order to regulate these practices, official international documents have been created, such as the Nüremberg Code (1947), the Universal Declaration of Human Rights (1948) and the Belmont Report (1978).

In Brazil, Resolution CNS[3] 196/96 (recently substituted by CNS Resolution 466/2012[4]) was the precursor to safeguard "[…] the rights and duties that concern the research participants, the scientific community and the State." (BRASIL, 2012, p.2, our translation)[5].

Although the value and importance of the guiding principles of this resolution are recognized, there has been a certain rejection in the Social and Human Sciences of the requirements of the Council for Research Ethics[6]/National Commission for Research Ethics[7] system, due to its relation to biomedical disciplines. The type of human based data collected for biomedical research is not the same as that one used in Social and Human Sciences research.

This article is divided into four parts. First, we approach formal ethics, highlighting official documents and organizations which aim to regulate it, followed by considerations on aspects of *bureaucratic ethics* (REIS; EGIDO, 2017), which have guided social research. Next, we discuss the understanding of *emancipatory ethics*. We then discuss ethical procedures and conduct of emancipatory nature and purposes, based on Chimentão (2016)'s doctoral research, looking specifically at ethical care which goes beyond concerns about formal ethical aspects.

Therefore, in this paper we want to illustrate forms of sharing power with participants and incorporating their voices in research practice. This way, for comprehension of the feasibility of research vested with emancipatory ethics principles, we report on research procedures of the research in focus.

Formal or bureaucratic ethics

The importance of ethical conduct to support any and all investigative process seems to be consensual in societies that seek respect and justice. As so, legal efforts to define and regulate ethical conduct in research involving human beings have been present for decades. By way of illustration, we have international documents, such as

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3 The acronym in Portuguese stands for National Health Council.

4 Available at: http: www.uel.br/comites/cepesh/pages/resolucoes.php.

5 In the original: "[...] *os direitos e deveres que dizem respeito aos participantes da pesquisa, à comunidade científica e ao Estado*." (BRASIL, 2012, p.2).

6 CEP (acronym in Portuguese).

7 CONEP (acronym in Portuguese).

the Nuremberg Code (1948), the Universal Declaration of Human Rights (1948) and, later, the Belmont Report, promulgated in 1978. In Brazil, the guiding document of regulatory standards for research involving human beings is the current Resolution CNS 466/2012, which replaced the Resolution 196/96. The current resolution takes into account the provisions of the official documents mentioned above.

Also in Brazil, the National Commission for Research Ethics and the Commission of the National Health Council were created with the function of implementing norms and regulatory directives of research involving human beings as once approved by means of Resolution 196/96. These committees have advisory, deliberative, normative and educational functions and work together with a network of Research Ethics Committees that are part of higher education institutions.

Ethics committees have the role of judging researchers' competence through their research applications. Such committees consider

> […] if researchers have the appropriate research skills and experiences to conduct the research they propose to undertake – that is, is the research 'conducted or supervised by persons or teams with experience, qualifications and competence that are appropriate for the research'. (MOONEY-SOMERS; OLSEN, 2017, p.129).

Even though Resolution 466/2012 was essentially passed to regulate high risk research in the Biomedical field, it mandates that any research project involving human beings needs to meet its provisions. In other words, any research project involving humans, regardless of area, must be formally submitted for the review and approval of the institution's Research Ethics Committee, to which the research may be bonded to, prior to its initiation. Broadly speaking, the Research Ethics Committees examine and issue reviews in regard to research projects involving human subjects, which can be submitted by any individual with, at least, an undergraduate degree.

This resolution "[…] incorporates, from the point of view of the individual and of the collectivities, references from bioethics, such as autonomy, non-maleficence, beneficence, justice and equity, among others [...]" (BRASIL, 2012, our translation)[8].

In this Resolution, the proper research ethics implies:

> a) respect to the research participant in their dignity and autonomy, recognizing their vulnerability, assuring their willingness to contribute and to continue or not, [to participate] in the research, by means of free and informed consent;

[8] In the original: "[...] *incorpora, sob a ótica do indivíduo e das coletividades, referenciais da bioética, tais como, autonomia, não maleficência, beneficência, justiça e equidade, dentre outros* […]" (BRASIL, 2012).

> b) consideration of risks and benefits, both known and potential, individual or collective, commit[ment] to maximum benefits and minimum damages and risks;
>
> c) guarantee that foreseeable damages will be avoided; and
>
> d) social relevance of the research, which guarantees the equal consideration[9]. (BRASIL, 2012, our translation).

This model of ethical review and evaluation in Brazil was not thought from the perspective of the idiosyncrasies of the Social and Human Sciences, which has been increasingly controversial and has caused a demand for normative documents specific to these areas, in respect to the realities of the research happening in the Human Sciences. To this regard, the Plenary of the National Health Council, considering the outcomes of the revision process of Resolution 196/96, reported: "The event also highlighted the need to produce specific resolutions for the areas of Social and Human Sciences without prejudice to Resolution CNS 196/96."[10] (BRASIL, 2012, our translation).

We see similar discourse outside of Brazil: Guillemin and Gillam (2004) problematize the emphasis on what they refer to as "procedural" ethics - that of which refers to the search for approval by ethics committees (which involves, for example, much more appropriate use of language in order to not only demonstrate that the researchers involved are competent and experienced, but also to avoid highlighting issues that may cause concerns to committee members), in detriment to the "ethics in practice[11], to day-to-day ethical issues (GUILLEMIN; GILLAM, 2004, p.264, our translation).

Connolly and Reid (2007) also criticize the approach taken by the biomedical community used by research ethics boards to review the ethical acceptability of research that has humans as participants. Referencing van den Hoonaard, the authors share the understanding that "[…] just as qualitative researchers use creative, flexible data collection approaches that are often contextually unique, so must the ethics review process involve a more flexible treatment of summary protocol forms." (CONNOLLY; REID, 2007, p.1032).

Research in Social Sciences and Humanities must support ethical principles, because "[…] social research is a practice, not simply a way of knowing. Understanding

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9 In the original: "*a) respeito ao participante da pesquisa em sua dignidade e autonomia, reconhecendo sua vulnerabilidade, assegurando sua vontade de contribuir e permanecer, ou não, na pesquisa, por intermédio de manifestação expressa, livre e esclarecida;*
b) ponderação entre riscos e benefícios, tanto conhecidos como potenciais, individuais ou coletivos, comprometendo-se com o máximo de benefícios e o mínimo de danos e riscos;
c) garantia de que danos previsíveis serão evitados; e
d) relevância social da pesquisa, o que garante a igual consideração." (BRASIL, 2012).

10 In the original: "*O evento ainda evidenciou a necessidade de serem produzidas resoluções específicas paras as áreas de Ciências Sociais e Humanas sem prejuízos à Resolução CNS 196/96.*" (BRASIL, 2012).

11 In the original: "*ética na prática*" (GUILLEMIN; GILLAM, 2004, p.264).

what others are doing or saying and publicly imparting such knowledge involves moral and political commitments."[12] (SCHWANDT, 2006, p.207, our translation).

However, we understand that this ethical conduct must go beyond compliance with formal ethical principles, understood as being of a bureaucratic manner. Bureaucratic ethics is characterized by considerations of norms and resolutions in force in Brazil, among which, the anonymity of the participants and the obtaining of the informed consent (REIS; EGIDO, 2017) stand out. We understand this type of ethics as important, but not enough for social research. Our position is supported by the three basic principles, which are related to the moral principles of codes of ethics: informed consent; the protection of privacy and the absence of fraud (CHRISTIANS, 2003).

The principle of informed consent is based on the right of freedom and self-determination that the participants of a research project hold (COHEN; MANION; MORRISON, 2000). According to these authors, this principle can be respected by means of a reliable explanation as to the nature, procedures, possible risks and benefits of the research. In addition, it is necessary for the researcher to make himself available for clarification on any questions that the participants wish to raise, and, finally, to ensure that the participants have the right to withdraw their consent and no longer participate in the investigation at any given time and without damage to themselves.

The protection of privacy corresponds to the principle of safeguarding the "people's identities and those of the research locations" (CHRISTIANS, 2003, p.218). In this way, confidentiality is essential against unwanted exposure and for ensuring anonymity. Since, according to Christians (2003, p.218), "no one deserves harm or embarrassment as a result of insensitive research practices."

The absence of fraud is the principle whose function is to ensure the accuracy of the data. Thus, deliberate distortions, "lies, fraudulent materials, omissions, and machinations are unscientific and unethical attitudes" (CHRISTIANS, 2003, p.147).

In a recent study, Reis and Egido (2017) identified a massive number of studies that reveal exclusive concern with bureaucratic ethics, by compromising the anonymity of the participants and obtainment of the Free and Informed Consent Term.

In view of the particularities of social research, we would like to emphasize the insufficiency of the aforementioned principles and demonstrate, in the following sections, the vision of ethics we advocate for and methodological procedures adopted in research practice in order to maintain consistency with the ontological and epistemological principles of postmodernist paradigms, with special attention to social constructionism.

[12] In the original: "[...] *a investigação social é uma prática, e não simplesmente um modo de saber. Compreender o que os outros estão fazendo ou dizendo e dar forma pública a esse conhecimento envolve compromissos morais e políticos.*" (SCHWANDT, 2006, p.207).

Emancipatory ethics

We reiterate the merit of bureaucratic ethics, given its concern with the protection of research subjects and pioneering role in the debate of this issue. However, the bureaucratic ethics is seen in Social Sciences as basically concerned with having minimal damages (CHRISTIANS, 2003).

In regard to research in the social and human spheres, we think it more coherent to take the ethics whose philosophy "[…] situates the moral domain within the general purposes of human life that people share contextually and across cultural, racial, and historical boundaries." (WHITE, 1995, apud CHRISTIANS, 2003, p.223).

Such a view of ethics is based on philosophical principles, such as those found in Levinas (1981), which understand human beings as social beings in connection. As a consequence, it is through the dialogical encounter between them that life is (re)created and moral obligation to it is reciprocally nourished (CHRISTIANS, 2003).

In this sense, caring for one another (NODDINGS, 1984) makes perfect sense. From this perspective, decisions regarding what is considered moral/ethical should be based on care towards the human being, that is, those with whom we interact and who, dialogically, constitute us. Therefore, "[…] to take the human essence as founded on the *with* idea implies understanding that we are constituted by what is external to ourselves."[13] (MATEUS, 2011, p.190, our translation). It is about the type of ethics that "[…] socially (re)produces itself in the flow of interactions mediated by relations of trust and appreciation of differences […], forged within our actions *with* the other."[14] (MATEUS, 2011, p.190 -191, our translation).

Thus,

> […] the interactions between researcher and participant that we suggest, are the substrate of the ethical dimensions of research practice. In these interactions lie the possibilities of respecting the autonomy, dignity, and privacy of research participants and also the risks of failing to do so, thus perhaps causing harm to the participants in various ways. It is in these interactions that the process of informed consent really occurs - not on the pieces of paper that an ethics committee peruses. (GUILLEMIN; GILLAM, 2004, p.275).

Therefore, according to contributions from Sociology, especially Denzin (1997), if human identity is constituted by the social sphere, then ethical action would be that which aims at the community. For this normative model, the mission of social research

[13] In the original: "[...] *assumir essência humana fundada no com implica compreender que somos constituídos por aquilo que é externo a nós mesmos.*" (MATEUS, 2011, p.190).

[14] In the original: "[...] *se (re)produz socialmente no fluxo das interações mediadas por relações de confiança e de valorização das diferenças* [...], *forjada no interior de nossas ações com o outro*." (MATEUS, 2011, p.190 -191).

would be to foster the prosperity of community life. We understand prosperity in the sense of advances, additions, transformation and emancipation.

