
Agency and Communion in Naturalistic Social Comparison

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The authors suggest that social comparison research has neglected communal feelings and concerns because it typically asks participants to compare objective characteristics that invite evaluative rankings (e.g., test scores) with acquaintances or strangers without any interaction. The authors asked 138 undergraduates to record their spontaneous social comparisons for 1 week; they found that participants often compared subjective characteristics (e.g., feelings), with close others, and during interactions. Comparing subjective characteristics, with close others, or during interactions increased the likelihood of communal outcomes (e.g., feeling connected, focusing on similarities as opposed to differences). Communal traits also predicted feeling connected during comparisons; agentic traits predicted feeling confident and comparing downward. The authors conclude that the basic interpersonal axes—agency and communion—together shape social comparisons as they occur in daily life.

Both theorists and laypersons tend to conceptualize social interactions in terms of two broad dimensions, variously described as status and love or solidarity (Brown, 1965; Foa, 1961), dominance and warmth or friendliness (Carson, 1969; Kiesler, 1983; Leary, 1957), power and intimacy (McAdams, 1985), or more broadly, agency and communion (Bakan, 1966). Factor analyses confirm that these two dimensions account for a large proportion of the variance in ratings of interpersonal behaviors and traits (e.g., Conte & Plutchik, 1981; Foa, 1961; Wiggins, 1979). To the extent that social comparisons are social acts, both agency and communion should be pivotal in motivating comparisons and shaping their expression. However, research on social comparisons has typically focused more on agentic than communal thoughts, feelings, and motives.

Agentic and Communal Aspects of Social Comparisons

The present study seeks to broaden our understanding of social comparisons by assessing both agentic and communal aspects of everyday social comparisons. To study naturalistic social comparison, we used the method of event-contingent self-recording described by Wheeler and Miyake (1992). Each time participants noticed themselves making a social comparison, they completed a Social Comparison Record (SCR). Specifically, for each comparison, the SCR asked participants to describe (a) the main concern motivating the comparison, (b) the direction of the comparison, and (c) the feelings evoked by the comparison.

The main concern of the comparison. Social comparison research has typically focused on three concerns: self-evaluation, self-improvement, and self-enhancement (Wood, 1989). Waymunt and Taylor (1995) asked students how useful objective information, personal standards, and social comparisons were for meeting these goals. Across all three goals, social comparisons were reported to be the least useful as well as the least frequently used. Ross, Eyman, and Kishchuk (1986) also found people to more often refer to personal than social standards in making judgments of subjective well-being. One interpretation is that people do not find social comparisons particularly compelling. An alternative explanation is that people are interested in social comparisons,

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but as means to attaining communal goals in addition to the goals of evaluating, improving, and enhancing the self. Two studies by Hegelson and Mickelson (1995) provide support for the latter explanation. Participants reported their motives for social comparison after experiencing or imagining a negative event. The goal of feeling a common bond (e.g., "So I won't feel alone or isolated") was mentioned as often as self-improvement and more often than self-enhancement. Thus, one purpose of our study was to compare the frequencies and correlates of common bond (communal) versus self-evaluative and self-improvement (agentic) concerns.

The direction of comparison. Comparison direction refers to whether the comparison target is perceived as better off (an upward comparison), worse off (a downward comparison), or neither (a lateral comparison). Most research on perceptions of comparison targets has focused on this agentic dimension of perceived status. Indeed, distinguishing the emotional and motivational antecedents and consequences of upward and downward comparisons has received perhaps more attention than any other topic in the social comparison literature (e.g., see Collins, 1996; Wills, 1991). Although fewer studies have examined perceived similarity to the comparison target, the research suggests that this communal dimension is important as well. For example, people find it more comforting to share experiences with others who are experiencing similar apprehensions (Schachter, 1959), moods (Locke & Horowitz, 1990), or problems (Hegelson & Taylor, 1993). Thus, a second goal of our study was to examine the frequencies and correlates of both perceived similarity and perceived status during everyday comparisons.

The feelings evoked by social comparisons. When examining the affective consequences of social comparisons, previous research has typically focused either on overall affective valence or on feelings specifically relevant to upward and downward comparisons, such as feeling envious (Salovey & Rodin, 1984) or lucky (Hegelson & Taylor, 1993). Feelings relevant to lateral comparisons and communal concerns have not been studied. Thus, a third goal of our study was to study the correlates of both agentic feelings (e.g., proud and confident) and communal feelings (e.g., connected and intimate).

