The Influence of Interpersonal Communication Variables on Group Attraction and Group Communication Satisfaction.

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THE INFLUENCE OF INTERPERSONAL COMMUNICATION VARIABLES ON GROUP ATTRACTION AND GROUP COMMUNICATION SATISFACTION

A Dissertation
Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

The Department of Speech Communication

by
Michelle Diane Kirtley
B.A., Auburn University, 1991
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Abstract

This investigation explored the effects of the interpersonal communication concepts of willingness to communicate, self-monitoring, and loneliness on the group outcomes of group attraction and group communication satisfaction. Using the Willingness to Communicate Scale (McCroskey, & Richmond, 1990), Lennox and Wolfe's (1984) Revised Self-monitoring Scale, the Revised UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980), an adaptation of Byrne's (1969) original Interpersonal Judgment Scale, and an adaptation of Hecht's (1978) Communication Satisfaction Inventory, communication dispositions were analyzed in relationship to group attraction and group communication satisfaction.

Consistent with expectations, the results show that loneliness mediated reported group communication satisfaction. Individuals who view themselves as lonely are less satisfied with group communication. Inconsistent with expectations, results show that willingness to communicate is not associated with group attraction or group communication satisfaction. Surprisingly, the results show that the self-monitoring dimension of "ability to modify self-presentation" is negatively associated with group attraction; but the self-monitoring dimension of "sensitivity to expressive behavior" is not associated with either group outcome. Additionally, non-U.S. citizens are less attracted to their groups than U.S. citizens. Further, there was a significant increase in group attraction after the subjects engaged in group exercises that focused on communication. No matter what communication orientation, individuals like their groups more after communicating together in group exercises. Finally, the implications of these findings for future research and application are discussed.
Chapter 1

Introduction

In Cragan and Wright's (1990) analysis of small group communication research, they state that a line of research emerged by the end of the 1970s involving group outcomes. Since then, group research has moved from the study of one variable's effect on a dependent variable to more complex and sophisticated designs that examine a number of communication variables and their effect on group outcomes, including quality of group discussions, decisions, consensus, and satisfaction. Cragan and Wright's critique goes on to say that if small group research is going to continue to grow and prosper, researchers must study the how of communication influence rather than the if. The current research continues the small group trend of examining communication variables and their effects on group outcomes and how communication influences those outcomes.

The purpose of the current study is to investigate the effects of the interpersonal communication concepts of willingness to communicate, self-monitoring, and loneliness on the group outcomes of attraction and communication satisfaction. Although a significant body of research exists in the communication literature on attraction and communication satisfaction, comparatively little attention has been given to the effects of communication behavior on these group outcomes.

It is intuitively obvious that communication behavior would have a major impact on both attraction and satisfaction. Researchers frequently assume that effective communication skills facilitate the development and maintenance of
successful, satisfying relationships (McCroskey, Daly, Richmond & Cox, 1975).

People engaging in interactions look for cues/feedback from others to let them know what kind of impression they are making (Bandura, 1977; Carver, 1979). For instance, if a conversational partner looks involved and attentive, a person is likely to infer the partner finds the conversation interesting, which would increase the attraction and satisfaction with the interaction. On the other hand, if the partner seems uninvolved and inattentive, a person is likely to infer the partner finds the conversation uninteresting, which may promote a lack of attraction and satisfaction.

But, as Charles Berger states, "the beginning of personal relationships is fraught with uncertainties" (1988, p. 3)

The two group outcomes in this study-attraction and communication satisfaction-- are grounded theoretically. Research has given considerable attention to the question of when and why individuals are attracted to other people (Duck, 1977). This attention is understandable, considering that few factors influence people's success and satisfaction in life more than their ability to develop and maintain relationships with others.

Three of the best-supported scientific explanations for why one person is attracted to another are close physical proximity (Priest & Sawyer, 1967), receipt of personal rewards (Byrne & Griffitt, 1966), and physical appearance (Walster, Aronson, Abrahams & Rottman, 1966). Comparatively less attention has been directed toward the effect of communication behavior on group attraction.

The second group outcome--satisfaction-- has been associated with mental health (Rogers, 1961), feelings of competence and efficiency (Bochner & Kelly,
1974), and successful interaction (Thibaut & Kelley, 1959). Satisfaction is an emotion people experience when they are successful in their pursuits, and it plays a central role in humanistic (Rogers, 1961), social exchange (Thibaut & Kelley, 1959), and physiological (Clynes, 1978) approaches to communication. These theorists are united in their belief that effective communicators experience greater satisfaction.

Studying communication satisfaction provides a means for organizing communication strategies; it also enables the communication researcher to apply communication theory and research to the pursuit of making interaction more fulfilling (Hecht, 1978a). Within the systems perspective, communication satisfaction is one output criterion for assessing input and process variables of actual communication behaviors. The outcome of communication satisfaction has direct and straightforward application to the improvement of communication skills, particularly for group effectiveness.

Communication satisfaction has been studied across a variety of contexts: satisfaction with an event or partner (Duran & Zakahi, 1987), satisfaction with conversations in general (Spitzberg & Hecht, 1984), satisfaction with an instructor (Prisbell, 1985), satisfaction with group experiences (Wall et al, 1987), and satisfaction with a job (Pincus, 1986). Considerably less attention has been directed toward the effect of communication behavior on group communication satisfaction.

In keeping with Hecht's (1978a) communication perspective, the current study focuses on communication satisfaction as a socio-emotional outcome. The
concept taps group members' perceptions about their communication and sense of fulfillment from the group experience.

The current study is framed theoretically by testing the uncertainty reduction theory of interpersonal communication set forth by Berger and Calabrese (1975). Berger and Calabrese propose a series of axioms to explain the connection between their central concept of uncertainty and seven key variables of relationship development: verbal output, nonverbal warmth, information seeking, self-disclosure, reciprocity, similarity, and liking.

Two out of the initial seven axioms are particularly relevant here:

1. Given the high level of uncertainty present at the onset of the entry phase (of interpersonal relationships), as the amount of verbal communication between strangers increases, the level of uncertainty for each interactant in the relationship will decrease. As uncertainty is further reduced, the amount of verbal communication will increase.

2. Increases in uncertainty level produce decreases in liking. Decreases in uncertainty level produce increases in liking.

Essentially, this theory argues that communication reduces the uncertainty people feel about each other. Reducing the uncertainty will result in increased liking or attraction. Studies have supported this argument. McCroskey, Daly, Richmond, and Cox (1975) found that there is a strong negative relationship between communication apprehension and interpersonal attraction. The researchers stated that one of the major results of communication apprehension is a reduction in the amount of communication in which the individual engages. Therefore,
uncertainty reduction theory would predict that individuals who exhibit high communication apprehensive behavior would be perceived as less attractive by others because they communicate less with them and those same individuals would perceive others as less attractive because of the lesser amount of communication. Both of these predictions were supported in their study (McCroskey, Daly, Richmond, & Cox, 1975).

Sunnafrank and Miller (1981) also conducted a study that supported the uncertainty reduction theory. The researchers investigated how normal first conversations between strangers affect the relationship between attitudinal similarity and attraction. Results indicated that individuals who do not have a chance to communicate prefer similar strangers. Conversely, individuals who do have a chance to communicate are more attracted to dissimilar strangers. These findings support the premise of uncertainty reduction theory, which states that individuals strive to predict and control their environments. When people engage in communication with strangers, they feel better able to predict the stranger's behavior in future interactions (Sunnafrank & Miller, 1981).

Furthermore, the current study includes communication satisfaction as an extension of uncertainty reduction theory. Past research (Prisbell, 1985) has linked communication satisfaction with reduced uncertainty. Prisbell (1985) found that the more communication increased between instructors and students in the college classroom environment, the more communication satisfaction increased, which in turn had a positive effect on course evaluations, instructor evaluations, and affective learning. In other words, the more communication increases the more uncertainty is
reduced. And the more uncertainty reduces, the more satisfied people will feel with the communication.

This study will link three personality concepts with uncertainty reduction theory (Berger & Calabrese, 1975). The first concept—willingness to communicate— is important to the study of group communication because it involves the propensity to talk in a variety of situations (McCroskey & Richmond, 1987). Although speaking is a vital component in developing interpersonal and group relationships, people differ in the degree to which they actually speak. Research shows that high willingness to communicate is associated with a wide variety of positive outcomes. High willingness to communicate results in an individual who is more effective in communication and who generates positive perceptions in the minds of others involved in the communication (McCroskey & Richmond, 1987).

If we accept the premise that one of the major results of willingness to communicate is increased communication, then the uncertainty reduction theory would predict that people high in willingness to communicate will perceive others as more attractive because they communicate more with them. The more they communicate, the more they will also be satisfied. Conversely, the theory would predict that people low in willingness to communicate would perceive others as less attractive because they communicate less with them; ultimately, people low in willingness to communicate would be less satisfied.

The second communication concept—self-monitoring—appears to have a strong effect on the communication process. Research suggests that high self-monitors possess a wide range of communication styles to control and manage the
impressions of self-presentation acts (Snyder, 1974). Conversely, low self-monitors possess a narrow range of communication strategies to deal with various communication situations. During group communication situations, individuals who rate high on this personality characteristic would seem likely to adapt and modify their behaviors to best fit the group of people they are working with.

Research on the concept of self-monitoring shows that high self-monitors initiate and encourage communication more frequently (Ickes & Barnes, 1977). Again, if we accept this premise, then uncertainty reduction theory would predict people high in self-monitoring would perceive others as more attractive because of increased communication. They would also be more satisfied as a result of increased communication among the group members.

Research suggests that the third concept --loneliness--may cause certain people to communicate less skillfully than others (Jones, 1982; Peplau & Perlman, 1979, 1982; Bell, 1985). The social consequences of this pattern of behavior are important to the study of group communication. Lonely people are less involved during interaction. Uninvolved people are difficult to get to know and may be perceived as poor candidates for teamwork. People who do not actively seek information from others and reinforce others, classic behaviors of lonely individuals, are unlikely to build stable relationships. This general inattentiveness would seem to be a barrier to learning about others and a barrier to working effectively in a team.

Similarly, if we accept the premise that people who are lonely will have decreased communication, then uncertainty reduction theory would predict that people high in loneliness would perceive others as less attractive because they
communicate less with them. The less they communicate, the less they reduce uncertainty; and in turn the less satisfied they would be with the group experience.

In addition to this study's theoretical significance, the current study is framed practically. First, the current business literature stresses the importance of college students acquiring the skills of effective communication and teamwork. In fact, a May 28, 1998 news report from Educational Resources explored how companies are filling the "Education Gap" between what schools teach and what workers need to know on the job. The report found that crucial skills for our future workforce include communication and teamwork. Over 50% of the firms questioned utilized self-directed work teams, and existing workers were found to be weak in communication skills (America's Changing Workforce, 1998).

Further, between the years of 1990 and 1993, the percentage of Fortune 1000 companies that utilized employee-participation groups grew from 70% to 90% (America's Changing Workforce, 1998). In the same period, self-managed teams rose from 47% to 68%. The report states that employees who had worked on one task in relative isolation in the past now find themselves expected to be team players. Employees are expected to perform: to think, reason, plan, report, and take full responsibility for the results of their work. To perform effectively, each employee must have team skills. And it takes excellent communication skills to be an effective team player and maximize performance.

The other practical side to this research is that the groups used in this study are real groups who will have to work together on a final project at the end of the semester. One of the sharp criticisms of small group research has been the reliance
on using zero-history groups. As Poole says, "a group should not be a zero-history group; there should be incentives for members to maintain solidarity; there should be pressure to finish the task; and the task should have some complexity" (1983b, p. 333). Because students will be working together on the final group project, the students in the study will have an incentive to maintain solidarity and ultimately finish the task. In summary, the current study is grounded in theory and application.

The purpose of this study is to explore the effects of the interpersonal communication concepts of willingness to communicate, self-monitoring, and loneliness on the group outcomes of attraction and communication satisfaction. The next section will focus on existing research that explores the interpersonal communication concepts in greater detail.
Chapter 2

Review of Literature

Willingness to communicate

In American culture, interpersonal communication is highly valued. Individuals are evaluated in large part on the basis of their communication behavior. Although talk is a vital component in interpersonal communication and the development of interpersonal relationships, people differ greatly in the degree to which they communicate. Some individuals tend to speak only when they are spoken to; others speak constantly.

