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For our November ANA Listserv Research Digest, I would like to introduce neuropsychological research studies involving the Vietnamese-speaking populations.

I did a quick literature search, but found very few studies focused on neuropsychology with Vietnamese-speaking populations. The two articles I reviewed this time were both published two decades ago. It looks like there's much that can be done there.

Kempler and colleagues (1998) compared the performances on animal fluency by participants speaking different languages: Chinese, Spanish, Vietnamese and English. Besides expected findings of impact of age and education on number of words generated in the expected directions, there were significant differences between ethnicities (i.e., languages spoken). It was found that the Vietnamese-speaking participants were able to generate significantly more words than the other three, and the Spanish-speaking ones significantly fewer than the other three.

The authors explored possible explanations for the differences, and one of them is response length in each language. Close to 80% of responses in Vietnamese were monosyllabic, whereas close to half in Spanish were words with 3 or more syllables. The pattern of number of syllables in responses was quite consistent with number of animals the participants were able to name. I found that an interesting linguistic characteristic, informative to neuropsychologists working with patients who speak these languages. In addition, the authors provided an education-stratified norm for animal fluency among older adults speaking English, Chinese, Spanish and Vietnamese, respectively.

For the second article, I found a preliminary examination of a Vietnamese version of Stroop test (Doan & Swerdlow, 1999). The authors compared 30 ethnically diverse US-born adults (aged 19–57 yrs) and 30 Vietnamese adults (aged 19–68 yrs) residing in the US. They found no significant differences in their performances on all tasks of the Stroop Test. Interestingly, to accommodate for language differences, where the Vietnamese words for green and blue were the same (“xanh”), the authors used the word and color “brown” (“nau”) in the Vietnamese version of the task. Whereas the results among the English-speaking participants were all in the expected directions compared to the reference group, there was not any significant impacts of age on

Vietnamese-speaking subjects' Stroop test performance. Several possible explanations were provided, but I think bilingualism may be the most probable one. Although duration in the U.S. and frequency of Vietnamese/English speaking were not correlated with Stroop scores, the total number of years speaking English was significantly correlated with Vietnamese-language interference scores. Yet still, it warrants further research to examine these findings.

Food for thought this month:

How may the native languages of your patients impact their verbal fluency performances? For example, it was hard to test phonemic verbal fluency in Chinese, as Chinese is a logographic language and it is either very common for people to generate words by (often) the starting consonant.

Here are the links to access the articles this month:

1. <https://www.ncbi.nlm.nih.gov/pubmed/10050357>
2. <https://www.ncbi.nlm.nih.gov/pubmed/10544412>

References

- Doan, Q. T., & Swerdlow, N. R. (1999). Preliminary findings with a new Vietnamese Stroop test. *Perceptual and Motor Skills*, 89(1), 173-182.
doi:10.2466/PMS.89.5.173-182
- Kempler, D., Teng, E. L., Dick, M., Taussig, I. M., & Davis, D. S. (1998). The effects of age, education, and ethnicity on verbal fluency. *Journal of the International Neuropsychological Society*, 4, 531-538.