REVISTA X

MEANINGS OF THE PREPOSITION "OF" IN THE ORAL INTERLANGUAGE OF A2 AND B2 BRAZILIAN LEARNERS

Significados da preposição "de" na interlíngua oral de estudantes brasileiros A2 E B2

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ABSTRACT: Prepositions are challenging for non-native speakers because of the idiosyncratic behavior of such words which do not follow any predictable pattern in similar contexts (FELICE; PULMAN, 2008). In addition, prepositions are difficult to acquire because their usage is influenced by the speakers' mother tongue (L1) (KOOSHA & JAFARPOUR, 2006; COWAN et al., 2003; TANIMURA et al., 2004). In order to verify how non-native English speakers use prepositions, this study aims to describe how prepositional profiling of the word "of" are represented in the spoken interlanguage of Brazilian English learners within the proficiency levels A2 and B2 and whether the nature of inappropriate representation is affected by the equivalents in L1. The preposition "of" has been selected as the object of analysis because it is highly frequent in English language corpora (CHODOROW et. al., 2010; DAVIES, 2008; LEECH et. al., 2001). As the corpus for this research, the BraSEL Corpus (Brazilian Spoken of English Learners Corpus) is divided by the learners' proficiency level according to the Common European Framework of Reference for Languages (CEFR). The major finding was that, even though some errors occurred, the use of the preposition "of"' tended to be well-entrenched in the interviewed Brazilian learners' grammar. Through this result, we may conclude that "of" and its semantic meanings are stable and acquired since the earlier stages of the learning process.
KEY WORDS: Prepositions; Profiling; Learner Corpora.

RESUMO: As preposições são um desafio para falantes não-nativos devido ao seu comportamento idiossincrático, o que significa que não seguem nenhum padrão previsível em contextos semelhantes (FELICE;

PULMAN, 2008). Além disso, as preposições são difíceis de adquirir porque seu uso é influenciado pela língua-mãe (L1) dos falantes (KOOSHA & JAFARPOUR, 2006; COWAN et al., 2003; TANIMURA et al., 2004). A fim de verificar como falantes não-nativos de inglês usam as preposições, este estudo tem como objetivo descrever como as funções semânticas preposicionais da palavra "of" são representadas na interlíngua falada por alunos brasileiros de inglês nos níveis de proficiência A2 e B2 e se a natureza de representação inadequada é afetada pelos equivalentes em L1. A preposição "of" foi selecionada como objeto de análise por ser altamente frequente em corpora de língua inglesa (CHODOROW et. al., 2010; DAVIES, 2008; LEECH et. al., 2001). Como corpus para esta pesquisa, o BraSEL Corpus (Brazilian Spoken of English Learners Corpus) é dividido pelo nível de proficiência do aprendiz de acordo com o Quadro Europeu Comum de Referência para Línguas (CEFR). A principal descoberta foi que, embora alguns desvios ocorressem, o uso da preposição "of" tendeu a estar bem entrincheirado na gramática dos alunos brasileiros entrevistados. Por meio desse resultado, podemos concluir que "of" e seus significados semânticos são estáveis e adquiridos desde os estágios iniciais do processo de aprendizagem.
PALAVRAS-CHAVE: Preposições; Perfilamento; Corpora de Aprendiz.

1 INTRODUCTION

Learning prepositions is a demanding task for additional language learners due to their idiosyncratic behavior, that is, there is no pattern even in similar contexts (FELICE; PULMAN, 2008). English prepositions are evidence of such a statement because they are highly idiomatic. In addition, learners' first language (L1) partially influences the use of prepositions in the target language, which may interfere in the learning of these elements (KOOSHA; JAFARPOUR, 2006; COWAN et al., 2003; TANIMURA et al., 2004).

Focusing on the preposition "of", the main goal of this pilot study is to describe how the prepositional semantic functions of the word "of" are represented in the oral interlanguage (SELINKER, 1972) of Brazilian learners of English at the proficiency levels A2 and B2 and whether the misrepresentation nature is affected by the equivalents in L1. The preposition "of" was selected as the object of analysis because it is highly frequent in English language corpora (CHODOROW et. al., 2010; DAVIES, 2008; LEECH et. al., 2001). As a data source, the BraSEL Corpus (Brazilian Spoken English Learner Corpus – MIRANDA, 2019), still under construction, is divided by the learner's proficiency level, according to the Common European Framework of Reference for Languages (CEFR).

In order to describe the usage of prepositions in learner's oral production, this work has its roots in Corpus Linguistics, an approach in which one of the possible tasks is to gather and to examine linguistic data from learners, that is, researchers can build a learner corpus. Aligned with the quantitative part, profiling from Cognitive Linguistics is suitable for this type of analysis since it aims to investigate the relation between cognition and language.

