



# Alternative processes of meaning and jargonaphasia: a case study

## Processos alternativos de significação e jargonafasia: um estudo de caso

### Procesos alternativo del significación y la jerga aphasia: estudio de caso

Eduarda Pazini\*

Vanessa Inês Klein Feltes\*

Aline Sarturi Ponte\*

Elenir Fedosse\*

#### Abstract

**Introduction:** Aphasias are changes of expression and/or understanding of verbal language (oral and written) that can be treated by speech therapy. **Objective:** To identify and analyze verbal and non-verbal production (alternative processes of meaning) of an individual supervised in speech therapy and an Interdisciplinary Support Group. The analysis of production/interpretation of verbal and non-verbal language was performed from excerpts produced through dialogical relations in individual therapy sessions and in the support group. **Method:** Data collection occurred over the years 2013 and 2014, through filming of individual speech therapy sessions and the Interdisciplinary Support Group. The individual is male, born in the state of Rio Grande do Sul, 61 years old, environmental technician at the Brazilian Institute of Environment; he suffered an ischemic stroke in the left cerebral hemisphere, in May 2010. The perspective of Discursive Neurolinguistics is the basis for interpretation of linguistic and cognitive data of the individual. **Results:** we verified different meaning processes (alternative or not) manifested by the individual during the therapies and/or experiences in the group, especially the concomitant use of gestures and speech and the use of gestures, drawings and writing instead of speech. **Conclusion:** This individual, clinically monitored, according to the aforementioned perspective, has demonstrated potential for expression and understanding, whereas processes – therapeutic and in the support group – favor verbal production/interpretation as well as the nonverbal/alternative processes of meaning attribution.

**Keywords:** Aphasia; Language; Speech therapy.

#### Resumo

*Introdução: As afasias são alterações de expressão e/ou de compreensão da linguagem verbal (oral e*

\*Universidade Federal de Santa Maria – UFSM - Santa Maria-RS - Brazil.

Authors' contributions: EP research development, research source organization, schedule development, data collection, textual conception, research source organization and/or data analysis, research paper writing. VIKF research development, research source organization, schedule development, data collection, textual conception, research source organization and/or data analysis, research paper writing. ASP joint supervisor, research source organization, research paper writing, research paper revision, submission and formalities. EF supervisor, research development, research source organization and/or data analysis, research paper writing, revision and approval of final version.

Correspondence address: Eduarda Pazini - [duda\\_pazini@hotmail.com](mailto:duda_pazini@hotmail.com)

Received: 11/04/2016 Accepted: 17/05/2016



escrita) passíveis de acompanhamento fonoaudiológico. **Objetivo:** Identificar e analisar a produção verbal e não verbal (processos alternativos de significação) de um sujeito acompanhado em Fonoaudiologia e em um Grupo Interdisciplinar de Convivência. A análise da produção/interpretação da linguagem verbal e da não verbal dá-se a partir de excertos produzidos em meio a relações dialógicas ocorridas em sessões terapêuticas individuais e no grupo de convivência. **Método:** A coleta dos dados ocorreu ao longo dos anos de 2013 e 2014, por meio de filmagens das sessões fonoaudiológicas individuais e do Grupo Interdisciplinar de Convivência. Sujeito sexo masculino, nascido no estado do Rio Grande do Sul, 61 anos de idade, técnico ambiental no Instituto Brasileiro do Meio Ambiente; sofreu Acidente Vascular Cerebral isquêmico no hemisfério cerebral esquerdo, em maio de 2010. A perspectiva da Neurolinguística Discursiva é a base para interpretação dos dados linguístico-cognitivos do sujeito. **Resultados:** Constatam-se diferentes processos de significação (alternativos ou não) manifestados pelo sujeito durante as terapias e/ou vivências no grupo, especialmente, o uso concomitante de gestos e de fala e o uso de gestos, desenhos e escrita no lugar da fala. **Conclusão:** Este sujeito, clinicamente acompanhado, segundo a perspectiva supracitada, tem demonstrado potencialidade de expressão e compreensão, visto que os processos – terapêuticos e de convivência - favorecem a produção/interpretação verbal e a não verbal/processos alternativos de significação.

