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Feelings and Actions in Threatening Virtual Reality Environments

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Abstract

Virtual Reality (VR) can offer insights into realistic human defensive behavior. In the present work, we sought to elucidate the interplay between feelings and actions in VR-simulated threatening scenarios. Participants (n = 30) encountered various animal threats in VR during a fruit collection task. We retrospectively assessed participants' feelings after each episode on several dimensions, namely valence, arousal, potency, surprise, and anxiety. As predictor variables, we included scenario characteristics, behavioral responses, and personality traits. Our results indicate that the primary determinants for subjective feelings except potency were ultimate survival, the availability of self-defense weapons, and the animals' behavior (attack or not). No strong determinants for potency could be found. Notably, participants' behavioral responses did not independently influence feelings reported later. These findings highlight VR's potential in expanding our understanding of subjective feelings in threatening situations. Our research suggests that behavior and feelings in defensive situations might not be closely linked.