A Report of "Bilingual Aphasia Test" on a Trilingual Broca's Aphasic Patient's Speech (A Case Study)

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Extended Abstract

1. Introduction

This paper presents the report of Bilingual Aphasia Test (BAT) on a trilingual (German-L1, Persian-L2 & English-L3) aphasic patient's speech disorders. Having had a precise neurological report that has been done in a neurology clinic [2] (including the patient's type of aphasia that has been described as Broca, the exact size and locations of his traumatism, his age in acquiring each language in his life before the accident, his level of education, …), a detailed linguistic analysis of his speaking disorders has been carried out.

2. Methodology

To assess the current condition of the patient's amount of impairment and disorders in the levels of phonology, syntax and lexicon, "Bilingual Aphasia Test-part B" has been used to determine the amount of his speech abilities through the linguistic skills of "repetition and reading" (applying repetition and reading skills is in that, he is not able to speak spontaneously fluently) in his three languages through comparison of them, English-Farsi, German-Farsi and German-English after analyzing the transcriptions, linguistically in both qualitative and quantitative methods. In the quantitative way, sores are based on 10 points and their percentage; and in the qualitative method (according to Garman, 1990), the achieved scores have been interpreted into a description by using some expressions such as, very good, good, with difficulty or with a lot of difficulties.

3. Results and Discussion

According to the gained scores, it is concluded that:

A. The patient's speaking skill in three levels (phonology, syntax and lexicon) of his three known languages in average is 72.7 % in German, 59% in Farsi, 59.7% in English. Also, the mean percentage of each level in three languages is 85.3% in phonology, 56% in syntax and 78% in lexicon.

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B. According to the test's results, the patient speaking is impaired in his three languages. It could be interpreted qualitatively (based on Garman, 1990: scores higher than 80 percent mean "very good", scores between 75-80 percent indicate "good", scores of 70-75 percent mean "with difficulty", and less than 70 percent signify "with a lot of difficulties". The gained scores' could be interpreted as: "very good" in the level of phonology in his three languages (German, Farsi and English); in syntax the scores are different: "good" in German, but "with a lot of difficulties" in Farsi and English. And the level of his lexicon in German is "very good" while it is "with difficulty" in both Farsi and English.

Generally, the least problem was seen in the phonology part, and the most problems in syntax. This trend is the same in his three languages.

C. In spite of differences in the features and elements of agrammatism in three languages, constant omissions of the grammatical elements are observed (especially free functional morphemes) as their similarity. A few substitutions were observed as well. Some difficulties such as substitution and addition had been known as Wernicke's features in other researches; however, they were seen in this Broca's patient through evaluation.

D. His non-fluent speech in three languages is along with omissions or shortening of consonant clusters especially in the words having more than one syllable.

E. Comparing the results of test on three levels his known three languages shows that there is not a significant difference in the speech ability of the levels of phonology and lexicon between three languages (only 5-10 percent difference), but the percentage of his correct answers related to the applied test in syntax is much better in German than two other languages, i.e. Farsi and English (with 30 percent difference).

4. Conclusion

This case study was done 11 years after the patient's brain stroke and he was living in his L2 environment (Farsi) during those years (He is bigeneric: German-Persian, he had lived in Germany before the accident). It was expected and hypothesized that he be fluent or much better in his L2 i.e. Farsi because of living his last eleven years (after the accident until now) in Iran. However, the BAT results showed the better performance of him in German, L1, that is his first language, and his dominant language before stroke.

It must be mentioned that some other studies on multilingual aphasic patients shows the dominancy of their L2 or L3 after the brain stroke, quite the contrary in this study. Ultimately, the results of this case study have proved the previous researchers' conclusions on Broca's impairments. The main disorders of his speech could be named as 1) syntactic deficiencies such as, omitting articles, prepositions, and conjunctions; 2) telegraphic and incomplete speech by producing the key or content words; 3) omission or shortening the consonant clusters, and at last 4) stuttering.

Key words: BAT, Broca's aphasia, Impaired speech, Reading skills, Repetition skills, Trilingual.

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