**Palavras-chave:** Afasia; Linguagem; Fonoaudiologia.

### Resumen

**Introducción:** Las afasias son cambios de expresión y/o comprensión del lenguaje verbal (oral y escrita), pasibles de acompañamiento. **Objetivo:** Identificar y analizar la producción verbal y no verbal (procesos alternativos de significación) de un sujeto que frecuenta terapia fonoaudiológica y un Grupo Interdisciplinario de Convivencia. El análisis de la producción / interpretación del lenguaje verbal y no verbal ocurrió a partir de extractos producidos durante las relaciones dialógicas en sesiones de terapia individual y del grupo de convivencia. **Métodos:** La recolección de datos se llevó a cabo durante los años 2013 y 2014, a través de la filmación de las sesiones fonoaudiológicas individuales y del Grupo Interdisciplinario de Convivencia. El sujeto es del sexo masculino, nacido en el estado de Rio Grande do Sul, 61 años, técnico de medio ambiente en el Instituto Brasileño del Medio Ambiente; sufrió un accidente cerebrovascular isquémico en el hemisferio cerebral izquierdo, en mayo de 2010. La perspectiva de la Neurolingüística Discursiva foi la base para la interpretación de los datos lingüísticos y cognitivos del sujeto. **Resultados:** Se encontró diferentes procesos de significación (alternativos o no) manifestados por el sujeto durante las terapias y / o experiencias en el grupo, sobre todo, el uso concomitante de gestos y habla y el uso de gestos, dibujos y escritos en lugar de la palabra. **Conclusion:** El sujeto, clinicamente acompañado, según la perspectiva antes citada, ha mostrado potencial de expresión y comprensión, mostrando que los procesos - terapéutico y de convivencia - favorecen la producción / interpretación procesos verbales y no verbales (procesos alternativos de significación).

**Palabras claves:** Afasia; Lenguaje; Fonoaudiología.

### Introduction

Aphasias are changes of expression and/or understanding of verbal language (oral and written)<sup>1</sup>; there is a profusion of terms in the neurological, neuropsychological and neurolinguistic literatures to mention the difficulties of expression (Broca's aphasia, motor aphasia, expressive aphasia, non-fluent aphasia, anterior aphasia) and comprehension of language (Wernicke's aphasia, sensory aphasia, fluent aphasia, posterior aphasia). Aphasias result from an acquired focal brain damage, a fact which excludes language disorders

that emanate from a global disorder of brain function, such as mental confusion, intellectual disabilities and dementia<sup>1,2</sup>.

The jargonaphasia is characterized as the most severe case of fluent aphasia, and anosognosia<sup>2</sup> is a frequent symptom. According to current aphasia scholars who assume the enunciative-discursive perspective of language<sup>3</sup>, there are classical references in aphasiology literature that the jargonaphasic individuals do not recognize that they produce jargon: they talk mostly in abundance, thinking that their expression is adequate (they are deaf to their own jargon). Other researchers<sup>4</sup> affirm that

the individuals produce jargon instead of silence (they are deaf to their jargon in order to avoid being reduced to the silence).

Jargon is classically defined as anosognosic disintegration of the semantic level<sup>4,5</sup>; it refers to a heterogeneous field of language disorders, but maintains similarities: fluent production and unintelligible discourse<sup>6</sup>. Currently, there are authors<sup>6</sup> who classify jargonaphasia in: i) semantic - full of real words with wrong combinations; ii) with neologisms - “normal discourse” and intelligible with distortions of words and difficulties to find the target word; iii) phonemic or undifferentiated jargon - “regular speech”, but no or few real words are identified. For other authors<sup>7</sup>, jargonaphasia is an incomprehensible and meaningless production, with confused syntactic and semantic organization.

In addition to the aforementioned characteristics, it may occur an increased speech rhythm with maintenance of articulatory precision. Jargon can be found in all productive contexts of language use (dialogues, monologues, debates, poems, songs etc.), in metalinguistic activities, naming/denominating figures and objects, in descriptions of pictures and repetition attempts. The jargon can also be observed in reading aloud and writing<sup>5,6</sup>.

