The Effect of Physical Attractiveness Comparison on Choice of Partners

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ABSTRACT. The roles of several presumed factors in the choice of partners during a first group encounter were examined, when the only available information was a ranking of group members’ physical attractiveness. After they had received bogus feedback about their own attractiveness rank in a newly formed group, 99 Japanese students were asked to choose a partner for a task. The results indicated that feedback about one’s own attractiveness was the primary factor that determined choice of others and that susceptibility to this type of feedback was characterized by a notable gender difference. These findings suggest that when the only information available about others concerns their physical appearance, the choice of partner or competitor, even for appearance-irrelevant tasks, is partially dependent on others’ rankings of one’s own physical attractiveness.

THE OBSERVATION AND EVALUATION of others’ appearance is integral to human interaction. A person’s physique, clothing, and face reveal information such as gender, age, race, socioeconomic status, emotion and, arguably, character. The evaluation of another’s appearance is often followed or preceded by an instantaneous and almost unconscious comparison with one’s own physical attractiveness. Zetterberg (1966) has called erotic comparisons “the secret ranking,” and Symons (1979) has discussed the relationship of these types of comparisons to judgments of sexual attractiveness. Yet, the existence of this universally acknowledged comparison has been virtually undocumented. In the present study I

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explored the factors that moderate physical attractiveness comparison and determine who is prone to making such comparisons in first encounters.

There is little indication that age, class, or culture affect rankings of physical attractiveness (Alley, 1993; Bernstein, Lin, & McClellan, 1982; Maret, 1983; Udry, 1965). Instead, a growing body of evidence suggests that judgments of physical attractiveness are based on biological and evolutionary considerations (Alley & Hildebrandt, 1988; Langlois & Ruggman, 1990; Thornhill & Gagnestad, 1993).

Nevertheless, it has been argued that in some situations judgments of physical attractiveness may be tentative, thus inviting social comparison. Several researchers have examined physical attractiveness comparison as a component of broader areas, such as attraction and marital choice (Cook, 1981; Duck, 1977). In an extension of the exchange approach (Thibaut & Kelly, 1959), which holds that in a social interaction each person attempts to establish an advantage, researchers have viewed physical attractiveness (high or low) as an asset or a liability, respectively. According to these terms the value of others is initially assessed in relation to one's own value (Feingold, 1981; Lewis, 1972; Murstein, 1976).

Kownar and Ogawa (1993a) believe that, in addition to physical factors, which are relatively stable, other factors—including social factors (e.g., status symbols, clothes), cultural factors (e.g., fashion), and cognitive factors (e.g., stereotypes, appearance schemata)—are taken into consideration in evaluations of physical attractiveness and that the interpretation and evaluation of these latter factors tend to differ substantially among individuals and cultures. Hence judgments of physical attractiveness must be viewed as subjective.

Empirical studies of the aspects that mediate the evaluation of one's own and others' appearance have supported the relativity supposition. Morse and Gergen (1970) examined the effect of others' appearance on participants' self-esteem during a job interview. Self-comparison with a person whose appearance was neat resulted in a decrease in self-esteem, whereas self-comparison with a person whose appearance was untidy resulted in an increase in self-esteem. Sigall and Landy (1973) reported that an association with an attractive woman added considerably to the impression men made on observers, whereas an association with an unattractive woman had the opposite effect.

Similarly, various contextual effects on attractiveness judgments of photographs have been demonstrated in several studies (Melamed & Moss, 1975; Moss, Miller, & Page, 1975; Kenrick & Gutierres, 1980; Kenrick, Gutierres, & Goldberg, 1989; Weaver, Masland, & Zillmann, 1984). Cash, Cash, and Butters (1983), who investigated the contrast effect of physical attractiveness on women's self-evaluation, found that women who had assessed photographs of attractive women rated themselves lower than women who had assessed photographs of ordinary-looking women (see also Irving, 1990). Support for the relevance of physical attractiveness to global social comparisons is provided by Wheeler and Miyake
(1992), who found that physical attractiveness is one of the primary dimensions in social comparisons.

