## Ironing out Irony: Ironic Language Understanding as Embodied Simulation

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Research on figurative language has indicated that language is not merely a symbolic, representational system, but a deeply embodied one that gives rise to meaning through simulations where language re-activates the same sensorimotor systems when listening to a sentence as though one is enacting it (Bergen, 2005; Gallese & Lakoff, 2005). This process of embodied simulation gives rise to our understanding of complex figurative language such as metaphors (Gibbs, Lima, & Francozo, 2004; Gibbs, Gould, & Andric, 2006), fictive motion (Richardson & Matlock, 2007), and humor (Samermit & Gibbs, in press). Additionally, the shared neural processing (i.e. you say "I kicked the door" and my sensorimotor system simulates that) allows us to understand the intentions, actions, and beliefs of others, both when witnessing an action and hearing it described (Gallese, 2007; Decety & Grezes, 2006), creating deeper-level social understanding.

I propose that irony, similar to metaphor and humor, recruits embodied simulation systems in order for us to recognize the ironic in both language and as a broad phenomenon. Colston & Gibbs (2002) examined how phrases that could be interpreted metaphorically or ironically are understood differently. They found that irony, unlike metaphor, requires second-order metarepresentational reasoning, such as opening and recognizing a pretense, allusion to one's prior and multiple beliefs, and mockery of one's beliefs. These inferences stem from a deeper social understanding of interlocutionary partners, which I propose arises from embodied simulation.

Understanding irony from an embodied simulation framework provides explanatory power for how we create and maintain metarepresentational reasoning about our discourse partners. Additionally, this framework may open new avenues for research, such as the relationship between irony and humor. Ironic and humorous language has been examined as similar to each other and sometimes overlapping (Dynel, 2014). Understanding underlying cognitive mechanisms, such as embodied simulation, may allow for a more thorough understanding of how the two are related through shared metarepresentational reasoning of social partners. Figurative language such as irony, humor, and metaphor are acts of social coordination and action, and understanding these processes through embodied simulation provides both theoretical and experimental avenues for future research. Additionally, this framework may provide a means to examine irony outside of the realm of figurative language and as a broad phenomenon, such as when one recognizes ironic situations in every day life.

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