DOCUMENT RESUME

ED 372 440 CS 508 636

AUTHOR Remland, Martin S.; And Others
TITLE Nonverbal Communication and Conflict: The Effects of Attribution and Predisposition.
PUB DATE Jun 94
NOTE 29p.; Paper presented at the Annual Meeting of the International Association of Conflict Management (Eugene, OR, June 1994).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Attribution Theory; Communication Apprehension; Communication Research; *Conflict; Conflict Resolution; Higher Education; Models; *Nonverbal Communication; Sex Differences; Undergraduate Students
IDENTIFIERS *Communication Behavior; *Conflict Management

ABSTRACT

A study examined the means by which inferences and emotions combine to motivate conflict escalation in response to nonverbal displays of status. Subjects, 64 male and 105 female volunteers enrolled in communication courses at a university located in the northeastern part of the United States, completed a verbal aggressiveness scale and a personal report of communication apprehension during the first few weeks of the semester. During the last few weeks of the semester, subjects completed questionnaires that assessed attributions, anger, and preferences for particular conflict management behaviors. Results indicated that: (1) verbally aggressive individuals were more likely to prefer negative conflict behaviors than less aggressive individuals and that the preference had little to do with feelings of anger; (2) even a single nonverbal display of status can increase the likelihood of a purposive attribution, leading to anger, which makes the use of negative conflict behavior more probable; and (3) men were more verbally aggressive than women. Findings support the attribution-based model, that conflict escalation is a more likely outcome when purposive attribution is made in response to a nonverbal display of status and less likely when a reactive attribution is made. (Contains 28 references, a figure illustrating the model, and 5 tables of data.) (RS)

Nonverbal Communication and Conflict:

The Effects of Attribution and Predisposition

Martin S. Remland
West Chester University of Pennsylvania
West Chester, PA 19383

Tricia S. Jones
Temple University
Philadelphia, PA 19122

Tim Brown
West Chester University of Pennsylvania
West Chester, PA 19380

Paper presented at the annual meeting of the International Association of Conflict Management, Eugene, Oregon, June, 1994.

Nonverbal Communication and Conflict: The Effects of Attribution and Predisposition

Despite the wealth of information available on the role of nonverbal behavior in social interaction, little has been done to investigate how such behavior influences the outcomes of interpersonal disputes. Studies that do examine the impact of nonverbal communication in interpersonal conflict situations either focus on the "non-dominance" dimension of nonverbal behavior (e.g., immediacy, involvement, arousal, emotion) or examine how individuals use nonverbal tactics to exert control over a relational partner. Regrettably, none of this research contributes to an understanding of how nonverbal communication may be instrumental in the *escalation* of ordinary interpersonal conflicts (see Jones & Remland, 1993 for a review of this literature). The purpose of this investigation is to test some of the propositions contained in our recently proposed attribution-based model of nonverbal communication and conflict escalation (Jones & Remland, 1993).

Attribution Model of Nonverbal Communication and Conflict Escalation

The Role of Nonverbal Communication

Unlike previous theoretical models of nonverbal communication, which examine the interplay between nonverbal immediacy cues (e.g., eye contact, distance, body orientation, etc.) and subsequent patterns of reciprocity and compensation (Argyle & Dean, 1965; Patterson, 1976, 1982), we isolate "nonverbal displays of status" in our model as potential stimulants of conflict escalation. The nonverbal domain of interest is restricted to behaviors that express power, dominance, or status in an interaction and that tend to be used *purposefully* in order to gain a strategic advantage over an adversary. Thus, the model acknowledges a distinction between action that is communicative (i.e., symbolic,

intentional) and action that is merely expressive (i.e., symptomatic, spontaneous).

Nonverbal status displays are seen as culturally-embedded symbols of one person's capacity to dominate another; behaviors exhibited more often by higher status persons than by persons of lower status (Andersen & Bowman, 1990; Burgoon, Buller, & Woodall, 1989; Edinger & Patterson, 1983; Remland, 1984, 1987). Remland (1982) offers a useful taxonomy for classfiying nonverbal displays of status. As shown in Table 1, these behaviors are grouped according to intended outcome (i.e., to degrade the physical or intellectual presence of an adversary), type of behavior (e.g., symbolically reducing size or territory, ignoring presence, relaxation, ridiculing opposing claims, etc.), and specific nonverbal display (e.g., staring, loud voice, touch, expansive gestures, turning away, mock

---

Insert Table 1 About Here

---

facial displeasure, pauses, etc.). To illustrate, a disputant might try to "gain the upper hand" on an adversary by attempting to degrade that person's intellectual presence (intended outcome). This effort might involve ridiculing the adversary's claims (type of behavior) by showing an exaggerated facial expression of fear upon hearing the opposing claim (nonverbal display). Whether or not the nonverbal display serves to escalate the conflict between the two parties depends on several factors contained in the model (see Figure 1).