Jargonaphasia is an obstacle to the treatment of the aphasic patient, which implies a difficult prognosis. It can be affirmed, therefore, that the jargon presence is one of the more complicated difficulties in the therapeutic treatment<sup>7</sup>. However, currently, there are theoretical and methodological approaches that focus more on the subject who enunciates than on the mere analysis of pathological manifestations of language. The Discursive Neurolinguistics (DN) perspective, adopted in this study, is one of them.

DN is a theoretical and methodological perspective that incorporates linguistic theories that assume the indetermination and constitutive activity of language, the subjectivity and heterogeneity of language, the virtuality of language, as well as the interrelation of the levels of linguistic analysis<sup>8</sup>. Besides, the interactive dimension of language concepts and the conception that the brain organization and functioning occur through Functional Complex Systems<sup>9</sup> are part of DN. It is adopted, therefore, in this perspective, the idea that language is constructed in the social interaction<sup>8,10,11,12</sup> – in the interlocution<sup>3</sup>. It is in the interlocution of an aphasic individual with other speakers of the language that

the meaning production occurs, with verbal (oral and written) and nonverbal processes (alternative processes of meaning)<sup>8,10,11,14</sup>. Concerning it, the authors<sup>8,10,11,14</sup> clarify that the alternative processes of meaning are strong evidence that aphasic individuals perform linguistic and cognitive work, even when the linguistic components (phonological, morphological, syntactic, semantic and pragmatic) are missing and/or disorganized.

Alternative processes of meaning, according to the authors<sup>10,11,14</sup>, occur through the possibility of intralinguistic and intersemiotic translations. They may be expressed by gestures/body; use of objects; establishment of relationship between objects; among others. Some of these alternative processes are predicted (official) – intralingua translation – while other are unofficial – intersemiotic translation. It is explained that intersemiotic translation appears as an expression that occurs in both aphasic and non-aphasic individuals; the difference is that in aphasia alternative processes of meaning are more recurrent.

It is worth noting that recent studies<sup>15,16,17</sup> have discussed, especially, the gestural expressions in aphasia as intersemiotic translation. In these studies, the gesture has been analyzed as an adaptation of verbal to non-verbal language, a transmutation of a sign to other semiotic systems<sup>18</sup>.

This study aims to analyze the verbal production (oral/speech and writing) and nonverbal (alternative processes of meaning) of a jargonaphasic individual in speech therapy and also participant in a support group – both therapeutic spaces are guided by DN. This study results from the research “On language and other cognitive processes relationship: an interdisciplinary study on aging and encephalic pathologies in adults and elderly”; approved by the Research Ethics Committee of a University located in an inland city of the state of Rio Grande do Sul, where research was developed, under the number 0324.0.243.000-11.

Data collection occurred over the years 2013 and 2014, through filming of individual speech therapy and support group sessions – the Interdisciplinary Support Group (ISG). Participants of ISG are aphasic individuals, their families, Speech Therapy, Physiotherapy and Occupational Therapy students, postgraduate students and professionals of these areas.

Individual sessions were weekly, each session lasting for about 60 minutes; the ISG meetings also

occurred once a week, lasting two and a half hours. It is worth noting that a part of data was collected by the authors of this study and another part was extracted from the Linguistic-Cognitive Database of Elderly Individuals with Aphasia and Dementia Processes.

## Methods

### Clinical case presentation

WG, 61-year-old, male, born in a provincial city of the state of Rio Grande do Sul, Brazil; youngest son of a couple with two children. He lives, for 24 years, with his second wife and son. He served as environmental technician at the Brazilian Institute of Environment (IBAMA), between 2001 and 2010, and previously he worked in another public agency for nine years.