From a social perspective, the subjective nature of physical attractiveness limits its ability to be tested in the real world, and therefore the local and prevailing social norm tends to become the standard by which one is measured. The theory of social comparison may provide a relevant and comprehensive framework for research on physical attractiveness because this theory has been used to explain the evaluation of aspects that cannot be measured independently of a social context (Festinger, 1954). Although social comparison theory was originally formulated to be used in relation to opinions and abilities, it is also applicable to other domains, such as personality traits, social status, and even medical problems (for an overview, see Suls, 1977; Wheeler, 1991).

Miller’s (1982) study was the first to directly relate social comparison theory to physical attractiveness. After receiving false feedback about their performance, female students compared their scores with those of other women to whom they were similar or dissimilar in terms of physical attractiveness and college affiliation. Almost all the participants chose women who were similar to themselves in terms of attractiveness, even though attractiveness was not related to performance.

In the present study a social comparison of physical attractiveness was performed by manipulating the participants’ concepts of their own physical attractiveness. I hypothesized that the feedback a person received about his or her own physical attractiveness rank in a group would play an important role in determining the person's choice of a partner for performing a task. I also hypothesized that females would be more susceptible to this manipulation than males because females attach greater importance to physical attractiveness.

Method

Participants

The participants were 99 undergraduates (58 men, 41 women) enrolled in a Japanese university near Tokyo. The majority of the participants were 1st-year students and did not know each other. The students, who participated in the study at the request of their instructors, were all Japanese, with a mean age of 18.8 (SD = 2.3).

Materials

The dependent measure consisted of the choice of partner questionnaire, which contained two parts: a description of either a competitive or a cooperative task, and a space that was to be filled in with the participant’s choice of a competitor/partner (to be indicated by the person’s rank in the group).
Independent measures were the objective attractiveness questionnaire—a sociometric scale that measured relative attractiveness (group members in the lowest 25% are labeled low attractive, those in the highest 25% are labeled high attractive, and the remaining 50% are labeled medium attractive)—and the subjective attractiveness questionnaire, a 10-point Likert-type scale for rating one’s own attractiveness.

Moderating factors were examined using the following scales:

1. Rosenberg’s (1965) Self-Esteem Scale, a 10-item self-report with cumulative scaling, which defines self-esteem as a unitary property of overall self-image
2. The Body Esteem Scale (Franzoi & Shields, 1984), which was originally developed to measure body satisfaction and consists of 35 body-related items
3. Body Consciousness Questionnaire (Miller, Murphy, & Buss, 1981), a 15-item scale that measures people’s awareness of their bodies
4. Social-Evaluative Anxiety Scale (Watson & Friend, 1969), a measure consisting of a 30-item subscale and a 28-item subscale designed to assess the level of anxiety in social and evaluative situations

Procedure

The experiment was conducted in two phases. In the preliminary phase, which was introduced as a study on self-concept, the participants filled in questionnaires that concerned personal data and also the following questionnaires: the Self-Esteem Scale, the Body Esteem Scale, the Body Consciousness Questionnaire, and the Social-Evaluative Anxiety Scale.

In the manipulation phase, which took place 6 weeks later, the participants were randomly divided into four mixed-gender groups of 25 members each. Each group was seated so that all the participants could see each other, and each participant wore an identification badge. On a table in the middle of the room were two open briefcases that contained intelligence tests, which would be used later. The session was described as a study on “the relation between group dynamics and the impression made by others.” First I had the respondents rate several photographs of stimulus persons of average appearance for attractiveness and friendliness in a bogus questionnaire, to stimulate the participants’ interest and reduce their defensiveness. Next the participants rated their own physical attractiveness and friendliness/kindness (the latter category was used solely to promote cooperation), and finally, the participants rated the three most attractive and the three most friendly looking members of their group.

