

The role of “Naïve Sociology” in irony comprehension

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ABSTRACT. In this paper¹, we address the problem of irony comprehension. Despite the differences about the complexity involved in irony processing, all theories of irony recognized the importance of context to understand the ironic intention. The paper considers, in particular, the role of social stereotypes as contextual information in on-line comprehension of ironic utterances. We argue that the capacity for Naïve Sociology is required in irony processing and that this capacity should interact with the capacity for Naïve Psychology in order to integrate the understanding of ironic intention with social stereotypical information coming from the context.

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1. What is irony?

The study of irony is plagued by problems of defining similar subcategories of a broad class of *humorous phenomena*, which are often described by imprecise folk-terms such as humor, sarcasm, funny, laughable, ridiculous, etc.. Irony is generally seen as distinct from humor and precisely defined, in Classical Rethoric and Standard-Gricean Pragmatic View, as conveying the opposite meaning from what is said.

A complete understanding of an ironic utterance, such as “See what a lovely weather!” pronounced in a rainy day, is a quite complex and difficult process. Some well-known everyday misunderstandings and the need to ask to the speaker whether she is joking or not, in order to better understand what she really meant, testify the fact that the literal meaning could be sometimes considered as a plausible interpretation of the ironic utterance pronounced, even if contextually irrelevant or inappropriate.

In the Salience-based hypothesis framework, Giora argued that, in spite of contextual information, the “so-called irrelevant meanings are activated because they are salient” (Giora and Gur 2003, p. 299), i.e. the most frequent, familiar, conventional and prototypical/stereotypical meanings stored in our mental lexicon (Giora 2003). It would be exactly the initial activation of incompatible, literal interpretations that makes the ironic utterances comprehension a so difficult and mistake-prone process.

If irony comprehension involves a two-stages processing of both literal and ironic meanings, this should be reflected in processing times longer than those required by understanding literal utterances. This conclusion is anyway highly controversial: some recent findings supported Giora’s hypothesis in this sense (Dews and Winner 1999), but other empirical evidence showed that ironic utterances take no longer to be processed than literal utterances (Gibbs 1994).

These latter results would be instead a proof in favor of a one-stage irony comprehension process, as that hypothesized by the Echoic Mention Theory (Sperber and Wilson 1986) or the Allusional Pretense Theory (Kreuz and Glucksberg 1989). According to Giora, claiming that irony comprehension is a one-stage process, those theories would make ironic language use “as easy to understand as literal language” (Giora 1995, p. 240). However the data could also support theories, such as the Joint Pretense Theory (Clark 1996) and the Tinge Hypothesis (Dews and Winner 1999), claiming that understanding of irony is a one-stage, but two-layered simultaneous process of both lit-

eral and ironic meanings (see Giora 2003 for a review of contemporary theories of irony).

As Curcò noted, “it is possible to conceive of a very complex single stage, so that even if irony comprehension should take place in one single stage [...], it is not a necessary conclusion that it is as easy to interpret as nonfigurative language” (Curcò 2000, p. 267). The number of stages involved in the processing of irony would not necessarily be connected to its difficulty of comprehension.

2. Social-contextual cues to irony comprehension

Despite the differences about the complexity involved in the processing of irony, all the theories recognized the importance of context to understand the ironic intention. The kind of context required for irony understanding seems to be a wider context conceived as a “complex configuration of shared knowledge, beliefs, values, and communicative strategies” (Hutcheon 1994, p. 91) adopted by social communities.

As regards to speakers, for instance, Kreuz and Caucci (2009) listed a number of contextual elements which encourage an ironic interpretation, such as the presence of people prone to use irony (Ivanko et al. 2004), or coming from a region where irony is one of the most common communicative strategies (Dress et al. 2008). Speaker’s gender seems to be a cue to ironic interpretation, because men are considered more likely to use verbal irony than women (Colston and Lee 2004), but also some speaker’s occupations could be considered more prone to sarcasm than others, as for instance a comedian or an actor (Pexman and Olineck 2002a).

Katz and Pexman inserted speakers’ occupation in the context of ironic utterance, both because “occupation is an indicator of the speaker’s social status” and “a variable that conveys the speaker’s social knowledge” (Pexman et al. 2000, p. 203). Indeed, speaker’s occupation has been shown to influence not only the interpretation of figurative meaning in general (Holtgraves 1994), but also the interpretation of ironic intention in particular.

Following the above mentioned studies on speaker occupation as a cue to either ironic or metaphoric interpretation (Pexman et al. 2000), Pexman and Olineck (2002a) suggested that “people shared beliefs about the linguistic tendencies of different social groups and that those beliefs influence perceived communicative intent” (Pexman and Olineck 2002a, p. 270).

Moreover, Katz, Blasko and Kazmerski forcefully showed that the emergence of sarcasm is produced by a character in the context making a statement incongruent with events in the story (Katz et al. 2004). Multiple sources of information are conjointly exploited when a listener attempts to understand an ironic utterance and social stereotypes contribute to the facilitation effect, as the response times testify: “when the discourse context is congruent with a sarcastic interpretation, the target sentence is read more rapidly if it is made by a person from a high-irony occupation rather than a person from a low-irony occupation” (Katz et al. 2004, p. 187).

