

Aphasia in the context of the pandemic: language activities developed by Zoom and Whatsapp

Afasia no contexto da pandemia: atividades de linguagem desenvolvidas pelo Zoom e Whatsapp

Diana Michaela Amaral Boccato 

State University of Campinas – UNICAMP – São Paulo - Brazil

Abstract: Taking into account the difficulties faced by aphasic subjects in the utterances production and comprehension, both oral and written, this study aims at discussing the continuous work positive impacts, using *Zoom* and *WhatsApp*, during the pandemic period, while developing language activities with GB, a young aphasic woman, who attends the Center for Aphasic Individuals (Institute of Language Studies from the State University of Campinas, Unicamp). The longitudinal study is supported by an ongoing doctoral research, developed by the Group of Language Studies on Aging and Pathologies. The present article follows the theoretical-methodological principles based on enunciative-discursive neurolinguistics (Coudry, 1986, 1988) with focus on qualitative research and case studies. Based also on Luria's (1981, 1986) and Vygotsky's (2000 [1984]) neuropsychology, the brain is understood as a system that operates from the joint and integrated activity of functional units, emphasizing the social relations mediated by culturally developed symbols. In addition, Bakhtinian categories (Novaes-Pinto, 1999) allow us to analyze the dialogic processes, considering language production effective contexts, in order to understand the neurological damage impact on linguistic-cognitive functioning. For this, we bring some clippings of virtual interactions between the researcher (ldb) and GB, emphasizing the epi- and metalinguistic work that constitute discursive reorganization processes developed. By providing different features, the digital tools bring new possibilities for creating meaningful alternative strategies, generating a fundamental network that brings benefits to aphasics, while becoming an object of interest for research in several areas.

Keywords: Aphasias; neurolinguistics; reading; writing; epilinguistics

Resumo: Levando em conta as dificuldades enfrentadas por sujeitos afásicos na produção e compreensão de enunciados, tanto orais quanto escritos, este estudo tem como objetivo discutir os impactos positivos do trabalho contínuo, utilizando Zoom e WhatsApp, durante o período de pandemia, no desenvolvimento de atividades de linguagem com GB, uma jovem afásica, que frequenta o Centro de Afásicos (Instituto de Estudos da Linguagem da Universidade Estadual de Campinas, Unicamp). O estudo longitudinal é apoiado por uma pesquisa de doutorado em andamento, desenvolvida pelo Grupo de Estudos da Linguagem sobre Envelhecimento e Patologias. O presente artigo segue os princípios teórico-metodológicos baseados na neurolinguística enunciativa-discursiva (Coudry, 1986, 1988) com foco em pesquisas qualitativas e estudos de caso. Com base também na neuropsicologia de Luria (1981, 1986) e de Vygotsky (2000 [1984]), o cérebro é entendido como um sistema que opera a partir da atividade conjunta e integrada de unidades funcionais, enfatizando as relações sociais mediadas por símbolos culturalmente desenvolvidos. Além disso, as categorias bakhtinianas (Novaes-Pinto, 1999) permitem analisar os processos dialógicos, considerando contextos efetivos de produção da linguagem, a fim de compreender o impacto do dano neurológico no funcionamento linguístico-cognitivo. Para isso, trazemos alguns recortes de interações virtuais entre o pesquisador (ldb) e GB, enfatizando os trabalhos epi e metalinguísticos que constituem os processos de reorganização discursiva desenvolvidos. Ao fornecer recursos diferenciados, as ferramentas digitais trazem novas possibilidades de criação de estratégias alternativas significativas, gerando uma rede fundamental que traz benefícios aos afásicos, ao mesmo tempo em que se torna objeto de interesse para pesquisas em diversas áreas.

Palavras-chave: Afasias; neurolinguística; leitura; escrevendo; epilinguística

Introduction

This article deals with one of the case studies carried out during the doctoral research in progress, a longitudinal study, developed within the Group for the Study of Language in Aging and Pathologies (GELEP)¹ and focuses on the online work developed during the SARS-CoV-2 pandemic, known as COVID-19, with a young aphasic woman (GB)² who participates in the CCA³ (IEL/Unicamp) Group 3, since 2016.

The analysis focuses on utterances produced by dialogical episodes, during virtual meetings between GB and the researcher (Idb), between the years 2020 and 2021. The synchronous meetings were held on the Zoom platform, which allows an interaction closer to face-to-face and has features such as screen sharing, fostering the development of various language activities, while GB also took benefits from resources available on the WhatsApp application (such as sending voice messages, images, and emojis), sharing her challenges orally or writtenly, and jointly building strategies to achieve her discursive intent.

We sought, then, to give visibility to (i) the work that aphasic subjects undergo to face their difficulties, with emphasis on the epi- and metalinguistic work that underlies the lexical selection and combination processes and (ii) the researcher's role in the joint meaning construction.

Aphasia can be defined as a language disorder caused by a focal neurological lesion that disrupts the phonemes, morphemes, words and syntagmas selection and combination axis (Jakobson, 1954). These focal lesions arise from head trauma, brain tumor and stroke (Coudry, 1986, 1988). The main aphasias cause is stroke. Data from the Ministry of Health⁴ indicate that, in Brazil alone, 170 thousand people suffer neurological lesions every year as a stroke, possibly resulting in aphasia. The U.S. already has more than

1,000,000⁵ aphasics diagnosed in their communities, so, research on the subject is therefore of great relevance, since it aims at promoting more knowledge and life quality for so many people with this condition.

Aphasia impacts widely on subjects' lives in a sudden way. From day to night, people who had a regular routine of work, study and social life find themselves in a totally new position, as they encounter difficulties in accomplishing their discursive intent and, in some cases, also in understanding others' statements.

Due to the relatively low dissemination and awareness about the theme, if compared to other issues that greatly impact health and life, subjects end up, in various contexts, being marginalized and becoming prejudice victims. They may lose their jobs, be forced to abandon their studies, and often to suffer isolation and social stigmas when seen as incapable subjects, lacking language and even thought. Furthermore, the reductionist view centered on what the subject is no longer able to accomplish, instead of emphasizing what he or she has kept and can still develop, it becomes a source of great suffering for them and their families.

In the Center for Aphasic Individuals, a voluntary extension project at Unicamp, work has been developed, since 1989, with the language functioning, so that they can have more life quality, also aiming at research advancement and science progress, favoring the community.

