

Self-Derogations and the Interpersonal Theory

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The interpersonal theory of personality has been applied to explain depressed people's dilemma: The depressed person's submissive behavior invites dominating reactions from other people, and those reactions sustain the depressed person's depression. Experiments 1 and 2 showed that self-derogations connote submissiveness but are generally judged to be neutral in affiliation. Experiment 3 tested implications for the behavior of dysphoric and nondysphoric Ss as they interacted with a self-derogating, other-derogating, or nonderogating confederate partner. Ss selected a topic from a list and talked about it for 1 min; the confederate's script was fixed. The S's judgments of the confederate, choice of topics, satisfaction with the interaction, and actual responses were analyzed. Self-derogators were judged to be submissive, elicited dominating reactions, and selected more topics with negative content.

The interpersonal theory of personality (Horowitz & Vitkus, 1986; Kiesler, 1983; Orford, 1986; Wiggins, 1982) organizes interpersonal behaviors along two dimensions—a dimension of affiliation that ranges from hostile (cold) to friendly (warm) behavior and a dimension of power or status that ranges from submissive to dominating behavior. Scolding, for example, lies in the quadrant that reflects hostile dominance, and helping lies in the quadrant that reflects friendly dominance. This semantic structure has been confirmed in a number of factor analytic studies that showed that two dimensions account for a large proportion of the variance in ratings of personality traits (e.g., Becker & Krug, 1964; Conte & Plutchik, 1981; Foa, 1961; Schaefer & Plutchik, 1966; Wiggins, 1979).

The interpersonal theory further postulates that two people reciprocally influence each other as they interact (e.g., Darley & Fazio, 1980; Kiesler, 1983; Leary, 1957; Sullivan, 1953). According to this theory, an interpersonal behavior expressed by one partner tends to invite a complementary reaction from the other partner (Carson, 1969). A complementary behavior is reciprocal with respect to power (dominating behavior invites submissive behavior and submissive behavior invites dominating behavior) and similar with respect to affiliation (friendly behavior invites friendly behavior and hostile behavior invites

hostile behavior). Thus, as Person A scolds Person B (hostile dominance), Person B is invited to express hostile submissiveness. If Person B does not respond with a complementary behavior, the two must either continue interacting until complementarity is achieved or else leave the field. The reason for complementarity is to satisfy the participants' social motives, given their cognitions about each other. Darley and Fazio (1980), Horowitz and Vitkus (1986), Kiesler (1983), and Orford (1986) summarized evidence supporting this model.

The principle of complementarity has been used to conceptualize the dilemma of a depressed person (Horowitz & Vitkus, 1986). Research has shown that depressed people think self-derogating thoughts, expect future failure, and experience a lack of efficacy (e.g., Altman & Wittenborn, 1980; Beck, 1967; Blumberg & Hokanson, 1983; Cofer & Wittenborn, 1980; Coyne, 1976; Gotlib & Robinson, 1982; Hokanson, Sacco, Blumberg, & Landrum, 1980). As depressed people express their distress to others, they often seem to exhibit submissiveness and helplessness (Kiesler, Anchin, Perkins, Chirico, Kyle, & Federman, 1976; Stephens, Hokanson, & Welker, 1987), and the listener in many cases reacts with dominating actions designed to reduce the depressed person's distress (Burgess, 1969; Coates & Wortman, 1980; Coyne, 1976; Hammen & Peters, 1978; Hinchcliffe, Hooper, & Roberts, 1978; Horowitz & Vitkus, 1986; Howes & Hokanson, 1979; Notarius & Herrick, 1988; Watzlawick, Weakland, & Frisch, 1974). These dominating reactions then invite further submissiveness and helplessness, thereby sustaining the depressed person's depression.

Although self-derogations are common in the spontaneous remarks of depressed people (Peterson, Schwartz, & Seligman, 1981), the literature is not clear as to whether they are perceived as friendly, neutral, or hostile, so one cannot predict theoretically which reaction to expect from other people. Some investigators (e.g., Coates & Wortman, 1980; Lowenstein, 1984) have proposed that people react with a friendly wish to help; other investigators (e.g., Blumberg & Hokanson, 1983; Chaiken & Derlega, 1974a, 1974b; Coyne, 1976; Gotlib & Robinson, 1982;

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Gurtman, 1987; Jacobson & Anderson, 1982; Strack & Coyne, 1983) have proposed that people react with hostility. Cowen (1982), Howes and Hokanson (1979), and Stephens et al. (1987) reported evidence for both types of reactions, although it is not clear from the data whether different people produce the two types of reactions or whether the same people produce contrasting reactions on different occasions. In any case, a person's characteristic reaction to a depressed person remains unclear.

Thus, it still has not been determined whether self-derogations (which express the person's poor self-image, inefficacy expectations, and submissiveness toward others) generally seem friendly, neutral, or hostile. The way people interpret a self-derogation may be related to a psycholinguistic observation about adjectives that express submissiveness. Conte and Plutchik (1981) examined the semantic structure of a very large set of interpersonal personality traits and demonstrated that a two-dimensional circumplex adequately describes the semantic structure of these words. Therefore, each interpersonal trait in their list could be conceptualized as connoting some degree of affiliation in combination with some degree of power. However, their graphical display of the words in the two-dimensional space (Conte & Plutchik, 1981, Figure 2, p. 701) revealed some gaps: Whereas words in the upper quadrants (connoting dominance) were distributed evenly along the *x*-axis (affiliation), words in the lower quadrants (connoting submissiveness) tended to cluster around the neutral region of the *x*-axis. It is therefore possible that self-derogations, like words that connote submissiveness, would, in the absence of additional context, seem neutral in affiliation. An important conceptual step, then, in developing a theory of interpersonal interactions with depressed people would be to locate self-derogations in the interpersonal space and predict the partner's most probable reactions.

In the present article, we report three studies. In Experiment 1, we first confirmed the hypothesis that words connoting submissiveness generally seem neutral in affiliation. To test this hypothesis, we examined the interpersonal meaning of a set of words selected to span the interpersonal space. We selected words that seemed to occupy all regions of the interpersonal space and asked subjects to rate these words directly on the two interpersonal dimensions. Once that point was established, we then examined self-derogations. In Experiment 2, we tested the hypothesis that self-derogations also connote submissiveness and therefore seem neutral in affiliation. Finally, in Experiment 3 we had subjects interact with a self-derogating actor-confederate partner to test the hypotheses that self-derogators would also be judged to be submissive and neutral in affiliation and, in accordance with the principle of complementarity, would elicit more dominating responses than other-derogators or non-derogators.

