

Social Influence, Sex Differences, and  
Judgements of Beauty  
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## Abstract

This study examined the processes that underlie sex differences in attraction and social influence. Participants (N = 306) evaluated their own expertise and the expertise of men and women in general on several dimensions, including physical attractiveness. Women claimed expertise in rating the physical attractiveness of men and babies. Men claimed expertise in rating the physical attractiveness of women. Women reported that men and women were equally expert in rating the attractiveness of women. In an experimental phase, participants rated the physical attractiveness of males, females, and babies. They were exposed to peer ratings done by either male peers or female peers. Women were influenced by both men and women when rating all three groups. In contrast, men were influenced only when rating babies, but then by both males and females. There was no evidence that men were influenced when rating adult targets. My results suggest that expertise is not the active ingredient in sex differences in social influence, at least in the domain of physical attractiveness.

Social Influence, Sex Differences, and  
Judgments of Beauty

Social influence is pervasive in society. Marketers count on it to sell their products. Politicians use it to sell themselves. It is necessary for every movement that takes place. Social influence seems to occur at every level of society and through almost all activities (Cialdini, 1992).

Given the pervasiveness of social influence, it is important to understand the processes underlying it. Kelman (1961) proposed that social influence can be subdivided into three different kinds of processes: compliance, identification, and internalization. Each of the processes has different antecedents and consequences. Compliance is the most superficial social influence phenomenon in that there is no internal change of opinion. Identification occurs when an individual wants to be accepted as part of a group, this type of influence lasting only as long as the individual wants to be part of the group. Internalization is a long-lasting genuine change of opinion. There are also individual

differences in the degree to which people are influenced (Rhodes & Wood, 1992).

One of the most enigmatic elements in the social influence literature involves sex differences. The older literature reported sizable sex differences in conformity, with women showing more conformity than men. These findings become enigmatic, however, when the findings are examined more closely. First, from Kelman's perspective, it is not clear which form of social influence was occurring in these studies. Wood and Stagner (in press) suggest that there is no evidence that women are more conforming when ratings are private, only when they are public. Thus, according to Kelman, sex differences in influence are a largely a result of compliance, not internalization. Second, the magnitude of the sex difference is not clear. Meta-analyses of the literature suggest that if there is a sex difference, the effect is probably small (e.g., Eagly, 1987; Eagly & Carli, 1981). Third, it is not clear why the sex differences occur. In part, the sex difference might be an artifact of the stimulus materials used in the older research studies. This is a common explanation reported

in textbooks (e.g., Baron & Graziano, 1991, p. 459; Brehm & Kassin, 1993, p. 407; Worchel, Cooper, & Goethals, 1991, p. 426). The specific explanation was that the topics used in the older research studies were biased against women's knowledge (Sistrunck & McDavid, 1971; Eagly & Carli, 1981). While this explanation is common, there are almost no direct tests of this hypothesis (Eagly & Carli, 1981).

One exception is a program of research reported by Graziano, Jensen-Campbell, Shebilske, and Lundgren (in press). This program of research focused on judgments of physical attractiveness. Physical attractiveness is especially interesting because judgements occur spontaneously and immediately. Phenomenologically, it is not a thought-mediated product like other kinds of decisions. As such, there seems to be relatively little room for social influence. This research used private ratings which implies that changes in opinion are a result of internalization and not conformity. In a series of four studies, Graziano et al. examined the range of expertise that men and women felt they themselves had and that men and women in general had and

allowed subjects to rate photographs while looking at peer ratings of the same photographs. Graziano et al. found that women are more influenced than men especially in the negative direction when they had the chance to view ratings done by peers.

There are limitations to the Graziano et al. research. Namely, expertise was confounded by sex in that subjects only saw same-sex peer ratings. Although women may have considered themselves experts on rating physical attractiveness, they may have viewed other women as experts also, and therefore, considered the peer ratings. In the same way men may not have viewed other men as expert in rating male physical attractiveness, so there was no reason to consider the opinions of other males. The present study gave male and female subjects the opportunity to view ratings done by males and females. This allowed us to determine if men are influenced by women when they considered women to be experts on the topic (i.e. male physical attractiveness).

