

Figurative language impairment in aphasic patients: the effects of the type of figurative trope

Anna Cieślicka, Karolina Rataj, Justyna Małaszuk & Dorota Jaworska (School of English, Adam Mickiewicz University, Poznań)

Research conducted into the processing of figurative language by aphasic patients has repeatedly demonstrated that such patients experience difficulties comprehending nonliteral forms of discourse such as metaphors, idiomatic expressions, proverbs or irony (see, for example, Winner and Gardner 1977, Van Lancker and Kempler 1987; Bottini et al. 1994). Many current models of figurative language processing emphasize the role of the suppression mechanism (Gernsbacher and Robertson 1999), which is necessary in suppressing the contextually inappropriate literal meaning and constructing the figurative interpretation of a metaphorical utterance (see, for example, *the graded salience hypothesis* put forward by Giora 1997, 1999, 2003). Recently, Papagno, Tabossi, Colombo and Zampetti (2004) have suggested that a dysfunction of the language suppression mechanism might be the major cause of problems in figurative language comprehension in aphasic patients. If the mechanism of suppression does not aid the language processing system in inhibiting the irrelevant literal meaning, comprehending figurative language becomes a difficult task, especially when discourse lacks pragmatic cues which might suggest a figurative reading of the idiomatic phrase. Some of such cues suggesting the necessity to reject the literal meaning of the idiomatic phrase might be their ill-formedness, opaqueness, or nonliteralness. Under this proposal, while processing ill-formed, opaque and nonliteral idioms, the language comprehension system quickly rejects an incorrect literal interpretation and retrieves the idiom's figurative meaning, thanks to the pragmatic cues boosting the suppression mechanism. On the other hand, when faced with grammatically and lexically well-formed idioms, with a logical and coherent literal interpretation and transparent meaning, aphasic patients, lacking the necessary discourse cues, fail to suppress the inappropriate literal sense and experience difficulty in constructing the metaphorical interpretation. Furthermore, research into metaphor comprehension has so far shown that comprehension of novel metaphoric expressions requires more time than comprehension of conventional metaphoric and literal expressions in healthy people, which stems from the fact that it involves more cognitive effort (Coney and Lange, 2006). Although little research has been conducted into metaphor understanding in aphasia, the results so far have shown that aphasic patients perform poorly on tasks involving processing of metaphoric meanings (Gagnon et al. 2003, Brownell et al. 1990). Thus, it may be postulated that comprehension of novel metaphoric expressions, as opposed to conventional metaphoric expressions, may pose even more difficulty for aphasic patients. Finally, both proverb use and comprehension have been shown to remain intact in aphasic patients (Ulatowska et al. 2000).

The aim of the study described in this paper is thus verifying the effect of the type of figurative trope on the aphasic patients' figurative performance. In order to obtain a comprehensive examination of aphasic patients' figurative language skills, a figurative language battery was prepared, consisting of four parts, each of which focuses on a different figurative trope (idioms, metaphors, proverbs, and similes), and employs different tasks (multiple choice test presented on the computer screen, completion of the unfinished metaphorical expression presented orally). Idiomatic expressions used in the figurative battery varied with regard to their well/ill-formedness, opaqueness/transparency and non/literalness; metaphors varied along the dimension of conventionality (conventional vs. novel) and structure (nominal, verbal, adjectival); whereas similes differed in the number of words following the comparative word *as*. All of the proverbs used in the test were highly familiar, as confirmed in the norming study conducted with a group of Polish healthy adults. The obtained results confirm the essential role of various dimensions of idiom and metaphor variability in influencing figurative language processing in aphasia.

Bibliography

- Bottini R., Corcoran R., Sterzi R., Paulesu E., Schernone P., and P. Scarpa. 1994. "The role of the right hemisphere in the interpretation of figurative aspects of language", *Brain* 117: 1241-1253
- Brownell, H. H., Simpson, T. L., Bihrlé, A. M., Potter, H. H., and H. Gardner. 1990. "Appreciation of metaphoric alternative word meanings by left and right brain-damaged patients", *Neuropsychologia* 28: 375-383.
- Coney J. and A. Lange. 2006. "Automatic and attentional processes in the comprehension of unfamiliar metaphors", *Current Psychology* 25: 94-119
- Gagnon, L., Goulet P., Giroux F., and I. Joannette. 2003. "Processing of metaphoric and non-metaphoric alternative meanings of words after right- and left-hemispheric lesion", *Brain and Language* 87: 217-226.
- Gernsbacher M.A. and R.R. Robertson. 1999. "The role of suppression in figurative language Comprehension", *Journal of Pragmatics* 31: 1619-1630
- Giora R. 1997. "Understanding figurative and literal language: The graded salience hypothesis", *Cognitive Linguistics* 7: 183-206
- Giora R. 1999. "On the priority of salient meanings: Studies of literal and figurative language", *Journal of Pragmatics* 31: 919-929
- Giora, R. 2003. *On our mind: Salience, context, and figurative language*. Oxford, England: Oxford University Press.
- Papagno, C.; Tabossi, P.; Colombo, M.; Zampetti, P. 2004. "Idiom Comprehension in Aphasic Patients", *Brain and Language* 89: 226-234
- Ulatowska, H., Sadowska M., Kądziałowa M., Kordys J., and K. Rymarczyk. 2000. "Linguistic and cognitive aspects of proverb processing in aphasia", *Aphasiology* 14: 227-250.
- Van Lancker, D. and D. Kempler. 1987. "Comprehension of familiar phrases by left but not by right hemisphere damaged patients", *Brain and Language* 32: 265-277.
- Winner, E. and H. Gardner. 1977. "The comprehension of metaphor in brain-damaged patients", *Brain* 100: 719-727.