Agentic and Communal Aspects of Social Comparison Situations

In addition to focusing on agentic aspects of social comparisons, researchers have typically studied social comparisons in situations that may foreground agentic

feelings and concerns. Three situational variables that may influence the salience of agentic feelings and concerns are (a) whether there exists a close relationship with the comparison target, (b) the type of characteristic being compared, and (c) whether the comparison occurs in the context of an interpersonal interaction.

The closeness of the comparison target. Social comparison research has typically examined comparisons with acquaintances or strangers. Sometimes the only information known about the target is his or her standing with respect to the characteristic being compared. However, in everyday life, the target of comparison often is well-known. Indeed, college students reported that they were more than twice as likely to compare with close friends and family as with strangers (Wheeler & Miyake, 1992). Comparisons with strangers or passing acquaintances may differ from comparisons with people with whom one has a continuing relationship. For example, comparisons with close others appear to have more emotional and motivational impact (Tesser, 1991).

The characteristic being compared: Objective versus subjective. In his original formulation of social comparison theory, Festinger (1954) wrote, "With respect to abilities, different performances have intrinsically different values" (p. 124). In contrast, "no opinion has in and of itself any greater value than any other opinion. The value comes from the subjective feeling that the opinion is correct and valid" (p. 125). In addition to abilities, other characteristics that are perceived as having an intrinsic or objective basis of evaluation include academic standing, physical appearance, and wealth because (all other things being equal) most people would prefer to have good grades, good looks, and a lot of money. In contrast, there are not clear, consensual bases for ranking and evaluating characteristics such as opinions, attitudes, feelings, relationships, and lifestyle choices. The basis for evaluating such characteristics is perceived to be subjective. For the sake of brevity, we will call characteristics that are perceived as having an objective basis for evaluation objective characteristics and those that are perceived as having a subjective basis for evaluation subjective characteristics. Experimental social comparison research has typically studied comparisons involving objective characteristics because they enable researchers to clearly define and control the direction of comparison. However, comparisons involving objective characteristics may differ from those involving subjective characteristics.

The interactional context of the comparison. Finally, to maintain simplicity and control, researchers have typically studied social comparisons in the absence of any

actual interaction. However, such comparisons may differ from those that arise in the context of an ongoing interaction. Specifically, we hypothesized that people would be more likely to have communal motives, make lateral comparisons, and experience a sense of connectedness while comparing subjective (vs. objective) characteristics with close (vs. distant) targets or while interacting with the target (vs. no interaction). To test the preceding hypotheses about situational influences, our SCR asked participants to describe for each comparison the target, the characteristic being compared, and the interactional context.

Individual Differences in Agency and Communion

The only individual difference variable to receive significant theoretical and empirical attention in the social comparison literature is self-esteem. The emphasis on self-esteem reflects an emphasis on self-focused motives for comparison, such as self-enhancement (Wills, 1981). If interpersonal motives are also important, then individual differences in agentic and communal traits may play a correspondingly important role. Therefore, we assessed individual differences in agentic traits (e.g., dominant, ambitious, competitive) and communal traits (e.g., warm, tender, sympathetic) as well as self-esteem.

One prior study has examined the relationship between interpersonal traits and social comparisons. Steil and Hay (1997) studied the effects of individual differences in affiliative and agentic traits (as assessed by the Adjective Checklist) (Gough & Heilbrun, 1983) on the direction and gender of target of social comparison in the workplace. They found that agentic men compare more with people in higher level than comparable level positions and that agentic women compare more with men than with other women. Affiliative traits had no effect, but this is not surprising given that the context was the workplace and affiliative aspects of comparison were not assessed. Thus, the final goal of our study was to assess the influence of agentic and communal traits on both agentic and communal aspects of comparison in a range of situations.

METHOD

Participants

The participants were 157 undergraduates whose ages ranged from 17 to 43 ($M = 20.56$, $SD = 3.96$); 108 were female and 48 were male. Of those who indicated their primary ethnic background, 91 indicated European background, 22 Asian, 16 Latino, 5 African, and 10 other or mixed. The participants were recruited by means of flyers posted around campus and distributed in

introductory psychology classes. The participants received \$10 after completing the study.

Materials

Measures of agentic and communal traits and motives. We assessed agentic and communal traits using the Bem Sex Role Inventory (BSRI) (Bem, 1974) and Personal Attributes Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1974). Both inventories contain two major scales that have been shown to be reliable and valid measures of agentic and communal traits (Wiggins & Broughton, 1985; for a review, see Cook, 1987). As expected (Spence, 1991), the BSRI and PAQ were significantly correlated; $r(155) = .66$ for agency, $r(155) = .61$ for communion ($ps < .001$). Therefore, we summed the standardized BSRI and PAQ scores to create a single agency and a single communion score for each participant. There was a weak relationship between the agency and communion scores, $r(155) = .18$ ($p < .05$).

