

When Gulliver Travels: Social Context, Psychological Closeness, and Self-Appraisals

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Four studies examined how the characteristics of others affect people's self-appraisals. Ss viewed photographs of physically attractive or unattractive targets, then rated their own attractiveness. Study 1 found evidence for a contrast effect: Ss' self-appraisals were more favorable after viewing an unattractive same-sex target than after viewing an attractive same-sex target. Study 2 manipulated psychological closeness by varying the degree to which the S and the target shared similar attitudes and values. Although contrast effects occurred when the S and the target were dissimilar, the reverse tended to be true when the S and the target were related by virtue of their perceived similarity. Two additional studies extended these results, using a different operational definition of psychological closeness. The findings indicate that psychological closeness determines how other people's characteristics affect the self-concept.

In Jonathan Swift's classic tale of *Gulliver's Travels*, the reader's sense of Gulliver varies with the environment in which he is found. As the story begins, Gulliver seems to tower as a giant in comparison with the diminutive inhabitants of the land of Lilliput. Later, amidst the leviathan citizens of Brobdingnag, Gulliver seems to shrink until he is but a mere pygmy. Thus, people's perception of Gulliver's size depends very much on the stature of those who surround him.

But what of Gulliver's self-perceptions? Although Swift does not address this issue explicitly, one can imagine that Gulliver's views of himself also shifted with the social milieu. In Lilliput, Gulliver may have fancied himself a colossus; in Brobdingnag, could he have felt anything other than weak and inconsequential?

Our purpose in conducting the present research was to explore issues of this nature empirically. Specifically, we examined how social factors influence people's self-appraisals. Lest the reader think our research relevant only to 18th century En-

glish literature, we hasten to add that experiences similar to Gulliver's, although considerably less exotic, are a ubiquitous part of social life. Discussing world affairs with a group of political pundits, for example, might change how we view our own political acumen. In short, much as Gulliver's, people's self-appraisals are apt to be affected by the composition of the social environment.

Theoretical Background

The notion that self-evaluations are shaped by the social context can be traced to several research traditions. In the area of psychophysics, for example, it is well established that judgments are influenced by the frame of reference that surrounding stimuli provide (Helson, 1964). The usual finding is a contrast effect: The judgment of a target stimulus is displaced away from the judgment of an anchor. To illustrate, people estimate the weight of a moderately heavy object as lighter after an initial experience with a heavy stimulus than after an initial experience with a light stimulus.

Contrast effects are also found for judgments of psychosocial stimuli. When judging the severity of a crime, people rate a target crime as more atrocious after evaluating a mild criminal offense than after judging a more heinous act (Pepitone & DiNubile, 1976). Comparable effects have been observed for judgments of affect (Manis, 1967), perceived control over outcomes (Newman & Benassi, 1989), and the physical attractiveness of others (Kenrick & Gutierrez, 1980). In short, although reversals are sometimes found, studies of psychophysical and psychosocial judgments typically demonstrate a contrast effect.

Research by McGuire and his associates (see McGuire &

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McGuire, 1988) has shown that these processes extend to the realm of self-perception. These researchers find that people spontaneously describe themselves in ways that distinguish them from others. A man, for example, is more likely to define himself in terms of his sex when he is with women than when he is with men. As in many studies of psychophysics, then, McGuire's work indicates that people's self-perceptions are often contrasted against the surrounding [social] context.

Another area of research germane to the present thesis is research on social comparison processes. Festinger (1954) proposed that people acquire knowledge of the self by comparing themselves with others. For example, people may learn how good they are at tennis by comparing their game with those who share various background attributes (Goethals & Darley, 1977). Self-perceptions of ability are augmented to the extent that people perform better than their targets of comparison.

A well-known study by Morse and Gergen (1970) demonstrates this tendency. These investigators led subjects to believe that they were interviewing for a position as a research assistant. Subjects were asked to wait for the alleged interview in the company of another applicant—a confederate. In one condition, the confederate was impeccably well-mannered and professional in all respects; in the other condition, the confederate was disheveled and slovenly. Compared with earlier appraisals of the self, the self-esteem of subjects waiting with the undesirable confederate rose; the reverse was true for those who waited with the undesirable confederate.

Study 1

Our first investigation was conducted to replicate and extend Morse and Gergen's (1970) research. The competitive nature of the job situation in that study might have heightened social comparison tendencies and made the contrast effect more likely. Although competitive situations are common, they are not typical of most social settings. From a social psychological standpoint, then, it seems important to determine whether contrast effects in self-evaluation also occur under conditions that are not competitive.

Toward this end, our first study explored how the attractiveness of other people affects self-perceptions of attractiveness. Our decision to study attractiveness was influenced by several factors. First, physical attractiveness is not a performance dimension and hence competition is not typically salient. At the same time, the attractiveness of other people is easily noticed. We don't have to seek out such information; it is immediately apparent upon meeting a person. If people spontaneously compare their attributes with those of others (Festinger, 1954), they ought to do so with regard to physical attractiveness. Third, attractiveness is important in our culture. This is particularly true among female college students (Pliner, Chaiken, & Flett, 1990), who were the subjects in our research.

Overview

As part of an ostensible impression-formation task, we had female subjects view photographs of either attractive or unattractive men or women. Afterward, we assessed their perceptions of their own attractiveness. A contrast effect would be

revealed by the finding that self-perceptions of attractiveness are more favorable after exposure to a physically unattractive target than after exposure to a physically attractive target.

Study 1 was also designed to explore the limits of the predicted contrast effect in self-evaluation. People generally compare themselves with similar others (Festinger, 1954). Although some important qualifications to this tendency exist (Goethals & Darley, 1977), a reasonable extrapolation is that people compare their physical attractiveness with that of members of the same sex. If so, it may be hypothesized that self-perceptions of attractiveness are altered only by the context that same-sex targets provide.

Method

Subjects. Subjects were 36 female undergraduates attending Southern Methodist University (SMU). They were approached at various locations around campus and asked to participate in a brief experiment. No compensation was offered or provided.