At the beginning of May 2010, he suffered an ischemic stroke in the left cerebral hemisphere (tomographic result). After the stroke, the patient was unable to walk, talk and perform his self-care activities independently. Even during hospitalization, he started physical therapy and speech therapy. After two months, the limb movements improved significantly. Concerning the language, his speech has presented (and still presents), most of the time, jargonaphasic characteristics; he also demonstrates inconstant verbal comprehension and difficulty to read and write. Currently, WG is independent for his basic self-cares, drives, has as hobby watching movies (especially action movies) and takes the bus (to promenade).

Three years after the stroke (2013), WG started speech therapy (twice a week) at the Clinic-School where this study was conducted and initiated to attend the weekly meetings of the ISG. During the year of 2014, one of the authors conducted speech therapy once a week and accompanied the ISG.

## Results

The linguistic and cognitive data of this study are data-findings, considering that the language of aphasic individual, modified by the own aphasia, has several faces (such as the language of non-aphasic subjects) that may be grasped in the exercise of the living language and interpreted discursively<sup>14</sup>. The data-finding reflects, thus, the reciprocal relationship between data and theory, is produced in the dialogic relationship between subject and

researcher/therapist, and the dialogue consists of a minimum unit of linguistic analysis<sup>11,14,19</sup>.

The data of this study are presented according to the coding system (modified) established by the Database of Neurolinguistics – DN<sup>20</sup>; they are arranged in individual tables divided into five columns: line numbering (produced utterances); initials of the speaker (initial name of each individual in the interaction); transcription of verbal utterances (orthographic mode); observations on the production conditions of verbal utterances (intonation marking); and observations on the production and interpretation conditions of non-verbal utterances. We aim, therefore, to explicit and detail the discourse of the subjects involved in verbal interaction, using the following markings: / (short pause); // (Long pause); - (syllabication); : (Short stretch); :: (Long stretch); [ superposition of voices) and uppercase letters (emphasis on the segment)<sup>21</sup>.

The aphasic individuals are identified by the initials of their names (WG - subject of this study and GF - another participant of ISG) and the therapists/researchers are identified by the uppercase letter I (of investigator) followed by lowercase letters representative of their names (Ief and Iep).

The linguistic and cognitive data are analyzed according to the theoretical framework of DN. In the first data of WG, there is an episode which occurred in the ISG, on October 11, 2013. There are several members in the room seated in a large circle, talking about the need to eat well to maintain health, considering that one of the participants was not eating nothing but bread soaked in coffee; WG is seated at right and GF at left of Ief, which turns to WG, requesting help with suggestions for GF on how to go back to eat properly (Figure 1).

Figure 1. Data 1 (11/10/2013).

No	Initial of the speaker	Transcription of verbal utterances	Observations on the production conditions of verbal utterances	Observations on the production and interpretation conditions of non-verbal utterances
1	Ief	Mister WG /	Reticent tone	Turning the body at WG.
2	Ief	Give him the recipe	Imperative tone	Pointing the right hand to GF.
3	WG	Sieu nauntô: didevo /	Affirmative tone	Smiles; look at his hands holding a tissue.
4	WG	I cannot	Exclamatory tone	Smiles; blows the nose with the tissue.
5	WG	I'm not / Hmm ::	Reticent tone	Pointing the right index to another member of the group.
6	Ief	Tell him how you do to ea /	Affirmative tone	Shaking, many times, right hand fingers in front of the mouth (gesture of eating).
7	Ief	To go back to eat	Affirmative tone	Continues the gesture of eating.
8	Ief	You should stimulate him to eat::	Reticent tone	Looking at WG (indicating he explains to GF how to gain weight)
9	Ief	Show him :	Reticent tone Affirmative tone	Smiling moves the right hand from WG's place in direction to GF.
10	Ief	Like this look / look this look/	Affirmative tone	Doing the gesture of eating.
11	WG	[ Uh-huh:	Exclamatory tone	Nods the head, many times; laughs looking at the belly and holding it with both hands.
12	Ief	Is still going to diet	Affirmative tone	Interpreting the gesture of WG as "it's possible to go back to eat: look how I'm fat".
13	Ief	Look/ Look there/	Exclamatory tone	Points to WG Smiling
14	Ief	Got a little, fat isn't	Interrogative tone	Smiling
15	Ief	Is eating/	Affirmative tone	Smiling
16	Ief	Devouring / a SM	Exclamatory tone	Smiling
17	WG	Yeah: yeah: yeah:	Affirmative tone	Nods the head, many times; touches three times the belly with both hands, smiling and looking at the members of the group
18	WG	There look	Exclamatory tone	Smiling and touching twice the belly
19	WG	Sé muita coisa	Exclamatory tone	Smiling
20	Ief	Is getting too fat	Affirmative tone	Smiling