Self-esteem. Our measure of self-esteem was the Rosenberg Self-Esteem Scale (Rosenberg, 1965), a widely used 10-item scale that assesses overall feelings of value and worth.

The SCR. The SCR assessed the situational variables (the target, topic, and context of the comparison) and the outcome variables (the main concern, comparison direction, perceived similarity, and feelings experienced). The items were as follows:

1. "With whom did you compare yourself?" The response options were "friend," "acquaintance," "stranger," and "other—please specify." The responses were coded into two categories: (a) close others (friends, romantic partners, and relatives) and (b) distant others (acquaintances and strangers).
2. "What was being compared?" The response options were "academic skills/status," "wealth/possessions," "abilities," "social relationships," "attitudes/feelings/opinions," "personality," "physical appearance," "lifestyle," and "other—please specify." The responses were coded into two categories: (a) objective characteristics (i.e., academic and other abilities, wealth and possessions, and physical appearance) and (b) subjective characteristics (i.e., social relationships, feelings, attitudes and opinions, personality, and lifestyle).
3. "What type of social contact was involved?" The response options were "interaction" and "no interaction."
4. "During this comparison, what was your main concern?" The response options were "Am I better off than him/her/them?" "Am I worse off than him/her/them?" "Am I similar to him/her/them?" "Can we understand or connect with each other?" and "Can this information help me improve how I look, feel, or act in the future?" The responses were coded into two categories: (a) agentic concerns (i.e., "Am I better off?" and "Can this information help me?") and (b) communal concerns (i.e., "Am I similar?"). (Note: Only 73 of the participants completed SCRs containing this question.)

5. "Were you feeling better off than the other person(s), worse off, or neither?"
6. "Were you feeling similar to the other person(s), dissimilar, or neither?"

Finally, participants rated how they were feeling during the comparison on 10 -3 to +3 bipolar rating scales: happy-sad, dissatisfied-accepting, unsupported-supported, proud-ashamed, insecure-confident, intimate-alienated, worried-relaxed, isolated-connected, supportive-unsupportive, and advantaged-disadvantaged. Hierarchical cluster analysis—using Ward's method, a squared Euclidean distance metric, on all completed SCRs and cutting the cluster tree at the point that a small number of clusters remained consistent over a relatively large range of distance coefficients (Romesburg, 1984)—revealed three coherent clusters of feelings. One group consisted of connected, supported, supportive, and intimate. The Cronbach's alpha for these four items was .82, and connected-isolated had the highest item-total correlation. Therefore, we averaged the items and called the resulting scale "feelings of connectedness." A second group of items consisted of proud, advantaged, self-accepting, and confident. The Cronbach's alpha for these four items was .89, and confident-insecure had the highest item-total correlation. Therefore, we averaged these items and called the resulting scale "feelings of confidence." The third group of items consisted of happy and relaxed (Cronbach's alpha = .79). We averaged the two items and called the resulting scale "feelings of happiness."

Procedure

The individual difference measures were administered in small groups. Then, the packet of records was distributed with the following instructions:

Over the next week, each time you notice yourself talking or thinking about similarities and/or differences between yourself and another person or persons with respect to some characteristic, fill out one of the attached Social Comparison Record sheets. [At this point, we read each question aloud, elicited examples of social comparisons, and showed how the examples would be recorded.] Although you may not always be able to complete the record sheet immediately, please try to get to it as soon as possible. . . . We have given you 20 record sheets. It is fine for you to finish all 20 within a few days, and it is fine for you to not finish all 20 by the end of the 7 days.

Of the participants, 88% (100 women, 38 men) returned their SCRs. The total number of records completed ranged from 3 to 20 ($M = 13.20$, $SD = 5.35$). The number of completed records was unrelated to any of the other variables measured in the study.

RESULTS

Data Analytic Strategy

The data in this study were multilevel, with multiple lower level observations nested within upper level units (Kenny, Kashy, & Bolger, 1998). The lower level observations were the records of social comparisons. The upper level units were the participants who completed the social comparison records. We were interested in sources of variation in comparison experiences both within and between the participants. The within-participants sources of variation we examined were the situational predictors: target, characteristic, and context. The between-participants sources of variation we examined were the dispositional predictors: agency and communion. The data were analyzed using the multilevel regression technique of hierarchical linear modeling (HLM) (Bryk & Raudenbush, 1992; Bryk, Raudenbush, & Congdon, 1996), which uses iterative computing to fit within-participants and between-participants regression equations simultaneously.

