

Cinematic Lighting and Emotional Expression of Virtual Characters

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Cinematic lighting can create an atmosphere and enhance the emotions of the characters. This project focuses on how lighting affects the emotional expression of 3d virtual characters. A set of perceptual experiments are designed to investigate the effects of light color, shadow intensity and realism of the characters. White, yellow and blue lights are used to represent different color temperatures. The recognition of the emotion, emotion intensity and genuineness of the emotion are used to measure the participants' responses. Shadow intensity and realism are proved to have effects on recognition, intensity and genuineness of emotion. And they affect the perception differently according to different kinds of emotions. The result doesn't show that the provided light colors have effects on emotional expression. Future work like running the experiments with more different light colors is needed.

Key Words and Phrases: Character Lighting, Emotion, Perception, Genuineness