Experiment 1: The Valence of Words Connoting Submissiveness

Previous investigators have systematized the interpersonal meaning of words through multivariate procedures. Wiggins (1979), for example, used a principal-components analysis to identify groups of words that span a two-dimensional space. Using the criteria of a circumplex structure, Wiggins identified

eight subsets of words corresponding to eight equally spaced octants within the space. Wiggins and Broughton (1985) also applied the procedure to words and sentences from a variety of personality tests and systematically located additional items characterizing each octant of the two-dimensional space. These results, however, were all derived from a multivariate scaling procedure, and they may differ in subtle ways from the results of direct ratings. For example, a principal-components analysis requires subjects to rate objects (like one's self) on the dimensions of interest. When people make ratings on contrasting dimensions (like friendly and unsociable), they may deliberately try to be consistent, thereby producing spuriously high negative correlations between contrasting dimensions. Direct ratings of the same terms may not show the same degree of contrast. In Experiment 1, we therefore used direct ratings to examine the location of words that had previously been scaled through indirect multivariate procedures. We tested the hypothesis that words connoting dominance would show a greater range in affiliation than words connoting submissiveness. To generalize across two different rating methods, we asked some subjects to rate each item along each dimension separately, and we asked other subjects to consider the two dimensions jointly and provide a single two-dimensional judgment for each item.

Method

Subjects. Eighty-two undergraduate students from the introductory psychology classes at Stanford University served as subjects for Experiment 1. Their participation fulfilled a course requirement.

Procedure. We selected adjectives and sentences to represent each octant of the interpersonal circle from the material provided by Wiggins and Broughton (1985). Wiggins and Broughton had subjects rate themselves on items from a variety of self-report instruments and performed a principal-components analysis so that each item could be located in the two-dimensional space defined by the first 2 factors. This space was initially divided into 16 equal segments labeled *A*, *B*, . . . , *P* (beginning with the region reflecting maximal dominance and neutral affiliation and moving counterclockwise). The segments may also be grouped into octants formed out of adjacent 16ths; in that case, the octants are labeled *PA*, *BC*, *DE*, . . . , *NO* (see Figure 1). Characteristic trait labels (shown in Table 1) are also used to describe each octant; the most dominant octant (*PA*), for example, is labeled *assured-dominant* and the most submissive octant (*HI*) is labeled *unassured-submissive*.

For each octant, we identified those items that had the highest factor loadings. We selected the two traits and the two behaviors with the highest factor loadings, making a total of 32 items.¹ Thus, half of our

¹ The four items of each octant were the following. *PA*: *forceful; assertive*; "When I am on a committee, I take charge"; and "The ability to be a leader is important to me." *BC*: *tricky; cunning*; "When someone annoys me, I tell them what I think of them"; and "I make fun of people who do stupid things." *DE*: *uncooperative; warmthless*; "I find fault with those in authority over me"; and "I like being a lone wolf, free of family and friends." *FG*: *introverted; unsociable*; "I keep to myself most of the time"; and "I avoid becoming too friendly with people." *HI*: *timid; meek*; "I avoid positions of power over other people"; and "I don't like to have responsibility for directing the work of others." *JK*: *unargumentative; unwilld*; "I feel timid in the presence of other people I regard as my superiors"; and "I like going along with a decision made by a supervisor or leader rather than starting an argument." *LM*: *sympathetic; tender*; "I seek jobs where I can help people"; and "It is important

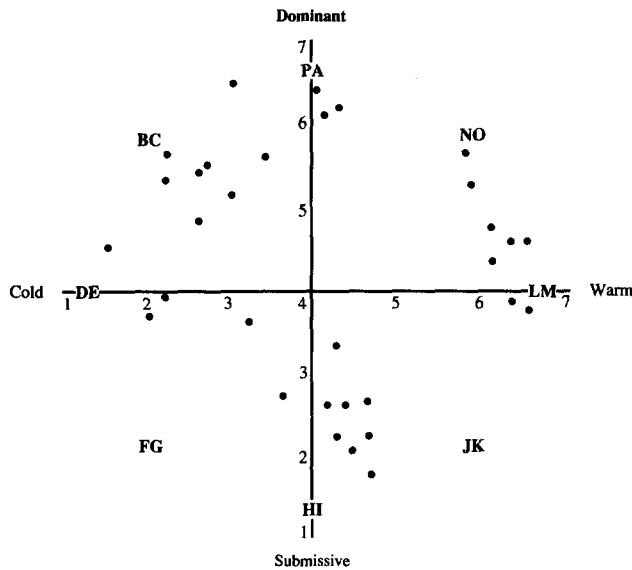


Figure 1. Mean ratings on the two dimensions for each stimulus word and sentence.

items were one-word traits and the other half were behaviors. These items were assembled into a booklet in such a way that each successive block of four items contained two traits and two sentences; every block of eight successive items contained one item from each of the eight octants of the interpersonal space. Otherwise, the order of the items was random and varied systematically across subjects.

We asked subjects to consider each item and rate it along each of the two interpersonal dimensions. Following the labels of Wiggins and Broughton (1985), we said the affiliation dimension ranged from *cold* (1) to *warm* (7), and the dominance dimension ranged from 1 *submissive* (1) to *dominant* (7). We used two types of rating procedures. We asked half of the subjects to make separate ratings on each dimension; the scales were displayed next to the item in the booklet, and we asked the subjects to place a dot on each line to indicate their rating of the item on that dimension. We presented the other half of the subjects with a single two-dimensional graph next to each item; the two dimensions were labeled the same way, and we asked the subjects to indicate their two-dimensional rating by placing a dot on this two-dimensional graph.

Results and Discussion

First, we computed the mean rating of each item on each dimension. On the dimension of cold–warm, the means ranged from 1.61 to 6.48; on the dimension of submissive–dominant, they ranged from 1.88 to 6.43. The means were then subjected to an $8 \times 2 \times 2$ analysis of variance (ANOVA) involving eight octants, two styles of response (1- vs. 2-dimensional ratings), and two types of items (adjectives vs. sentences), with two items per cell. We performed separate analyses for the cold–warm and submissive–dominant ratings. Only the main effect of octant

was significant in each analysis. For ratings of cold–warm, $F(7, 32) = 67.9, p < .001$; for ratings of submissive–dominant, $F(7, 32) = 97.3, p < .001$. No other main effect or double or triple interaction approached significance (all $ps > .10$). The means and standard deviations for each octant on each of the two dimensions are in Table 1. Also, there were no reversals in ratings between items in adjacent octants.

