The Contrast Effect of Physical Attractiveness in Japan

ROTEM KOWNER
TOSHIKI OGAWA
Institute of Psychology
University of Tsukuba, Japan

ABSTRACT. We examined contextual effects on the judgment of others’ attractiveness and self-evaluation among Japanese university students who rated their body satisfaction and self-esteem following exposure to various attractiveness stimuli. Our results showed the existence of a contrast effect of attractiveness stimuli on the judgment of target stimuli in men and women. A similar contrast effect on subjects’ self-esteem and body satisfaction occurred in female students only. Western-based attractiveness comparison processes also prevailed in Japan. A gender difference was evident in the contextual effect of physical attractiveness stimuli.

WITHIN THE FRAMEWORK OF RESEARCH on physical attractiveness judgments, researchers have focused on the contextual factors affecting one’s judgments of others’ attractiveness and of one’s own attractiveness (Cash, Cash, & Butters, 1983; Irving, 1990; Kenrick & Gutierres, 1980; Melamed & Moss, 1975; Morse & Gergen, 1970; Weaver, Maslund, & Zillmann, 1984). The most apparent phenomenon is a so-called contrast effect; the presence of other attractiveness stimuli, which vary in their level of attractiveness from the targets, was found to affect judgment on targets’ attractiveness (Kenrick & Gutierres, 1980; Melamed & Moss, 1975; Weaver et al., 1984) as well as judgments on one’s own attractiveness (Cash et al., 1983; Irving, 1990;

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Address correspondence to Rotem Kownner, Institute of Psychology, University of Tsukuba, Tennodai 1-1-1, Tsukuba City 305, Japan. (E-mail: rote m@human.tsukuba.ac.jp).
Morse & Gergen, 1970). Generally, the more attractive the other contextual stimuli, the lower the judgment of the targets’ and one’s own attractiveness, and vice versa. Because previous research on this phenomenon has been conducted only in the United States, we examined whether the phenomenon also prevails in Japan, where social and cultural values and attitudes are often claimed to differ from those in the West (Benedict, 1946; Markus & Kitayama, 1991; Nakane, 1970; Reischauer, 1977).

The mechanism underlying this contrast effect derives from the concept of physical attractiveness, the stereotypes attached to it, its personal significance, and the distance the stimuli are from the observer (Melamed & Moss, 1975; Morse & Gergen, 1970) and the nature and direction of social comparison processes. (Major, Testa, & Bylsma, 1991; Tesser, 1988; Wills, 1991).

The modern concept of physical attractiveness in Japan emanates from distinct traditions and abides by a long native tradition of aesthetics and concepts of beauty that have endured for more than a century in spite of a pervasive Western influence of values and ideals. But the traditional idea of physical beauty is difficult to discern because of recent Western influences. Nevertheless, the old ideals can still be detected in many features of contemporary Japanese society, such as art, architecture, and fashion. The appreciation and appraisal of human beauty and physical attractiveness are inherent to general aesthetics, a theme that had been elevated “to something close to a religion” in the Japanese court since the 10th century and later spread from the court to the provinces (Ueda, 1983).

The unique features of Japanese aesthetics have been declared to have the following characteristics: suggestion and symbolism, simplicity, impermanence, elegance, and irregularity (Keene, 1971; Ueda, 1983), but diverse and ample evidence imply that the Western notion of physical attractiveness was one of the foremost imports that has been willingly embraced in Japan. This view is supported by many examples, such as the partial preference for a Western-type face among Japanese beauty carriers such as models, actors, singers (men and women), the adoption of Western fashions, the excessive use of foreign models, and even in the trends of plastic surgery conducted in Japan (Anonymous, 1991; Cunningham, 1986; Daba, 1992; Kuwabara, 1983; Shibata, 1986).