It is important to point out that aphasic subjects' main complaint concerns the phenomenon known as Word Finding Difficulties (WFD)⁶ as well as the word exchanges/substitutions that occur in the oral modality (paraphasia, Souza-Cruz, 2013) and in the written modality (paralexia, Amaral Bocato, 2018), while reading, paragraphia, during written production).

According to Souza-Cruz and Amaral Bocato

¹ Research group registered in 2010 in the Lattes/CNPq Platform, founded and coordinated by Prof. Dr. Rosana do C. Novaes Pinto.

² All subjects have their identity preserved by acronyms in agreement with the Unicamp Ethics Committee.

³ The *Centro de Convivência de Afásicos* (CCA), Center for Aphasic Individuals, was created in 1989 by the joint efforts of the Institute of Language Studies (IEL, where it is located) and the Faculty of Medical Sciences (FCM) at Unicamp. Currently, there are three active groups that promote meetings between aphasics and non-aphasics, propitiating interaction and interpersonal bonds establishment, aiming at promoting the development of

communication and meaning alternative processes. Group 3, coordinated by Prof. Dr. Rosana Novaes Pinto started in 2006 and is the locus of this research.

⁴ Information taken from the Aphasia Portal: <https://afasia.com.br>.

⁵ Data taken from the report:

<https://super.abril.com.br/ciencia/filhos-do-silencio/>.

⁶ The so-called "Word Finding Difficulties" (usually referred to by the acronym WFD) and related phenomena (paraphasias, TOTs and telegraphic speech) have been addressed by Novaes-Pinto in her CNPq-funded research (2009, 2014 and 2017).

(2017), this difficulty (see, also, Oliveira, 2015), which is also found in non-aphasics and becomes even more evident in the speech of subjects with aphasia, refers to:

situations in which we cannot 'find' the desired word during the processes of oral production (or reading aloud), a phenomenon that may or may not be accompanied by the feeling that we know what the word we want is; the feeling that we have the word 'on the tip of the tongue' (TOT⁶, Tip of the tongue phenomenon). In these cases, it is very common that, when trying to produce the desired word, one produces another related to it by some kind of linking (Souza-Cruz; Amaral Boccato, 2017, 1).

WFD⁶ study, generally, is done through quantitative research. The most frequent evaluative tasks are naming objects and the most widely used battery is the Boston Naming Test (BNT), critically analyzed by Novaes-Pinto (1999)⁷. Naming tests usually corroborate the idea that aphasics are anomalous, that they have lost their "mental lexicon" or access to it. Qualitative research, with dialogical episodes analysis, has generated, then, a large amount of data pointing to semantic-lexical and phonological difficulties to select and/or match the intended word adequately. However, we will try to highlight that it is not about language "loss". Regarding aphasics' difficulties to reach their will-to-say (Bakhtin, apud Novaes-Pinto, 2012)⁸ states reports "that can reveal both the impacts of aphasia on the linguistic system, regarding the strategies adaptives developed by the subjects to circumvent their difficulties".

Besides shedding light on the processes underlying exchanges (in oral and written modality), data emerging in dialogical situations also allow the understanding of the development of alternative and creative strategies of meaning employed to circumvent aphasias difficulties (Coudry, 1986, 1988).

This longitudinal study sought, therefore, to understand the clues of the epi- and metalinguistic work carried out by GB during her discursive production, focusing on the paths taken to make possible her

speech-will.

As we will see from the data, later transcribed and analyzed, we obtained fundamental clues about the selection and combination processes (Jakobson, 1954) to obtain the desired words composing the intended enunciates, an important question for aphasia studies and other language alterations and also for weaving hypotheses regarding normal linguistic-cognitive functioning, since qualitative research done by enunciative-discursive Neurolinguistics has been able to promote valuable discussions regarding the relationship between language-thought and society-culture, about aphasia discursive characteristics.

1. Theoretical framework

This qualitative research, constituted as a longitudinal case study, follows Neurolinguistics theoretical and methodological principles with an enunciative-discursive orientation, which privileges language subjective aspects in operation (Coudry, 1986, 1988). It is inscribed, thus, in the so-called socio-historical-cultural approaches (Luria, 1981, 1986; Vygotsky, 2000 [1984]).

In this context, we have the main notion developed by Luria (1981) about the brain as a Complex Functional System, in which there are elements with specificities, operating in an integrated way, like an orchestra that has the most varied instruments, but that only creates a concert when all of them are working together.

For Luria and Vygotsky, all the higher mental functions are forged in the history and human culture course, and language - for organizing and synthesizing the other higher psychological processes - becomes essential.

Placing the word at the discussions center on higher psychological functions, Luria (1981, 269) defines it as a multidimensional matrix full of semantic, phonetic-phonological and affective links, while Vygotsky postulates that:

⁷ According to Novaes-Pinto (1999), it is important emphasizing one should not confuse strictly metalinguistic behaviors and protocols in these manuals, having a decontextualized character and little relevance in the subjects' trajectory, with the metalinguistic work described by the subjects themselves, when they seek to circumvent the difficulties that emerge throughout their discursive production.

⁸ Regarding the variation among cases, explained by subjective factors discarded from the traditional literature, see Novaes-Pinto's works (1999, 2017).

consciousness is reflected in the word like the sun in a drop of water. The word is to consciousness as the small world is to the big world, as the living cell is to the organism, as the atom is to the cosmos. It is the small world of consciousness. The conscious word is the microcosm of human consciousness (Vygotzky, 2000, 496).

Based on the fundamental understanding that linguistic-cognitive processes cannot be dissociated from the subject's social, historical, cultural, and subjective trajectory, Coudry (1986, 1988) and Novaes-Pinto (1999) criticized formal models direct application to aphasia studies because language complexity, usually, in this context is reduced to language structures analysis (phonetic/phonological; syntactic and lexical aspects), resulting in assessment protocols, also guiding therapeutic conduct, exclusively metalinguistic, privileging more the symptoms and their classification into syndromes than alternative meaning processes and subjects themselves.

In opposition to this strictly formalist approach, this study aims at highlighting the aphasic subject's work and his/her strategies to circumvent the difficulties imposed by aphasias, considering each subject's singular character and discursive productions. Going back to some issues discussed by Coudry (1988), in the context of aphasias:

[...] language results from the experience and work of speakers with and on language. Language, in this conception, refers to an attitude towards the facts of language according to which linguistic forms are related to cultural factors. This comprehensive conception of language assumes the hypothesis of language indeterminacy postulated by Franchi (1976, 1977, 1986) whose concepts of constitutive activity and work attribute, under anthropocultural parameters, to the subject (aphasic and non-aphasic) the exercise of language - incomplete and subject to (re)interpretation. At this point, non-aphasic and aphasic share a common feeling/attitude of incompleteness towards language and to the idiom (Coudry, 1988, 101).