Materials and procedures. Three pairs of undergraduates (one man, one woman) served as experimenters for the study. In each pair, one experimenter first identified a potential subject. She or he then approached the student and asked whether she would be willing to be a subject in a study on the impression-formation process. If the student agreed (over 90% did), the second experimenter consulted a predetermined random schedule and assigned the subject to an experimental condition. The second experimenter then handed the first experimenter an envelope containing a photograph of either an attractive or unattractive man or woman.¹ In this manner, the experimenter who interacted with the subject was kept blind to the experimental manipulations.

After viewing the attractive or unattractive target photograph, subjects were handed a one-page questionnaire. Five of the items assessed the subject's general impression of the target (e.g., "How interesting do you think this person is?"). A final item assessed subjects' perception of the target's attractiveness. All items were answered on 7-point Likert-type scales with appropriate endpoints (e.g., 1 = *not at all attractive*, 7 = *very attractive*).

On the subject's completion of the purported impression formation task, the experimenter explained to the subject that first impressions of others are often influenced by aspects of the person forming the impression. For that reason, the subject was being asked to answer some additional questions. The experimenter then handed the subject a second questionnaire. Embedded in this questionnaire were five items pertaining to the subjects' perceptions of her own attractiveness (e.g., "I nearly always feel that I am physically attractive" and "I am usually very pleased and satisfied with the way I look"). These questions, which were taken from a larger measure of self-esteem developed by O'Brien (1980), were answered on 5-point scales (1 = *not at all characteristic of me*, 5 = *very much characteristic of me*). After filling out the questionnaire, subjects were told the true purpose of the study and thanked for their participation.

¹ Attractive and unattractive photographs were identified in a pilot study. An independent sample of 10 female subjects, drawn from the same population, rated the attractiveness of numerous photographs. Ratings were made on 7-point scales (e.g., 1 = *unattractive*, 7 = *attractive*). The photographs selected for use in this research received the following mean ratings: attractive-female, $M = 5.21$; attractive-male, $M = 5.15$; unattractive-female, $M = 3.13$; unattractive-male, $M = 3.40$.

Results and Discussion

Unless otherwise noted, all analyses used a 2 (target attractiveness) \times 2 (target sex) analysis of variance (ANOVA).

Manipulation checks. One item on the impression formation questionnaire asked subjects to rate the target's attractiveness. As expected, attractive targets received higher ratings ($M = 4.94$) than did unattractive targets ($M = 3.17$), $F(1, 32) = 14.84$, $p < .001$. Subjects also evaluated the target on a number of other dimensions (e.g., popularity). Ratings on these attributes were averaged to create an evaluation index. Consistent with research documenting a halo effect for physical attractiveness (Berscheid & Walster, 1978), attractive targets were evaluated more favorably ($M = 4.76$) than were unattractive targets ($M = 4.13$), $F(1, 32) = 10.96$, $p < .01$.

Self-ratings of attractiveness. To determine whether the experimental manipulations affected subjects' appraisals of their own attractiveness, the five items assessing self-perceptions of attractiveness were averaged to create an attractiveness index. An analysis of these scores revealed a main effect of target attractiveness, $F(1, 32) = 5.12$, $p < .05$, and a Target Attractiveness \times Target Sex interaction, $F(1, 32) = 8.07$, $p < .01$.

As shown in Table 1, a contrast effect occurred when subjects viewed female targets. That is, subjects rated themselves as more attractive after viewing an unattractive female target than after viewing an attractive female target, $F(1, 32) = 13.03$, $p = .001$. Self-appraisals of attractiveness did not vary, however, after exposure to male targets, $F < 1$. Looked at somewhat differently, our female subjects regarded themselves as more attractive after viewing an unattractive woman than after viewing an unattractive man, $F(1, 32) = 5.66$, $p < .025$, and as slightly less attractive after viewing an attractive woman than after viewing an attractive man, $F(1, 32) = 2.66$, $p = .11$.

Summary

To summarize, the data confirm that self-evaluations are sometimes subject to a contrast effect (Morse & Gergen, 1970). Female subjects' perceptions of their own comeliness were greater after they were exposed to unattractive female targets than after they were exposed to attractive female targets. These findings indicate that people use other members of the social world as a reference point when appraising the self. This appears to occur, however, only when the person is a suitable target for comparison. Exposure to male targets did not alter female subjects' perceptions of their own attractiveness. Apparently, only same-sex others are viewed as appropriate targets of comparison where physical attractiveness is concerned (Festinger, 1954).

Study 2

The contrast effect observed in Study 1 is consistent with research in psychophysics. This consistency suggests a general parallel between judgments of physical objects and social objects. At the same time, social judgments differ from judgments of physical objects in at least one important respect: People identify with other people in a way they don't do with objects. Through association, the characteristics of others may rub off on the self.

Table 1
Mean Self-Ratings of Attractiveness as a Function of Target Attractiveness and Target Sex: Study 1

Target attractiveness	Target sex	
	Female	Male
Unattractive	3.73	2.96
Attractive	2.56	3.09

To illustrate, imagine a highly esteemed colleague asks you to collaborate on a project. Although being the less distinguished researcher might threaten self-worth via a contrast effect, being paired with such a renowned colleague might inflate self-worth via an assimilation or association effect.

Several researchers have documented how strong association effects like these can be (Cialdini et al., 1976; Schlenker, 1980; Snyder, Lassegard, & Ford, 1986; Tajfel & Turner, 1986; Tesser, 1988). Tesser's work is most relevant to the present research. According to Tesser's self-evaluation maintenance (SEM) model, self-worth is sometimes increased when a close other (e.g., family member or friend) outperforms the self in some domain. This is the case because, under certain conditions, people can "bask in the reflected glory" (Cialdini et al., 1976) of a close other's outstanding performance.²

An impressive range of research findings supports Tesser's (1988) model. Several issues remain to be addressed, however. First, although implied by a wealth of supporting data, changes in self-evaluation have not been assessed in Tesser's research (Tesser, 1988, p. 208). A direct test seems desirable. Second, Tesser's research has been focused on performance dimensions, that is, dimensions "on which people strive for excellence" (1988, p. 205). Performance dimensions are inherently competitive and the participants in Tesser's research have almost always been placed in competition with one another with respect to some skill or attribute. As with Morse and Gergen's (1970) research, it is important to determine whether the effects Tesser has observed extend beyond competitive situations. Finally, Tesser's model is primarily concerned with how self-evaluation is influenced by the performance of a close other; the model holds that "there will be little effect on one's self-evaluation if there is little connection between oneself and another person" (Tesser & Campbell, 1982, p. 262). Yet Study 1 found that people are affected by the characteristics of others, even when these others are not psychologically close. This suggests that Tesser's model is capturing a slightly different aspect of the social comparison process than is being examined here.