The concept of an individual's tendency and frequency of communication has been reported in the research in the social sciences for over half a century (Borgatta & Bales, 1953; Goldman-Eisler, 1951). More recently, this variability in talking behavior has been linked to a personality-based predisposition termed "Willingness to Communicate" (McCroskey & Richmond, 1987; Richmond & McCroskey, 1989).

Underlying the willingness to communicate construct is the assumption that it is relatively consistent across a variety of communication contexts and types of receivers (McCroskey & Richmond, 1990). Thus, it is presumed that the level of a person's willingness to communicate in one communication context (like talking in a small group) is correlated with the person's willingness to communicate in other communication contexts (such as giving a speech, talking in meetings, and talking in dyads). It is also presumed that the level of a person's willingness to

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communicate with one type of receiver (like friends) is correlated with the person's willingness to communicate with other types of receivers (such as acquaintances and strangers) (McCroskey & Richmond, 1990).

The fact that a person's willingness to communicate level is quite consistent across contexts does not mean, however, that communication context or the type of receiver are irrelevant to that person's willingness to communicate in a given situation. An individual will not be equally willing to communicate in every situation. However, if Person A is generally more willing to communicate than Person B, then Person A would be more willing to communicate in any given situation than would Person B (Richmond & Roach, 1992).

Empirical data indicates that willingness to communicate is a personality-type characteristic that often has a major impact on interpersonal communication in a wide variety of environments (Richmond & Roach, 1992). High willingness to communicate is associated with increased frequency and amount of communication, which are, in turn, associated with a wide variety of positive communication outcomes. Low willingness to communicate is associated with decreased frequency and amount of communication, which are then associated with a wide variety of negative communication outcomes.

In fact, the relationship between willingness to communicate and communication apprehension is direct (Richmond & Roach, 1992). Communication apprehension is an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons (McCroskey, 1977). The more apprehensive individuals are, the less willing they are to communicate.
McCroskey and Richmond (1976) postulated that a person's communication behavior has a major impact on the way that a person is perceived by the other communicators involved. In their early research, they examined the impact of high and low verbal behavior on interpersonal attraction, desirability as a communication partner, desirability as a sexual partner, and attitude similarity. The results were as follows: persons who exhibited low willingness to communicate behaviors were viewed negatively on the dimensions of social attractiveness, task attractiveness, desirability as a communication partner, and desirability as a sexual partner (McCroskey, Daly, & Richmond, 1975). The researchers concluded that behaviors characteristic of the low willingness to communicate have a significant negative impact on interpersonal perceptions and will probably lead to negative perceptions on the part of others.

Continuing with research in the interpersonal domain, Clark (1989) assessed whether or not self-confidence, expressed both as willingness to communicate and a lack of anxiety, was a valid indicator of overall competence in listening. Overall the results supported the claim that confident individuals listen to message content better than those who lack confidence. However, there were gender differences. Males high in willingness to communicate comprehended well on two listening tests, but females high in willingness to communicate only scored well on the Watson-Barker Listening Test and not the Kentucky Comprehensive Listening Test, (Clark, 1989). The author suggested more research in the area of gender and listening comprehension. There were no gender differences in the area of listening to emotional meanings, although those individuals low in willingness to
communicate seemed better able to tap into emotional meanings in spoken words. In summary, the research seems to suggest that being more willing to communicate about speaking and listening is an index of better listening comprehension.

In an attempt to examine willingness to communicate in a cross-cultural context, Sallinen-Kuparinen, McCroskey, and Richmond (1991) compared willingness to communicate, communication apprehension, and communication competence across Finnish, Japanese, Estonian, Micronesian, Swedish, and American populations. The Finns were chosen because of the widely held stereotype that they are silent, timid, taciturn, shy, and introverted. The stereotype asserts that Finns appreciate and tolerate silence.

The results indicate that Finns are less willing to communicate than all other groups except the Micronesians. They saw themselves as more communicatively competent than any other group except the Swedes. The authors state that "in the Finnish culture, not being willing to communicate is not so much accounted for by communication apprehension as by other socio-cultural variables, such as the role of talk in society and the values placed on communication" (p. 62). They claim that these findings support the need for further cross-cultural research or else intercultural miscommunication will continue to be the norm (Sallinen-Kuparinen, McCroskey, & Richmond, 1991).

In the small group context, Daly, McCroskey, and Richmond (1977) studied whether the degree of an individual's vocal activity (the frequency and duration of an individual's interaction) was an important mediating factor in dyadic and small group interaction. The results indicated that communicators are perceived in an
increasingly positive manner as their vocal activity level increases. Hence, there is a positive, linear relationship between vocal activity and desirable perceptions of communicators in small group interactions. The research also suggests that the optimal willingness to communicate level for interpersonal influence is a point slightly above the vocal activity of the other communicators in a group.

A four-part, landmark study conducted by Hayes and Meltzer (1972) found that persons who talked more were perceived as more likely to hold leadership positions than persons who talked less were. Allgeier (as cited in Richmond & Roach, 1992) replicated much of the Hayes and Meltzer's research, except that Allgeier used female subjects instead of male. The results were similar: persons who talked more were perceived as more attractive and better adjusted than persons who talked less.

In more recent research, Richmond and Roach (1992) examined likely organizational outcomes related to willingness to communicate. Based on their findings, the authors suggest that individuals low in willingness to communicate are less likely to begin or heighten the impact of organizational rumors; less likely to be perceived as constant complainers; more productive, depending on the nature of the work; and more likely to be discreet, adding to organizational security.

On the negative side, individuals low in willingness to communicate are more likely to be perceived negatively by others; less likely to obtain job interviews and to do well in interviews, decreasing their chances of being hired; and more likely to have a shorter tenure (Richmond & Roach, 1992).
McCroskey and Richmond (1990) also make assertions about willingness to communicate in the school environment. They state that students with high willingness to communicate characteristics have all of the advantages. Teachers have high expectations for students who are highly willing to communicate and negative expectations for those less willing. Student achievement, as measured by teacher made tests, teacher assigned grades, and standardized tests, is also consistent with these expectations. Students who are willingness to communicate have more friends, report being more satisfied with their school experiences, and are more likely to remain in school and graduate.

Students with high willingness to communicate characteristics see students who are low in willingness to communicate in negative ways. Such negative perceptions have been observed all the way from the lower elementary level through graduate school. Studies indicate that low willingness to communicate persons are perceived less positively than persons exhibiting high willingness behaviors in terms of desirability as an opinion leader, and projection of academic success in the areas of humanities, public speaking, and business (McCroskey & Richmond, 1976). Persons low in willingness to communicate are perceived more positively in character and projection of academic success in math, lab sciences, and agriculture.

It is clear from the last two decades of research that willingness to communicate plays a central role in determining an individual's communicative impact in social and learning situations. Individuals high in willingness to communicate are perceived more positively in terms of sociability, composure, competence, extraversion, and social attraction (McCroskey & Richmond, 1976).
Persons high in willingness to communicate behaviors are also viewed positively on the dimensions of social attractiveness, task attractiveness, and desirability as a communication partner (McCroskey, Daly, & Richmond, 1975).

Persons high in willingness to communicate tend to have an increased frequency and amount of communication (Richmond & Roach, 1992); they are perceived as better listeners (Clark, 1989); they are perceived as being more attractive and better adjusted (Allgeier, as cited in Richmond & Roach, 1992); they are more likely to achieve more in school, have more friends, have a more satisfying school experience, remain in school longer; and graduate (McCroskey & Richmond, 1990); and they are more likely to obtain job interviews, do better in the interviews, have a better chance of being hired, hold leadership positions, and have a longer tenure than persons low in willingness to communicate (Hayes & Meltzer, 1972; Richmond & Roach, 1992).

Persons high in willingness to communicate have a significant positive impact on interpersonal perceptions, which will most likely lead to positive perceptions on the part of others. Based on the research, it seems likely that persons high in willingness to communicate will be more attracted to their group members and more satisfied with group communication than persons low in willingness to communicate.

Now that the research on willingness to communicate has been explored in greater detail, the focus will move to the concept of a personality disposition termed self-monitoring.
Self monitoring

The theory of self-monitoring presumes consistent patterns of individual differences in the extent to which people regulate their self-presentation by tailoring their actions in accordance with immediate situational cues (Snyder, 1974, 1979). Snyder (1974) explored the varying tendencies of people to adapt to others in social interaction. He observed that some people are quite adaptive in their willingness to change their behaviors depending upon the situation, whereas others are far less willing to adapt and instead display a "take me as I am" attitude. Snyder labeled this difference as the degree of "self-monitoring" individuals display (Snyder, 1974).

Conceptually, self-monitoring may be viewed as a unitary construct that reflects individuals' tendencies to employ the tactics of impression management in their relations with others. However, because this general tendency is the result of a number of specific behavioral components, Snyder (1974) elaborated the concept of self-monitoring by describing certain basic ways in which the behavior of the high-self-monitoring individual should differ from that of the low-self-monitoring individual.

Specifically, the high-self-monitoring individual should be (1) more concerned about behaving in a socially appropriate manner, (2) more sensitive to the expression and self-presentation of others in social situations, and (3) more skillful in using these and other situational cues as guidelines for monitoring and managing self-presentation and expressive behavior (Snyder, 1974). Snyder has also suggested, as additions to these basic differences, that the high-self-monitoring individual should be more likely to seek out and use relevant social comparison
information in a self-presentation situation and should be able to express and communicate an arbitrarily chosen emotional state more accurately.

Self-monitors have a concern with the appropriateness of their self-presentation (Snyder, 1974). High self-monitors have the ability to determine behavioral appropriateness from the view of the other in the situation and adapt to the behavior of the other. In other words, high self-monitors are like chameleons, capable of changing or adapting their current behavior to the perceived standards of the other person. They ask themselves the question, "Who does this situation want me to be and how can I be that person?" (Snyder, 1979, p. 110). Low self-monitors tend to exhibit behavior in situations that reflects their own standards instead of adapting to the standards of those around them. Low self-monitors pay little attention to socially appropriate appearance, and make little use of the ability to control and modify one's self-presentation to match the situation (Snyder & Campbell, 1982). They ask themselves, "Who am I and how can I be me in this situation?" (Snyder, 1979, p. 110). Self-monitoring has been researched across various contexts, from interpersonal to small groups to organizations. All of these contexts are interconnected. By exploring the research in each area, we can more fully understand the makeup of the self-monitoring personality dimension.

Empirical evidence supports the notion that people differ in the extent to which they monitor their own behavior in a given situation. For example, Snyder and Monson (1975) found that individuals who were high self-monitors reported more situational variance than individuals who were low self-monitors. Along the

Recent research has examined the characteristics that differentiate those who score high on self-monitoring scales and those who score low. Howells (1993) found that high self-monitors are positively evaluated on characteristics such as openness, self-criticism, warmth, sensitivity, and curiosity. Low self-monitors are more likely to be described as lacking confidence and having difficulty in social situations. In addition to personality differences, Bryan, Dodson, and Cullari (1997) found significant gender effects between high and low self-monitors. Males tend to score higher on the self-monitoring scale than females.

Ickes and Barnes (1977) also explored the role of sex and self-monitoring in unstructured dyadic interactions. The results indicated that high self-monitors may enhance the expression of behaviors that are seen as appropriate to one's sex role but may inhibit the expression of behaviors that are seen as inappropriate to one's sex role. In general, the high self-monitors were perceived by themselves and by their partners as talking more, initiating conversations more frequently, guided by the other's behavior to a greater degree, more directive, and more concerned about behaving in a socially acceptable manner.

When it comes to handling conflict, a study by Roloff and Campion (1987) found that high self-monitors use more obliging strategies to reach an agreement than low self-monitors do. In a similar study, Trubisky, Ting-Toomey, and Lin (1991) examined the influence of cultural variability and self-monitoring on conflict communication styles. Self-monitoring was found to be related to the dominating
conflict style: the higher the self-monitoring, the higher the use of the dominating conflict style. The authors state, "It appears that the construct of self-monitoring works more effectively in individualistic cultures than in collectivist cultures" (Trubisky et al., 1991, p. 79).