Legend: / (short pause); : (Short stretch); :: (Long stretch); [ (superposition of voices). (SM: Set meal)

At the beginning of the dialogue, it is clear that WG, when asked to indicate a diet for GF, says: "sieu nauntô didevo /" (line 3 - Figure 1), looks down, trying to avoid the request of talking demanded by Ief, and points at another member of the group, as authorizing this member to take his turn in the dialogue. It is interesting to note how the first words produced by WG were agglutinated,

characterizing a speech with phonemic and undifferentiated jargons<sup>6</sup>.

But soon after his verbal productions were entirely understandable: "I cannot" and "I'm not / Hmm ::" (lines 4 and 5 - Figure 1). It is important to note that Ief interpreted as "I cannot say how I did," "Do not insist, I do not give a tip of how to go back to eat properly, ask others to do it," respectively. Ief, without speaking, interprets his



expressions (jargonaphasic and conventional), as well as his pointing with the right index finger followed by “hmm” as “ask to someone else to say it” and continues instigating him to take the role of speaker, talking and using gestures “Tell him how you do to ea /” and “to go back to eat” (line 6 and 7 ). After this approach, it is observed that WG takes his turn vocalizing/speaking “Uh-huh” (line 11), with help of gestures: affirmative (nod of the head) and indicating that he is sufficiently fed (touching the belly) and also sucking in the abdomen and smiling, which suggests he is overweight. Thus, it can be said that WG, for verbal insistence accompanied by Ief’s gestures, joined the topic of conversation (he understood and responded to Ief’s request) and therefore he occupied space in the interlocution getting support in the gestural and oral expressions of his interlocutor – he remained a linguistic and social subject<sup>8,11,22,23</sup>.

Another interesting fact to highlight is that WG has interpreted immediately, in opposition to some literatures that indicate that jargonaphasic

individuals have constant difficulties in understanding. Possibly, it was the cooperative approach of Ief that guided his (verbal and gestural) understanding and gestural production. It is possible to see, therefore, the gesture taking the place of the speech: the occurrence of intersemiotic translation<sup>11,14,15,24</sup>.

WG’s second linguistic and cognitive data, analyzed here, occurred in an individual speech therapy session working on reading and writing. The participants of the dialogue were Iep and WG.

For the aforementioned session, we selected a journal specialized in health. The journal was explored by WG with help from Iep (oralization of notes of the articles highlighted by the subject, with some parts of the text explained/clarified and other excerpts commented by the therapist), aiming to WG’s verbal and non-verbal production.

In this data, there is the reading of an excerpt about food that can be freely consumed in a diabetic diet. First, I asked WG to read silently and after to read with audible vocal intensity, knowing that he tends to read at low intensity.

**Figure 2.** Data 2 (16/10/2014).

Nº	Initials of the speaker	Transcription of verbal utterances	Observations on the production conditions of verbal utterances	Observations on the production and interpretation conditions of non-verbal utterances.
1	WG			Is seated with the journal over the table; reads silently.
2	Iep			In silence; waiting for WG start the reading and observing him.
3	WG	Ebistolegi xebatalison	Affirmative tone	Starts the reading following the letters and/or syllables with the right index finger
4	WG			Looks at Iep and laughs
5	Iep	Uh-huh ::	Reticent tone	Nods the head, following WG’s reading.
6	WG	Epoiz xe tatalison a estidos a esteis	Affirmative tone	Reads and looks at Iep.
7	WG	/unintelligible segment/	Affirmative tone	Reads and looks at Iep.
8	WG	Cobara estodos por quando quis tudo nimétudi	Affirmative tone	Reads and looks at Iep.
9	Iep	What have you understood of this text mister WG	Interrogative tone	Looking at mister WG.
10	WG	Ou só de tudi	Affirmative tone	Taking with the left hand a paper sheet to write and/or draw; takes the pen with the right hand and draws a traffic light.
11	Iep	Which of them are these foods?	Interrogative tone	Pointing to WG’s drawing.
12	WG			Points with the index finger to the green light.

