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ABSTRACT

This study was conducted to examine systematic effects associated with the gender of the participant, the situation, and the interaction of gender of participant and situation for two personality characteristics, dominance and friendliness. Subjects were 24 women and 21 men recruited through a student publication at a university. Subjects were observed twice in each of three types of situations: with a familiar person of the same sex, with an unfamiliar person of the same sex, and with an unfamiliar person of the opposite sex. Observations by independent observers were collected using behavior counts and ratings. In addition, self-reports about dominance and friendliness in different situations were collected. The results indicated that both gender and familiarity of partner influenced dominance and friendliness. Women were friendlier than men, particularly when they were interacting with same-sex individuals. Men were more dominant than women, particulary when with a same-sex friend. There was evidence of systematic errors in the self-reports, suggesting that men overestimate their degree of friendliness relative to women and that women overestimate their level of dominance relative to men. (Author/NB)

Dominance and Friendliness: On the Interaction of Gender and Situation

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Runn ng Head: GENDER, PERSONS, AND SITUATIONS

Abstract

The present study examined systematic effects associated with gender of the participant, with the situation, and with the interaction of gender of participant and situation for two personality characteristics, dominance and friendliness. Individuals were observed twice in each of three types of situations: with a familiar person of the same sex, with an unfamiliar person of the same sex, and with an unfamiliar person of the opposite sex. Observations by independent observers were collected using behavior counts and ratings. In addition, self-reports about dominance and friendliness in different situations were collected. Results indicated that both gender and familiarity of partner influenced dominance and friendliness. Women were friendlier than men, particularly when they were interacting with same-sex individuals. Men were more dominant than women, particularly when with a same-sex friend. There was evidence of systematic errors in the self-reports suggesting that men overestimate their degree of friendliness relative to women and that women overestimate their level of dominance relative to men.

Dominance and Friendliness: On the Interaction of Gender and Situation

The need for person by situation interactionist models has frequently been commented upon in the history of personality and social psychology (see Ekehammer, 1974; Magnusson & Endler, 1977). Gender differences are a class of individual difference variables that have not historically been included in the discussion of person by situation interactions. It seems feasible and desirable to combine the gender variable with personality variables to create more elaborated models for studying person by situation interactions. So, the present research extended one approach to studying person by situation interactions to the study of gender differences.

One approach for studying person by situation interactions is not at the level of the research design but rather within the context of conceptualizing and measuring personality constructs. It has been argued (Epstein, 1980; Moskowitz, 1982) that personality characteristics can reflect different types of consistency that do not necessarily co-occur. Three facets of consistency are coherence or co-occurrence among referents of a characteristic; temporal stability or consistency across occasions such as different days, and cross-situational generality or consistency across explicitly specified situations. Moskowitz (1986) argued further that if information about stability, coherence, and cross-situational generality were routinely collected, it would become possible to incorporate the extent of these types of consistency in theoretical definitions or models of the internal structure of personality characteristics.

The present study examined two characteristics sampled from the broad domains of agentic and communal characteristics which are frequently considered to summarize facets of social behavior that are stereotyped by gender (Eagly, 1987). One personality characteristic was

dominance, or the disposition to try to influence others or the outcome of an activity. The other characteristic was friendliness, the degree to which an individual is cordial and congenial with another. The characteristics of dominance and friendliness are generally found to be independent (Moskowitz, 1990).

At this point, considerable information is available about facets of consistency for the personality characteristic, dominance. It has been possible to identify sets of co-occurring dominance acts and behaviors in both observational studies (Moskowitz, 1982, 1988; Small, Zeldin & Savin-Williams, 1983) and self-report studies (Buss & Craik, 1983; Dworkin & Kihlstrom, 1978; Jackson, 1984; Wiggins, 1979). Temporal stability over a 2-month period has been demonstrated for both young children and adolescents (Moskowitz & Schwarz, 1982; Small, et al., 1983). Cross-situational generality has been found across different types of activities but not across different types of target persons such as, teachers vs. peers and friends vs. strangers (Moskowitz, 1982, 1988; Small, et al., 1983).

Little is known about the coherence and temporal stability of friendliness, but there are several studies pertaining to cross-situational generality. Self-reports indicate moderate cross-situational generality across different activities (the reanalysis of Peake, 1982 by Houts, Cook, & Shadish, 1986). Laboratory observations of individuals working on different tasks with different types of partners (e.g., friends and strangers) also indicate moderately high cross-situational generality for friendliness (Moskowitz, 1988).

Thus, in terms of working models of the internal structure of dominance and friendliness, it would be reasonable to assume that dominance is coherent, temporally stable, and generalizes across activities but not different types of individuals. Friendliness generalizes across different

types of activities and different types of interaction partners and therefore may well be temporally stable.

These studies of consistency have generally not attended closely to gender differences. Instead, there have been two general types of studies of the relation between gender and dominance. One type of study has enumerated acts and behaviors believed to reflect dominance and then examined whether males and females are different in their self-reports or in independent observations of engaging in these acts and behaviors. Self-report data have not generally indicated gender differences for dominance (Buss, 1981; Wiggins, 1979). For example, Buss (1981) found few gender differences in self-reports of specific dominant acts; differences were found on only 9 of 100 acts. Similarly, observational studies have not generally indicated gender differences in dominance. In one study of male-female pairs (Stake & Stake, 1981) and another study that included both same-sex and mixed-sex pairs (Davis & Gilbert, 1989), gender differences were not been found in counts of dominance behaviors. Moreover, gender differences have not been found using global ratings of dominance to evaluate leaders in male-female pairs (Snodgrass & Rosenthal, 1984). In summary, while dominance is stereotypically viewed as a characteristic on which males are higher (Martin, 1987), it has been difficult to document directly gender differences in dominance[1].