We then tested whether the means departed significantly from the pattern strictly expected by an assumption of equal spacing. As can be seen in Figure 1, the points in the upper octants conformed geometrically to their expected location, but those in the lower octants did not. For each item, we performed a separate t test to determine whether the mean rating of that item differed significantly from 4.0 (neutral) on each dimension. The mean ratings of all items in the upper octants (NO, PA, and BC) significantly exceeded 4.0 in dominance, and as expected, the mean ratings of all items in octants BC (cold–dominant) and NO (warm–dominant) also differed significantly from 4.0 in affiliation. On the other hand, this consistency did not hold for items in the lower octants (FG, HI, and JK). In those octants, most items differed significantly from 4.0 on just one of the two dimensions. To evaluate this outcome statistically, we ordered all 32 items according to the t value describing each item's deviation from 4.0 on the submissive–dominant dimension. These t s ranged from -20.8 (highly submissive) to 36.2 (highly dominant), and they fell into three groups—18 were significantly dominant ($p < .05$), 5 were non-significant ($p > .05$), and 9 were significantly submissive ($p < .05$). Then, for each item, we computed the corresponding t value along the cold–warm dimension. The mean absolute value of t on affiliation for each of the three groups, respectively, was 13.56 (dominant items), 20.21 (neutral items), and 3.14 (submissive items). These three sets of t values differed significantly, $F(2, 29) = 6.84, p < .01$. That is, dominant or neutral items were likely to be significantly warm or cold, but submissive items were more likely to be neutral on the affiliation dimension. Only three items of the significantly submissive set did deviate significantly from 4.0 on affiliation, and those t s were all small (less than 5.0). Apparently, when an item connotes dominance, it is also likely to seem warm or cold; but when an item connotes submissiveness, it is more likely to seem neutral in affiliation. Thus, direct ratings did not exactly reproduce the graphical locations of items in the FG and JK octants.

This result requires some explanation. To begin with, a number of items that had the highest factor loadings in octants FG, HI, and JK in the norms of Wiggins and Broughton (1985) were negations, for example, “unsociable,” “unargumentative,” and “I avoid becoming too friendly with people.” Apparently, negations help satisfy a two-dimensional circumplex structure by providing a clear bipolar contrast to items in the upper octants. For example, “unargumentative” (octant JK) is a clear contrast to items from octant BC that connote argumentativeness (“When someone annoys me, I tell them what I think of them”). Indirect scaling methods require subjects to rate themselves or other people along the various traits that are being scaled, and subjects, perhaps self-instructed to be consistent, produce ratings that show a strong negative correlation between polar opposites. Therefore, subjects who assign a high rating on “unargumentative” would assign a low rating on “argumentative.” As

for me to show people that I am interested in their troubles.” NO: *friendly; outgoing*; “When I move to a new place, I quickly seek new friends”; and “I volunteer for jobs where I will be working with other people.”

Table 1
Mean Ratings of Words in Each Octant of Interpersonal Space (Experiment 1)

Octant	Cold (1)–warm (7)		Submissive (1)–dominant (7)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
PA (assured–dominant)	3.90	1.24	6.34	0.84
BC (arrogant–calculating)	2.78	1.22	5.47	1.22
DE (cold–hearted)	2.36	1.09	5.02	1.30
FG (aloof–introverted)	2.80	1.12	3.52	1.32
HI (unassured–submissive)	4.38	1.11	2.28	1.16
JK (unassuming–ingenuous)	4.43	1.13	2.59	1.20
LM (warm–agreeable)	6.35	0.83	4.14	1.12
NO (gregarious–extroverted)	6.14	0.87	5.05	1.06

a result of the negative correlations, contrasting items occupy contrasting positions along both dimensions in a factor solution.

However, when subjects directly rate the meaning of a stimulus word on the two interpersonal dimensions, they do not have to maintain a contrast along both dimensions. A trait like “unargumentative” (now meaning *not argumentative*) might contrast with “argumentative” on the submissive–dominant dimension but not on the cold–warm dimension. Similarly, direct ratings of “unsociable” might contrast with “sociable,” “friendly,” and “outgoing” on the cold–warm dimension but not on the submissive–dominant dimension. Thus, contrasts along a single dimension may be more evident in direct ratings than in solutions based on indirect scaling methods.

The difference in results obtained by direct and indirect scaling methods may also explain why 18 items out of the 32 were rated to be significantly dominant, whereas only 9 items were rated to be significantly submissive. That is, 3 of the 12 items that had been selected initially to connote submissiveness were judged to be nonsubmissive. This result is further evidence that submissive items are not apt to be rated as warm or cold. That is, if two terms like “sociable” and “unsociable” contrast in affiliation (one is judged warm and the other is judged cold), then neither should seem submissive, even if one of them is judged to be rather dominant.

Self-derogations (which form an important subset of elements in the prototype of a depressed person) do connote submissiveness (Horowitz, French, & Anderson, 1982; Horowitz, French, Lapid, & Weckler, 1982), but in the absence of additional context, their location on the affiliation dimension is unclear. According to the results of Experiment 1, in connoting submissiveness they should seem neutral in affiliation. In Experiment 2, we tested this hypothesis.

Experiment 2: The Interpersonal Location of Self- and Other-Derogations

To identify self-derogations, we surveyed books on the cognitive treatment of depression and identified verbatim statements by depressed people describing their own failures or personal inadequacies. We adapted these statements to form vignettes in which one college student (the speaker) expressed a complaint about the self to another college student (the listener). One third

of the vignettes contained these *self-derogations*. A second third of the vignettes contained *other-derogations*, in which the speaker expressed a complaint to the listener about some third person. The remaining vignettes, *nonderogations*, contained statements in which the speaker conveyed positive news about the self to the listener. Thus, self-derogations and other-derogations both contained negative content but differed with respect to the target of the content (self vs. other); on the other hand, self-derogations and nonderogations both focused on the self but differed with respect to the valence of the content (positive vs. negative). We asked subjects to rate the speaker along the two interpersonal dimensions. We hypothesized that self-derogations, in contrast to the other types of vignettes, would seem submissive and therefore neutral in affiliation. The other-derogations were expected to seem hostile and therefore not submissive.

Method

Construction of stimulus materials. We constructed nine vignettes that described the context and opening remark of one person addressing another. The following is an example of a vignette containing a self-derogation:

After class one day, you and someone from your class are walking across campus. After a few minutes, the person says: “I feel awful. I just flunked an exam, and I *don't* think that things are going to get any better. I wish I didn't feel so miserable.”

The following is an example of a vignette containing an other-derogation:

You are at the bookstore, browsing around, when the person standing next to you starts up a conversation with you. The person says to you: “I can never find what I want in here. I can't believe that they call this place a bookstore! I wish they would stock the books that I want.”

The following is an example of a vignette containing a nonderogation:

You are standing in line waiting to register for next term when the person next to you begins to talk to you. The person says, “I've never been so happy. I found out that I made the dean's list for the last term. I wish every day could be like today.”

Subjects. Two hundred undergraduate students from the introductory psychology classes at Stanford University served as subjects for Experiment 2. Their participation fulfilled a course requirement.

Procedure. We asked 50 of the subjects to read each of the nine vignettes, imagine the person speaking, and rate their perception of the person at that moment along the two interpersonal dimensions. The labels for the two dimensions were the same as those used in Experiment 1. We also showed the subjects the list of 32 words and sentences that had been used in Experiment 1 and asked them to check the items that they believed described the speaker in that vignette.