That is, "indeterminacy of language" concept and "work" notion are taken as a basis for understanding subjectivity also by aphasia studies. The author states that no enunciation has in itself necessary and sufficient conditions allowing univocal interpretation, and also that language has multiple expressive resources, such as

context and relationship among interlocutors, promoting more determination to enunciations.

This study also uses Bakhtinian categories that help us to describe and analyze aphasics' enunciations dialogical process and their *finishing* given by the interlocutors, always having as parameter the subjects' speech-will (Novaes-Pinto, 1999). According to Bakhtin (2015), speech-will is:

that intention that determines the choice, as such, of the object, with its boundaries (in the precise circumstances of verbal communication and necessarily in relation to previous enunciations) and the exhaustive treatment of the object of the meaning that is proper to it. The intent, the subjective element of the enunciation, comes into combination with the object of meaning - objective - to form an indissoluble unity, which it limits, links to the concrete (unique) situation of verbal communication, marked by the individual circumstances, the individualized partners and their previous interventions: their enunciations. (Bakhtin, 2015, 281).

For Bakhtin (2015), enunciation, the "real unit of communication", is a singular occurrence similar to human fingers fingerprints, since each subject's history emerges during dialogical processes, and, thus, enunciation is configured as a unique act from which it is possible to unveil interactions architecture, gaining enunciative context awareness and interlocutors' ideological values embedded in the enunciation, in a dialogical and dialectical movement that ends with voices meeting.

From this perspective, the other has a fundamental role as a partner in verbal communication, assuming an even more relevant role in aphasia context, in which it is required an active and sensitive listening (Novaes-Pinto, 2012). For Ponzio (2010, 25), "the fundamental attitude and also the recurring theme of Bakhtinian research is listening to others' words". That is, an attitude of active listening that materializes the "giving time to the other", resuming the importance of otherness, throughout the processes of meaning, something always present in the activities carried out at CCA. Taking as a basis the bakhtinian vision surplus and finishing (completion) concepts, Almeida (2012) postulates that:

on the plane of life (the ethical plane), only a surplus of vision makes it possible to

complete an individual 'in those elements in which he cannot complete himself.' I cannot, in contemplating myself, realize a finishing (completion) of myself, because it is not possible for me to embrace the horizon behind me and my own external image, nor volitive-emotional expressivities that will constitute a whole. And also because this self-contemplation of mine is realized in the language of my internal self-sensations; in other words, it would be too subjective. In this way, the completion (finishing) that the other gives me, and that is only possible to him because of the position he occupies in relation to me, is a conference of values to the elements (that complete me) that are inaccessible and transgredient to me. (Almeida, 2012, 1).

It is, then, from vision surplus that the other, in this case, the researcher has, that the finishing touches gain prominence in the interaction with aphasic subjects who, in communion with this other, seek discursive concretization.

Having in mind understanding and analyzing the epi- and metalinguistic work present in aphasic subjects' discourse, we refer to Coudry, who, already in 1986, highlighted that aphasias show themselves as an interesting observation field of the processes underlying language production, because, in this condition, the relation between language and thought is displayed in slow motion to the investigator.

Regarding the concept of "epilinguistic work", Coudry clarifies:

The subject's activity operating on language is called epilinguistic: when the subject explores resources of his language and reuses elements in the construction of new linguistic objects even to produce certain effects (rhymes, puns, humor, new forms of construction); when the subject, from the linguistic facts to which he has been exposed or which he produces, elaborates hypotheses on the structuring of language or on specific forms of use. In the case of the aphasic subject, this activity has a reconstructive value in the search for alternatives to the resolution of his difficulties, in the retaking of elements of the speech of the other and of himself in previous turns (...). Epilinguistic activity covers several operations on language, such as transforming, segmenting, rearranging, reiterating, inserting, making choices, and even thinking about language and the construction processes in which it is involved. (Coudry, 1988, 22- 23).

Thus, epilinguistic activity, in this approach, involves a link between the subject and language

practices, as well as the relationship with the interlocutor(s) and the enunciative context(s). It is an activity performed "within language" and linked to its effective use. In the activity characterized as "metalinguistic", the subject takes an external observer's place, as exposed by this author:

Metalinguistic activity corresponds to taking language as an object of reflection and talking about this constitution of language, as an object, implies the construction of a notional system that makes it possible to characterize the language-object and represent it in a reference system in which the metalanguage can be interpreted. Metalinguistic activity, thus, 'suspends' language in order to make it an object of observation, description, and representation: one must take a certain distance from linguistic activity in order to construct this notional system and its representational metalanguage (Coudry, 1988, 20).

Although both activities are present in the daily language use, they become more apparent and emerge as fundamental factors for aphasic subjects' discursive intention success, because they work as tools for these subjects to reorganize themselves, exposing their difficulties and building strategies to overcome them, also allowing them to perform questionings and verifications about their own enunciations and those they receive. Human being is the only animal capable of undertaking such abstraction, as Luria (1986) points out:

The human being is not limited to the immediate impression of what surrounds him, he is in a condition to go beyond the limits of sensitive experience, to penetrate more deeply into the essence of things, being able to abstract isolated characteristics of things, capturing the deep linkages and relationships in which he finds himself(...) Thus, unlike the animals, the human being masters in the ways of reflecting reality, not through immediate sensitive experience, but through abstract rational experience. This is a particularity that characterizes human consciousness Luria (1986, 11)

2. Methodological framework

We will now explain some issues concerning this study methodology. According to Damico et al. (1999), the option for qualitative research is the most appropriate in aphasias context, because it gives

researchers the opportunity to apprehend both the organic causes and the social and cultural circumstantial aspects of the phenomenon under investigation, which allows dealing in a more integral way with pathologies complexity (Novaes-Pinto, 2017).