Research focusing on group dynamics also indicates an association between self-monitoring and communication style. Garland and Beard (1979) examined the group brainstorming process and found that members who emerged as leaders were often high self-monitors. These results can be explained by research showing that high self-monitors tend to motivate others by showing them that their efforts will be rewarded. They accomplish this by encouraging others to cooperate, by setting clear goals and emphasizing deadlines, by being supportive and putting others at ease, by listening to others' suggestions, and by allowing others to use their own judgment (Snyder, 1987).

Also focusing on groups, Watson and Behnke (1990) examined self-monitoring characteristics as predictors of leaderless group discussion performance. The leaderless group discussion exposes a small group of participants to a business problem to be solved without an assigned leader. In this study, the researchers used Snyder's (1974) Self-monitoring Scale which consists of three factors: acting, extraversion, and other-directed. Results indicated that the acting component of self-monitoring was the most significant predictor of rater evaluation across the three areas of group orientation, leader behavior, and oral communication. The more the participants in the leaderless discussion groups indicated a preference for acting attributes, the lower others evaluated them in the group (Watson & Behnke, 1990).
In the organizational arena, Fiore and DeLong (1993) examined whether characteristics of self-monitoring were related to an individual's decision to participate in an effective presentation program. They hypothesized that individuals possessing low levels of self-monitoring would be less likely than those with high levels to participate voluntarily in a program designed to enhance attractiveness and effectiveness of appearance. The results contradicted the stated hypotheses. Low self-monitors were actually more likely than high self-monitors to participate in the program. Low self-monitors seemed to realize that the interview situation was a special interaction requiring self-presentational skills, which they did not possess. The need to acquire those skills created an interest in the program. As a result, low self-monitors were more likely to become participants. High self-monitors seemed to have more self-confidence in their speaking and presentation skills.

Research also suggests that the degree to which individuals report an awareness of the social cues most appropriate for contexts is a significant predictor of performance (Snyder, 1974). Specifically, Snyder (1987) found an association between self-monitoring ability and job level. Employees who were managers and supervisors typically were high self-monitors while technical, clerical, and support staff were found to be low self-monitors. The same social style prompting high self-monitors to initiate conversation in one-to-one situations may lead to rewarding interactions in group situations for other group members, thereby facilitating their emergence as leaders (Snyder, 1987).

In the classroom environment, Lan (1996) studied the relationship between self-monitoring and academic performance. Self-monitoring students were found to
be more actively involved in their learning activities and performed better academically. Self-monitoring in this study was depicted as a process in which a learner evaluates the effectiveness of a particular cognitive strategy by using criteria such as: (1) how the strategy helps them make progress toward a goal, and (2) how much expenditure of time and effort the strategy requires. Applying these two criteria enables the learner to determine whether the strategy should be continued or abandoned in favor of another strategy (Lan, 1996).

Taken as a whole, the self-monitoring literature indicates that high self-monitors possess a wider range of communication styles to control and manage their impressions. In contrast, low self-monitors possess a narrow range of communication strategies to deal with various communication situations. High self-monitors are more expressive, show a greater need to talk, engage in more self-disclosure, and initiate and encourage conversations (Ickes & Barnes, 1977); are seen as more open, warm, sensitive, and curious in their communication styles (Howells, 1993); are more dominant in conflict situations and use more obliging strategies to reach agreements (Trubisky, Ting-Toomey, & Lin, 1991; Roloff & Campion, 1987); and emerge more as leaders of groups and supervisors/managers of organizations (Garland & Beard, 1979; Snyder, 1987).

Specifically, the construct of self-monitoring appears to have a strong influence on communication processes. The ability to control one's presentation of self should be a valuable asset in relationship development and group communication. The absence of such skills may lead to low attraction, unsuccessful relationships, and ultimately dissatisfaction with the group communication.
After focusing on personality dispositions that rely on frequent communication and interaction, the focus now moves to a concept that is quite different from willingness to communicate and self-monitoring. Loneliness is the next personality disposition that will be explored.

Loneliness

Social relationships are the lifeline of human existence. Unfortunately, many people feel that they do not have many meaningful relationships. As Peplau and Perlman (1982) observe, "loneliness is a fact of life for millions of Americans" (p.2). In fact, various surveys have indicated that 10 to 20 percent of the general public is frequently and severely lonely (Brennan & Auslander, 1979; Cutrona, 1982; Rubenstein & Shaver, 1980).

Loneliness has received much attention from communication researchers and Bell (1985) states it is justified. Recognition is emerging that loneliness is usefully conceptualized as an outcome of deficiencies in social-communicative competence—lonely people communicate differently and less skillfully than others. Bell (1985) concludes that studies of communication and loneliness may advance our understanding of relational communication.

Researchers have conceptualized loneliness in several ways. First, loneliness involves psychological distress that takes the form of a very painful and anxious yearning for another person or persons (Hartog, 1980). Second, loneliness results from a perceived gap between a person's desired and achieved social relationships (Peplau & Perlman, 1979). Third, loneliness comes in two forms: chronic or transitory (de Jong-Gierveld & Raadschelders, 1982). Transitory
loneliness often follows an event, such as moving away from your family or the
death of a loved one. Chronic loneliness tends to be a result of a person's social
skills and personality (Bell & Daly, 1985).

Lonely individuals focus excessively on themselves and their internal
experiences. The lonely person might have social relationships but lacks satisfying
social relationships. One person who has a given amount of social contact may
report feeling lonely, whereas another person with similar frequency of social
contact may be satisfied with such contact, and report no loneliness (Rook &
Peplau, 1982).

Research has been conducted to explore the relationship of interpersonal
communication to loneliness. Jones (1982) states that the "available evidence does
suggest that loneliness frequently involves an inability or disruption in the ability to
relate to others in an effective and mutually satisfying manner" (p. 238). Lonely
individuals perceive themselves to be less socially skilled compared to others
(Horowitz, French, & Anderson, 1982); they score lower on general measures of
social and communicative competence (Jones, 1982; Zakahi & Duran, 1982); and
they self-disclose less often and less intimately to others (Solano, Batten, & Parrish,
1982).

Jones, Hobbs, and Hockenbury (1982) examined the relationship between
loneliness and self-absorption and involvement in conversations. They created
mixed-sex dyads on the basis of scores on the UCLA Loneliness Scale so that an
equal number of lonely and non-lonely people were paired with a member of the
opposite sex. People in the high-lonely group made fewer partner references, made
fewer topic continuations, asked fewer questions, and made fewer partner attention statements than did non-lonely individuals.

Bell and Daly (1985) explored the relationship between communicator characteristics and loneliness. Specifically they focused on assertiveness, Machiavellism, self-monitoring, social-communicative anxiety, conversational involvement, and communicator style. The results suggest that loneliness may be more a function of people's patterns of communication behavior than of single dimensions of their communicator characteristics. Lonely people were found to be apprehensive and anxious about communication and social interactions, they reported difficulty being responsive to the conversational contributions of others, they had problems with self-assertion, they tended to be nondisclosive, they were sometimes constrained and unfriendly in interactions, and they tended to evaluate their abilities as communicators negatively (Bell & Daly, 1985). This research paralleled previous research, which demonstrated the difficulties lonely people have with various interpersonal communication skills.

In a similar study, Bell (1985) sought to determine the relationship of chronic loneliness to conversational involvement. Based on past research, Bell predicted that lonely individuals would be less involved in their interactions, perceived as uninvolved, and evaluated less positively by others. His results confirmed the hypotheses. The study found that lonely people were passive, restrained communicators. In terms of their overt behaviors, lonely persons were less talkative and had lower rates of interruptions. Bell states that the social consequences of this pattern of communication are profound. For example,
uninvolved people are difficult to get acquainted with and may be perceived as poor candidates for friendship. People who do not actively seek information from others and reinforce others for their conversational contributions are unlikely to build stable foundations upon which relationships can be constructed (Bell, 1985).

Bell's research presents provocative findings. Specifically, the study provided the most direct support for the proposition that lonely people are often inattentive interactants. Consequences of low attention include the following: (1) inattentiveness is a barrier to learning about others; (2) inattentive people may have less to talk about when interacting with others and may not understand others' interests and backgrounds; and, (3) low attention may foster incompetent interaction because of the ineffectiveness of extending comments of others and interpreting subtle nonverbal cues.

Another interesting finding is that lonely people expect to be seen in a negative light. Bell's (1985) study found that lonely people believe their partners will report less desire for future interaction, an expectation that proved correct. The significance of Bell's study is that it demonstrated that the actual conversational behaviors of lonely and non-lonely individuals are consistent with their reports. Lonely people repeatedly describe themselves as socially inhibited and detached, and exhibited social inhibition and detachment in their behaviors. Overall, Bell's study (1985) provided behavioral confirmation of results from numerous self-reported studies.

A more recent study examined the effects of individual characteristics on message interpretation (Edwards, Bello, Brandau-Brown, Futch, Hollems, Kirtley,
1997). Subjects in the study read three scenarios and responded to a message according to whether they perceived it as rejection, personal attack, or manipulation. Loneliness was significantly correlated with an interpretation of rejection for a scenario written to elicit rejection as a possible interpretation. Edwards et al. (1997) state, "the findings for loneliness seem to reflect the idea that situational cues must be available to trigger an interpretation of rejection" (p. 19). This study supported the idea that personal dispositions influence the way an individual interprets messages.

In the organizational arena, research suggests that lonely people are less assertive than non-lonely people (Russell, Peplau, & Cutrona, 1980; Jones, Freemon, & Goswick, 1981); they tend to take fewer social risks (Russell, et al., 1980); they are less confident in their viewpoints (Hansson & Jones, 1981); and they are less likely to be chosen as leaders compared to others (Jones, Freemon, & Goswick, 1981). Overall, lonely individuals seem to have an indirect approach in interactions with others.

To summarize the existing research, lonely individuals perceive themselves to be less socially skilled and competent in their communication compared to others (Horowitz, French, & Anderson, 1982; Jones, 1982); they are less talkative, restrained, inattentive (Bell, 1985); they self-disclose less often and less intimately to others (Solano, Batten, & Parrish, 1982); they are less assertive, friendly, disclosive, and responsive (Russell, Peplau, & Cutrona, 1980; Bell & Daly, 1985); they are passive, restrained, apprehensive, and anxious (Bell & Daly, 1985; Bell, 1985); they take fewer social risks (Russell, et al., 1980); they are less confident in
their viewpoints (Hanson & Jones, 1981); and they are less likely to be chosen as leaders compared to others (Jones, Freemon, & Goswick, 1981).

Taking all of the past research into account, it seems that personal dispositions do influence the way individuals communicate one-on-one and in groups. It also appears that personal dispositions influence the way an individual evaluates and interprets his/her surroundings. It seems likely that willingness to communicate and self-monitoring are positively associated with the group outcomes of attraction and communication satisfaction. It also seems likely that loneliness is negatively related to group attraction and group communication satisfaction.

Next, the group outcome of interpersonal attraction and its relationship to the personality dispositions of willingness to communicate, self-monitoring, and loneliness will be explored.

**Interpersonal Attraction**

The basic aim of studying interpersonal attraction is to identify the rules, processes, and empirical laws which operate on acquainting individuals (Duck, 1977). The ultimate aim of interpersonal attraction research is to acquire knowledge of the dynamics of developing relationships, not just of static, once-for-all choices. Duck states that there are three directions for the study of interpersonal attraction research:

1. to assess the factors that start attraction where none existed before;

2. to know what factors and events affect or maintain attractiveness levels which are already established; and
3. to note how individuals indicate their attraction towards someone by ritual social behavioral means (p. 4, 1977).

The current study specifically focuses on the factors that affect attraction.

"Attraction refers to any direct orientation (on the part of one person toward another) which may be described in terms of sign (+ or -) and intensity" (Newcomb, 1961, p. 6). Newcomb's definition has been employed by most researchers studying attraction (Duck, 1977). Researchers have also agreed that interpersonal attraction is a multifaceted activity (Duck, 1977). For example, if one regards attraction or liking as an attitude about someone, then one would expect to be able to measure the dynamics of the three traditional components of attitudes: cognitive, affective, and behavioral. That is, someone's liking for another person is a function of what he knows about the person, how he feels about it and what he does about it (Kelvin, 1970). However, one consistent finding from research is that these three parts are relatively independent and what people say does not predict what they will do (Duck, 1977). The emphasis of much research on interpersonal attraction will thus always leave open the question of whether people's expressed liking is actually a predictor of their choice activity.