To demonstrate that the graphical location of items in the interpersonal space can be generalized to other measuring instruments, we asked another group of subjects to rate the vignettes by using the Impact Message Inventory (IMI), a 90-item self-report instrument that describes affective, behavioral, and cognitive reactions that a subject might experience after interacting with a target person (Kiesler, 1983; Kiesler et al., 1976). For example, a listener might be asked to describe the impact that a speaker has just had on him or her. Three groups of 50 subjects read each of the nine vignettes, and each group evaluated their reactions to the speaker by using a different third of the items of the IMI. By having three groups of subjects perform the task, we were able to use all items of the IMI without making the task excessively laborious for any one group. The subjects were asked to read each vignette and place a checkmark next to every word or sentence that described their reaction to the speaker, checking as many items as they wished. The IMI permits an investigator to infer from the subject's responses where within the interpersonal space the target person would be located.

Results and Discussion

First, we examined the subjects' direct ratings of the vignettes on the two interpersonal dimensions. The vignettes fell into three distinct groups in the interpersonal space. Each subject's ratings on each dimension were averaged across the three vignettes of a type, and these means, which are shown in Table 2, were subjected to a within-subjects ANOVA. The three types of vignettes differed significantly from each other along each dimension. For the cold-warm dimension, $F(2, 98) = 63.5, p < .001$; for the submissive-dominant dimension, $F(2, 98) = 129.8, p < .001$. A Student Newman-Keuls test showed that, within each set, every mean differed significantly from every other mean at $p < .01$.

The overall means can be reported as a pair of coordinates—the first number tells the mean rating on the cold-warm dimension and the second number tells the mean rating on the submissive-dominant dimension. The coordinates for the mean self-derogation were therefore (4.17, 2.47). The x -value did not differ significantly from 4.0, $t(49) = 1.27, p > .20$, whereas the

y -value did, $t(49) = -13.37, p < .001$. Thus, the self-derogations were seen as submissive but neutral with respect to affiliation. The coordinates for the mean other-derogation were (3.10, 4.82), significantly cold and significantly dominant, $t(49)s = -8.49$ and 6.91 , respectively, both $ps < .001$. The speaker's accusation apparently connoted hostility and dominance. Finally, the coordinates for the mean nonderogation were (5.13, 4.39), significantly friendly ($t = 10.94, p < .001$) and also significantly dominant ($t = 4.59, p < .001$), although the degree of dominance was small.

We also determined the number of times that each of the 32 items used in Experiment 1 was selected to describe the speaker in that vignette. For the self-derogations, the selected items were most often those associated with the submissive region of the interpersonal space (octants FG, HI, and JK), accounting, respectively, for 20%, 29%, and 21% of the selections. For the other-derogations, the selected items were most often those identified with cold-dominant (octants PA, BC, and DE), accounting, respectively, for 28%, 18%, and 26% of the selections. For the nonderogations, the selected items were most often those identified with friendly-dominant (octants LM and NO), accounting, respectively, for 17% and 43% of the selections.

Judgments on the IMI also confirmed these graphical locations. The IMI contains 15 subscales from different regions of the interpersonal space, and each subscale contains six items that could be taken to characterize the speaker. We determined the frequency with which items of each subscale were selected for each vignette. For the self-derogations, the most frequently selected items came from the quadrants connoting submissiveness, and four categories accounted for 48.4% of the subjects' selections (inhibited, 12.6%; submissive, 14.1%; succorant, 8.7%; and abasive, 13.0%). For the other-derogations, the most frequently selected items came from the upper left-hand quadrant and accounted for 58.9% of the subjects' selections (dominant, 9.4%, competitive, 11.0%; hostile, 20.5%; and mistrusting, 18.0%). For the nonderogations, the most frequently selected items came from the upper right-hand quadrant and accounted for 48.7% of the subjects' selections (affiliative, 19.1%; sociable, 12.4%; exhibitionistic, 7.8%; dominant, 9.4%).

In sum, a self-derogating speaker, in the absence of further context, was judged to be submissive and was therefore judged neither cold nor warm in affiliation. Other-derogations (which comprise a second class of complaints by depressed people) connoted hostility and therefore did not connote submissiveness. According to the principle of complementarity, self-derogations should therefore invite more dominating reactions than other-derogations, whereas other-derogations should invite more hostile reactions. We tested these hypotheses in Experiment 3.

Experiment 3: Reactions to Self- and Other-Derogations

In Experiment 3 we examined dyadic interactions. In this experiment, a confederate-actor expressed one of three types of utterances: self-derogations, other-derogations, or nonderogating self-disclosures. The subjects rated their partners along the two interpersonal dimensions, and their responses to their partners' comments were recorded and analyzed. Following the results of Experiments 1 and 2, we tested three hypotheses. The first was that a self-derogating confederate would be judged to

Table 2
Mean Ratings of Vignettes on Each Dimension
of Interpersonal Space (Experiment 2)

Vignette type	Cold (1)– warm (7)		Submissive (1)– dominant (7)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Self-derogating	4.17 _a	0.96	2.47 _a	0.81
Other-derogating	3.10 _b	0.75	4.82 _b	0.84
Nonderogating	5.13 _c	0.73	4.39 _c	0.60

Note. Column means with different subscripts differ significantly at $p < .01$ (Student Newman-Keuls test).

be submissive (hence neutral in affiliation), whereas the other-derogating confederate would be judged to be hostile (hence nonsubmissive). The second hypothesis was that subjects would react to a self-derogating confederate with a dominating response (e.g., giving advice) more often than they would to confederates in either of the other conditions. The third hypothesis was that subjects would react to an other-derogating confederate with a hostile response more often than they would to confederates in either of the other conditions.

Method

Subjects. Eighty-two undergraduate students (42 men and 40 women) enrolled in the introductory psychology class at Stanford University participated in the study to fulfill a course requirement. To generalize the results across levels of dysphoria, we assessed every subject's level of dysphoria on the short form of the Beck Depression Inventory (BDI; Beck, 1967; Beck & Beck, 1972). This instrument had been administered at the beginning of the term to all students in the class. Subjects who scored 4 or below were labeled *nondysphoric*, and those who scored 7 or above were labeled *dysphoric*. We telephoned these students, and 90% of them agreed to participate in the study. Then, before the experimental session began, the students completed the BDI again, and those whose classification changed from the original classification were disqualified from the study (there were 7 men and 4 women), leaving 71 subjects. Averaging across the two testings, the mean BDI scores of subjects in the final sample were 13.73 ($SE = 1.16$) for the dysphoric group and 1.71 ($SE = .22$) for the nondysphoric group.

Confederates and roles. Each subject interacted with a same-sex confederate enacting one of three roles. We labeled the roles *self-derogating*, *other-derogating*, and *nonderogating*. The confederates were two advanced undergraduate psychology majors, a man and a woman, who memorized prepared scripts. A script consisted of eight 1-min monologues on preselected topics that are described below. The first and fifth monologues were the same in all three conditions; the other six monologues conveyed the experimental manipulation. The constant topics were "my attitude toward smoking" (1) and "places I have worked" (5). The six experimental topics were "the kind of people I find it easy/hard to talk to" (2), "one of the best/worst things that ever happened to me" (3), "how bright/hopeless the future seems to be" (4), "things I like/dislike about my relationship with my mother" (6), "why some people like/dislike me" (7), and "good/bad experiences I have had in love affairs" (8). For the topic "the kind of people I find it easy/hard to talk to," for example, the self-derogating script began as follows:

I find it hard to talk to most people. In fact, I'm pretty shy around other people. It's like, I'll go to talk to someone, and I'll just lose all my self-confidence, especially if it's an attractive girl[guy] or something. And the thing is that everyone else seems so confident in themselves.

