

Impact of Positive, Negative, and No Personality Descriptors on the Attractiveness Halo Effect

William J. Lammers*, Sarah Davis, Olivia Davidson, and Kellie Hogue
University of Central Arkansas

ABSTRACT. The halo effect occurs when an individual with one or a few positive qualities is assumed to have other positive qualities. Our study investigated how a positive, negative, or no written description of an attractive woman affects men's ratings of other positive qualities. Sixty-five male undergraduate participants completed 1 of 3 questionnaires with the same questions and same photo of an attractive woman. The only difference between the questionnaires was the written description of the woman. Results showed that participants in all description conditions rated the woman as equally attractive, $F(2,62) = 0.35$, $p = .71$, $\eta^2 = .01$, athletic, $F(2,62) = 2.28$, $p = .11$, $\eta^2 = .07$, and feminine, $F(2,62) = 1.68$, $p = .19$, $\eta^2 = .05$. However, comparisons for the other 7 personality attributes showed that participants rated the woman in the no description and positive description conditions higher than they rated the woman in the negative description condition in every case: successful, $F(2,62) = 16.58$, $p < .001$, $\eta^2 = .35$, extroverted, $F(2,62) = 8.64$, $p < .001$, $\eta^2 = .22$, intelligent, $F(2,62) = 14.21$, $p < .001$, $\eta^2 = .31$, friendly, $F(2,62) = 58.43$, $p < .001$, $\eta^2 = .65$, not aggressive, $F(2,62) = 16.64$, $p < .001$, $\eta^2 = .35$, ambitious $F(2,62) = 3.47$, $p = .04$, $\eta^2 = .10$, and likeable, $F(2,62) = 56.19$, $p < .001$, $\eta^2 = .64$. These results suggested that a negative description reduces the attractiveness halo effect in men when rating the qualities of an attractive woman.

Whether they realize it or not, people make judgments and form opinions about others every single day. For example, meeting someone for the first time, or even interviewing someone for a job, results in a variety of personal judgments (Borman, 1979). When people form these opinions, they often do so quickly and irrationally, causing them to draw illogical conclusions about others. The *halo effect* describes the way people often incorrectly attribute characteristics to others (Goffin, Blake, & Wagner, 2003). The halo effect is a cognitive bias in which people assign a host of positive or negative traits to a person after observing only one specific positive or negative trait of that person (Kahneman, 2011).

Thorndike (1920) first coined the term *halo* in his paper, "A Constant Error in Psychological

Ratings," in which he explained that even professionals such as teachers and department heads are often unable to rate qualities of others individually; they allow one known quality to affect their ratings of other qualities. According to Thorndike, if people are to rate others' qualities fairly, they should rate all qualities individually without knowing about any other attributes a person may have. The current study examined the halo effect in the context of an image of an attractive woman associated with either a positive, negative, or no description of personality traits. Thus, the study assessed the impact of written character information while holding physical attractiveness constant.

It appears that the halo effect is prevalent in a variety of contexts. Recent studies have described the halo effect regarding teacher behaviors (Keeley,

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*Faculty mentor

English, Irons, & Henslee, 2013), impact of interpersonal skills of service employees (Dagger, Danaher, Sweeney, & McColl-Kennedy, 2013), perceptions of athletes using steroids (Chantal, Bernache-Assollant, & Schiano-Iomoriello, 2013), impact of the phrase "natural ingredients" on perfume perception (Apaolaza, Hartmann, López, Barrutia, & Echebarria, 2014), and expectations of a country's response to AIDS/HIV (Jacques, & Mmatli, 2013). For example, past studies have revealed that the halo effect often occurs when teachers grade their students' papers. Dennis (2007) found that college professors who grade multiple papers by the same student suffer from the halo effect because they underestimate changes in writing performance over time. Malouff, Emmerton, and Shutte (2013) found that even psychology professors and their assistants, who are often well-educated on cognitive biases such as the halo effect, make similar mistakes when grading students' written or oral assignments.

Studies have shown that the halo effect not only influences individuals, but groups as well. One study showed that being involved in a group discussion about a person exacerbated the halo effect by group members toward that person (Palmer & Loveland, 2008). A subtype of the halo effect, known as the *team halo effect*, is a phenomenon that occurs in almost all teams of people (Naquin & Tynan, 2003). According to the team halo effect, when a team fails, individuals on the team are more likely to be blamed for the failure than the team as a whole although this is often quite inaccurate. However, not all people make this error in judgment. In one study, Naquin and Tynan (2003) found that those with the most team experience fall prey to the cognitive bias much less often than less experienced members of a team.