A second type of study has identified males and females who report themselves to be high or low on a self-report measure of dominance and then examined differences between these groups in single laboratory situations of fairly brief duration. Using this paradigm, one major finding has been that high dominance males are likely to become leaders when with both low dominance males and low dominance females but that high dominance females are likely to become leaders only with low dominance females and not with low dominance males (Carbonnell,

1984; Megargee, 1969; Nyquist & Spence, 1986). It has been suggested that these results were due to the brief nature of the interaction that increased reliance on the external status characteristic of sex and that longer interactions may increase the influence of dispositional characteristics for women on who becomes a leader (Davis & Gilbert, 1989). The general pattern of these results though does suggest that predictions involving dominance and gender may be specific to situations involving specific types of partners.

Both research paradigms have limitations in the context of the development of person by situation interactionist models. Studies that simply look at sex differences on specific acts and behaviors are uninformative about internal structure. Since individuals were not assessed in multiple situations or on multiple occasions, the comparisons between gender groups could not examine systematic variations in behavior across situations or control for temporal fluctuations and error variance in individuals' behavior.

The second type of study, comparing individuals who are high and low dominance based on self-report questionnaires, presumed a trait model of dominance. Neither occasions nor situations were systematically sampled in these questionnaires. The outcome assessed in the experimental situation, who was selected as the leader, was not specifically a dominance behavior. Rather, the assessed outcome was selected to extend the external nomological net for the construct of dominance while leaving unexplored the internal structure of dominance. This paradigm, though, does support the need for systematically examining situations given that a correlate of dominance, selection for leadership, appears to be affected by characteristics of the interaction partner.

Gender differences in the broad characteristic of friendliness have not been directly studied, but gender differences have been examined for smiling and laughing which are behavioral

referents for friendliness (Halberstadt & Saitta, 1987). It has frequently been found that women smile and laugh more than men (see reviews by Hall, 1984 and Hall & Halberstadt, 1986). So, a gender difference in the broader characteristic of friendliness is possible. Little is known for friendliness about the interaction of gender with situational variables. Since there is some evidence that friendliness does have a high level of cross-situational generality, there may be justification in ignoring situational variables in the study of gender differences. But until more is known about the interaction of gender and situation for specific personality characteristics with known internal structure, it was considered desirable to study the possible variation of friendliness as a joint function of gender and situation.

The purpose of the present study was to examine systematic effects associated with gender of the participant, with the situation, and with the interaction of gender of participant and situation. Individuals were observed in three types of situations, with a familiar person of the same sex, with an unfamiliar person of the same sex, and with an unfamiliar person of the opposite sex[2]. Temporal fluctuation and error variance in the assessment of an individual's behavior in a particular situation were reduced by observing each individual twice in each situation and averaging the two occasions of measurement for each situation. Observations by independent observers were collected using behavior counts and global, integrated judgments. In addition, self-reports about dominance and friendliness in different situations were collected. The tasks used in the present study were piloted to ensure that men and women had equal interest in them and equal expectations about competence (see Eagly & Carli, 1981). So, any gender differences found would be independent of task.

With respect to gender differences, it was predicted that women would be friendlier than men on specific behavior counts that included smiling and laughing, and thus they might also be

found to be friendlier as reflected in integrated, global judgments of friendliness. Social stereotypes but not previous empirical findings would lead to the expectation of gender differences on dominance. If a sex difference were to be found, men were expected to be more dominant than women.

Given previous research, there was limited information available to guide expectations about how situation as reflected in type of partner would affect the degree of dominance and friendliness. It was expected that people would be friendlier to familiar others than to strangers. In established groups there are fewer dominance attempts than in groups in which people are new to each other (e.g., Savin-Williams, 1976). Thus, it was expected that individuals would display more dominance behaviors towards strangers than friends.

As for the interaction of gender and characteristics of the partner, there is some suggestion in previous research (Carbonnell, 1984; Klein & Willerman, 1979; Megargee, 1969; Nyquist & Spence, 1986) that women might be inhibited in their display of dominance when with men. In this case, there would be a gender by situation interaction, indicating higher levels of female dominance when the partner was a woman than when the partner was a man. This difference might be particularly pronounced between situations in which the partner was a male stranger or a female stranger. There were no specific predictions about how gender might interact with the different types of situations for friendliness.

Method

The present study is based on a data set that has been the subject of two previous reports, one examining the cross-situational generality of dominance and friendliness and the other examining the validity of reports by self and independent observers (Moskowitz, 1988; 1990). Some details of the method have been omitted, and previous reports can be consulted to obtain

complete details. Previous studies of this data set have not examined difference in levels of dominance and friendliness, nor have these previous studies examined how mean levels of dominance and friendliness are affected by situational conditions. The present report is concerned with the analysis of means as a function of gender and situation.

Subjects

The participants were 24 women and 21 men who were recruited through advertisements in the student newspaper of a state university. Initially, 12 pairs of men and 12 pairs of women were asked to participate. Three men decided not to continue participating midway through the study. These men were replaced in stranger pairs by volunteers from the subject pool. Individuals were paid for participating in the study.

Design

Each individual visited the laboratory on six occasions and was asked to solve a problem in conjunction with a partner. On two occasions, the partner was the friend who had been recruited with the individual; on two occasions, the partner was a male college student who was unfamiliar to the individual, and on yet another two occasions, the partner was a female college student who was unfamiliar to the individual. In the stranger pairs, the partner was different on each occasion. The partners were other subjects in the study who were systematically paired with each other in a dyad-block design. Thus, each participant interacted on six occasions with five different partners.

Six problem-solving tasks were used. These tasks were systematically rotated through pair combinations so that each individual engaged in each task, and each type of pair engaged in each type of task approximately an equal number of times.