Insert Figure 1 About Here

The model focuses on the outcomes associated with a dyadic exchange in which one person's behavior is a response to another's. The starting point is the use of nonverbal communication to degrade an opposing speaker. Ultimately, the target of the behavior will respond in a symmetrical fashion (i.e., using one or more nonverbal displays of status) or in a nonsymmetrical manner (i.e., not changing behavior or adopting submissive, "complementary" behaviors). For example, person A might smirk while making a statement. In response, person B might lean back, talk louder, or pat person A on the shoulder. This response would be symmetrical. A complementary (nonsymmetrical) response, on the other hand, might be to look down, use a softer voice, adopt a more tense body posture, etc.

The Role of Cognition

As in previous models of nonverbal communication, we included arousal as a determinant of behavioral outcomes, but in a restricted role. In our model high levels of arousal might precipitate a "fight or flight" reaction but are not likely to activate the cognitive process of attribution. An extreme act of invasion (e.g., yelling in someone's face, shoving, etc.), or a very insulting gesture can trigger an automatic response; one relatively free of complex social inferences. In such cases, we regard the antecedent factors in our model (e.g., personality, relationship, ego-involvement, etc.) as most predictive. In contrast to previous models, we do not consider less than high levels of arousal to have much predictive power (a view shared by O'Connor & Gifford, 1988).

Our primary interest is in the role of attribution. These social cognitions, which consist of the inferences people make while trying to explain the actions of others

(Schneider, Hastorf, and Ellsworth, 1979; Weiner, 1986), seem most likely to determine whether a symmetrical response occurs in a conflict situation that is not highly arousing. Two key dimensions of the attribution process are highlighted: (a) purposive-reactive attributions, and (b) internal-external attributions (see Table 2). The purposive-reactive

---

Insert Table 2 About Here

---

dimension focuses on the question of intention: is a person's behavior deliberate (purposive) or forced (reactive). As used here, this dimension blurs the distinction between intent and controllability noted by others (Betancourt & Blair, 1992). That is, when one makes a purposive attribution they infer that the behavior of another was done in order to achieve a particular outcome and that the person was free to do otherwise. In the case of nonverbal displays of status it is reasonable for one to infer that the action was performed as a "put down" (status-specific) or to achieve some other end (general). In contrast, a reactive attribution occurs when one infers that another's behavior was not performed to achieve a particular goal and was, more or less, involuntary. Schneider, Hastorf, and Ellsworth (1979) argue that most nonverbal behaviors are "expressive" (rather than communicative) and tend to be seen as reactive. The internal-external distinction represents the attributions of causality one makes regarding the source of the stimulus that prompted the behavior in question: did it come from within the person (e.g., personality) or from the environment (e.g., peer pressure) (Kelley, 1967).

When both dimensions are included in the model, six different inferences about another's nonverbal behavior can be made by an observer (see Table 3). The model

---

Insert Table 3 About Here

---

assumes that the type of attribution one makes will influence the likelihood that one will respond in a symmetrical or nonsymmetrical manner to the nonverbal behavior of another in a conflict situation. In particular, a Type A inference is seen as most likely to escalate a conflict. Numerous studies in the conflict literature point to the general importance of attributions. Sillars (1980a, 1980b) has found that the attribution of responsibility for a negative event is a significant determinant of one's evaluative and emotional reactions toward another, including the desire to escalate a conflict. Manusov (1990) observed that "negative" nonverbal behaviors were more likely than "positive" behaviors to trigger attribution processes, and to be perceived as internally-caused as satisfaction with one's partner decreased. O'Connor and Gifford (1988) found in their experiment that subjects had a more unfavorable reaction toward a confederate who invaded their space (sitting too close) if they perceived the invasion as intentional rather than as involuntary.

Perhaps the most convincing support for the role of attribution in conflict situations comes from the work of aggression researchers Betancourt and Blair (1992). In their study, the controllability and intentionality of an attribution was manipulated in a brief vignette that described a stone throwing competition among a group of male college students. The competition escalates between two students, one of whom is clearly superior to the other. Eventually, the loser becomes upset and throws a rock at the other's car, shattering the windshield. In one version of the story the violent incident is portrayed as being done freely and with malicious intent. In the other version the violent act is

attributed to an errant throw made while getting caught up in the competition. Subjects were asked how angry they would be and how they would react in a similar situation. Results showed that violent reactions were a function of both attribution and anger; subjects were more likely to become violent if angry and if they saw the incident as controllable and intentional. The model that best fit the data was one in which emotion (e.g., anger, sympathy) mediated the impact of attribution.