In this sense, Christians (2003), referring to Denzin, argues that "[…] research is intended to be collaborative in its design and participatory in its execution." (CHRISTIANS, 2003, p.227). In this view, the research participants have decision-making power. They interfere in the research process, either with suggestions of research topics, courses of action or, for example, by accepting (or not) the results (ROOT, 1993).

Chronologically, references by Michael Root (1993) and Norman Denzin (1997) on methodology in qualitative research date back to the 1990s. However, such recommendations seem to have received little attention, for example, in studies of Applied Linguistics, a fact ascertained by Reis e Egido (2017).

In Chimentão (2016)'s doctoral research, the researcher takes into consideration the recommendations of *care with the other*, through the social relations established between her and the participants, of the treatment and analysis of the data, with concern on agency and power distribution among participants, their active participation during the research process, and the incorporation of their voices into the researcher's *return to the participants* with research results.

We describe some of the trajectories of Chimentão (2016)'s research as a way of illustrating how such principles translate into procedures that constitute an *emancipatory method of generating data*[15] and returning the analyses to the participants[16].

We understand these methodological procedures as opportunities for the other to emancipate themselves, since they allowed the participants to become actors, to exercise powers and to benefit from this exercise during and after the investigative process. These are essential steps in a research, related to social constructionism, which was intended to be emancipatory (i.e. research on, for and with the participants), according to Cameron *et al.* (1992) and whose ethics were driven by emancipatory purpose.

Methodological procedures consistent with principles of emancipatory ethics

In this section, through describing some of the research paths, we illustrate how the distribution of power is accomplished through methodological procedures.

[15] Reported in 2.5.3 section of Chimentão (2006)'s thesis.

[16] Reported in Chimentão (2016)'s thesis (chapter 5). In general, it is the ethical commitment that enables participants to express their responses in terms of agreement, refusal, clarification and/or suggestions of adjustments of the interpretations.

In research, there exists an asymmetry of power between the figure of the researcher and the one who, normally, is in the position of being researched. The *emancipatory method of data generation* (CHIMENTÃO, 2016) was developed aiming to practice the division of powers among the research participants, without the intention of concentrating power in the researcher's hands. In order to do this, Chimentão (2016) developed an alternative method, in which all participants could exert power in the generation of data. This method had the intention of empowering the other. In this way, the traditional imbalance of power between researchers and participants could be reduced by the "[…] promotion of egalitarian relationships, grounded in reciprocity and a sense of mutuality." (HEWITT, 2007, p.1155).

In the *emancipatory method of data generation*, the participant is seen, ontologically and epistemologically, as an agent and a critic. This understanding is based on the idea that knowledge is built on interpersonal relationships and on the ethical commitment to contribute somehow to the growth and empowerment of the research participants. In addition, this method considers that it is through experience that individuals can empower themselves.

Data generation, in Chimentão (2016)'s research, was one of the phases in which the participants' agency and the inclusion of their voices prevailed. This was materialized with the exercise of genuine freedom to integrate into the research agenda what the participants thought relevant, disturbing and intriguing in the preparation of their interview scripts.

With respect to agency, the research participants were invited to participate in the research, but not as those who usually stand in the position of recipients of questions whose content and purpose are unknown before and during the generation of data. They exercised the power to devise the interview scripts themselves and, in fact, performed the role of interviewers, i.e, authors and employers of instruments. Therefore, each participant had the power to determine the content of their interview scripts. As a teacher-researcher[17], Lilian Kemmer Chimentão was not the only one to have power in the social practice of generating research data. Agency, as we want to demonstrate, favors the incorporation of voices.

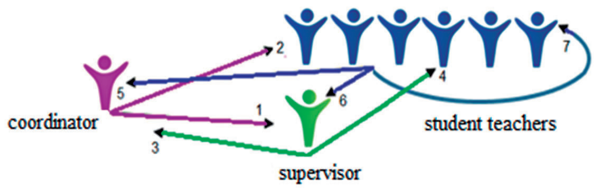
The distribution of powers in the accomplishment of the interviews can be seen in Fig. 1, by colors that refer to the position of each participant in the context of data generation: **purple** (coordinator), **green** (supervisor[18]), and **blue** (student-teachers[19]).

[17] In the research context, Lilian Kemmer Chimentão also performs the role of coordinator of a federal pre-service teacher education program (viz. PIBID- Institutional Program for Scholarships to Initiate Professorship).

[18] English language public school teacher and member of the PIBID program.

[19] Undergraduate students from the (English language and literature) Letters course.

Figure 1 – Distribution of powers in conducting interviews



Source: Chimentão (2016, p.141).

The distribution of powers for data generation resulted in seven different interview scripts (Table 1):

Table 1 – Interview guides, interviewers and interviewees

Script	Written by	To interview
1	Coordinator	Supervisor
2		Student teachers (6)
3	Supervisor	Coordinator
4		Student teachers (6)
5	Student teachers	Coordinator
6		Supervisor
7		Student teachers (6)

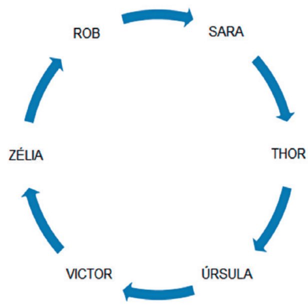
Source: Chimentão (2016, p.142).

The coordinator prepared Scripts 1 and 2 to interview the supervisor (1) and student teachers (2); the supervisor prepared Scripts 3 and 4 to interview the coordinator (3) and student teachers (4); the six teacher-students developed Scripts 5, 6 and 7 to interview the coordinator (5), the supervisor (6) and the student-teacher peers (7).

The student teachers developed their instruments together. However, only one student teacher, representing his peers, interviewed the coordinator and the supervisor. We understood that if each student teacher had interviewed the coordinator and the supervisor, this option would have caused differences in the data, due to possible interviewee's self-regulation and degree of empathy between the interviewer and interviewee.

The conduction of interviews between students and teachers was planned also due to the assumption that, because of a symmetrical relationship among them, this could minimize possible discomforts in interviews made only by participants historically positioned as ascendants (viz., coordinator and supervisor) and afford greater freedom to make their statements. Therefore, the aim of having a scheme of interviews between pairs of shared position in the context (viz. student-teachers) was the generation of productive data. Figure 2 shows the dynamics that enabled each student-teacher to experience the positions of interviewer and interviewee. In the interview scheme, Rob interviewed Sara, who interviewed Thor, and so on.

Figure 2 – Conduct of interviews between students and teachers



Source: Chimentão (2016, p.143).

These dynamics of interviews - we reiterate - enable the *emancipatory method of data generation* and were designed in order to guarantee the participants' agency, enabling everyone to play the roles of scriptwriters, interviewees and interviewers.

In order to generate the necessary data to carry out the method, we undertook preparatory activities with the participants, since they had little familiarity with the demands of scientific work. These activities were (i) a workshop for the elaboration of the instruments and (ii) a pilot of the instruments prior to the definitive generation of data.

The workshop was conducted by Simone Reis, who was outside of the teacher education context in which data would be generated. In the workshop, she dealt with ethical issues in the research process, through discussion and an activity that required identifying issues, weaknesses such as prejudices, induction and value judgments. In addition, Simone guided participants in conducting interviews, including checking the recording equipment, the interview participants, and informing the place and date of the interview. She emphasized the need to avoid suggesting responses to the interviewee (i.e. *wording*) during the interview. Finally, she accompanied the participants in the work of elaborating the interview questions. In the workshop, the participants (viz. the coordinator, the supervisor, and the student-teachers) first elaborated the questions for their interview scripts, without sharing the content of each script with their target interviewees. There was an exception to the instrument developed by student teachers to interview their own peers. In a second phase, the participants e-mailed their instruments directly to Simone Reis, who revised them for objectivity, clarity and bias elimination.

In addition to the workshop, in order to test and perfect the scripts, as well as provide greater security for the performance of the role of interviewer, we piloted the instrument.

The pilot of the seven instruments was carried out in three rounds of interviews. This was possible with the support of teachers and students of the undergraduate course in Social Sciences from the State University of Londrina and of their supervisor, who agreed to be interviewed, each in a social position occupied in the teacher education program of their area. On the same day as the pilot interviews, we did a conference audio recording. At the time, all those involved in the pilot could share impressions and suggestions to improve the instruments and their use.

Among the impressions, we recorded comments indicative of redundancy of certain questions on the scripts, as well as interviewer posture that suggested responses to the interviewee through behaviors during the interview, which the audio recording would not capture. These comments, made by the participants of the Social Sciences course, allowed us to draw attention to behaviors that could jeopardize the definitive generation of data: an attempt to signal desired responses by the interviewer, and paralinguistic expression of irony (by means of facial expressions, gestures, body language, tone of voice, etc.). Thus, the interview pilot allowed us to assess the instruments and prevent biased positions for data generation.

Return to the participants with the analyses

The return of the researcher to the participants with the analyses is an ethical commitment to share and submit their interpretations (results) to those who provided them with the data. This feedback enables them to express reactions in terms of acceptance, refutation, suggestions for adjustments, as well as emotions resulting from reading. In addition, it is one of the moments in which research becomes an empowerment tool, since it enables participants to exercise power. Upon returning to the participants, empowering research gives them the right to ask for clarifications and revisions, to question interpretations, to revise their positions, to express disagreement, to add information and explanations, to validate the knowledge produced, and to learn, among other possibilities. In other words, under this research vision, it is not a question of returning the knowledge produced for information to the participant, but to scrutinize and discuss it, both to avoid negligence and/or failures with the participants and to review positions and statements, which ultimately make up the knowledge to be offered beyond the context in which it was constructed.

It is an uncommon practice among researchers to return to the research participants with the analyses, even though the so called return of results has been advocated for within research ethics literature, originally in the Social Sciences (CAMERON *et al*., 1992), for approximately the last 26 years. In Applied Linguistics, Telles (2002) and Celani (2005) also express similar concerns regarding research benefits for participants.

Distinguishing from the majority of researchers who do not return to the participants to discuss the results of the research, the members of the Research Group *Language* *and Power*[20] have assumed this ethical commitment and several studies have been concerned with returning research results to the participants (CORADIM, 2008, 2015; D'ALMAS, 2011; FRANCESCON, 2014; JASNIEVSKI, 2013; LUNARDI, 2011; REIS, 2005, 2014; SENEFONTE, 2014; SILVA, 2014; CAMPOS, 2017).

The concern, care and respect with the other, in Chimentão (2016)'s research, was present from the initial stage, with the proposal of the Emancipatory Method for Data Generation. Thus, at the end of the investigation, we could not fail to consider and incorporate the voice - which, even in the singular, has a plural meaning - of the other in relation to interpretations. This was the way to practice the ethics of care with the other in a research situation, because "[…] to define ethics as a social practice implies, therefore, to live ethics and to recreate its meanings continuously in the same way that relationships are recreated with the other." (MATEUS; EL KADRI; GAFFURI, 2011, p.191, our translation)[21].

In the return, in order to guide the participants' reading and assessment of the analyses, Chimentão (2016), based on Reis (2005) and Jasnievski (2013), asked participants to focus on these aspects:

a) their general impression: tendency to agree totally or partially; disagree totally or partially. With what points and why;
b) Feelings and sensations experienced before, during and after reading. Which and why;
c) Points of analysis found relevant or non-relevant; d) Criticism of the (emancipatory) method of data generation;
d) Criticism of the analysis report (in regard to the powers exercised by the researcher (or research) and the limits respected or transgressed by the researcher (or research) in the interpretation of the data);
e) Other comments.

In addition to these guidelines, Chimentão (2016) shares three annexes with her participants: (a) story style; (b) glossary; and (c) analysis report. The first two files were meant to facilitate reading; the first one clarified the analysis reporting style, and the second one brought the meaning proposed by the author to the (sub)categories. The third file contained the analysis.