This work is divided into six sections. In **Interlanguage and its relation with learner corpora**, we discuss how learner corpora can feed interlanguage research. In **Cognitive Semantics**, we give an overview of the main elements of the theory that contributed to this work. In the **Data** section, I discuss the BraSEL Corpus. In **Phases of analysis**, we briefly summarize the steps to conduct the research. Finally, in both the **Results** and **Final remarks** sections, we report the main outcomes and conclusions.

2 INTERLANGUAGE AND ITS RELATION WITH LEARNER CORPORA

Learning a language may be a complex process for some learners and some sort of language deviation might happen during this experience (MILLAR, 2011). This is also valid for advanced learners who might make mistakes despite their level of proficiency or they may have a limited vocabulary repertoire. Because of its particularities, learner language has been called *interlanguage* (IL) (SELINKER, 1972). The author defended that this notion relies on "the existence of a separate linguistic system based on the observable output which results from a learner's attempted production of a [target language] norm" (p. 214). Figure 1 below represents, to some extent, how interlanguage may be organized in learners' cognition.

Figure 1: Language organization in learner's cognition
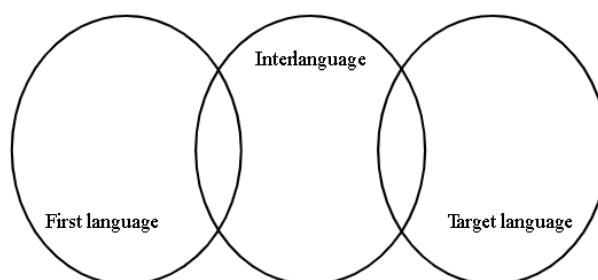
Source: Adapted from Corder (1981) and from Hamad Al-khresheh (2015)

Departing from this definition of interlanguage, learner language research needs to focus on the differences between learners' output and other linguistic systems in order to separate them and define them as accurately as possible (ADJEMIAN, 1976). In order to do the isolation between systems, Selinker (1972) states that the only sets of data we could use to identify IL are: (a) the learners' production in their native language; (b) IL production made by learners; and (c) target language (TL) production made by the TL native speakers.

One of the methods to capture IL production is through learner corpora, which was firstly referred to as the corpora of non-native English speakers (GRANGER, 2002). On the one hand its compilation may be more difficult than that of the native corpora, especially considering that, in some countries, learners mostly use their target language during school time. On the other hand, it is essential to build and analyze this type of corpora (i.e., from non-native speakers), because the interlanguage per se does not completely follow the L1 nor the TL rules.

Some examples of well-constructed learner corpora are the International Corpus of Learner English - ICLE (GRANGER et. al., 2020) and *Corpus do Inglês para Fins Acadêmicos*[1] - CorIFA (DUTRA et. al., 2020). The ICLE is a corpus of essays written by advanced English learners and it is a result of partnerships between universities all over the world. The second version of ICLE has more than 3,7 million words. Likewise, CorIFA is a Brazilian corpus of several academic genres written by pre-intermediate to advanced students. For each proficiency level in CorIFA, the learners write an academic genre. The current version of CorIFA has 705,010 words and it is still under data gathering and compilation.

Even though there are other several learner corpora at researchers' disposal, some issues may arise: (a) just a few of them are calibrated with various levels and (b) they are mainly composed of written texts. The data in the most famous learner corpora is mostly from intermediate or advanced students, which impedes a deep and proper analysis of beginner and basic students' interlanguage. Additionally, the majority of learner corpora consists of written texts, generally because there are a handful of complicators in compiling oral corpora, such as the ethics of recording learners and the process of manual transcription. Thus, more documentation of oral interlanguage is necessary for the quantitative analysis of learners' oral production.

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[1]Corpus of English for Academic Purposes

3 COGNITIVE SEMANTICS

Studying languages in a cognitive perspective means to presume that language is associated with the patterns of thought (EVANS; GREEN, 2006). Language, therefore, is a window through which linguists can analyze how people structure and express their thoughts. Moreover, Evans and Green (2006) discussed that language also displays considerable principles of human cognition. This implies that Cognitive Linguistics (CL) must be psychologically informed.

Cognitive Linguistics is divided into two independent, but correlated fields: Cognitive Semantics and Cognitive Grammar (LANGACKER, 2013). The former is the study of meaning as a matter of conceptualization connected to language use. The latter investigates language as a symbolic structure that is invoked by the gradience line between lexicon and grammar. The present research relies on the first field as we analyzed the semantic structure of a preposition.

According to Evans and Green (2006), one essential principle of Cognitive Linguistics is that categorization can often be fuzzy, that is, certain elements being more prototypical and others being more peripheral. The authors also claimed that the degree of centrality is mostly related to the way that speakers use a certain category. Therefore, the conceptualization of a particular context is what counts, basically because it involves numerous processes of general and situational knowledge and interpretative skills.

