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SENSITIVITY TO PROPORTIONS IN FACES OF VARYING ANTHROPOMORPHISM

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Permanent Link: http://hdl.handle.net/1805/1980

Date: 2009-11-04

Abstract:

ABSTRACT Although it has been said that beauty is in the eye of the beholder, studies in social and medical sciences indicate that certain facial and bodily proportions are perceived to be more attractive across cultures. Additionally, studies indicate that the percep- tion of attractiveness is more hardwired than learned, being present even in infants. Behavioral scientists have found that attractive people are often judged to have more positive character traits. Interface designers must make choices regarding how to rep- resent the human form, whether in animation, virtual reality, or physical robots. An understanding of human preferences, in addition to other developments in the science of perception, can lead to design principles. This study measured sensitivity to the best proportions, and tolerance for ac- ceptable proportions in people, androids and more mechanical-looking robots, and three-dimensional and two-dimensional computer graphics characters. In an on-line experiment participants set the best point and acceptable range in four facial propor- tions for eleven characters, and completed a questionnaire rating character attributes such as human likeness. Participants showed greater sensitivity to the best propor- tions in faces they judged as more attractive and more humanlike. Participants also showed less tolerance for changes in proportion in more attractive faces.

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