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Research on Violence in Digital Games and the Attribution of Confounded Effects

Many studies have been conducted to examine the effects of displayed violence in digital games on outcomes like aggressive behavior and physiological arousal. It is common in experimental designs for participants to either play a violent or a different, non-violent game. However, violent content is usually not the only difference between these games. This raises the issue of possibly confounding factors that make the results hard to interpret. In this study, the displayed violence and game speed of a recent first-person shooter game were varied systematically using the technique of modding, so that effects could be explained properly by the respective manipulations. A total of $N = 84$ participants played in one of four game conditions (low- vs. high-violence, normal- vs. high speed) while physiological measurements were taken. After play, their aggressive behavior was measured with the standardized version of the CRTT.

The aim of this study was to explore potentially confounding effects of conflating variables when working with digital games as stimuli in experiments. Results show that game speed, a feature inherent to most first-person shooters, not only interacts with displayed violence, but also has an effect on several outcome variables that might otherwise be solely attributed to displayed violence. This shows the importance of a proper manipulation of independent variables and control for potentially confounding factors in digital games effects research. Finally, this study offers game modifications as a viable solution for researchers to accomplish a clean manipulation, resulting in higher internal validity of experiments.