With that in mind, we conducted a second study to explore conditions under which self-appraisals are subject to assimilation effects rather than to the contrast effect observed in Study 1. We began by referring to Heider's (1958) discussion of unit relations. A unit relation refers to a sense of relatedness—

² Tesser's research includes the relevance of the dimension as a central determinant of how psychological closeness and the attributes of others affect self-evaluation. We discuss the possible role of this variable in an ensuing section.

sense that two entities are linked in some way. Once an association, or a unit relation, has been established, the characteristics of one of the entities are often presumed to extend to the other entity. To illustrate with an example of particular relevance to the present research, Sigall and Landy (1973) found that men were evaluated more positively when they were romantically linked with attractive women than with unattractive women (see also Kernis & Wheeler, 1981).

Heider suggested a number of ways in which unit relations could be established between people. These include similarity in attitudes, background, values, or personality (1958, p. 17). In short, any meaningful commonality between self and other can induce feelings of association or psychological closeness.

In Study 2, we tried to instill feelings of closeness by varying the perceived similarity between the subject and the target. We reasoned that leading some subjects to believe that they and the target shared many of the same attitudes, values, and tastes would imbue in them a sense that they and the target were "like" one another. This seemed to be a valid means of infusing in subjects a measure of connectedness between themselves and the target (Tesser & Paulhus, 1983). On the basis of the preceding analysis, we predicted that the contrast effect observed in Study 1 would be reversed when subjects believed they were united with the target in this manner.

Method

Subjects. The subjects were 40 women attending SMU. They participated in individual testing sessions in exchange for extra credit in their introductory psychology courses. Ten subjects were randomly assigned to one of four (two levels of similarity \times two levels of target attractiveness) experimental conditions. Only female target photographs were used in this study. The data from one additional subject were discarded for failing to adequately complete the dependent variables.

Materials. Perceived similarity was manipulated by varying the overlap between the subject's attitudes and the alleged attitudes of the target. This was accomplished as follows: At the start of the academic term, students enrolled in introductory psychology courses completed an attitudes and values questionnaire. The 15 items on this questionnaire pertained to issues of contemporary relevance (e.g., "I am in favor of federally funded abortion") and preferences for various kinds of activities (e.g., "I enjoy sports very much"). Each item was answered using a true-false format.

The subject's responses to these questions provided the means for manipulating similarity. Before a subject arrived for the experimental session, the experimenter located the attitude survey the subject had completed earlier in the semester. Another survey, allegedly filled out by the target, was then constructed on the basis of the subject's responses. In the similar condition, the subject and the target agreed on 12 of the 15 items; in the dissimilar condition, the subject and the target agreed on 3 of the 15 items. Assignment to conditions was randomly determined.

Procedure. Subjects signed up for an experiment on the impression-formation process. On arriving for the experimental session, they were told that they would be shown a photograph of another person and that they should try and form an impression of what the person was like. Additionally, subjects were told that to help them form an impression they would be shown the person's responses to the questionnaire all students had completed earlier in the semester.

Subjects were then given a folder containing a photograph of an attractive or unattractive female target and the target's alleged attitude survey. After perusing these materials, subjects completed an impres-

sion-formation questionnaire comparable to the one used in Study 1. An additional item asked subjects how similar they felt to the target. Subjects then filled out the posttask questionnaire used in Study 1. Subsequently, they were thanked for their participation, debriefed, and excused.

Results and Discussion

Unless otherwise indicated, all analyses were performed using a 2 (similarity) \times 2 (target attractiveness) ANOVA.

Manipulation checks. A significant main effect of attractiveness revealed that attractive targets were judged as more attractive ($M = 5.25$) than unattractive targets ($M = 3.30$), $F(1, 36) = 36.31$, $p < .001$. A significant main effect of similarity showed that subjects felt more similar to the target in the similar condition ($M = 4.35$) than in the dissimilar condition ($M = 2.40$), $F(1, 36) = 18.52$, $p < .001$. No other effects were significant.

As in Study 1, we created an evaluation index and analyzed subjects' evaluations of the target. Two main effects were found. Consistent with research on the effects of attractiveness on liking (Berscheid & Walster, 1978), attractive targets were evaluated more positively ($M = 4.71$) than were unattractive targets ($M = 4.14$), $F(1, 36) = 4.73$, $p < .05$. Consistent with research on the effects of similarity on liking (Byrne, 1971), similar targets were evaluated more positively ($M = 4.83$) than were dissimilar targets ($M = 4.03$), $F(1, 36) = 9.17$, $p < .005$.

Self-ratings of attractiveness. The five items assessing self-perceptions of attractiveness were averaged to form an attractiveness index. An ANOVA on these scores revealed a single effect, a Similarity \times Target Attractiveness interaction, $F(1, 36) = 7.17$, $p = .01$. Table 2 presents the means. As can be seen, the contrast effect observed in Study 1 was replicated in the dissimilar condition. Here, self-ratings of attractiveness were higher after subjects viewed an unattractive target than after they viewed an attractive target, $F(1, 36) = 6.00$, $p < .025$. The reverse tended to be true in the similar condition. Here, subjects' ratings of their own attractiveness were higher after they viewed an attractive target than after they viewed an unattractive target, although the effect was not significant, $F(1, 36) = 1.77$, *ns*. Further analyses showed that, when exposed to unattractive targets, subjects' perceptions of their own attractiveness were higher in the dissimilar condition than in the similar condition, $F(1, 36) = 8.24$, $p < .01$; for attractive targets, there was a slight tendency in the reverse direction, $F < 1$.