Following a short break (ostensibly used for checking the results of the previous tests and for explaining the purpose of sociometric tests) the participants were given random, false feedback about the results of the sociometric tests. The
participants were told that the feedback concerned only the attractiveness dimension because of a lack of time. Half the participants were told that they were ranked almost at the top of their groups (No. 3, 4, and 5), and the other half were told that they were ranked almost at the bottom of their groups (No. 18, 19, 20).

Next, the experimenters introduced the intelligence test and distributed written instructions for the next task. Half the participants received instructions describing a task (blocks construction) that involved a competitor, and the other half of the participants received instructions that described a cooperative task to be performed by a dyad within a time limit. In both conditions, the participants were asked to choose partners by indicating their partners’ physical attractiveness rank in the group. After they had indicated their choice of partners, the participants were told that the task could not be performed because of time limitations, and the experimental session ended. The participants were subsequently debriefed, both about the false feedback and about the purpose of the study.

Results

I conducted a preliminary 2 × 2 (Feedback × Sex) analysis of variance (ANOVA) to test the validity of the results of the feedback about physical attractiveness. The analysis of comparison-others’ mean rank indicated a lower rank for the low-attractiveness-feedback condition than for the high-attractiveness-feedback condition. This finding was highly significant for the participants as a whole, $F(1, 97) = 37.5, p < .0001$, as well as for each gender in a planned comparison, $F(1, 39) = 53.1, p < .0001$, and $F(1, 56) = 9.1, p < .004$, for the women and men, respectively. A tendency for gender and feedback to interact was confirmed when ranking distance from the other was measured, $F(1, 94) = 5.1, p < .03$. The men who received high feedback chose lower and more dissimilar others than the women did, whereas the men who received low feedback chose higher and more dissimilar others than the women did (see Figure 1).

Because I considered attractiveness feedback and gender as the fundamental factor in the manipulation, I conducted a 2 × 2 × 2 (Feedback × Sex × Additional Factors) ANOVA. The results of this analysis repeatedly emphasized the predominant effect of the feedback in the rank of the comparison-others. The feedback main effect was highly significant in the expected direction in all the ANOVAs for the participants as a whole and for the women and for most of the analyses for the men. There were no other main effects (see Table 1). Also, a multiple regression analysis that was conducted to examine the effect of the four moderating factors (self-esteem, body esteem, body consciousness, and social anxiety) on the physical attractiveness ranking did not indicate any significant effects.

There were several significant interactions between feedback and gender, for all the participants. When interacting with body esteem, the women in the high-
FIGURE 1. Gender differences in the choice of comparison-other.
<table>
<thead>
<tr>
<th>Item</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>N</td>
<td>36</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Mean rank of chosen other</td>
<td>6.0</td>
<td>11.0</td>
<td>4.4</td>
</tr>
<tr>
<td>Factor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>6.0</td>
<td>11.0</td>
<td>3.2</td>
</tr>
<tr>
<td>Low</td>
<td>7.2</td>
<td>8.0</td>
<td>5.6</td>
</tr>
<tr>
<td>Body consciousness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>4.8</td>
<td>9.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Low</td>
<td>9.5</td>
<td>10.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Social anxiety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>5.7</td>
<td>15.0</td>
<td>—</td>
</tr>
<tr>
<td>Low</td>
<td>3.5</td>
<td>12.3</td>
<td>—</td>
</tr>
<tr>
<td>Objective attractiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>2.5</td>
<td>10.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Medium</td>
<td>5.3</td>
<td>12.8</td>
<td>4.1</td>
</tr>
<tr>
<td>Low</td>
<td>9.4</td>
<td>9.2</td>
<td>4.3</td>
</tr>
<tr>
<td>Subjective attractiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>5.3</td>
<td>10.6</td>
<td>4.2</td>
</tr>
<tr>
<td>Low</td>
<td>7.2</td>
<td>11.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Task</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperative</td>
<td>5.0</td>
<td>12.8</td>
<td>4.0</td>
</tr>
<tr>
<td>Competitive</td>
<td>7.3</td>
<td>7.8</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Note. Data have not been provided in cases when the sample was too small.