This leads us to consider that a meaning of a certain word or construction conveys a particular way of construing the content that is invoked (LANGACKER, 2013). The context gives clues as to the meaning of an expression in a particular situation. For instance, "bats" can refer to a nocturnal animal as well as to baseball equipment. One's background knowledge related to context and language will determine to which meaning they are referring.

Furthermore, Evans and Green (2006) discuss four principles of Cognitive Semantics: (i) cognition is embodied; (ii) semantic structures are conceptualized; (iii) meaning representation is encyclopedic; (iv) conceptualization is meaning construction. These principles are based on broad cognition foundations as well as language principles.

The first assumption dictates that our conceptualization skills and processes are intricately connected to our bodily experience (EVANS; GREEN, 2006). This suggests that we experience the world and reality through our bodies. Thus, we cannot study cognition – consequently language – regardless of human embodiment. According to Evans and Green (2006): "The concepts we have access to and the nature of the 'reality'

we think and talk about are a function of our embodiment: **we can only talk about what we can perceive and conceive, and the things that we can perceive and conceive derive from embodied experience**." (p. 46, emphasis added).

The second principle concerns the concepts stored in the speakers' minds and how they are strictly associated with the semantic structure of a language. This means that humans schematize their perception of the world rather than the real objects that they face. The abstraction is diverse from individual to individual because conceptualization is dynamic (LANGACKER, 2013) and it depends on the speaker's previous knowledge and experience.

The third issue refers to concepts as points of references (EVANS; GREEN, 2006). Words do not function as packages or bags of meaning but operate as hooks for other lexical items and schemas. This process corroborates the previous argument that conceptualization is productive in the sense that words and schemas can be adjusted or added whenever the speaker has them as a cognitive routine (EVANS; GREEN, 2006).

The final foundation tells us that words and other linguistic units elicit the construction of meaning; however, they do not carry the meaning itself. Additionally, meaning is constructed at the abstract and conceptual level; thus, meaning construction is equal to conceptualization. Hence, linguistic units serve as "hints" for a set of conceptual elements and procedures and the access to background knowledge (EVANS, 2012).

These linguistics units are organized through profiling, which is described as how language encodes certain aspects of a scene (EVANS; GREEN, 2006). In its core, profiling has two major components: trajector and landmark. The trajector is the entity that is described, evaluated, or located and is able to move. It is also the primary focus of the profiling. The landmark is the entity that the trajector is going towards, establishing itself as a secondary focus of the relation (EVANS; GREEN, 2006; LANGACKER, 2013). For instance, in *"She changed clothes"*, the profiling is the action of taking off clothes and wearing another. In the sentence level, *she* is the trajector of the verb as it is the entity that is performing the action; and *clothes* is the landmark as the trajector uses it to execute the action, leaving it as the secondary "spotlight" of the action.

3.1 Prepositions in Cognitive Semantics: focusing on "of"

Prepositions have been considered as grammatical elements with no semantic and significant meaning (GARCIA; SILVA, 2015). With the efforts of Traditional Grammar, prepositions were studied only as connectors to link one word to another. Grammarians

would exclude prepositions from their analysis because they conceptualized the preposition role merely as structural.

However, current linguistic theories and approaches, such as Cognitive Semantics, have shown that prepositions and other closed-class[2] elements do have a structural function and a semantic meaning (EVANS; GREEN, 2006). This means that closed-class components are meaningful and, therefore, they should not be excluded of linguistic analysis. Especially in Cognitive Linguistics, grammar words are classified by the type of profiling it engenders (EVANS; GREEN, 2006). For instance, both adjectives and prepositions profile a non-processual relationship, but they differ in their trajector/ landmark configuration. Thus, the shift in the way we defined and analyzed closed-class elements brought new insights about our cognition and it can still lead to new discoveries in language studies.

Furthermore, in Cognitive Linguistics, grammar and lexicon are part of a continuum (LANGACKER, 2009). They are construed as a gradation, in which grammar is the structure-based extreme with mainly closed-classes and lexicon is the meaning-based edge with primarily open-classes. Prepositions lean towards the grammar side, although they still have a certain degree of meaningfulness (EVANS; GREEN, 2006). Thus, every unit is meaningful at different degrees.

Moreover, prepositions are a decent example of how human beings have an embodied cognition. The basic meaning of the majority of prepositions lies on the spatio-physical domain. However, their meaning can be broadened to less physical-grounded senses (EVANS; GREEN, 2006). For instance, in "I held the umbrella over both of us", the preposition "over" means "above", which is, in this case, highly related to space position. On the other hand, in "They had control over the computer", the meaning of "over" has become more abstract and assigned as "having control of".