Tasks

The tasks were designed to require interaction between a pair of people and to take approximately 20 minutes to complete. A pilot study was conducted to determine whether sex differences in interest or perceived competence would affect individuals' reactions to the tasks. Descriptions of 20 tasks were submitted to 60 undergraduate men and 60 undergraduate women from the department's subject pool to evaluate how interesting the task seemed and how competent the person thought he or she would feel while completing the task. A t-test was calculated for each task to compare the men's and the women's interest and perception of competence. For 8 of the 20 tasks, no sex differences were found on either dimension. Six tasks were randomly selected from the eight tasks that met the selection criteria. The tasks were: (a) to design an ideal community, (b) to plan a visit by the President of the United States to the University, (c) to copy a complex design using an Etch-a-sketch (a device in which the vertical and horizontal movement of a point can be controlled separately so that a line can be drawn vertically or horizontally but not diagonally), (d) to complete a crossword puzzle, (e) to create an original maze, and (f) to deduce the classification system used to select a list of 40 words and to classify correctly the words into the four classification categories.

Procedure

On the first visit to the laboratory, each participant came with the friend. They were told that they were being asked to participate in a study of how people solve problems. The partner for the first session was fixed by the necessity to ensure the cooperation of both friends. The second and third sessions were with one of the strangers. For the remaining sessions, the type of partner was ordered randomly.

At the beginning of each session, one of the six tasks was explained to the pair. The pair was then given 20 minutes to complete the task. Participants were told that the sessions were being videotaped through a one-way vision glass.

After the task was completed on the occasion of the last laboratory session, the participant completed questionnaires requesting information about friendliness and dominance.

Measures

Two sets of measures were coded from the videotapes: (1) ratings made by observers after watching an entire session, and (2) time-sampled observations of specific categories of behavior.

Ratings. The ratings were made on a 5-point scale. Each rater was asked to evaluate how much the person tried to dominate the partner. Dominance was described as attempts to impose his/her solution or means to solution on the other person. Raters were told that examples of dominating behaviors included expressing an opinion, telling the other person what to do, taking control of the resources necessary to solve the problem, and ignoring the other person. Each rater was also asked to evaluate how friendly the person was. Examples of friendliness were smiling at the other person, talking animatedly, and talking about things unrelated to the task.

For each session, each participant's actions were evaluated by four raters. The means of the four ratings on each dimension were used as the rating measure of dominance and friendliness.

Fourteen undergraduates were trained to make ratings. Raters were assigned to minimize the number of times the same set of 4 raters watched an individual in more than one session. This procedure reduced observer drift, that is, systematic change in the use of the observational system (Johnson & Bolstad, 1973) and increased the specificity of the average rating.

To examine reliability, composite coders were constructed by arbitrarily assigning each rater for an individual in a particulat session to an ordinal position from 1 - 4. Reliability was assessed by calculating coefficient alpha (Cronbach, 1951) using the ratings of the four composite raters. Interrater agreement was high: for friendliness -- .94; for dominance -- .85.

Behavior counts. Behavior counts were collected using a time-sampling procedure. Each session was divided into 10-second intervals. The occurrence of each category of behavior was recorded once during each interval in which it occurred.

The occurrence of each of the following behaviors was recorded: (a) smiles, laughs, jokes, (b) makes suggestions, (c) gives commands, (d) provides information, and (e) displaces other (i.e., takes possession of materials necessary to solve the problem). The elements of the first category of behavior (smiles, laughs, jokes) co-occurred so frequently that these behaviors could not be reliably distinguished in pilot work. The total frequency of this set of behaviors was used as the behavior count mea ure of friendliness. The other four categories were used to assess dominance. To obtain a single score for dominance that equally weighted the component behaviors, the frequency of each category of dominant behavior was converted into a standard score and then the four standard scores were averaged.

The behavior count data was coded by 15 undergraduates. The coders did not overlap with the raters previously mentioned. Four raters coded the behavior of each participant in each session. A similar procedure to that described for the raters was used to ensure that no participant was rated by the same set of 4 coders in more than two sessions.

The procedure to examine reliability was similar to that used to evaluate the reliability of the ratings. Based on four raters, the alpha coefficients for the observed behaviors were high: (a) smiles, laughs, jokes --.98, (b) makes suggestions --.91, (c) gives commands --.82, (d) provides

information --.94, (e) displaces --.95. The reliability of the composite variable, dominance, was also high --.93.

Self-report for situations. Each participant completed a questionnaire about friendliness in specific situations. The person was asked to indicate on a 6-point scale "how likely you would be to be friendly and outgoing with each person?" and then eight categories of persons were presented. Four of the categories were: a male close friend, a male college student whom the person had met recently, a man the person knows well with some authority over the person (e.g., an uncle), a man who has some authority over the person whom the person does not know well (e.g., a professor). The other four categories were descriptions of females with parallel familiarity and authority status. For the present study, only the self-ratings for the same-sex close friend, the same-sex unfamiliar peer, and the opposite-sex unfamiliar peer were analyzed.

Each person also completed a questionnaire about dominance in specific situations. The person was asked to imagine himself or herself in a series of situations in which the person has the opportunity to influence another person's opinions or activities and to indicate on a 6-point scale "how likely you would be to influence the other person? Some examples of trying to influence would be making a suggestion, expressing an opinion, and disagreeing with the other person's expressed opinion." The series of situations were the same as previously described for friendliness, and as with friendliness, only the self-ratings for the same-sex close friend, the same-sex unfamiliar peer, and the opposite-sex unfamiliar peer were analyzed.

Validity

Previous analyses of this data set (Moskowitz, 1990) indicated that the ratings and the behavior count measures have excellent convergent and discriminant validity when compared with each other. Smiling has also been found to signify friendliness and not dominance by Halberstadt

and Saitta (1987). The self-rating data has been demonstrated to converge with other forms of self-reports. There was limited convergence between the self-ratings and the independent observers (Moskowitz, 1990). Specifically, men's self-ratings of dominance were related to the measures based on the independent observers, and women's self-ratings of friendliness were related to measures of friendliness based on the independent observers.

Results

An analysis of variance with one between factor, gender, and one within factor, situation (i.e., type of partner -- same-sex friend, same-sex stranger, and opposite-sex stranger), was calculated for each of the three measures of friendliness and dominance. Post hoc tests were conducted using the Scheffe procedure, alpha = .05.