Hypotheses and Questions

The above studies demonstrate the importance of attributions in determinining the outcome of an interpersonal conflict. In particular, inferences that assign responsibility to the perpetrator of a negative act (purposive) seem more likely to trigger symmetrical responses than those that do not (reactive). This is the essence of Proposition 1 in our model (Jones & Remland, 1993, p. 130), which states that Type A and Type B inferences are more likely than other inference-types to produce a symmetrical response to a display of status. In an ordinary conflict situation this implies a preference for behaviors that would escalate the conflict. Thus, we hypothesized in the present study that:

> H1: Conflict escalation in response to nonverbal displays of status will be affected by the type of attribution made about the display; purposive attributions will be positively related while reactive attributions will be negatively related to the desire for conflict escalation.

Although our model highlights the cognitive process of attribution, we do not discount the role of emotion as a determinant of conflict escalation. Indeed, Betancourt and Blair's (1992) findings clearly point to anger as a primary factor in the prediction of violent reactions and as a potential mediator of attribution. In our model we identify the perception of threat as a factor influencing attributions. However, it seems reasonable that

attribution and threat combine to motivate a response mediated by emotion. The fear of "losing face" in a conflict could motivate a symmetrical response to a nonverbal display of status; similarly, anger could motivate a response intended to "put down" an opponent. In either case, both the perception of threat and the attribution process exert some influence but the emotional reaction is likely to play a key role in determining how the conflict is ultimately managed and whether escalation occurs. Therefore, we tested a second hypothesis.

H2: In a conflict situation anger toward an individual who uses a nonverbal display of status will be predictive of the desire to escalate the conflict.

Our model also includes a number of antecedant factors seemingly predictive of conflict escalation (e.g., personality, relationship, situation, culture). A particular personality trait, for instance, could predispose an individual to respond in a certain way to the nonverbal cues of another. Two potentially relevant predispositions are verbal aggressiveness, and communication apprehension.

Individuals who are verbally aggressive are predisposed to inflict psychological pain on the person with whom they are disagreeing by attacking that person's self-concept (Infante & Wigley, 1986). They intentionally design messages that embarass, humiliate, or demean others. Typical strategies involve: attacks on someone's character, physical appearance, or intelligence, teasing, threats, profanity, and insulting gestures (Infante, 1987). Since we regard nonverbal displays of status as intentional "put downs" in conflict situations, they are likely to be found in the behavioral repertoire of those who are verbally aggressive (Infante, 1986). There is mounting evidence that verbal aggressiveness is damaging to interpersonal relationships leading to such consequences as lowered marital

satisfaction and interspousal violence (Infante, et al., 1992). As a matter of predictive validity, we should expect a measure of verbal aggressiveness to correlate with the selection of tactics designed to degrade an adversary and escalate a conflict.

> H3: Verbal aggressiveness will be predictive of the desire to escalate a conflict.

Less clear is the possible relationship between verbal aggressiveness and either attributions or anger. There is some reason to believe that verbally aggressive persons may be more prone to anger as a consequence of purposive attributions. That is, they may see others in conflict situations as attempting to put them down. A purposive attribution would provide greater justification for the kind of behaviors they tend to use. Of course, research also suggests that a characteristic of verbal aggressiveness is a generalized hostility toward others (Infante, 1986). Therefore, we raised the following question:

> Q1: Is there a relationship between verbal aggressiveness and either the type of attribution made about the use of nonverbal displays of status in a conflict situation or the degree of anger directed toward the person who uses the displays?

Communication apprehension, which is defined as an anxiety syndrome associated with either real or anticipated communication with others (McCroskey, 1970), may also influence the way one chooses to respond to nonverbal displays of status in a conflict situation. First, communication apprehensives may be more inclined to form purposive attributions than those who are less apprehensive. This would be consistent with Myers and Bailey's (1991) finding that communication apprehension is positively related to feelings of persecution, and with other research showing that it is negatively associated with self-esteem (Daly & Stafford, 1984). Moreover, Infante (1986) detected a positive correlation between verbal aggressiveness and communication apprehension which would

justify a similar prediction for both traits. Second, there is evidence that, aside from merely avoiding communication with others when possible, communication apprehensives tend to use submissive rather than more dominant styles of nonverbal communication (Burgoon & Koper, 1984) and report lower levels of trait dominance and arousal-seeking than others (Biggers, 1987). This research implies that individuals with high levels of communication apprehension may prefer to avoid actions that serve to escalate interpersonal conflicts. Thus our second question is:

> Q2: Is there a relationship between communication apprehension and either the desire to escalate conflict, the type of attribution made about the use of nonverbal displays of status in a conflict situation, or the degree of anger directed toward the person who uses the displays?

Finally, we will explore the role of gender in our model. A number of studies suggest that males tend to be more verbally aggressive than do females (Harmon, Klopf, & Ishii, 1990; Sallinen-Kuparinen, Thompson, & Klopf, 1991; Sprowl, 1986), which would be consistent with the male stereotype of being more dominant and aggressive than women. This implies that a similar pattern for gender and verbal aggressiveness may emerge in the prediction of attribution, anger, and conflict escalation behavior.