Participants had a period of 20 days to read the analysis and, by the end of deadline, only four student teachers returned their comments. Therefore, two student teachers did not participate in the proposed return. The supervisor returned her impressions on the analyses after the deadline, which is why her reactions were not part of the final research report.

[20] Available at: http://dgp.cnpq.br/dgp/espelhogrupo/9107014824739065.

[21] In the original: "[...] *definir ética como prática social implica, portanto, viver ética e recriar seus sentidos continuamente na medida em que são recriadas as relações com o outro.*" (MATEUS; EL KADRI; GAFFURI, 2011, p.191).

As reported by Chimentão (2016), the step of returning the analysis to the research participants provided greater confidence of her interpretations. In addition, the researcher had peace of mind to present her analysis to the participants, knowing that her actions had been ethical: showing care for the other during the analysis, and because she had given the participants opportunity to know and respond to her interpretations before they became public.

When reading and reflecting on participants' reactions, Chimentão (2016) classifies them in relation to the validation and refutation phenomena that her interpretations received from the participants. In parallel, the author identified these reading positions of the participants when interpreting and commenting on the research report: decoders, analytical-technical and critical.

The predominant phenomenon was validation, evidenced by excerpts that corroborated the author's interpretation. The decoder position gathered excerpts in which the participants only point out their identification with excerpts and/or analysis, express opinions of agreement, pertinence and/or appropriateness of the analyses or use of the data, and to confirm the informed and described in the research report as being faithful to the relationships and practices they had experienced. The analytical-technical position demonstrates that the participants make considerations pertaining the analytical categories of Chimentão (2016), thus exercising analytical or technical thinking with respect to the methodological and scientific rigor of the research. The third reading position, namely, the critical one, happened when the participants were no longer restricted to the aspects circumscribed to the research (e.g. rigor, trustworthiness), that is, when they brought elements that transcended the research report (the text). In other words, the critical position portrays moments in which the participants somehow leave the research report aside and refer to their positions of the (then) past, with the thinking of now (present) or, yet, illustrate their critical capacity when they take distance from the research and suggest (future) actions.

Table 2 is a summary of the classifications of readings made by the research participants in the return phase:

Table 2 – Reactions of the participants and their post-analysis positions

	Decoder	Analytical-Technical	Critical
Validation	SARA: "I agree with all points presented, because I can see the relationship between the excerpts and their analysis"; SARA: "I do not disagree with any point"; ÚRSULA: "I agree with everything I've read"; VICTOR: "I agree with all the interpretations"; ZÉLIA: "I totally agree"; SARA: "I reread on the text and saw that nothing of what is said in your speech as a researcher is outside the excerpt that was used to illustrate the situation"; VICTOR: "I recalled several times [my experience] in the teacher education program and I assert that I had all those gains";	SARA: I consider the analysis of the perception of the "yes", and even more the perception of the "other", where only two student teachers expressed concern about the students. VICTOR: "As an example: hierarchy of the group (I agree with all definitions), lack of emancipation (really that was scarce in students-teachers)"; ZÉLIA: "At the time, PIBID served to reinforce my desire not to be a teacher, but I believe that this was because of the context in which we work, because, despite being a differentiated, collaborative stage, I was aware that, in fact, I would not feel good assuming a class of elementary school with more than 35 students "; ÚRSULA: "The topics (SELF x OTHER, etc.) show us more clearly what most participants thought/think about PIBID and how it affected each of us"; SARA: "I think the text is well illustrated and its support for analysis is well done";	VICTOR: "At the moment, I'm sure that I want to continue working as a teacher, specifically, in the context of a public school"; ZÉLIA: "However, in the last year of college, I chose the internship in the context of early childhood education (outside of PIBID) and that's when I discovered that I wanted to teach English, but [I wanted to teach] children. Today, as an English teacher, I work in the area of early childhood education and I can say that I am very happy with what I do "; SARA: "I realized after reading that I cannot remember exactly what I said years ago, I think that over time I have changed my view of some things or behaved differently." ÚRSULA: "Before reading, I was trying to remember what I said during the interview at that time so I could compare it to what I think today. During, I could notice that my opinion on PIBID has not changed in hardly anything. I still think that this program is essential in teacher education and I hope that many student teachers will have the chance to participate [in the program]";
Refutation	SARA: "I also tried to identify myself through the speeches exposed in the text, and, for some reason, I could not identify myself"; SARA: "I could not see myself in any speech."		

Source: Chimentão (2016, p.225).

In general, the content of the participants' responses to the return of the researcher indicates that the analysis was pertinent and that agreement with the interpretations was predominant. Therefore, there were no signs of rethinking and/or editing of the analysis required.

In this investigation, participants exercised their powers to refute and, mainly by the majority, to validate the analysis with different reading positions. They demonstrated appropriateness, reflection, and analytical and critical position in regard to the constructed interpretations.

The return of the researcher to the participants, as a stage of the research concerned with ethics, enabled her to recognize the scientific and methodological rigor of the research, through the validation she obtained. However, we emphasize that validation and rigor also result from ethical care.

At the conclusion of this section on methodological procedures adopted Chimentão (2016)'s research, aiming at emancipatory ethics, we would like to point out that the ethical challenges experienced by researchers and participants in qualitative research represent two different intertwined epistemological perspectives: the ethics of the negotiated critical awareness research depends on the unfolding of the ethics process in research involving the participants and the researchers. Therefore, both the participant and the researcher contribute equally to the transparency of the ethical process and add value to the construction of methodological and ethical rigor to research (ALUWIHARE-SAMARANAYAKE, 2012).

Final considerations

In this paper, our objective was to illustrate ways to distribute power and incorporate participants' voices in the practice of research. We understand that an investigation vested with principles of emancipatory ethics can be supported by methodological procedures along the research process.

In order to achieve this aim, we reported on a concrete initiative of power sharing power in research practice. We reiterate that power has been diluted through the opportunity offered to participants for them to add points to the research agenda and to experience the roles of designers of research tools and of interviewers, rather than merely providing data to others. Furthermore, we consider pertinent to the research concerned about emancipatory ethics that the participants have access to the analysis for purposes of edition, corroboration or refutation of the analysis prior to the publication of the results. Therefore, we understand that the power experience individuals go through can afford their empowerment.

Thus, we share Reis (2014, p.150, our translation)'s critical position in regard to ethical issues:

> […] ethical consideration goes beyond giving a pseudonym or code to the other [the participant], inserting biographical data for the proforma purposes, or attaching [to the report] transcriptions of the original data as material proof. Trust in research seems to be more important than reliability. The consideration of the other, in my view, is that which relativizes my certainties, my possibilities, which makes me rethink starting points and ways of putting myself in the unfinished search movement[22].

This mode of relationship between researcher and participants, hereby expressed and translated into methodological procedures, illustrates an *emancipatory research* - research on, for and with the participants (CAMERON *et al*., 1992). This type of research differs from the ethical research on the subjects; and advocacy research (research on and for) (CAMERON *et al*., 1992, p.22). According to these authors, emancipatory research implies: (a) use of interactive or dialogical methods; (b) consideration of the participant's agenda; and (c) feedback and sharing of the knowledge produced. All of these aspects were considered along the research trajectory herein reported. Besides, we understand that reflection on ethical challenges experienced by researchers and participants contributes to building a critical awareness framework (ALUWIHARE-SAMARANAYAKE, 2012).

In conclusion, hopefully our report on methodological procedures and ethical care of emancipatory nature and purposes adopted in the doctoral research in focus may contribute to drawing researchers' attention to the importance of going beyond the *bureaucratic ethics* (REIS; EGIDO, 2017). As a consequence, in the near future, hopefully, power distribution and incorporation of participants' voices become stable features of research practice (REIS; EGIDO, 2017).

CHIMENTÃO, L.; REIS, S. Para além da ética burocrática em pesquisa qualitativa envolvendo seres humanos. **Alfa**, São Paulo, v. 63, n.3, p.697-715, 2019.

- *RESUMO: Compromissos éticos em estudos envolvendo seres humanos têm sido considerados há poucas décadas. No entanto, preocupações a que comumente se restringem os pesquisadores são entendidas como típicas de ética denominada formal (e.g. anonimato, consentimento informado e ausência de fraudes). Neste artigo, enquanto defendemos que esse tipo de ética, também denominada burocrática, precisa ser superada, compartilhamos e ilustramos um exemplo materializado de ética defendida na pesquisa em humanas, nomeadamente, ética emancipatória. Esse exemplo é fornecido pela tese doutoral da primeira autora, sob orientação*

[22] In the original: "[...] *consideração ética vai além de dar um pseudônimo ou código ao outro, de inserir dados biográficos à guisa de cumprimento formal, ou de apensar trancrições dos dados originais como comprovação material. Confiança na pesquisa parece ser mais importante do que confiabilidade. A consideração com o outro, a meu ver, é aquela que relativiza minhas certezas, meus alcances, que me faz repensar pontos de partidas e modos de me colocar no inacabado movimento de busca.*" (REIS, 2014, p.150).

da segunda, e apresentado com considerações de ordens epistemológicas, ontológicas, metodológicas e éticas do início do processo investigativo ao seu final. Princípios da pesquisa emancipatória (CAMERON et al., 1992), do cuidado com o outro (NODDINGS,1984) e, ainda, considerações éticas e metodológicas de Denzin (1997) e Christians (2003) para pesquisas sociais e humanas fundamentam este texto. Em suma, este artigo visa demonstrar formas de distribuição de poder e incorporação das vozes dos participantes em prática de pesquisa.

- *PALAVRAS-CHAVE: Ética Emancipatória. Empoderamento. Formação de professor de língua estrangeira.*

REFERENCES

ALUWIHARE-SAMARANAYAKE, D. Ethics in qualitative research: a view of the participants' and researchers' world from a critical standpoint. **International Journal of Qualitative Methods,** Canada, v.11, n.2, p.64-81, 2012.

BRASIL. Conselho Nacional de Saúde. **Resolução nº 196/2012**. Resolve aprovar as seguintes diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Available in: http://conselho.saude.gov.br/resolucoes/2012/Reso466.pdf. Access on: 20 out. 2015.

CAMERON, D. *et al*. Introduction. *In*: CAMERON, D. *et al.* **Researching language:** issues of power and method. London: Routledge, 1992. p.1-28.

CAMPOS, A. G. **Arqueologia, genealogia e ética em formações discursivas de organização profissional docente.** 2017. 258f. Thesis (Doctor in Language Study) - Universidade Estadual de Londrina, Londrina, 2017.

CELANI, M. A. A. Questões de ética na pesquisa em linguística aplicada. **Linguagem & Ensino,** Pelotas, v.8, n.1, p.101-122, jan./jun. 2005.

CHIMENTÃO, L. K. **Entre quatro binários:** um estudo sobre desenvolvimento profissional docente. 2016. 357f. Thesis (Doctor in Language Study) – Universidade Estadual de Londrina, Londrina, 2016.

CHRISTIANS, C. G. Ethics and politics in qualitative research. *In*: DENZIN, N. K.; LINCOLN, Y. S. (ed.). **The landscape of qualitative research**: theories and issues. 2nd. ed. Thousand Oaks: Sage, 2003. p.208-243.

COHEN, L.; MANION, L.; MORRISON, K. **Research methods in education.** London: RoutledgFalmer, 2000.

CONNOLLY, K.; REID, A. Ethics review for qualitative inquiry: adopting a values-based, facilitative approach. **Qualitative Inquiry,** Quebec, v.13, n.7, p.1031-1047, out. 2007.