Several studies about Japanese physical attractiveness stereotypes have been reported during the last two decades. Iwawaki and Lerner conducted three comparative studies to examine the existence of the body-build stereotypes (ectomorph, mesomorph, and endomorph) in Japan and the United States (Iwawaki & Lerner, 1974, 1976; Lerner & Iwawaki, 1975). Their findings indicated similarities in body-build stereotypes in both countries and principally an overwhelming positive evaluation of the mesomorph type.

Dion, Wan-Ping Pak, and Dion (1990) hypothesized that individuals from East Asian traditions, which are considered to be more group-oriented
than Western countries, are less likely to use the physical attractiveness stereotype (What is beautiful is good). They showed that the more the subject was involved in the Chinese community in Toronto (presumably more traditionally group-oriented), the less she or he applied stereotypes. They suggested that people who adhere to traditional Chinese values would pay attention to “information about a person’s behavior in a network of social relationships” rather than on the individuating cue of physical attractiveness (Dion et al., 1990, p. 174).

Onodera and Miura (1990) added other evidence to the weakness of the physical attractiveness stereotype, specifically in Japan. They examined the effect a woman’s level of beauty has on an evaluation by her male companion (the radiating beauty effect), and in contrast to the American findings (Sigall & Landy, 1973), the effect was not confirmed in either direction.

Buss (1989), examining sex differences in human mate preference in 37 cultures, found among Japanese subjects (mean age, 20 years) and in 33 other cultures the tendency of men to consider the good looks of a mate significantly more important than women do. Nevertheless, another byproduct of Buss’s research was the finding that Japanese subjects in general rated the criterion of a mate’s good looks third lowest among the 37 participant cultures (after South African Zulu and Finnish subjects). Buss’s findings suggest that Japanese society does not allow the innate or alternatively hedonistic human difference to intervene as much in the functional social order and hierarchy.

Therefore, although the stereotype persists in Japan, and people maintain distinctions between attractive and unattractive, beautiful and ugly, they do not attach the same importance to those attributions as do people in the United States; they do not view attractiveness as an indispensable element in selecting a mate or as a significant factor at work, the dominant domain of life. In fact, there are in the Japanese society counter-stereotypes and biases against the overemphasis of the stereotype, such as the view of beauty as shallowness, the latent fear of the beautiful woman as unfaithful, and the emphasis on personality and attitude among men and on cuteness among women over external attractiveness (Kashiwagi, 1988; Masubuti & Honda, 1988).

In the field of social comparison, several empirical studies have been carried out in Japan in the last two decades. The pioneer of this research, Toshitake Takata, has for years investigated and confirmed various aspects of social comparison (Takata, 1971, 1974, 1981–1984; Takata & Hayashi, 1975, 1981; Takata & Takata, 1976). Takata (1974) found that subjects in his experiment not only made comparisons in situations of uncertainty, as Festinger (1954) had theorized, but also in situations where they were certain about their judgments. Despite this evidence, the prevalence and the extent of social comparison processes in Japan, as described in Western literature, has rather an ambiguous character and is still an issue of theoretical debate.
Several arguments preclude the existence of "pure" social comparison, as usually described in the psychological literature from Japan. Markus and Kitayama (1991), who suggested the existence of a striking difference in views of self between the West (the independent view) and non-Western cultures (the interdependent view), argued that others' opinions are critical in the process of social comparison and self-validation under the Western perspective. However, "in an interdependent formulation of the self, these others become an integral part of the setting, situation, or context to which the self is connected, fitted, and assimilated" (p. 227). The manner of the connection depends on the context, particularly on the others present and on one's relations with them: Others enable one to define rather than to evaluate oneself.

Similar notions can be found in Jun Eto's (1977) distinction: "... whereas Westerners base their lives on the premise that others naturally feel differently about things and view things according to different principles, the Japanese take it for granted in their daily lives that other people feel and think the way they do themselves" (p. 75). Matsuda (1985) offers some support to this proposition by raising the issue of occasional suppression of social comparison among Japanese to maintain group cohesiveness. In addition to the reported lack of frequent need for self-evaluation, self-enhancement, too, seems to be differently defined and experienced in Japan and in the West.