Friendliness

Rating measure. In the analysis of the friendliness rating measure, there was a gender main effect, $F(1, 43) = 6.97$, $p < .05$, and a gender by situation interaction effect, $F(2, 86) = 3.99$, $p < .05$. The women were rated as friendlier than the men (see Table 1). Inspection of Figure 1 reveals that the gender difference was only present in situations with an individual of the same sex, that is the friend and the same-sex stranger (also see Table 2). When with an opposite-sex stranger, women became less friendly, and men became more friendly. So, the difference between men and women then became quite small. Post hoc tests confirmed that the gender difference was present only when men were with men and women were with women.

Insert Tables 1 and 2 and Figure 1 about here.

Behavior count measure. The analysis of the friendliness behavior count measure indicated a main effect for gender, $F(1, 43) = 12.93$, $p < .001$. Women engaged more frequently in friendly behaviors than men did (see Table 1). This measure did not indicate any effects related to situation.

Self-report measure. The analysis of the self-report data indicated an effect for situation, $F(2, 86) = 38.48$, $p < .001$. Inspection of the means in Table 3 indicated that individuals reported being friendlier with a same-sex friend than a stranger of either sex. These differences were confirmed with post hoc comparisons. There were no effects related to gender.

Insert Table 3 about here.

Dominance

Rating measure. There was a main effect for gender, $F(1, 43) = 4.00$, $p = .05$. Men were rated by the independent observers to be more dominant than women (see Table 1).

Behavior count measure. There was a gender by situation interaction effect for the dominance behavior count measure, $F(2, 86) = 4.31$, $p < .05$. Inspection of Figure 2 revealed that men engaged in more dominant behaviors than women when with a friend but not when with either male or female strangers (also see Table 2). Women engaged in fewer dominant behaviors when with a friend than when with either type of stranger. The overall effect then was that men were more dominant than women only in situations involving the friend. Post hoc comparisons confirmed that the gender difference for dominance behaviors only occurred when individuals were with a friend.

Insert Figure 2 about here.

Self-report measure. The self-report data indicated a main effect for situation, $F(2, 86) = 21.26$, $p < .001$. Individuals reported being more dominant with a same-sex friend than with a stranger of either sex (see Table 3). Post hoc comparisons confirmed the difference in self-reported behavior in situations between the same-sex friend and the same-sex stranger and the difference between the same-sex friend and the opposite-sex stranger. There were no effects related to gender.

Discussion

Gender Differences

Friendliness. The behavior count measure of friendliness indicated that women smile and laugh more than men. This finding is consistent with previous studies of smiling and laughing (Hall, 1984; Hall & Halberstadt, 1986) and confirmed that the gender difference in smiling and laughing is robust across situations involving male or female interaction partners who may be familiar or unfamiliar.

Friendliness in the general understanding of the term is broader than smiling and laughing. Friendly people show interest in others and try to make others feel comfortable. In this context, it is interesting to note that the global rating revealed gender differences in only two of the three situations. Women were friendlier towards other women, either a friend or a stranger, than men were to either a male friend or a male stranger. A woman may smile and laugh as much with an unfamiliar man as with an unfamiliar women or even a female friend, but subtle aspects of

friendliness are inhibited with an unfamiliar male even as the male is trying to be friendly, more so even than with a male friend.

Dominance. The rating measure of dominance indicated that men were more dominant than women. Thus, using a measure aggregated over three situations on six occasions for a total of two hours of observation of each individual, it was possible to document a gender difference in levels of perceived dominance. This finding suggested that previous observational research based on ratings or behavior counts that had not found a gender difference may have been based on too brief interactions (e.g., 5 to 20 minutes) to reveal a reliable gender difference. This finding then supports Eagly's (1987) contention that when adequate measures are used, gender differences in social behaviors may conform rather closely with sex stereotypes about social behaviors.

The behavior count measure of dominance also indicated a gender difference, but this gender difference was modified by the situation. The behavior count measure of dominance indicated that most of the difference between men and women occurred in situations involving the friend. Men engaged in more frequent dominance behaviors when with a male friend than when with either a male or female stranger. Women engaged in fewer dominance behaviors when with a female friend than when with either a male or a female stranger. Thus, a further explanation of the absence of gender differences in previous work may be related to the kind of partner used. Most often, male-female stranger pairs have been used. The present study indicated that this pairing may not be associated with gender differences but that other pairings are.

It was surprising that the men exhibited higher levels of dominance with friends than with strangers. In naturalistic studies of groups of adolescents at camp, it has been found that dominance attempts are reduced as people get to know one another and establish dominance

hierarchies (e.g., Savin-Williams, 1976). It is possible that the structure of a group enforces the established dominance hierarchy and that when other members of the group are not present, dominance activity is likely among males known to one another.

The gender difference with a familiar partner but not unfamiliar partners is interesting in the context of a previous finding that dominance behaviors co-occur more strongly when with familiar others than when with unfamiliar others (Moskowitz, 1988). It is not the case then that higher coherence is simply a function of a higher rate of behavior. Rather, coherence of dominance behaviors can be high when the frequency of behaviors is high or low.

The general pattern of greater gender differences with same-sex partners than opposite-sex partners is not limited to dominance and friendliness. Researchers have also found fewer sex stereotypic communications by men in mixed-sex than same-sex groups; for example, men disagree less and use more supportive statements when with women than when they are with other men (Aries, 1987; Carli, 1989). Sex stereotyping in nonverbal communication is also affected by the composition of the interacting dyad; there are fewer gender differences in gazing and the distance maintained within the dyad in opposite-sex pairs than in same-sex pairs (Hall, 1987).

Maccoby (1990) has similarly argued that gender differences in social behavior are moderated by presence in a mixed-sex or same-sex group. Moreover, she has observed gender differences in social behavior to be influenced by gender of the partner in very young children; even 2 to 3-year-old children have much higher rates of social behavior when with same-sex peers then when with opposite-sex peers. So, sex of the person to whom a social behavior is directed is an important situational variable affecting the presence or absence of gender differences.