Method

Subjects

Participants were undergraduate students enrolled in communications courses at a university located in the northeastern part of the United States. They were recruited by offering them extra credit points for participating in the study. One hundred sixty nine students (64 males and 105 females) volunteered to participate. Data were collected during both the fall and spring semesters of the academic year.

Measurement of Variables

Nonverbal displays of status were operationalized as nonverbal acts performed for the purpose of attacking an adversary in a conflict situation. Several weeks prior to the study we pretested an inventory of 24 nonverbal displays of status (Remland, 1982) with a small sample of students drawn from the same population as that used in the main study. They were asked to rate on a 5-point scale how "disrespectful" each behavior would be if used during an argument that began to "heat up." From the pretest, three different nonverbal behaviors were selected on the basis of how unambiguously they seemed to communicate disrespect: one behavior seen as clearly disrespectful (smirking), one seen as somewhat disrespectful (making a funny face), and one that was seen as only slightly disrespectful (a sweeping arm gesture). This was done to avoid limiting our results to a single, perhaps, atypical behavior and also to see if the ambiguity of a nonverbal behavior makes a difference in the outcome of a conflict situation (i.e., anger, attribution, conflict management strategy).

Infante's (1986) twenty-item Verbal Aggressiveness Scale was used to assess the participants' level of aggressiveness. The instrument has been used widely in studies of agrumentativeness and verbal aggression. In developing the instrument coefficient alpha was found to be .81 with test-retest reliability of .82. The alpha reliability for the instrument in our study was .78. Communication apprehension was measured with the PRCA-24, which is generally regarded as the strongest of the several measures available (Levine & McCroskey, 1990). Both the reliability and validity of the PRCA as a measure

of communication anxiety are well established in the literature. The alpha reliability in our study was .84.

Both attribution and anger were assessed with several Likert scales administered to subjects after they were instructed to read a brief vignette about a roommate conflict. The conflict was described as a disagreement between two women over how best to keep their dorm room neat and clean. The short dialogue between the two women concluded with one woman using a nonverbal display of status (smirking, funny face, or sweeping arm gesture) while expressing an opposing point of view:

Diana:	"If we could set aside an hour two days a week to clean, I bet we wouldn't have as big a mess."
Kate:	"I don't know about that."
Diana:	"Aw, Come on. Once we got into a routine, it would be like second nature."
Kate:	"That sounds well and good, but I think if both of us just managed our own mess, we wouldn't have to worry about setting aside time to clean."
Diana:	"And what are you trying to get out"?
Kate:	"I don't know, (*nonverbal display of status inserted here*), all I know is that there is a lot of mess here."

Three items assessed the degree to which subjects made a purposive attribution about the nonverbal behavior used in the vignette (e.g., She smirked as a way of attacking her roommate), two items measured the degree to which a reactive attribution was made (e.g., her gesture was just a reflection of her personality), and three items determined how angry they would be as the target of the nonverbal behavior.

Nine items were included on the questionnaire to examine the way they would deal with the conflict (e.g., I would try to reason with her in a calm manner, I would "put her down" because of the way she treated me, I would not continue to argue, etc.). These items were selected to represent the range of conflict management styles available (e.g.,

accomodation, confrontation, problem-solving, etc.) and were factor analyzed for data reduction purposes.

Procedure

During the first few weeks of the semester, participants completed the Verbal Aggressiveness Scale and the Personal Report of Communication Apprehension (PRCA-24). During the last few weeks of the semester questionnaires were administered which included the vignettes and Likert scales assessing attributions, anger, and preferences for particular conflict management behaviors.

Results

Preliminary Analyses

The results of factor analysis with varimax rotation yielded a two-factor solution for the nine-item conflict escalation questionnaire (see Table 4), with the first factor (eigenvalue = 3.4) consisting of five items and accounting for 37% of the variance and the second factor (eigenvalue = 1.6) containing four items and accounting for 17% of the variance. The first factor included items dealing with constructive vs. destructive ways of managing conflict and was labeled "negative conflict behavior" (NEGCON) to indicate that higher scores would be more likely to escalate a conflict than would lower scores. The second factor seemed to include items pertaining to the desire for conflict and was labeled "avoidance" (AVOID); higher scores on this dimension suggested a preference to discontinue the conflict. Coefficient alpha for the NEGCON factor was .74 and .69 for the AVOID factor [redacted].