Traditionally, self-praising and self-promotion have been regarded in Japan as bad manners. Yoshida, Kojo, and Kaku (1982) demonstrated that children at elementary school already perceive "modest" classmates as better than classmates who brag, a phenomenon that increases with age. The evaluation of others' ability also begins as early as third grade. The limited use of self-enhancement through the elevation of the self over others seems to be so internalized that the uniqueness bias (the proportion of others one believes one is better than), a very common phenomenon in the West (Goethals, Messick, & Allison, 1991), is almost absent in Japan (Markus & Kitayama, in press, cited in Markus & Kitayama, 1991).

Takata (1987), discussing his findings on social comparison of ability, suggested that not only was a self-enhancement bias absent among his subjects, but there was a bias toward self-efficacy; that is, negative feedback increased subjects' confidence in their self-evaluation (see also Shikanai, 1978; Wada, 1988). Kashima and Triandis (1986) partly confirmed this pattern in comparisons of a self-serving bias of ability, but found that Japanese subjects used fewer individual coping strategies than Americans on the ability-related dimensions of attention and memory, whereas the casual attributions were similarly used.

In contrast with much of the empirical evidence, we contend here that several aspects of the structure of the Japanese society and its individual members might enhance the need for social comparison. One of these aspects is the Japanese sensitivity to hierarchy. As Hendry (1987) described: "Hier-
archical ranking runs through Japanese life, ordering individuals, groups, institutions, material objects, even food. . . ." (p. 70). Nakane (1970) further discussed the ubiquitous consciousness of hierarchy and the deep roots it has in any stratum of the society. As one's behavior is closely related to hierarchy, one ought to recognize promptly one's position in relation to others in the environment to maintain proper communication with others.

Moreover, lack of knowledge about actual ranking often causes instant confusion. Once ranking in the immediate proximity is established, language style, manners, and general attitude are adjusted in accordance.

One of the consequences of the extreme social relativity in Japan is the frequent neglect of objective and rational criteria to maintain harmony, which is human hierarchy and social order. This phenomenon corresponds to the preliminary condition for social comparison, as Festinger (1954) defined in his second hypothesis: "To the extent that objective, non-social means are not available, people evaluate their opinions and abilities by comparison respectively with the opinions and abilities of others" (p. 119).

Admittedly, there are several limitations to these assumptions. Physical attractiveness is not a valid criterion for any principal social ranking in Japan. Moreover, the notion of homogeneity of the Japanese as a race, which is an essential part of the national consciousness, begins from the similarity of physical appearance.

An examination of the research presents contradicting evidence for the susceptibility of Japanese to physical attractiveness comparisons. On one hand, the physical attractiveness stereotype, though widespread in Japan, is less powerful than in the West, particularly in the United States. There also seems to be a suppression of external physical differences resulting from the notion of racial similarity. On the other hand, the social structure of Japanese society, such as constant ranking and acumen to others, implies adhering to social values rather than to abstract absolute laws, as well as a greater sensitivity to cues of social and physical differences in others. Considering these aspects, the ultimate manifestation of physical attractiveness comparison in Japan is assumed to be similar to that occurring in Western cultures.

We examined the presence of the contrast effect of attractiveness judgment among Japanese students and built our research on several studies conducted previously in the United States under various titles (Cash et al., 1983; Irving, 1990; Kenrick & Gutierrez, 1980; Melamed & Moss, 1975; Weaver et al., 1984). We also included several new features, such as the examination of the contrast effect on male students' self-evaluation, and we used the same procedure for both genders. Our three goals were to investigate the contrast effect of attractiveness stimuli on the judgment of others' attractiveness, the contrast effect of attractiveness stimuli on the perceiver's self-evaluation, and the contrast effect of similar versus dissimilar attractiveness stimuli on the perceiver's self-evaluation.
Method

Subjects

The subjects were 337 Japanese undergraduate students (213 women, 124 men; mean age, 20.2 years; SD, 1.1) of various courses enrolled in three Japanese national universities who participated at the request of their instructors.