Regarding their properties, prepositions are one of the word classes that profile a non-processual relationship, which means they generate a "static" scene (LANGACKER, 2013). Their focal participants are: a thing (e.g., nouns) as landmark and a thing or a relationship (e.g., verbs) as a trajector. As Langacker (2013) explains: "The distinctive property of this class is the conferring of a secondary focal prominence on a thing. This landmark is expressed by the prepositional object" (p. 117).

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[2]Closed-class words are words that tend to be in the gramar end of the lexicogrammar continuum (for example conjunctions and prepositions), whereas open-class words are words which tend to be the lexical end of the continuum (for example verbs and nouns)

In the case of the preposition "of", in phrases such as (i) "the color of the paper", color is the trajector, which is a feature, consequently, a part of the landmark (the paper). Langacker (1999) stated that phrases similar to "the color of the paper" have the meaning of "being an inherent and a restricted subpart". Langacker (2009) went further and explained that of-phrases can indicate that the trajector and the landmark are coextensive. For instance in "the state of Minas Gerais", both meanings are highly related on several levels. In Figure 2, we can see the graphic representations of the (a) restricted subpart; and (b) the coextension meaning.

Figure 2: "Of" basic meanings
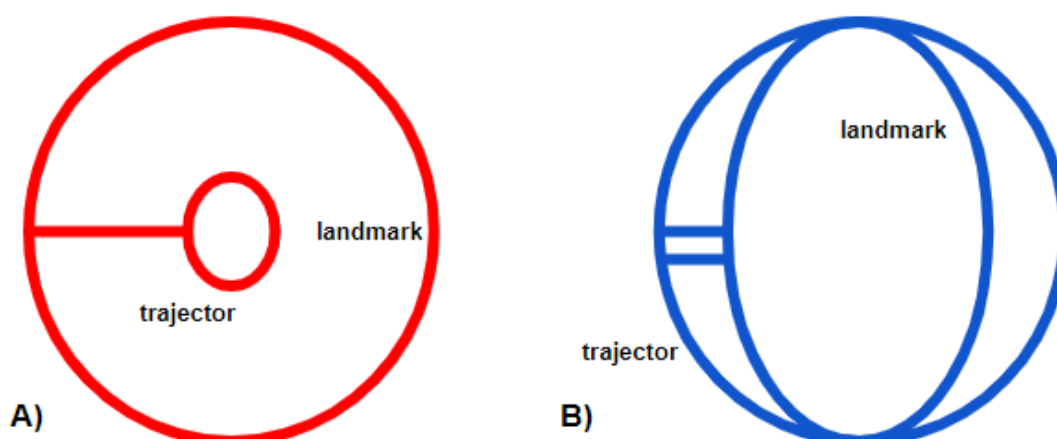
Source: Adapted from Langacker (2009, p. 67)

In line with what was aforementioned about "of" profiling configuration, Lindstromberg (2010) claimed that "of" generally engenders a specific interpretation, which is that trajector and landmark are integrated. In fact, Lindstromberg (2010) went further and divided the "of" meanings in more specific categories. Lindstromberg (2010) defends that, although "of" meanings may seem nebulous, its functions are regular. Table 1 shows the categories discussed by the author. Such labels were strongly helpful for this research because they could give us a clear and detailed overview of the usage of the preposition "of".

REVISTA X

Table 1: categories discussed

Type of relation	Example	Description
Intrinsic	the existence of X, the history of X	the trajector and the landmark are inseparable and/or one is intrinsic to the other (test: delete the preposition and change the order. E.g.: history of Education → Education history)
Nearly intrinsic	knowledge/an idea of X, the name of X, death/end of X	the elements are almost intrinsic but are related to the division of human knowledge
Part - Whole	the eye of a storm, the meaning of a word	When the trajector represents the whole and its landmark represents the part
Product - Source	a product of France, a result of hard work	The trajector represents the source/cause and the landmark represents the final product/result
Act(ion) - Agent	revenge of the planet	The landmark represents the agent and the trajector represents the action
Act(ion) - Patient	development of new products	The landmark represents the passive element and the trajector to action (test: transform to a passive voice sentence – *"new productes are developed"*)
Subset - Set	kind/type/sort/variety of X	The landmark represents the complete set and the trajector represents part of it
Example - Type	a sample/specimen/piece/bit of X	The landmark represents the complete element and the trajector represents a part of it that represents it (sample-population)
Group/amount/unit	a pair of shoes, a kilo of rice	When the trajector represents a set/collection of the landmark
Contents, features, denizens - (nominally) bounded areas or spaces	the rivers of France, the inhabitants of Berlin	The landmark is a delimited space or area, which contains or delimits the trajector
Possession (abstract ideas)	the power of X	The possessed object is in the possessor's zone of influence (landmark = possessor)

Source: Adapted from Lindstromberg (2010)

As it can be seen in the table above, "of" has several meanings, which, occasionally, can overlap or exclude each other. For instance the action-patient and action-agent meanings cannot happen at the same time because they profile opposite sides of a scene. Furthermore, one of the advantages of using those labels is that they also explain some

well-entrenched expressions, namely "kind of" and "a lot of". In the next section, we will explain the data and the methodology behind this research.