Feedback condition chose partners who were much higher ranked than those chosen by the women in the low-feedback condition, whereas among the men this difference was not as conspicuous, $F(1, 68) = 5.7, p < .02$. When interacting with body consciousness, the men in the high-feedback condition again chose partners who were ranked much higher than those chosen by the women in the low-feedback condition, whereas the difference among the men was not as conspicuous, $F(1, 69) = 4.6, p < .04$. Gender differences were also apparent when the low- and high-feedback conditions were analyzed separately: In the low-feedback condition, the low-self-conscious men chose higher partners than the high-self-conscious men did, whereas among the women the situation was the opposite, $F(1, 68) = 4.1, p < .05$. 
Several interactions were found among the men when they were analyzed separately. For task, the men who received high feedback and were assigned to the cooperation condition chose the highest ranking partners, and the men who received low feedback and were assigned to the cooperation condition chose the lowest ranking partners, $R(1, 54) = 5.1, p < .03$. Similarly, for “objective” attractiveness ratings, highly attractive subjects who received high feedback chose the highest ranking partners, and average attractive subjects who received low feedback chose the lowest ranking partners, $F(2, 52) = 3, p < .06$. A post hoc procedure (Fisher’s PLSD) indicated that there was a significant difference between the rank of the partners chosen by the low- and high-attractive subjects, $p < .06$.

**Discussion**

The most prominent factor in this study was the manipulated feedback. The participants who were told that they were ranked for attractiveness at the top of their group chose much more attractive members as partners or as competitors than did the participants who were told the opposite. Although there were various experimental constraints on the reliable prediction of relative effect sizes, the results of the present study suggest that perceived feedback in first encounters does play an important role in social interactions.

The strength of the effect that attractiveness feedback had on the participants’ choices of others regarding a dimension that was irrelevant to the feedback can be attributed to several causes, among them the omnipotence of beauty stereotype (Dion, 1986; Hatfield & Sprecher, 1986). The participants associated beauty with ability and chose others they assumed would be compatible with their own level of ability as they perceived it from the feedback. Although a few researchers (Goethals & Darley, 1977; Wood & Taylor, 1991) have criticized the use of the rank-order paradigm for affiliation choices on the basis of a single dimension because of its artificial nature, first encounters often comprise only one dimension. Consistent with Allport’s (1954) suggestion that physical attractiveness serves as a basis for categorization (see also McArthur, 1982), it seems obvious that if other information is lacking, this dimension may serve as the only criterion, regardless of whether it is relevant in the comparison.

The results also confirm previous findings that people with similar levels of physical attractiveness tend to affiliate (Cash & Derlega, 1978; Korthase & Trenholme 1982; Stroebe, Insko, Thompson, & Layton, 1971). In the present study such tendencies seemed to change rather quickly after the participants received feedback from a source they considered reliable, their peers.

Another interpretation of the results may be related to the change in the state of the participants’ body esteem (and general self-esteem) after the manipulation. Walster (1965) demonstrated that a person’s momentary self-esteem may affect his or her receptivity to another’s love and affection. Thus, the women whose self-
esteem had been temporarily lowered because of false feedback expressed more liking for a person who had invited them to go out on a date than the women whose self-esteem had been raised. Yet, when the issue of date choice was examined directly (Walster, 1970), support was not found for the matching hypothesis (Walster, Aronson, Abrahams, & Rottman, 1966) because both the momentary low-self-esteem and the momentary high-self-esteem participants preferred the most socially desirable dates. In the present study, physical attractiveness evaluation and body esteem rather than global self-esteem were manipulated. It is this momentary body esteem rather than self-esteem per se that is assumed to influence choice of others (hence the term physical attractiveness comparison).

