A quantitative measure of verbal effectiveness and efficiency in the Amsterdam-Nijmegen Everyday Language Test (ANELT): A Dutch and German version

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Background:

The ultimate goal of aphasia therapy is to improve the functional communication skills of people with aphasia. For those with predominantly expressive disturbances, functional communication can be defined as the skill to get the message across effectively and efficiently.

A well-known test for measuring verbal effectiveness is the Amsterdam-Nijmegen Everyday Language Test (ANELT, Blomert et al. 1995). In the ANELT, verbal adequacy is scored *qualitatively*; verbal efficiency is not scored.

Method:

Ruiter et al. (2011) substituted the qualitative scoring procedure of verbal effectiveness in the Dutch ANELT by a quantitative one, based on the elements of meaning that are essential to achieve the communicative goal in each scenario (i.e., the information elements that were produced by at least 30% of 20 non-aphasic speakers of Dutch).

In 10 Dutch-speaking persons with expressive aphasia, the new quantitative measure of verbal effectiveness was compared to current qualitative scoring procedure. The new quantitative measure was found to be more sensitive to detect changes in functional communication over time. What is more, it allowed derivation of a measure of verbal efficiency for the Dutch ANELT.

Subsequently, a German version of the quantitative scoring procedure for the ANELT was established on the responses of 40 non-aphasic speakers of German. Both the quantitative

score of verbal effectiveness and efficiency will be used as (pre- and post therapy) outcome measures in the DiaTrain-project, conducted by the Hochschule für Gesundheit in Bochum (Germany). *DiaTrain*[1] is a video- and web based dialogue training for people with chronic expressive aphasia, which aims at improvement of functional communication skills. A quantitative scoring system for verbal effectiveness was also established for the DiaTrain scenarios.

Results:

The study is in the phase of data collection. We will present the reliability and sensitivity results of the Dutch quantitative scoring procedure. What is more, we seek to present preliminary ANELT results of at least 3 - 4 German-speakers with aphasia, who participated in the DiaTrain-project.

Discussion:

The fact that valid and reliable measures of verbal effectiveness as well as efficiency can be calculated for the ANELT allows clinicians to obtain a more complete picture of aphasic speakers' functional communication skills, and changes in these skills over time.

References:

Blomert, L., Koster Ch., & Kean, M-L. (1995). *Amsterdam-Nijmegen Test voor Alledaagse Taalvaardigheden* [Amsterdam-Nijmegen Everyday Language Test]. Lisse: Swets & Zeitlinger.

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[1] The dialog-training DiaTrain will be evaluated in a randomized group-study at the Hochschule für Gesundheit (University of applied sciences) in Bochum, Germany. The project is called "Teletherapie bei Aphasie nach Schlaganfall" and is funded by the European regional development fund.