4 DATA COLLECTION

Traditionally, the interlanguage of Brazilian learners of English has been studied without considering the students' level of proficiency. This can hide certain phenomena that may be unique or important at specific levels of proficiency. In an attempt to resolve this issue, ten recordings of the Brazilian Spoken English Learner Corpus, still under construction, (BraSEL Corpus - MIRANDA, 2019) were used as corpus in this research. Among the selected recordings, five are from learners at the A2 level of proficiency, while other five samples are from learners at the B2 level of proficiency.

The BraSEL Corpus is calibrated to the proficiency levels of the Common European Framework of Reference for Languages (CEFR). The recordings of this corpus consist of interviews with apprentices who have a valid certificate of proficiency. The interview is divided into two parts: (i) free conversation, in which the interviewer asks the learner questions of personal nature; and (ii) motivated discussion, in which the learner chooses a pair of pictures, describes the images and discusses with the interviewer the theme raised by them.

5 PHASES OF ANALYSIS

As the corpus mentioned above is still under construction, the first steps of analysis were the manual and orthographic transcription of the audios and review of these transcripts. The transcription was made following the parameters established by the team responsible for BraSEL Corpus. Transcription criteria cover linguistic phenomena, such as pronunciation errors, as well as extra and paralinguistic phenomena, such as non-verbal vocal sound, overlapping and hesitation.

As the interest of this study is related only to the preposition "of" and its collocations, a transcription cleaning was necessary. This process was done with the R software (RSTUDIO[3] TEAM, 2020) to remove unnecessary elements for the analysis, for example overlapping marking and indication of contextual sounds, such as background noises.

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[3]https://www.rstudio.com/

After cleaning the data, the transcripts were submitted to the AntConc software[4] (ANTHONY, 2019) to count tokens and types, as well as extract the concordance lines and collocations containing "of". The computation of tokens and types was performed in two ways: (a) with the interviewers' and apprentices' turns; and (b) only with the learners' utterances to verify the percentage contribution of the learners' speech to the corpus of this study. The extraction of collocations was performed to verify which is the syntactic scheme most used by learners and then compare it with the syntactic scheme of the corresponding preposition in Portuguese (*de*), in case of deviation. The syntactic tagging was done manually. It is worth mentioning that some cases of the usage of the preposition were not considered for this research, for instance the expression "of course" is highly crystallized in English, therefore we cannot separate its elements and analyze them. Moreover, in its syntactic structure, we cannot pinpoint the trajector nor the landmark. The analysis of "of course" is a possible theme for future research.

Having the concordance lines extracted to a table, the profiling analysis was done manually. The trajector and landmark of the preposition "of" were identified as well as the syntactic function of its prepositional phrase. Then, the meanings of the preposition "of" were divided in line with the categories in Lindstromberg (2010). Similarly, the occurrences of "of" were also categorized according to their semantic relationship, namely spatial and non-spatial. This last classification is important, since prepositions have a primarily spatial meaning (EVANS; GREEN, 2006), but "of" most of the time does not follow this same direction (LINDSTROMBERG, 2010).

When there was a deviation due to the language interaction from Portuguese (L1) to English (L2), the analysis was performed separately. Even though there is an overlap between the "of" and "*de*" (its most common Portuguese equivalent) profiling, some learners have literally translated expressions from Portuguese into English, saying, for example, incorrect verbal complements, such as "participate of the event" – instead of "participate in the event".

Afterwards, the results of the two proficiency levels selected (A2 and B2) were compared. All results from the previous steps were used as comparative elements. Finally, conclusions about the profiling of the preposition "of" at both levels were established.

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[4] https://www.laurenceanthony.net/software/antconc/

6 RESULTS

In this section, we present the results of each level for the variables mentioned in the previous section and then the comparison between them. First, we show the results of A2 level learners and then B2 level learners.

6.1 The preposition "of" in the A2 level

The mini corpus[5] A2 has 8771 tokens and 1144 types, considering the turns of the interviewers and apprentices. On the other hand, considering only the learners' turns, the mini corpus has 3948 tokens (approximately 45% of the total) and 713 types (approximately 62% of the total). Thus, the learners contributed significantly to the lexical variety of the corpus. However, they contributed little to the interaction taking into account the number of words spoken by the learners. This low share of words on the part of the learners can be explained in view of their level of proficiency (A2). Although they are not real beginners, they are still at the beginning of the learning process and, in a way, the vocabulary and grammar of students at the A2 level are still limited.