In addition to Damico et al. (1999), Macedo et al. (2009) call attention to the need for methodological rigor in qualitative research, making it possible to guarantee "the epistemological validity of its intentions and practical consequences, its effects and functional results" (Macedo et al., 2009, 13). Qualitative research, according to the latter authors:

- ✓ provides a more authentic and richer view of the context;
- ✓ builds an interconnected and cohesive picture of the phenomenon;
- ✓ provides access to new possibilities for meaning;
- ✓ works with cultural and historical contexts where the phenomenon emerges;
- ✓ dialectizes and dialogizes the interpretations already available about the phenomenon studied;
- ✓ relates particularity and generalization; the whole and the parts;
- ✓ indicates an awareness of the ethical and political forces that construct interpretation;
- ✓ works with the meanings born from the encounter with social actors coming from distinct social places;
- ✓ It connects research, quality of life, and the social common good; and as a consequence, it is imbued with criticality.

According to Freitas (2010), qualitative research becomes natural in Human Sciences field, because they are interested in understanding how things happen, rather than just noting that they happen. The author synthesizes this approach:

the research text is produced by historically situated subjects, in interaction with their sociocultural environment, carrying their

particular worldviews and values. Research is the relationship between subjects, therefore dialogical. The researcher's narrative should not silence the researched individual, but reconstitute the conditions of enunciation and circulation that make possible the multiple meanings (Freitas, 2010, 16).

Regarding the option for the longitudinal case study, André (1984, 52) states that one of the main characteristics of this methodology is that "the understanding of the object is carried out from the data and not as a function of them". In addition, case studies emphasize interpretation in context, seeking to give more completeness to the observed phenomenon study: They seek to respond to the multiple perspectives involved in a given situation. In her words:

Case studies reveal vicarious experience and allow naturalistic generalizations, from the scope of the individual and according to his experiential knowledge [...]. They seek to portray reality in a complete and profound way, intending to reveal the multiplicity of dimensions present in a given situation, focusing on it as a whole, but without failing to emphasize the details, the specific circumstances that favor a greater apprehension of this whole (André, 1984, 52).

According to Godoy (1995), case studies respond by focusing on phenomena that can only be analyzed within some real life context, while Stake (2000) reiterates the study validity done on a "single case", because he believes a single case corroborates significant theoretical propositions, from reliable generalizations, providing a more precise condition elucidation in which phenomena occur.

This theoretical and methodological framework is, then, articulated to microgenetic analyses⁹, as foreseen in Vygotsky's work, aiming at understanding the processes underlying the subjects' work during the signification process. Regarding the microgenetic analysis, Góes (2000) believes that the microgenetic paradigm is the most adequate for data analysis emerging from dialogical interactions, because it is oriented to the minutiae and the indications or clues that

to deduce a (non-mechanical) cause and effect relationship and to explain an action course development.

⁹ Like the indicative paradigm (Ginzburg, 1989), the microgenetic paradigm is also characterized by the clues (or details) analysis underlying statements. We opted for the microgenetic paradigm because, according to Vygotsky (1984), the research objective is

may go unnoticed in other types of analysis. The author states that this paradigm:

is not micro because it refers to the short duration of events, but rather because it is oriented towards indicative minutiae - hence the need for clippings in a time that tends to be restricted. It is genetic in the sense of being historical, for focusing on the movement during processes and relating past and present conditions, trying to explore what, in the present, is imbued of future projection. It is genetic, as sociogenetic, for seeking to relate singular events to other planes of culture, social practices, circulating discourses, and institutional spheres (Góes, 2000, 15).

Therefore, for the purposes of this study, the microgenetic paradigm becomes the most adequate to guide the data clippings and the phenomena analysis we are interested in. It is also essential to highlight the oral and written narrative fundamental role in the data, since most publications on aphasias are restricted to the description of symptoms after neurological episodes.

According to Cazarotti-Pacheco (2012), the work of Labov and Waletzky (1967) demonstrated that narrative is a discourse privileged form, occupying a central role in much of our linguistic activity. The author also draws on the essential concept of "reportability":

through which the subject manifests his subjectivity in a privileged way, since he chooses what is relevant to him - the fact to be narrated and what he wants to highlight - showing, throughout the enunciations, his motivation, opinions and ensuring his role as the main narrator [...]. Thus, the narrative reveals itself as one of the discourses that most resists in aphasias, although there is certainly a variation regarding the degree of severity of the cases. This was one of the reasons, among others, that motivated us to choose narrative discourse; because it is a privileged space for the analysis of the impacts of aphasias on the subjects' language (Cazarotti-Pacheco, 2012, 18).

It is important to emphasize the ethical aspects involved, informing that the subjects that made up the research at CCA signed the Informed Consent Form approved by the Unicamp Research Ethics Committee.

3. Results

GB, who is now 26 years old, suffered a brain stroke when she was 21 years old. She had a carotid obstruction associated with pre-obesity and antiphospholipid antibody syndrome (which can cause blood clots inside the arteries, veins and organs). It is not irrespective that there had been different stroke episodes in her family: her cousin (who is now 27 years old) also had a neurological episode when she was very young (only 14 years old).

Before the stroke, GB was studying odontology at a University in Campinas. Because of the challenges posed by aphasia, GB interrupted her studies. When GB joined the CCA group, in 2016, her linguistic production has been characterized by a telegraphic style. Since then, we have built together weekly reading and writing activities, developed online during the pandemic.

Below, we present three episodes selected and transcribed (according to NURC¹⁰ projec norms) of GB's discursive productions, in virtual interaction with the researcher Idb, during 2020 and 2021. The data seek to make visible GB's challenges in performing her discursive intent in oral and reading/writing productions as well as the strategies creation to ensure that this discursive intent is reached.

3.1 Episode 1

For comparison purposes it is necessary to present episode 1, extracted from the work developed by Lima (2017), configured as the initial moment, when GB narrates her neurological episode. In this data, upon arriving at the CCA, in 2016, GB tries to tell the interviewer MP how was her stroke context, during a trip to the beach (in the city of Recife, Ceará State):

CHART 1. Episode 1. GB narrates her neurological episode. Source: author.

Turn	Enunciator	Oral Utterance	Complementary utterance
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¹⁰ The NURC/SP Project, USP Nucleus, since the last century 80s, has ceased to be simply a "project" title: it has come to represent the very researchers team, developing and carrying out research on orality and related themes. This group is formed by professors

from the University of São Paulo (USP) and from other Brazilian universities, for more than 30 years, producing knowledge about orality.