It is possible to generate both learned and evolutionary explanations of the findings that sex and familiarity of partner moderate gender differences. With respect to learning, it has been

suggested that the two sexes grow up in different cultures with different norms about communication and competition so that differences between the sexes are maximized when in same-sex groups and minimized with the uncertain norms that come to play in mixed-sex groups (Maltz & Borker, 1983). Alternatively, there may not be uncertain norms; rather, individuals in mixed-sex groups may try to match each other's behavior to ease the course of social interaction.

From an evolutionary perspective, dominance is a characteristic that may affect a man's sexual attractiveness (Kenrick & Trost, 1989). Hence, it may be of more importance for men to compete among themselves about dominance than for female friends to attempt to dominate one another. Evolutionary perspectives have also emphasized the necessity for women to appear chaste (Daly & Wilson, 1983). Women's relatively low level of friendliness with unfamiliar men may be a form of self-protection. Men are likely to interpret friendliness by women in first encounters as flirtatious and seductive (Abbey, 1982). So, women's lower level of friendliness with unfamiliar men than unfamiliar women may protect them against awkward misinterpretations of brief social interactions. Fundamentally, the socialization and evolutionary explanations are not at odds. Rather, socialization may explain how evolutionary adaptive behaviors are acquired.

An important extension to the present work would be a comparison that includes opposite-sex friends. If as previously suggested (Moskowitz, 1988), familiarity is a boundary condition on the consistency of dominance, dominance behaviors should be well-organized and coherent with a familiar person of the opposite sex. If gender differences are decreased within opposite-sex pairs, then men will make fewer attempts to influence female friends than male friends, but more interestingly, women may make more attempts to influence male friends than female friends.

In the context of a task-focused interaction, it seems reasonable to expect that men will be even friendlier towards familiar women than unfamiliar women and that women will be friendlier towards familiar men than unfamiliar men. Will a woman's level of friendliness towards a familiar man be as high as women generally manifest towards other women? If not, interaction between opposite-sex friends may be one situation in which men manifest higher levels of friendliness than women.

Familiarity has been less explored than gender of dyad or group members and may be relevant to an understanding of the appearance of gender differences in many situations. Women may be less willing to attempt social influence with individuals with whom they have established relationships so as not to disturb the quality of the relationship. This may have an important affect on couples particularly since men seem to be less sensitive to subtle interpersonal cues that may indicate dissatisfaction (Aries, 1987; Hall, 1987). Frustration may build in a relationship as a woman perceives the man as unwilling to perceive her affect but be unwilling herself to make direct attempts at social influence. Attempts to influence others in established work groups may place women in a quandary. If women do make fewer dominance attempts with familiar others, they may have less influence than men over task organization and products. One hopeful note is that women's dominance strategies may be particularly effective, at least with other women (Carli, 1989), so frequency may not be equivalent to actual effect.

Methodological Issues

This study provided the opportunity to consider whether the three measurement methods would be differentially sensitive to gender and situational effects. Both the rating and the behavior count measures were sensitive to gender effects in friendliness and dominance. The ratings by independent observers were more sensitive to situational effects on friendliness. The

behavior counts were more sensitive to situational effects on dominance. Thus, there was no systematic difference between the ratings and the behavior counts in sensitivity to gender or situational effects.

For dominance, the differences in sensitivity to situational effects may be a function of small changes in the reliability of the measures as a function of the situation. In a close examination of the reliability of these measures, it was previously reported (Moskowitz, 1990) that it was more difficult to evaluate dominance when women were with a female friend than any other combination. The error variance in the dominance rating then may have led to difficulty in detecting the gender by situation effect.

The self-reports were not sensitive to the gender differences indicated by the ratings and the behavior counts by independent observers. Since both men and women rated themselves as being high on both friendliness and dominance, it seems likely that the direction of the errors was that men overestimated how friendly they were and that women overestimated how dominant they were. It is also possible that men and women implicitly used different reference groups when providing self-report information. Women may be reporting how likely they would be to be dominant relative to other women, and men may be reporting how likely they would be to be friendly relative to other men.

The comparisons between the self-reports and the measures based on the independent observers must be made cautiously. The self-reports and the measures obtained from the independent observers were not based on identical samples of behavior. The self-assessments would include information encompassing a broad array of situations, including situations which would involve gender differences in competence. Given that the tasks in the present study were designed to minimize gender differences, particularly for dominance, and that gender differences

were still obtained using information from the independent observers, it seems likely that self-report information about these two personality characteristics underestimated gender differences.

The self-report information would probably be improved by having more items for each type of situation. Even with increased items, the self-report information may still have limited validity. Aries, Gold, and Wiegel (1983) found that the CPI dominance scale predicted dominance behavior in same-sex but not mixed-sex groups, and their results could be interpreted as indicating that prediction was stronger for men than women.

Another perspective might focus on the independent observers and suggest that the observers may have had preexisting biases to see gender differences, particularly for dominance (Halberstadt & Saitta, 1987). While biases to perceive men as more dominant may exist in the average lay person, these observers were carefully trained and monitored, and the behavior count measure of dominance was sensitive to variations in the presence of gender differences in dominance in different situations. It is possible that preexisting biases distorted information obtained using global ratings, but it does not seem likely that preexisting biases could have substantially distorted the counts of specific behaviors. Consequently, it does appear that there may be systematic differences in the levels used by men and women in their self-reports about certain characteristics.

These differences in level could be studied from a cognitive perspective to examine gender differences in the storage and retrieval of information about specific characteristics. Further research should examine how the apparent biases in self-reports may generalize to other characteristics. The pattern of overestimation in self-reports may be predictable from models summarizing the structure of personality characteristics. For example, following Wiggins' (1979)

circumplex, women may overestimate their level on other characteristics related to status variables, and men may overestimate their level on characteristics related to affiliation.