The corresponding other-derogating script began as follows:

I find it hard to talk to most people. It's like, I'll go to talk to someone, and they won't listen. I mean, most people like to tell you how great they are or how you should change your life. Then, when I finally think I've gotten through to someone, it turns out they were never listening in the first place.

The nonderogating script began as follows:

I guess I find it pretty easy to talk to most people. My theory is that everyone has something interesting to talk about—their job, travel, love life, whatever. And I think people find me pretty open to what they have to say.

Topics. During the procedure, we presented the subjects with a list of 60 self-relevant topics of conversation printed on index cards (e.g.,

"my father's personality"). We selected these topics from the list of topics prepared by Taylor and Altman (1966). Ratings of each topic's valence had been scaled previously (Locke & Horowitz, 1990), so the topics could be sorted into categories from highly negative to highly positive.

Procedure. We assigned subjects randomly to one of the three conditions with the restriction that half the subjects in each condition were dysphoric and half were nondysphoric. Each combination of Condition $\times$ Level of Dysphoria had 12 subjects, except for the group of dysphoric subjects interacting with a self-derogating confederate—that group had 11 subjects. We told subjects that the study concerned communication patterns and that they would be talking to each other for about half an hour. We instructed them to talk in turns; first one partner was to speak, then the other, then the first, and so on. We also told them that they were to talk for about 90 s on a given topic. On each turn, they were to select a topic from those printed on the cards before them. (They understood that they and their partner had different lists of topics). They were also told that the experiment required that only one member of the dyad be allowed to respond to the partner's monologues. That is, the subject, ostensibly selected at random, was to respond to his or her partner's monologues, but the confederate was never to respond to the subject's monologues. We told the subject that this arrangement allowed us to examine the experimental effect of a partner's responding or not. Thus, the subject produced spontaneous responses to each of the confederate's eight 1-min monologues, but the confederate did not respond to any of the subject's monologues.

To evaluate the subjects' satisfaction after a control trial (on which the three experimental groups received identical treatments) and after experimental trials, we obtained satisfaction ratings after each trial. Satisfaction ratings also allowed us to examine cumulative effects of satisfaction or dissatisfaction across successive trials. A panel of five buttons appeared before each partner, visible to that person but screened from his or her partner. The buttons were labeled *not satisfied*, *somewhat satisfied*, *moderately satisfied*, *quite satisfied*, and *very satisfied*. After each monologue, the two partners each pressed one of the five buttons to rate how satisfied they were with the conversation. The buttons controlled a panel of five lights on the side of the apparatus so that the experimenter (behind a one-way mirror) was able to see each subject's satisfaction rating.

We conducted several practice trials to familiarize the subject with the procedure, and we determined who was to go first by a bogus coin toss. (The confederate always went first). The experimenter went into an adjoining room and observed the partners through a one-way mirror. The experimenter timed each turn and signalled the end of 90 s. After each partner had spoken eight times, the experimenter stopped the interaction and administered some questionnaires.

On the questionnaires, the partners completed an adjective checklist describing each other. This task required ratings on a scale from *not at all* (1) to *very much so* (9) on the dimensions of friendly, hostile, submissive, and dominant, which were embedded in a longer list that also included the trait "depressed." A series of questions, adapted from Coyne (1976), also asked the subjects to rate their willingness to engage in future interaction with the confederate, for example, whether the subject would be willing to spend more time with, share an apartment with, or have future contact with the confederate. We then thanked the subjects and debriefed them about the experimental design and the need for deception. There was no evidence of adverse reactions to the manipulation.

We recorded all interactions on videotape. The camera was placed behind a narrow, inconspicuous one-way mirror. Each subject's reactions were then transcribed verbatim. The reactions were classified into eight categories adapted from those described by Cowen (1982), Howes and Hokanson (1979), and Notarius and Herrick (1988). Two coders, a graduate student and a senior undergraduate student, who

were not informed of the hypotheses of the study, classified the subjects' responses to each of the confederate's monologues into these categories. Then we determined how often each coder used each category for each subject, and we computed an alpha coefficient separately for each category. (We used alpha in assessing the reliability of the categories because the data in the content analysis always involved an average of the two coders' judgments.) One category (expressing envy) had an alpha of only .64 and was therefore eliminated from the data analysis; the remaining categories had alphas ranging from .78 to .98. If a given response contained more than one type of reaction, we classified it into each of the relevant categories. We then averaged corresponding frequencies across the two coders. The categories (and the mean number of occurrences per subject across the eight responses) were (a) telling the person to think, feel, or behave differently (2.01); (b) simply acknowledging the partner's remarks (3.17); (c) describing a similar or contrasting experience (4.85); (d) expressing regret (1.44); (e) expressing enthusiasm for the partner's experience (0.93); (f) not responding or saying something irrelevant (0.56); (g) commenting that the future will improve (0.32); and (h) expressing envy (0.21).

Results

Initial comparability of the subjects. Subjects in the three conditions were comparable with respect to their depression scores and their satisfaction ratings following the confederate's first (neutral) monologue. The mean scores on the BDI for the self-derogating, other-derogating, and nonderogating conditions were 12.91, 11.50, and 11.67 for the dysphoric subjects and 1.67, 1.92, and 1.42 for the nondysphoric subjects. Neither the main effect for conditions nor its interaction with the subjects' level of dysphoria was significant (both F s < 1). Furthermore, on Trial 1 the confederate's monologue was identical in all three conditions, so the groups should not have differed in their satisfaction ratings. The mean satisfaction ratings were, respectively, 3.10, 3.19, and 3.31 (F < 1).

Ratings of confederate. To locate the subjects' final impression of each confederate in the interpersonal space, we computed the subjects' interpersonal ratings of their partners on each interpersonal dimension. Ratings ranged from 1 to 9, with 5 indicating neutrality. The resulting means for each condition are given in Table 3. We performed an independent groups ANOVA with two levels of dysphoria and three experimental conditions separately for each dimension. Only the main effect for condition was significant in each analysis, $F(2, 65) = 109.0$, $p < .001$, for affiliation, and $F(2, 65) = 25.2$, $p < .001$, for

dominance. A Student Newman-Keuls test was performed for each pair of means; all pairs differed significantly on each of the two dimensions (all p s < .001). Thus, each role was perceived as occupying a distinct location with respect to each dimension in the interpersonal space.