1	MP	And then, you arrived in Recife...	
2	GB	Beach... sea... right?	She writes down the word "Saturday" on the sheet of paper.
3	MP	Ok, Saturday?	
4	GB	Yeap. Morning. Morning... eated.	She writes down the word "morning" on the sheet of paper. She points towards herself with her finger.
5	MP	You?	
6	GB	Yeap.	
7	MP	So, you woke up early...ate . And then?	
8	GB	Mother, look! To sleep. "- It's nice" ... right?	She makes a gesture as if she was sleeping by laying her head on her hand.
9	MP	You woke up too early... so you went back to bed.	
10	GB	Yeap! Mouth, nope! Speech nope!	She makes a gesture as if she was trying to hold something. She pointed towards herself with her head shaking.
11	MP	Suddenly ?	
12	GB	Suddenly!	
13	MP	Didn't you feel anything?	
14	GB	Hey, look... Head, pain!	

15	MP	I see, so you had a headache ?	
16	GB	Yeap... Fat!	
17	MP	Were you overweight?	
18	GB	Yeap!	

From episode 1, it is possible to observe the great initial difficulty GB faced at to reach her *will-to-say* and to maintain the turns fluency, performing utterances called *telegraphic style*, due to the similarity of this production type with the messages sent, in the old days, from telegraphs: messages containing only keywords, aiming at saving both time and the sending cost.

In aphasias, *telegraphic style* utterances are, then, marked by the finding words difficulty arising from the challenges, throughout the general processes of selection and combination, bringing pauses, hesitations and word exchanges, with emphasis on selecting and combining flexional morphemes challenge and the low frequency or absence of language functional words, such as prepositions, conjunctions, contractions and pronouns.

Due to the greater difficulties faced at the moment immediately after the stroke, there is a greater dependence on the finish given by the interlocutors in this first moment. In this way, we verify the *negotiation of senses* importance built from shared socio-historical-cultural knowledge, observed in the finishes and confirmations between GB and her MP interlocutor throughout the interaction.

However, in episode 1, it is possible to observe how much it is not about emphasizing what the subject stopped doing, after the neurological injury, but rather the alternative signification strategies that were jointly constructed, such as the statement *Beach... sea... right?* (turn 2) and the statement, *Yeap... Fat!* (turn 16). Even with great difficulty to select and combine, the process of arriving at the words "beach", "sea" and "fat" is extremely accurate and refined, fulfilling the expressing purpose herself and making herself

understood: to explain to her interlocutor, with precision, where she was (in a city with beach and sea) and to bring a fundamental (and, until then, unknown) information to compose the health picture, understanding the contributing factor to the stroke event (being overweight).

From the column with complementary statements such as: *She writes down the word "morning" on the sheet of paper and She points toward herself with her finger* (turn 4), it is also noted the use of writing and gestures as important functional elements for the *will-to-say* to be performed as well as for the meanings negotiation to be more precise and confirmed by both the speaker and the interlocutors.

3.2 Episode 2

Next, in episode 2, Chart 2, carried out through Zoom in 2021, it is already possible to observe GB's development, based on the work with language carried out in person with her, at the CCA, since 2016, continued online during the pandemic. GB writes a second narrative about her neurological episode, in interaction with the researcher Idb:

CHART 2. Episode 2. GB's development. Source: author.

Turn	Enunciator	Utterance
1	GB	Me... traveling Recife. Then... Saturday... me, aunt, mother, then cousin helped I... how can I say... apartment. Living room... half past nine... almost ten o'clock.
2	Idb	And what happened at that time?
3	GB	Silly, silly. Almost floor... But, mom held. Stiff neck...headache before. Mom! Get dipyrone.
4	Idb	You already woke up with a headache, then, right?
5	GB	Yes!
6	Idb	What was your morning like?
7	GB	I ate early, milk, bread. Mother. I slept again. It went fast... half

		past nine. But, mom spoke: 'stroke'! Is it because cousin, Did you understand? Car... cousin takes me. Recife. Mother street does not know... Hospital. Wow, it took time. Oh my God!
8	Idb	Wow! That's true. Your cousin also had a stroke when she was very young. So your mother recognized the symptoms, right?
9	GB	It is it! Car... cousin takes me. Recife. Mother street does not know... Hospital. Wow, it took time. Oh my God!
10	Idb	You were in a city you didn't know, either. So, you didn't know the way to get to the hospital. What a situation! And when did you get there?
11	GB	Doctor asked mother... drink. Not at home.
12	Idb	The doctor wanted to know if you had consumed alcoholic beverages to rule out other possibilities...
13	Gb	Later it is...ambulance... hospital. Belly injection. Doctor spoke, arm...leg...did not move, you know? Cried and I didn't speak... 'au au au ao'.
14	Idb	You couldn't move your leg and arm on one side of your body, you know.
15	GB	Then, 21 days... then later, the airplane you know? Doctor did not explain. The doctor spoke 'aphasic' and you know... how can I say... how can I say... born again, you know? Mother spoke... doctor spoke.
16	Idb	It is a miracle that something more serious did not happen!
17	GB	Yes!
18	GB	So, I... airplane, right...
19	Idb	So you flew back to Campinas and continued the treatment.
20	GB	Unicamp, prescription to treat Unicamp. Then, I also examine again, then found SA (a genetic syndrome that causes blood clots and can clog and/or rupture the carotid artery in association with being

		overweight).
21	ldb	Same thing your cousin had, right? So, there is also a genetic factor, right.
22	GB	Yes.
23	GB	Three days before... Ceará is fine. But, then I very fat, you know? Double chin...fat six kilos.
24	ldb	You were six kilos heavier than you are today and that also counts for the stroke, right?
25	GB	Brain... machine breaks down. Stroke. I cried... cried... cried. I good now. But, aunt, you know, 'poor girl', do you know what I mean? 'No, aunt, I'm fine'.
26	ldb	And how has it been now? How have you felt after all these years?
27	GB	Brain. Stroke. Machine brokes. I... sss... stroke... then... it happened and then...then... brain... forgot. But, then... then... now... reading a lot... and... recording (audios). Cool, you know? Amazing, right? Brain... amazing indeed. The word comes, but can't write. Stuck, right?! I'm reading, but... aaa... then I can. Everybody can, me too. Not give up. I not give up. I will not give up. I can read. I have difficulties now, but win every day... how can I say... I'm reading, you know... winning each day.

In this second account about the same event, five years after the stroke and the continuous work with language in the CCA, GB creates a much more fluent, cohesive, and coherent narrative, with greater autonomy to articulate strategies and achieve her discursive intent. It is still possible to observe the absence of functional elements, such as conjunctions, prepositions, and verbal inflections in certain productions, throughout the narrative. However, we emphasize GB's progress, present in her longer and more complex productions, with greater independence in relation to the *finishes* of her interlocutors and making

less use of gestural and written strategies to complement her oral utterances.