Many explanations have appeared in the literature for why one person is attracted to another. Four of the best supported interpersonal attraction explanations are close physical proximity (Priest & Sawyer, 1967), receipt of personal rewards (Byrne & Griffitt, 1966), attitude similarity (Clore & Baldridge, 1968), and physical appearance (Walster, Aronson, Abrahams & Rottman, 1966). Comparatively less
attention has been directed toward the effects of communication behavior on attraction.

It is relatively easy to postulate how communication behavior relates to attraction. Friendly, non-threatening behaviors tend to be appealing, while aggressive, disrespectful behaviors tend to be offensive. A small body of research provides direct support for a relationship between communication behavior and interpersonal attraction. In fact, Norton and Pettegrew (1977) found that a certain style of communication behavior is positively associated with interpersonal attraction.

In their research, Norton and Pettegrew (1977) found that the dominant/open style of communicating was the most attractive and had the best communicator image. The not-dominant/not-open style was the least attractive and had the worst communicator image. Besides identifying specific communicator styles, the research results also found the attentive, friendly, and relaxed domain of communicator style to be the best predictor of attraction.

Taking a different approach, McCroskey, Daly, Richmond, and Cox (1975) investigated communicator apprehension and its affects on interpersonal attraction. They found that behaviors characteristic of high communication apprehensives have a significant, meaningful, negative impact on a person's perceived social attractiveness by the opposite sex and on the degree to which a person is perceived by the opposite sex as an attractive potential communication partner. They found that generally, the more communication apprehensive a person is, the less the person will be perceived as attractive to another person in a communication situation.
Individuals low in communication apprehension are perceived as more desirable potential communication partners than individuals high in communication apprehension (McCroskey, Daly, Richmond, & Cox, 1975). The results indicate that persons who talk more are perceived as more attractive and better adjusted than persons who talk less.

In a more recent study on communication apprehension and attraction, Baker and Ayres (1994) tested whether behavior associated with communication apprehension had an effect on a person's interaction partner. Specifically they were interested in whether persons interacting with a partner exhibiting high communication apprehension behavior would experience higher levels of state communication apprehension and whether they would judge these partners as less interpersonally attractive.

Consistent with predictions, Baker and Ayres (1994) found that behavior related to high communication apprehension does affect interaction partners' levels of state communication apprehension and evaluations of interpersonal attractiveness. High communication apprehension does negatively affect interactions. The interaction partners experienced higher state communication apprehension and reported lower attraction levels when interacting with persons exhibiting high communication apprehension behavior than with persons exhibiting behavior associated with low communication apprehension.

Along the same vein, McCroskey, Daly, and Richmond (1975) examined the impact of high and low verbal behavior on interpersonal attraction and desirability as a communication partner. Consistent with predictions, the results found that
persons who exhibit high verbal behaviors are viewed positively on the dimensions of social attractiveness, task attractiveness, and desirability as a communication partner (McCroskey, Daly, & Richmond, 1975).

In the small group arena, Montgomery (1986) went one step further to investigate the relationship of the communicator style of openness (both verbal and nonverbal) on interpersonal attraction. Open communication was defined as the process by which personal information is inferred from verbal and nonverbal behavior. Montgomery (1986) divided the subjects, who were strangers, into mixed-gender discussion groups. After discussing two high-risk topics for fifteen minutes, the subjects evaluated each of their peers and then were evaluated by observers who were hidden behind a one-way window. Consistent with predictions, results found a positive linear effect for both peer- and observer-assessed openness on interpersonal attraction. Persons who exhibit behaviors associated with a moderate or high openness style are liked significantly more than persons who exhibit behaviors consistent with a low-openness style of communicating.

Also in a small group setting, McCroskey, Hamilton, and Weiner (1974) investigated the relationship between interaction behavior and the resulting perceptions group members have of one another. Trained raters coded the interaction behavior of subjects, who discussed a task-oriented topic in small groups. Results indicated that interaction behavior accounted for a substantial percentage of the variance in group members' perceptions of one another. For example, the behavior of high interest is positively associated with task attraction but negatively associated with social attraction. The behavior of high verbosity is
positively associated with social attraction, but negatively associated with task attraction. The researchers concluded that the relationships between the way people interact in a small group and the way they will be perceived in terms of attraction are very complex. They also stressed the need for investigations to be designed to predict communication outcomes based on communication behaviors (McCroskey, Hamilton, & Weiner, 1974).

The existing research suggests that attraction is linked with dominant, open, attentive, friendly, and relaxed styles of communicating (Norton & Pettegrew, 1975; Montgomery, 1986); increased vocal behavior (McCroskey, Daly, Richmond, 1975; McCroskey, Hamilton, & Weiner, 1974); high interest (McCroskey, Hamilton, & Weiner, 1974); and low communication apprehension (McCroskey, Daly, Richmond, & Cox, 1975; Baker & Ayres, 1994).

Now that various explanations of why people are attracted to one another have been identified, it's important to look at the factors that make group relationships satisfying.

**Communication Satisfaction**

Communication satisfaction is an effect crucial to concepts of psychological health; and therefore is a construct which is useful in the study of communication behavior (Hecht, 1978a). The construct refers to satisfaction and dissatisfaction derived from social interaction. Satisfaction has been associated with mental health (Rogers, 1961), feelings of competence and efficiency (Bochner & Kelly, 1974), and successful interaction (Thibaut & Kelley, 1959). Satisfaction is an emotion people experience when they are successful in their pursuits, and it plays a central role in
humanistic (Rogers, 1961), social exchange (Thibaut & Kelley, 1959), and physiological (Clynes, 1978) approaches to communication. These theorists are united in their beliefs that effective communicators experience greater satisfaction. Hecht (1978c) stated that satisfaction research has suffered from a lack of conceptual clarity. In an attempt to overcome these and other problems, Hecht (1978c) developed the discriminative fulfillment approach to satisfaction. Utilizing the idea of discriminative stimuli (Skinner, 1953), Hecht maintained that the reinforcement or punishment of behaviors emitted in the presence of discriminative stimuli also provides reinforcement of the link between the behaviors and the discrimination. This latter reinforcement leads to satisfaction. Within the present conceptualization, reinforcement must be present in order for satisfaction to be experienced. The discriminative fulfillment approach minimizes hypothetical constructs by grounding the definition of satisfaction in observable behaviors: discriminate stimuli and reinforcement.

Hecht (1978c) describes communication satisfaction as an internal, secondary reinforcer arising from the generalization of environmental reinforcement of behaviors manifested in response to the presence of a discriminative stimulus. This position maintains that individuals develop standards by which to judge their world (discriminations, positive expectations, and positive anticipations). Such standards represent learning from one's past and are equal to one's history of reinforcement with respect to the satisfaction response. Taking this into account, satisfaction indicates a response to the environment and is therefore explainable by the conditioning paradigm. The most frequent and salient experiences and the
outcomes for these experiences become one's expectation level. Satisfaction is the reaction to encountering the world one has been conditioned to expect (Hecht, 1978b, p. 59).

Communication satisfaction is a socio-emotional outcome. Group members walk away with a sense of fulfillment from the group experience. The concept taps members' perceptions about their communication and that of the other group members (Hecht, 1978a).

Using his seminal research as a base, Hecht (1984) examined the interpersonal effects of sex of self and sex of other on communication satisfaction. Communication satisfaction was operationalized using his own 60-item self-report instrument. The findings of the study indicated that while males and females may differ in their communication roles and express different amounts and types of emotion, the two sexes exhibit minimal differences in their emotional experiences of communication. Specifically, results showed that an individual's own gender does not influence the amount of communication satisfaction one experiences. Additionally, mixed sex dyads were found to be slightly more satisfying than same-sex dyads (Hecht, 1984).

Rubin and Rubin (1989) investigated the relationship between communication apprehension and communication satisfaction. Communication apprehension is an affective state of fear or anxiety experienced by an individual when anticipating communication outcomes and it has been found to influence a person's abilities to effect positive outcomes in social settings (McCroskey & Richmond, 1976). The results indicated that higher levels of communication
apprehension are linked to lower levels of communication satisfaction (Rubin & Rubin, 1989).

Duran and Zakahi (1987) investigated the relationship of communication skills to communication satisfaction. They found that communicative adaptability and communication styles were significantly related to communication satisfaction. Communicative adaptability includes the variables of appropriate disclosure, social confirmation, and social experience. Appropriate disclosure is one's ability to perceive and adapt to the topical constraints implied by other communicators. Social confirmation is a communicator's ability to show interest and concern for the other person, and social experience is a person's ability and desire to interact with different people in various social settings. These dimensions provide a communicator with a repertoire of conversational topics, the discretion to fit the appropriate topic to the social context, and the ability to demonstrate interest in the other person (Duran & Zakahi, 1987).

Duran and Zakahi (1987) found that the attentive communication style is significantly related to communication satisfaction. The attentive style includes behaviors such as listening, eye gazing, and empathy. Acknowledging the other's communication also appears to be a strong predictor of communication satisfaction. In other words, social confirmation is typically accomplished by demonstrating attentive and friendly behaviors. Perceptions of attentiveness are generally created by overtly acknowledging the other's communication, while perceptions of friendliness are generally created by encouraging the communication of the other.
In summary, friendliness, attentiveness, and other-confirming communication behavior seem most responsible for the positive outcomes of a social encounter.

Spitzberg and Hecht (1984) investigated dyadic perceptions of social performance in naturally occurring conversations. Specifically the researchers assessed the perceptions of both interactants' competence upon each person's communication satisfaction. Results indicated that the conversational skills of the other were the most influential predictors of one's communication satisfaction with an interaction. The skills most responsible for satisfaction were other orientation and immediacy. Spitzberg and Hecht (1984) state, "If satisfying communication is a conversational objective, then being other-oriented is probably the best strategy" (p.588).

Rubin, Pearse, and Barbato (1988) conducted a study to explore interpersonal communication motives and their relationship with global communication satisfaction. The researchers found that the interpersonal motives of talking to others for pleasure, relaxation, and expressing affection were related to high levels of communication satisfaction. Communicating for control was not related to communication satisfaction. The researchers also found that global communication satisfaction was dependent to some extent on low communication apprehension of the participants.

Satisfaction has come to have different meanings in the small group research area. It has been measured as an individual's self-evaluation of rewards received from participation (Jurma, 1978); it has been conceptualized as a function of the relationships and pride in membership (Cragan & Wright, 1991); and it has been
defined as an affective state reflected in levels of well-being (Dorfman & Stephan, 1984). The contexts have varied as well. Some studies have measured satisfaction in the context of decision-making (Hare, 1980; Hirokawa, 1982) and others have focused on tasks and relationships (Jurma, 1978).

Anderson and Martin (1995) utilized a small group model to explore the path by which communication motives influenced interaction involvement and loneliness, which in turn influenced group satisfaction. The researchers used Hecht's (1978) 16-item CSI and substituted the words "group members" where appropriate.

The researchers state that "the path model investigated here provides strong evidence for the argument that motives (escape, control, inclusion, pleasure, and affection), the communication involvement dimension of responsiveness, and loneliness are meaningful factors in predicting group satisfaction. The model illustrates that perceptions of group satisfaction are the results of motives being met through responsive communication that requires knowing what to say and how to say it" (Anderson & Martin, 1995, p. 129). Specifically, the results of the study suggest that pleasure was a reason for communicating responsively, and group members were more likely to be satisfied if they were not lonely and had an appropriate level of competency skills (Anderson & Martin, 1995).

Wall, Galanes, and Love (1987) also studied satisfaction within the small group context. The study focused on the relationship between the amount of conflict and satisfaction in small, task-oriented groups. The researchers found that conflict, in the form of extended disagreement, tends to increase the quality of group
outcomes up to a certain point. Furthermore, satisfaction was negatively related to the number of conflict episodes, perceived conflict was negatively related to the amount of satisfaction, and individuals in groups experiencing no conflict had greater overall satisfaction but lower outcome quality.