In addition, we probed further the expertise hypothesis by using another kind of stimulus material upon which women regard themselves as experts, namely

babies. That is, in the self-reports of both men and women, women regarded themselves as more expert in dealing with babies and children than did men (Graziano, et al., Study 1).

In sum, we probed the expertise hypothesis by exposing persons to ratings of either men or women. The stimulus materials were photographs of men, women, and babies. If the expertise hypothesis is valid, then men should be influenced by women when they have the opportunity to view women's ratings of babies and other men, but not influenced when the women are rating other women. Women should not be influenced by men when the men are rating babies or men. If women are generally more influenceable, however, the sex of rater and characteristic of the stimulus material should not matter; women would be more influenced than men.

#### Method

Subjects and Design. A total of 306 Texas A&M University introductory psychology students participated in return for partial fulfillment of course credit. Both male (N=150) and female (N=156) students participated in



this study. The research participants were assigned to the cells of a 2 (sex of research participant) X 2 (sex of peer raters) X 3 (positivity of peer ratings) factorial design. The third factor was a within subject variable. The dependent variable was the subjects' ratings of physical attractiveness on a 1 (unattractive) to 5 (attractive) Likert-type scale.

Stimulus materials. A total of 27 pictures (9 men, 9 women, 9 babies) were used. The male and female photographs were the same ones used in the Graziano et al. study (in press, study 3). They were head-and-shoulder graduation portraits of college age men and women. The babies' photographs were of the full body and were ambiguous as to gender. All photographs were reliably rated as "average" in physical attractiveness (babies'  $M = 2.94$ ,  $SD = 0.22$ , on a 1 (not attractive) to 5 (very attractive) Liket-type scale; adults  $M = 5.39$ ,  $SD = 0.77$ , on a 10 point scale).

Procedure. Sex-homogeneous groups of five or six research participants (RPs) were met by an experimenter, who told the RPs that this study was looking at physical attractiveness. Participants were told that physical

attractiveness was important because it is one of the first thing noticed about others and that this research was expanding on previous physical attractiveness research and they were rating photographs of babies, as well as photographs of men and women. The experimenter told the subjects that they would be rating as many as 9 pictures of each group, but not every participant would rate all 27 photographs.

She told the RPs that personality could affect the ratings of the photographs so they would be asked to complete some standard personality questionnaires. Subjects were told that since the order in which the study was completed could affect the results, they would complete the study in different orders (e.g., "Some will be rating the pictures first and some will be doing the inventories first.") Also the researcher explained that subjects would rate either all of the pictures or only a subset of the pictures. The inventories used were Bem's (1974) Sex Role Inventory (BSRI) and the expertise inventory used by Graziano et al. (in press).

To increase privacy, RPs were put in separate rooms. Half of the research participants filled out the Bem

gender roles scale first and the other half rated the photographs first. All RPs filled out the expertise inventories last.

The research participants saw all 27 photographs. Subjects received a "group" rating form to write their ratings on. The ratings form had places for six raters on it. The ratings for raters 1, 2, 4, and 5 were completed. The experimenter told the research participants that since there were only two spaces left, they should just be rater #3.

RPs were randomly assigned to sex of peer influence conditions as well: They were given either male peer ratings or female peer ratings. Next to each rater in this study was the sex of the rater. This procedure allowed us to manipulate the RP's perception that they saw other RP's ratings before making their own private ratings, and also know the sex of the rater. RPs rated the pictures on a 1 (not at all attractive) to 5 (very attractive) Likert-type scale.

RPs were told to be as honest as possible and to rate each picture individually and not to compare the pictures to each other. The experimenter then handed the

photographs to the subject one at a time. S/he told the RPs to turn each pictures over when they were done rating the picture, so the experimenter would know the RP was ready to receive the next picture.

In actuality, the ratings on the form were fabricated to manipulate social influence. The ratings were positive, negative, or no information. For each set of pictures (men, women, and babies) three were highly positive, three were highly negative, and three had no ratings to serve as the neutral condition. Ratings, order of presentation, and order of photographs, were completely counterbalanced across RPs.

Once all ratings and the final inventory were completed the experimenter reconvened each group of RPs. Using the funnel debriefing format (Aronson & Carlsmith, 1968), experimenters probed RPs for suspiciousness, debriefed them, and pledged them to secrecy.