In episode 1, for example, GB had to point to herself, due to the difficulty in selecting the pronoun "I" (turn 4) and had to write the word "saturday" (turn 2), while in episode 2 the use of pronouns is already evident and it was possible to produce the same word orally without difficulty (turn 1).

Also, from the second account it is possible to get much more detailed information regarding the context of GB's stroke, such as what she had done and felt before, during and after the stroke first signs (turns 1, 3 and 7).

It is in the second report that GB mentions the fact that her mother was able to identify the stroke signs and help her, quickly, because she already had prior knowledge about it, due to a family member's stroke in the past (turn 7), knowledge previously already shared between GB and ldb, demonstrating the importance of continuous work, of a longitudinal study, and of active listening by the researcher, while working with aphasic subjects.

It is also after the second report that GB manages to explain more precisely the fact that she is overweight, saying: *I very fat, you know? Double chin... fat six kilos* (turn 23), differently from the single statement *fat!* present in episode 1 (turn 16).

In turn 27, it is possible to notice the value that GB attributes to reading and writing practices, recognizing the extreme social importance of such activities, even more for a young person who intends to resume her studies at a university:

Brain. Stroke. Machine brokes. I... sss... stroke... then... it happened and then... then... brain... forgot. But, then... then... now... reading a lot... and... recording (audios). Cool, you know? Amazing, right? Brain... amazing indeed. The word comes, but can't write. Stuck, right?! I'm reading, but... aaa... then I can. Everybody can, me too. Not give up. I not give up. I will not give up. I can read. I have difficulties now, but win every day... how can I say... I'm reading, you know... winning each day.

In the same turn (27) and also in the previous one (25), we can observe GB's current attitude towards challenges imposed by aphasia: *"I cried... cried... cried.*

I good now. But, aunt, you know, 'poor girl', do you know what I mean? 'No, aunt, I'm fine'.

GB does not want to be seen as an excluded victim ("poor girl"), but as a person who can do what *everyone* else can do. Someone who strives not to give up and who carries on as a subject of/in language in spite of all adversities - something important to corroborate in her improvements.

3.3 Episode 3

To give more visibility to the epi- and metainguistic works mobilized by GB, we present episode 3, extracted from messages transcribed from WhatsApp audios, and which is configured as the joint development of more strategies for GB's linguistic reorganization. After one of the synchronous activities, developed weekly through Zoom, GB sent an audio message to Idb, via WhatsApp, sharing her doubts about the reading activity developed online, jointly, shortly before. GB had selected for synchronous reading aloud a text about life in rural areas in Brazil, and then made the following transcribed discursive challenges and strategies evident:

So, Idb. Aaa... the witch (bruxa – in Portuguese), no... Bruna... Bruna is a child who has fear of witches, right? Again. Bruna is a child who...has...fe-ar of wi-tch. Then, Bru-na, chi-ld, wi-tch. Then, the trac-tor is a useful ins-tru-men-t. No! The...again...The trac-tor is a very useful ins-tru-men-t. Useful. Trac-tor. Trac-tor. Tra...tra...tra...stuck, do you know? Tro...trac-tor. Trac-tor. Then, I went. No! I... I... did one ...again!

The original text selected by GB for the reading activity did not have the words "witch" and "Bruna" nor the statement "Bruna is afraid of witch". However, GB begins her asynchronous interaction, via audio, incorporating these two words and organizing them into a complete statement closer to everyday language use to clarify that there were sounds similar to these complex initial syllables (br-), presenting themselves as challenges during the original text reading, which brought words like "instrument" and "tractor", also with complex syllables.

In this way, the epi- and metalinguistic work done by GB is visible, as well as the creation of important strategies mobilized by the subject herself to expose to the other her *will-to-say*, enriching her discourse with more elements, based on her own observations about her challenges with reading aloud.

GB always used wpp to communicate her oral articulation difficulties mostly with complex sounds within double consonants and longer words. In this case, we have an example of these difficulties with the "bru", "cri", "tra", "tru" and "dra" sounds presented in the words "bruxa" (which means "witch" in English), "criança" (which means "child" in English), "trator" (which means "tractor" in English) and "instrumento" (which means "instrument" in English). So, she sent us audios trying to pronounce the challenging words and asking us to send her the right pronunciation, making use of the metalinguistic work and the knowledge shared with her interlocutor producing the enunciations she wanted.

It's interesting to observe that she could say these sounds separately and also, she used some discursive marks as "then" and "look" to register where she had punctual pitfalls (and the pauses/hesitation). It's important to observe the audio's time, with a duration of 2 minutes and 50 seconds. A person without aphasia can say the same information in a very short time. But, her data show the continuous linguistic-cognitive (re)organization processes importance.

Lastly, it's very interesting to observe that she frequently sent us an audio on WhatsApp and then a text message too. In these text messages, she selected the audio's keywords. And when she wanted to send us first a text message, then she sent an audio after showing us her attempts to elaborate and re-elaborate her discourse, both in oral and writing modalities.

4. Discussion

Diagnosis of aphasia is usually linked to a theoretical and methodological framework based on the direct correlation between the area(s) affected by the neurological lesion (identified by neuroimaging exams) and the symptoms predicted by the irregular functioning of these areas.

During the diagnostic period, it is common to apply naming tests (such as the Boston Naming Test), operated in an impersonal and mechanical way by not using the language in its effective functioning, relapsing into decontextualized tasks, with a strict metalinguistic character, which is based on the production of words in a very limited time to validate clinical categories (such as agrammatism, which means, in this usual theoretical model, the completely loss of grammar words).

Thus, the result is an emphasis on what the subject fails to accomplish, disregarding the new possibilities of discursive reorganization linked to the subjects' socio-historical-cultural background, in addition to making it impossible to manifest the singular character present in each case.

Therefore, the researches¹¹ developed by GELEP, at the CCA (IEL-Unicamp), seeks to relate the studies of the enunciative-discursive Neurolinguistics area (Coudry, 1986, 1988; Novaes-Pinto, 1999) to neuropsychological concepts that conceive the human brain as a Complex and integrated Functional System (Luria, 1981, 1986) inscribed in the socio-historical-cultural approach (Luria, 1981, 1986; Vygotsky, 2000 [1984]) that makes qualitative research one of its main tools (Freitas, 2010; Damico et al., 1999; Macedo et al., 2009).