To summarize, in addition to replicating the contrast effects found in Study 1, Study 2 identified conditions under which self-appraisals tend to show assimilation effects. When subjects believed that they and the target shared similar attitudes and

Table 2
Mean Self-Ratings of Attractiveness as a Function
of Similarity and Target Attractiveness: Study 2

Target attractiveness	Similarity	
	Dissimilar	Similar
Unattractive	3.48	2.74
Attractive	2.86	3.12

likes, their self-appraisals tended to be enhanced, not diminished, by the target person's attractiveness. Although the simple effect in the similar-other condition did not achieve significance, the interaction establishes that psychological closeness is an important determinant of how one person's characteristics affect another person's self-appraisals (Tesser, 1988).

Study 3

We conducted a third study to further explore the effects of psychological closeness on self-appraisals. Thus far our discussion has been focused on perceptual processes of contrast and assimilation. An account based solely on perceptual processes predicts a perfect crossover interaction: Subjects should regard themselves as more attractive after viewing an unattractive rather than an attractive dissimilar other, but as less attractive after viewing an unattractive rather than an attractive similar other. Contrary to this prediction, only the effect in the dissimilar-other condition attained significance; the effect in the similar-other condition, although in the predicted direction, fell short of significance. This suggests that other processes may be shaping subjects' self-appraisals in that condition.

Motivational processes are a likely candidate. A need to maintain self-esteem might prevent subjects from allowing their self-appraisals to be negatively influenced by an unattractive close other. This possibility suggests an interaction of a different form than the one predicted by a purely perceptual account. It predicts a strong contrast effect in the distant-other condition but a weaker reversal in the close-other condition. This, of course, is precisely the pattern observed in Study 2. Before accepting this account, we thought it prudent to conduct an additional study.

We also used a different manipulation of psychological closeness in Study 3. Prior research has established that people unite themselves with others on the basis of relatively minor criteria and that, once established, the associations they form exert important psychological consequences (Cialdini et al., 1976; Tajfel & Turner, 1986). In an attempt to explore the strength of these tendencies, we used a different and more subtle manipulation of psychological closeness than we used in Study 1. Specifically, we manipulated whether the subject and the person in the photograph shared the same birthday. Cialdini and his colleagues (Cialdini & De Nicholas, 1989; Finch & Cialdini, 1989) have shown that this manipulation invokes feelings of relatedness among people.

Method

Subjects. Subjects were 57 women attending the University of Washington (UW). They participated in individual testing sessions in exchange for extra course credit.

Materials and procedures. At the start of the academic term, students enrolled in lower division psychology classes completed a number of questionnaires. One questionnaire asked for some background information, including the student's birthday; a second questionnaire included the five self-perception of attractiveness items we have been using as our dependent variable.

Four to seven weeks after the mass-testing session, students were contacted by telephone and asked to participate in an experiment on the impression-formation process. Those who agreed were scheduled

for a laboratory session. The same procedures used in the previous studies were followed during the laboratory portion of the study, with two exceptions: (a) a different set of photographs, prerated for attractiveness by an independent sample of UW undergraduates, was used in this study; and (b) subjects were provided with information about the target's alleged birthday. Approximately half the subjects were led to believe they and the target were born on the same day and year. Assignment to conditions was randomly determined and the experimenter who interacted with subjects remained blind to the experimental manipulations. After completing the impression-formation task, subjects completed the attractiveness questionnaire. They were then debriefed, thanked, and excused.

Results

Manipulation checks. A 2 (birthday condition) \times 2 (target attractiveness) ANOVA on subjects' ratings of the target's attractiveness revealed a single main effect of target attractiveness: Attractive targets were judged to be more attractive ($M = 5.31$) than were unattractive targets ($M = 3.61$), $F(1, 53) = 38.12$, $p < .001$. A comparable analysis of subjects' judgments of similarity revealed that subjects in the birthday-matched condition felt only slightly more similar to the target than did subjects in the unmatched condition ($M_s = 3.57$ and 3.37 , respectively, $F < 1$). Subjects did, however, feel more similar to the attractive target ($M = 3.87$) than to the unattractive target ($M = 3.07$), $F(1, 53) = 4.57$, $p < .05$. This finding, which did not occur in Study 2, was unexpected.

An unexpected pattern also characterized subjects' evaluations of the target. All three sources of variance achieved significance in the analysis of these data (all $F_s > 4.25$; all $p_s < .05$). Follow-up tests revealed that attractive targets were evaluated more positively than unattractive targets only in the birthday-matched condition, $F(1, 53) = 24.56$, $p < .001$; there was no difference in the unmatched condition, $F < 1$.

Self-ratings of attractiveness. We expected that subjects' ratings of their own attractiveness would again be inversely linked to the attractiveness of the target when an explicit connection between the subject and the target had not been established. Whether this tendency would be completely reversed in the birthday-matched condition (as a purely perceptual account would predict) or merely attenuated (as a motivational account would predict) was uncertain.

We tested for these effects by first averaging the five items assessing subjects' posttask appraisals of their own attractiveness. These scores were then adjusted using subjects' responses to these items from the earlier mass-testing session. Specifically, we performed a 2 (birthday condition) \times 2 (target attractiveness) analysis of covariance (ANCOVA), using subjects' pretest attractiveness scores as a covariate.³

The only effect to reach significance was the Birthday Condition \times Target Attractiveness interaction, $F(1, 52) = 5.63$, $p <$

³ Across experimental conditions, subject's pretask attractiveness scores were highly related to their posttask attractiveness scores ($.65 < r > .78$). Before using pretask scores as a covariate, preliminary analyses confirmed that the assumption of homogeneity of regression lines was upheld. It is worth noting that unadjusted scores showed a comparable pattern of findings. These conditions held for all other analyses of covariance reported in this article.

.025. As shown in Table 3, in the unmatched condition, self-perceptions of attractiveness were subject to a contrast effect: Subjects regarded themselves as more attractive after viewing an unattractive target than after viewing an attractive target, $F(1, 52) = 4.24, p < .05$. This pattern was reversed in the birthday-matched condition, but it did not achieve significance, $F(1, 52) = 1.51, ns$. Additional analyses revealed a significant effect of the birthday manipulation in the attractive-target condition, $F(1, 52) = 3.96, p < .05$, but not in the unattractive-target condition, $F(1, 52) = 1.66, ns$.