From here on, we will address the mini corpus of the A2 level apprentices' turns just as the A2 mini corpus. 48 occurrences of "of" were found. Some examples of these occurrences are:

1. I don't like United States **of** America
2. They live in a big city with a lot **of** technology
3. I will [...] *sair* **of** the program

In (1), we can classify *United States* as a trajector, because this nominal group is the part being described, while *America* functions as a landmark, for it is the nominal group that servies as a descriptive element in relation to the trajector. In (2), "a lot" works as a quantity, even if uncertain, that is in the foreground and is being described by the landmark of the preposition "of", which is technology.

Sentence (3) needs more attention because, within the same verb phrase, there is the use of the L1 (Brazilian Portuguese) and the additional language (English). In this case, we consider it as transferring profiling from Portuguese to English because the learner used the syntactic scheme of the verb *sair*, specifically [to leave somewhere/

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[5]This term is used since the data collected here does not have a large amount of instances and it is a subcorpus of a bigger corpus;

situation]; instead of using the English construction drop out [of], which would designate to some extent the intended meaning.

The most frequent post-preposition collocates are nominal groups, that is, they designate a thing, using Langacker's (2013) term. This phenomenon corroborates the idea that the landmark of a preposition is an entity (LANGACKER, 2009; 2013). Therefore, the most prototypical form and most found syntactic scheme with "of" in A2 mini corpus is **[of + 'noun phrase']**. The most frequent collocations are shown in Table 2.

Table 2: Collocations with the preposition "of" in the A2 mini corpus (n = 2)

	Collocations	Raw frequency
1	of the[6]	23
2	of Rio	4
3	of series	4
4	of Brazil	2
5	of research	2

Source: the author

In this mini corpus, the prepositional phrase (PP) functioned either as a modifier or as a verbal complement. Most of the occurrences were modifiers, as in "south of Brazil". Coincidentally, the occurrences of PP as a complement appeared in sentences where there was a clear transfer of profiling from the mother tongue to the additional language. An example of PP as a verbal complement is sentence 3 above.

In the final part of the analysis, we analyze each occurrence to describe its profiling and semantic relationship. Table 3 shows the meaning classification, following Lindstromberg (2010), and an example of each item coming from the A2 mini corpus.

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[6]Despite not representing an actual name, the article "the" tells us that what follows is a nominal group

Table 3: Frames of A2 mini corpus

	Frame	Example	Trajector - Landmark	Raw frequency of frame
1	Subset - Set	in my free time I like to watch this kind **of** thing	this kind - thing	9
2	Group/amount/ unit	it's trees that have a lot **of** years to grow	a lot - years	8
3	Content/ features/ denizens	it's the capital **of** the state	capital - state	6
4	Intrinsic	like is a really complicate is in the big group **of** research	the big group - research	4
5	Part - Whole	we try a little change to English when one [...] of the two people don't [...] know	one - two people	4
6	Possession	maybe the possibility to the cure **of** coronavirus was [...]	the cure - coronavirus	4
7	Action - Patient	the climate change like the loss **of** species and other things	the loss - species	4
8	Nearly intrinsic	to read articles and papers about [...] my subjects **of** research	my subjects - research	4
9	Example	a SIELE it's like a TOEFL **of** the Spanish	a TOEFL - the Spanish	1

Source: the author

The frequency of the "subset-set" and "group-amount" meanings is due to the high amount of "kind of" and "a lot of", respectively. These are highly crystallized expressions in the English language and generally non-native speakers learn them as a chunk, that is, they learn these expressions as a set and not word for word.

Another important part of our analysis was to describe the semantic relationship established by the correlation between the trajector, the preposition and the landmark. As expected, most occurrences of the preposition in question refer to non-spatial relationships. We can see by the definition of each meaning in Lindstromberg (2010) as "of" was losing its spatial value as a preposition, giving room to more metaphorical meanings. For

example, Langacker (1999) explains that "of" profiles an intrinsic relationship between two entities, which opens up possibilities for meanings at different levels of non-spatial relationships, namely in the event-participant association.

In contrast, the occurrences that were classified as referring to a spatial relationship had at least in one of the constituent elements (trajector and/or landmark) a noun related to a location or a direction. Some examples are "capital of state" and "the University of São Paulo". This can indicate that, for these learners, in order to use the preposition "of" designating space, it is necessary that the landmark and/or the trajector are places or directions.

Especially in the early stages of learning an additional language, learners generally rely on the grammar of the mother tongue to make associations between them. However, this relationship is not always helpful in the additional language, because there are distinctive elements between languages that are unique to each.