We followed the basic steps for parameter estimation and hypothesis testing outlined in Bryk and Raudenbush (1992). First, for each outcome variable (main concern; upward, downward, and lateral comparisons; perceived similarity; confident, connected, and happy feelings), we estimated the intercept (mean outcome) for each participant and the amount of variation in participants' intercepts. Second, if there was significant variation in intercepts for a particular outcome, then we modeled the variation in intercepts as a function of the between-participants predictors (agency and communion). Third, for each outcome variable and situational predictor (target, characteristic, and context), we estimated a predictor-outcome slope for each participant and the amount of variation in participants' slopes. Fourth, if there was significant variation in slopes for a particular predictor-outcome relationship, then we modeled that variation in slopes as a function of the between-participants predictors (agency and communion). The significance level for all tests was .01 unless otherwise specified.

Descriptive Statistics for the SCR Variables

Table 1 shows the means for each of the SCR variables. Participants were significantly more likely to compare with close than distant others and to compare during than not during interactions. They were also more likely to focus on agentic than communal concerns, make downward than upward or lateral comparisons, and perceive others as dissimilar than similar. People rarely perceived others as "neither similar nor dissimilar." Consequently, there was insufficient data to analyze "neither" responses and the results for "dissimilar" were just the

inverse of those for “similar.” Therefore, in the following analyses, we only show the results for the response of “similar.”

Although Table 1 shows the means for the raw SCR data, in the analyses below, the raw SCR data were transformed as follows. First, the categorical variables were dummy-coded: target (distant = 0, close = 1), characteristic (objective = 0, subjective = 1), context (no interaction = 0, interaction = 1), main concern (agentic = 0, communal = 1), and the various categories of direction and similarity (1 = occurrence, 0 = nonoccurrence). Second, to facilitate the interpretation and comparison of the regression coefficients, all outcome and between-participants predictor variables were centered and standardized relative to their between-participants means and standard deviations.

Is There Significant Between-Participants Variance in Comparison Experiences?

To determine the proportion of variance in each outcome variable that was between-participants, we fit an unconditional model with no predictor variables for each outcome. The unconditional, within-participants model defines the outcome of a particular comparison as a function of participant *j*'s mean outcome across all comparisons and a deviation from that mean. This model can be written as follows:

$$Y_{ij} = \beta_{0j} + r_{ij} \tag{1}$$

For example, if the outcome is confidence, then Y_{ij} is participant *j*'s confidence on his or her *i*th comparison, β_{0j} is *j*'s mean confidence across all comparisons, and r_{ij} is a residual component of confidence for record *i*. For each outcome, HLM computed 138 within-participants regression equations, one for each participant.

The unconditional, between-participants model defines *j*'s mean outcome as a function of the average outcome across all participants and a deviation from that grand mean. This model can be written as follows:

$$\beta_{0j} = \gamma_{00} + u_{0j} \tag{2}$$

For example, if the outcome is confidence, β_{0j} is participant *j*'s mean confidence, γ_{00} is the confidence grand mean, and u_{0j} is the residual component of confidence for *j*.

The proportion of the variance in each outcome variable that was between-participants was then computed as the variance in u_{0j} divided by the total variance. There was significant between-participants variance in all outcomes; however, the proportions differed for different outcomes. The between-participants variance was lowest for main concern (4.4%); moderate for upward

TABLE 1: Descriptive Statistics for the Social Comparison Record Variables

Variable	M	SE
Situational predictors		
Target		
Close	0.567	0.016
Distant	0.433	0.016
Characteristic		
Subjective	0.535	0.014
Objective	0.465	0.014
Context		
Interaction	0.600	0.015
No interaction	0.400	0.015
Comparison outcomes		
Main concern		
Communal	0.342	0.020
Agentic	0.658	0.020
Direction		
Upward	0.305	0.017
Downward	0.385	0.016
Lateral	0.309	0.016
Perceived similarity		
Similar	0.322	0.016
Dissimilar	0.599	0.018
Neither	0.079	0.009
Feelings		
Connectedness	0.287	0.042
Confidence	0.470	0.057
Happiness	0.293	0.060

NOTE: All values were estimated using hierarchical linear modeling. For feelings, numbers represent mean ratings on scales ranging from -3 to +3. For all other variables, numbers represent mean proportions of completed Social Comparison Records.

(11.2%), downward (6.8%), and lateral comparisons (8.5%) and perceptions of similarity (9.2%); and highest for feelings of confidence (16.1%), connectedness (13.2%), and happiness (14.5%).

Do Agentic and Communal Traits Predict Comparison Experiences?