### Results

We predicted that men and women would show different patterns of evaluation following exposure to peer ratings. Specifically, if the expertise hypothesis is

valid, then men should be influenced by women when they have the opportunity to view women's ratings of babies and other men, but not influenced when female peers rate other women. Women should not be influenced by males when rating photographs of babies or men. If women are generally more influenceable, however, the sex of rater and characteristic of the stimulus material should not matter; women would be more influenced than men overall.

To evaluate this hypothesis, we computed mean scores for each of the three social influence conditions (negative, no evaluation, positive) by class of stimulus material. That is, each participant produced a single mean score for the three stimuli receiving a negative peer rating; a single mean for the three stimuli receiving no peer evaluation; and a single mean for the three stimuli receiving a positive peer evaluation. This process was repeated for the photos of babies, females, and males. These three composite scores were treated as three levels of a within-subjects factor, which were crossed with class of stimulus material, in an analysis of variance.

For ease of exposition, results are reported separately for female and male research participants. Means and standard deviations for female research participants are presented in Table 1, and corresponding statistics for male participants are presented in Table 2.

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Insert Tables 1 & 2 here

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For females, there was a significant main effect for social influence, with a MANOVA main effect for influence,  $F(2, 153) = 3.41, p < .04$ . There was no evidence that target person rated (male, female, baby) moderated the influence effect for females, with multivariate interaction not significant,  $F(4, 151) = 1.00, ns$ . There was no evidence that the sex of the peer moderated the social influence effect for females, with all  $F_s < 1.50$ ). For males, there was a MANOVA influence X picture interaction,  $F(4, 144) = 3.49, p < .01$ . Males' were influenced only when rating babies. Nor was there evidence that sex of peer influence moderated men's rating of babies. That is, there was no evidence that men

were more influenced by female peers than male peers in rating babies. Finally, there was no evidence that their evaluations of either males or females were influenced by peer ratings.

Discriminant function analyses were performed for self-ratings of expertise across domains, as well as, ipsatized (social stereotype) ratings of expertise in males and females. Means are presented in Table 3.

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Insert Table 3 here

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Females rate themselves as expert in evaluating the physical attractiveness of males, females, and babies. Males consider themselves to be experts at rating the physical attractiveness of females, and less expert in rating the attractiveness of men and babies. Both sexes considered women to be more expert on rating the physical attractiveness of males and babies. Therefore, the greater amount of social influence displayed by women does not appear to be a function of the perceived expertise of the subject or the peer rater.

Supplementary Analyses. To investigate personality moderators of the influence effect for male and female participants, we computed for each participant a P-correlation (see Cattell, 1952, 1963; Nunnally, 1978) and then correlated it with that participant's scores on personality measures, separately for males and females. P-correlations are within-subject markers of covariation, which are computed for each subject. Basically, the P-correlation here is an indicator of magnitude of individual differences in social influence. To the extent that the P-correlation is correlated with a personality measure, it indicates that there is covariation between that personality variable and amount of social influence. Neither the Bem Sex Role Inventory nor the self-rating of expertise were significantly correlated with the P correlations. Thus, there was no evidence that individual differences in social influence were related to the personality measures that we collected.

#### Discussion

The present research suggests that women are more influenced by their peers when rating photographs for



physical attractiveness than are men. This influence effect occurs regardless of the source of the influence (i.e. male or female) or the target of the ratings (i.e. babies, males, or females). Males, on the other hand, do not appear to be influenced, at least when rating pictures of adults.

One common explanation of sex differences in social influence is that there is a knowledge bias (Sistrunck & McDavid, 1971). Topics used as stimuli for social influence experiments may be topics that are unfamiliar to women. These same topics are typically ones of which men are knowledgeable. Women may seek the opinions of peers because they do not feel confident in their own judgments about the topic.

This expertise hypothesis that people are more likely to be influenced on topics they believe they have limited expertise has been the most often cited explanation for sex differences in social influence (Baron & Graziano, 1991; Brehm & Kassin, 1993; Worchel, Cooper, & Goethals, 1991). While men in our study were influenced when rating pictures of babies and they reported they did not consider themselves to be experts

on rating the physical attractiveness of babies, the rest of our analysis does not support the expertise hypothesis. Women continued to be influenced by men even though they considered themselves to be experts on physical attractiveness. Men also were not influenced by women when rating pictures of men even though they thought women were more expert at rating men than they were. Furthermore, men were influenced by men when rating babies, even though they do not consider men to be experts at rating the physical attractiveness of babies.