Insert Table 4 About Here

Multivariate analysis of variance was used to determine if subjects differentiated among the three versions of the vignette, which were varied to manipulate the ambiguity-level of the nonverbal display. Wilk's Lambda was significant, $F(10, 324) = 1.9$, $p < .05$. Subsequent univarate tests revealed a sigificant effect for purposive attributions, $F(2, 166) = 6.6$, $p < .002$, accounting for 7% of the variance, while the effects on reactive attributions, $F(2, 166) = 2.5$, $p = .09$ and anger, $F(2, 166) = 2.8$, $p = .06$ approached statistical significance. Mean comparisons on the purposive attribution measure showed that the smirk ($M = 10.2$, $sd = 2.5$) was judged as more disrespectful than the sweeping arm gesture ($M = 8.3$, $sd = 2.6$), $t(1, 110) = 3.65$, $p < .001$ but not with the funny face ($M = 9.5$, $sd = 2.7$), $t(1, 108) = 1.32$, $p = .19$. These results suggest that nonverbal displays of status vary in level of ambiguity such that some may affect the outcomes (cognitions, emotions) of an interpersonal conflict more than others.

Hypotheses and Questions

Correlation and multiple regression analysis was used for all hypotheses and questions. Pearson correlations among all variables are reported in Table 5. The first

Insert Table 5 About Here

hypothesis, which predicted that the desire for conflict escalation would be positively related to purposive attributions and negatively related to reactive attributions, is clearly

reflected in the correlations. While the significant negative correlation between negative conflict behavior and reactive attributions ($r = -.17$), is quite small, the stronger positive correlation between negative conflict behavior and purposive attributions ($r = .30$) suggests that subjects were more likely to prefer conflict-escalating behavior the more they inferred that a nonverbal display of status was intentionally demeaning. The desire for conflict escalation is also reflected somewhat in the negative correlation obtained between avoidance behavior and purposive attributions ($r = -.18$).

We expected anger to be a significant factor in determining whether one would choose to escalate a conflict (hypothesis 2). The positive correlation obtained between anger and negative conflict behavior ($r = .42$) as well as the negative correlation between anger and avoidance ($r = -.33$) are consistent with this expectation. The third hypothesis predicted a positive relationship between the predisposition toward verbal aggressiveness and the desire for conflict-escalating behavior. As expected, verbally aggressive persons were more likely to select negative conflict behavior ($r = .44$), and were less likely to choose an avoidance strategy ($r = -.19$), than were there less aggressive counterparts.

We also raised questions about the impact of verbal aggressiveness and communication apprehension on the cognitive (attribution) and emotional (anger) determinants of conflict escalation. None of these associations were supported in the pattern of correlations obtained, with the exception of a small positive correlation between verbal aggressiveness and anger ($r = .19$). In contrast to previous research, we also detected a negative rather than positive correlation between communication apprehension and verbal aggressiveness ($r = -.17$).

Stepwise multiple regression analysis was used to determine the variance accounted for in negative conflict and avoidance behavior preferences, as well as the relative contribution made by each of the predictor variables. With NEGCON as the criterion variable, a model which included verbal aggressiveness and anger was significant, $F(2, 130) = 22.9$, $p < .0001$. The adjusted R-squared for the model was .25. Verbal aggressiveness (beta = .35) alone explained 15% of the variance, $t = 5.0$, $p < .0001$. Anger (beta = .32) accounted for an additional 10%, $t = 4.2$, $p < .0001$. Given the strong correlation found between negative conflict behavior and purposive attributions ($r = .53$), the failure of purposive attributions to be included in the full model can be attributed to the problem of multicollinearity. When anger is removed, a model consisting of verbal aggressiveness and purposive attributions yields an adjusted R-squared of .23, $F(2, 130) = 20.7$, $p < .0001$. Of that, purposive attributions (beta = .29) contributes approximately 8%.

With the AVOID factor as the criterion variable, stepwise regression included only anger as a significant predictor (beta = -.35), $F(1, 131) = 18.6$, $p < .0001$, accounting for approximately 12% of the variance. As in the analysis above, this appears to belie the apparent contribution of purposive attributions, which is correlated with both avoidance behavior and anger. When anger is omitted from the model, purposive attribution is included as a significant predictor (beta = .26), $F(1, 131) = 9.4$, $p < .003$, though accounting for only 6% of the variance in avoidance behavior.

Given its primary role in accounting for conflict management behavior, we entered

ANGER as the criterion variable in another stepwise regression analysis. The full model was significant, $F(4, 128) = 26.5$, $p < .0001$, and produced an adjusted R-squared of .44. Purposive attribution (beta = .53) was the most significant predictor, $t = 7.4$, $p < .0001$, explaining 39% of the variance. Additional, though trivial, amounts of variance were explained by including the reactive attribution, gender, and verbal aggressiveness variables. With anger removed, the full model was reduced to explaining 20% of the variance, with reactive attribution accounting for nearly 15% of that amount.

