Introduction:

People with agrammatism are able to produce certain strings of words fluently (e.g. “I don’t know”).

Formulaic expressions (FEs):
Common, frequently-used expressions that seem to be prefabricated [1].

Conversational grammar:
Features typical of spoken conversation. Agrammatic conversational grammar, e.g., turn initial noun construction [2].

Unigram:
one-unit utterance (e.g. If)

Bigram:
two-unit utterance (e.g. it’s)

Trigram:
three-unit utterance (e.g. it’s alright)

FEs, observed in persons with aphasia (PWAs), have mostly been labelled automatic language or linguistic stereotypes [3] without acknowledging potential conversational functions.

However, some research has addressed use & functions of FEs within everyday conversations [2] → FEs as a resource for PWAs.

FEs in aphasiology: mostly subjectively identified using raters [4].

Alternative, more objective approach: frequency-based analysis.

Usage-based grammar [5]: strong potential for exploring structure & use of FEs in aphasia: importance of repetition of similar instances of use.

Methods and procedures:

Combination of a frequency-of-use perspective and a conversational grammar perspective:

Data:

Semi-structured interviews:
• Participants with agrammatism (N=39), taken from the AphasiaBank database.
Everyday conversation:
• A participant with agrammatism, and his conversation partner (CP), taken from UCL’s CAVA corpus.

Analysis:

1) Analysis with the Formulaic Language Analysis Tool (FLAT) [6] Frequency-related variables of uni-, bi-, and trigrams derived from spoken subcorpus of the British National Corpus.

2) Flagging atypical constructions not covered by the FLAT to analyse the conversational functions of constructions with FEs.

Variables:

Measures of degree of association between several words or units, e.g. t-score: the higher the t-score, the more likely that an expression is formulaic (e.g. it’s alright: 27.6; vs. it’s new: 3.5)

Conclusion and clinical implications:

• Combination of the FLAT analysis and the analysis of conversational grammar provides a novel way to approach FEs in PWAs.
• Systematic analysis of FEs in aphasia as a starting point to design new therapy approaches.
• New interventions with focus on common constructions (high functional value) and with aim to enlarge a speaker’s inventory of FEs.

Results:

Inventory of bigrams and trigrams

PWAs use a restricted set of constructions. Those constructions that remain available seem to be more formulaic compared to the constructions used by a healthy speaker.

- Cut-off f-scores are derived from the 75. percentile values of the CAVA data.

Linguistic structures of recurrent constructions / FEs

PWAs use similar trigram structures within semi-structured interviews and everyday conversation. However, the proportions of certain categories (e.g., the “it’s alright”-construction) differ across samples.

The most commonly produced trigrams

FEs are used in a creative way within everyday conversation.

References:


CAVA (human Communication; an Audio-Visual Archive): http://www.ucl.ac.uk/cava; AphasiaBank: http://talkbank.org/AphasiaBank/

* Picture taken from: http://famouswonders.com/terracotta-warriors-in-xian/