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Contrast effects in ratings of male desirability:

Physical Attractiveness or Status and Resources?

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Abstract

Evolutionary theories of mate selection suggest women prefer men who will make good life partners and supporters. *Contrast effects* in attractiveness occur when exposure to attractive images changes the rated attractiveness of a target. Contrast effects for physical attractiveness have been tested in rating females, but not rating males. The current experiment examines contrast effects for physical attractiveness and status and resources cues of men. I hypothesized that female participants would rate high status/wealth males as more desirable than high attractive males and that contrast effects would occur for both status/wealth and physical attractiveness. In other words, after viewing high attractive males and high status/wealth males, an average target would receive a lower rating. Although no contrast effects were found, participants rated physical attractiveness higher than status and wealth. Possible reasons for these findings and future considerations are discussed.

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Modern psychology finds the study of attractiveness interesting because of its relation to mate choice. Modern evolutionary theory suggests there are two forms of evolutionary selection. The first is of natural selection which essentially says that organisms within a species with the best characteristics favorable for survival are more likely to leave offspring who will inherit these traits (Kolb and Whishaw, 2002). The second selective system is mate selection. Mate selection theories suggest people, like other organisms, will look for qualities in a mate that will enhance their own reproductive success (Singh, 1993; Buss, 1999). While females are only able to produce one at a time, males can spread their genes to other females, which leads to the possibility that males and females may use different criteria when choosing a mate. For instance, females select their mates while males compete against other males for females.

These theoretical predictions have applications to humans. Mate selection theories suggest that men find women who show traits indicating health, youth and fertility as most attractive for child bearing reasons. Such traits include clear complexion, shiny hair and waists roughly a third narrower than the hips (Buss & Barnes, 1986; Buss, 1989; Singh, 1993). In contrast, women look for men who show traits indicating they can support their offspring. Primary among these are status and resources. One trait women find attractive in men is monetary power, which signals resources that can increase her offsprings' chances of survival (Buss & Barnes, 1986). Many studies have found similar results based on the evolutionary theories of human mate selection. Jensen-Campbell,

Graziano and West (1995) found that male dominance is an attractive trait for women.

Li, Bailey, Kenrick and Linsenmeier (2002) asked women what they found to be a necessary trait in men as a potential mate and found status and resources to be very important.

Research into the determinants of mate selection has looked at direct ratings of desirability and at contrast effects in desirability ratings. A contrast effect is an increase or decrease in perception as a result of previous exposure to a stimulus of lesser or greater value (Kenrick & Gutierrez, 1980; Cash et al. 1983; Thornton & Maurice, 1997).

Contrast effects for physical attractiveness studies usually involve, for example, participants being shown a series of pictures of highly attractive people and then being asked to rate an average looking person. A contrast effect occurs when the participants' ratings of the average looking person are lower than those of a control group, which rates the same average looking person after viewing a series of average looking people.

Past research on contrast effects have consisted of judging female attractiveness compared to other females. Little and Mannion (2006) exposed women to same-sex attractive images and unattractive images and asked them to rate their self attractiveness. After viewing the attractive images, the women rated themselves as less attractive and after viewing the unattractive images, the participants rated themselves as more attractive, compared to the control groups. Cash, Cash, and Butters (1983) previously found contrast effects in females rating females and themselves. Thornton and Maurice (1997) and Henderson-King, Henderson-King, and Hoffman (2001) studied contrast

effects of females rating themselves after viewing media images of models. The findings in this study are consistent with other contrast effects studies in that the females rated themselves as less attractive after viewing media images of models than the control group which viewed females of average attractiveness.

Contrast effects for attractiveness are also evident when male participants rate females. Kenrick and Gutierrez (1980) focused on male participants rating females. The participants were shown attractive females and asked to rate an average female. The participants rated the average female as less attractive than the control group did.

There has been less research on determinants of male desirability. Schooler and Ward (2006) studied the effects of frequent media exposure on a male's attitude of his own body. The findings suggested a contrast effect for men who were exposed to frequent physically attractive media images. These men reported their own body image as less attractive following such exposure. Hobza, Walker, Yakushko and Peugh (2007) asked male participants to rate same-sex media images and found a contrast effect. Men who viewed physically attractive model images subsequently rated themselves as less attractive than men who viewed average images. Finally, Kenrick, Neuberg, Zierk and Krones (1994) found a contrast effect for satisfaction in relationships. Women were less satisfied with their relationships after exposure to socially dominant men.

Little research has been done on female ratings of male desirability and none has looked for contrast effects. Since status and resources are claimed to be more important than physical attractiveness, perhaps contrast effects will occur on the former dimension and not the latter. Although it may seem obvious that a female would rate an average

looking male as less attractive after viewing attractive male images than a control group would, this has not been directly demonstrated. My experiment studied contrast effects of females rating unfamiliar males. I hypothesized that a contrast effect will occur when a photo of a male of average attractiveness is viewed after a series of pictures of attractive males.