Testing Material

We selected 10 sets of 10 black-and-white pictures, 5 sets of male stimuli and 5 sets of female stimuli. Each subject received one of these sets randomly according to gender in a booklet that included an introduction to the task and 10 to 12 pages of photos. On each page was one picture, 12 × 9 cm, and a 10-point Likert scale for the evaluation of the stimulus’s physical attractiveness.

For female subjects, we used two categories of black-and-white pictures of women, one of “similar” stimuli and one of “dissimilar” stimuli. The category of similar stimuli included 30 black-and-white pictures of 20- and 21-year-old Japanese women. Ten were of high physical attractiveness, 10 were of medium physical attractiveness, and 10 were of low physical attractiveness. The photographs were selected by 20 Japanese university student reviewers from a larger pool of 450 photos taken from technical college graduation albums, but their selection was to be verified in the actual experiment. Two pictures selected to represent medium attractiveness were chosen to serve as control (target) stimuli in this category and were used in each of the three sets.

The category of dissimilar stimuli included 10 pictures of 20- to 30-year-old foreign Caucasian fashion models representing various aspects of the Western beauty ideal and taken from fashion magazines; 2 pictures of 25- to 30-year-old foreign Caucasian average looking females as control (target) stimuli in this category; and 10 pictures of 20- to 30-year-old Caucasian women, representing various aspects of low physical attractiveness, taken from several textbooks of plastic surgery. The second-category stimuli were selected solely by the authors, as the different levels of attractiveness in this group were unequivocally evident. All pictures included face and shoulders.

For male subjects, the stimuli included two categories of similar and dissimilar black-and-white pictures of men. The source and procedure for selecting photos of men was identical to that used for the women’s photo selection.

We also used two questionnaires in this experiment. The State Self-Esteem scale, developed by Heatherton and Polivy (1991) to examine short-
lived changes in self-esteem, consists of 20 items modified from the widely used Janis-Field Feeling of Inadequacy Scale (Janis & Field, 1959). Subjects are asked to indicate how they feel about each item; the response scale ranged from not at all (1) to extremely (5).

The Body-Esteem Scale was developed by Franzoi and Shields (1984) to measure body satisfaction. The scale is based on the well-known Body Cathexis Scale (Secord & Jourard, 1953) and consists of 35 body-related items. The subjects are asked to indicate how they feel about each item, responding on a scale that ranges from strong negative feeling (1) to strong positive feeling (5). In the present study, we used the scale as state rather than the original trait measure by asking the subjects to indicate their feeling regarding the items right now.

The questionnaires were translated into Japanese and back into English by two Japanese bilinguals independently, and discrepancies were settled by a third person to insure cross-cultural equivalence (Brislin, 1970).

Procedure

The experiment was conducted in two phases. In the first phase, which took place in a class room, subjects received one of 10 booklets randomly (5 were designated for men only, and 5 only for women) and were requested to assist in “a computerized project of ‘face aesthetics study’.” The subjects rated the physical attractiveness level of each stimulus picture on a 10-point Likert scale.

In the second phase immediately after, the subjects were instructed by another experimenter to open an envelope that was given to them in the beginning of the session and to fill in a set of questionnaires “for another experiment about ‘their adjustment to study in the university’.” In addition to several bogus questions about life in the campus, the set included the State Self-Esteem Scale, and the Body Esteem Scale. The entire session took about 10–15 min.