Many factors affect the magnitude of the halo effect, and unconscious factors change people's judgments. In other words, their judgments may be altered by small variables in their environment of which they are not aware (Nisbett & Wilson, 1977). For example, mood often influences the impact that the halo effect has on decision making. Previous studies have shown that those in a good mood rely heavily on the halo effect whereas those in a bad mood often avoid the halo effect altogether (Forgas, 2011). Another small factor that can have a significant influence on the halo effect is arousal. O'Neal (2005) found that arousal achieved through everyday substances such as caffeine can cause people to rely more heavily on the halo effect when

making future choices.

Physical attractiveness is an important part of American society. Magazines, movies, and the news bombard U.S. citizens with the importance of beauty and attractiveness, and many studies throughout the years have clearly shown that attractiveness greatly influences the way people perceive others (Lennon & Kenny, 2013; Ogden, 2013; Shinada & Yamagishi, 2014). The halo effect and attractiveness is a popular research topic in the field of psychology. For example, Pollock (2012) found that, when men rate a woman as attractive, they also tend to rate the woman as being promiscuous, a trait evolutionarily associated with mate selection in men. Lucker, Beane, and Helmreich (1981) also found that three personality dimensions (i.e., liking, sexiness, and masculinity/femininity) were positively correlated with physical attractiveness. According to these studies, and many more, if a person is physically attractive, they are likely to be rated by others as holding many other positive qualities as well.

In the past, researchers have employed several methodologies to examine the effects of attractiveness on the halo effect. For example, Wade and DiMaria (2003) studied the influence of women's race and weight on the halo effect by combining pictures with a written description of the women. The written description was the same for all pictures and included characteristics such as what sport the person played and their favorite color. They found that race and weight affected several measures of life success and personality, with thinner White women and heavier Black women receiving more positive ratings on several of these items. In another study, men rated attractive authors as being significantly more talented in their writing than unattractive authors (Kaplan, 1978). The study paired either an attractive or an unattractive picture of an author to the same essay and then asked participants to rate the authors' writing skill. In another study (Bak & Köln, 2010), male and female college students ($N = 113$) at a German university viewed simulated online dating profiles that included a variety of written information about the person (e.g., age, sex, hobbies) and either an attractive photo or unattractive photo. Further, researchers informed participants that, for reasons of privacy, the photo was not of the actual person but a randomly selected photo. Participants rated the person on 10 positive and 10 negative trait dimensions and received an overall personality valence score. Results showed that attractiveness of

the male photo did not influence attribute ratings by female participants but that attractiveness of the female photo did result in more positive attribute ratings by male participants, even though the male participants knew that the photo did not represent the person in the profile description. These results suggested that the attractiveness halo effect may be more of an evolutionarily automatic process in men than in women.

A substantial amount of research exists on the halo effect, and it is evident that the halo effect affects people's judgments in a variety of ways. Studies have shown that, because of the halo effect, people are often unfairly attributed with qualities that they may not actually possess (Eagly, Ashmore, Makhijani, & Longo, 1991; Feingold, 1992; Segal-Caspi, Roccas, & Sagiv, 2012). The study conducted by Bak and Köln (2010) provided the impetus for the present study. As stated, their research revealed that, for men, the halo effect that results from a written description of a person can, to some degree, be modulated by a somewhat automatic halo effect that results from a picture depicting a woman with a particular level of attractiveness. They manipulated the attractiveness of the photo and held constant the written profile description.

The present study examined the relative contribution of the halo effect that results from a photo with the relative contribution of the halo effect that results from a written description of that person by manipulating the written description and holding constant the photo. Specifically, the purpose of the present study was to show men a photo of an attractive woman and determine the relative contributions of positive, negative, and no written descriptions to the perception of the woman's personality traits. If the visual attractiveness halo effect for men is completely automatic and overrides other information, neither the presence or absence nor the nature of the written description should affect perception of personality traits. Because other studies show halo effects associated with written/verbal information, we hypothesized that a written personality description would modulate the attractiveness halo effect such that, compared to a no description condition, a positive description would result in a more positive personality assessment and a negative description would result in a more negative personality assessment.

Method

Participants

Sixty-five male undergraduate students from a state

university in the midsouth served as participants. Although the researchers did not record age and race of participants, most were 18 to 22 years of age and White. Each received a research credit for participation. The research credit provided either course extra credit or partial fulfillment of requirements in a course. Researchers treated all participants in accordance with the ethical principles provided by the American Psychological Association.

Materials

We created three separate online surveys using Qualtrics® software. Each survey consisted of a single picture of an attractive woman, accompanied by either no description, a positive written description, or a negative written description. We chose the picture from a search for attractive women on Google® images. The photo selected was a black and white facial image of the actor and singer/songwriter Victoria Justice downloaded from the website fanpop.com. She is best known for her roles on *Nickelodeon*® television.