Finally, sex differences were considered through multivariate analysis of variance and subsequent univariate tests. Effects were obtained for verbal aggressiveness, $F(1, 131) = 22.7$, $p < .001$ and negative conflict behavior, $F(1, 131) = 3.7$, $p < .05$. Males were more verbally aggressive ($M = 54.4$, $sd = 10.1$) than females were ($M = 45.7$, $sd = 10.1$), and also more likely to choose negative conflict behavior ($M = 13.3$, $sd = 3.3$) when compared to females ($M = 11.7$, $sd = 3.2$).

Discussion

Although the importance of attributions and emotions in escalating conflict is well known, much less is understood about the impact of nonverbal behavior. This is unfortunate because of the crucial function of nonverbal behavior in signalling attitudes and feelings, the ambiguities attached to these behaviors, and the differences that exist in their use and interpretation based on factors such as culture, personality, gender, relationship, and context. This research is a first attempt to examine the means by which inferences and emotions combine to motivate conflict escalation in response to nonverbal displays of status (actions intended to devalue others in relation to self).

The overall results of this research support the attribution-based model, that conflict escalation is a more likely outcome when a purposive attribution (Type A or Type B inference) is made in response to a nonverbal display of status and less likely when a reactive attribution is made. In addition, while there is no doubt that emotional reactions such as anger escalate conflicts, causal modeling will be needed to determine the best location of anger in our model (i.e., in relation to the cognitive process of attribution). Nevertheless, the work of Betancourt and Blair (1992) as well as the preliminary findings reported here, suggest that anger mediates the impact of attribution on conflict escalation. That is, the sequence suggested here is: (a) a nonverbal display of status is used in a conflict situation, (b) in the absence of high arousal, an inference is made regarding the motivation for the display, (c) anger is more likely in response to a purposive attribution; less likely for a reactive attribution, and (d) the selection of behaviors (symmetrical) intended to attack the other person is influenced by emotions such as anger. Moreover, factors such as personality and the perception of threat are likely to affect various stages in the model. Specifically, our data show that verbally aggressive individuals are more likely to prefer negative conflict behaviors than less aggressive persons and that the preference has little to do with feelings of anger.

Regarding the impact of nonverbal communication, our preliminary analysis indicates that even a single nonverbal display of status can increase the likelihood of a purposive attribution, leading to anger, which, in turn, makes the use of negative conflict behavior more probable and the desire to avoid conflict less probable. Of particular interest is a better understanding of the nonverbal signals most likely to trigger the sequence of events

leading to conflict escalation for some individuals but not for others. Additionally, while the focus in our model is on the study of specific nonverbal responses (i.e., symmetrical or nonsymmetrical), the design of this study did not allow for such an assessment.

The results of the present study showed that subjects' desire to use negative conflict behavior to deal with a simple dispute varied according to the attribution they made about the nonverbal behavior of another. The clear implication is that purposive attributions are likely to escalate a conflict while reactive attributions are not. However, anger, rather than the cognitive process of attribution, exerted the greatest influence over subjects' decision to either use negative behaviors or to merely avoid the conflict altogether. More research is needed to examine the interplay between emotion and cognition as precursors of conflict.

Not surprisingly, verbally aggressive persons were more likely to engage in destructive patterns of conflict. This finding is entirely consistent with previous research on the nature of this personality trait as a predisposition toward inflicting psychological pain on others in social interactions. Interestingly, it appears that such persons neither need to feel much anger nor make a purposive attribution of another's behavior to justify their own negative behavior. Despite previous research reporting a positive correlation between verbal aggressiveness and communication apprehension (Infante, 1986), we found a slight negative correlation. This doesn't appear very puzzling in light of the fact that apprehensive persons prefer to avoid communication, especially in situations likely to arouse their emotions. But we did find a gender difference in line with previous studies showing that men are more verbally aggressive than women are. This finding is also

consistent with research by Brooks (1982) that men tend to use more verbal aggression in their social interactions with others than do women. The gender difference in verbal aggressiveness also appears to have contributed to a difference in the choice of conflict management behavior--men selected negative behaviors more than women. The differences between men and women in this regard should be be exaggerated in that the effect of gender only accounted for 5% of the variance in negative conflict behavior.

References

Andersen, P.A., & Bowman, L.L. (1990). Positions of power: Nonverbal influence in organizational communication. In J. DeVito & M. Hecht (Eds.). *The nonverbal communication reader* (pp. 391-411). Prospect Heights, IL: Waveland.

Argyle, M., & Dean, J. (1965). Eye contact, distance, and affiliation. *Sociometry*, 28, 289-304.

Betancourt, H., & Blair, I. (1992). A cognition (attribution)-emotion model of violence in conflict situations. *Personality and Social Psychology Bulletin*, 18, 343-350.

Biggers, T. (1987). Trait emotion and communication apprehension. *Communication Research Reports*, 4, 20-25.