In addition, we performed t tests to determine whether each mean differed significantly from 5 (neutrality). The self-derogating confederate was perceived to be significantly submissive, $t(22) = -7.19$, $p < .001$, but marginally friendly in affiliation, $t(22) = 2.42$, $p < .05$. Thus, in contrast to the results of Experiments 1 and 2, the self-derogating confederate was judged to be friendly, but the degree of friendliness was still very slight. In contrast, the other-derogating confederate was perceived to be clearly hostile, $t(23) = -5.77$, $p < .01$, and significantly above neutral in dominance, $t(23) = 3.25$, $p < .01$. The nonderogating confederate was perceived to be significantly friendly, $t(23) = 19.14$, $p < .001$, but neutral in dominance, $t(23) = -1.42$, $p > .10$. Thus, the graphical locations of the three confederates resembled the corresponding stimuli described in Experiments 1 and 2; in particular, the submissive self-derogating confederate was closer to neutral in affiliation than either of the other two confederates.

The three confederates were also judged to differ significantly on dimensions relating to feelings of well-being. On the dimensions of anxious, cheerful, worried, happy, comfortable, pleasant, mature, and satisfied, the means of the three experimental groups differed significantly; the values of $F(2, 65)$ ranged from 10.7 to 97.2, all p s < .001. In all cases, a Student Newman-Keuls test as well as a least significant difference test showed that the nonderogating confederate was judged to be feeling better than the confederate of the other two conditions (all p s < .001), but the self-derogating and other-derogating confederates were not judged to differ significantly from each other (all p s > .05). On the other hand, each pair of conditions differed significantly in the confederate's apparent level of depression (all p s < .01). On a 9-point scale, from *not depressed* (1) to *very depressed* (9), the means for the self-derogating, other-derogating, and nonderogating conditions, respectively, were 6.26, 5.13, and 1.42. The self-derogating confederate was judged to be the most depressed and the other-derogating confederate slightly (but significantly) less so.

Finally, we examined the subjects' willingness to interact further with the confederate, using an independent groups ANOVA, with two levels of dysphoria and three experimental conditions. Again, the one significant source of variance was the experimental condition, $F(2, 65) = 5.95$, $p < .01$. The mean ratings (on a 9-point scale) for the self-derogating, other-derogating, and nonderogating conditions, respectively, were 4.70, 4.44, and 6.31. The nonderogating condition differed from the other two conditions by a Student Newman-Keuls test ($p < .01$), but the self- and other-derogating conditions did not differ significantly from each other ($p > .05$).

Content analysis of subjects' reactions. We then examined the frequency of each type of reaction in the subjects' responses. Mean frequencies are given in Table 4. We defined dominating reactions as reactions that urged the confederate to think, feel, or behave differently. We expected this type of reaction to occur most often in response to the self-derogations. The mean frequencies of occurrence in response to the self-derogating,

Table 3
Mean Ratings of Confederate After Experimental Manipulation (Experiment 3)

Confederate	Cold (1)– warm (9)		Submissive (1)– dominant (9)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Self-derogating	5.67 _a	1.12	3.31 _a	1.15
Other-derogating	3.67 _b	1.20	5.87 _b	1.39
Nonderogating	7.87 _c	0.78	4.65 _c	1.28

Note. Column means with different subscripts differ significantly at $p < .01$ (Student Newman-Keuls test).

Table 4
Frequency of Reactions to Different Experiment Conditions

Type of reaction	Self-derogating		Other-derogating		Nonderogating	
	<i>M</i>	<i>SE_M</i>	<i>M</i>	<i>SE_M</i>	<i>M</i>	<i>SE_M</i>
Telling the person to think, feel, or behave differently	3.12 _a	0.49	2.19 _a	0.45	0.78 _b	0.32
Simply acknowledging the partner's remarks	2.21 _a	0.28	3.91 _b	0.25	3.30 _b	0.24
Describing a similar or contrasting experience	4.75	0.43	4.33	0.34	5.65	0.36
Expressing regret	2.17 _a	0.30	2.26 _a	0.23	0.04 _b	0.04
Expressing enthusiasm for the partner's experience	0.40 _a	0.10	0.31 _a	0.09	2.06 _b	0.33
Not responding or saying something irrelevant	0.75	0.36	0.57	0.19	0.30	0.17
Commenting that the future will improve	0.38 _{ab}	0.14	0.61 _a	0.15	0.11 _b	0.06

Note. Row means with completely different subscripts differ significantly at $p < .01$ (Student Newman-Keuls test).

other-derogating, and nonderogating confederates, respectively, were 3.11, 2.31, and 0.65. A 2×3 independent groups ANOVA yielded a significant difference between conditions, $F(2, 65) = 8.23$, $p < .001$; a Student Newman-Keuls test showed that the nonderogating condition differed from each of the other two conditions ($p < .01$), but they did not differ significantly from each other. Thus, the self-derogating confederates elicited a relatively large number of dominating responses, as hypothesized; but the other-derogating confederates also elicited a large number of dominating responses, a point that is further discussed below.

A second type of reaction shown in Table 4 simply acknowledged the confederate's remarks. A 2×3 independent groups ANOVA showed one significant source of variance, that of conditions, $F(2, 65) = 11.54$, $p < .001$. A Student Newman-Keuls test showed that this type of response occurred significantly less often to the self-derogations than it did to the other two conditions ($p < .01$). This result suggests that subjects were more impelled to be active toward a self-derogating confederate than toward the other two confederates.

Three other categories in Table 4 differentiated the nonderogating condition from the other two conditions. The category "expressing regret," which included expressions of sympathy and commiseration, occurred less often in response to nonderogations, $F(2, 65) = 31.65$, $p < .001$. The category "expressing enthusiasm" primarily occurred in response to nonderogations, $F(2, 65) = 20.22$, $p < .001$. The category "commenting that the future will improve," though very infrequent, occurred primarily in response to the self-derogations and the other-derogations, $F(2, 65) = 4.80$, $p = .01$. These responses were also produced more often by nondysphoric subjects. The means were 0.49 and 0.14, $F(1, 65) = 7.19$, $p < .01$. No other categories differentiated among the groups.