The next step was to model the variation between participants in their typical comparison experiences in terms of the between-participants predictor variables: agency and communion. To test the effects of agency and communion, Equation 2 was expanded as follows:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}A_j + \gamma_{02}C_j + u_{0j} \tag{3}$$

where γ_{01} is the effect of agency (controlling for communion), γ_{02} is the effect of communion (controlling for agency), and A_j and C_j are *j*'s agency and communion scores.

Table 2 shows the effects of agency and communion on each of the outcome variables. Agency predicted confidence but not connectedness, whereas communion

TABLE 2: Effects of Interpersonal Traits (agency and communion) on Comparison Outcomes

Outcome	Agency		Communion	
	γ	SE	γ	SE
Communal concern	0.032	0.042	0.001	0.042
Direction				
Downward	0.093*	0.033	0.015	0.032
Lateral	0.001	0.036	0.009	0.035
Upward	-0.098*	0.037	-0.020	0.037
Perceived similarity	0.046	0.036	0.045	0.035
Feelings				
Connected	0.022	0.038	0.141**	0.037
Confident	0.146**	0.040	0.071	0.039
Happiness	0.087	0.041	0.022	0.040

NOTE: The gamma weights represent the standard deviation change in the outcome variable for each standard deviation change in the predictor variable.

* $p < .01$. ** $p < .001$.

predicted connectedness but not confidence. Agency also predicted making downward and not making upward comparisons. To clarify the effect of agency on comparison direction, we computed the proportion of downward, lateral, and upward comparisons for participants above versus below the median in agency. The mean proportions of downward, lateral, and upward comparisons were .45, .30, and .25, $F(2, 136) = 13.06, p < .001$, for people high in agency, and .33, .31, and .36, $F(2, 136) = .60, ns$, for people low in agency. Thus, the tendency for people to make more downward than upward or lateral comparisons (seen in Table 1 above) held true only for people high in agency, not those low in agency.

Does Comparison Direction Mediate the Effect of Interpersonal Traits on Feelings?

How might interpersonal traits influence the feelings people experience during comparisons? One possibility is that interpersonal traits influence feelings by influencing comparison direction. To test this possibility, we first computed for each participant the proportion of comparisons that were upward, downward, or lateral. These individual differences (across situations) in tendencies to make upward, downward, or lateral comparisons were unrelated to individual differences in communion; therefore, individual differences in comparison direction cannot explain the effect of communion on feelings of connectedness. However, individual differences in agency were related to individual differences in tendencies to make upward and downward comparisons, $r_s(136) = -0.22$ and 0.23 ; therefore, upward and downward comparisons were potential mediators of the effects of agency on confidence. To test the effects of upward and downward comparisons on the agency-

confidence slope, we added tendencies to make upward and downward comparisons as between-participants predictors to Equation 3. Not surprisingly, confidence was negatively related to upward comparisons ($\gamma = -0.27, t = -8.55$) and positively related to downward comparisons ($\gamma = 0.13, t = 3.95$). After controlling for the effects of upward and downward comparisons, the effect of agency was only marginally significant ($\gamma = 0.06, t = 2.05$). Thus, agentic people may feel more confident during comparisons in part because they tend to compare downward as opposed to upward.

Agency and communion also may influence comparison outcomes by influencing other aspects of the social comparison situation. However, individual differences in agency and communion were not significantly correlated with individual differences in tendencies to compare subjective characteristics, with close others, or during interactions. Thus, individual differences in tendencies to compare subjective characteristics with close others or during interactions cannot explain the effects of interpersonal traits on comparison outcomes.

Do Situational Variables Predict Comparison Experiences?

In the preceding two sections, we reported the tests of effects of individual differences (between-participants) on comparison outcomes. In the following two sections, we report the tests of effects of situational differences (within-participants). Recall that although there was significant variance in comparison outcomes between participants, the vast majority of the variance (between 84% and 96%) was within participants. The question was whether we could model the within-participants variation in comparison outcomes in terms of the within-participants (situational) predictor variables: target, characteristic, and context.

To test the effects of the situational predictors, Equation 1 was expanded as follows:

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{1ij} + \beta_{2j}X_{2ij} + \beta_{3j}X_{3ij} + r_{ij} \tag{4}$$

where X_{1ij} , X_{2ij} , and X_{3ij} are the target, characteristic, and context, respectively, for participant j 's i th comparison, and β_{1j} , β_{2j} , and β_{3j} are j 's target-outcome, characteristic-outcome, and context-outcome slopes, respectively. Note that because we were testing the effect of situation as a within-participants variable, X_{ij} was centered on the average situation for each participant. For example, X_{1ij} is j 's i th comparison target dummy code (0 or 1) minus j 's average target dummy code. HLM computed 125 within-participants regression equations, one for each usable participant; 13 participants were omitted from the analyses due to collinearity between the situational variables.