We wrote the two descriptions based on positive and negative personality traits that other researchers had examined in the literature. The positive description stated the following:

This young woman is an optimistic person. She often views things in a positive light. She is usually honest and is considered to be a reliable person. She is a generous woman. She is usually understanding and sympathetic. She is conscientious and generally a rather patient person.

The negative description stated the following:

This young woman is not an optimistic person. She often views things in a negative light. She is usually dishonest and is considered to be an unreliable person. She is not a generous woman. She is not usually understanding or sympathetic. She is not conscientious and generally a rather impatient person.

This was followed by 10 questions that asked participants to rate various personality attributes of the woman in the image (see Appendix). These personality attributes were different from those in the descriptions. The questions required the participant to rate, on a 9-point Likert-type scale, how likely or unlikely it was for the woman to possess certain personality traits. We modeled some questions in our survey after the questions used in

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a successful study conducted by Pollock (2012). In her study, Pollock only used five questions, but we chose to ask 10 in order to assess a greater variety of personality traits. These traits included physical attractiveness, success, extroversion, athleticism, femininity, intelligence, friendliness, aggression (reverse scored), ambition, and likability. The photo of the woman and the questions were identical in all conditions.

Procedure

After institutional review board approval (#14-028), we provided participants with a link to the online survey that could be completed on any device from any location with Internet connectivity. After reading the consent form, participants indicated whether the last number of their student ID fell between 0 and 3, 4 and 6, or 7 and 9. The software used this question in the experimental design to randomly assign participants to one of the three description conditions described above. Participants viewed a screen that contained the photo, the description (if there was one), and the 10 questions regarding the personality traits. This screen remained until the participant completed all 10 questions. Participants then read the debriefing statement. Total participation time was approximately 3 min.

Results

Random assignment to conditions based on the last digit of the student ID, resulted in 21 participants in the no description condition, 22 participants in the positive description condition, and 22 participants in the negative description condition. A one-way Multivariate Analysis of Variance (MANOVA) was conducted to analyze the effect of description condition on each of the 10 rated personality attributes. Analysis showed a significant effect of description condition on personality attribute ratings, $F(20, 108) = 6.24, p < .001$, Wilks $\Lambda = 0.21, \eta_p^2 = .54$. Descriptive statistics and results of the MANOVA for each item are shown in Table 1. These results showed that participants in all description conditions rated the woman as equally attractive, athletic, and feminine (all $ps > .05$). However, description condition did affect ratings on the other seven personality attributes.

Pairwise comparisons for these seven personality attributes showed that, in every case (successful, extroverted, intelligent, friendly, not aggressive, ambitious, likeable), participants rated the woman in the no description and positive description

conditions higher than they rated the woman in the negative description condition (all $ps < .04$). Further, ratings between the no description and positive description conditions did not differ.

Discussion

We hypothesized that, compared to a no description condition, a positive description would result in a more positive personality assessment and a negative description would result in a more negative personality assessment. Results partially supported this hypothesis in that the negative description did lower most of the personality attribute ratings, but the positive description did not significantly increase those ratings. Participants who viewed the attractive woman and read a description with several negative personality traits rated the woman less successful, less extroverted, less intelligent, less friendly, more aggressive, less ambitious, and less likeable.

Prior research on the halo effect that involved both a photographic image and a description have tended to use a methodology in which the description is held constant and qualities of the photo are varied (Bak & Köln, 2010; Kaplan, 1978; Wade & DiMaria, 2003). In these studies, the qualities of the photo have been shown to affect subsequent ratings of various personality attributes. The present study varied the descriptions and held constant the qualities of the photo. We showed that descriptions can affect subsequent ratings of various personality attributes.

The fact that the positive description did not increase ratings of personality attributes may be due in part by a ceiling effect. Participants across all conditions rated the woman as very attractive, with an overall mean score of 7.40 ($SD = 1.61$) on a 9-point Likert-type scale. In fact, 15 of the 65 participants (23%) selected the highest score on the scale. For the ratings of personality attributes, participants in the no description condition provided individual ratings at the highest end of the scale 12% of the time and mean ratings across individuals of 5.38 ($SD = 1.72$) to 7.43 ($SD = 1.91$). Although these ratings were on the high end of the scale, it does seem that there is still room for even higher ratings on the personality attributes.

It is also possible that the positive description simply served as confirmation bias for the attractiveness halo effect. When an image and text appear concurrently, people tend to focus increased visual attention on the image (Townsend & Kahn, 2014). In the present study, the attractiveness halo effect

likely occurred before participants read the positive or negative personality description. We speculate that the halo effect that resulted from the attractive photo caused participants to assume positive personality traits. The fact that positive personality traits also occurred in the description simply confirmed what they were already thinking and thus did not increase ratings of other personality attributes beyond the increase that already occurred as

a result of the attractiveness halo effect. However, in the condition in which participants read about negative personality traits in the description, this description likely countered the assumed positive attributes that resulted from the attractiveness halo effect. Thus, participants adjusted their opinion of the woman in the photo. In the present study, the photo and the description appeared simultaneously on the screen. It would be interesting in future research to systematically manipulate the order and timing of these two events.