These results generally support the principle of complementarity with respect to the self-derogating confederate. Subjects who interacted with a self-derogating confederate (the confederate rated to be the most submissive) produced a relatively large number of dominating reactions and were least likely merely to

acknowledge the confederate's remarks. Although the content of the subject's response often urged the confederate to think, feel, or behave differently, it is still possible that the subject did not actually assume a dominating manner. We were therefore curious to determine whether observers who rated the subjects' actual behavior directly would differentiate among the three conditions. Therefore, three raters viewed each subject's eight videotaped reactions (without knowing the confederate's script) and independently rated each response along each of the two interpersonal dimensions. The rating scales were the same ones that the subject had used to rate the confederate at the end of the experimental procedure. Expressed on the same continuum from *cold* (1) to *friendly* (9), with 5 indicating neutrality, the mean rating on affiliation was 6.45 toward the self-derogating confederate, 6.26 toward the other-derogating confederate, and 6.78 toward the nonderogating confederate. A 2×3 independent groups ANOVA (two levels of dysphoria and three experimental conditions) showed that only one source of variance was significant, namely, the main effect for conditions, $F(2, 65) = 11.18$, $p < .001$. Thus, the subjects in all conditions were generally judged to be friendly, but the order of means matched the order of the subjects' own ratings of their partners' affiliation in the three conditions. The ratings of dominance were also expressed on a continuum from *passive* (1) to *assertive* (9), with 5 indicating neutrality. The mean ratings of dominance were, respectively, 6.34 toward the self-derogating confederate, 6.30 toward the other-derogating confederate, and 5.87 toward the nonderogating confederate, $F(2, 65) = 5.99$, $p < .01$. Thus, the subjects were generally judged to be assertive but least so toward the nonderogating confederate. These ratings thus confirmed the analysis of semantic content described above.

Satisfaction judgments. We then examined the subjects' satisfaction ratings on each of the eight trials. Because the experimental manipulation did not occur on Trials 1 and 5, we examined the data on those trials first to demonstrate that the groups did not differ. For the data on Trial 1 and for the data on Trial 5, no main effect or interaction was significant (all F s < 1.6 , all p s $> .20$). Thus, when the content was the same, the groups did

not differ. Then the data were examined on the six experimental trials (2, 3, 4, 6, 7, and 8). We performed a mixed-design repeated measures ANOVA with two levels of dysphoria, three experimental conditions, and six trials. The results showed a significant interaction between conditions and trials, $F(10, 325) = 2.18, p < .02$. To examine this interaction more closely, we examined the data on each trial individually and subjected them to an independent groups ANOVA involving two levels of dysphoria and three experimental conditions. The effect of condition was not significant on Trials 2, 3, or 4, $F_s(2, 65) = 0.09, 1.57, \text{ and } 2.31$, respectively, $ps < .10$, but the condition effect first reached significance on Trial 6, $F(2, 65) = 4.74, p = .01$, and remained significant thereafter. As the 1st three trials did not differ significantly from each other, nor did the later three trials differ significantly from each other, the satisfaction ratings were averaged for each three-trial block to provide the most stable measures of satisfaction. Averaged across the two levels of dysphoria and the three trials within a block, the mean satisfaction ratings for subjects in the self-derogating, other-derogating, and nonderogating conditions, respectively, were 3.52, 3.35, and 3.68 on the early trials and 3.17, 3.31, and 3.85 on the later trials. Only the Condition $\times$ Trials Effect was significant, $F(2, 65) = 5.12, p < .01$. Specific t tests showed that subjects in the nonderogating condition produced a slightly higher mean on later trials, $t(65) = 2.09, p < .05$, whereas subjects in the self-derogating condition produced a substantially lower mean, $t(65) = 4.19, p < .001$. Thus, subjects who interacted with the self-derogating confederate grew increasingly dissatisfied by the later trials.

Topic choices. Finally, we determined the frequency with which each topic was selected by subjects in each of the three conditions. The 60 topics had been rated for their valence (positive, neutral, or negative) as part of an earlier study (Locke & Horowitz, 1990), and the topics were ordered from the most positive to the most negative. We identified the 10 most negative items and scored every subject's selections to determine how often a topic was selected from this most negative set; the mean was computed for subjects in each condition. We then performed an independent groups ANOVA, using two levels of depression and three experimental conditions. Each of the main effects was significant, but the interaction between variables was not significant. The mean frequency with which the 10 most negative topics were selected was 0.67 for the nondysphoric subjects and 1.09 for the dysphoric subjects, $F(1, 65) = 6.02, p = .02$. The corresponding means for the self-derogating, other-derogating, and nonderogating groups, respectively, were 1.17, 0.58, and 0.88, $F(2, 65) = 3.92, p = .02$. A Student Newman-Keuls test showed that subjects in the self-derogating condition differed significantly from subjects in the other-derogating condition ($p < .05$). Thus, the dysphoric subjects selected very negative topics more often than the other subjects, as did the subjects who interacted with a self-derogating partner.

The negative topics in the list provided by Taylor and Altman (1966) are primarily self-derogating topics (e.g., "times when I have been careless," "how often I have spells of the blues and what they are about," and "things which I have been sorry that I have done"), but the list also included three other-derogating topics ("things I disliked about my home life," "the kinds of things that make me just furious," and "things I dislike about

my father"). We were therefore curious to determine whether these three other-derogating topics were selected more often by subjects who interacted with an other-derogating partner. Therefore, we determined the frequency with which each subject selected a topic from that set and subjected those data to an ANOVA. The mean frequencies for the self-derogating, other-derogating, and nonderogating groups were 0.17, 0.50, and 0.25, respectively. The condition effect was marginally significant, $F(2, 65) = 2.68, p = .07$, but neither of the other sources of variance was significant. It is possible that a larger set of other-derogating topic choices would have produced a significant condition effect.

Finally, we examined the 15 most positive topics of the list and determined how often subjects in each condition selected topics from that list. The mean frequency with which topics were selected from that set by subjects in the three conditions, respectively, were 2.26, 2.67, and 3.08, $F(2, 65) = 3.19, p < .05$. Only the difference between the self-derogating and the nonderogating conditions reached significance by a Student Newman-Keuls test ($p < .05$).

General Discussion

The results of the three experiments of this study all indicate that affiliation is not judged independently of dominance. People who seem friendly or hostile are more apt to seem self-assured or assertive, whereas people who seem submissive, helpless, or passive are more apt to seem neutral in affiliation. This relative interdependence of the two interpersonal dimensions emerged when the subjects were asked to judge words and phrases (Experiment 1), when they were asked to judge hypothetical people making hypothetical utterances (Experiment 2), and when they were asked to judge partners (confederates) with whom they actually interacted (Experiment 3). The interdependence of these two interpersonal dimensions can be obscured by language, however. As we noted previously, the prefix *un* may at times appear to negate both dimensions simultaneously, creating the impression that true opposites exist for every trait and causing the two interpersonal dimensions to seem independent. However, the results of these studies suggest that when interpersonal objects are judged directly, the judgments along one dimension affect judgments along the other. Apparently, when a person expresses a friendly or hostile disposition, the person exposes a clear attitude toward other people (e.g., a like or a dislike) that conveys a sense of assertiveness or self-assuredness. When the person is passive, however, the person is relatively unexpressive, and neither friendliness nor hostility is apparent. It is possible, of course, that a person who knows someone well can average across situations and infer, say, hostile submissiveness, but that kind of inference would seem to require more context than the present studies provided.

