UNIVERSITÄT BIELEFELD

LINGUISTIC CREATIVITY in Communication SFB 1646

Project C03: Creativity in verbal and multimodal communication of people with neurogenic language and communication disorders

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Project Summary

The project's main focus concerns a systematic analysis of verbal and non-verbal communicative creativity in people with neurogenic language and communication disorders. We will focus on (i) people with mild to moderate aphasia (PWA) following left hemisphere lesions with a primary deficit in language production and comprehension and (ii) people with mild to moderate cognitive communication disorders (PCCD) following right hemisphere lesions with a primary deficit in cognitive processing and communication and only minor linguistic limitations. Two aspects of verbal and communicative creativity in PWA and PCCD are central to our project.

Firstly, we expect creativity in compensatory behaviour, i.e., when participants need to overcome lexical and communicative limitations by creative use of language and non-verbal expression, like gestures. Secondly, we view creativity as an individual's general trait and cognitive skill determining a person's inherent ability to creatively use language and non-verbal communicative means. We expect these two aspects of creativity to differ between PWA and PCCD given the differ-ent impairments underlying their communicative limitations. PWA have a primary deficit in language processing, potentially influencing production and comprehension at all linguistic levels. However, PWA are reported to deal with their verbal limitations by using their preserved competences. PCCD have no primary language impairment but face a deficit in communication and cognitive processing, also impacting some aspects of language processing, e.g., drawing inferences and flexibility in the production of connected speech.

In project C03, we aim to investigate the interplay between language and communication disorders, cognitive processing abilities and communicative creativity. Hence, we will analyse divergence and creativity in verbal and gestural expressions, including single word as well as sentence level processing and multimodal dyadic conversation in persons with unilateral brain lesions using experimental tasks with varying demands and constraints. We will use materials and tasks eliciting verbal and non-verbal creativity in producing compounds, complex verbs, phrases and connected speech as well as gestures. Instances of creative language and gesture use will be analysed with respect to their novelty, originality and communicative success in subsequent ratings. Creativity and flexibility of phrase-level processing will be assessed in production as well as in comprehension tasks. Perfor-mance of PWA and PCCD will be compared to neurologically unimpaired participants and will be ana-lysed in relation to emotional and cognitive processing capacities, especially aspects of executive

functioning and creativity as a trait.

The primary aim of project C03 is to figure out which processes, skills and abilities enable PWA and PCCD with mild to moderate impairments to make creative use of their preserved skills in speech and gesture production. We will address the following research questions:

Q1 A) Does the use of novel and original language forms differ between PWA, PCCD and unimpaired control participants (CP)? B) Does the success in the use of creative language forms differ between PWA, PCCD and CP?
Q2 A) Do novelty and originality in gesture use differ between PWA, PCCD and CP? B) Does the success of creative gesture use differs between PWA, PCCD and CP?
Q3 How do creativity traits, executive functions, semantic processing and mood state (internal factors) impact creativity in language use and multimodal communication in PWA, PCCD and CP?
Q4 How do the demands of complex conversation tasks and constraints (external factors) influence creativity in language use and multimodal communication in PWA, PCCD and CP?

Open Positions

PhD position 1 (65%)

Profile: The ideal candidate has a master in Clinical Linguistics or a related field and a research interest as well as some clinical experience in assessment within the field of neurogenic language and com-munication disorders. Basic methodological knowledge in experimental research and statistical data analysis is beneficial.
Main research focus within the project: Focus of the PhD thesis will be in the domain of verbal crea-tivity in PWA as well as in PCCD.

PhD position 2 (65%)

Profile: The ideal candidate has a master in Clinical Linguistics or a related field and a research interest as well as some clinical experience in assessment within the field of neurogenic language and com-munication disorders. Basic methodological knowledge in experimental research and statistical data analysis is beneficial. An interest in multimodal communication is required, but experience in this area of research is not necessary.
Main research focus within the project: Focus of the PhD thesis will be in the domain of multimodal creativity in PWA as well as in PCCD.

For further information please contact the project leaders:

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