To summarize, the contrast effect observed in the unmatched condition tended to be reversed in the matched condition, but the effect was not significant. This pattern is more consistent with a model that incorporates motivational processes than with an account based purely on perceptual processes.

Supplemental analyses provide additional support for this interpretation. We computed change scores (posttask attractiveness ratings minus pretask attractiveness ratings) and used the pooled standard error of the mean to test these values against a hypothetical value of 0. These analyses revealed that, in the unmatched condition, subjects' self-perceptions of attractiveness rose after exposure to an unattractive target ($M = .41$), $t(53) = 3.49, p < .01$, but did not decline after exposure to an attractive target ($M = -.01$), $t < 1$. Conversely, in the matched condition, subjects' self-perceptions of attractiveness increased after viewing an attractive target ($M = .40$), $t(53) = 3.37, p < .01$, but did not change significantly after viewing an unattractive target ($M = .16$), $t(53) = 1.32, ns$. In short, subjects' perceptions of their own beauty rose but never fell in this study. Although the absence of a true control group imposes limitations on the meaning of these findings, one plausible explanation is that the lack of a significant decline in self-appraisals stems from a motivation to defend against losses in self-worth.⁴

Discussion

The findings from Study 3 replicate and extend our earlier research. In the absence of an association between the subject and the target, self-appraisals showed a contrast effect: Subjects' own feelings of attractiveness were greater after viewing an unattractive target than after viewing an attractive target. This was not true in the birthday-matched condition, however. Here, subjects' perceptions of their own attractiveness were somewhat more positive after viewing an attractive target than after viewing an unattractive target. These findings provide

additional evidence that psychological closeness determines how other people's characteristics affect the self (Tesser, 1988).

The data pattern suggests that an account based solely on perceptual processes provides an inadequate explanation of these tendencies. If only judgmental processes were operating we would expect to find a perfect crossover interaction. This pattern was not observed. Furthermore, we should find that subjects' perceptions of their attractiveness decline after viewing an attractive target in the unmatched condition and an unattractive target in the matched condition. Again, this was not the case. Together, these findings imply that subjects' self-perceptions may have been guided by a need to enhance and preserve feelings of self-worth.

Study 4

A final study was conducted to follow up on the results of Study 3. Several issues were addressed. First, the unexpected findings for the manipulation checks in Study 3 suggested that a replication was in order. Particularly problematic was the lack of a significant effect for the similarity manipulation. Our photographs were of young women, and in an attempt to increase the likelihood that subjects would feel similar to the target in the birthday-matched condition, we limited our sample in Study 4 to only subjects who were of a comparable age (18–22 years old).

Study 4 also examined whether individual differences in self-esteem moderate the effects we have observed. Brown, Collins, and Schmidt (1988) proposed that people with high self-esteem and people with low self-esteem exhibit different self-enhancement tendencies. Their research showed that people with high self-esteem pursue forms of self-enhancement that directly involve the self, whereas people with low self-esteem rely more on indirect forms of self-enhancement that depend on their relationships with others. On the basis of this framework, we expected to find that the tendency to ride the coattails of other people's attractiveness would be most characteristic of people with low self-esteem. In terms of our specific operations, then, we expected that both self-esteem groups would exhibit contrast effects in the unmatched condition, but that assimilation effects—which we assume are influenced by motivational processes—would be more characteristic of subjects with low self-esteem (LSEs) than subjects with high self-esteem (HSEs).

Method

Subjects. Seventy-two UW women participated in exchange for extra course credit.

Materials and procedures. As in Study 3, students enrolled in lower

Table 3
Mean (Adjusted) Self-Ratings of Attractiveness as a Function of Birthday Condition and Target Attractiveness: Study 3

Target attractiveness	Birthday condition	
	Unmatched	Matched
Unattractive	3.07	2.86
Attractive	2.74	3.06

⁴ It is of some interest to note that a comparable pattern obtained in Study 1 as well. In that study, self-perceptions of attractiveness were significantly greater after subjects viewed an unattractive woman rather than an unattractive man, but were not significantly lower after subjects viewed an attractive woman rather than an attractive man. This provides additional evidence that self-perceptions of attractiveness increase in response to unattractive targets of comparison but do not appreciably decrease in response to attractive targets.

division psychology classes completed a battery of measures at the start of the academic term. The following measures were included in this packet of materials: (a) a background questionnaire with an item pertaining to the subject's birthday, (b) the 5-item self-perceptions of attractiveness questionnaire, and (c) the Texas Social Behavior Inventory (TSBI; Helmreich & Stapp, 1974). This instrument is a commonly used measure of self-esteem that places particular emphasis on the social aspects of the self. It consists of 16 items that are answered on 5-point Likert-type scales. After reversing the scoring for 5 of the items, a total self-esteem score is found by summing across the 16 items. The theoretical range is 16–80.

Between 2 and 6 weeks after the testing session, students who scored in the top or bottom thirds of the self-esteem distribution were contacted by telephone and asked to participate in an experiment on the impression-formation process. Those who agreed were scheduled for a laboratory session. The same procedures used in Study 3 were followed in this study. Subjects in Study 4 also completed the TSBI after the impression-formation task.

Results

Self-esteem groups. A 2 (self-esteem) \times 2 (birthday condition) \times 2 (target attractiveness) ANOVA on subjects' pretest TSBI scores revealed only the built-in main effect of self-esteem classification: LSEs had lower self-esteem scores ($M = 45.31$; $N = 39$) than HSEs ($M = 62.45$, $N = 33$), $F(1, 64) = 174.75$, $p < .001$.