Brooks, V.R. (1982). Sex differences in student dominance behavior in female and male professor's classrooms. *Sex Roles*, 8, 683-690.

Burgoon, J.K., Buller, D.B., & Woodall, W.G. (1989). *Nonverbal communiation: The unspoken dialogue*. NY: Harper and Row.

Burgoon, J.K., & Koper, R.J. (1984). Nonverbal and relational communication associated with reticence. *Human Communication Research*, 10, 601-627.

Daly, J., & Stafford, L. (1984). Correlates and consequences of social communicative anxiety. In J. Daly and J. McCroskey (Eds.), *Avoiding communication: Shyness, reticence, and communication apprehension* (pp. 125-144),. Beverly Hills, CA: Sage.

Edinger, J.A., & Patterson, M.L. (1983). Nonverbal involvement and social control. *Psychological Bulletin*, 93, 30-56.

Harmon, C.M., Klopf, D., & Ishii, S. (1990). Verbal aggression among japanese and american students. *Perceptual and Motor Skills*, 70, 1130.

Infante, D.A., & Wigley, C.J. (1986). Verbal aggressiveness: An interpersonal model and measure. *Communication Monographs*, 53, 61-69.

Infante, D.A., Hartley, K.C., Martin, M.M., Higgins, M., Bruning, S.D., & Hur, G. (1992, November). *Initiating and reciprocating verbal aggression: Effects on credibility and credited valid arguments*. Paper presented at the annual meeting of the Speech Communication Association, Chicago, ILL.

Jones, T.S., & Remland, M.S. (1993). Nonverbal communication and conflict escalation: An attribution-based model. *The International Journal of Conflict Management*, 4, 119-138.

Kelley, H.H. (1967). *Attribution theory in social psychology*. Lincoln, NE: University of Nebraska Press.

Levine, T.R., & McCroskey, J.C. (1990). Measuring trait communication apprehension: A test of rival measurement models of the PRCA-24. *Communication Monographs*, 57, 62-72.

Manusov, V. (1990). An application of attribution principles to nonverbal behavior in romantic dyads. *Communication Monographs*, 57, 104-118.

Myers, K.A., & Bailey, C.L. (1991). Conflict and communication apprehension in campus ministries: A quantitative analysis. *College Student Journal*, 537-542.

O'Connor, B., & Gifford, R. (1988). A test among models of nonverbal immediacy reactions: Arousal labeling, discrepancy-arousal, and social cognition. *Journal of Nonverbal Behavior*, 12, 6-33.

Patterson, M. (1976). An arousal model of interpersonal intimacy. *Psychological Review*, 83, 235-245.

Patterson, M. (1982). A sequential functional model of nonverbal exchange. *Psychological Review*, 89, 231-249.

Remland, M.S. (1982). The implicit ad hominem fallacy: Nonverbal displays of status in argumentative discourse. *Journal of the American Forensics Association*, 19, 79-86.

Remland, M.S. (1984). Leadership impressions and nonverbal communication in a superior-subordinate interaction. *Communication Quarterly*, 32, 41-48.

Remland, M.S. (1987). Adaptive leadership and nonverbal displays of status in small groups. In R. Cathcart & L. Samovar (Eds.), *Small Group Communication.* Dubuque, IA: Wm. C. Brown.

Sallinen-Kuparinen, A., Thompson, C., & Klopf, D. (1991). Finnish and american university students compared on a verbal aggression construct. *Psychological Reports*, 69, 681-682.

Schneider, D.J., Hastorf, A.H., & Ellsworth, P.C. (1979). *Person perception.* Reading, MA: Addison-Wesley.

Sillars, A. (1980a). Attributions and communication in roommate conflicts. *Communication Monographs*, 47, 180-200.

Sillars, A. (1980b). The sequential and distributional structure of conflict interactions as a function of attributions concerning the locus of responsibility and stability of conflicts. In D. Nimmo (Ed.), *Communication Yearbook 4* (pp. 217-236). New Brunswick, NJ: Transaction Books.

Sprowl, J. (1986). Sales communication: An analysis of sex differences in compliance-gaining strategy use. *Communication Research Reports*, 3, 90-93.