Legend: / (short pause); (Long stretch).

WG reads the article in silence as Iep's request, and as soon as he ends he looks at the therapist who immediately requested him "to read aloud".

The oral reading of WG was initially marked by phonemic and undifferentiated jargons<sup>6</sup>, except at the end of line 3 and in the middle of line 6, when appears "Alison" - person's name. In line 7 (Figure 2) his speech was at low intensity so it was not possible to transcribe it.

At no time of WG reading there was adequate grapheme-phoneme relationship, although in lines 3, 7, 8 and 10 (Figure 2) appear identifiable words as belonging to Brazilian Portuguese. However, WG used the index finger to follow the letters, syllables and words while reading. WG smiled and looked several times to the therapist, as if he was checking if the interlocutor accompanied him, that is, seeking to verify if the interlocutor followed him in his reading.

WG maintains prosody and good articulation while reading; even if his reading is full of undifferentiated jargons<sup>6</sup>, the extension of words and sentences read by WG (in his way) coincides with the number of syllables and words of the text, respectively. This data is in agreement with the hypotheses raised by classical authors<sup>4,23</sup>: the words are presented organized according to the language characteristics, although there are phonemic selections combined in no regular/conventional way.

During WG's reading, we observed short pauses, use of expression out of the reading context, and repetitions of some excerpts. These facts can be interpreted as active processes in the search for meaning<sup>11</sup>.

After reading, Iep asks WG to orally report what he understood of the text. WG says "Ou só de tudo" (line 10) and realizing that his expression does not correspond to his intention of speech, besides being habituated to the fact that in speech therapy session he can build statements with the help of other semiotic resources and have cooperation of the therapist<sup>11,25</sup>, WG takes the pen and draws a traffic light aiming to prove that healthy food (listed in the article) have "green light".

The act of drawing is interpreted as an alternative process of meaning and, again, it is evident that WG adheres to the topic of conversation, introduces himself as speaker using other semiotic process, making thus a intersemiotic translation – now, differently from Data 1 – he replaces speech by drawings.

## Conclusion

WG's linguistic and cognitive data have been produced in a clinical context that has in the interlocution (dialogue between the aphasic individual and the therapist/researcher) the privileged place of meaning production; they strengthen the conception that the assistance of an aphasic individual cannot be performed through the repetition of words, analyzed alone or trained, but through social practices, such as those reported here (to opine and conclude – Data 1; to read and comment – Data 2).

WG demonstrates he understands the speech of his interlocutors, most of the time, as well as his jargonaphasic speech. When he cannot express himself verbally, he uses alternative processes of meaning (in certain situations, concomitant gestures to speech, supporting it, in others, drawings instead of speech).

The perspective of DN has been presented as a productive theoretical and methodological proposal for the development of therapeutic and coexistence processes of jargonaphasic subjects. Indeed, this perspective is important to the development of other studies focused on jargonaphasia – one aphasic manifestation still insufficiently researched in the national speech therapy literature.

## References

- 1 Spaccavento S, Craca A, Del Prete M, Falcone R, Colucci A, Di Palma A, Loverre A. Quality of life measurement and outcome in aphasia. *Neuropsychiatr Dis Treat* [serial on the Internet]. 2014 Jan [cited 2014 set 15]; 10(1):27-37 [about 15 p.]. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3869916/>.
- 2 Cambier J, Masson M, Dehen H. Afasias. In. *Neurologia*. 11 ed. Rio de Janeiro: Guanabara Koogan, 2005. p. 35-37.
- 3 Novaes-Pinto R, Santana AP. Semiologia das afasias: uma discussão crítica. *Psicologia: Reflexão e Crítica*. [periódico na Internet] 2009 Dez [acesso em 2014 nov 19]; 22(3):413-21 [aproximadamente 9 p.]. Disponível em: <http://www.scielo.br/pdf/prc/v22n3/v22n3a12>.
- 4 Lebrun Y. *Tratado de afasia, Temas de cursos e congressos*. Editora Panamed, São Paulo, 1993.