Manipulation checks. Analyses of subjects' ratings of the target's attractiveness revealed a single main effect of attractiveness condition: Attractive targets were judged to be more attractive ($M = 5.00$) than unattractive targets ($M = 3.53$), $F(1, 64) = 36.35$, $p < .001$. A comparable analysis of subjects' judgments of similarity revealed that subjects felt more similar to the target in the birthday-matched condition ($M = 3.76$) than in the unmatched condition ($M = 3.29$), $F(1, 64) = 3.02$, $p = .087$. Although only marginally significant, it is clear that similarity was more effectively manipulated in this sample of young adults. Self-esteem also influenced similarity judgments: Across conditions, HSEs reported feeling more similar to the target ($M = 3.95$) than did LSEs ($M = 3.09$), $F(1, 64) = 7.87$, $p < .01$. Although unexpected, this main effect does not appear to compromise the validity of the experimental manipulations, as it did not interact with any of the experimental variables.

As in the previous studies, we created an evaluation index and analyzed subjects' evaluations of the target. The only significant effect was a main effect of attractiveness condition: Attractive targets were evaluated more favorably ($M = 5.24$) than were unattractive targets ($M = 4.60$), $F(1, 64) = 10.38$, $p < .005$.

Self-ratings of attractiveness. We expected that both self-esteem groups would show a contrast effect in the unmatched condition but that LSEs would be especially inclined to show an assimilation effect in the matched condition. To test these predictions we first averaged the five items measuring subjects' posttask assessments of their own attractiveness. We then submitted these scores to a 2 (self-esteem) \times 2 (birthday condition) \times 2 (target attractiveness) ANCOVA, using subjects' pretest attractiveness scores as a covariate.

The ANCOVA revealed a nearly significant main effect of attractiveness condition, $F(1, 63) = 3.73$, $p = .058$, a marginally

significant Birthday Condition \times Target Attractiveness interaction, $F(1, 63) = 2.79$, $p = .10$, and a significant Self-Esteem \times Birthday Condition \times Target Attractiveness interaction, $F(1, 63) = 9.56$, $p < .005$.

Inspection of Table 4 reveals the nature of the triple interaction. The means are patterned largely as predicted. Both self-esteem groups displayed contrast effects in the unmatched condition, regarding themselves as more attractive after viewing an unattractive target ($M = 2.90$) than after viewing an attractive target ($M = 2.59$), $F(1, 63) = 6.58$, $p < .025$, for the simple main effect of attractiveness in the unmatched condition. A significant Self-Esteem \times Target Attractiveness simple interaction was found in the matched condition, however, $F(1, 63) = 11.08$, $p < .001$. Here, only LSEs showed an assimilation effect, rating themselves as more attractive after viewing an attractive target than after viewing an unattractive target, $F(1, 63) = 4.93$, $p < .05$; HSEs continued to show a contrast effect, $F(1, 63) = 6.40$, $p < .025$.

Additional analyses conducted within each self-esteem group revealed a significant simple interaction among LSEs, $F(1, 63) = 11.53$, $p < .001$. As just noted, LSEs showed contrast effects in the unmatched condition but assimilation effects in the matched condition. The only significant simple effect for HSEs was a main effect of attractiveness condition, $F(1, 63) = 6.24$, $p < .025$. Independent of the birthday manipulation, HSEs rated themselves as more attractive after viewing an unattractive target ($M = 2.92$) than after viewing an attractive target ($M = 2.62$).

To summarize, the data show that both self-esteem groups exhibited contrast effects in the unmatched condition but that the tendency to assimilate to the attractiveness of others in the matched condition occurred only for LSEs. Although we had not anticipated that HSEs would show a complete absence of assimilation effects in the matched condition, we had predicted that assimilation effects would be particularly apparent among LSEs. Hence, these findings support the claim that people with low self-esteem are especially apt to benefit from their association with others who are exemplary on some dimension (Brown, in press; Brown et al., 1988).

These findings also speak to the mechanisms responsible for the effects we have observed: That self-esteem played a role at all in these judgments suggests that factors other than perceptual processes are operating. As in Study 3, an examination of

Table 4
Mean (Adjusted) Self-Ratings of Attractiveness
as a Function of Self-Esteem, Birthday Condition,
and Target Attractiveness: Study 4

Target attractiveness	Unmatched birthday		Matched birthday	
	LSE	HSE	LSE	HSE
Unattractive	2.96	2.84	2.61	3.00
Attractive	2.52	2.66	2.98	2.58

Note. LSE = low self-esteem; HSE = high self-esteem.

difference scores (posttask attractiveness rating minus pretask attractiveness rating) is instructive in this regard.

Considering LSEs first, in the unmatched condition, self-perceptions of attractiveness increased after viewing an unattractive target ($M = .51$), $t(64) = 3.77$, $p < .01$, but did not decline after viewing an attractive target ($M = -.03$), $t < 1$. Conversely, in the matched condition, self-perceptions of attractiveness rose after viewing an attractive target ($M = .48$), $t(64) = 3.52$, $p < .01$, but did not change significantly after viewing an unattractive target ($M = .18$), $t(64) = 1.31$, *ns*. For HSEs, independent of the birthday manipulation, self-perceptions of attractiveness increased after viewing an unattractive target ($M = .20$), $t(64) = 2.22$, $p < .05$, but did not decline after viewing an attractive target ($M = -.03$), $t < 1$.

In summary, self-perceptions of attractiveness increased but never decreased in this study for both LSEs and HSEs. As in Study 3, the absence of a true control condition makes any straightforward interpretation of these difference scores problematic. But the data pattern does hint at the operation of motivational processes.

Overall feelings of self-worth. Subjects also completed the TSBI after performing the impression-formation task. This enabled us to assess the impact of our manipulations on more general feelings of self-worth. We conducted a Self-Esteem \times Birthday Condition \times Target Attractiveness ANCOVA on subjects' posttask TSBI scores, using pretask TSBI scores as a covariate to explore this issue.

The ANCOVA revealed a single Birthday Condition \times Target Attractiveness interaction, $F(1, 63) = 4.25$, $p < .05$. In the unmatched condition, self-esteem scores were slightly higher after subjects viewed an unattractive target ($M = 57.53$) than after they viewed an attractive target ($M = 56.12$), $F < 1$; this pattern was reversed in the birthday-matched condition ($M = 53.60$ and $M = 57.12$ for the unattractive and attractive target, respectively), $F(1, 63) = 4.33$, $p < .05$. These tendencies were not further qualified by self-esteem level ($F < 1$, for the triple Self-Esteem \times Birthday Condition \times Target Attractiveness interaction).⁵

Discussion

Study 4 provides additional evidence that psychological closeness determines how other people's attributes affect the self. In the absence of an association between self and other, self-appraisals of attractiveness were subject to contrast effects. This was true for both HSEs and for LSEs. When self and other were united by virtue of sharing the same birthday, however, self-appraisals of attractiveness were subject to assimilation effects. But this was true only for LSEs.