CORADIM, J. N. **Ciclos reflexivos alternativos.** 2015. 348f. Thesis (Doctor in Language Study) – Universidade Estadual de Londrina, Londrina, 2015.

CORADIM, J. N. **Leitura crítica e letramento crítico:** idealizações, desejos ou (im) possibilidades? 2008. 130f. Dissertation (Master in Language Study) – Universidade Estadual de Londrina, Londrina, 2008.

D'ALMAS, J. **Leitura crítica:** um estudo da aprendizagem do aluno-professor no contexto de educação inicial. 2011. Dissertation (Master in Language Study) - Universidade Estadual de Londrina, Londrina, 2011.

DENZIN, N.K. **Interpretive ethnography:** ethnographic practices for the 21st century. Thousand Oaks: Sage, 1997.

FRANCESCON, P. K. **Práticas de leitura (crítica) de alunos do ensino médio.** 2014. 140f. Dissertation (Master in Estudos da Linguagem) - Universidade Estadual de Londrina, Londrina, 2014.

FREIRE, P. **Pedagogia da autonomia:** saberes necessários à prática educativa. 18.ed. São Paulo: Paz e Terra, 1996.

GUILLEMIN, M.; GILLAM, L. Ethics, reflexivity, and "Ethically Important Moments" in Research. **Qualitative Inquiry,** Australia, v.10, n.2, p.261-280, abr. 2004.

HEWITT, J. Ethical components of researcher–researched relationships in qualitative interviewing. **Qualitative Health Research,** Swansea, v.17, n.8, p.1149-1159, oct. 2007.

JASNIEVSKI, C. C. **Insatisfação e mudanças:** identidades sobre o real e o ideal nas bases de conhecimento do professor. 2013. 130f. Dissertation (Master in Language Study) - Universidade Estadual de Londrina, Londrina, 2013.

LEVINAS, E. **Otherwise than being or essence.** The Hague: Martinus Nijhoff, 1981.

LUNARDI, V. U. **Tempos e tempos:** narrativas de duas leitoras e professoras de Língua Inglesa. 2011. 136f. Dissertation (Master in Language Study) - Universidade Estadual de Londrina, Londrina, 2011.

MATEUS, E. Ética como prática social de cuidado com o outro: implicações para o trabalho colaborativo. *In*: MAGALHÃES, M. C. C.; FIDALGO, S. (org.). **Questões de método e de linguagem na formação docente.** São Paulo: Mercado de Letras, 2011. p.187-209.

MATEUS, E. F.; EL KADRI, M. S.; GAFFURI, P. O que se pode ver da janela: uma análise do subprojeto de Letras-inglês do Programa PIBID. **Signum:** Estudos da Linguagem, Londrina, v.14, n.1, p.363-386, jun. 2011.

MOONEY-SOMERS; J.; OLSEN, A. Ethical review and qualitative research competence: Guidance for reviewers and applicants. **Research Ethics,** Australia, v.13, n.3-4, p.128–138, 2017.

NODDINGS, N. **Caring:** a feminine approach to ethics & moral education. Berkley: University of California Press, 1984.

REIS, S. Sentidos de letramentos em identidades de alunos professores de inglês: um estudo cognitivo-discursivo. *In*: REIS, S.; CAMPOS, A. G.; SILVA, J. O. **Construções discursivas de identidades educacionais.** Londrina: EDUEL, 2014. p.129-153.

REIS, S. **Learning to teach reading in English as a foreign language:** an interpretative study of student teachers' cognitions and actions. 2005. 268p. Thesis (Doctor) – Radboud University Nijmegen, Nijmegen, 2005.

REIS, S.; EGIDO, A. A. Ética burocrática em estudos da linguagem. *In*: REIS, S. **Profissionalização docente:** história, políticas e ética. Campinas: Pontes, 2017. p.227-250.

ROOT, M. **Philosophy of social science:** the methods, ideals, and politics of social inquiry. Oxford: Blackwell, 1993.

SCHWANDT, T. A. Três posturas epistemológicas para investigação qualitativa: interpretativismo, hermenêutica e construcionismo social. *In*: DENZIN, N. K.; LINCOLN, Y. S. (ed.). **O planejamento da pesquisa qualitativa:** teorias e abordagens. Porto Alegre: Artmed, 2006. p.193-217.

SENEFONTE, F. H. R. **Gírias em aulas de inglês?** percepções de professores do ensino médio. 2014. 166f. Dissertation (Master in Language Study) - Universidade Estadual de Londrina, Londrina, 2014.

SILVA, J. O. **Uso e ousadia do professor em sua relação com o livro didático:** uma análise discursiva de identidades em (re)construção. 2014. Thesis (Doctor in Language Study) - Universidade Estadual de Londrina, Londrina, 2014.

TELLES, J. A. É pesquisa, é? Ah, não quero, não, bem! Sobre pesquisa acadêmica e sua relação com a prática do professor de Línguas. **Linguagem & Ensino,** Pelotas, v.5, n.2, p.91-116, 2002.

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REVIEWS

MANIPULATION IN POLITICAL DISCOURSE[1]

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The book *The conquest of public opinion*: how discourse manipulates political choices[2] has 192 pages with three chapters titled: "What's public opinion?"[3], "Manipulating public opinion"[4] and, finally, "Opinion crisis, democracy crisis: the symptoms of a postmodernity political crisis"[5] plus Introduction.

(1) "What's public opinion?" is subdivided in (a) "A pre-requisite: how collective identity is built"[6], (b) "From collective opinion to public opinion"[7], (c) "The public opinion fabrication"[8], (d) "A confusion to avoid: opinion is not the electorate"[9] and (e) "Citizen consciousness: The difficult paradox"[10].

(2) "Manipulation of public opinion" includes: (a) "Manipulation in the political world"[11],(b) "Manipulation in the media world"[12] e (c) "Conclusion"[13].

(3) "The crisis of opinion, crisis of democracy: the symptoms of a political postmodernity crisis", deals with the following issues: (a) "The question of sovereignty in a democratic regime"[14], (b) "The issue of counterpower"[15], (c) "The reasons for

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1 Review work: CHARAUDEAU, P. **A conquista da opinião pública***:* como o discurso manipula as escolhas políticas. Translation: Angela M. S. Corrêa. São Paulo: Contexto, 2016. 192 p.

2 In the original: "*A conquista da opinião pública: como o discurso manipula as escolhas políticas."*

3 In the original: "*O que é a opinião pública?"*

4 In the original: "*A manipulação da opinião pública."*

5 In the original: "*Crise da opinião, crise da democracia: os sintomas de uma crise política da pós-modernidade."*

6 In the original: *"Um pré-requisito: como se constrói a identidade coletiva."*

7 In the original: "*Da opinião coletiva à opinião pública."*

8 In the original: *"A fabricação da opinião pública."*

9 In the original: "*Uma confusão a evitar: a opinião não é o eleitorado."*

10 In the original: "*A consciência cidadã: O difícil paradoxo."*

11 In the original: "*A manipulação no mundo político."*

12 In the original: "*A manipulação no mundo midiático."*

13 In the original: "*Conclusão."*

14 In the original: "*A questão da soberania num regime democrático."*

15 In the original: "*A questão do contrapoder."*

a political crisis of postmodernity”[16], and (d) “Between democracy of opinion and participatory democracy”[17].

The way the author explains complex concepts that surround the construction of public opinion, through accessible language, even to beginners to the subject, plus examples (mostly French) of the current world is what provides fluent reading and easy understanding of the work.

On the other hand, for the researchers - both in discourse analysis and in other areas such as sociology, politics and communication - the book shows and clarifies the implicit contents that lie in the text, a fact that contributes to the persuasive process of discourse.

The first chapter – “What is public opinion?” — reports the construction of collective identity, which is what Rimbaud (2009) summarized in I is someone else, i.e., I only exist because there is someone else that is different from me. A group is constructed according to social factors (e.g., the place we occupy and the roles we play) and cultural factors (e.g., life practices of group members; representations that make the world).

Collective identity is fragile and must be constantly defended (differentiation process). In this process of construction, there are groups that isolate themselves; groups that dominate other groups (attempt of assimilation). Assimilation (or integration) can be verified, for example, in the case of immigration as seen by the host country, which will require it in exchange for the entry permit.

An opinion is a personal or collective judgment, an assessment, that an individual makes about the beings or events of the world and is, therefore, subjective and relative. The same does not happen with the knowledges of belief, which encompass objective explanations.

At the time of enunciation, there is no collective word (a choir, for example, to utter the same word), but an individual who pronounces it and who wants his/her opinion shared. Once shared, the opinion could be considered true. Collective opinions are not, therefore, the sum of individual opinions, just as the identity of a group is not the sum of individual identities.

Public opinion needs motives: events that present themselves to it and to the group that supports it (politicians, opinion polls, media), and emerges by reaction of individuals in situations they deem unsustainable. Thus, for public opinion to manifest itself, it is necessary to emerge an event likely to sensitize many individuals. An event that causes problems and that is not resolved. Charaudeau warns for confusion to be avoided: opinion with electorate. He deals with several events that have shaken the French public opinion and ends the chapter with the difficult paradox surrounding citizen consciousness. For him, it is necessary to distinguish between identity belonging and identity feeling: one belongs to a group because of one’s social identity of age, sex,

16 In the original: “*As razões de uma crise política da pós-modernidade.*”

17 In the original: “*Entre democracia de opinião e democracia participativa.*”

family environment, etc. The feeling of identity comes from an idealization; it constructs itself subjectively in reference to a group in which we wish to recognize ourselves, to which we attach ourselves through beliefs. Citizen consciousness is "a condensate of wanting to be together and of wanting to live together and is of symbolic order." (CHARAUDEAU, 2016, p.63, our translation)[18].

In the second chapter – "The manipulation of public opinion" – the author deals with the manipulation of public opinion in the political world that can be done by manipulating discourse through seduction. To this end, Charaudeau asserts that a charismatic leader tends to manipulate public opinion more easily and specifies some types of charisma, such as the Messianic charisma that, according to Max Weber, is related to the gift of grace. For Weber (2003), unlike most experts in the subject, merit should not be given to the type of charisma itself, but to its domination and its effects. In a more sociological and historical line of reasoning, Weber sees the charismatic domination as the essence to understand these phenomena without necessarily dwelling on the substance, or element, that makes a figure a leader in counterpoint to his proselytes. Although primarily focused on the charismatic individual, Weber's attention is also drawn to the relationship of the individual with the collective, since only through the recognition of the follower, and even of the community in which s/he lives, the existence of charisma is formed. The referred gift of grace is not necessarily of divine order; it can be an inner force. In the case of the political actor, Charaudeau cites Christ as an example of someone who had the Kantian duty of the type do what you should, as well as figures less related to religion, as the case of General Charles De Gaulle, who, according to the author, was endowed with such grandeur that he had the mission to save France.

There are, in the author's opinion, other charismatic leaders such as those who have explored the founding roots of a people, calling for revolt as Hugo Chaves did in his speeches when referring to Simon Bolivar and to the trees of the three roots.[19]

Another type of charisma, to which Charaudeau refers, is the Caesarist charisma, which is related to the ethos of power that can be expressed through different figures. They are apparently figures of exaggerated virility and may even be expressed by sexual adventures as was the case of former US President John Fitzgerald Kennedy and former Italian President Silvio Berlusconi. There are also energy figures, which are manifested by hyperactivity as happened with Fidel Castro and Che Guevara. However, there is an ethos less related to power, but more related to courage, as can be seen in the speech of former Argentine President Juan Domingos Peron on Peronism. Charaudeau makes clear that the political charisma is of another nature in relation to the other types of charisma, for there seem to be two antagonistic forces that permeate this relation: on the one hand, there is power – an indeterminate place – but with a force of domination;

[18] In the original: "*um condensado do querer estar juntos e do querer viver juntos e é de ordem simbólica*." (CHARAUDEAU, 2016, p.63).