Conclusion

The present study demonstrated the usefulness of systematically studying gender differences in conjunction with situational characteristics for two personality characteristics, dominance and friendliness. Even the prior demonstration of a high level of cross-situational generality does not preclude the interaction of gender and situation. Moreover, interpretations about the generalizability of gender differences in social behaviors must be sensitive to the characteristics of gender and familiarity of the person with whom the individual was interacting. Consequently, researchers should systematically assess behavior with different types of persons to further the development of models incorporating situational parameters that moderate gender differences in social behavior. For the development of such models, it should be noted that frequency is unrelated to coherence, or the co-occurrence of referent behaviors, and that gender differences are more likely to be revealed in situations in which the personality characteristic is known to be coherent.

Author Notes

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Notes

1. There are other behaviors which previous researchers have presumed to reflect dominance, such as, head canting and interruptions. However, when several of these behaviors have been closely examined, a relation to perceived dominance has not been found (see Halberstadt & Saitta, 1987). Thus, the conclusion about an absence of gender differences is focused on studies that have specifically targeted dominance.

2. To complete the comparison of behavior with partners varying in sex and acquaintanceship, it would have been desirable to study participants with an opposite-sex friend as well as a same-sex friend. To retain the characteristics of a round-robin type design (Kenny & La Voie, 1984), it would have been necessary to recruit pairs of same-sex friends each of whom had an opposite-sex friend who was willing to participate. Since the recruitment of quartets would have been quite difficult, the study of behavior with both an opposite-sex and same-sex friend would have affected feasibility and raised questions about sample selection (who are these cooperative sets of four people). Consequently, the decision was made to include one type of friend in this study.

References

Abbey, A. (1982). Sex differences in attributions for friendly behavior: Do males misperceive females' friendliness? Journal of Personality and Social Psychology, 42, 830-838.

Aries, E.J. (1987). Gender and communication. In P. Shaver and C. Hendrick (Eds.), Review of personality and social psychology: Sex and gender (vol. 7, pp. 149-176). Beverly Hills, CA: Sage.

Aries, E.J., Gold, C., & Weigel, R.H. (1983). Dispositional and situational influences on dominance behavior in small groups. Journal of Personality and Social Psychology, 44, 779-786.

Buss, D. M. (1981). Sex differences in the evaluation and performance of dominant acts. Journal of Personality and Social Psychology, 40, 147-154.

Buss, D. M., & Craik, K. H. (1983). The act frequency approach to personality. Psychological Review, 90, 105-126.

Carbonnell, J. L. (1984). Sex roles and leadership revisited. Journal of Applied Psychology, 69, 44-49.

Carli, L. (1989). Gender differences in interaction style and influence. Journal of Per ty and Social and Social Psychology, 56, 565-576.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.

Daly, M., & Wilson, M. (1983). Sex, evolution, and behavior. Boston: Willard Grant Press.

Davis, B. M., & Gilbert, L. A. (1989). Effect of dispositional and situational influences on women's dominance expression in mixed-sex dyads. Journal of Personality and Social Psychology, 57, 294-300.

Dworkin, R. H., & Kihlstrom, J. F. (1978). An S-R inventory of dominance for research on the nature of person-situation interactions. Journal of Personality, 46, 43-56.

Eagly, A. H., & Carli, L. (1981). Sex of researchers and sex-typed communications as determinants of sex differences in influenceability: A meta-analysis of social influence studies. Psychological Bulletin, 90, 1-20.

Eagly, A. H. (1987). Sex differences in social behavior: A social role interpretation. Hillsdale, N.J.: Erlbaum.

Ekehammar, B. (1974). Interactionism in personality from a historical perspective. Psychological Bulletin, 81, 1026-1048.

Epstein, S. (1980). The stability of behavior: II. Implications for psychological research. American Psychologist, 35, 790-806.

Halberstadt, A. G., & Saitta, M. B. (1987). Gender, nonverbal behavior, and perceived dominance: A test of the theory. Journal of Personality and Social Psychology, 53, 257-272.

Hall, J. A. (1984). Nonverbal sex differences: Communication accuracy and expressive style. Baltimore: Johns Hopkins University Press.

Hall, J. A. (1987). On explaining gender differences: The case of nonverbal communication. In P. Shaver and C. Hendrick (Eds.), Review of personality and social psychology: Sex and gender (vol. 7, pp. 177-200). Beverly Hills, CA: Sage.

Hall, J. A., & Halberstadt, A. G. (1986). Smiling and gazing. In J.S. Hyde & M. C. Linn (Eds.), The psychology of gender: Advances through meta-analysis. Baltimore: The Johns Hopkins University Press.

Houts, A. C., Cook, T. D., & Shadish, W. R. (1986). The person-situation debate: A critical multiplist perspective. Journal of Personality, 54, 52-105.

Jackson, D. N. (1984). Personality research form manual (3rd ed.). London, Ontario: Research Psychologists Press.

Johnson, S. M., & Bolstad, O. D. (1973). Methodological issues in naturalistic observation: Some problems and solutions for field research. In L. A. Hamerlynck, L. Handy, & E. J. Mash (Eds.), Behavior change: Methodology, concepts, and practice (pp. 7-63). Champaign, Ill.: Research Press.

Kenny, D. A., & La Voie, L. (1984). The social relations model. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology. (Vol. 18, pp. 142-182). Orlando, FL: Academic Press.

Kenrick, D. T., & Trost, M. R. (1989). A reproductive exchange value model of heterosexual relationships. In C. Hendrick (Ed.), Review of personality and social psychology (Vol. 10, pp. 92-118). Beverly Hills, CA: Sage.

Klein, H. M., & Willerman, L. (1979). Psychological masculinity and femininity and typical and maximal dominance expression in women. Journal of Personality and Social Psychology, 37, 2059-070.

Maccoby, E.E. (1990). Gender and relationships: A developmental account. American Psychologist, 45, 513-520.

Magnusson, D., & Endler, N. S. (1977). Interactional psychology: Present status and future prospects. In D. Magnusson & N. S. Endler (Eds.), Personality at the crossroads (pp. 3-31). Hillside, J.J.: Erlbaum.

