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Why Frightening Imaginary Worlds? Morbid curiosity and the learning potential of

horror

Commentary: Why Imaginary Worlds? By Edgar Dubourg & Nicolas Baumard

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Abstract

In addition to satisfying a predisposition for exploration, fiction with imaginary worlds may also appeal to morbid curiosity, an adaptive motivation to seek out information about dangerous situations. Most imaginary worlds contain narrative elements of danger, and immersion in such worlds may provide people with information that would be costly to acquire in the real world.

Main Text

Dubourg and Baumard offer a compelling explanation for why imaginary worlds are so popular. In short, they argue that the human predisposition for exploration drives the popularity of imaginary worlds in entertainment. We offer an additional factor to supplement their argument. We argue that morbid curiosity — the motivation to gather information about dangerous situations — is a key factor in the popularity of imaginary worlds, most of which contain narrative elements of danger.

The general motivation for humans to seek out information about threatening scenarios for entertainment is a feature of morbid curiosity. Only recently has psychology begun to parse the psychological features of morbid curiosity (Scrivner 2021a; Oosterwijk, 2017). Threat-related information in particular has a premium on our attention, spreading more often and more reliably than information that is positive, neutral, or generally negative (Blaine & Boyer, 2018). The backbone of this predisposition is an evolved system for threat negotiation (Mobbs et al., 2015). One aspect of this system is the prediction and simulation of future threats. Simulating threats through prospection can lead to improved regulation of emotions and behaviors in response to future threats by mentally rehearsing dangerous situations (Bulley et al., 2017).

Similar to prospection, engaging in scary play or exploring frightening imaginary worlds may also confer psychological benefits (Scrivner, Andersen et al., 2021). For example, morbidly curious people and those who were fans of horror movies reported greater psychological resilience during the COVID-19 pandemic (Scrivner, Johnson, et al.,

2021). One possible explanation for this finding is that people who explore scary fictional worlds are more practiced at encountering and dealing with anxious feelings. Indeed, Scrivner & Christensen (2021) have argued that regular engagement with scary fiction may be one avenue through which people can build and strengthen their emotion regulation skills through processes similar to those used in exposure therapy.

Morbid curiosity may also fluctuate with respect to ecological conditions. When a threat becomes more salient, it may make sense to gather information or model possible encounters through fiction. One recent example of this can be seen in the popularity of the movie *Contagion* in the early months of the COVID-19 pandemic. To the surprise of many, the nearly decade-old movie about a pandemic shot to the top of the streaming charts in the first few months of the pandemic. Why would people be streaming a movie about a pandemic during a pandemic? Scrivner (2021b) has suggested that morbid curiosity played a role in *Contagion*'s popularity during the early months of the pandemic. By watching a movie about a world where a pandemic exists, viewers were learning something about what a pandemic world is like. Moreover, those who were watching more pandemic movies at that time scored higher in morbid curiosity.

Even when stories are set in fictional or even imaginary worlds, they can offer important information. Indeed, fiction is sometimes a *better* way to spread important information about real phenomena than non-fiction because it allows for the construction of specific or unique situations that can be tailored to specific contexts (Scalise-Sugiyama, 2021).

Additionally, fiction tends to foster audience immersion and emotional involvement through sympathetic engagement with characters. In other words, imaginary worlds may be worth simulating and exploring if they offer low-cost ways of learning about dangerous situations through identification with characters facing threats, and morbid curiosity is an important psychological feature that promotes this simulation and exploration (Scrivner, 2022).

Horror fiction is particularly well-suited for conveying information about danger. Clasen and colleagues (2020) have argued that horror serves the function of threat simulation, and it does so by creating virtual worlds replete with cues of danger, most prominently the danger posed by monsters or monstrous humans. While the monsters of horror typically do not exist, most horror content is psychologically and socially realistic. The characters of horror generally behave, or are expected to behave, like real people in dangerous situations (Clasen, 2017). The learning potential of horror, then, may come in the form of psychological and social insight as much as, if not more than, information about specific and ecologically relevant threats.

Though horror films are a natural home for the morbidly curious, morbid features are central to many genres of fiction, including those with imaginary worlds. Evil villains, witchcraft, and monstrous creatures are core aspects of popular fictional worlds like The Lord of the Rings and Harry Potter. These morbid features play an important role in attracting the audience's attention, creating suspense, and in the development of an interesting plot. The journey to Mordor would be much less interesting if the Fellowship

did not encounter deadly trolls and bloodthirsty orcs, and Harry Potter's adventures much less interesting if he and his friends did not have to fight monstrous spiders and uncanny Dementors.