According to Novaes-Pinto (2012, 56):

The conception of the brain as a Complex Functioning System emphasizes the subjective and social nature of linguistic-cognitive functioning by asserting that the brain is an organ shaped by external experiences that transform cognitive functioning and support the principle of extracortical organization, postulated by Vygotsky and Luria, concerning the influence that social and intersubjective activities play in the neuronal and neurofunctional organization of the brain (Novaes-Pinto, 2012, 56).

Over the 30 years of CCA foundation, based on the individual and group follow-up of aphasic subjects, we were able to observe the variation between the symptoms that subjects diagnosed with a lesion in the same brain site presented, in addition to different symptoms from those predicted by the formalist models

that originated the clinical categories (and the consequent follow-ups), evidencing, therefore, the existence of the linguistic-cognitive variations functioning among subjects and the inadequacy of the attempt to make subjects fit into a predetermined model (Novaes-Pinto, 2012; Bocato, 2018).

Furthermore, there are several occurrences in which the same subject shows significant linguistic-cognitive changes, depending on factors such as medication, stress exposure and sleep quality, bringing to light intra-individual variations (Novaes-Pinto, 2012).

Therefore, we observed that linguistic-cognitive functioning exceeds the correlation limits between the expected specific and isolated brain area function (predicted in a normality context created from an average brain model) and what is actually found in the daily and real aphasia manifestations.

In this way, it becomes possible to glimpse and investigate how subjective, social, historical and cultural aspects influence the meaning different ways and reorganization that each subject constructs, together with the researcher, to deal with his/her aphasia, besides the conception of hypotheses about the linguistic-cognitive phenomena from singular cases detailed examination.

The importance of the active and responsive attitude towards intersubjective practices (Bakhtin, 2015) that collaboratively expand strategies that aim at circumventing the challenges present in each case, is then resumed, reinserting the subject (often placed on the language margins) in discursive interactions that guarantee its role as a subject of discourse valued in his/her social practices.

The activities carried out in person, at the CCA, are the most varied and distinct from those carried out in groups. As an example, we have organic interactions among aphasics and non-aphasics and among aphasic subjects themselves and among their families/companions; the reading and discussion of varied news; the practice of board games; theater plays creation and staging; narratives sharing regarding personal events; musical performances; shared meals;

¹¹ Coudry (1986, 1988), Novaes-Pinto (1999, 2010, 2012, 2014), Mazuchelli (2012), Cazarotti-Pacheco (2012, 2014, 2016),

Oliveira (2015), Souza-Cruz (2013, 2017), Lima (2017) e Amaral Bocato (2018).

trips to tourist cities and exhibitions, and activities that vary according to the history and needs of each subject, developed from specific individual routine and the work with digital and printed materials chosen together with each subject.

Finally, we highlight the importance of the work developed virtually, during the pandemic, in order to keep on with the interactions and research, previously conducted in person at the CCA. To this end, we made use of digital tools such as Zoom and WhatsApp, which are valid resources in the non-face-to-face work with language, taking into account the case of our work with GB, because:

- With Zoom it is possible to perform synchronous interactions with video and voice and share the screen. In this way, Idb and GB can share the display web pages in addition to offline materials.
- The WhatsApp features allow GB to send photos of the books pages she is reading, followed by audios, which she reads aloud, expressing her challenges with emoticons and text messages about her reading and writing difficulties, and demonstrating alternative and creative meaning strategies.

Since GB's main demand is to improve her reading and writing skills to resume her studies in Higher Education; carrying out the reading of books; going to the cinema to watch subtitled movies; traveling independently and be active on social networks, interacting with people in writing, our activities create the necessary context for the required skills by these practices to be put into operation in the most organic possible way, creating opportunities for GB to be reinserted in significant social practices for her, being recognized as a subject of/in language.

Thus, by using Zoom and WhatsApp, we interact by sharing (oral and written) narratives and taking as basis videos, movies, documentaries, sites, books, virtual games, etc. that embrace GB's topics of interest and studies/professionalization, as well as the use of WhatsApp itself, which is already configured as an effective handling of her interactional/discursive needs (in this case, to operate fluently in the tool).

From this scenario, we can observe, with language scientists eyes, GB's daily challenges in

controlling her will-to-say. That is: the difficulty in finding the desired word; the word substitutions (in speaking, reading, and writing contexts); the difficulty in pronouncing/reading/writing longer words and/or words composed of complex syllables; the challenge in inserting prepositions and contractions in the speech; the pauses/hesitations that interrupt the discursive fluency - phenomena that can generate stress, anxiety, depression, and social isolation.

We recall that these challenges are, in general, present in subjects with aphasia daily life, but who manifest themselves in a particular way in each case, demanding intervention and the joint creation of strategies that can help subjects reorganizing their speech according to their needs.

Despite the difficulties importance, it is also in this scenario that emerges the richness of new meaning creative ways, built and activated in the ethical-responsive interaction, which allow a better life quality for subjects with aphasia and the development of important research in the area.

Conclusion

During the pandemic, subjects with and without aphasia were exposed to serious isolation that culminated in profound changes in all social relationships. For everyone, this meant a profound process of reorganization in the way they interacted. However, the subjects with aphasia, due to the needs that emerged after the neurological injury and the stigmatization/marginalization they already suffered (due to society's lack of knowledge about aphasias), had their few circles of social interaction further reduced, which gives even more relevance to the continuity and activities adaptation developed with these subjects for the remote fashion.

It is also fundamental to the aphasias context paying attention to the anguish that the Difficulty in Finding Words (and the possible resulting word exchanges) and the Word on the Tip of the Tongue phenomena cause to aphasic subjects, as well as to the relief that they feel when they are in contact with

interlocutors willing to collaborate, giving them the time each one needs to (re)organize their will-to-say.

Therefore, the present study highlights the importance of real interactions, in contact with aphasic subjects, developing activities that use language in its effective functioning, instead of the usual de-contextualized evaluations and protocols of therapeutic conduct disregarding the subjective and socio-historical-cultural trajectory of each one.

Within the work developed on-line with GB, we tried to emphasize the importance of building awareness about the difficulties imposed by each aphasia case and the joint creation of strategies corresponding to GB's current needs from a series of contextualized activities mentioned above.