[19] Allusion to the historical figures Simón Bolívar, Simón Rodriguez and general Ezequiel Zamora.

on the other, a people – a somewhat amorphous global entity – without indefinable limits, but a supposed place of counter-power.

This same chapter, which starts with the subchapter "The Manipulation of the Political World"[20], brings further subchapters on manipulation of public opinion entitled as: "The manipulation of the dramatization speech", "The manipulation by the exaltation of values", "The populist discourse as a recycling of the extremist discourses", "Discourse as the scrambling factor of political oppositions", "The manipulation in the media world"[21].

In "The Manipulation of the Political World"[22], Charaudeau presents an overview on politics and on political actors. It deals with the idea that the political word circulates in a public space and is subject to its restrictions, i.e., in this space, the exchanges occur not between individuals but between entities or collective instances, which are defined by means of statutes and social roles. It is in this political space that there are the two instances, mentioned by the author, which are the political and national instances.

The following is a subsection on manipulation by opinion polls, which is subdivided into: "Public opinion research which is a speech", "Different types of opinion polls", "A deforming mirror of society", "Analysis of an opinion poll that causes complexity", "A good example of manipulation", and "Surveys shape public opinion"[23], followed by a conclusion about manipulation.

In "The manipulation of the dramatization discourse"[24], the author argues that political discourse, far from being an absolute truth, tries to challenge others by means of appeals to feelings and by making scenarios, as in a theatrical stage in which dramas and tragedies are presented in order to manipulate public opinion. This discourse may arouse a protest movement, such as some injustice causing indignation, and a state of anguish in public opinion. There are episodes in history in which this discourse is justified, for example, military interventions in foreign countries where absolute enemies such as Saddam Hussein, Slobodan Milošević and Osama Bin Laden were stigmatized.

Concerning the chapter "The manipulation by the exaltation of values"[25], there is a subjective question to be thought which is the notion or the meaning of the term values. All the politicians declare they defend values of their nations, of democracy, of the republic, etc. However, the point is that certain values can be judged by the utility and good functioning of social life at a given time, and these values can be considered as

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20 In the original: "*A manipulação do mundo político.*"

21 In the original: "*A manipulação do discurso de dramatização, A manipulação pela exaltação de valores, O discurso populista como reciclagem dos discursos extremistas, O discurso como fator de embaralhamento das oposições políticas e A manipulação no mundo midiático.*"

22 In the original: "*A manipulação do mundo político.*"

23 In the original: "*A pesquisa da opinião pública que é um discurso, Diferentes tipos de pesquisa de opinião, Um espelho deformante da sociedade, Análise de uma pesquisa de opinião que causa complexidade, Um bom exemplo de manipulação e As pesquisas formatam a opinião pública.*"

24 In the original: "*A manipulação do discurso de dramatização.*"

25 In the original: "*A manipulação pela exaltação de valores.*"

values that are obstacles to the performance of the economy and even social well-being, as Luis Fernando Veríssimo puts it ironically in his text called *Silogism*:

> [...] Our stability and our prestige with the international financial community are due to the tenacity with which honest and capable men, resisting emotional appeals, maintain an economic policy firmly rooted in the misery of others and admirable coherence based on the hunger of others. The country is only viable if half of its population is not. (text published in O Globo, our translation)[26]

In this same paragraph, in The populist discourse as a recycling of the extremist discourses[27], Charaudeau approaches the ideological French matrices of both right and left, in order to deal with the populist discourse as a recycling of the extremist discourses. Populist discourse, consistent with the dominant tradition in comparative political science, defines populism as a form of politics based on the "moral debasement of elites and the concomitant veneration of ordinary people" (KRIESI, 2004, p. 362). According to the author, populism is denounced as an antechamber of totalitarianism. He proclaims the victimization of a people, the exaltation of certain values of such people and the demonization of the guilty ones, made by the figure of the scapegoat. Populist discourse as a scrambling factor of political oppositions provides examples from history that have occurred in Europe as well as in Latin American, and in African or Eastern countries. For the author, populist discourse has a historical origin in the extreme right-wing, but can align, for strategic purposes, with the discourse of the extreme left-wing as well.

In this line of thought, left-wing populism seeks a strong state, with no market economy, but at the service of the people to whom it must redistribute wealth. Likewise, right-wing populism defends the less favored classes, but without state intervention. In the case of France, these classes are represented by a population of the agrarian interior, plus a small bourgeoisie of merchants and artisans. Left-wing populism, on the other hand, fights for the group of members of the so-called popular class as workers, proletarians and illegals. As enemies, right-wing populists have not only the establishment but also a hypothetical Communist-Socialist alliance. The enemies, in the case of left-wing populists, would be the so-called reactionary forces, named fascists at other times.

Titled "The manipulation in the media world"[28], this part presents a subdivision that deals with a discourse feature that goes from the superdramatization of information to

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[26] In the original: "[…] *A nossa estabilidade e o nosso prestígio com a comunidade financeira internacional se devem à tenacidade com que homens honrados e capazes, resistindo a apelos emocionais, mantêm uma política econômica solidamente fundeada na miséria alheia e uma admirável coerência baseada na fome dos outros. O país só é viável se metade da sua população não for."* VERÍSSIMO, L. F. O Globo, 24/03/2000, citado pelos autores.

[27] In the original: "*O discurso populista como reciclagem dos discursos extremistas."*

[28] In the original: "*A manipulação no mundo midiático."*

the peopolisation of the politician. The strategy that politicians use to reach undecided voters through nonpolitical argumentation contributes both to personification and dominance of television advertising. In addition, “negative publicity in attacking opponents directs the attention of voters to the personal characteristics of the candidates with the most votes” (ANSOLABEHERE; IYENGAR, 1995, p.258). As consequence, personalities with greater intention of votes become the main motive of votes, to the detriment of political programs or campaign themes, having as a doubtful side-effect the celebration of politics, i.e., peopolisation. According to the author, peopolisation is distinguished from populism by having a discourse characteristic that deals with the private lives of the famous ones such as celebrities plus movie, sports, and art idols, etc. This is the matter of gossip magazines. This phenomenon is a double-edged sword, as it desacralizes the politician by getting her/him closer the voter, and by taking her/him off her/his pedestal, but resacralizes her/him “by introducing humanity to a function that, by definition, is dehumanized” (CHARAUDEAU, 2016, p.124, our translation)[29].

Under the title “The manipulation by opinion surveys”[30], Charaudeau analyzes the opinion polls stating that they are actually a type of discourse because, for him, polls are an act of language that brings, in its core, a set of questions and answers. In this way, opinion polls can induce a response, since, in general, every question imposes a scheme of speech in which the one who is asked is inserted. Also, one can think of the questioner as someone who wants to know something for a certain purpose.

The author makes a general survey of the various types of polls and argues that they can be a deforming mirror of society (author’s words), as they feed the electoral dramaturgy, i.e., allow political commentators, with their own ideologies, to comment the poll results within their own bias. Thus, polls can manipulate public opinion, since they are, in turn, acts of formatting a thought that does not know what it represents.

In sum, the author sees, in opinion polls, the lack of boundaries between legitimate persuasion strategies or the sampling of a scenario through research and the intent to manipulate minds.

Finally, in the third chapter – Opinion crisis, democracy crisis: the symptoms of a postmodernity political crisis – the author addresses the phenomena much discussed today, crises of opinion and democracy. In monarchic regimes, due to fact that power supposedly has a divine origin, the voice that represents a people acquires its sovereignty by an absolute regime of beliefs; nevertheless, in a democratic regime, “the voice comes from below, that is, from the public opinion” (CHARAUDEAU, 2016, p. 152, our translation[31]) and this is not always translated by the alignment between the public opinion and the representative(s) of that opinion. If we take as an example, among several instances that occurred in Brazilian politics, we can cite the case of the trial

[29] In the original: “[...] *pelo fato de introduzir humanidade numa função que, por definição, é desumanizada*” (CHARAUDEAU, 2016, p.124).

[30] In the original: “*A manipulação pelas pesquisas de opinião.”*

[31] In the original: “[...] *a voz vem de baixo, ou seja, da opinião pública*” (CHARAUDEAU, 2016, p. 152).

that occurred in the House of Representatives in Brasilia, which exempted the current President of the Brazilian Republic, Michel Temer, from being investigated by the Federal Supreme Court (FSC) despite the fact that the vast majority of Brazilians, as revealed by some opinion polls, favors the authorization for the FSC to decide whether or not to settle a criminal case against the president.

Then one can read that the possible notions related to these crises of democracy and power as counterpower, which comes from the public opinion in the form of claims, are ignored.

According to Charaudeau, a full democracy without counterpower does not exist. The great democratic principle is that of the provisional delegation of the power of a people to a representative, who in theory will represent it in vital decisions that will strongly affect the life of this very same people. In this case, counterpower has an important role in regulating the sovereignty of a representative so that the policy of a country is not made only in the name of a majority or an active minority without any justification.

In The conquest of public opinion: how discourse manipulates political choices[32], Charaudeau amplifies the ideas discussed here and makes his analysis about the construction of public opinion. He builds a discursive activity on how one can manipulate opinion polls. The book attempts to detail how the manipulative discourses occur, taking into account the processes of individual and collective identity construction brought to the surface by feelings, values, political theater, and charisma.

It is worth emphasizing the social importance of reading the book for those who want to think about the stratagems used for the conquest of public opinion and for the ones willing to understand the discursive strategies existing in the current historical moment. In democratic regimes, politicians are the ones who represent the voice of the people, but for them to come to power, they must use discourse to win over citizens. And it is through words that people seduce, persuade, manipulate, and regulate their social and political lives.

SAPARAS, M.; IKEDA, S. A manipulação do discurso político. **Alfa**, São Paulo, v. 63, n.3, p.719-726, 2019.

REFERENCES

ANSOLABEHERE, S; YIENGAR, S. **Going Negative:** How Attack Ads Shrink and Polarize the Electorate. Michigan: Free Press, 1995.

KRIESI, H. The populist challenge. **West European Politics**. Abingdon, v. 37, p. 361-378, 2004.

[32] In the original: "*A conquista da opinião pública: como o discurso manipula as escolhas políticas.*"

RIMBAUD, A. **Correspondência**. Tradução de Ivo Barroso. Rio de Janeiro: Topbooks, 2009.

VERISSIMO, L. F. Silogismo. **O Globo**, Rio de Janeiro, 24 mar. 2000.

WEBER, M. **Le savant e le politique**. Paris: La Découverte/Poche, 2003.

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ENCOURAGING SCIENTIFIC PRACTICE THROUGH THE SEMANTIC ANALYSIS OF BRAZILIAN PORTUGUESE[1]

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Although the inauguration of Formal Semantics in Brazil dates back to the 1970s (BORGES NETO; MULLER; PIRES DE OLIVEIRA, 2012), it was from the 2000s that the related literature, previously restricted to postgraduate studies, started to gain introductory volumes for undergraduate students in order to prepare and attract future semanticists (ILARI, 2001; PIRES DE OLIVEIRA, 2001; CANÇADO, 2012; FERRAREZI JUNIOR; BASSO, 2013). In this scenario, *Para conhecer Semântica* (Editora Contexto, 2018), written by the linguists Ana Paula Quadros Gomes (UFRJ) and Luciana Sanchez Mendes (UFF), takes place in the introductory bibliography on Formal Semantics produced in Portuguese. Based on internationally recognized proposals that seek to formulate explanations of universal application, the authors analyze Brazilian Portuguese (BP) phenomena with current examples and jovial language. The book brings fundamental theoretical concepts to the area and also reflects important developments in Semantic research in recent years, such as the treatment of nominal structures and modifying expressions, for which the authors' own research has contributed significantly.

