

The benefits of storytelling in video games

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Credit: Cristie Guevara/public domain

A wealth of studies have shown that violent video games contribute to antisocial and aggressive behavior. But what makes those games appealing in the first place? One possibility is that storytelling plays a role, particularly if it lets players engage in meaningful choices. A new study suggests that non-violent video games that capitalize on such storytelling have prosocial benefits that could ultimately be helpful to clinical disorders such as autism.

"The motivation to engage in and enjoy video games corresponds with principals that apply to human motivation in general," says Daniel

Bormann of the University of Freiburg. "For instance, successful game franchises offer players a spectrum of meaningful choices to shape the game's narrative and environment, provide carefully balanced challenges, or encourage players to experience social connectedness and meaningful social interactions." Research has suggested that the satisfaction of those needs results not only greater motivation to play but also enhanced well-being and a more immersive experience.

Bormann and his colleague Tobias Greitemeyer wanted to explore this concept further, to see whether storytelling fosters immersion and changes how players are able to assess the mental states of others (called "theory of mind"). Immersion, Bormann says, "is characterized by an experience you might have enjoyed while watching your favorite movie for the first time - the sensation of being transported to another time or space, as though you are taking a real journey, or the feeling of being emotionally impacted by the protagonist's fate."

To test the role of in-game storytelling, the researchers randomly assigned participants to play one of two video games. In the first game *Gone Home*, the player slips into the role of a female American college student, arriving home after a year abroad. The player comes upon an empty house and has to use various clues to figure out what happened to her missing family members. For the control condition, the game was *Against the Wall*, in which the player has to climb up an infinite wall by interacting with the bricks, in surreal but human-made surroundings. Apart from a brief description of the environment and goals, the game provided no narrative elements.

For the game rich in storytelling (*Gone Home*), researchers provided one group of participants the game developers' instructions and provided a second group of participants instructions to register, memorize, and evaluate various properties of the game. After 20 minutes of gameplay, all participants completed a task in which they

assessed facially expressed emotions. The researchers used this task to evaluate the players' capacity to apprehend others emotional states (theory of mind). The players also completed a survey to assess the amount of immersion and need satisfaction they experienced while playing.

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As published today in *Social Psychological and Personality Science*, the researchers found that narrative game elements contributed to a more immersive [video game](#) experience. They also found that being immersed in a game's story supports players in perceiving opportunities for meaningful choices and relationships. And they found that the narrative elements affected theory of mind.

"Although the effects regarding theory of mind were relatively small, we were excited to see initial evidence for the short-term enhancement through in-game storytelling," Bormann says. "Importantly, this effect was specific to the condition in which participants actively engaged in the games narration, while the mere exposure to the narrative video game did not affect theory of mind, in comparison to playing a neutral video game."

Together, the results suggest that in-game storytelling contributes to a more immersive and satisfying video game experience while also fostering skills that are useful to players on a day-to-day basis. While more work needs to be done to examine these effects, Bormann says that long-term work on narration in video games could yield promising opportunities.

"If further research could reveal how exactly in-game storytelling affects [theory of mind](#)," he says, "clinicians and software developers could utilize this knowledge to develop tools to aid the treatment of disorders characterized by social-interaction impairments, like autistic disorders."

More information: The paper, "Immersed in Virtual Worlds and Minds: Effects of In-Game Storytelling on Immersion, Need Satisfaction, and Affective Theory of Mind" by Daniel Bormann and Tobias Greitemeyer, was published in *Social Psychological and Personality Science* online on April 9, 2015. [DOI: 10.1177/1948550615578177](https://doi.org/10.1177/1948550615578177)

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