Also important was the direction of the participants' choices: The choices of the high-feedback participants were generally in a downward direction, whereas the choices of the low-feedback participants were generally in an upward direction. During the 1970s many researchers challenged Festinger's (1954) hypothesis that a preference for similar others allows one to subjectively evaluate one's opinion or ability. The argument for the choice of dissimilar others (better-off or worse-off) contends that this type of preference often provides not only more information but also less harmful emotional consequences (for review, see Major, Testa, & Bylsma, 1991). Hackmiller (1966) demonstrated that people who feel threatened by another's criticism of a specific trait tend to compare themselves with people they perceive to be slightly worse off than they. The stronger the perceived threat, the greater the downward comparison. Thornton and Arrowood (1966), who also explored the issue of the dual function of social comparison, found that people tended to compare upward on positive traits but did not have clear preferences regarding negative traits.

In the present study, the subjects in the high-feedback condition were actually under greater pressure than the others because the participants in the low-feedback condition had already had their negative expectations fulfilled. Moreover, for the participants in the low-feedback condition, the choice of lower ranked people would have constituted an admission of weakness and a recognition of the validity of the attractiveness stereotype.

Our second major finding was a gender difference for reaction to physical attractiveness comparison that was previously reported by Kowner and Ogawa (1993b), who noted that a limited contrast effect on the participants' self-esteem and body satisfaction was evident among the women. Furthermore, Wheeler and Miyake (1992) found that women make more appearance-related comparisons than men do. In the present study, this difference was evident from the women's susceptibility to manipulation and also from the fact that only physical attractiveness significantly affected the women's choices, whereas almost all the factors had some effect on the men's choices. One possible explanation for this gender difference is the finding that the stereotype of physical attractiveness has a greater impact on women than on men and thus benefits them more than it does men (e.g., Vaughn & Langlois, 1983).
Thus, the fact that physical attractiveness is more important to females and the fact that females have higher standards for appearance may result in a female tendency toward self-deprecation, low body-esteem, and jealousy that may be connected with females’ lower global self-esteem (Pliner, Chaiken, & Flett, 1990; Roberts, 1991). This situation may cause women's self-evaluation to fluctuate more than men's, making women more susceptible to situational physical attractiveness comparison. Recent literature on evolutionary psychology suggests that these gender differences may be attributable to prosocial behavior and male dominance in addition to physical differences that have traditionally limited females’ choice of mates and thus enhanced the significance of their reproductive cues (Buss, 1987; Buss & Schmitt, 1993; Kenrick & Keefe, 1992).

Cross-cultural factors may also account for a large part of the previously mentioned effects. The results of several studies have indicated that the effect of the beauty stereotype and the use of social comparison in Japan are rather limited (Buss, 1989; Markus & Kitayama, 1991; Onoda & Miura, 1990). Thus, the role of physical attractiveness comparison may be greater in other societies than in Japan. However, the fact that gender roles in Japanese society are relatively polarized and that women's status and, consequently, their stability are lower than men's, may partially explain the conspicuous gender difference that was found in the present study (Connor, 1985; Iwao, 1992, Shirakawa, Shiraishi, & Suke-mune, 1992).

In conclusion, the findings of the present study suggest that when the only available information about others concerns their physical appearance, the choice of others, even for appearance-irrelevant tasks, is dependent on the situational interaction between one’s perception of one’s own physical attractiveness and one’s perception of others’ attractiveness. Although situations that involve physical attractiveness comparison often involve first encounters with unfamiliar people, they may also provide researchers with information about people’s conduct and attitudes toward more familiar people. As Miller (1982) suggested, like sex, age, and race, physical attractiveness functions as an attribute that is “always salient” in a comparison setting.

REFERENCES


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