- 5 Oliveira RD, Marcolino J. Considerações sobre o jargão na clínica de linguagem com afásicos. *Distúrbios da Comunicação* [periódico na Internet]. 2009 Abr [acesso em: 2014 out 17]; 21(1):39-46 [aproximadamente 8 p.]. Disponível em: <http://revistas.pucsp.br/index.php/dic/article/view/6940>.
- 6 Olson AC, Romani C, Halloran L. Localizing the deficit in a case of jargonaphasia. *Cogn Neuropsychol*, 2007; 24(2): 211-38.
- 7 Cordeiro MDG, Marcolino-Galli JF, Lier-Devitto MF. Jargonafasia: Impasses teóricos e clínicos. *Simpósio Nacional de Letras e Linguísticas e Simpósio Internacional de Letras e Linguísticas*; 2013 nov. 20-22; Campus Santa Mônica da Universidade Federal de Uberlândia. Uberlândia: EDUFU; 2013.
- 8 Coudry MIH. Caminhos da neurolinguística discursiva: o velho e o novo. In: Coudry MIH, Freire FMF, Andrade MLF, SILVA MA. *Caminhos da Neurolinguística Discursiva: Teorização e Práticas com a Linguagem*. Campinas, SP: Mercado de Letras, 2010. p. 279-399.
- 9 Luria AR. *Fundamentos de neuropsicologia*. Rio de Janeiro: Livros técnicos e científicos, 1981.
- 10 Fedosse E. Afasia e criatividade da e na linguagem implicações para o acompanhamento fonoaudiológico. *Web Revista Discursividade* [periódico na internet]. 2010 dez [acessado em 2014 out 25]; 7(1):1-17 [aproximadamente 16 p.]. Disponível em: <http://www.discursividade.cepad.net.br/EDICOES/07/Arquivos/04%20Elenir.pdf>.
- 11 Fedosse E. Processos alternativos de significação de um poeta afásico. [Tese] Campinas (SP): Universidade Estadual de Campinas; 2008.
- 12 Vygotsky LS. *Pensamento e linguagem*, São Paulo: Martins Fontes, 1987.
- 13 Moyses MAA, GERALDI JW, COLLARES CAL. As aventuras do conhecer: da transmissão à interlocução. *Educ Soc* [periódico na Internet]. 2002 Abr [acessado em 2014 nov 02]; 23(78): 91-116 [aproximadamente 26 p.]. Disponível em: <http://www.scielo.br/pdf/es/v23n78/a07v2378.pdf>.
- 14 Coudry MIH. *Neurolinguística Discursiva: afasia como tradução*. Estudos da Língua(gem): Estudo em Neurolinguística [periódicos na Internet]. 2008 Dez [acesso em 2014 nov 15]; 6(1): 7-36 [aproximadamente 30 p.]. Disponível em: <http://cpelin.org/estudosdalinguagem/ojs/index.php/estudosdalinguagem/article/viewFile/93/204>.
- 15 Coudry MIH. Processos de significação no estudo das afasias. II Congresso Brasileiro de Comunicação Alternativa ISAAC Brasil; 2007 mai. 15-19; Universidade Estadual de Campinas. Campinas: Editora da UNICAMP; 2007.
- 16 Senhorini G, Santana APO, Santos KP, Massi GA. O processo terapêutico nas afasias: implicações da neurolinguística enunciativo – discursiva. *Revista CEFAC - Speech, Language, Hearing Sciences and Education Journal* [periódicos na Internet]. 2016 Jan [acesso em 2016 mar 15]; 18(1):309-22 [aproximadamente 14 p.]. Disponível em: <http://www.scielo.br/pdf/rcefac/v18n1/1982-0216-rcefac-18-01-00309.pdf>.
- 17 Cavalcante MCB, Brandão LWP. Gesticulação e fluência: contribuições para a aquisição da linguagem. *Cadernos de Estudos Linguísticos* [periódicos na Internet]. 2012 Jan [acesso em 2016 mar 15]; 54(1):55-66 [aproximadamente 12 p.]. Disponível em: <http://revistas.iel.unicamp.br/index.php/cel/article/view/2580/2006>.
- 18 Sales KLB, Procópio E. Adaptação fílmica como tradução: transmutação de signos entre sistemas semióticos. *Rev Philologus* [periódicos na Internet]. 2012 Set [acesso em 2016 mar 15]; 18(54):37-52 [aproximadamente 16 p.]. Disponível em: <http://www.filologia.org.br/revista/54/004.pdf>.
- 19 Souza RS, Sampaio NFS. Subjetividade e afasia: a reconstrução da linguagem de um sujeito afásico. *Rev Philologus* [periódico na internet]. 2015 dez [acesso em 2015 out 20]; 21(63):1929-37 [aproximadamente 9 p.]. Disponível em: <http://www.filologia.org.br/rph/ANO21/63supl/0141.pdf>.
- 20 Silva MA, Deffanti BL. Banco de Dados em Neurolinguística: transcrição verbal e registro





