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Simulation, the running of a model with appropriate inputs for the purpose of observing the outputs (Axelrod, 1997; Bratley, Fox, and Schrage, 1987), has become a recurrent feature of research in the natural sciences, but is also used to a degree in social sciences as it can contribute to the understanding of complex social processes (Gilbert, 2004; Sawyer, 2003). Computational simulations involve modeling and computer-aided simulation techniques (Gilbert and Troitzsch, 2005), while immersive simulations may range from narrative fiction and film (Mar and Oatley, 2008), to low-technology representations of real-life situations (see for example Scott and Pandey, 2000) and high-technology immersive simulations spaces (for example, IMTEL, 2019; MIUN, 2019). In this paper, we focus on immersive simulation and more specifically, we pay special attention to experimental design as a means of understanding how different kinds of information affect risk awareness. We conducted an experiment aimed establishing a causal mechanism between making people aware of possible risks in a controlled, simulated environment, and the observed awareness they exhibited during the experiment. The study has practical implications when it comes to the design of exercises for practitioners.

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On the Epistemology of Crises and Disasters