Like the pioneer *Semântica Formal: uma breve introdução*, by Roberta Pires de Oliveira (2001), the current *Para conhecer Semântica* is an introductory manual of Formal Semantics. It does not address other perspectives of Semantics, as does the also referenced *Manual de Semântica: noções básicas e exercícios*, by Márcia Cançado (2012), and *Semântica, Semânticas: uma introdução*, by Ferrarezi Jr. e Basso (2013). The differential of *Para conhecer Semântica* lays in its **organization** and especially in the **topicality** of the discussed data and theoretical approach, which reflects in the selection of the spotted phenomena and in the way they are presented. The authors depart from classic studies, mandatory for any semanticist, and get to recent developments in the area, where knowledge is constantly updated and major restatements become necessary in order to account for challenging empirical data.

The aim of the authors with *Para conhecer Semântica* is to present Semantics as a formal science, which seeks general, economic and logical explanations, from hypotheses that can be confirmed or falsified by the data. In this way, Semantics aims to describe a fundamental part of human linguistic knowledge, that is, "[…] how any

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1 Review work: GOMES, A.; MENDES, L. **Para conhecer semântica**. São Paulo: Contexto, 2018. 208 p.

native speaker produces meaningful sentences and understands well-formed sentences in their language." (p.9). The authors, then, promote scientific thinking using the *linguistic meaning* as the subject of investigation.

The book is organized in four chapters that contemplate, in the authors' words, "the three largest slices of a natural language", which are the *noun phrase*, the *verbal phrase* and the *modification*. Each part starts with the objectives of the chapter and concludes with indications of complementary readings and exercises, following the format of the collection *Para Conhecer*, by Editora Contexto. The Chapter 1 (p.13) introduces the field of Semantics, its object, and delimits the discussion of the book to the meaning at the sentence level. The aim is to determine the truth conditions of the proposition expressed by the sentence from the meaning of its parts, thus defining the *vericonditional* and *compositional* perspective of Semantics assumed in the book. Classical phenomena that are of interest to any Semantic perspective are then presented and analyzed, such as *ambiguity*, *anomaly*, *presupposition* and, under the label of *logical links*, the relations of *entailment*, *contradiction*, *synonymy*, and *contingent truth*. These phenomena reveal a fundamental part of our semantic knowledge, which is the ability to relate meanings and deduce one proposition from another. For example, how do we know that if 'John traveled yesterday' is true, necessarily 'John traveled' will also be true, but the opposite is not the case? We can say that 'John traveled yesterday' entails that 'John traveled', but 'John traveled' does not entail that John traveled yesterday (it may have been at any time in the past). Moreover, how do we know that in order to 'Dom Casmurro stopped trusting Capitu' to make sense, 'Dom Casmurro trusted Capitu' has to be true? The authors show how these operations, which we perform intuitively, relate to each other and extend our knowledge of the world, and present the syntactic-semantic mechanisms that trigger such operations, introducing the basic mathematical tools to formalize the explanation.

In the last two sections of Chapter 1, Gomes and Mendes discuss concepts such as the distinction between the *Sense* and the *Reference* of an expression, *predication*, and *compositionality*. Those are notions inherited from Philosophy and are theoretical assumptions upon which Formal Semantics is based. Proposed by Frege (1978), they were a theoretical leap in understanding how we relate the terms of the language to "things in the world", and how we calculate the truth of a proposition, in a time in which the meaning of a term used to be understood as its referent. For example, how do we speak about what does not exist, like 'Pegasus' and 'Santa Claus'? And what would be the referent of abstract terms like 'love', 'tiredness', and 'freedom'? Frege proposed that the relation between the term and its reference was not direct, but mediated by *meaning*, the *thought* expressed by the term. We interpret terms that name non-existent or abstract objects because we know their meaning, and to know more than one meaning for the same reference is to know more about the world.

Moreover, in Frege's time, the truth-value of a proposition was still calculated in the Aristotelian way: the meaning of a sentence was understood as a composition between a particular and a category. So, 'Bob Dylan is mortal' would be true if the particular

‘Bob Dylan’ belonged to the ‘mortal’ category. For Frege, this way of analyzing meaning did not account for transitive sentences like ‘Bob Dylan wrote Blowing in the Wind’. What would be the particular and what would be the category in this most complex sentence? The Fregean output was to treat verbs as *predicates* – unsaturated but meaningful expressions – and their complements as *arguments* – saturated expressions that generate the saturated expression called *sentence* when combined with predicates. Formally, predicates came to be seen as *functions*, relations between sets. The ‘write’ predicate is a function that takes two arguments: ‘Bob Dylan’ from the set of writers, and ‘Blowing in the Wind’ from the set of the written things, and returns the sentence ‘Bob Dylan wrote Blowing in the Wind’, which expresses a proposition that we can evaluate as true or false. The solution brought with predication and compositionality was challenged by sentences like ‘Mary thinks Bob Dylan comes to Brazil’, in which knowing the reference of the embedded proposition does not contribute to calculate the truth value of the whole proposition. If ‘Bob Dylan comes to Brazil’ is false, it does not follow that ‘Maria thinks Bob Dylan is coming to Brazil’ is also false, because Maria may believe in something that is not true. Years later, Frege’s observation culminated in the concept of *intensionality*, in which the meaning is still compositionally computed, but not according to its extension (or *reference*), but according to its meaning, its *intension*. This issue is retaken in Chapter 3, which is dedicated to the analysis of the verbal phrase. With this introduction on key concepts of Formal Semantics, Gomes and Mendes *illustrate a fundamental factor of the scientific doing*, which is to confront empirical data with theoretical predictions, to then reformulate hypotheses and refine the theory in order to offer a better account for the data.

Chapter 2 deals with the nominal phrase (NP), a topic of great prominence in the recent semantic researches for contributing, among other issues, to the understanding of the differences between BP and European Portuguese (EP). The chapter presents the types of NP and discusses the differences between noun and determinant phrases in subject position and in complement position; between massive names and countable names; and between defined and indefinite phrase. The authors analyze such phenomena by showing how BP data challenge traditional descriptions, and introduce formal analysis tools, such as notions of *atomicity* and *cumulativity*, *plurality* and *set theory*. In this chapter, the authors analyze data such as ‘Eu comprei revista no domingo’ (‘I bought magazine on Sunday’) and ‘Eu comprei uma revista no domingo’ (‘I bought a magazine on Sunday’), and show that both are accepted in the BP, but with different interpretations, whereas in EP only the second sentence is accepted. They also analyze the difference between nouns that denote countable objects such as ‘apple’ and massive objects such as ‘sand’, pointing out the relevance of describing the semantic characteristics of each type so that we can explain why we naturally say ‘Duas maçãs caíram no chão’ (‘Two apples fell on the ground’), but not ‘*Duas areias caíram no chão’ (‘Two sands fell on the ground’). In the same chapter, the authors also explore de semantics of plurality, the semantics of definitude, and the semantics of the generalized quantifiers. In this last topic, we find an analysis of the inescapable scope interactions triggered by the generalized quantifiers, either among themselves, or between themselves and other operators.

The verbal phrase is the subject of Chapter 3, where the authors discuss topics such as argument selection and thematic roles; the expression of time and aspect; and the expression of mood and modality. The impersonal nature of some verbs, the expression of existentiality, and the possibility of one of the arguments selected by the verb to be an expression denoting not an individual or a set of individuals, but an *event,* are topics explored in this chapter. Such topics highlight the relation between the verb's nature and how it selects its arguments, which is treated by the authors from the perspective of thematic roles, thematic hierarchy, and verbal alternation, or *diathesis*. The theoretical tool introduced by the authors in order to deal with the notions of time and aspect are the proposals of Reichenbach (2011) and Vendler (1957) and, for the treatment of modality, the standard proposal of Kratzer (2012) is assumed, three classical approaches used to explain how we are able to talk about situations that are not "here and now". The expressions of past and future, inferred, possible, necessary or hypothetical situations, which require considering alternative states of affairs, enter into this range. In this chapter, a leading notion of semantic analysis at the propositional level comes more prominently into play, and it figures as an important rethinking of semantic theory to account for empirical data that, at first, challenged the theory. This notion is the *context*.

Reichenbach's relative view of time (2011) seeks to undo the triviality of sentences like 'John took a shower'. This sentence is only adequate if it is evaluated at some relevant time, which somehow relates to the current time because it is trivially expected that John has taken a shower in the past. The phenomenon is known to have been approached by Partee (2004) in her famous example 'I did not turn off the stove', where the author, from the point of view of time as deictic and relative, proposes to analyze tense as analogous to a pronoun, whose value is provided by the context. As for the aspect, besides the grammatical aspect expressed by the morphology, Gomes and Mendes deal with the lexical aspect showing how the verbs can be classified semantically according to the functional classes, just like they are classified syntactically according to their transitivity. Following Vendler (1957), the authors show how a semantic classification contributes not only to the categorization of verbs, but also to explain phenomena such as the distribution of certain adjuncts and the validity of arguments. For example, why can we say 'John ran *for two hours*', but not '*John run *in two hours*'? Or, why 'John was running entails that 'John ran', but 'John was crossing the street' does not entail 'John crossed the street?

At the end of Chapter 3, Gomes and Mendes present *mood* as a sentential mark that indicates that the sentence expresses *modality*. The limit is drawn between modality as a speaker's attitude and modality in the formal assumption, in which modals strictly express possibility and necessity. In other words, they differentiate the subjective view from the propositional view of modality. Following the propositional view, the authors analyze modal sentences in BP according to Kratzer's (2012) formal standard perspective, in which modals are operators on sets of possible worlds constrained by contextual information that determine the modal interpretation in the sentence. A sentence like 'John can swim' expresses "many kinds" of possibility: John can swim because he was allowed to; or because he has the ability to; or because, based on what we know, 'he might swim'. Each meaning is a different proposition because it expresses a different thought. What determine the proper interpretation are the propositions provided by context, which are formalized as possible world sets. Thus, in the interpretation 'John can swim because he is permitted', 'can' is an existential quantifier on the set of worlds in which John attends the permissions granted to him.

In the analysis of modality, the authors retake the notion of intensionality and logical relations between sentences by showing that a sentence like 'John can swim' speculates on the possibility of the event of John swimming to be confirmed, but does not guarantee it as a fact, which is an evidence that an extensional analysis does not suffice for modality. The modal proposition, being true, does not grant the truth of the embedded proposition, so that even though John never swims, the modal proposition can still be true. For compositional analysis to be possible, one must resort not to the reference of the embedded proposition – its extension, its truth-value – but to its meaning – its *intension*, the *thought* expressed – formulated as a set of possible worlds.

In the fourth and last chapter, the context is also a key ingredient for the analysis of the third major slice of natural language, the *modification*, compressing the analysis of adjectives, adverbs, and intensifiers. The adjectives and the challenges they bring to a unifying compositional analysis stand out due to the variety of readings they receive according to the syntactic position in which they appear. Adjectives that can appear either in a canonical attributive position (after the noun or as a predicative) as well as before the name, alternating the reading from intersective to intensional, are especially challenging. For example, an adjective like 'poor' has an intersective reading in canonical attributive position – 'O menino pobre fugiu'[2] – and in a predicative position – 'O menino é pobre' ('The boy is poor'); but an intensional reading in 'O pobre menino fugiu' ('The unfortunate boy escaped'). For this (apparent) issue, the authors show how the observation of the degree adjectives as 'high' in 'John is high', and the interaction of this type of adjective with intensifiers, as 'very', and with comparative constructions brings contextual dependence as a tool for the analysis of adjectives. Relying on context, we can explain how we can say that John, who is 1.80m tall, is a tall man for a jockey, but a short man for a basketball player; or, how we can say that John is good, professionally speaking, from the information that John is a good physician. Thus, a unified treatment is presented: degree adjectives are intersective when we take into account the information provided by the context.

