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The contrast effect with avatars

Juliana K. Leding^{a,*}, John C. Horton^a, Samantha S. Wootan^b

^a University of North Florida, United States ^b Northwestern University, United States

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ABSTRACT

Kenrick and Gutierres (1980) found that participants exposed to attractive women would later rate an average-looking woman as less attractive compared to participants who had not been exposed to the attractive women. Because of the increase in our use of technology and computer programs utilizing avatars, two experiments were conducted to determine whether this contrast effect would occur when participants were presented with attractive avatars. Participants were told that they were in a study interested in first impressions and they were asked to rate images on a number of characteristics, including attractive avatars and then one photograph of an average-looking woman. In Experiment 2, participants were presented with either three attractive or three unattractive avatars and then one photograph of an average-looking woman. In Experiment 2, participants were presented with either three attractive or three unattractive male or female avatars and rated a photograph of a man or woman, respectively. In both experiments, participants exposed to the attractive avatars.

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1. Introduction

Kenrick and Gutierres (1980) provided evidence for what they called the 'contrast effect' for physical attractiveness evaluations. Male participants were approached in their dormitory rooms during the time of the week that the hit television show Charlie's Angels was airing. This television show featured three female actors who were typically considered very attractive. Two confederates told the participants that they were thinking of setting up a friend on a blind date and asked the participants to rate the attractiveness of a photograph of an average-looking woman. Those participants who had been watching Charlie's Angels, and who had therefore been exposed to the attractive actresses in the show, rated the photograph of the woman as being significantly less attractive than the participants who had not been watching the show. Thus, it was concluded that exposure to the attractive women caused a contrast effect for the photograph of the average-looking woman. Two follow-up studies conducted in a laboratory setting on both male and female participants provided further evidence for the contrast effect (Kenrick & Gutierres, 1980). It was found that the photographs of average-looking women that were presented following the presentation of the images of attractive women were rated as lower in attractiveness.

These studies added to previous research illustrating that ratings of attractiveness are affected by the context in which the person is surrounded (Griffitt & Jackson, 1970; Melamed & Moss, 1975). Since these original studies, there have been a number of studies conducted examining the effect of exposure to attractive individuals on people's ratings of themselves and others. For example, Kenrick, Montello, Gutierres, and Trost (1993) found the same contrast effect when judging attractiveness of a target photograph after exposure to attractive individuals. They also found that exposure to attractive opposite-sex individuals caused elevated participants' mood but exposure to attractive same-sex individuals caused lowered mood. Similarly, it has been found that women and men will judge themselves more negatively after exposure to attractive individuals of the same sex (e.g., Thornton & Moore, 1993). Other evidence for the contrast effect has been presented, but only when the faces are presented successively; an assimilation effect was found when the faces were presented simultaneously (Geiselman, Haight, & Kimata, 1984; Wedell, Parducci, & Geiselman, 1987). The assimilation effect, or "halo effect" as it is sometimes called, showed that in the simultaneous presence of attractive others, an average-looking face is rated as more attractive, as if it belongs to the collective unit. However, when the faces were presented successively, participants were less







^{*} Corresponding author at: Department of Psychology, 1 UNF Drive, University of North Florida, Jacksonville, FL 32224, United States. Tel.: +1 (904) 620 1613; fax: +1 (904) 620 3814.

likely to judge the stimuli with a single set as a collective unit leading to a contrast effect after exposure to attractive faces.

Thus, exposure to attractive individuals can cause both men and women to rate average-looking people as less attractive when the images are presented successively. As the world becomes more and more technologically advanced, we are increasingly inundated with exposure to attractive individuals. In addition to exposure through film and television, we now have constant and immediate access to almost anything through the internet. In the U.S., 74.8% of the population lives in a household with internet access, with 88.1% of individuals aged 18–34 accessing the internet (U.S. Census Bureau., 2012). As of 2014, 40% of individuals worldwide used the internet (ICT Facts, 2014). Thus, with the widespread use of the internet, individuals have the ability to be exposed to a wide range of information and images that could be affecting the way they perceive or think about the world.