Although our results were significant, our study had a few limitations. The attractive photo was selected by a group of three undergraduate women. Although ratings of physical attractiveness by the men in our study confirmed that the woman in the photo was attractive ($M = 7.90$ in the no description condition), pilot testing the photo with a separate group of students would have been a better approach. Further, the woman in the photo was an actor (Victoria Justice), and it is possible that some participants knew other qualities of this person. Another limitation was that we only studied a sample of undergraduate men. We do not know if the pattern of results would extend to women rating men or to individuals in older age groups. Finally, one could argue whether some of the rated personality attributes including athletic, feminine, and ambitious are indeed viewed as positive qualities by young adult men. The fact that the descriptor manipulation did not affect two of these attributes (athletic, feminine) may support this argument. Future research should address each of these issues.

The halo effect is a cognitive bias that humans possess, especially when forming first impressions of others. These perceptions of others then affect the way in which people act toward or respond to their behaviors. Thus, understanding the specifics of the halo effect is critical to understanding most social encounters. That understanding can then be used to develop cognitive strategies and protocols to avoid the bias that results in the inaccurate and often unfair impression of others.

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TABLE 1

Results of Multivariate Analysis of Variance for Each Rated Personality Attribute

Rated Personality Attribute	Type of Description	M	SD	F	p	η^2
Attractive	None	7.29	1.49	0.35	.71	.01
	Positive	7.64	1.68			
	Negative	7.27	1.70			
Successful	None	6.62	1.12	16.58	< .001	.35
	Positive	6.86	1.32			
	Negative	4.73	1.55			
Extroverted	None	7.29	1.19	8.64	< .001	.22
	Positive	6.27	1.80			
	Negative	5.00	2.25			
Athletic	None	5.38	1.72	2.28	.11	.07
	Positive	5.82	1.37			
	Negative	4.73	1.98			
Feminine	None	7.43	1.91	1.68	.19	.05
	Positive	7.05	0.95			
	Negative	6.55	1.74			
Intelligent	None	6.29	1.01	14.21	< .001	.31
	Positive	6.55	1.10			
	Negative	4.77	1.41			
Friendly	None	6.71	1.62	58.43	< .001	.65
	Positive	7.27	1.49			
	Negative	2.50	1.68			
Aggressive (reverse scored)	None	6.24	1.90	16.64	< .001	.35
	Positive	5.91	1.44			
	Negative	3.64	1.50			
Ambitious	None	6.00	1.52	3.47	.04	.10
	Positive	6.09	1.63			
	Negative	4.82	2.13			
Likeable	None	6.81	1.25	56.19	< .001	.64
	Positive	7.45	1.41			
	Negative	2.86	1.91			

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Author Note. William J. Lammers, Department of Psychology and Counseling, University of Central Arkansas; Sarah Davis, Department of Psychology and Counseling, University of Central Arkansas; Kellie Hogue, Department of Psychology and Counseling, University of Central Arkansas.

The first author is the faculty sponsor and the remaining three authors were undergraduate students at the time of the study.

Correspondence concerning this article should be addressed to William J. Lammers, Department of Psychology and Counseling, University of Central Arkansas, 201 S. Donaghey Ave, Conway, AR 72035. E-mail: bill@uca.edu

APPENDIX

How physically attractive do you think this individual is?										How intelligent do you think this individual is?									
Not very attractive					Very attractive					Not very intelligent					Very intelligent				
1	2	3	4	5	6	7	8	9		1	2	3	4	5	6	7	8	9	
How successful do you think this individual is?										How friendly do you think this individual is?									
Not very successful					Very successful					Not very friendly					Very friendly				
1	2	3	4	5	6	7	8	9		1	2	3	4	5	6	7	8	9	
How extroverted do you think this individual is?										How aggressive do you think this individual is? (reverse scored)									
Not very extroverted					Very extroverted					Not very Aggressive					Very Aggressive				
1	2	3	4	5	6	7	8	9		1	2	3	4	5	6	7	8	9	
How athletic do you think this individual is?										How ambitious do you think this individual is?									
Not very athletic					Very athletic					Not Very Ambitious					Very Ambitious				
1	2	3	4	5	6	7	8	9		1	2	3	4	5	6	7	8	9	
How feminine do you think this individual is?										How likeable do you think this individual is?									
Not very feminine					Very feminine					Not Very Likeable					Very Likeable				
1	2	3	4	5	6	7	8	9		1	2	3	4	5	6	7	8	9	

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