The effects of learning Japanese by a Brazilian person with aphasia

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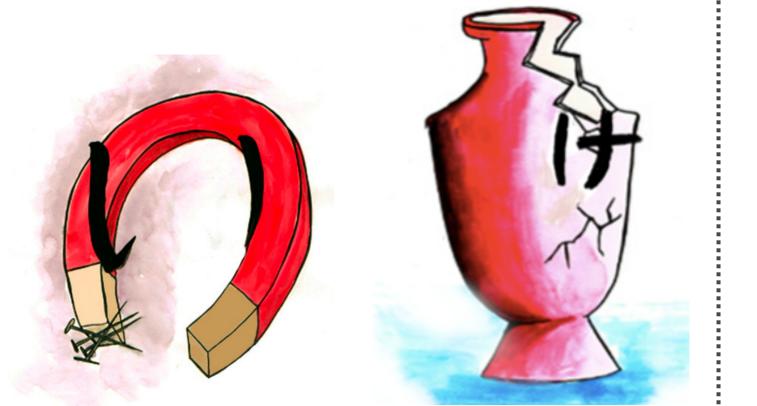
INTRODUCTION

• Learning a new language is tipically an effortful process, in particular, for a person with aphasia

• It requires access to the individual's first language (L1) and various complex linguistic and cognitive processes

Reading in Japanese

• When reading the word いけ/ike/ (pond), he says *ibra*. He is trying to segment the word quebrado (broken) as in figure 3. The visual information helped him to remember the name of the object.





What are the effects of the learning process in a person with aphasia?

Methods

- Qualitative longitudinal case study based on a discursive neurolinguistic perspective [1], which uses a sociocultural approach to language and brain [2]
- 23 year-old Brazilian participant, called GF, who presents a verbal aphasia [3]
- Sessions lasted for seven months, and they were video recorded and transcribed.

Japanese Activities

- Specifically designed for this study
- Reading and writing hiragana using images and words in the participant's L1

Figure 2: letter /i/ from Imã (magnet)

Figure 3: letter /ke/ from Quebrado broken)

• When reading the word あそこ/asoko/ (over there), he cannot pronounce the syllable /so/. Then, he gives a punch in the air and says /so/ as in figure 4. The kinaesthetic information help him to access the sound.

L1's reorganization

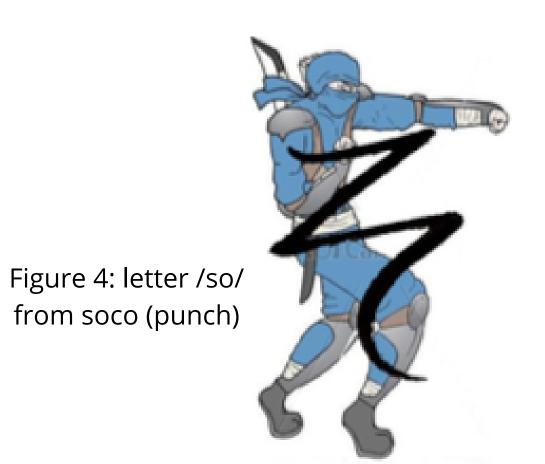
We assume that the linguistic and cognitive work has caused a reorganization of his native language, as shown by the transcriptions below.

SESSION TRANSCRIPTIONS

01 MONTH LEARNING

07 MONTHS LEARNING

• **Inv:** Ou ficava de recuperação, reprovou? • **GF:** Nossa, nem entendi nada. Or did you have to retake the exams? Did you Wow, I didn't understand anything. • **Inv:** Não entendeu nada? fail a year? • **GF:** Não, pelo amor de Deus. Não, Didn't you understand anything? supletivo, nossa, é maravilha. • **GF:** Na lousa, só. No, for God's sake. No, youth school, wow, is On the whiteboard, only. • **Inv:** Só copiou? wonderful *Did you only copy it?* • **Inv:** Hum. • **GF:** É. // "professor, não entendo". • **GF:** Nucleus, não, nossa. "Ixe, faz parte. Muita calma". Professor Nucleus, no, wow • **Inv:** O que que é o Nucleus? me // é que me disse. "Muita calma, What is Nucleus? relaxa, pá". Yes. // 'teacher, I don't understand it'. 'Well, it • **GF:** Nucleus, o// escola. Nucleus, the // school happens. Be calm'. The teacher me // is who told me so. 'Be calm, relax, so'.



• Speaking everyday basic expressions

• Reading and speaking in Brazilian Portuguese to analyze the participant's L1

The main goal was to understand the linguistic and cognitive processes. For that, we did not apply Japanese proficiency tests.

Research Questions

- Can an aphasic learn to read and speak basic Japanese? If so, how is the learning process going?
- What are the effects of learning Japanese in his first language?

RESULTS

Strategies used to accomplish the tasks

/ The participant finds alternative ways to overcome difficulties, generating

DISCUSSION

- He finds alternative ways to overcome difficulties by using visual, semantic and kinaesthetic information [3]
- Even though his L1 is impaired, he relies on that to speak and read in Japanese
- The activities required him to use a different intellectual reasoning (visual memory, metalinguistic and epilinguistic processes)

outcomes that may differ from a typical learner.

Speaking in Japanese

- cannot repeat or read the • GF expression oyahou as in figure 1.
- The investigator changes the written system using Portuguese written system as ORRAIO. Then, he can say the expression.

OHAYOU

- Figure 1: Expression written in romaji. It means good morning
- The learning material required from GF a linguistic and cognitive work by associating the Japanese letters with its object in his native language, integrating the representation of word and object [3]
- GF is constantly using his L1 and L2, which demands a variety of cognitive functions [2]
- He uses more syntactically elaborated sentences (i.e. verbs and relative clauses) showing the complex integration among the linguistic levels [4]
- Due to brain plasticity [2], GF rebuilds his language through interaction with the investigator in a discursive activity

[1] Coudry, M.I.H. (1986) O diário de Narciso. Discurso e afasia: análise discursiva de interlocuções com afásicos. Ed. Martins Fontes. 1 edição. 1988. São Paulo.

[2] Luria, A.R. (1973). The working brain - an introduction to Neuropsychology. Basic books.

[3] Freud, S. (1891) On aphasia: a critical study. [Portuguese version] Afasias: Sobre a concepção das afasias; As Afasias de 1891. Luiz Alfredo Garcia-Roza; translator Renata Dias Mundt. 1 ed – Rio de Janeiro: Zahar, 2014.

[4] Jakobson, R. (1956) "Two aspects of Language and two types of aphasic disturbances". [Portuguese version] "Dois aspectos da linguagem e dois tipos de afasia". In: Linguística e comunicação. 19 ed. São Paulo: Cultrix, 2003.