The effects of self-esteem are noteworthy for a couple of reasons. First, they provide additional evidence that subjects' judgments are guided by more than mere perceptual processes in this situation. As far as we know, there is no reason to believe that judgmental or perceptual processes differ as a function of self-esteem. There is, however, reason to believe that the two groups exhibit different motivational patterns (Baumeister, Tice, & Hutton, 1989; Brown et al., 1988; Brown & Smart, 1991). The influence of self-esteem thus implies that motivational forces operated to shape subjects' judgments.

The nature of these motive forces was consistent with predictions. Brown et al. (1988) argued that people with low self-esteem are especially inclined to use others as a prop for boosting self-esteem. These investigators found that LSEs, but not HSEs, showed esteem-enhancing group biases when evaluating a group they were associated with by name only. This was termed an indirect form of self-enhancement, insofar as subjects were not active members of the group they were championing.

Brown et al. (1988) assumed that the behavior of LSEs was guided by an attempt to vicariously inflate self-esteem. The present results support this interpretation. Specifically, they confirm that people with low self-esteem are especially apt to benefit from their association with others who are exemplary on some dimension.

Although we regard the tendency to link the self with others as most characteristic of people with low self-esteem, we do not believe it is the exclusive province of these individuals. Study 4 did not include subjects with intermediate levels of self-esteem, so conclusions about these individuals must be withheld. But the fact that Studies 2 and 3 found evidence of assimilation effects across self-esteem levels suggests that these effects extend to people with moderate levels of self-esteem as well.

Furthermore, we also found evidence that people with high self-esteem display assimilation effects under some circumstances. Specifically, they showed assimilation effects on the more general measure of self-esteem. This supports the claim that assimilation effects, although more characteristic of people with low self-esteem, are by no means absent among those with higher levels of self-esteem.

It is interesting to consider why HSEs failed to display assimilation effects on the measure of attractiveness but did so on the more general measure of self-worth. One possible explanation centers on a need to perceive the self as better than others. Brown (1986) found that people with high self-esteem regard themselves more positively and less negatively than they regard others on a wide variety of attributes and traits. Moreover, this tendency appears to stem from a motivated need to enhance self-worth: The positive discrepancy between evaluations of self and others increases among people with high self-esteem after a threat to self-worth (Brown & Gallagher, 1992).

Applied to the behavior of HSEs in the present research, this explanation suggests that the need to maintain superiority over others may have been a more powerful motive than the desire to connect the self with an attractive other.⁶ This could account for

⁵ An examination of difference scores revealed that self-esteem rose in response to an unattractive other in the unmatched condition ($M = 3.74$), $t(68) = 2.69$, $p < .025$, and to an attractive other in the matched condition ($M = 3.76$), $t(68) = 2.71$, $p < .025$, but did not change in response to an attractive other in the unmatched condition ($M = 2.20$), $t(68) = 1.58$, *ns*, or to an unattractive other in the matched condition ($M = .12$), $t < 1$.

⁶ We have some data to support this interpretation. If HSEs were generally motivated to see themselves as more attractive than the target, there ought to be a positive correlation between their ratings of the target's attractiveness and their own attractiveness ratings. These correlations were, in fact, positive in all four experimental conditions and their combined value was significant ($r = .40$, $p < .05$, for the pooled within-cell correlation between HSEs' ratings of the target's attractiveness and the adjusted ratings of their own attractiveness).

why HSEs displayed only contrast effects on the measure of attractiveness. A need to assert superiority over others may not have extended to overall judgments of self-worth, however. These judgments are more personal than relational and direct comparisons are not possible. The lack of a contrast effect on the general measure of self-esteem lends some support to the claim that superiority needs were generally weaker for these judgments than for the more specific judgments of attractiveness. An attenuation of the need to be better than others may thus have allowed HSEs to also "bask in the reflected glory" (Cialdini et al., 1976) of a close other's positive attributes on this measure.

General Discussion

Four investigations explored how the social context and psychological closeness influence people's self-evaluations. The findings show that the nature of the social relationship between two people determines how one person's characteristics affect another person's self-concept. Under normal (control) conditions, or when our dissimilarity with others is salient, self-appraisals are subject to contrast effects: Our self-views are enhanced to the extent that others around us are inadequate in some regard. A different picture emerges when we are connected or united with other people, however. Under these conditions, self-appraisals tend to be enhanced when close others are exemplary on some dimension. This effect depends on the interplay of personality variables (i.e., self-esteem) and the dimensions under consideration (i.e., specific judgments of attractiveness or more general judgments of self-worth).

At a certain level, the assimilation effects we observed are not surprising. It would not be startling, after all, to find that parents feel at least slightly more confident of their own intellectual abilities should their children excel at school. What is surprising, however, is the apparent ease with which connections between self and others can be established. Along with other research (Cialdini et al., 1976; Tajfel & Turner, 1986), our findings suggest that individuals are poised to forge associations with others on the basis of relatively trivial commonalities. Once established, these associations exert powerful influences on the self.

This does not mean, of course, that any shared characteristic will always induce feelings of relatedness in people. Psychological closeness is best understood as a dynamic process, one that is subject to change and modification (Heider, 1958). One variable that might determine when two people feel united is distinctiveness. Research by McGuire and McGuire (1988) indicates that individuals define the self in terms that distinguish them from their social surroundings. Other research by Miller, Turnbull, and McFarland (1988) has found that sharing a distinctive similarity with another person (e.g., two people are both devotees of Bertolt Brecht) leads to greater feelings of closeness than does sharing a common or nondistinctive similarity (e.g., two people both like ice cream). Juxtaposed, these findings

suggest that psychological closeness—and hence, assimilation effects of the type we have observed—are most apt to occur when people find they have some unique attribute in common. Sharing the same birthday would appear to fall into this category.