There were some lexical and syntactic deviations and profiling tranfers from Brazilian Portuguese to the interlanguage. With a lexical nature, we can highlight the phrase "change of a city" when, in fact, the learner meant "move to a big city". In other words, the learner possibly translated "*mudar*" (in the sense of movement) to "change". Another issue was the use of Portuguese in English phrases such as "the *cadeia* of the food" (instead of "food chain"), which may indicate a certain degree of lexical limitation.

Another recurrent deviation was the replacement of other prepositions more suited to the context by "of". Some examples are: (i) "very different of the Damian way" (more appropriate: "very different from the Damian way") and (ii) "deus ex machina can happen of us" (more appropriate: "happen with us"). Example (i) can be explained by the fact that the learner considered "the Damian way" as a source. In example (ii) it is difficult to establish a relationship with the mother tongue because verbs with meanings similar to "happen" in Portuguese do not ask for the preposition "*de*": *acontecer (com[with]); ocorrer (com[with]); suceder (a[to])*. It is necessary to describe this learner's idiolect and sociolect language to check if they use a verb with a similar meaning with the preposition "*de*" or other equivalent preposition.

These deviations demonstrate that, despite the preposition "of" being quite entrenched from the beginning of the learning process, there can still be some undue transfers to the interlanguage.

6.2 The preposition "of" in the B2 level

The mini corpus B2 had 10157 tokens and 1263 types, considering the turns of the interviewers and apprentices. On the other hand, separating only the learners' turns, we obtained 4860 tokens (approximately 48% of the total) and 828 types (approximately 65% of the total). As the learners in the A2 mini corpus, B2 learners had the largest share of participation for the lexical variety of the corpus. Even so, the number of words spoken by the participants was less than 50%, which similarly happened in the A2 mini corpus. A possible explanation for this is the nervousness that the learner may feel when knowing that they are being recorded while speaking their additional language in a testing situation.

From here on, the mini corpus of the B2 level learners' turns will be designated as just the B2 mini corpus. Fifty-six occurrences of "of" were found. Some examples of these occurrences are:

1. I really liked a concert **of** a Brazilian musician
2. I study education at Faculty **of** Education
3. it's fourteen hours **of** movie or even more

In (4), we classify "a concert" as a trajector, because this nominal group is the part being described, and more precisely the "object" possessed. The phrase "a Brazilian musician" is the landmark, because it is the nominal group that is describing the trajector and it is the background entity as the possessor. Furthermore, in (4) we can see a transfer from Portuguese to designate possession (with the preposition "de") to English. We could substitute this phrase as "a Brazilian musician's concert" or "a Brazilian musical concert".

In (5), "Faculty" works as a trajector, because it is the entity in the foreground, which is in an intrinsic relationship with its landmark (education). In the case of (6), "fourteen hours", as a trajector, is highlighted and specified by the landmark "movie", demonstrating a quantity of an entity, thus assigning a part of "movie".

In this mini corpus, we observe that collocates after the preposition are noun phrases, as was the case in the A2 mini corpus of this work. This agrees with what was said before that the prototypical syntactic scheme with "of" is **[of + 'noun phrase']**. The most frequent collocations are shown in table 4.

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Table 4: Places of the preposition "of" in B2 mini corpus (n = 2)

	Collocations	Raw frequency
1	of them	6
2	of education	4
3	of free *(time)*	3

Source: the author

In this mini corpus, the prepositional phrase worked as a modifier, as a verbal complement, as an adjunct or as part of a conjunction. Most of the occurrences were modifiers, as in "development of a tool". The occurrences of the PP under analysis considered as a deviation or transfer from Portuguese varied within the four syntactic categories mentioned above.

Table 5 presents the meanings found, following Lindstromberg (2010), and an example of each one coming from B2 mini corpus

Table 5: B2 mini corpus frames

	Frame	Exemplo	Trajetor - Marco	Frequência bruta
1	Group/amount/unit	a little bit **of** everything	a little bit - everything	12
2	Subset - Set	half **of** time	half - time	8
3	Nearly intrinsic	the real origin **of** that	the real origin - that	8
4	Intrinsic	a mix **of** drama and comedy	mix - drama and comedy	7
5	Possession	an image **of** WhatsApp	an image - WhatsApp	5
6	Content/features/ denizens	the center **of** the bandeira	center - bandeira	4
7	Action - Patient	a production **of** pigs and eggs	a production - pigs and eggs	3
8	Part - Whole	the best part **of** teaching	the best part - teaching	2
9	Source	many hands in the **in front of** the flag	many hands -the flag	2

Source: the author

As it can be seen, the meanings with the largest frequency are "subset-set" and "group-amount". This was due to the high amount of "kind of" and "a lot of", respectively, as occurred in mini corpus A2.