In this way, during these activities, it was possible to observe and analyze the epi- and metalinguistic work done by the subject, in contact with the researcher, looking for a greater control over her verbal production and, consequently, a better life quality.

To accomplish this goal, we resume the importance of the researcher's role as an active agent of the listening and (re)signification processes, in addition to the qualitative research importance, which has case studies as one of its methods, for the elucidation of linguistic-cognitive processes and linguistic phenomena both in the field of pathologies and normality.

Coudry (1986, 1988) states that aphasias exhibit language functioning in slow motion. Thus, work in the field of Neurolinguistics of enunciative-discursive nature has sought to bring to light signs of this functioning. And when the subject herself, as is the case of GB, is able to explain the paths she takes when confronted with difficulties and the strategies developed to overcome them, there is a very relevant gain not only for neurolinguistics theory, but also for the development of therapeutic follow-ups, as has been occurring over more than thirty years of work at CCA.

References

- Almeida, M. de F. (2012). Glossariandobakhtin. <http://linguagenseminteracao.blogspot.com/2012/11/glossario-bakhtin.html>.
- Amaral Bocato, D. M. (2018). *The phenomenon of paralexia: a case study in the context of aphasias*. Master's dissertation in Linguistics. IEL/Unicamp, Campinas.
- André, M. (1984, May). Estudo de caso: seu potencial na educação. *Cadernos de Pesquisa*, 49, 51–54.
- Bakhtin, M. (2015). *Estética da criação verbal*. Martins Fontes.
- Cazarotti-Pacheco, M. (2012). *O discurso narrativo nas afasias*. Doctoral dissertation on Linguistics. Instituto de Estudos da Linguagem, Universidade Estadual de Campinas.
- Coudry, M. I. H. (1986). *Diário de Narciso. Discurso e afasia: análise discursiva de interações com afásicos*. Doctoral dissertation on Linguistics. Unicamp, Campinas. Book published: Martins Fontes, 1988.
- Coudry, M. I. H. (1988). *Diário de Narciso. Discurso e afasia: análise discursiva de interações com afásicos*. Martins Fontes.
- Damico, J. S., Simmons-Mackie, N., Oelschlaeger, M., Elman, R. & Armstrong, E. (1999). Qualitative methods in aphasia research: basic issues. *Aphasiology*, 13(9-11), 651-665. <https://doi.org/10.1080/026870399401768>
- Franchi, C. (1976). *Hipóteses para uma teoria funcional da linguagem*. Universidade Estadual de Campinas, Tese de Doutorado.
- Franchi, C. (1977). *Linguagem: Atividade Constitutiva. Almanaque*, 5, 9-27. Brasiliense.
- Franchi, C. (1986). Reflexões sobre a hipótese da modularidade da mente. *ABRALIN Boletim da Associação Brasileira de Lingüística*, 8, 17-36.
- Freitas, M. T. (2010). No fluxo dos enunciados, um convite à pesquisa. In: M.T. Freitas & B. Ramos (Eds.), *Fazer pesquisa na abordagem histórico-cultural: metodologias em construção*. Editora UFJF.
- Ginzburg, C. (1989). *Mitos, emblemas, sinais, morfologia e história*. Companhia das Letras.
- Godoy, A. S. (1995). Introdução à pesquisa qualitativa e suas possibilidades. *Revista de Administração de Empresas*, 35(2), 57-63.
- Góes, M. C. R. (2000). A abordagem microgenética na matriz históricocultural: Uma perspectiva para o estudo da constituição da subjetividade. *Cadernos Cedes, Relações de ensino: análises na perspectiva histórico-cultural*, 50, 9-25.

- Jakobson, R. (1954). *Linguística e Comunicação*. Cultrix.
- Labov, W. & Waletzky, J. (1967). In J. Helm (Ed.), *Narrative analysis*. Essays on the Verbal and Visual Arts (pp. 12-44). U. of Washington Press. Reprinted in *Journal of Narrative and Life History*, 7, 3-38, 1997.
- Luria, A. R. (1981). *Fundamentos de neuropsicologia*. Edusp.
- Luria, A. R. (1986). *Pensamento e linguagem: as últimas conferências de Luria*. Artes Médicas.
- Lima, A. (2017). *As palavras funcionais na chamada fala telegráfica em enunciados de sujeitos afásicos*. 165f. Master Dissertation on Linguistics Instituto de Estudos da Linguagem, Universidade Estadual de Campinas.
- Macedo, R. S., Pimentel, A. & Galeffi, D. (2009). *Um rigor outro: sobre a questão da qualidade da pesquisa qualitativa*. EDUFBA.
- Novaes-Pinto, R. C. (1999). *A contribuição do estudo discursivo para uma análise crítica das categorias clínicas*. Doctoral dissertation on Linguistics. Minor in Neurolinguistics. Instituto de Estudos da Linguagem, Universidade Estadual de Campinas.
- Novaes-Pinto, R. C. (2012, Jan.-March). Cérebro, linguagem e funcionamento cognitivo na perspectiva sócio-histórico-cultural: inferências a partir dos estudos da afasia. *Letras Hoje*, 47(1), 55-64.
<https://revistaseletronicas.pucrs.br/ojs/index.php/fale/article/view/9858/7421>
- Novaes-Pinto, R. C. (2017). *Variações individuais nos processos linguístico-cognitivos de envelhecimento normal ou patológico: cada caso é um caso*. No prelo.
- Oliveira, M. V. B. (2015). *Palavras na ponta-da-língua: uma abordagem neurolinguística*. (doctorate Dissertation in Linguistics). nstitute of Language Studies, State University of Campinas, São Paulo,.
- Ponzio, A. (2010). *Procurando uma palavra outra*. Pedro e João.
- Stake, R. E. (2000). *Case Studies*. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 435-453). Sage.
- Souza-Cruz, T. (2013). *Em briga de marido e mulher ninguém mete... o garfo: Estudo neurolinguístico da produção de parafasias semânticas em sujeitos afásicos*. Master Dissertation in Linguistics. Instituto de Estudos da Linguagem, Universidade Estadual de Campinas.
- Souza-Cruz, T; Amaral Boccato, D. M. (2017). Produção de parafasias e paralexias e sua relação com as "Dificuldades de Encontrar Palavras" (*Word Finding Difficulties*). *Revista Estudos Linguísticos*, 46 (2), 760-773.
- Vygotsky, L. S. (2000 [1984]). *A construção do pensamento e da linguagem*. Martins Fontes.