

The role of stereotypes in irony comprehension in autism spectrum disorders

Researchers

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Background of the topic

Individuals with autism spectrum disorders (ASD) usually show difficulties in understanding non-literal speech, such as sarcasm and jokes (Happé 1991), as well as simile, metaphor and irony (Happé 1991, 1993). In this project, we address the problem of irony comprehension in individuals with ASD, which has been regarded as a consequence of the inability to recognize speaker's intention (Happé 1994; Joliffe and Baron-Cohen 1999) and go beyond the decoded sentence meaning of an utterance (Happé 1993). These difficulties have also been linked to their inability to use background or contextual information in on-line comprehension of others' behavior (Frith 1991), to understand the relevance of what has been said or what has been indirectly conveyed (Happé 1991, Mitchell et al. 1997).

Despite the severe social impairments, recent findings have shown that adults with ASD are sensitive to stereotypes on genre, race and age (Hamilton and Krendl 2007), they have preserved abilities in attributing social stereotypes to people's faces (White et al. 2006) and that children with autism perform as well as children with typical development in using stereotypes to predict the outcomes of new contexts (Hirschfeld et al. 2007). According to Hirschfeld (1988, 1994), information is processed into social categories in order to both reduce the quantity of information and extend our knowledge of social world by capturing similarities among their members. These taxonomies become stereotypes which provide a basis for predicting the behavior of others and interpreting their utterances (Hamilton 1981; Spears et al. 1997). Social stereotypes are part of the folk theory known as "Naïve Sociology", the spontaneous human mechanism for understanding of social groups and social relations, active from an early stage of children development (Hirschfeld 2001). In other words, "Naïve Sociology" is a natural way to make sense of our own intuitions about the social world around us (Sperber-Hirschfeld 2004).

Unfortunately, not much research has been done on the interaction between social stereotypes and understanding of non-literal speech in autism spectrum disorders. Although previous research on the comprehension of figurative language considered the influence of social and cultural factors often ignored in models of language (Colston and Katz 2004), it regarded just normal subjects. Valuable work has been carried out on social and cultural stereotypical cues to the interpretation of metaphor, simile and idioms, but verbal irony still remains the less studied subject in this field (Katz, Blasko and Kazmerski 2004). However, the few studies dedicated to social stereotypical categorization and irony perception in normal subjects demonstrated that both speaker's gender (Link and Kreuz 2005; Colston and Lee 2010), ethnic group (Heredia and Blumentritt 2002) and occupation (Pexman and Olineck 2002) are highly influential social constraints on interpretation of ironic utterances.

Goals of the study

We hypothesize that a preserved ability to construct and elaborate social stereotypes could be one of the possible compensatory strategies employed to improve ASD individuals' understanding of non-literal speech and, in particular, irony comprehension. We could also hypothesize that ASD subjects would use social stereotype to infer the general ironic attitude which would require instead a higher-order mentalizing ability. Their use of social stereotypes as a cognitive strategy to infer and predict others' (linguistic) behavior would support the claim that the capacity of "Naïve Sociology" is distinct from the capacity of "Naïve Psychology" as a component of social cognition. Further research is needed to better understand the ways these two capacities interact, but anyway the eventual use of social stereotypes to facilitate the comprehension of the overall image of irony would suggest that there are important aspects of social ability in autism which are as yet unexplored.