It appears that there may be different processes that occur in men and women when they are rating physical attractiveness. According to the Kelman model of social influence, it appears that women are internalizing the ratings of others (Kelman, 1961). Men may not be as prone to internalize the opinions of others.

Physical attractiveness in itself may cause different processes to work than do other stimuli used in influence studies. Beauty is often thought of as a quality that is recognized immediately. Judgements of attractiveness are made for every individual encountered. The prevalence of this mental function may make influence

difficult, especially for males. Men normally are rating women and there is much agreement of what is attractive in women. This lack of necessity of comparing with other men when rating women may cause men to feel that rating of men is done similarly and men are therefore not influenced when rating men. Women, however, do not tend to agree on what is attractive in men. Therefore, women may be especially attuned to the input of others when rating physical attractiveness because in normal circumstances of rating attractiveness, women consider the opinion of peers.

Physical attractiveness is difficult to examine due to the automacy of judgments of attractiveness. Often beauty is considered an innate quality that is recognized in all cultures (e.g., Cunningham, 1986). Given the results of this study, it seems much more plausible that each individual's judgments of attractiveness are a function of their life experiences. It certainly seems that, at least for women, situational factors can have an impact on what is perceived to be beautiful.

References

- Aronson, E., & Carlsmith, J.M. (1968). Experimentation in social psychology. In G. Lindzey & E. Aronson (Eds.), Handbook of social psychology, (Vol. II, 2nd ed., pp. 1-79). Reading, MA: Addison-Wesley.
- Baron, R.M., & Graziano, W.G. (1991). Social Psychology. Fort Worth: Holt, Rinehart, and Winston.
- Bem, S.L. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42, 155-162
- Brehm, S.S., & Kassin, S.M. (1993). Social Psychology (2nd ed.). Boston: Houghton Mufflin Company
- Cattell, R.B. (1952). The three basic factor analytic research designs--their interrelations and derivatives. Psychological Bulletin, 49, 499-520.
- Cattell, R.B. (1963). The structure of change by P-technique and incremental R-technique. In C. Harris (Ed.), Problems in measuring change. Madison: University of Wisconsin Press.
- Cialdini, R.B. (1988). Influence: Science and Practice. Glenwood: Scott, Foreman and Company.

- Cunningham, M.R. (1986). Measuring the physical in physical attractiveness: Quasi-experiments on the sociobiology of female facial beauty. Journal of Personality and Social Psychology, 50, 925-935.
- Eagly, A.H. (1987). Sex Differences in social behavior: A social role interpretation. Hillsdale, NJ: Erlbaum.
- Eagly, A.H., & Carli, L.L. (1981). Sex of researcher and sex-typed communications as determinants of sex differences in influenceability: A meta-analysis of social influence studies. Psychological Bulletin, 90, 1-20.
- Graziano, W.G., Jensen-Campbell, L.A., Shebilske, L.J., & Lundgren, S.R. (1993). Social influence, sex differences, and judgments of beauty: Putting the "interpersonal" back in interpersonal attraction. In press.
- Kelman, H.C. (1961). Processes of opinion change. Public Opinion Quarterly, 25, 57-78.
- Nunnally, J.C. (1978). Psychometric theory (2nd ed.), New York: McGraw-Hill.

- Rhodes, N., & Wood, W. (1992). Self-esteem and intelligence affect influenceability: The mediating role of message reception. Psychological Bulletin, 111, 156-171.
- Sistrunck, F., & McDavid, J.W. (1971). Sex variable in conforming behavior. Journal of Personality and Social Psychology, 17, 200-207.
- Wood, W., & Stagner, B. (in press). Are some people easier to influence than others? In S. Shavitt & T. Brock (Eds.) Psychology of Persuasion. New York: Freeman.
- Worchel, S., Cooper, J., & Goethals, G.R. (1991). Understanding Social Psychology. Pacific Grove: Brooks/Cole Publishing Co.