With increasing access to the internet, our exposure to avatars. that is, computer generated visual representations of individuals, is increased. Avatars are used in a variety of online environments, including computer games, e-commerce applications, social virtual environments, and in geographically separated workplace meetings (Schroeder, 2002). In a recent study of 396 virtual world users, 70.3% of the participants had multiple avatars but had used their primary avatar for an average of 2 years and reported spending, on average, over 20 h a week using the main avatar (Lin & Wang, 2014). There is empirical evidence that avatars can affect individuals' behavior. For example, when randomly assigned an attractive avatar, individuals in immersive virtual environments were more intimate with confederates in self-disclosure and interpersonal distance tasks (Yee & Bailenson, 2007). Furthermore, participants using black-cloaked avatars developed more aggressive intentions and attitudes than those using white cloaks (Peña, Hancock, & Merola, 2009). In a second experiment participants randomly assigned to use Ku Klux Klan-associated avatars were more likely to interpret pictures from the Thematic Apperception Test in a more aggressive manner than participants who were in the control groups. That is, the participants were more likely to create stories that dealt with hate, anger, and feelings of ill will, indicating that the Ku Klux Klan avatar primed aggression (Peña et al., 2009).

A body of research on the psychology of avatar creation has started to develop (e.g., Behm-Morawitz, 2013; Guitton, 2012; Kim, Lee, & Kang, 2012; Lomanowska & Guitton, 2012). When people are able to create their own avatars, there is evidence that they sometimes enhance the avatars, depending on the purpose of the avatar. For example, Vasalou and Joinson (2009) found that although participants were likely to perceive their avatars as being highly similar to themselves, participants who believed they were creating an avatar for the purpose of online dating were more likely to enhance the attractiveness of their avatars compared to people who were creating avatars for blogging. In considering the virtual world of Second Life, in which people "socialize" with other members, Messinger et al. (2008) found that individuals who had created avatars in Second Life reported that their avatars were similar to themselves, but that they had made their avatars somewhat more attractive.

Thus, if randomly assigned avatars can affect people's behavior and cognition, one interesting question is if other individuals' avatars can have an effect on people. For example, when examining whether the appearance of avatars can affect the ratings of interviewers, it was found that attractive avatars were viewed more positively and were more likely to be allowed through a selection procedure (Behrend, Toaddy, Thompson, & Sharek, 2012). Thus, participants rated potential job applicants more favorably when the applicants were accompanied by an attractive avatar. Another question is whether exposure to attractive avatars can cause individuals to rate humans as less attractive? This is an interesting question because it can help us begin to understand how our use of the computer and programs using avatars can affect our thoughts and behaviors about the "real world". Answering this question was the purpose of the current studies. In the first experiment, male and female participants were presented with either attractive or unattractive avatars and then rated a photograph of an average-looking woman. Experiment 1 was designed in this way, with only the use of a female photograph and avatars, to closely replicate the first experiment of Kenrick and Gutierres (1980). However, they collected data on only male participants in their first experiment so we included sex of participant as a subject variable in this study to determine if male and female participants would respond differently. In their third experiment, Kenrick and Gutierres found that although male and female participants responded similarly on most targets, that they did respond differently when rating one of the photographs, thus the sex of the participants was included in the first study to rule out any potential sex differences. In the second experiment, participants were presented with unattractive or attractive avatars of either men or women. Additionally, some participants viewed and rated the photograph before being exposed to the avatars. In both experiments, it was predicted that participants exposed to the attractive avatars would rate the photograph as less attractive than participants exposed to the unattractive avatars.

2. Experiment 1

2.1. Method

2.1.1. Participants

Participants for the current study were 120 students (60 men, 60 women) from the University of North Florida. The participants received extra credit for their participation in the study. None of the participants had participated in any of the norming studies associated with the study.

2.1.2. Materials

The avatars used in this study were created using The Sims 3^{TM} character creation feature. To ensure that the attractiveness of the avatars could be of primary focus to the participants, each avatar was dressed in the same outfit (i.e., white shoes, white t-shirt and blue jeans) and was placed in front of an all-white background, in the same stance, looking directly at the viewer. The screenshot used to capture the image of the avatars was in the same position for every capture, with all avatars being centered in the frame.

To ensure that attractive and unattractive avatars were used for the experiment, a norming study was conducted. Participants (N = 43, 31 women) who did not participate in the reported experiments rated the attractiveness of 50 male and 50 female avatars on a 7-point scale of -3 (extremely unattractive) to +3 (extremely attractive), with a midpoint of 0 (neutral). The avatars were presented individually via PowerPoint presentation. The avatars were presented for 6 s each, with only one avatar on each slide. Every other slide was a male avatar. Two presentations were created in which the order of the slides was reversed to account for order effects in the presentations. For the current experiment, three of the female avatars with the highest attractiveness ratings and three of the female avatars with the lowest attractiveness ratings were selected (see Appendix A).

The photograph of the woman that was used in the current study was selected out of 44 photographs of women and men (22 men and 22 women) from the Psychological Image Collection Download English Version:

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