In a similar study, Wall and Nolan (1987) investigated the concept of inequity and found that it was related to group satisfaction, the amount of perceived conflict, the type of conflict, and the style of conflict management. Perceived inequity was found to be negatively related to satisfaction, and group satisfaction was more strongly associated with groups experiencing no conflict than with groups experiencing either task- or people-centered conflict.

Ralston (1993) researched communication satisfaction from a recruiting aspect. This study used Engler-Parish and Millar's (1989) modified version of Hecht's (1978) Interpersonal Communication Satisfaction Inventory (ICSI). The modified ICSI is a self-report, 17-item instrument that gauges applicants' overall communication satisfaction with interviews in particular. The results indicate that applicant satisfaction with the communication that takes place during interviews is both a significant and meaningful indicator of intent to accept a second interview, and that recruiter communication style is a significant predictor of applicant communication satisfaction. Specifically, the results indicate that organizational recruiters should receive training on communication skills such as expressing interest in the applicant, providing positive feedback, communicating openness, and demonstrating a style that is attentive and dramatic.
Focusing on interpersonal communication variables in the college classroom, Prisbell (1985) assessed the relationships among feeling good, safety, and uncertainty level with communication satisfaction. The interpersonal perception variables of feeling good, safety, and uncertainty level were significantly related to communication satisfaction. These variables accounted for 46% of the variance in communication satisfaction. The results suggest that instructors who make their students feel good (e.g. feel positive, feel attractive, feel confident), feel safe, and who reduce uncertainty about themselves to their students produce a classroom environment where the student is communicatively satisfied.

Prisbell's (1985) study also found a positive relationship between communication satisfaction, affective learning, behavioral commitment, course evaluations, and instructor evaluation. Altogether, the results suggest that students who perceive satisfying communication with their instructor also report a positive attitude towards communication practices recommended in the course. The students who perceive satisfying communication with their instructor also report the likelihood of actually engaging in the communication practices suggested in the course, the likelihood of actually enrolling in another course of related content, and taking another class from the same instructor. Last, those students who were satisfied with the communication with their instructor also responded positively in the areas of classroom learning and course evaluations.

Taking all of the research into account, it is clear that communication satisfaction is a significant response to communication. Communication satisfaction is positively related to the dispositional variables of friendliness, attentiveness, and
other-confirming communication (Duran & Zakahi, 1987; Ralston, 1993); the interpersonal perception variables of feeling positive, attractive, confident, safe, and little uncertainty (Prisbell, 1985); the interpersonal motives of escape, control, inclusion, pleasure, affection, relaxation, talking to others for pleasure, and expressing affection (Anderson & Martin, 1995; Rubin, Pearse, & Barbato, 1988); and the communication involvement dimension of responsiveness (Anderson & Martin, 1995). In the classroom, students who are satisfied with the communication will more likely engage in the communication practices suggested, enroll in a similar course, take another course from the same instructor, and learn more (Prisbell, 1985). Communication satisfaction is also negatively linked to communication apprehension (Rubin & Rubin, 1989) and loneliness (Anderson & Martin, 1995).

Hypotheses

The existing theory and research suggests that individuals will be attracted to their groups and satisfied with group communication in a manner consistent with their individual dispositions. Individuals high in willingness to communicate tend to be competent communicators who are assertive, expressive, confident, and friendly. Research shows that persons high in willingness to communicate have a significant positive impact on interpersonal perceptions. Based on uncertainty reduction theory, it seems probable that persons high in willingness to communicate will communicate frequently and reduce uncertainty. When uncertainty is reduced, individuals will be positively attracted to their group members and satisfied with group communication. As a result, the following predictions can be made:
H1: Individuals high in Willingness to Communicate will be positively attracted to their groups.

H2: Individuals high in Willingness to Communicate will be positively satisfied with their group’s communication.

Individuals high in self-monitoring tend to be expressive, flexible, and confident communicators who have a repertoire of skills to emerge as leaders of groups and organizations. Researchers have suggested that the same social style prompting high self-monitors to initiate conversations in one-to-one situations may lead to rewarding interactions in group situations (Snyder, 1987). Based on uncertainty reduction theory, individuals high in self-monitoring will most likely communicate frequently and therefore reduce uncertainty. The more communication increases and uncertainty reduces, the individuals will be positively attracted to their groups and satisfied with their group’s communication. As a result, the following predictions can be made:

H3: Individuals high in Self-monitoring will be positively attracted to their groups.

H4: Individuals high in Self-monitoring will be positively satisfied with their group’s communication.

Lonely people seem to be apprehensive and anxious about their communication and social interactions. They have difficulty being confident and responsive to the conversational contributions of others. They tend to be nondisclosive, inattentive, restrained, and unfriendly in interactions. Based on uncertainty reduction theory, the more communication increases, the more
uncertainty reduces. Because individuals who are lonely communicate infrequently, uncertainty will increase; and therefore, group attraction and satisfaction will decrease. As a result, the following predictions can be made:

H5: Individuals high in Loneliness will be negatively attracted to their groups.

H6: Individuals high in Loneliness will be negatively satisfied with their group's communication.

Research suggests that communication and attraction are positively related. Attraction has been linked with dominant, open, attentive, friendly, and relaxed styles of communicating (Norton & Pettigrew, 1975; Montgomery, 1986); increased vocal behavior (McCroskey, Daly, Richmond, 1975; McCroskey, Hamilton, & Weiner, 1974); low communication apprehension (McCroskey, Daly, Richmond, & Cox, 1975; Baker & Ayres, 1994) and high interest (McCroskey, Hamilton, & Weiner, 1974). Uncertainty reduction theory states that increased communication reduces uncertainty, which then results in increased attraction. As a result, the following prediction can be made:

H7: Group attraction will significantly increase after the individuals participate in group exercises that involve communication.
Chapter 3

Method

The first chapter reviewed the literature of the interpersonal communication concepts and the group outcomes and presented the hypotheses. This chapter focuses on how the study was conducted.

Subjects

Female (n=68) and male (n=61) undergraduates at Loyola University New Orleans participated in the study. The majority of the respondents were freshmen (61%) enrolled in an introductory business class that is a curriculum requirement for all business majors; others were enrolled in management classes (39%) (see Table 1 for complete demographic details). Data were collected during the spring 1999 academic semester before team concepts were discussed in the course.

Table One

Participant Demographics

<table>
<thead>
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<th>Gender</th>
<th>Age</th>
<th>Year</th>
<th>Ethnic Origin</th>
</tr>
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<tbody>
<tr>
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<td>.8%&lt;18 Years</td>
<td>60.5%=Freshman</td>
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</table>
Data Collection

All testing took place during regular class periods and involved five separate classes. Instructors asked for voluntary cooperation from students for the purpose of filling out an anonymous questionnaire. Their names were not on the questionnaire, but they were asked to keep a record of the number that was computer generated on the bottom of their questionnaire for future matching purposes. Participants recorded their responses on a computer scan form.

During the first week of class, before the students had time to get to know each other, the instructor arranged each class into groups of four or five people. The instructor then asked the students to introduce themselves and exchange phone numbers for the purpose of a group project later in the course. After this initial interaction, the students filled out a questionnaire assessing the predictor variables of willingness to communicate, loneliness, self-monitoring, initial group attraction, and demographic variables.

Approximately one month later, the students engaged in two group activities during a class period, working in the same groups as were assigned during the first week. These activities were: "Blindfolded Triangle," and "Paper and Tape Building" (see Appendix A for description of exercises). These exercises were chosen because they rely on group communication to reach the desired goal. Each activity was set up and debriefed by the researcher.
After completing the group exercises, the participants then completed a second questionnaire assessing the dependent variables of group communication satisfaction and group attraction.

Statistical Power

To determine the appropriate sample size, a number of methods were utilized. First, when using multiple regression to analyze data, Hatcher and Stepanski (1994) recommend at least 15-30 subjects per independent variable. The current study has four independent variables (including the two dimensions of self-monitoring). Therefore, the appropriate sample size, on the high end, would be 120 subjects.

Next, a power analysis was performed. Based on the dependent variable of group attraction, an appropriate sample size was calculated to be 28 subjects for a major effect size. A minor effect size would need approximately 142 subjects. This power level allows researchers to detect major and moderate effects, but not slight effects. Thus, if an effect were slight, we would incur a type II error, finding no relationship when one actually exists. Cohen (1988) suggested that relaxing the alpha level to .10 will make the detection of minor effects more likely. Therefore, the tables note when relationships were found at the .10 level, fully realizing the type I error trade-off.
Independent Variables

Willingness to Communicate

The first twenty items of the first questionnaire assessed willingness to communicate using the scale developed by McCroskey and Richmond (1990) (Appendix B). The willingness to communicate scale includes items related to four communication contexts—public speaking, talking in meetings, talking in small groups, and talking in dyads—with three types of receivers—strangers, acquaintances, and friends. The scale includes 12 scored items and eight filler items (Table 2). Participants responded to twenty situations in which a person might choose to communicate or not to communicate. They indicated the percentage of time they would choose to communicate in each type of situation, on a scale from 1 (never) to 100 (always). The internal reliability of the total willingness to communicate scale from previous studies was .87 and for the current study was .75 using Cronbach's alpha.

Table 2

Willingness to Communicate: Items, Means and Standard Deviations

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTC3 Present a talk to a group of strangers</td>
<td>44.08</td>
<td>29.33</td>
</tr>
</tbody>
</table>

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**Table cont.**

<table>
<thead>
<tr>
<th>WTC4</th>
<th>Talk with an acquaintance while standing in line.</th>
<th>83.97</th>
<th>29.36</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTC6</td>
<td>Talk in a large meeting of friends.</td>
<td>88.07</td>
<td>19.80</td>
</tr>
<tr>
<td>WTC8</td>
<td>Talk in a small group of strangers.</td>
<td>49.89</td>
<td>28.16</td>
</tr>
<tr>
<td>WTC9</td>
<td>Talk with a friend while standing in line.</td>
<td>96.15</td>
<td>11.51</td>
</tr>
<tr>
<td>WTC11</td>
<td>Talk in a large meeting of acquaintances.</td>
<td>73.50</td>
<td>24.87</td>
</tr>
<tr>
<td>WTC12</td>
<td>Talk with a stranger while standing in line.</td>
<td>40.99</td>
<td>26.68</td>
</tr>
<tr>
<td>WTC14</td>
<td>Present a talk to a group of friends.</td>
<td>76.40</td>
<td>30.52</td>
</tr>
<tr>
<td>WTC15</td>
<td>Talk in a small group of acquaintances.</td>
<td>75.33</td>
<td>24.45</td>
</tr>
<tr>
<td>WTC17</td>
<td>Talk in a large meeting of strangers.</td>
<td>34.06</td>
<td>27.66</td>
</tr>
<tr>
<td>WTC19</td>
<td>Talk in a small group of friends.</td>
<td>93.79</td>
<td>15.53</td>
</tr>
<tr>
<td>WTC20</td>
<td>Present a talk to a group of acquaintances.</td>
<td>62.31</td>
<td>29.45</td>
</tr>
</tbody>
</table>

**Loneliness**

Items 21 to 40 assessed loneliness (Table 3). The most commonly used measure to assess loneliness is the 20-item revised UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980) (Appendix B). With an equal number of positively and negatively stated items, students responded by filling in on the
scantron whether they "strongly agree", "agree", "are undecided", "disagree" or "strongly disagree" with the state described by the item. Examples of the items include "There is no one I can turn to" (LONE3) and "There are people who really understand me" (LONE16). Previous studies demonstrated a reliability of .87 using Cronbach's alpha. Internal reliability for loneliness in the current study was .90 using Cronbach's alpha.