In Experiment 3, we also examined the reactions that were hypothesized to follow from this principle of interdependence. The experiment showed that a confederate who self-derogates (and hence is judged to be submissive) does elicit dominating reactions from the subject. In addition, a confederate who other-derogates (and hence is judged to be hostile) does elicit less friendly reactions from the subject. Together these results could explain why people who are depressed come in time to

arouse hostile reactions in others: Initially, the person appears to be submissive (hence, neutral in affiliation), and this submissiveness leads others to dominate (e.g., they offer suggestions, advice, and exhort), encouraging the person to submit and thereby sustaining the person's depression. Over time, the person does not change and therefore seems to have ignored the advice. This apparent noncompliance then seems hostile, so the person no longer seems submissive, but instead is accused of hostile manipulation, hence responsible for his or her own distress. That attribution in turn elicits hostile reactions in other people.

The results of Experiment 3 showed that the self-derogating and other-derogating confederates were both judged to be depressed, despite substantial behavioral differences between them. We know that the prototype of a depressed person includes self-derogations as well as other-derogations (Horowitz, French, & Anderson, 1982), but we do not know whether these two manifestations of depression generally co-occur in the same people or in different people. As self- and other-derogations can elicit different reactions from other people, a depressed person who displayed both might arouse a surprising mixture of reactions in others. Therefore, the probability of any particular reaction in a given study would depend on the relative salience of self- and other-derogations. As these two behaviors have not been systematically controlled in previous studies in which subjects interacted either with depressed people or with confederates feigning depression, the results might understandably vary from one study to the next.

Although the self-derogating confederate in the present study was not judged to be particularly friendly along the affiliation dimension, many of the elicited responses were actually quite friendly, and, strictly speaking, they were not entirely complementary to the confederate's behavior. Therefore, some explanation is needed for this departure from strict complementarity. To begin with, the interpersonal theory does not claim that every reaction to a given behavior is complementary. Rather, it claims that when the partners' behaviors are not complementary, the discrepancy needs to be resolved through further negotiation. The greater the discrepancy between the actual reaction and the one required for complementarity, the greater the need for continued interaction if the relationship is to be mutually satisfying. In the present study, the subjects' reactions to the self-derogations were friendlier than would be expected by the principle of complementarity, so the interaction would have to continue until one or both partners changed positions. For example, if a subject responded to a self-derogating partner by offering friendly advice (friendly dominance) and the confederate then responded by saying "That's a good idea; I'll try that" (friendly submission), the conversation could then end. To observe the full process, we would have to examine longer sequences than we did in the present study. This lack of interactional closure may be one reason that the satisfaction ratings of the subjects were not higher.

The question still remains, however, as to why a subject would respond to neutral submissiveness with a friendly response—that is, with more friendliness than the confederate initially displayed. One possible reason is that subjects begin an interaction with an implicit initial goal (which might vary from subject to subject) to achieve friendly mutuality. That is, the

subject's first reaction to the confederate might depend on two factors: (a) the actual complement of the confederate's initial behavior and (b) the subject's personal implicit goal for the interaction. The subject's actual first reaction would thus be a compromise between two vectors and would constitute an effort to shift the confederate in the direction of the subject's own implicit personal goal. Thus, the partners would have to adjust themselves to each other's needs to achieve complementarity. If, despite such efforts, complementarity could not be achieved, the partners would discontinue the interaction.

Noncomplementary reactions seem to occur as opening moves under certain conditions. Studies reviewed by Orford (1986) showed that people initially react to direct aggression (hostile dominance) with further aggression (noncomplementary). One study was an examination of aggressive boys interacting with each other (Rausch, Dittman, & Taylor, 1959), another was of spouses in distressed marriages (Levenson & Gottman, 1983, 1985), and a third was of college students interacting in a group discussion (Shannon & Guernsey, 1973). In all three cases, the partner responded to hostile dominance with hostile dominance. Under these circumstances, interacting partners seem to respond to each other by trying to negotiate an acceptable distribution of power. Thus, complementarity should not be expected from every sequence of action and reaction. Instead, the effect of different types of noncomplementary reactions on the subsequent interaction should be explored experimentally.

Responses to the other-derogating confederate in the present study posed another theoretical question as well. The other-derogating confederate was judged to be more dominating than the nonderogating confederate, but this confederate also elicited as many dominating reactions as the self-derogating confederate. This result requires some explanation. Other-derogations are particularly interesting communications in that they convey mixed messages (Horowitz & Vitkus, 1986). If Person A, for example, complains to Person B about the behavior of Person C, then Person A (the person with the complaint) is telling Person B (the listener) something negative about Person C (the offending third party). Communications of this type may be analyzed into two separate messages: One is a statement from A to B in which A, in a spirit of friendly collaboration, invites a friendly reaction from B; the other is a statement describing C's offense toward A. In such cases, A's intent (a bid for friendly collaboration with B) may become confused with A's hostility toward C. This combination of friendliness toward B and hostility toward C poses a dilemma for the listener (see Horowitz & Vitkus, 1986). Interestingly, in the present study Person A (the confederate) was judged to be hostile rather than friendly as a result of the ambiguity. Interactional sequences that begin with an other-derogation require a response that sustains the friendliness of the B-A relationship but at the same time addresses the hostile dominance present in the C-A relationship. Urging the person to think, feel, or behave differently may be the subject's compromise in addressing the two tasks simultaneously. Complex communications of this type should be examined further in future investigations.

The nonderogations of Experiments 2 and 3 also require some comment. In both experiments, the nonderogations contained positive self-referent content that contrasted with the

negative self-referent content of the self-derogations. The non-derogating speaker in Experiment 2 was judged to be friendly and slightly dominating, but the nonderogating speaker in Experiment 3 (also judged to be friendly) seemed neutral in dominance. This difference may have resulted from the use of different procedures in Experiments 2 and 3. First, the vignettes of Experiment 2 were the typewritten statements of an anonymous speaker, whereas those of Experiment 3 were spoken by a live confederate. Second, the statements in Experiment 2 were extremely succinct, minimal reports of positive news, whereas those of Experiment 3 provided more details about the speaker's circumstances and background (e.g., "one of the best things that ever happened to me"). Third, the statements in Experiment 2 were apparently offered spontaneously, whereas those in Experiment 3 were the speaker's response to demands of the experimental task. These factors may have created the impression that the speaker in Experiment 2 was bragging, hence rated as dominant, more than the speaker in Experiment 3. The role of these factors in producing the appearance of bragging could be examined systematically in future research, using the paradigm of the present studies.

In summary, these studies have focused on self-derogations and the general proposition that self-derogations connote submissiveness but are judged to be neutral in affiliation. This proposition, which has implications for the mechanisms of depression, has been examined with self-descriptive words and sentences (Experiment 1), with vignettes (Experiment 2), and with longer monologues (Experiment 3), using the research traditions of psycholinguistics, psychometrics, and experimental social psychology. The results showed that self-derogators are judged to be submissive and, in accordance with the principle of complementarity, do elicit dominating reactions from a partner. However, contrary to the principle of complementarity, the results also demonstrated that neutral submissiveness can elicit friendly dominance. In the present article, therefore, we proposed a revision to the interpersonal theory that still needs to be formalized and tested empirically.

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