Results

A preliminary analysis showed that responses in the 10 conditions did not differ with respect to age. We conducted a one-way analysis of variance (ANOVA) to examine the validity of the physical attractiveness manipulation in the 10 stimulus conditions. The analysis of subjects’ mean 10-point ratings across the 10 stimulus persons in each condition showed significantly lower ratings for the low attractiveness condition than for the average attractiveness and high attractiveness conditions. This result was highly significant in both the similar and the dissimilar conditions; for women, \( F(2, 108) = 49.2, p < .0001 \), and \( F(1, 96) = 315.2, p < .0001 \), for similar and dissimilar stimuli,
respectively; for men, $F(2, 64) = 18.1, p < .0001$, and $F(1, 56) = 29.4, p = .0001$, for similar and dissimilar stimuli, respectively.

The secondary manipulation objective, that highly dissimilar stimuli would be rated higher than the highly similar stimuli and low dissimilar lower than low similar, was significant only among the women, $F(1, 91) = 5.9, p < .02$, and $F(1, 91) = 23.7, p < .0001$, for low and high attractiveness, respectively. Thus, the initial attractiveness manipulation was complete among women in the similar categories, dissimilar categories, and similar versus dissimilar, and partial among males (Table 1).

Our expectation that the more attractive the attractiveness stimuli in each set of the two categories, the lower would be the attractiveness evaluation of the same control targets in each category was confirmed. A one-way ANOVA indicated significantly lower ratings for the controls in the high attractive condition than in the medium and low attractive conditions. This result was significant in both the similar and the dissimilar conditions, for women, $F(2, 220) = 11.2, p < .0001$, and $F(1, 96) = 59.2, p < .0001$, for the similar and dissimilar stimuli, respectively; for men, $F(2, 136) = 7.0, p < .002$, and $F(1, 56) = 40.4, p < .0001$ (Table 1).

Our expectation that the more attractive the attractiveness stimuli in each category, the lower the self-evaluation of the raters would be, as indicated by scores of the Body Esteem and the State Self-Esteem scales was partially confirmed. A one-way ANOVA showed that the pattern of contrast effect on the self differed mainly across gender. Women's scores in both the Body Esteem and the State Self-Esteem scales were in the expected direction, though only the difference between the State Self-Esteem scores of raters of the dissimilar low and high attractiveness stimuli were significant, $F(1, 95) = 4.9, p < .05$.

The men’s scores were ambiguous, if not contradictory. When high attractiveness level stimuli scores were compared with low and medium ones (in both similar and dissimilar categories), a contrast effect did not appear, but an enhancing effect did (high stimuli caused higher self-evaluation). However, this result was significant in one case only (raters of similar medium attractiveness stimuli had significantly lower state self-esteem scores than raters of high stimuli, $F(1, 40) = 4.3, p < .05$). The lowest scores for men and women occurred among the raters of stimuli of medium attractiveness. The intended contrast effect manipulation on the evaluation of the self was partly attained among the female subjects; among the men it was only partly in the expected direction.

Our expectation that the more similar to the self the stimuli were regarded, the stronger the contrast effect on the self would be (as measured by the Body Esteem and State Self-Esteem scales) was not confirmed. A one-way ANOVA showed no significant difference between the ratings of similar and dissimilar stimuli.
<table>
<thead>
<tr>
<th>Attractivity level</th>
<th>Women (N = 213)</th>
<th>Men (N = 124)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Similar</td>
<td>Dissimilar</td>
</tr>
<tr>
<td></td>
<td>Low Mean High</td>
<td>Low Mean High</td>
</tr>
<tr>
<td><em>n</em></td>
<td>43 25 48</td>
<td>50 47</td>
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<tr>
<td>Picture ratings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stimuli</td>
<td>3.7 4.9 5.9</td>
<td>3.2 6.8</td>
</tr>
<tr>
<td>Targets</td>
<td>5.5 5.2 4.2</td>
<td>6.6 4.5</td>
</tr>
<tr>
<td>Scale average score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body esteem</td>
<td>97 91.3 91.9</td>
<td>98.2 94.9</td>
</tr>
<tr>
<td>State self-esteem</td>
<td>56.5 52.9 55.9</td>
<td>58.5 54</td>
</tr>
</tbody>
</table>