**Table 3**

**Loneliness: Items, Means and Standard Deviations**

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>LONE1 I feel in tune with the people around me.</td>
<td>1.98</td>
<td>0.66</td>
</tr>
<tr>
<td>LONE2 I lack companionship.</td>
<td>2.32</td>
<td>0.87</td>
</tr>
<tr>
<td>LONE3 There is no one I can turn to.</td>
<td>1.68</td>
<td>0.92</td>
</tr>
<tr>
<td>LONE4 I do not feel alone.</td>
<td>2.11</td>
<td>1.13</td>
</tr>
<tr>
<td>LONE5 I feel part of a group of friends.</td>
<td>1.63</td>
<td>0.86</td>
</tr>
<tr>
<td>LONE6 I have a lot in common with the people around me.</td>
<td>2.13</td>
<td>0.83</td>
</tr>
<tr>
<td>LONE7 I am no longer close to anyone.</td>
<td>1.78</td>
<td>0.94</td>
</tr>
<tr>
<td>LONE8 My interests and ideas are not shared by those around me.</td>
<td>2.38</td>
<td>0.89</td>
</tr>
</tbody>
</table>
### Self-monitoring

Items 41 to 53 assessed self-monitoring using Lennox and Wolfe's (1984) revised self-monitoring scale (Appendix B). This revised 13-item scale was based on the initial work of Snyder (1974). Lennox and Wolfe, however, state that

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>LONE9</td>
<td>I am an outgoing person.</td>
<td>2.17</td>
<td>0.91</td>
</tr>
<tr>
<td>LONE10</td>
<td>There are people I feel close to.</td>
<td>1.33</td>
<td>0.63</td>
</tr>
<tr>
<td>LONE11</td>
<td>I feel left out.</td>
<td>2.23</td>
<td>0.84</td>
</tr>
<tr>
<td>LONE12</td>
<td>My social relationships are superficial.</td>
<td>2.34</td>
<td>0.93</td>
</tr>
<tr>
<td>LONE13</td>
<td>No one really knows me well.</td>
<td>2.35</td>
<td>1.16</td>
</tr>
<tr>
<td>LONE14</td>
<td>I feel isolated from others.</td>
<td>2.09</td>
<td>0.89</td>
</tr>
<tr>
<td>LONE15</td>
<td>I can find companionship when I want it.</td>
<td>1.93</td>
<td>0.96</td>
</tr>
<tr>
<td>LONE16</td>
<td>There are people who really understand me.</td>
<td>1.83</td>
<td>0.97</td>
</tr>
<tr>
<td>LONE17</td>
<td>I am unhappy being so withdrawn.</td>
<td>2.15</td>
<td>1.08</td>
</tr>
<tr>
<td>LONE18</td>
<td>People are around me but not with me.</td>
<td>2.44</td>
<td>0.95</td>
</tr>
<tr>
<td>LONE19</td>
<td>There are people I can talk to.</td>
<td>1.44</td>
<td>0.71</td>
</tr>
<tr>
<td>LONE20</td>
<td>There are people I can turn to.</td>
<td>1.44</td>
<td>0.73</td>
</tr>
</tbody>
</table>

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Synder's (1974) self-monitoring scale exhibits a stable factor structure that does not correspond to the five-component theoretical structure that is presented. Based on Lennox and Wolfe's (1984) research, the scale used in the current study measures two dimensions: the ability to modify self-presentation (Table 4a) and sensitivity to the expressive behavior of others (Table 4b). As proposed by Lennox and Wolfe (1984), these two subdimensions are analyzed separately and are not collapsed into one measure. Using Cronbach's alpha, previous research found the reliability for ability to modify self-presentation was .75 and the reliability for sensitivity to the expressive behavior of others was .72. For the current study, internal reliability for ability to modify self-presentation was .78 and .79 for sensitivity to expressive behavior.

Students responded to such questions as "I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly" (SMB4) and "Once I know what the situation calls for, it's easy for me to regulate my actions accordingly" (SMA7). They assessed each question based on a 5-point Likert scale, ranging from "always" to "never."

**Group Attraction**

Items 54 through 57 assessed group attraction, measured by two questions adapted from Byrne's (1969) original scale and two questions created by the author (Table 5) (Appendix B). Two additional questions were added to increase the reliability of the scale. Byrne's Interpersonal Judgment Scale (IJS) consists of two seven-point scales on which evaluations of another's likability and desirability as a work partner are made. In the original scale, the subjects were asked to indicate
how well they felt they would like this person and whether they believed they would enjoy working with him (or her) in an experiment. Substituting the word "group" for "person" and "group exercises" for "experiment," the current questions asked the subjects to indicate on a five-point scale, ranging from "strongly agree" to "strongly disagree" how well they felt they would like this group. Students responded to such questions as “I feel that I like this group” (GA1) and “I could get something accomplished with this group” (GA3).

Other researchers have employed similar changes to Byrne's IJS scale. Norton and Pettegrew (1977) changed the seven-point scale to a five-point scale ranging from "much above average" to "much below average." As of yet, no researcher has used it for assessing group attraction. Previous reliabilities for Byrne's original scale assessing interpersonal attraction were approximately .83 using Cronbach's alpha. The current study found the internal reliability for group attraction to be .90 using Cronbach's alpha.

Demographics and Control Variables

Items 58 through 65 assessed the demographic variables of sex, age, year in college, and ethnic origin (Appendix B). In order to control for past communication and group experiences items 62 through 64 asked the students whether they had participated in group exercises before, what their group exercise experience was (excellent, good, average, bad, horrible), and whether they had formal communication training before. To control for the fact that many of the subjects were not from the United States, Item 65 asked whether they were U.S. Citizens.
The demographic and control variables were first analyzed in relationship to group attraction and group communication satisfaction using analysis of variance. The significant control variables were then placed first in the regression models before any other variables were added.

**Table 4a**

**Self-monitoring/Ability to Modify Self-Presentation: Items, Means and Standard Deviations**

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA1 In social situations I have the ability to alter my behavior if I feel that something else is called for.</td>
<td>4.14</td>
<td>0.76</td>
</tr>
<tr>
<td>SMA2 I have the ability to control the way I come across to people, depending on the impression I wish to give them.</td>
<td>3.88</td>
<td>0.84</td>
</tr>
<tr>
<td>SMA3 When I feel that the image I am portraying isn’t working, I can readily change it to something that does.</td>
<td>3.49</td>
<td>0.90</td>
</tr>
<tr>
<td>SMA4 I have trouble changing my behavior to suit different people and different situations.</td>
<td>3.71</td>
<td>0.89</td>
</tr>
<tr>
<td>SMA5 I have found that I can adjust my behavior to meet the requirements of any situation I find myself in.</td>
<td>3.89</td>
<td>0.80</td>
</tr>
<tr>
<td>SMA6 Even when it might be to my advantage, I have difficulty putting up a good front.</td>
<td>3.43</td>
<td>0.94</td>
</tr>
</tbody>
</table>
### Table 4b

**Self-monitoring/Sensitivity to Expressive Behavior Items, Means and Standard Deviations**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMB1</td>
<td>I am often able to read people's true emotions correctly through their eyes</td>
<td>3.59</td>
<td>0.84</td>
</tr>
<tr>
<td>SMB2</td>
<td>In conversations I am sensitive to even the slightest change in the facial expression of the person I am conversing with.</td>
<td>3.51</td>
<td>1.01</td>
</tr>
<tr>
<td>SMB3</td>
<td>My powers of intuition are quite good when it comes to understanding others' emotions and motives.</td>
<td>3.69</td>
<td>0.91</td>
</tr>
<tr>
<td>SMB4</td>
<td>I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly.</td>
<td>3.95</td>
<td>0.80</td>
</tr>
<tr>
<td>SMB5</td>
<td>I can usually tell when I've said something inappropriate by reading it in the listeners' eyes.</td>
<td>3.97</td>
<td>0.90</td>
</tr>
<tr>
<td>SMB6</td>
<td>If someone is lying to me, I usually know it at once from the person's manner of expression.</td>
<td>3.64</td>
<td>0.78</td>
</tr>
</tbody>
</table>
Table 5

Group Attraction: Items, Means, and Standard Deviations

<table>
<thead>
<tr>
<th>Statement</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPAT1 I feel that I like this group.</td>
<td>3.79</td>
<td>0.74</td>
</tr>
<tr>
<td>GRPAT2 I believe that I will like working with this group in group exercises.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRPAT3 I could get something accomplished with this group.</td>
<td>3.96</td>
<td>0.72</td>
</tr>
<tr>
<td>GRPAT4 I have confidence in the group’s ability to get the job done.</td>
<td>3.95</td>
<td>0.77</td>
</tr>
</tbody>
</table>

Dependent Variables

Communication Satisfaction

The first 19 items on the second questionnaire assessed the variable of group communication satisfaction (Table 6). This scale was adapted from a modified version of Hecht's (1978) interpersonal communication satisfaction scale by substituting the words "group members" or "group exercises" where appropriate (Appendix C). Other researchers have used Hecht's (1978) 16-item Communication Satisfaction Inventory and substituted the words "group members" where appropriate (Anderson & Martin, 1995).

Examples of questions include "I was very satisfied with the group exercises" (COMSAT9) and "The other group members genuinely wanted to hear my point of view" (COMSAT8). The students answered on a 5-point Likert scale
ranging from "strongly agree" to "strongly disagree." Previous research has shown the reliability score to be approximately .95 using Cronbach's alpha. The current study's internal reliability for group communication satisfaction was .89 using Cronbach's alpha.

Table 6

Group Communication Satisfaction: Items, Means, Standard Deviations

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMSAT1</td>
<td>The other group members seemed to enjoy the group exercises.</td>
<td>4.21</td>
</tr>
<tr>
<td>COMSAT2</td>
<td>Nothing was accomplished in the group exercises.</td>
<td>4.41</td>
</tr>
<tr>
<td>COMSAT3</td>
<td>I would like to participate in more group exercises like this.</td>
<td>4.22</td>
</tr>
<tr>
<td>COMSAT4</td>
<td>The other group members genuinely wanted to hear my point of view.</td>
<td>4.06</td>
</tr>
<tr>
<td>COMSAT5</td>
<td>I was very dissatisfied with the group exercises.</td>
<td>4.39</td>
</tr>
<tr>
<td>COMSAT6</td>
<td>I would rather not have participated.</td>
<td>4.44</td>
</tr>
<tr>
<td>COMSAT7</td>
<td>I felt that during the group exercises I was able to present myself as I wanted the other group members to view me.</td>
<td>4.05</td>
</tr>
<tr>
<td>COMSAT8</td>
<td>The other group members showed me that they understood what I said.</td>
<td>4.20</td>
</tr>
<tr>
<td>COMSAT9</td>
<td>I was very satisfied with the group exercises.</td>
<td>4.21</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Score</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>COMSAT10</td>
<td>The other group members expressed a lot of interest in what I had to say.</td>
<td>3.87</td>
</tr>
<tr>
<td>COMSAT11</td>
<td>I did enjoy the group exercises.</td>
<td>4.27</td>
</tr>
<tr>
<td>COMSAT12</td>
<td>The other group members did not provide support for what they were saying.</td>
<td>4.06</td>
</tr>
<tr>
<td>COMSAT13</td>
<td>I felt I could talk about anything with the other group members.</td>
<td>3.52</td>
</tr>
<tr>
<td>COMSAT14</td>
<td>We each got to say what we wanted.</td>
<td>4.20</td>
</tr>
<tr>
<td>COMSAT15</td>
<td>I felt we could laugh easily together.</td>
<td>4.18</td>
</tr>
<tr>
<td>COMSAT16</td>
<td>The group exercises flowed smoothly.</td>
<td>4.20</td>
</tr>
<tr>
<td>COMSAT17</td>
<td>The other group members changed the topic when their feelings were brought into the group exercises.</td>
<td>3.53</td>
</tr>
<tr>
<td>COMSAT18</td>
<td>The other group members frequently said things that added little to the group exercises.</td>
<td>3.68</td>
</tr>
<tr>
<td>COMSAT19</td>
<td>We talked about something I was not interested in.</td>
<td>3.86</td>
</tr>
</tbody>
</table>

**Group Attraction**

Items 20 through 23 assessed the group attraction measure (Table 7). These items were the same as gathered at time one except expressed in past tense (Appendix C). The last item, 24, asked the students to indicate their survey number from the first questionnaire.
Table 7:

**Group Attraction: Items, Means, and Standard Deviations**

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRPAT1: I liked this group</td>
<td>4.34</td>
<td>.64</td>
</tr>
<tr>
<td>GRPAT2: I enjoyed working with this group in group exercises</td>
<td>4.37</td>
<td>.60</td>
</tr>
<tr>
<td>GRPAT3: I have confidence in the group’s ability to get the job done</td>
<td>4.33</td>
<td>.59</td>
</tr>
<tr>
<td>GRPAT4: I got something accomplished with this group</td>
<td>4.33</td>
<td>.61</td>
</tr>
</tbody>
</table>

**Preliminary Analyses**

All items were averaged to form composite scores for each variable. Scales were recoded so that high scores reflect more of the communication trait. Missing data were left blank, and unmatched surveys were not used in the analyses.