Table 3 shows the mean effects of within-participants variations in target, characteristic, and context on comparison outcomes. Comparisons with close (as opposed to distant) targets were associated with perceptions of similarity and feelings of connectedness. Comparisons involving subjective (as opposed to objective) characteristics were associated with fewer upward comparisons and more lateral and downward comparisons, communal concerns, and feelings of confidence. Comparisons during (as opposed to not during) interactions were associated with fewer upward comparisons and more lateral comparisons, communal concerns, perceptions of similarity, and feelings of connectedness.

Does Comparison Direction Mediate the Effects of Situational Variables on Feelings?

As shown above, the comparison characteristic and context were predictive of both comparison direction and feelings of confidence and connectedness. Moreover, feelings of confidence and connectedness were positively related to lateral comparisons and negatively related to upward comparisons. Thus, upward and lateral comparisons might be mediating the effects of characteristic and context on feelings. To test this, we added upward or lateral comparisons (separately) to Equation 4 and tested if there were significant decreases in situation-outcome slopes (β_{2j} and β_{3j}). After controlling for the effects of upward comparisons, there was a significant decrease in the characteristic-confidence slope, ($\Delta\beta_2 = 0.23, t = 3.43$). Thus, people may feel more confident when comparing subjective characteristics because when comparing subjective characteristics, they are less likely to perceive the target as superior. No other tests of mediation were significant.

Do Agentic and Communal Traits Moderate the Effects of Situations?

The final question was whether there were interactions between the dispositional variables (agency and communion) and the situational variables (target, characteristic, and context), or in HLM terms, whether the between-participants predictors would moderate the within-participants (situation-outcome) slopes. We can only test for between-participants effects on situation-outcome slopes if there is significant between-participants variation in situation-outcome slopes. Therefore, the first step was to determine if there was significant variance in slopes. To test for variance in slopes, the within-participants level of the model was the same as Equation 4 and the between-participants level was as follows:

$$\beta_{1j} = \gamma_{10} + u_{1j} \tag{5}$$

TABLE 3: Effects of Situational Predictors (target, characteristic, and interactional context) on Comparison Outcomes

Outcome	Target		Characteristic		Context	
	β	SE	β	SE	β	SE
Communal concern	0.088	0.077	0.430**	0.077	0.221*	0.076
Direction						
Downward	-0.068	0.057	0.156*	0.057	-0.046	0.058
Lateral	0.030	0.056	0.166*	0.058	0.253**	0.054
Upward	-0.049	0.061	-0.328**	0.058	-0.204**	0.055
Perceived similarity	0.238**	0.054	-0.018	0.052	0.228**	0.051
Feelings						
Connectedness	0.296**	0.060	0.046	0.048	0.285**	0.051
Confidence	0.031	0.060	0.273**	0.056	0.162*	0.050
Happiness	0.053	0.063	0.064	0.051	0.114	0.054

NOTE: The beta weights represent the standard deviation change in outcome as a function of participant-centered variations in target (distant = 0, close = 1), characteristic (objective = 0, subjective = 1), and context (no interaction = 0, interaction = 1).

* $p < .01$. ** $p < .001$.

where β_{1j} is the situation-outcome slope for participant j , γ_{10} is the average situation-outcome slope, and u_{1j} is the component of the slope unique to j . Thus, the variance in u_{1j} is the variation in situation-outcome slopes among participants. There was significant between-participants variance in four situation-outcome relationships: characteristic-lateral comparisons, target-upward comparisons, target-confidence, and target-happiness.

The next step was to test if interpersonal traits explained some of the between-participants variance in these situation-outcome relationships. Therefore, we added agency and communion to Equation 5 above as follows:

$$\beta_{1j} = \gamma_{10} + \gamma_{11}A_j + \gamma_{12}C_j + u_{1j} \tag{6}$$

where γ_{11} and γ_{12} are the effects of agency and communion and A_j and C_j are j 's agency and communion scores. The results showed that the interpersonal traits did not moderate the situation-outcome relationships.