*Note.* The possible score range for the Body Esteem Scale and the State Self-Esteem Scale are 35-175, and 20-100, respectively. The correlation coefficient between the two scales was .51 for the women and .59 for the men.
Discussion

We examined the existence of the contrast effect of physical attractiveness on judgments of others’ attractiveness as well as on one’s self-evaluation. The contrast effect on ratings of others’ attractiveness, which was observed in several studies in the United States among female and male students (Kenrick & Gutierrres, 1980; Melamed & Moss, 1975; Weaver et al., 1984) also occurred among our Japanese subjects, who rated the same stimuli differently, depending on the attractiveness level of the other stimuli presented. This phenomenon took place regardless of the raters’ gender and the race of the stimuli. Note that this notion is limited to situations in which there is no indication of a link between the control stimuli and the target stimuli, such as friendship or romantic connection (Kenrick & Gutierrres, 1980; Melamed & Moss, 1975).

The contrast effect of others’ attractiveness on the self was examined in the United States (Cash et al., 1983; Irving, 1990) in two studies using only female subject. In the present study, the Japanese women responded similarly to the American subjects. As in the Cash et al. study, the contrast effect on body satisfaction was in the expected direction but was often insignificant. Several explanations can be given for the weakness of the attractiveness effect on the self and body evaluation. One is the insensitivity of the individual to feelings of body satisfaction as well as to situational changes (Cash & Cash, 1982; Cash et al., 1983; Padin, Lerner, & Spiro, 1981). Another is the lack of strength of the manipulation. Relative to real-life situations of direct feedback or sharper visual images, the manipulations in this experiment as well as in those of Cash et al. and Irving were too short and were constrained by their artificial settings.

Compared with the women’s reactions to the manipulation, the men in this sample responded slightly differently. The women’s self-evaluations decreased systematically with an increase in the stimuli’s attractiveness. The men responded similarly only when confronted with low and medium attractiveness stimuli. High attractiveness stimuli (similar as well as dissimilar) caused an enhancing effect; that is, the highest scores on both scales were in the high attractiveness condition. This reaction can be interpreted as an attempt at self-enhancement when faced with threatening stimuli.

Thus, in contrast with the usual tendency to prefer a downward comparison for self-enhancement (Hackmiller, 1966; Tesser, 1988; Thornton & Arrowood, 1966), the subjects in this experiment who were forced to perform an upward comparison underscored the stimuli ratings and hence elevated themselves. This threat was not perceived in the case of the medium attractiveness stimuli, which led to contrast effect.

Another interpretation might be a countereffect that was labeled previously by Dermer and Thiel (1975) as jealousy and was exhibited by unattractive subjects toward attractive targets (Dermer & Thiel, 1975; Tennis &
Dabbs, 1979). It is unclear whether the men who evaluated the high attractiveness stimuli were expressing either a real increase in self-evaluation, jealousy, or something unknown. This observation, though consistent, should be viewed with caution, because the male sample size was limited and the difference was significant in only one stimulus category. Our expected lower impact of dissimilar stimuli was not demonstrated. One reason might be the extreme beauty and ugliness of the dissimilar stimuli in this study, which balanced their age and race dissimilarity. A replication of this study with stimuli who are dissimilar in only one dimension would be useful.

This study fulfilled its main goal, which was to serve as a cross-cultural baseline study of physical attractiveness comparison situations in Japan. The Japanese subjects’ reactions to various attractiveness stimuli were similar to results obtained previously in the United States, which indicated contrast effect on the evaluation of others’ attractiveness as well as slight contrast effect on self-evaluation among women. Onodera and Miura (1990), revealing the nonexistence of “the radiating beauty effect” in Japan, added to a growing notion of major differences in the “self” concept in various cultural settings. Nevertheless, their implication that physical attractiveness plays a reduced role in Japan was not supported by the present study.

REFERENCES


Kawairashina no tozo wo megutte [Iconography of 'cuteness']. *Kesho Bunka, 18*, 15–22. (In Japanese)


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