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The impact of violent gaming on the brain as a function of individual differences in trait empathy

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The impact of violent gaming on the brain as a function of individual differences in trait empathy

Background

Violent video games and films are increasingly realistic and accessible, but there are concerns about their potential impact on social behaviour. Although there have been studies that suggest a link between this kind of media and aggression, it isn't certain that one clearly causes the other and researchers are highly polarized, challenging any conclusions or findings of others. Because of this lack of agreement on conclusions to date, the research community has had little influence on public policy generally.

It's also important to note that there are vast financial interests involved in the areas of video games and films so biases are likely. There is a real need for objective measures if any sound conclusions are to be reached.

The Problem

Cognitive neuroscience has been underutilized in this area to date, despite its ability to objectively target neurocognitive markers to explore an issue like this. Research on violent media to date has not considered its impact on these subtle neurocognitive markers of empathy and antisocial behaviour, although we do know of markers that are strongly related to risk for antisocial behaviour.

Aggression is a complex phenomenon with multiple influences. Studying the interaction of violent media with aggression or antisocial behaviour and their impact on neurocognitive systems will require a large number of participants to demonstrate convincing effects. A large number of participants means significant cost, so we must have a strong proof-of-principle case to commit to such a study.

The Project

In this project, we will uncover any existing interaction between violent media and the capacity for empathic reactions (known as trait empathy) at a neural level, as the foundational milestone for the kind of large-scale study discussed above.

The level of trait empathy varies by individual - we will explore whether exposure to violent media exacerbates the difficulties that those with low trait empathy already show in relating to the emotions of others. This will be the first study to examine the interaction of violent media and the traits that predict antisocial behaviour at a neural level, using fMRI.

Western Researchers

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