Effects of Gender and Self-Esteem

The variables of gender and self-esteem were not central to our thesis but they are commonly examined in social comparison research. Therefore, we also tested the effects of gender and self-esteem on comparisons using the same tests that we used to test the effects of agency and communion. There were no significant effects of gender; however, these null results should be interpreted with caution given that the analyses included only 38 men. Esteem was related to confidence ($\gamma = 0.24$) and to upward ($\gamma = -0.15$) and downward ($\gamma =$

0.11) comparisons, all t s > 3.3 . These results are similar to those for agency, which is understandable given the strong correlation between esteem and agency, $r(136) = 0.49$, $p < .001$. Esteem also predicted feeling positive ($\gamma = 0.17$) and connected ($\gamma = 0.12$), both t s > 3.0 . Finally, esteem had significant effects on the relationships between target and upward comparisons, $\gamma = 0.43$, $t = 3.42$, and target and feelings of happiness, $\gamma = -0.17$, $t = -2.98$. To clarify these esteem by target interactions, we tested the effects of target on upward comparisons and happiness separately for participants above and below the median in self-esteem. For people low in self-esteem, comparisons with close others were associated with fewer upward comparisons ($\beta = -0.22$, $t = 2.71$) and greater happiness ($\beta = 0.21$, $t = 2.74$). For people high in esteem, however, target did not have significant effects on upward comparisons ($\beta = 0.02$, $t = 0.31$) and happiness ($\beta = 0.01$, $t = 0.06$).

DISCUSSION

Typical Features of Naturalistic Social Comparisons

In accord with the traditional agentic focus of the social comparison literature, we found that social comparisons are typically focused on dissimilarities, downward comparisons, and feelings of confidence. However, we also found that in a large minority of social comparisons, the person is seeking a common bond, the other person is experienced as neither better nor worse, and the feelings generated are those of connectedness and closeness.

The focus on dissimilarities is surprising given that people find similarities comforting. For example, people find it more satisfying to talk with others whose moods match their own (Locke & Horowitz, 1990), sad people find it more comforting to compare their emotions with mood-congruent music or poetry (Locke & Keltner, 1993), and under some circumstances, distressed people feel less distressed if they perceive the people around them to share a similar fate (Cottrell & Epley, 1977). Moreover, participants in the current study reported feeling more confident and much more connected when they felt similar to the other person.

If similarity is comforting, why do people focus on areas of dissimilarity? One reason is that although dissimilar others may be ineffective in meeting communal motives, they may be effective in meeting needs for self-evaluation by defining the range of performance (Wheeler et al., 1969), for self-improvement by providing inspiring models (Taylor & Lobel, 1989), and for self-enhancement by providing people to look down on (Wills, 1981). In addition, comparing dissimilar charac-

teristics sometimes may serve no clear purpose. People exposed to relevant information about other people may make comparisons automatically or even compulsively, whether those comparisons do or do not help them in any way (Goethals, 1986; Suls, 1986).

In accord with other research using students (Wheeler & Miyake, 1992), we found that downward comparisons were more common than lateral or upward comparisons. However, these results may not generalize to other groups. Some research suggests that people facing a severe life crisis, such as a serious illness, may seek upward comparisons because what they need is hope, guidance, and inspiration (e.g., Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Molleman, Pruyn, & van Knippenberg, 1986; Taylor & Lobel, 1989). Other research suggests that threatened groups, such as cardiac patients, tend to seek lateral comparisons (e.g., Hegelson & Taylor, 1993), presumably because such comparisons help allay feelings of isolation and fear. Students may report fewer upward and lateral comparisons because most undergraduates are sanguine about their health and their future.

Effects of Dispositional Variables

The experience of everyday social comparisons was different for different people. Communal persons were more likely to feel connectedness during their social comparisons, even though they were not more likely to focus on similarities and make lateral comparisons. Agentic persons were more likely to feel confidence and were more likely than were other people to make downward comparisons and avoid upward comparisons. Indeed, the overall tendency to make more downward than lateral or upward comparisons was only true of agentic persons. This tendency of agentic persons to make downward as opposed to upward comparisons may explain their relative confidence during comparisons. Moreover, the fact that agentic—that is, dominant, competitive, and ambitious—persons appear to seek downward comparisons suggests that downward comparisons can be understood not only as an intrapersonal act that maintains and enhances self-esteem but also as an interpersonal act that maintains and enhances status relative to another person. Our finding that agentic persons were more likely to compare downward and less likely to compare upward than were nonagentic persons appears to conflict with the finding that in the workplace, agentic men (but not agentic women) tend to compare with those in higher level positions (Steil & Hay, 1997). We may have found different results because most of our sample was female, most of our comparisons were not work related, and we assessed perceived superiority as opposed to who was in an objectively superior position.

Effects of Situational Variables

All three situational variables—target, characteristic, and interactional context—influenced naturally occurring social comparisons. These situational influences are important because in everyday life we found that comparisons of subjective characteristics were as common as comparisons of objective characteristics and comparisons with close targets and during interactions were more common than comparisons with distant targets or in absence of interaction.