Gomes and Mendes close the last chapter with the adverbs. Traditionally defined as expressions that modify a verb, an adjective or another adverb, the adverbs make up a very diverse category. Some adverbs modify events – as in 'Maria cooks *well'* –; others indicate mode, time and place – 'John came home *at 5 o'clock*' – or modify

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2 Meaning the boy is poor because he has no money or goods.

the entire proposition – '*Unfortunately*, the product is out of stock'. Some intensify – 'Maria cooks *very* well' - others quantify – 'Maria *always / sometimes / never* cooks well' – and others are modals – 'Maria *possibly* cooks'. Some operate in the truth-conditions, as in 'Maria cooks *well*' (that is, she does not cook badly). Others express speech acts, as in '*Sincerely*, for me it is better to be without Neymar in the team', and do not interfere with the truth-conditions. The authors, therefore, treat the adverbs and adjectives according to the type of operation they perform in the sentence, showing that they go beyond expressing qualities. The authors admit that it is a linguistic phenomenon – if not the most – that is difficult to formulate theoretically, due to the richness of the lexicon involved, the diversity of operations they carry out and their strong dependence on the context.

The topicality of the examples is a highlight in *Para conhecer Semântica*. Some of them are drawn from known memes on social networks, which invigorate the analysis even for those already familiar with the themes. For instance, the notorious sentence 'O bêbado bateu na velha de bengala' ('The drunk man hit the old lady with a cane'), which is traditionally used for the analysis of structural ambiguity, is replaced by the playful 'Seu cachorro corre atrás das pessoas de bicicleta' ('Your dog runs after people on bicycle'), contextualized in a dialogue to which the dog's owner replies 'Mentira, meu cachorro não tem bicicleta' ('Liar, my dog has no bicycle'). The arrangement fetches the captivating element of surprise by bringing up the unexpected interpretation triggered by the sentence structure. The entire introduction to formalization is presented with illustrations, and graphic frames highlight key concepts.

With an accessible and witty writing, the authors start from traditional analyzes to the theoretical reformulations that became necessary when the linguists faced data that defied the theory. An important ingredient of these reformulations pointed out by the authors, and which lays the foundations for the reinterpretation of the field, is the formalization of the contextual contribution in Semantics. Formal Semantics is superficially defined as the area that studies the meaning out of context (Pragmatics would be in charge of analyzing the language in context), but actually it presents tools to formalize the contribution of contextual information, without which, as well shown along the book, usual sentences like 'João pode correr amanhã' (Is he allowed to run? Has he the physical ability to run? Might he run?), or 'João é alto' (John is tall, but compared to whom?), could not be fully interpreted.

The aim in attracting the beginner's interest to the semantic analysis is fulfilled in the way the book is organized, and pointed by the authors in final considerations. The phenomena are first presented almost informally, and aspects of logical formalization are slowly introduced by means of a powerful tool, which is the analysis of language data that are accessible to any speaker. The content of the book, in the way phenomena and data analyses are presented, leads the readers to realize that they have in themselves a potential linguist, in principle, by having the essential tool for any linguistic analysis: the speaker's intuition.

Gomes and Mendes wrap up *Para conhecer Semântica* with a substantial list of bibliographical references that brings together seminal texts on the phenomena approached, and also most recent proposals on which the analyses presented in the book were based, from national as well as foreign researchers. Thus, *Para conhecer Semântica* adds up to the essential bibliography in Portuguese for every beginner interested in Semantics, as well as it shows up as a potential guide for educators in the field.

PESSOTTO, A. O incentivo à prática científica por meio da análise semântica do português brasileiro. **Alfa**, São Paulo, v. 63, n.3, p.727-733, 2019.

REFERENCES

BORGES NETO, J.; MULLER, A. L.; PIRES DE OLIVEIRA, R. A semântica formal das línguas naturais: histórias e desafios. **Revista de Estudos da Linguagem**, Belo Horizonte, v.20, n.1, p.119-148, jan./jun. 2012.

CANÇADO, M. **Manual de semântica**: noções básicas e exercícios. São Paulo: Contexto, 2012.

FERRAREZI JUNIOR, C.; BASSO, R. **Semântica, semânticas**: uma introdução. São Paulo: Contexto, 2013.

FREGE, G. **Lógica e filosofia da linguagem**. São Paulo: Cultrix, 1978.

ILARI, R. **Introdução à semântica**: brincando com a gramática. São Paulo: Contexto, 2001.

KRATZER, A. **Modals and conditionals**. Oxford; New York: Oxford University Press, 2012.

PARTEE, B. H. Reflections of a formal semanticist. *In*: PARTEE, B. H. (sel.). **Compositionality in formal semantics**. Oxford: Blackwell Publishing, 2004. p.1-25.

PIRES DE OLIVEIRA, R. **Semântica formal**: uma breve introdução. Campinas: Mercado das Letras, 2001.

REICHENBACH, H. The tenses of verbs. *In*: MEINSTER, J.; SCHERNUS, W. **Time from concept to narrative construct**: a reader. Berlin; New York: De Gruyter, 2011. p.1-12.

VENDLER, Z. Verbs and times. **The Philosophical Review**, Ithaca, v.66, n.2, p.143-160, 1957.

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PAPER SUBMISSION INSTRUCTIONS

Alfa: Revista de Linguística

1. Editorial policy

ALFA – Revista de Linguística – the linguistics journal of the São Paulo State University (UNESP), sponsored by the Research Provost, publishes papers authored by professors, researchers, and PhD students in co-authorship with professors and researchers from national and international institutions of learning, teaching and research. Maximum number of co-authors should be 3. Regular issues are organized in a "continuous flow" system, and special issues are edited according to the organizers' convenience. The journal publishes papers, book reviews, interviews and translations with a substantial contribution to any of the various branches of Linguistics.

Contributions in the form of articles should be original and unpublished and cannot be simultaneously submitted for publication in other journal. Only reviews of books published in Brazil in the last 2 years and abroad in the last 4 years should be submitted for publication in the journal. Translations should be preferably of scientific articles and book chapters published within twelve months of submission; interviews should be conducted with researchers with academic prestige acknowledged in Brazil and abroad.

All submissions are read by two anonymous referees. Authors' identities are not revealed to the referees. Should the judgment of the two referees be inconsistent, a third referee will be called in. Once the refereeing process is concluded, the review copies are sent to the author, or to the first author of co-authored papers, with the appropriate instructions.

Papers can be written in one of the following languages: **Portuguese, English, French, Spanish**, or **Italian**. In papers written in **Portuguese**, *TÍTULO, RESUMO*, and *PALAVRAS-CHAVE* should come before the body of the paper, and their English versions, *TITLE, ABSTRACT*, and *KEY-WORDS*, after it. In papers written in any of **the other languages**, the corresponding elements that come before the body of the paper should be written in the same language the paper was written; the corresponding elements that come after the body of the paper should be written in **Portuguese** for papers written in **English** and in **English** for papers written in **French, Spanish**, or **Italian**.

All articles are published in a bilingual format, with English necessarily as the second language version. Authors who submit for approval an article originally in English must, in case it is accepted, provide its version in Portuguese, following the same guidelines indicated for the English language. Only articles with accepted versions in Portuguese (or another chosen language) and English will be published. If both versions are not accepted, the article will not be published.

The journal editor reserves the right to return a manuscript if it departs from the style requirements. When applicable, a personal letter will be sent to the author, asking for improvements and adaptations.

Authors are responsible for the data and concepts expressed in the paper as well as for the correctness of the references and bibliography.

2. Online submissions

To submit a paper, authors must be registered on the journal's website. To register, create a login name and a password by clicking **Acesso** (Access) on the journal's website. After logging in, fill in the profile by clicking **Editar Perfil** (Profile Editing) and start the submission process by clicking **Autor** (Author) and then **CLIQUE AQUI PARA INICIAR O PROCESSO DE SUBMISSÃO** (Click here to start the submission process). Follow the **five-step submission process** below:

Step1. Confirm the agreement to the Journal Policies (**Condições de submissão**) and the Copyright Terms (**Declaração de Direito Autoral**) by checking the appropriate boxes. Select either **Artigo** (Paper) or **Resenha** (Review paper). Save the form and go to step 2.

Step 2. Enter metadata: first name, last name, e-mail, bio statement, and paper title are obligatory. Save the form and go to step 3.

Step 3. Upload the paper file. Go to step 4.

Step 4. If necessary, upload supplementary files such as appendixes and annexes with research tools, data and tables, which should conform to the ethical standards of assessment, sources of information usually unavailable to readers, and pictures or tables that cannot be inserted into the text itself. Go to step 5.

Step 5. Confirm the submission.

After confirming the submission, authors will receive a confirmation e-mail from the journal editor. After submission, authors can follow the process up, from submission and acceptance, through assessment and final version preparation, to on-line publication.

After submission, articles will be assigned to reviewers by the Editorial Board or special issue editors. The journal's Editorial Board and Editors are responsible for the policy of paper selection, which is available at the link **Sobre a Revista>Processo de Avaliação por Pares** (About the Journal>Peer Review Process).

3. Preparation of manuscripts

3.1. Presentation

Authors should ensure that their electronic copy is compatible with *PC/MSWord*, and use *Times New Roman*, *12-point* size. The page size should be set to A4 (21cm x 29.7cm), and the text body should be one-and-a-half spaced throughout. Leave 3 cm from the top of the page and on the left margin, and 2.0 cm from the bottom of the page and on the right margin. Articles should have a minimum of 15 pages and not exceed **30 pages**, including bibliography, appendixes, and annexes. The text must meet the rules of Portuguese new orthographic agreement, which became mandatory in Brazil from January 2016. Two versions of the paper must be submitted: one containing the name and academic affiliation of author(s), and one in which all references to the author(s), including citations and bibliographical references are erased.

3.2. Paper format

The format below should be followed:

Title. The title should be centered and set in **bold** CAPITALS at the top of the first page. Runover* titles should be single-spaced.

Author's name: The name of each author follows the title and should be given in full with the surname in CAPITALS and aligned to the right margin, on the third line below the title, with a footnote marked by an asterisk referring to metadata in the following order: acronym and full name of the institution to which author(s) is(are) affiliated, city, state, country, zip code, e-mail.

Abstract. The abstract, which must summarize the contents of the paper (goals, theoretical framework, results, and conclusion), should conform to the following: it should appear on the third line under the name(s) of the author(s), contain at least 150 and at most 200 words, be single-spaced, and, with no indentation for the first line, be preceded by the word ABSTRACT in CAPITALS in the same language of the paper,

Keywords. Each keyword (seven, at most) is followed by a period. They should be preceded by the word KEYWORDS in CAPITALS, and appear two lines below the abstract. The Editorial Board suggests that the keywords should match general concepts of the paper subject domain.

Body of the paper. The body of the paper should be one-and-a-half-spaced throughout. It begins on the third line below the keywords.

Subsection titles. The subsection titles should be typeset in **bold** and aligned to the left margin. They should not be numbered. There should be two one-and-a-half-spaced blank lines before and one one-and-a-half-spaced blank line after each subsection title.

Acknowledgements. Acknowledgements should conform to the subsection title layout, and should be preceded by the word **"Acknowledgements"** set in **bold**.

Title in English. For papers written in Portuguese, French, Spanish and Italian, the title in English (with no capitals and no bold) should be placed two blank single-spaced lines after the paper text body.