Furthermore, the semantic relationship (spatial or non-spatial) established by the correlation between the preposition and the landmark was described. As in the A2 mini corpus, most instances of "of" refer to non-spatial relations. This, once again, corroborates the idea that "of" lost its spatial semantic value, due to other meanings that were being incorporated into it.

On the other hand, the occurrences classified as having a spatial relationship had, at least, one of the constituents (trajector and landmark) a nominal group related to a location or a direction, similarly as occurred in the A2 mini corpus. Some examples are "south of Minas Gerais" and "the place of the dog's house". Again, this phenomenon may be evidence that, for the interviewed learners, using the preposition "of" to designate space means that the preposition's landmark and/or trajector must be a place or a direction.

Even at more advanced stages, we can see that sometimes learners still rely on their mother tongue to speak or write (IVASKA, 2014). Even so, as expected, in the B2 mini corpus, we found fewer deviations and transfers from Brazilian Portuguese than were found in A2 mini corpus.

There were some errors in lexical and syntactic orders and meaning transfer from Brazilian Portuguese to the interlanguage. Considering the lexical errors, we can highlight the group "the impact of meating", as if "meating" meant "the act of eating meat". This learner actually uttered "the impact of eating meat".

Another interesting deviation is the misuse of the preposition "of", as in "we didn't depend of that". In this case, we can see a transfer from Portuguese with the verb "*depender* (*de*)", when, in English, we must use "depend on". Similar to this example, one of the learners said "I participate of an event here"; however, to designate a participant in an event with the verb "participate", we use "participate in". Thus, we have a transfer occurrence of the corresponding verb in Portuguese alongside its prepositional phrase "*participar* (*de*)".

7 FINAL REMARKS

Prior studies have noted the importance of prepositions and their contribution to the understanding of metaphorization (EVANS; GREEN, 2006). In this same direction, this study aimed to describe how the semantic functions of the word "of" are represented in the oral interlanguage (SELINKER, 1972) of Brazilian learners of English at proficiency

levels A2 and B2 and whether the nature of non-English representation is affected by equivalents in their L1 (Brazilian Portuguese). We evaluated several aspects around the preposition: its syntax, its meaning and, finally, its semantic functions.

Through the analysis of the interviews conducted, the adopted methodology was able to give us a detailed view of the entrenchment processes of the preposition "of" in the interlanguage of Brazilian learners of English, as it seeks to analyze the use of this preposition in the grammatical-lexical continuum (EVANS; GREEN, 2006). Moreover, the data provided plausible insights about the learners' L1 interference in their interlanguage, especially regarding the relation between "of" and its most common Portuguese version (*de*).

In addition, the comparison of the findings confirms that, even with certain variations, the use of the preposition "of" is stable at the proficiency levels A2 and B2. Furthermore, the results indicate that the preposition "of" is one of the first prepositions acquired by Brazilian English learners, since there is a certain familiarity with its use. This relationship is established because the corresponding preposition in Portuguese appears in similar contexts and because "of" is one of the most used prepositions in the English language.

The analysis of profiling allowed us to observe the linguistic-cognitive structure of the preposition "of" present in the oral interlanguage of the interviewed learners. According to our data, there is not much difficulty in using "of" and the deviations made are related to the use of the equivalent preposition in the mother tongue.

Moreover, this study indicates a new possibility of the graphical representation done in Corder (1981) and in Hamad Al-khresheh (2015). We may position the circles of mother tongue, interlanguage and target language in a way they intersect with each other just as the figure below. For instance, "participate of" gathers frames from Portuguese and from English, but they are used in the interlanguage. Of course, more research is needed in order to confirm it.

Figure 3: New possibility for the organization of the interlanguage
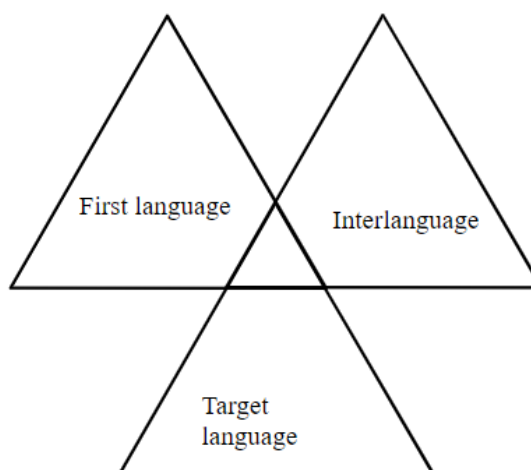
Source: the author

Finally, this study demonstrates how language and cognition are highly connected, as shown in other works. More specifically, this research indicates the complexity of the relationship network between first language, interlanguage and cognition.

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