As expected, people were less concerned with who was better or worse—and were less likely to make upward and downward comparisons—when the comparisons involved subjective characteristics and interpersonal interactions. Contrary to expectations, the closeness of the target (although helping people to feel more similar and connected) had no effect on comparison motive or direction. The effect of closeness on comparison motive and direction may be moderated by other variables, such as the importance of the characteristic and the relationship (Tesser, 1991).

Interestingly, comparing subjective characteristics predicted feeling more confident but not more connected. Our data suggest that the greater confidence was the result of fewer upward comparisons. One explanation for the strong association between objective characteristics and upward comparisons is that people are more interested in evaluating and improving objective characteristics. Festinger (1954) suggests, “There is a unidirectional drive upward in the case of abilities which is largely absent in opinions” (p. 124). In accord with this explanation, we found that objective characteristics were associated with agentic as opposed to communal motives. An alternative explanation is that people try to avoid upward comparisons but find it harder to avoid upward comparisons about objective characteristics than about subjective characteristics because differences in objective characteristics (such as wealth, grades, or attractiveness) are easier to rank and harder to deny or change.

Finally, people were more likely to feel similar, connected, and confident if the comparison occurred in the context of an interaction. Of course it does sometimes happen that people feel connected and reassured simply by noticing or thinking about another person. However, our results suggest that it is more typical for comparisons made in the absence of interaction to involve mulling over how one is different from and worse off than others.

In sum, for the sake of control and simplicity, researchers have typically examined situations in which people are comparing objective traits with distant or imaginary others in the absence of any meaningful interaction. Our results show that such situations tend to trigger self-evaluative concerns and upward and downward

comparisons. As a result, the communal concerns and feelings often seen in everyday comparisons are often omitted from the picture of social comparison painted by the research literature.

The connection between comparison situation and comparison motive helps clarify why different research paradigms have focused on different motives. Early research on emotional comparison in the context of real contacts (in the tradition of Schachter, 1959) highlighted needs for affiliation, clarity, and conformity. Research on comparing numerical scores in the absence of interaction (in the tradition of Hakmiller, 1966, and Thornton & Arrowood, 1966) shifted focus toward needs for self-evaluation and self-enhancement. Recently, research on people with medical or other major problems, although confirming the role of needs for clarity and enhancement, has refocused some attention on needs for hope and connection (e.g., Taylor & Lobel, 1989).

Research on everyday social comparisons may shift even more attention to communal needs. In contrast to social comparisons studied in the laboratory, everyday social comparisons often arise in the context of interactions and involve characteristics that lack clear, consensual standards of evaluation. As a result, everyday comparisons may be more likely to highlight communal concerns. Once a particular motive is salient, it in turn influences the incentive value of different sources of information. Nonsocial and agentic motives such as self-evaluation and self-improvement may differentially increase the incentive value of nonsocial and personal standards (Festinger, 1954; Wayment & Taylor, 1995), whereas communal motives may differentially increase the value of social comparison information.

Limitations and Conclusions

Self-report diaries such as the SCR that ask specific questions about recent events should be more accurate than measures that ask global questions or about past events (Wood, 1996). However, there are limitations inherent in any self-report measure. First, respondents do not notice or record every social comparison (Wheeler & Miyake, 1992). Second, respondents report subjective, not objective, reality. For example, diary studies show that comparisons with subjectively superior people are demoralizing, whereas laboratory studies show that comparisons with objectively superior people are often not demoralizing. The reason for the discrepancy may be that some people construe themselves as similar to objectively superior others (Collins, 1996; Wheeler, 1966), but diary studies cannot test this hypothesis unless they can assess objective as well as subjective status. Third, the act of completing social comparison records may itself influence what information the partic-

ipants notice. Finally, cross-sectional correlational data cannot resolve questions of causality. For example, our data show that comparisons with close targets are associated with feelings of connectedness but cannot show if the comparisons caused the feelings or the feelings caused the comparisons. As Wood (1996) suggests, diary studies are a useful and valid way to assess naturally occurring comparisons but should be supplemented with laboratory methods to address specific hypotheses. The challenge will be to introduce laboratory controls without losing the richness of real-life comparisons, which often occur in the context of continuing relationships and prolonged interactions.

Our results demonstrate the importance of both of the fundamental interpersonal dimensions for understanding social comparisons. To develop a more complete and accurate model of social comparison, we as researchers should consider when it might be helpful to (a) assess communal as well as agentic thoughts, feelings, motives, and behaviors; (b) assess interpersonal traits in addition to self-esteem and depression; and (c) manipulate or control situational variables such as the interactional or relational context and the topic of comparison. Only by recognizing the role of communal as well as agentic concerns and dispositions can we appreciate the complexity of social comparisons as they occur in everyday life.

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