Maltz, D.N., & Borker, R.A. (1983). A cultural approach to male-female miscommunication. In John A. Gumperz (Ed.), Language and social identity (pp. 195-216). New York: Cambridge University Press.

Martin, C. L. (1987). A ratio measure of sex stereotyping. Journal of Personality and Social Psychology, 52, 489-499.

Megargee, E. I. (1969). Influence of sex roles on the manifestation of leadership. Journal of Applied Psychology, 53, 377-382.

Moskowitz, D. S. (1982). Coherence and cross-situational generality in personality: A new analysis of old problems. Journal of Personality and Social Psychology, 43, 754-768.

Moskowitz, D. S. (1986). Comparison of self-reports, reports by knowledgeable informants, and behavioral observation data. Journal of Personality, 54, 294-317.

Moskowitz, D. S. (1988). Cross-situational generality in the laboratory: Dominance and friendliness. Journal of Personality and Social Psychology, 54, 829-839.

Moskowitz, D. S. (1990). Convergence of self-reports and independent observers: Dominance and friendliness. Journal of Personality and Social Psychology, 58, 1096-1106.

Moskowitz, D. S., & Schwarz, J. C. (1982). Validity comparison of behavior counts and ratings by knowledgeable informants. Journal of Personality and Social Psychology, 42, 518-528.

Nyquist, L. V., & Spence, J. T. (1986). Effects of dispositional dominance and sex role expectations on leadership behaviors. Journal of Personality and Social Psychology, 50, 87-93.

Peake, P. K. (1982). Searching for consistency: The Carleton student behavior study. Dissertation Abstracts International, 43, 2746-B. (University Microfilms No. 8301259).

Savin-Williams, R. C. (1976). An ethological study of dominance formation and maintenance in a group of human adolescents. Child Development, 47, 972-979.

Small, S. A., Zeldin, R. S., & Savin-Williams, R. C. (1983). In search of personality traits: A multimethod analysis of naturally occurring prosocial and dominance behavior. Journal of Personality, 51, 1-16.

Snodgrass, S. E., & Rosenthal, R. (1984). Females in charge: Effects of sex of subordinate and romantic attachment status upon self-ratings of dominance. Journal of Personality, 52, 355-371.

Stake, J. E., & Stake, M. N. (1979). Performance self-esteem and dominance behavior in mixed-sex dyads. Journal of Personality, 47, 71-84.

Wiggins, J. S. (1979). A psychological taxonomy of trait descriptive terms: 1. The interpersonal domain. Journal of Personality and Social Psychology, 37, 395-412.

Table 1

Means and standard deviations for gender effects

	Men		Women	
Measure	Mean	SD	Mean	SD
Friendliness rating	-.25	.42	.22	.70
Friendliness behavior count	-.36	.47	.31	.69
Dominance rating	.16	.54	-.14	.43

Table 2

Means and standard deviations for gender by situation effects

Measure	Men		Women	
Situation	Mean	SD	Mean	SD
Friendliness rating				
Same sex friend	-.29	.74	.22	.92
Same sex stranger	-.44	.49	.38	.82
Opposite sex stranger	-.03	.70	.03	.92
Dominance behavior count				
Same sex friend	.16	.50	-.15	.26
Same sex stranger	-.02	.31	.03	.31
Opposite sex stranger	.01	.37	.00	.33

Table 3

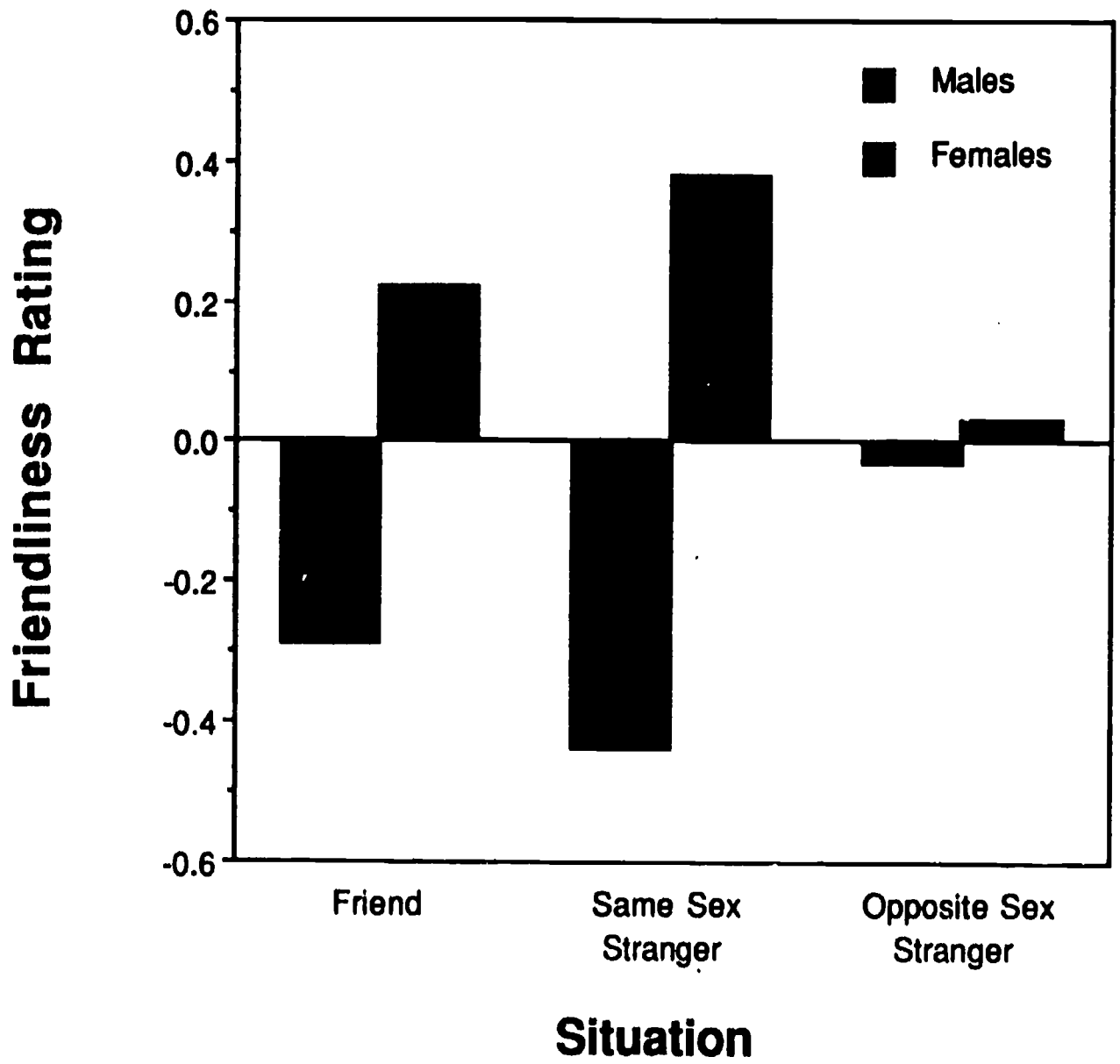
Means and standards deviations for situation effects