não-verbal. Estudos Lingüísticos XXXIII [periódico na internet]. 2004 Mai [acesso em 2015 out 20]; 33(1): 295-301 [aproximadamente 10 p.]. Disponível em: [http://www.gel.org.br/estudos-linguisticos/edicoesanteriores/4publica-estudos-2004/4publica-estudos2004-pdfs-comunicos/banco\\_dados\\_neuro.pdf](http://www.gel.org.br/estudos-linguisticos/edicoesanteriores/4publica-estudos-2004/4publica-estudos2004-pdfs-comunicos/banco_dados_neuro.pdf).

21 Campetela C. O banco de dados em neurolinguística na relação dado/teoria. Estudos Lingüísticos XXXI [periódico na internet]. 2002 Mai [acesso em 2015 nov 10]; 31(1):1-1 [aproximadamente 10 p.]. Disponível em: <http://www.gel.org.br/estudoslinguisticos/volumes/31/htm/comunica/CCII8b.htm>.

22 Novaes-Pinto RC. Cérebro, linguagem e funcionamento cognitivo na perspectiva sócio-histórico-cultural: inferências a partir do estudo das afasias. Let Hoje [periódico na internet]. 2012 Mar [acessado em 2014 out 25]; 47(1):55-64 [aproximadamente 10 p.]. Disponível em: <http://revistaseletronicas.pucrs.br/ojs/index.php/fale/article/viewFile/9858/7421>.

23 Coudry MIH. Linguagem e afasia: uma abordagem discursiva da neurolinguística. Cadernos de Estudos Lingüísticos [periódico na internet]. 2002 Jun [acesso em 2015 out 20]; 42(1):99-129 [aproximadamente 31 p.]. Disponível em: <http://revistas.iel.unicamp.br/index.php/cel/article/viewFile/1602/1181>.

24 Jakobson R. A afasia como problema linguístico. In: Coelho M, Lemle M, Leite Y. Novas Perspectivas Lingüísticas. Petrópolis: Vozes, 1970. p 43-54.

25 Pacheco MC, Pinto RCN. Aspectos discursivos da narrativa de um sujeito afásico fluente. Estudos Linguísticos [periódicos na Internet]. 2010 Mai [acesso em 2014 nov 25]; 39(2):568-77 [aproximadamente 10 p.]. Disponível em: [http://www.gel.org.br/estudoslinguisticos/volumes/39/v2/EL\\_V39N2\\_12.pdf](http://www.gel.org.br/estudoslinguisticos/volumes/39/v2/EL_V39N2_12.pdf).