However, female participant's ratings of male desirability of a partner should be based on both physical attractiveness and status and resources. I asked the question "Would there be a difference between contrast effects for physical attractiveness and for status and resources cues?" In testing and comparing contrast effects for physical attractiveness and social desirability of men, I predicted that the impact of social desirability will be greater than that of physical attractiveness. I hypothesized that contrast effects will happen for both physical attractiveness and social desirability. However, I also hypothesized that the difference in ratings for social desirability compared to the control group would be greater than the difference in ratings for physical attractiveness compared to the control group.

Method

Participants

Fifty female university students participated in my study. Thirty-five females were selected from an introductory psychology class and received a participation mark for signing up. Seven females were selected from upper year psychology courses and received bonus marks for participating. The remaining 8 females were recruited from

courses outside the field of psychology and did not receive compensation for participating. Participants were randomly assigned to one of three groups. All three groups had approximately equal number of participants ($M = 16.6$) with all of approximately equal age ($M = 20.6$).

Materials

This experiment employed a computer program that displayed pictures of individual men and recorded each participant's ratings of desirability as a partner. The program file ran on an Authorware Runtime Macromedia program. Pictures were classified as highly attractive or average in attractiveness. All photos used depicted college-aged men aged 18-25. Photos high in physical attractiveness were found on <http://www.cosmopolitan.com/>. These photos were of unfamiliar male models and were rated as highly attractive in a pilot study, based on receiving a score between 5.5 and 7 on a 7 point Likert scale. Photos of average in physical attractiveness were found on <http://www.hotornot.com>. These photos were of males who were found to have average attractiveness in a pilot study, based on a score between 3 and 4 on a 7 point Likert scale. Little and Mannion, 2006 used <http://www.hotornot.com> in their study as well.

Each photo was accompanied by a description of status and wealth. The descriptions were determined to be high or average in social desirability through another pilot study. Socially desirable descriptions that were rated between a 6 and 7 on a 7-point Likert scale were determined as depicting a career that is high in status and wealth. An example of a high status and wealth description is "This is Rick. He is the heir to the largest oil company in the middle east". Descriptions rated between a 3 and 4 on the 7-

point Likert scale were determined as depicting a career that is average in status and wealth. An example of an average status and wealth description is “This is Mark. He teaches history and geography to high school students”.

Procedure

Each subject saw and rated 11 photos. The first 10 constituted the “comparison set”, and the final picture was the “target”. Pictures varied on their physical attractiveness and on the status and wealth information in the descriptions.

There were 3 groups of participants. For group 1, the “High Attractiveness/Average Status and Wealth” group, participants were shown the comparison set of attractive men accompanied by descriptions of average social status. Group 2 was the “Average Attractiveness/High Status and Wealth” group. Participants in this group saw a comparison set of average looking men with high social desirability descriptions. Group 3 was the “Average Attractiveness/Average Status and Wealth” group. Participants in this group were shown a comparison set of average looking men with average social desirability descriptions. All three groups were shown the same target photo, rated average both for physical attractiveness and status and wealth.

Upon arrival, participants were asked to read and sign a consent form and were given a 3-digit code to enter into the computer to begin. The first digit of the code related to their group number (1-3) and the last two digits related to their participant number. They were asked to enter their age and were then given instructions on what the study would entail and the nature of the task. Participants in all three groups were asked to rate each picture by answering the same question “How desirable do you see this person as a

future life partner?” Answers were rated on a 7-point Likert scale ranging from “Not at all desirable” to “Extremely desirable”.

Results

Table 1 lists the average ratings of the comparison set and the average ratings of the target for each group based on a 7-point Likert scale. The bar graph in Figure 1 represents the data in Table 1. According to the data in Table 1, participants in group 1, the high attractiveness/average resources group, rated the physically attractive comparison set 1.4 points higher than the target. Participants in group 2, the average attractiveness/high resources group, rated the socially desirable comparison set 0.56 points higher than the target male. Participants in the control group, the average attractiveness/average resources group, rated the comparison set 0.14 points higher than the target.

Dependent sample t-tests were run to find whether there were significant differences between the ratings of the comparison set and target for each group. With an alpha level set at .05, participants in the physically attractive comparison set group ($M = 4.98$, $SD = .709$), rated the comparison set significantly higher than the target, $t(16) = 4.257$, $p = .0006$. For the socially desirable comparison set group ($M = 3.86$, $SD = .46$), the difference between ratings of the comparison set and target was not significantly different, $t(16) = 1.436$, $p = 0.17$. For the control group ($M = 3.88$, $SD = .488$), the difference between ratings for the comparison set and target was also not significantly different, $t(16) = 0.726$, $p = 0.48$.