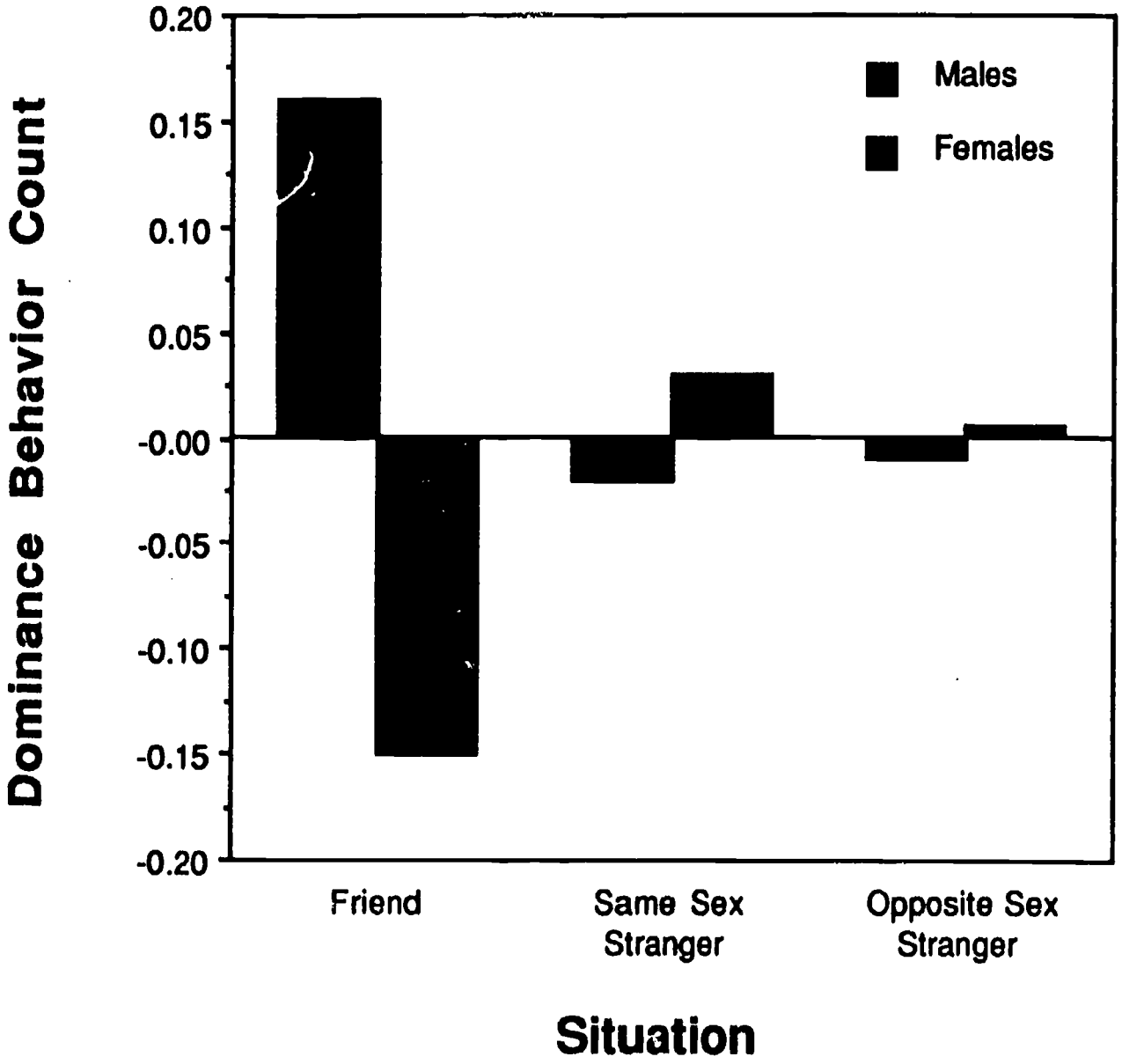
Measure Situation	Mean	SD
Friendliness self-report		
Same sex friend	5.77	.60
Same sex stranger	4.77	.83
Opposite sex stranger	4.82	.79
Dominance self-report		
Same sex friend	4.98	1.02
Same sex stranger	3.93	1.17
Opposite sex stranger	3.91	1.14

FIGURE CAPTIONS

Figure 1. Gender by situation differences in observers' ratings of friendliness.

Figure 2. Gender by situation differences in observers' behavior counts of dominance.


Friendliness Rating
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
Males
Females
Friend
Same Sex Stranger
Opposite Sex Stranger
Situation


Dominance Behavior Count
0.20
0.15
0.10
0.05
-0.00
-0.05
-0.10
-0.15
-0.20
Males
Females
Friend
Same Sex Stranger
Opposite Sex Stranger
Situation