As in Pexman and Olineck (2002b), these results could be correlated with the specific traits of speakers’ occupation activated in irony interpretation or their perceived tendencies to be more humorous, to mock or criticize, to be less sincere and to have a lower occupation level, but also to be more polite and positive in case of ironic insults, the most spread form of sarcasm. These features contribute to set up an “ironic situation” and to detect speaker’s mock disappointment.

According to Hirschfeld (2001), contextual 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 social stereotypes which provide a basis for predicting the behavior of others and interpreting their utterances (Dovidio 2001). 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.

In other words, “Naïve Sociology” is a natural way to make sense of our own intuitions about the social world around us. According to Hirschfeld, data coming from recent studies on the use of social stereotypes would show that “Naïve Sociology” is a preserved ability in individuals with autism spectrum disorders (ASD) and that it is distinct from “Naïve Psychology”, the natural human ability to infer and reason about other people’s mental states (Hirschfeld et al. 2007).

Despite the severe social impairments, recent findings have indeed 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).

3. Irony comprehension in autism

It is not hard to imagine that verbal irony is one of the most difficult communicative tasks for people, such as individuals with ASD, who are impaired not only in deriving the figurative meaning of an utterance exploiting contextual information (Ting Wang et al. 2006), but also in social tasks that require an higher-order mentalizing ability. Difficulty in appreciating irony is widely reported in individuals with ASD (Martin and McDonald 2004; Kaland et al. 2005).

Happé (1993) found a correlation between metarepresentational and communicative abilities: subjects who failed the first-order false-belief test were able to understand simile but not metaphor and irony, subjects who passed first-order false-belief test but failed second-order false-belief test, understood metaphor, but not irony, while those who passed the second-order false-belief test did understand irony. However, individuals with ASD who failed all the false-belief tests were found to have significantly lower verbal IQ than those who passed them, while other studies showed that individuals with Asperger Syndrome (AS), selected for their normal verbal IQ, performed as well as controls on even second-order tests (Ozonoff et al. 1991).

Happé (1994) explained these results as a function of alternative non-mentalistic strategies, which could explain why individuals with AS are anyway socially impaired. She further argued that the alternative cognitive strategy used by subjects with AS may be verbal in nature, concluding that “autistic people who (probably with significant delays) become able to understand a character’s false belief may be using verbally mediated routes not used by normal or non-autistic mentally handicapped individuals” (Happé 1995, p. 853).

As a result, testing irony comprehension in subjects having theory of mind impairments without language delay, had become important to understand what kind of deficit autism involved in both metarepresentational and communicative abilities. Jolliffe and Baron-Cohen (1999) tested adults with both AS and high functioning autism (HFA, characterised by a history of speech and language delay), confirming their ability to provide mental state answers but their weakness in processing mental state information in contextually appropriate situations.

Anyway, against Happé’s hypothesis of a correlation between performance on false-beliefs tasks and verbal mental age, their study revealed no performance difference between HFA and AS groups: “The fact that there were no

significant differences between groups suggests that the presence or absence of early language delay did not differentiate the two groups” (Jolliffe and Baron-Cohen 1999, p. 404).

4. Irony and social stereotypes in autism

A recent study investigated how irony is socially perceived and whether social stereotypes facilitate understanding of irony in a group of adults with HFA/AS by using a series of verbally presented stories containing either an ironic or a literal utterance. The experiment had two main objectives: 1) to assess whether individuals with HFA/AS understand ironic utterances (i.e. utterances conveying the opposite to what is literally said); 2) to test the hypothesis that stereotypical contextual knowledge influences not only the perception of irony in individuals with HFA/AS, but also their perception of irony in its main communicative functions: mockery, politeness and positiveness.

In spite of their longer response time, individuals with HFA/AS performed as well as the comparison group in recognizing ironic utterances. Moreover, both groups exhibit an overall similar image of irony: ironic utterances are generally perceived as more mocking, but also more polite and positive compared with literal utterances. Interestingly, the results also show that when a character in the story has a job stereotypically considered as sarcastic, comprehension of ironic utterances improved in terms of accuracy, only in comparison group.

These results suggest that individuals with HFA/AS have difficulties in integrating stereotypical knowledge with information coming from the understanding of ironic intention. Subjects with HFA/AS fail to integrate social stereotypical knowledge when it is implicit in the context, whereas comparison subjects seem to use it in a natural, unconscious and automatic way. On the contrary, subjects with HFA/AS are able to use it in contexts where an explicit use of social stereotypical contents is made (White et al. 2006, Hamilton and Krendl 2007), i.e. where they can use what they have learnt about social groups, rather than what they automatically infer about them.

Therefore, it could be hypothesized that HFA/AS individuals’ well-known gap between contextual information and understanding of speaker’s intention could be due to a missing integration of encyclopedic knowledge coming from social stereotypes. Their longer response time could be due to a difficul-

ty in integrating information coming from the capacity for Naïve Sociology and the capacity for Naïve Psychology in irony comprehension. This also means that Naïve Sociology should interact with Naïve Psychology in people with typical development in the processing of social-contextual information which seems to largely constrain the interpretation of ironic utterances.

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