Dubourg and Baumard's thesis explains how fiction with imaginary worlds may satisfy an evolved desire for exploration, but they say little about the contents of such fiction. We have suggested here that consideration of morbid curiosity and the learning potential of specifically frightening fiction may supplement their ideas. The prevalence of threats in fiction with imaginary worlds is no incidental feature; rather, it subserves the function of such fiction to provide threat-related information in a compelling, emotionally engaging way. The bias to attend to and spread threat-related information, which is motivated by morbid curiosity, has been shown to be an important factor in explaining recurrent features of religious systems (Boyer, 2021). Likewise, morbid curiosity is likely an important factor in explaining the recurrent features, success, and cultural evolution of imaginary worlds, the majority of which contain frightening elements.

References

- Andersen, M. M., Schjoedt, U., Price, H., Rosas, F. E., Scrivner, C., & Clasen, M. (2020). Playing with fear: A field study in recreational horror. *Psychological science*, *31*(12), 1497-1510. https://doi.org/10.1177/0956797620972116
- Blaine, T., & Boyer, P. (2018). Origins of sinister rumors: A preference for threat-related material in the supply and demand of information. *Evolution and Human Behavior*, 39(1), 67-75. https://doi.org/10.1016/j.evolhumbehav.2017.10.001

- Boyer, P. (2021). Deriving Features of Religions in the Wild. *Human Nature*, 1-25. https://doi.org/10.1007/s12110-021-09410-y
- Bulley, A., Henry, J. D., & Suddendorf, T. (2017). Thinking about threats: Memory and prospection in human threat management. *Consciousness and Cognition*, *49*, 53-69. https://doi.org/10.1016/j.concog.2017.01.005
- Clasen, M., Kjeldgaard-Christiansen, J., & Johnson, J. A. (2020). Horror, personality, and threat simulation: A survey on the psychology of scary media. *Evolutionary Behavioral Sciences*, *14*(3), 213-230. 10.1037/ebs0000152.
- Clasen, M. (2017). Why Horror Seduces. Oxford University Press.
- Mobbs, D., Hagan, C. C., Dalgleish, T., Silston, B., & Prévost, C. (2015). The ecology of human fear: survival optimization and the nervous system. Frontiers in neuroscience, 9, 55.
 https://doi.org/10.3389/fnins.2015.00055
- Oosterwijk, S. (2017). Choosing the negative: A behavioral demonstration of morbid curiosity. *PloS one*, *12*(7), e0178399.

 https://doi.org/10.1371/journal.pone.0178399
- Scalise-Sugiyama, M. (2021). The fiction that fiction is fiction. ASEBL Journal, 8.
- Scrivner, C. (2021a). The psychology of morbid curiosity: Development and initial validation of the morbid curiosity scale. *Personality and Individual Differences*, 183, 111139. https://doi.org/10.1016/j.paid.2021.111139
- Scrivner, C. (2021b). An infectious curiosity: Morbid curiosity and media preferences during a Pandemic. *Evolutionary Studies in Imaginative Culture*, *5*(1), 1-12. https://doi.org/10.26613/esic.5.1.206
- Scrivner, C., Andersen, M. M., Schjoedt, U., & Clasen, M. (2021). The Psychological

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Benefits of Scary Play in Three Types of Horror Fans.

https://doi.org/10.31234/osf.io/sdxe6

Scrivner, C., & Christensen, K. A. (2021). Scaring away anxiety: Therapeutic avenues for horror fiction to enhance treatment for anxiety symptoms.

https://psyarxiv.com/7uh6f/

Scrivner, C., Johnson, J. A., Kjeldgaard-Christiansen, J., & Clasen, M. (2021).

Pandemic practice: Horror fans and morbidly curious individuals are more psychologically resilient during the COVID-19 pandemic. *Personality and individual differences*, 168, 110397. https://doi.org/10.1016/j.paid.2020.110397

Scrivner, C. (2022). Curiosity: A behavioral biology perspective. *PsyArXiv*.

https://doi.org/10.31234/osf.io/rqa5b