Figure 1
Attribution Model of Nonverbal Communication and Conflict Escalation

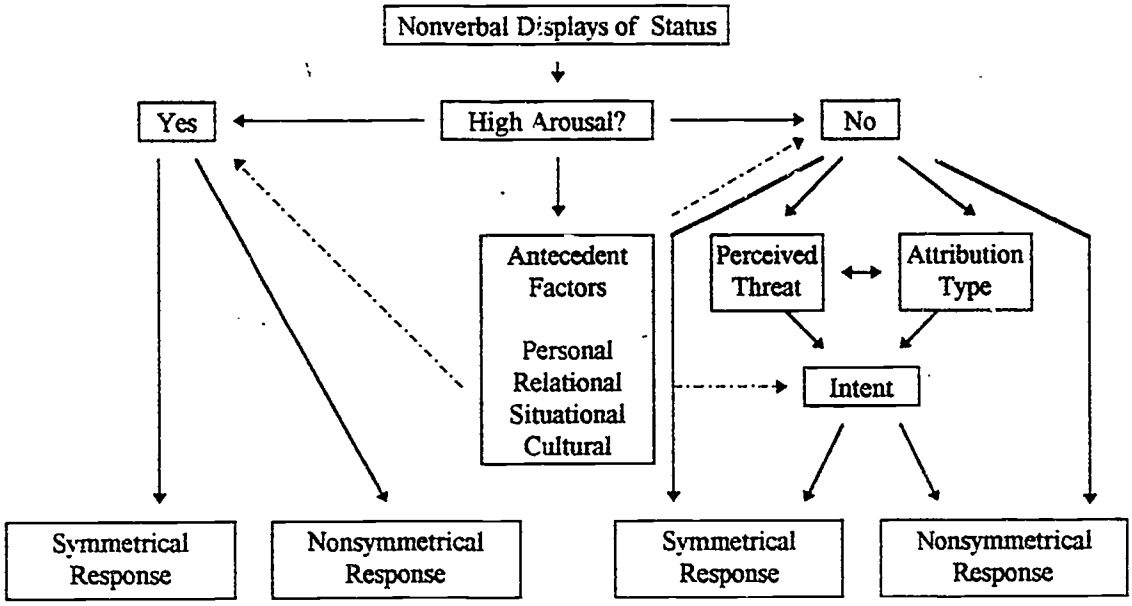

Table 1
Nonverbal Displays of Status in Conflict

Intended Outcome	Type of Behavior	Nonverbal Display
To degrade the physical presence of adversary	Invading space	Touch Staring Shouting Proximity
	Symbolically reducing size or territory	Standing over Looking down at Walking around Expansive gestures
	Relaxation	Body lean Relaxed movement Nonstressed speech Decreased adaptors
	Inattention	Indirect body orientation Gaze aversion Interruptions
To degrade the intellectual presence of adversary	Ridiculing claims	Smirking; snickering Laughing Mock displeasure Facial emblems of disbelief
	Rendering assistance	Slowed speech Overarticulation Soft vocal tones Pauses and repetitions Head nods

Table 2
Attributions Associated with Nonverbal Displays of Status

Attribution of Causality	Attribution of Intent		
	Purposive (Status Specific)	Purposive (General)	Reactive
Internal	A	C	E
External	B	D	F

Table 3
Types of Inferences

Inference	Type	Description	Example
A	Purposive [Status-Specific] - Internal	Behavior is intended to display status and is motivated by internal desire	"He's raising his voice in order to put me down because he wants to"
B	Purposive [Status-Specific] - External	Behavior is intended to display status and is motivated by an outside source	"He's raising his voice in order to put me down because of peer pressure"
C	Purposive [General] - Internal	Behavior is intended to achieve other goals and is motivated by internal desire	"He's raising his voice in order to get more involved because he wants to"
D	Purposive [General] - External	Behavior is intended to achieve other goals and is motivated by an outside source	He's raising his voice to get more involved because that's the way it's done in these situations"
E	Reactive - Internal	Behavior is spontaneous reaction to inside stimulus	"He's raising his voice because he's an aggressive person"
F	Reactive - External	Behavior is spontaneous reaction to outside stimulus	"He's raising his voice because of the noise outside"

Table 4
Factor Loadings for Conflict Behavior

Conflict Behavior Item	Factor 1 - Negative Conflict Behavior	Factor 2 - Avoidance
I would not continue to argue	-.17454	.74879*
I would hold my ground and fight back	.48244	-.68878*
I would try to reason with her in a calm manner**	.57632*	-.11881
I might try to get her rattled a little	.61897*	-.38242
I would probably just go along with her	-.23100	.71810*
I would try to be understanding and supportive**	.64931*	-.21996
I would walk away	.46941	.62770*
I would search for a solution that satisfies both of us**	.75901*	.06336
I would "put her down" because of the way she treated me.	.68152*	-.18902

**Item reversed for data analysis

Table 5
Correlation Matrix

	ANGER	REACT	NEGCON	AVOID	PRCA	PURP	VERBAG
ANGER	1.0000	-.3192**	.4222**	-.3289**	-.0536	.5333**	.1936*
REACT		1.0000	-.1749*	.0825	.0013	-.4115**	-.0022
NEGCON			1.0000	-.4061**	.0200	.2983**	.4447**
AVOID				1.0000	.0581	-.1767*	-.1978*
PRCA					1.0000	.0040	-.1667*
PURP						1.0000	.0992

* $p<.05$
** $p<.001$