Comparisons With Other Research

Our findings provide the first direct demonstration that self-appraisals are jointly affected by another person's characteristics and our relationship to that person. We are not the first, however, to suggest that this occurs (Cialdini et al., 1976; Schlenker, 1980; Tesser, 1988). Tesser's SEM model is particularly relevant. This model holds that whether feelings of self-worth are augmented or diminished by the characteristics of others depends jointly on (a) our relationship to that person and (b) the relevance of the dimension under consideration. Specifically, the outstanding performance of a close other is presumed to raise self-evaluation if the performance occurs on a dimension of low personal relevance but to lower self-evaluation if the performance occurs on a dimension of high personal relevance.

Tesser's (1988) research implies that the assimilation effects we observed occur only for people who regard attractiveness as an unimportant dimension. We did not assess relevance of personal attractiveness in our research so we cannot rule this possibility out. But we regard it as unlikely. As noted earlier, attractiveness is a very important attribute in our culture, particularly among college-aged women (Pliner et al., 1990). There is no reason to believe this was not true for our subjects as well.⁷

Instead of focusing on the role of relevance, we believe variations in competition provide the most likely explanation for the differences between our research and Tesser's (1988). Competition between self and other is usually very salient in Tesser's research: Performance dimensions are selected and one person's performance is explicitly compared with another person's performance. Hence, Tesser's research is principally concerned with how it feels to be outperformed by someone who is close to you. Competition was not salient in our research. Instead, we merely led subjects to believe they were linked to someone who either was or was not high in attractiveness. This situation is quite different from one in which one person's attractiveness is pitted against another's.

A tennis analogy may serve to clarify what we see as the essential difference between the two research efforts. Tesser's (1988) research explores the consequences of playing singles

⁷ Alternatively, it might be argued that attractiveness is low in relevance for people with low self-esteem but high in relevance for people with high self-esteem. This could explain why LSEs showed contrast and assimilation on the attractiveness measure but HSEs showed only contrast effects. We are not aware of any research documenting that attractiveness is less important for people with low self-esteem. Furthermore, this account would predict that HSEs show a stronger contrast effect in the matched condition than in the unmatched condition; the relevant comparison does not approach significance, $F(1, 63) = 1.03, ns$. Finally, HSEs did show assimilation effects on the measure of overall feelings of self-worth. For these reasons, we believe that differences in relevance do not account for the self-esteem effects we observed.

Independent of their relation to the target, then, HSEs raised their own attractiveness ratings in response to their perceptions of the target's attractiveness. This pattern was not found for LSEs ($r = -.23, p > .15$).

against a close other or a distant other; one person wins and the other person loses. Under these conditions, the relevance of the performance to self-definition appears critical. Our research is concerned with the consequences of playing doubles with a desirable or undesirable other; the team wins or the team loses. Here, relevance is apt to be less important. This analysis suggests that the two research programs are addressing somewhat different issues and are properly regarded as complementary.

Limitations

Several limitations of the present research need to be acknowledged before further consideration is given to our findings. First, our stimuli (i.e., photographs and attitude surveys) were admittedly impoverished relative to the richness of actual social encounters. Although the use of such stimuli maximizes control over extraneous variables, it also entails a sacrifice in ecological validity. It is important to determine whether the present findings would hold in more natural settings. It is also important to determine whether features other than physical attractiveness produce the effects we have observed.

A second limitation of the present research concerns the time frame we used. Our research examined only short-term changes in self-concept that resulted from momentary exposure to others. It is highly unlikely that subjects' self-appraisals underwent any permanent change. At the same time, long-term exposure to others who are superior or inferior on some salient dimension might effect lasting changes in self-concept (Pettigrew, 1967; Stouffer, Suckman, DeVinney, Starr, & Williams, 1949). Our findings suggest that psychological closeness would determine the direction of this change.

Our sample of female college students represents another potential limitation. College students are less apt to possess a firm sense of self than are older adults (cf. Sears, 1986). Furthermore, there is some evidence that women are particularly apt to be influenced by social comparison information (Rosenberg, 1979). The factors suggest that a replication of the present research with older subjects of both sexes is desirable.

Extensions and Implications

These potential limitations notwithstanding, our findings make contact with a good deal of other research in social psychology. Consider, for example, the relevance of our findings to research on interpersonal attraction and physical attractiveness. People are generally more attracted to physically attractive others than to unattractive others (Berscheid & Walster, 1978). The usual explanations for this effect center around principles of reinforcement and halo effects. Our findings suggest another possible explanation: Individuals may be attempting to augment their feelings of self-worth by linking themselves to attractive others. This tendency may extend to attributes other than physical attractiveness as well.

Our findings also shed light on the consequences of upward vs. downward social comparison. Early research in social comparison theory assumed that only downward comparison, that is, comparisons with less-advantaged others, boost self-esteem (Wills, 1981). Recently, the notion that both upward and downward comparison can have positive (and negative) consequences

has been advanced (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Major, Testa, & Bylsma, 1991; Taylor & Lobel, 1989; Tesser, 1988; Wood, 1989).

The present findings support the claim that social comparison has multiple effects. They also refine earlier research by highlighting a variable that influences when upward and downward comparison will have positive or negative effects on self-esteem. This variable is psychological closeness (Major et al., 1991; Tesser, 1988). When self and other share a meaningful association, self-worth might be more effectively promoted by comparing upward than by comparing downward. To illustrate with an example from the coping literature, a cancer patient might be better able to raise feelings of personal worth by emphasizing her or his association with those who are coping well than by comparing the self with those who are coping poorly (Taylor & Lobel, 1989).

Concluding Remarks

We began this article by considering how Gulliver's views of himself might have changed during his travels. Our findings suggest that an answer to this question requires knowledge of the social bonds Gulliver formed with the inhabitants of the lands he visited. In more general terms, our data indicate that our relationship with others determines how their characteristics affect the self. These findings provide an interesting perspective on the role of social forces in shaping the self-concept. A very old adage counsels that people are known by the company they keep; our findings suggest people know themselves by the company they keep as well.

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