Tests for intercorrelation between the interpersonal communication variables were computed. All Pearson correlations were weak, but they demonstrated a positive relationship between willingness to communicate and the self-monitoring dimension of ability to modify self presentation ($r = .37, p < .05$), the self-monitoring dimension of sensitivity to expressive behavior ($r = .27, p < .05$), and a negative relationship with loneliness ($r = -.31, p < .05$).

Pearson correlations demonstrated a weak but negative relationship between loneliness and the self-monitoring dimension of sensitivity to expressive behavior ($r = .27, p < .05$).
-.26, \( p < .05 \), and between loneliness and the self-monitoring dimension of ability to modify self presentation \( (r=-.19, p < .05) \). As expected, a positive correlation was found between the two self-monitoring dimensions \( (r=.55, p<.05) \). See Appendix D for a complete correlation matrix.

In summary, 129 college students were put into groups during the first week of classes. They were told only to exchange names and phone numbers. After the initial interactions, they then filled out the first questionnaires assessing the communication concepts of willingness to communicate, loneliness, self-monitoring, and initial group attraction. Approximately three to four weeks later, the students were put into their groups again and engaged in two group exercises that focused on communication. After they completed the group exercises, the students filled out a second questionnaire that assessed group attraction and group communication satisfaction.
Chapter 4

Results

The previous chapter described the methodology of the study. This chapter presents the results of the statistical analyses in order of the proposed hypotheses.

Overview of Data Analysis

The analysis of data followed a series of three steps to investigate the relationship between the interpersonal communication variables—willingness to communicate, self-monitoring, and loneliness—and the group outcomes of attraction and communication satisfaction. Step one analyzed the control variables in relationship to group attraction and group communication satisfaction using analysis of variance. Step two tested the hypotheses by using Pearson product-moment correlation analysis to test the magnitude and direction of the relationships between the three interpersonal communication variables and the two group outcomes. Step three employed multiple regression analysis to examine the contribution of the interpersonal communication variables and the control variables in predicting respondents' group attraction and group communication satisfaction. Due to the exploratory nature of the study, p values were set at <.10.

Analysis of Control Variables

Four control variables were analyzed in this study: previous participation in group exercises (PART), quality of the experience with past group exercises (EXP), previous formal communication training (TRAIN), and U.S. Citizenship (CIT).
Participation

For the first control variable of participation, results for group attraction and group communication satisfaction were analyzed using a one-way ANOVA, between-groups design. The analysis for group attraction failed to reveal a significant effect, $F(1,127) = .70, p = .40$. The sample means are displayed in Table 13, which shows that the two groups demonstrated similar scores on group attraction.

<table>
<thead>
<tr>
<th>Participation</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>4.35</td>
<td>.55</td>
<td>126</td>
</tr>
<tr>
<td>No</td>
<td>4.08</td>
<td>.14</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: $p = .40$

The analysis for group communication satisfaction also failed to reveal a significant effect, $F(1,126) = .06, p = .80$. The sample means are displayed in Table 14, which shows that the two groups demonstrated similar scores on group communication satisfaction.

Quality of Experience

For the second control variable, quality of experience, results for group attraction and group communication satisfaction were analyzed using a one-way ANOVA, between-groups design. The analysis for group attraction failed to reveal a significant effect, $F(4,122) = 1.42, p = .23$. The sample means are displayed in

61
Table 15, which shows that each group demonstrated similar scores on group attraction.

Table 14

Mean Scores for Control Variable of Participation and Group Communication Satisfaction

<table>
<thead>
<tr>
<th>Participation</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>4.08</td>
<td>.44</td>
<td>125</td>
</tr>
<tr>
<td>No</td>
<td>4.14</td>
<td>.30</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: \( p = .80 \)

Table 15

Mean Scores for Control Variable of Experience and Group Attraction

<table>
<thead>
<tr>
<th>Experience</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>4.25</td>
<td>.71</td>
<td>15</td>
</tr>
<tr>
<td>Good</td>
<td>4.44</td>
<td>.51</td>
<td>61</td>
</tr>
<tr>
<td>Average</td>
<td>4.24</td>
<td>.52</td>
<td>43</td>
</tr>
<tr>
<td>Bad</td>
<td>4.69</td>
<td>.47</td>
<td>4</td>
</tr>
<tr>
<td>Horrible</td>
<td>4.19</td>
<td>.59</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: \( p = .23 \)

The analysis for group communication satisfaction also failed to reveal a significant effect for quality of experience, \( F (4,121) = .94, p = .45 \). The sample means are displayed in Table 16, which shows that each group demonstrated similar scores on group communication satisfaction.
Table 16

Mean Scores for Control Variable of Experience and Group Communication Satisfaction

<table>
<thead>
<tr>
<th>Experience</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.13</td>
<td>.47</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>4.06</td>
<td>.44</td>
<td>61</td>
</tr>
<tr>
<td>3</td>
<td>4.04</td>
<td>.43</td>
<td>42</td>
</tr>
<tr>
<td>4</td>
<td>4.47</td>
<td>.29</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>4.08</td>
<td>.54</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: p = .45

Training

For the third control variable of training, results for group attraction and group communication satisfaction were analyzed using a one-way ANOVA, between-groups design. The analysis for group attraction revealed a significant effect, $F(1,126) = 3.62, p < .10$. The sample means are displayed in Table 17, which shows that the subjects who had received prior formal communication training were more attracted to their group than subjects who had not received formal communication training before. Therefore, in further analysis of group attraction, training was entered as a control variable.

The analysis for satisfaction with group communication revealed a significant effect for training, $F(1,126) = 3.54, p < .10$. The sample means are displayed in Table 18. Subjects who had not received formal communication training were significantly less satisfied with group communication than were
subjects who had received formal communication training. Therefore, in further analysis of group communication satisfaction, training was entered as a control variable.

### Table 17

**Mean Scores for Control Variable of Training and Group Attraction**

<table>
<thead>
<tr>
<th>Training</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>4.48</td>
<td>.61</td>
<td>37</td>
</tr>
<tr>
<td>No</td>
<td>4.28</td>
<td>.50</td>
<td>91</td>
</tr>
</tbody>
</table>

Note: $p < .10$

### Table 18

**Mean Scores for Control Variable of Training and Group Communication Satisfaction**

<table>
<thead>
<tr>
<th>Training</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>4.19</td>
<td>.45</td>
<td>37</td>
</tr>
<tr>
<td>No</td>
<td>4.01</td>
<td>.42</td>
<td>90</td>
</tr>
</tbody>
</table>

Note: $p < .10$

**Citizenship**

For the fourth control variable of U.S. citizenship, results for group attraction and group communication satisfaction were analyzed using a one-way ANOVA, between-groups design. The analysis for group attraction revealed a significant effect for citizenship, $F (1, 127) = 4.16, p < .05$. The sample means are displayed in
Table 19. Subjects who were not U.S. citizens were significantly less attracted to their groups than subjects who were U.S. citizens were. Therefore, in further analysis of group attraction, citizenship was entered as a control variable.

<table>
<thead>
<tr>
<th>Citizenship</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>4.37</td>
<td>.54</td>
<td>117</td>
</tr>
<tr>
<td>NO</td>
<td>4.04</td>
<td>.52</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: $p < .05$.

The analysis for group communication satisfaction revealed a significant effect for citizenship, $F(1,126) = 3.19, p < .10$. The sample means are displayed in Table 20. Subjects who were not U.S. citizens were significantly less satisfied with group communication than subjects who were U.S. citizens. Therefore, in further analysis of group communication satisfaction, citizenship was entered as a control variable.

<table>
<thead>
<tr>
<th>Citizenship</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>4.10</td>
<td>.43</td>
<td>117</td>
</tr>
<tr>
<td>NO</td>
<td>3.86</td>
<td>.53</td>
<td>11</td>
</tr>
</tbody>
</table>

Note: $p < .10$
Based on the results from the ANOVAS, the control variables of citizenship and training were entered into the multiple regression analyses for group attraction and group communication satisfaction first before the predictor variables. The next section will present the results from the correlation analyses and the multiple regression analyses in the order of the hypotheses.

**Analysis of Hypotheses**

**Hypothesis One**

Hypothesis one predicted a positive relationship between willingness to communicate and group attraction. This was tested with two analyses. First, Pearson product moment correlations were computed. Specifically, the Pearson correlation between willingness to communicate and group attraction revealed a significant positive relationship ($r=.18$, $p<.05$). Second, to control for citizenship and training, regressions were computed. In the regression analysis, willingness to communicate was not a significant predictor for group attraction, as shown in Table 21. The model was Group Attraction = Initial Group Attraction ($b=.30$) + Citizenship ($b=-.29$) + Training ($b=-.11$) + Willingness to Communicate ($b=.00$), and $R^2=.19$. Therefore, hypothesis one was not supported.

**Hypothesis Two**

Hypothesis two predicted a positive relationship between willingness to communicate and group communication satisfaction. The Pearson product-moment correlation failed to reveal a significant relationship ($r=.10$, $p=.30$). In the regression analysis, willingness to communicate was not a significant predictor for group communication satisfaction, as shown in Table 22.
Table 21:

Regression Model for Willingness to Communicate and Group Attraction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>INITIAL GRP ATT</td>
<td>.30</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>CITIZENSHIP</td>
<td>-.29</td>
<td>.15</td>
<td>.06</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.11</td>
<td>.10</td>
<td>.28</td>
</tr>
<tr>
<td>WILLING TO COM</td>
<td>.00</td>
<td>.00</td>
<td>.30</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.50</td>
<td>.40</td>
<td>.00</td>
</tr>
</tbody>
</table>

Model $R^2 = .19; F = 6.8$

Table 22:

Regression Model for Willingness to Communicate and Group Communication Satisfaction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITIZENSHIP</td>
<td>-.21</td>
<td>.14</td>
<td>.13</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.09</td>
<td>.09</td>
<td>.32</td>
</tr>
<tr>
<td>WILLING TO COM</td>
<td>.00</td>
<td>.00</td>
<td>.25</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.27</td>
<td>.28</td>
<td>.00</td>
</tr>
</tbody>
</table>

Model $R^2 = .05; F = 2.0$
The model was Group Communication Satisfaction = Citizenship (b=-.21) + Training (b=-.09) + Willingness to Communicate (b=.00), with R²=.05. Hypothesis two was not supported.

**Hypothesis Three**

Hypothesis three predicted a positive relationship between self-monitoring and group attraction. Because self-monitoring was measured with two factors, each factor was analyzed separately. Specifically, the Pearson correlation revealed a non-significant negative relationship between the “ability to modify self presentation” dimension of self-monitoring and group attraction (r=-.02, p=.80). Conversely, in the regression analysis, “ability to modify self-presentation” was a significant negative predictor for group attraction, as shown in Table 23. The model was Group Attraction = Initial Group Attraction (b=.33) + Citizenship (b=-.29) + Training (b=-.19) + Ability to Modify Self Presentation (b=-.14), with R²=.19.