The abstract in English. For papers written in Portuguese, French, Spanish and Italian, the abstract in English should be typeset in *italics*, be preceded by the word *ABSTRACT*, typeset in *italics* and in CAPITALS, with no indentation for the first line, be single-spaced, and be placed three blank single-spaced lines after the title in English.

The keywords in English. For papers written in Portuguese, French, Spanish, and Italian, the keywords in English should be typeset in *italics*, be preceded by the word *ABSTRACT*, typeset in *italics* and in CAPITALS, and be placed three blank single-spaced lines after the abstract in English.

NOTE: For papers written in English, the title, abstract, and keywords referred to in 7, 8 and 9 above, respectively, should be written in Portuguese.

References. The subtitle **References** should be set in **bold**, with no indentation for the first line, and placed two blank single-spaced lines after the keywords. The reference list should be single-spaced and ordered alphabetically and chronologically (see 3.3.1 below), placed three blank single-spaced lines after the keywords in English. **12. Bibliography.** The bibliography list, if essential, should come after the reference list. The word "**Bibliography**" should be set in **bold**, with no indentation for the first line, and placed three blank single-spaced lines after the reference list, aligned to the left. It will include all works not mentioned in the paper or in its footnotes.

3.3. Further instructions

3.3.1 Reference guidelines Both reference and bibliography lists should be ordered alphabetically by the last name of the first author. A single space should separate one reference item from the other. The names of the translators must be specified.

Examples:

Books

AUTHIER-REVUZ, J. **Palavras incertas:** as não coincidências do dizer. Tradução de Cláudia Pfeiffer et al. Campinas: Ed. da UNICAMP, 1998.

CORACINI, M. J.; BERTOLDO, E. S. (Org.). **O desejo da teoria e a contingência da prática.** Campinas: Mercado das Letras, 2003.

LUCHESI, D. **Sistema, mudança e linguagem**: um percurso na história da linguística moderna. São Paulo: Parábola Editorial, 2004.

Book chapters

PÊCHEUX, M. Ler o arquivo hoje. In: ORLANDI, E. P. (Org.). **Gestos de leitura: da história no discurso**. Tradução de Maria das Graças Lopes Morin do Amaral. Campinas: Ed. da UNICAMP, 1994. p.15-50.

Thesis and dissertations

BITENCOURT, C. M. F. **Pátria, civilização e trabalho**: o ensino nas escolas paulista (1917-1939). 1998. 256 f. Dissertação (Mestrado em História) – Faculdade de Filosofia, Letras e Ciências Humanas, Universidade de São Paulo, São Paulo, 1998.

Papers in journals

SCLIAR-CABRAL, L.; RODRIGUES, B. B. Discrepâncias entre a pontuação e as pausas. **Cadernos de Estudos Linguísticos**, Campinas,n.26, p. 63-77, 1994.

Online papers

SOUZA, F. C. Formação de bibliotecários para uma sociedade livre. **Revista de Biblioteconomia e Ciência da Informação**, Florianópolis, n.11, p. 1-13, jun. 2001. Disponível em: <...> Acesso em: 30 jun. 2001.

Newspaper articles

BURKE, P. Misturando os idiomas. **Folha de S. Paulo**, São Paulo, 13 abr. 2003. Mais!, p.3.

EDITORA plagiou traduções de clássicos. **Folha de S. Paulo**, São Paulo, 4 nov. 2007. Ilustrada, p. 6.

Online publications

UNIVERSIDADE ESTADUAL PAULISTA. Coordenadoria Geral de Bibliotecas. Grupo de Trabalho Normalização Documentária da UNESP. Normalização Documentária para a produção científica da UNESP: normas para apresentação de referências. São Paulo, 2003. Disponível em: <...>. Acesso em: 15 jul. 2004.

Paper in edited volumes, conference proceedings, and working papers

MARIN, A. J. Educação continuada. In: CONGRESSO ESTADUAL PAULISTA SOBRE FORMAÇÃO DE EDUCADORES, 1., 1990. **Anais**... São Paulo: UNESP, 1990. p. 114-118.

Films:

Macunaíma. Direção (roteiro e adaptação) de Joaquim Pedro de Andrade. Filmes do Serro/Grupo Filmes/Condor Filmes. Brasil: 1969. Rio de Janeiro: Videofilmes, 1969. Versão restaurada digitalmente, 2004. 1 DVD (105 minutos), color.

Paintings, photographs, illustrations, drawings:

ALMEIDA JÚNIOR. **Caipira picando fumo**. 1893. Óleo sobre tela. 17 cm X 23,5 cm. Pintura pertencente ao acervo da Pinacoteca do Estado de São Paulo.

PICASSO, Pablo. **[Sem título]**. [1948]. 1 gravura. Disponível em: <http://belgaleria.com.br>. Acesso em 19 ago. 2015.

Music CDs (as a unit or tracks)

CALAZANS, T. **Teca Calazans canta Villa Lobos**. Rio de Janeiro: Kuarup Discos, 1999. 1 CD.
CALAZANS, T. Modinha. In: CALAZANS, T. **Teca Calazans canta Villa Lobos**. Rio de Janeiro: Kuarup Discos, 1999. 1 CD.

3.3.2. In-text references and quotations

For references in the text, the surname of the author should be in CAPITALS, enclosed in parentheses; a comma should be placed between the author's last name and year, e.g. (BARBOSA, 1980). If the name of the author is part of the text, only the year is enclosed in parentheses: "Morais (1955) argues..."
Page numbers follow the year and are preceded by "p."; note a comma and a space between year and "p.", and between "p." and the number, e.g. (MUNFORD, 1949, p. 513).
References of the same author with the same year should be distinguished by using lower case letters in alphabetical order, e.g. (PESIDE, 1927a), and (PESIDE, 1927b). For references with one author and up to two co-authors, semi-colons are used to separate the surnames, e.g. (OLIVEIRA; MATEUS; SILVA, 1943); for references with more than two co-authors, the expression "et al." substitutes for the surnames of the co-authors, e.g. (GILLE et al., 1960).

Quotations longer than three text lines should be set in 11-point font size, and set out as a separate paragraph (or paragraphs) on a new line. The paragraph (or paragraphs) should be 4.0 cm from the left margin throughout, without any quotation marks. Quotations shorter than three text lines should be included in double quotation marks in the running text. Quotations from texts in foreign languages must be translated into Portuguese. Published translations should be used whenever possible. The original text should appear in a footnote.

3.3.3. Italics, bold, underlining and quotation marks

Italics: Use italics for foreign words, book titles int the body of the text, or for emphasis.
Bold: Use bold only in the title of the article and in the text headings and subheadings.
Underlining: Avoid using underlining.
Quotation marks: can be used to highlight parts of the major works, such as titles of poems, articles, chapters. The major works should be highlighted in italics, as the statement above; quotation marks must be used in the body of the text for quotations of excerpts of works. Example: A linguística é uma disciplina que "[...] se baseia na observação dos factos e se abstém de propor qualquer escolha entre tais factos, em nome de certos princípios estéticos e morais" (MARTINET, 1972, p.3).

3.3.4. Footnotes

Footnotes should be kept to a minimum and placed at the bottom of the page. The superscript numerals used to refer to a footnote com after any punctuation sign (comma, semicolon, period, question mark, etc.).

3.3.5. Figures

Figures comprise drawings, graphs, charts, maps, diagrams, formulas, models, photographs, x-rays. The identifying caption should be inserted above the figures, centered, preceded by the designation word designative (Chart, Map, Figure etc); if there is more than one, figures must be numbered consecutively in Arabic numerals using the same font and size of the body of the text. Indication of the source and other information necessary for its understanding should appear below the figure. Figures should be submitted as separate files, saved in the program in which they were generated. Maps, photographs and radiographs should also be submitted as separate files, high-resolution (300 dpi). Author(s) are responsible for image copyrights.

3.3.6. Tables and text frames

Tables should be used to present statistical information, and text frames should be used to summarize and organize textual information. The title is inserted above the table, centered, beginning with **Table 1** in bold, followed by a hyphen and the title without emphasis, in the same font and size of the body text; the title of figures should be presented above the figure, centered, beginning with Figure 1 in bold, followed by a hyphen and the title without emphasis, in the same font and size of the body text. The numbering is consecutive, in Arabic numerals; if you need to specify the data source, it must be placed below the table or the table and the text aligned to the left. Tables should be built with the open side borders and no lines separating columns.

3.3.7. Appendixes and Annexes

When absolutely necessary to the text comprehension, and within the limit of 30 pages, Annexes and / or appendixes, following the subsection style, should be included in the end of the paper, after the references or bibliography.

3.3.8. Review format

The review should contain, at the beginning, the complete reference to the book being reviewed, including number of pages, in Times New Roman, 14 point size, single spaced, no title, no summary, no keywords. The name(s) of the review author(s), in 12 point size, must appear on the third line below the reference of the book reviewed, preceded by "reviewed by [name(s) of author(s)]". Names must be followed by an asterisk referring to a footnote containing the following information: full name and acronym of the institution to which the review author(s) belong; city; state; country; zip code; email. The text of the review should begin on the third line below the name(s) of the author(s) in Times New Roman, 12 point size 12 and spacing 1.5.

Page format is as follows: paper size: A4 (21.0x 29.7 cm); left and top margins 3.0 cm, right and lower 2.0 cm; minimum length of 4 and maximum of 8 pages, including bibliographic references and annexes and/or appendices; indentation: 1.25 cm to mark the beginning of the paragraph; spacing: 1.5.

3.3.9. Translation format

Translated articles are subjected to a peer review process, to decide on the opportunity and the convenience of their publication. They should follow the article format, where applicable. In the second line below the name of the author of the translated text, right-aligned, the name(s) of the translator(s) should appear in the following format: "Translated by [name(s) of the translator(s)]", with an asterisk referring to a footnote with the following information: full name and acronym of the institution to which the translator(s) belong; city; state; country; zip code; email. The translated text must be accompanied with a written authorization of the publisher responsible for the original publication.

3.3.10. Interview format

Interviews are subjected to a peer review process, which decides on the opportunity and the convenience of its publication. The format of the interview is the same required for articles, but the title should contain, besides the general theme, the expression "Interview with [interviewee name]", without emphasis, with an asterisk referring to a footnote containing a brief review of the biography of the interviewee, which clearly demonstrates her/his scientific relevance. The author(s) of the interview should follow, according to the rules established for articles.

3.3.11. English version

The author(s) of paper accepted for publication in Portuguese, French, Spanish or Italian must provide the English version of the text until the deadline shown in the e-mail notification of acceptance. The standards for citation of authors in the text and the references of the English version are the same as the ones in Portuguese. *Alfa* appoints reviewers to evaluate the English version of the article. The review is restricted to checking the quality of translation, i. e. adequation to the standard norms of English usage for research papers.

In case there are citations of works with an English-language edition, this edition should be used both in the text and in the references. In case there is no English edition, the quoted text should be translated into English, and the text in the original language of the edition used must be included in a footnote.

If the text contains figures scanned from advertisements in newspapers, magazines or similar midia, in Portuguese or another language, the English version of the text must be included in a footnote.

When the text contains examples the understanding of which involves the need to clarify morphosyntactic features, a literal version of them in gloss should be included, followed by the common English translation in single quotation marks. Example:

(1) isso signific-a um aument-o de vencimento-s (D2-SP-360)
this mean-IND.PRS.3.SG a.M raise-NMLZ of salary-PL
'this means a raise in salary.'

Conventions for the glosses: ***The Leipzig Glossing Rules: conventions for interlinear morpheme-by-morpheme glosses***, edited by the Department of Linguistics of the Max Planck Institute for Evolutionary Anthropology (Bernard Comrie, Martin Haspelmath) and the Department of Linguistics at the University of Leipzig (Balthasar Bickel); available in http://www.eva.mpg.de/lingua/resources/glossing-rules.php.

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