

Irony comprehension in schizophrenia

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Schizophrenia is a common and debilitating mental illness (Frith – Cahill 2001). One of the diverse deficits that are associated with the psychosis is the language disorder, which is characterised by a wide array of disturbances that occur at various levels of language. Classic analyses of the phenomenon have tended to focus on the traditional linguistic levels, such as phonology, morphology, syntax and semantics (Chaika 1974; Covington et al. 2005). However, schizophrenic patients have been demonstrated to exhibit deficits that extend beyond the domains of formal linguistics. More recent research into the processing of language by schizophrenics has shown that they experience considerable difficulty in comprehending nonliteral forms of discourse (Cieślicka – Rataj), such as idioms, similes, proverbs, metaphors and metonymies (Brüne and Bodenstein 2004; Sponheim et al. 2003; Rapp et al. 2008). Furthermore, such patients have also been reported to have problems understanding what is believed to be the most difficult and the least predictable type of figurative language, that is, irony; Thoma and Daum (2006) mention two experiments (Cutting and Murphy 1990; Drury et al. 1998), in which schizophrenic patients tended to provide literal rather than figurative interpretations of ironic remarks.

The aim of the present study was to check whether schizophrenic patients do indeed experience difficulty comprehending ironic utterances, and – if so – whether they would exhibit a bias towards the literal interpretation, as is suggested by the results obtained by Cutting and Murphy (1990) and Drury et al. (1998). In order to test this prediction, two complementary questionnaires were created, each consisting of thirteen literal and thirteen ironic dialogues. Ten male patients diagnosed with ICD-10 paranoid schizophrenia were asked to provide the most appropriate interpretation of each target dialogue by choosing among a literal, ironic and unrelated paraphrase.

The results corroborate the hypothesis that irony comprehension in schizophrenia is disordered. As compared with a matched control group, patients exhibited the predicted bias towards the literal interpretation.

- Brüne, Martin – Luise Bodenstein. 2005. "Proverb comprehension reconsidered – 'theory of mind' and the pragmatic use of language in schizophrenia", *Schizophrenia Research* 75, 2-3: 233-239.
- Chaika, Elaine. 1974. "A linguist looks at 'schizophrenic' language", *Brain and Language* 1, 3: 257-276.
- Cieślicka, Anna – Karolina Rataj. In press/preparation. Idiom and metaphor comprehension in schizophrenia.
- Covington, Michael. A. – Congzhou He – Cati Brown – Lorina Naçi – Jonathan T. McClain – Bess Sirmon Fjordbak – James Semple – John Brown. 2005. "Schizophrenia and the structure of language: The linguist's view", *Schizophrenia Research* 77, 1: 85-98.
- Cutting, J. – D. Murphy. 1990. "Preference for denotative as opposed to connotative meanings in schizophrenics", *Brain and Language* 39, 3: 459-468.
- Drury, V. M. – E. J. Robinson – M. Birchwood. 1998. "'Theory of Mind' skills during an acute episode of psychosis and following recovery", *Psychological Medicine* 28, 5: 1101-1112.
- Frith, Chris – Connie Cahill. 2001. "Zaburzenia psychotyczne: schizofrenia, psychozy afektywne i paranoja" [Psychotic disturbances: schizophrenia, affective psychoses and paranoia], in: Arnold A. Lazarus – Andrew M. Colman (eds.), 38-62.
- Lazarus, Arnold A. – Andrew M. Colman (eds.). 2001. *Psychopatologia. [Abnormal psychology]*. Poznań: Zysk i S-ka Wydawnictwo.
- Rapp, Alexander – Mira Hensler – Mathias Bartels – Dorothee Mutschler – Ralf Saur – Katja Markert. 2008. "Metonymy resolution in schizophrenia: a model for complex semantic language comprehension", *Abstracts/Schizophrenia Research* 102, 1-3, Supplement 2: 144.
- Sponheim, Scott R. – Christa Surerus-Johnson – Jennie Leskela – Michael E. Dieperink. 2003. "Proverb interpretation in schizophrenia: the significance of symptomatology and cognitive processes", *Schizophrenia Research* 65, 2-3: 117-123.
- Thoma, Patrizia – Irene Daum. 2006. "Neurocognitive mechanisms of figurative language processing: Evidence from clinical dysfunctions", *Neuroscience and Behavioral Reviews* 30, 8: 1182-1205.