A one-way ANOVA was used to analyze whether or not the difference in ratings of the target between all three groups was statistically significant or not. With an alpha level of .05, the effect of target ratings was not statistically significant, $F(2,47) = 0.326$, $p = 0.723$. This means no contrast effects in ratings of the target were found.

Discussion and Future Considerations

I hypothesized that contrast effects would be evident in group 1, the manipulated physical attractiveness group and in group 2, the manipulated high status and wealth group compared to group 3, the control group. I also hypothesized that the difference in ratings between the high status and wealth group and the control group would be higher than the physical attractiveness group and the control group.

My results do show a significant difference in ratings of the highly attractive males compared to the target. No significant difference is evident in my results between ratings of highly socially desirable males compared to the target. This suggests that participants were considering physical attractiveness as a more favorable trait for a future life partner than status and wealth. This conflicts with previous claims that suggest females consider traits that indicate resources, such as good financial prospects and social status (Buss, 1999) as most important and attractive. My data reveal that physical attractiveness is valued more favorably.

No contrast effects were found for the target in the physically attractive group or the target in the socially desirable group. This is surprising because exposure to previous stimuli of greater or lesser value usually results in a change in perception. In order for a

contrast effect to have occurred, the target ratings in group 1 or 2 must have been significantly lower than the target ratings in the control group. However, the difference between target ratings was minimal and therefore not significant as the results indicate.

Why didn't I find the expected result? Were my participants too young to show valid mate choices? Although the mean age of all participants was 20.6 years, my participants are at the prime age of selecting long-term life partners. Women in this age range typically prefer to marry men a few years older than they are (Buss, 1999).

Not finding contrast effects could be attributed to the number of images and descriptions in the comparison set that were rated prior to the target. A total of ten men were chosen to be rated prior to the target to help rule out fatigue as a confounding variable. Perhaps if more men were viewed in the comparison set before the target, a better sense of attractiveness or status and wealth would have been portrayed.

A final explanation for my results could be attributed to the fact that my lab procedure was too brief and simple, and therefore not a valid model to represent the complex decisions actually involved in mate choice.

All these cues – economic resources, social status, and older age – add up to one thing: the ability of a man to acquire and control resources that ancestral women could use for themselves and for their children. The possession of resources, however, is not enough. Women also need men who possess traits that are likely to lead to the sustained acquisition of resources over time. A man's ambition is one of these traits (Buss, 1999, p.114).
My lab procedure only portrayed a male's resources through descriptions of his career. The status and wealth of the male was inferred through the short descriptions. Male mate

selection involves a more complex decision making process than a speed-dating type format.

Considerations for future research should include designing a more complex model of female mate preference that includes and tests various other traits rather than resources alone. Traits could include those that indicate a willingness to invest such as dependability, stability, love and commitment cues (Buss, 1999). Finding contrast effects for a combination of all the traits that evolutionary theories suggest women find attractive in men could elicit a better understanding of what females actually find attractive in males and how these preferences can be changed through comparison. I think it is important to continue studying a female's rated attractiveness for a male because my results suggest an importance for physical attractiveness.

Table 1

Average Ratings of the Comparison Set and Target

Group	Comparison Set Ratings	Target Ratings
1	5.11	3.70
2	3.91	3.35
3	3.89	3.75

Note. Average ratings of the comparison set and target for all three groups were based on ratings on a 7-point Likert scale.

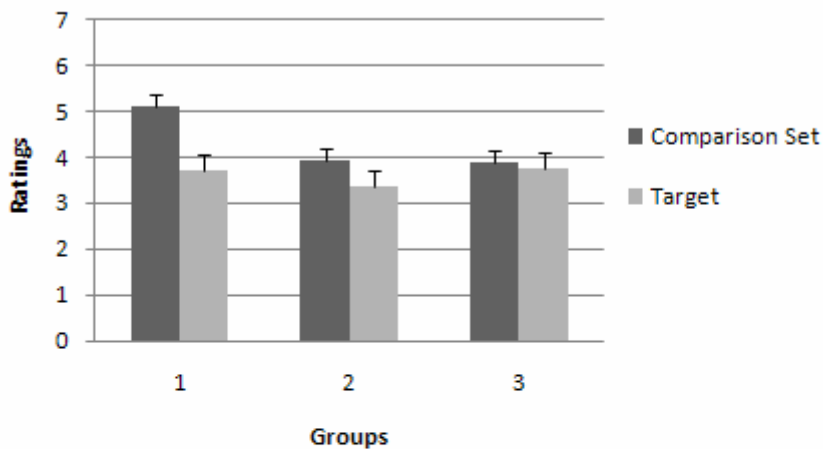


Figure 1. Average ratings for comparison set and target (+SE) for all 3 groups. Group 1 ($n = 17$) was the “High Attractiveness, Average Social Desirability” group. Group 2 ($n = 17$) was the “Average Attractiveness, High Social Desirability” group. Group 3 ($n = 16$) was the “Average Attractiveness, Average Social Desirability” group.

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