Table 1  
Physical Attractiveness and Social Influence  
(Women Raters)

Pictures	Negative	no information	positive
<b>Female</b>			
<u>M</u>	2.76	2.80	2.80
<u>SD</u>	0.60	0.63	0.60
<b>Male</b>			
<u>M</u>	2.83	2.80	2.92
<u>SD</u>	0.72	0.65	0.61
<b>Babies</b>			
<u>M</u>	3.12	3.15	3.26
<u>SD</u>	0.82	0.78	0.73

Note: Means and standard deviations were collapsed  
across peer ratings

N = 156

Table 2  
Physical attractiveness and Social Influence  
(Male Raters)

Pictures	Negative	no information	positive
<b>Female</b>			
<u>M</u>	2.58	2.59	2.56
<u>SD</u>	0.61	0.63	0.62
<b>Male</b>			
<u>M</u>	2.76	2.81	2.83
<u>SD</u>	0.62	0.77	0.62
<b>Babies</b>			
<u>M</u>	2.76	2.83	3.01
<u>SD</u>	0.75	0.75	0.83

Note: Means and standard deviations were collapsed  
across peer ratings.

N = 150



Table 3  
Ratings of Expertise

	Raters							
	Women				Men			
	Self-Reports		Ipsatized Ratings		Self-Reports		Ipsatized Ratings	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Men's	3.86 <sup>a</sup>	0.87	1.74 <sup>a</sup>	0.96	2.57 <sup>b</sup>	1.09	1.67 <sup>a</sup>	0.91
Physical Attractiveness								
Women's	3.27 <sup>a</sup>	0.97	3.09 <sup>a</sup>	1.34	4.05 <sup>b</sup>	0.82	3.88 <sup>b</sup>	1.19
Physical Attractiveness								
Auto Mechanics	1.28 <sup>a</sup>	0.57			2.16 <sup>b</sup>	1.13		
Calculus	2.34 <sup>a</sup>	1.24			2.62 <sup>a</sup>	1.31		
Visual Art	2.34 <sup>a</sup>	1.02			2.20 <sup>a</sup>	1.13		
Classical Music	2.14 <sup>a</sup>	1.08			1.95 <sup>a</sup>	1.01		
Computers	2.36 <sup>a</sup>	0.99			2.70 <sup>b</sup>	1.11		
Cooking	3.12 <sup>a</sup>	1.24			2.85 <sup>b</sup>	1.07		
Etiquette	4.00 <sup>a</sup>	0.78			3.59 <sup>b</sup>	0.90		
Sports	2.97 <sup>a</sup>	1.17			3.93 <sup>b</sup>	1.11		
Interior Decorating	3.61 <sup>a</sup>	0.93	1.78 <sup>a</sup>	0.79	2.91 <sup>b</sup>	1.03	2.07 <sup>b</sup>	0.72
Initiating relationships	2.91 <sup>a</sup>	1.13	3.58 <sup>a</sup>	0.94	2.97 <sup>a</sup>	1.25	3.59 <sup>a</sup>	0.95
Maintaining relationships	3.63 <sup>a</sup>	1.07	2.18 <sup>a</sup>	0.77	3.27 <sup>b</sup>	1.22	2.39 <sup>b</sup>	0.90
Children	3.74 <sup>a</sup>	1.19	2.19 <sup>a</sup>	0.82	3.40 <sup>b</sup>	1.13	2.22 <sup>a</sup>	0.77
Psychology	2.67 <sup>a</sup>	1.02	2.79 <sup>a</sup>	0.82	2.37 <sup>b</sup>	0.99	2.85 <sup>a</sup>	0.73
Landscaping	1.85 <sup>a</sup>	1.01			2.45 <sup>b</sup>	1.31		
Clothing	3.85 <sup>a</sup>	0.89			3.39 <sup>b</sup>	1.07		
Babies'								
Physical Attractiveness	3.47 <sup>a</sup>	0.99	2.02 <sup>a</sup>	0.82	2.70 <sup>b</sup>	1.14	2.17 <sup>a</sup>	0.90

Note: Means having the same subscript are not significantly different at  $p < .05$ . Comparisons are within type of report and dependent measures