

Imagination

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Penultimate draft (2022)

(Final draft published in *Evolutionary Studies in Imaginative Culture* 6 (2))

Introduction

An important function of imagination is to engage in complex social play (Boyd 2009), so as to prepare the player for social interactions at other times in life. As such, it may be considered a key development in human social cognition. That is not to say, however, that pretense play is only engaged in by children—imaginative play also occurs in adults, likely operated by the same cognitive mechanisms of imagination. Such play involves collaboratively and collectively creating and imagining alternative realities—like storytelling, an arguably central and ancient human evolutionary behavior engaged in by both children and adults. Similar to play, belief is often gratuitously considered ephemeral (van Mulukom 2019), but research suggests that belief structures perception and interpretation (van Mulukom and Lang 2021). For both play and belief, the role of imagination in social processes continues to be elucidated (see also van Mulukom 2021).

Yang, Nancy, Peter L Hurd, and Bernard Crespi. 2022. “Why iPlay: The Relationships of Autistic and Schizotypal Traits With Patterns of Video Game Use.” *Frontiers in Psychology* 13:767446. doi:10.3389/fpsyg.2022.767446.

Video games are becoming an increasingly dominant form of play, but the relationship between video game culture and neuropsychological traits, in particular those focusing on

social cognition, is still not fully understood. Yang and colleagues examine the relationships between video game usage (e.g., frequency, genre preference, reaction times) and various levels of social neuropsychological traits. In line with the diametric model of social brain disorders (Crespi and Badcock 2008), they characterize autism and schizotypal psychosis as polar ends of a continuum of social cognition development, as well as gender, by considering them as low or high on mentalistic thought (i.e., social cognition) and on mechanistic thought (i.e., nonsocial cognition). The authors' predictions for video game usage in gender and social brain disorders were partially confirmed. This study demonstrates an interesting approach to examining social cognition in relation to virtualization of play, though further research is required.

Kapitány, Rohan, Tomas Hampejs, and Thalia R Goldstein. 2022. "Pretensive Shared Reality: From Childhood Pretense to Adult Imaginative Play." *Frontiers in Psychology* 13:774085. doi:10.3389/fpsyg.2022.774085.

Kapitány and colleagues argue that adult pretensive play, such as tabletop role-playing games (most notably *Dungeons and Dragons*), has long been overlooked due to definitional issues from childhood pretend play research. However, they argue, it is certainly worthy of investigation: shared pretensive reality is pervasive and arguably as old as storytelling. Research into this phenomenon provides an opportunity to examine its cognitive mechanisms of theory of mind, meta-representations, and pretense, among others, as well as its social functions, including group problem-solving, norm formation, and social identity construction and maintenance. As future research builds on this topic, connections to childhood pretend play can be made, thus elucidating the ontological and longitudinal development of pretense through the life span.

Flinn, Mark V. 2021. "The Creative Neurons." *Frontiers in Psychology* 12:765926. doi:10.3389/fpsyg.2021.765926.

Flinn argues that the origins of human sociality lie in human family relationships that in turn support interaction among nonfamilial individuals from different groups (through evolved human neurobiological and neuroendocrinological mechanisms), and in so doing, cumulative culture. Flinn argues that imagination, like play, is a device through which we can test novel,

creative endings or solutions to social situations. Having novel solutions are what sets one apart in adapting to an ever-changing (social) world, and is considered to affect “social selection” (p. 3). Not all novelty gets passed on, however. What accumulates in culture is part by chance and part the result of selection through numerous minds.

Fuentes, Agustín. 2022. “Evolving Belief, Evolving Minds: Evolutionary Insights into the Development and Functioning of Human Society.” *Frontiers in Behavioral Neuroscience* 16:928297. doi:10.3389/fnbeh.2022.928297.

Fuentes argues that belief is a central aspect of human evolution and directly related to imagination: A shared imagination, combined with a number of social-cognitive processes and a system to represent symbols, was a context in which humans evolved, just like the natural world. Like Flinn (2021), Fuentes argues that social interaction is at the root of the evolution of these processes: connections and exchanges between nonfamilial groups allowed for the emergence of shared beliefs, followed by belief systems. Like Flinn, moreover, Fuentes suggest an important role for the capacity for novelty. In a departure from Flinn, however, Fuentes argues that humans do not just engage in social, transactional realities: they go beyond this in transcendent realities (Bloch 2008). In other words, cultural contexts—devised by imagination and anchored by belief—make sense of, interpret, and provide meaning to our perceptions of the world, and in so doing shape them (van Mulukom 2019, van Mulukom and Lang 2021). This is why, Fuentes argues, belief and its cognitive processes, including imagination, are so crucial in human behavior and experience.

Gabriel, Rami. 2021. “Affect, Belief, and the Arts.” *Frontiers in Psychology* 12:757234. doi:10.3389/fpsyg.2021.757234.

The relationship between imagination and belief is also explored by Rami, who suggests that imaginative culture was instrumental to “domesticating” affective systems for specific use in culturally defined cooperative groups. In a sense, Rami furthers Fuentes’ (2022) theory by embedding it within a theory of symbolization, whereby symbols are thought of as cultural materializations of shared imaginings: a knowledge that provides a motivated understanding of ourselves, the world, or

ourselves-in-the-world. Emotions and sacred states, furthermore, attribute a salience to these experiences and symbols, ensuring that they are noticed and remembered.

Conclusions

Imagination is a cognitive capacity often surrounded by an air of being frivolous, childish, or ephemeral—or, as a common denominator would have it, inconsequential. Research from the evolution of imagination demonstrates time and again, however, that in fact the contrary might be true: that the evolution of imagination, and its associated processes of play and belief, was central to the evolution of humans and their flourishing.

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