Hypothesis three also predicted a positive relationship for the self-monitoring dimension of “sensitivity to expressive behavior” and group attraction. The Pearson correlation revealed a non-significant positive relationship (r=.04, p=.62) between group attraction and “sensitivity to expressive behavior.” In the multiple regression analysis, “sensitivity to expressive behavior” was not a significant predictor for group attraction, as shown in Table 24. The model was Group Attraction = Initial Group Attraction (b=.31) + Citizenship (b=-.27) + Training (b=-.17) + Sensitivity to Expressive Behavior (b=-.04), with R²=.17. Hypothesis three was not supported.
**Table 23:**

Regression Model for Ability to Modify Self-presentation and Group Attraction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>INITIAL GRP ATT</td>
<td>.33</td>
<td>.07</td>
<td>.00</td>
</tr>
<tr>
<td>CITIZENSHIP</td>
<td>-.29</td>
<td>.15</td>
<td>.05</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.19</td>
<td>.10</td>
<td>.06</td>
</tr>
<tr>
<td>ABILITY TO MOD</td>
<td>-.14</td>
<td>.08</td>
<td>.10</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.24</td>
<td>.46</td>
<td>.00</td>
</tr>
</tbody>
</table>

Model $R^2 = .20$; $F = 7.35$

**Table 24:**

Regression Model for Sensitivity to Expressive Behavior and Group Attraction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRP ATTRACT</td>
<td>.31</td>
<td>.07</td>
<td>.00</td>
</tr>
<tr>
<td>CITIZENSHIP</td>
<td>-.27</td>
<td>.15</td>
<td>.08</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.17</td>
<td>.10</td>
<td>.08</td>
</tr>
<tr>
<td>SENSITIVITY</td>
<td>-.04</td>
<td>.07</td>
<td>.61</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.86</td>
<td>.41</td>
<td>.00</td>
</tr>
</tbody>
</table>

Model $R^2 = .18$; $F = 6.61$
Hypothesis Four

Hypothesis four predicted a positive relationship between self-monitoring and group communication satisfaction. Specifically, the Pearson correlation revealed a non-significant negative relationship ($r=-.06, p=.51$) between group communication satisfaction and the self-monitoring dimension of "ability to modify self presentation." Subsequently, in the regression analysis, "ability to modify self-presentation" was not a significant predictor, as shown in Table 25. The model was

Satisfaction with Group Communication = Citizenship ($b=-.22$) + Training ($b=-.15$) + Ability to Modify Self Presentation ($b=-.08$), with $R^2=.05$. Hypothesis four was not supported for the ability to modify self presentation dimension of self-monitoring.

Table 25:

Regression Model for Ability to Modify Self-presentation and Group Communication Satisfaction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITIZENSHIP</td>
<td>-.22</td>
<td>.14</td>
<td>.11</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.15</td>
<td>.08</td>
<td>.08</td>
</tr>
<tr>
<td>ABILITY TO MOD</td>
<td>-.08</td>
<td>.07</td>
<td>.30</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.86</td>
<td>.36</td>
<td>.00</td>
</tr>
</tbody>
</table>

Model $R^2=.05; F=2.32$
The Pearson correlation revealed a non-significant negative relationship ($r=-.02$, $p=.81$) between group communication satisfaction and the self-monitoring dimension of "sensitivity to expressive behavior." Subsequently in the regression analysis, "sensitivity to expressive behavior" was not a significant predictor, as shown in Table 26. The model was Satisfaction with Group Communication = Citizenship ($b=-.21$) + Training ($b=-.14$) + Sensitivity to Expressive Behavior ($b=-.02$), with $R^2=.05$. Hypothesis four was not supported for the sensitivity to expressive behavior dimension of self-monitoring.

Table 26:

Regression Model for Sensitivity to Expressive Behavior and Group Communication Satisfaction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITIZENSHIP</td>
<td>-.21</td>
<td>.14</td>
<td>.13</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.14</td>
<td>.08</td>
<td>.10</td>
</tr>
<tr>
<td>SENSITIVITY</td>
<td>-.02</td>
<td>.06</td>
<td>.77</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.61</td>
<td>.31</td>
<td>.00</td>
</tr>
</tbody>
</table>

Model $R^2=.05$; $F=2.00$

Hypothesis Five

Hypothesis five predicted a negative relationship between loneliness and group attraction. Specifically, the Pearson correlation of loneliness revealed a non-
significant negative relationship with group attraction \((r=-.13, p=.14)\). In the regression analysis, loneliness was not a significant predictor for group attraction, as seen in Table 27. The model was Group Attraction = Initial Group Attraction \((b=.29)\) + Citizenship \((b=-.34)\) + Training \((b=-.16)\) + Loneliness \((b=-.04)\), with \(R^2=.19\). Therefore, hypothesis five was not supported.

**Table 27:**

**Regression Model for Loneliness and Group Attraction**

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INITIAL GRP ATT</td>
<td>.30</td>
<td>.07</td>
<td>.00</td>
</tr>
<tr>
<td>CITIZENSHIP</td>
<td>-.34</td>
<td>.16</td>
<td>.03</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.16</td>
<td>.09</td>
<td>.11</td>
</tr>
<tr>
<td>LONELINESS</td>
<td>-.04</td>
<td>.09</td>
<td>.64</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.90</td>
<td>.43</td>
<td>.00</td>
</tr>
</tbody>
</table>

Model \(R^2=.20; F=7.20\)

Hypothesis Six

Hypothesis six predicted a negative relationship between loneliness and group communication satisfaction. The Pearson correlation revealed a significant negative relationship \((r=-.17, p<.05)\) between group communication satisfaction and loneliness.
The regression model also found significance, as seen in Table 28. The control variables of citizenship (CIT) and whether the subjects had received formal communication training (TRAIN) were entered into the regression model first. No significant links were found between citizenship or previous training with group communication satisfaction.

Loneliness was then added to the model, and even with the two control variables loneliness still emerged as a significant predictor, explained with 7% of the variance ($R^2 = 0.07; F(3, 121) = 2.91; p < .05$). As predicted, loneliness yielded a negative ($b = -0.13$) relationship, as shown in Table 28. The model was Satisfaction with Group Communication = Citizenship ($b = -0.20$) + Training ($b = -0.13$) + Loneliness ($b = -0.13$), with $R^2 = 0.07$. Therefore, hypothesis six was supported.

Table 28:
Regression Model for Loneliness and Group Communication Satisfaction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITIZENSHIP</td>
<td>-0.20</td>
<td>0.14</td>
<td>0.16</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-0.13</td>
<td>0.08</td>
<td>0.12</td>
</tr>
<tr>
<td>LONELINESS</td>
<td>-0.13</td>
<td>0.08</td>
<td>0.09</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.78</td>
<td>0.24</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Model $R^2 = 0.07; F = 3.00$
Hypothesis Seven

Hypothesis seven predicted a positive increase in attraction after the groups participated in the group exercises. Results were analyzed using a paired-samples $t$ test. This analysis revealed a significant difference between mean levels of attraction observed in the two conditions, $t(129) = 8.00; p < .0001$. The sample means are displayed in Table 29, which shows that mean attraction scores were significantly lower before the group exercise treatment ($M = 3.87, SD = .63$) than after the group exercise treatment ($M = 4.34, SD = .54$). Hypothesis seven was supported.

Table 29

Mean Scores for Group Attraction Before and After Group Exercises

<table>
<thead>
<tr>
<th>Group Attraction</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>3.87</td>
<td>.63</td>
<td>129</td>
</tr>
<tr>
<td>After</td>
<td>4.34</td>
<td>.54</td>
<td>129</td>
</tr>
</tbody>
</table>

Note: $p < .05$

Post Hoc Analyses

Additional statistical tests were performed to determine if any further relationships existed between the variables. First, the relationship between the individual dispositions and initial group attraction was explored using Pearson correlations and multiple regression analysis. The Pearson correlation revealed significant positive relationships between initial group attraction and willingness to
communicate ($r=.24, p<.05$), "ability to modify self-presentation" ($r=.22, p<.05$), and "sensitivity to expressive behavior" ($r=.22, p<.05$). A significant negative correlation emerged for loneliness ($r=-.21, p<.05$) (see Appendix D).

Surprisingly, the overall model for the multiple regression was significant ($R^2 = 0.11; F(4, 117) = 3.50; p < .05$), but the individual dispositions were not. As seen in Table 29, no significant relationships were found between willingness to communicate, loneliness, self-monitoring, and initial group attraction. The model was Group Attraction = Willingness to Communicate ($b=.00$) + Loneliness ($b=-.16$) + Ability to Modify Self-presentation ($b=.05$) + Sensitivity to Expressive Behavior ($b=.16$), with $R^2=.11$.

**Table 29:**

Regression Model for Willingness to Communicate, Self-monitoring, Loneliness and Initial Group Attraction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>WILLING TO COM</td>
<td>.00</td>
<td>.00</td>
<td>.16</td>
</tr>
<tr>
<td>LONELINESS</td>
<td>-.16</td>
<td>.19</td>
<td>.18</td>
</tr>
<tr>
<td>ABILITY TO MOD</td>
<td>.05</td>
<td>.13</td>
<td>.72</td>
</tr>
<tr>
<td>SENSITIVITY</td>
<td>.16</td>
<td>.10</td>
<td>.12</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.06</td>
<td>.56</td>
<td>.00</td>
</tr>
</tbody>
</table>

Model $R^2=.10; F=3.50$
Regression analysis was also used to explore a possible relationship between group communication satisfaction and group attraction. As seen in Table 30, the regression model found significance. Group communication satisfaction emerged as a significant positive predictor explaining 48% of the variance ($R^2 = 0.48$; $F(1, 126) = 117.26; p < .05$). The model was Group Attraction = Satisfaction with Group Communication ($b = .86$), with $R^2 = .48$.

Table 30:

Regression Model for Group Communication Satisfaction and Group Attraction

<table>
<thead>
<tr>
<th>Item</th>
<th>Parameter Estimate</th>
<th>Standard Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRP COM SAT</td>
<td>.86</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>Intercept</td>
<td>.83</td>
<td>.33</td>
<td>.01</td>
</tr>
</tbody>
</table>

Model $R^2 = .48$; $F= 117.26$
Chapter 5
Discussion

This chapter discusses the results of the study in five sections. First it reviews the rationale for the hypotheses and then discuss the results for each hypothesis in order. Next the chapter discusses pedagogical and training implications, then present the study's limitations, and finally it offers recommendations for future research.

Review of Rationale and Results

The current study proposed that a) individual dispositions predict group outcomes and b) group attraction increases after individuals engage in group communication exercises. Two out of the seven hypotheses were supported.

Specifically, the first hypothesis predicted that the disposition of willingness to communicate would be positively related to group attraction and group communication satisfaction. Based on uncertainty reduction theory, it seems probable that persons high in willingness to communicate will communicate frequently and reduce uncertainty. When uncertainty is reduced, individuals will be positively attracted to their group members and satisfied with group communication. This prediction was not supported.

Similarly, the disposition of self-monitoring was predicted to be positively associated with group attraction and group communication satisfied. Individuals high in self-monitoring tend to be expressive, flexible, and confident communicators. Based on uncertainty reduction theory, individuals high in self-
monitoring will most likely communicate frequently and therefore reduce uncertainty. The more communication increases and uncertainty reduces, the more individuals will be positively attracted to their groups and satisfied with their group’s communication. This prediction was not supported.

The disposition of loneliness was predicted to be negatively associated with group attraction and group communication satisfaction. Lonely people tend to be nondisclosive, inattentive, restrained, and unfriendly in interactions. Based on uncertainty reduction theory, the more communication increases, the more uncertainty reduces. Because individuals who are lonely communicate infrequently, uncertainty will not be reduced; and therefore, group attraction and satisfaction will be negative. It was proposed that lonely individuals would be less attracted to their groups and less satisfied with their group’s communication. One of these predictions was supported. Loneliness was found to be negatively associated with group communication satisfaction. In other words, lonely individuals were less satisfied with their group’s communication during the group exercises.

Finally, it was proposed that group attraction would increase after the groups engaged in group exercises that focused on communication. Research suggests that communication and attraction are positively related (Montgomery, 1986; McCroskey, Daly, Richmond, 1975). Uncertainty reduction theory states that increased communication reduces uncertainty, which then results in increased attraction. This prediction was supported. Group attraction did increase. Individuals were more attracted to their groups after they engaged in group exercises that relied on communication.
Discussion of Results

Given the previous research (Richmond & McCroskey, 1989; Richmond & Roach, 1992), perhaps the most surprising finding of this study is that the willingness to communicate orientation did not predict group attraction or group communication satisfaction. Individuals who possess these communication dispositions are perceived as talkative, gregarious, friendly, and confident. Based on uncertainty reduction theory (Berger & Calabrese, 1975), communication reduces the uncertainty people feel about each other, and reducing uncertainty results in increased attraction. Along the same vein, it was proposed that communication reduces the uncertainty people feel about each other, and reducing uncertainty would result in increased satisfaction with communication. In essence, the amount of communication, liking, and communication satisfaction should be positively related. The current research did not support this theoretical perspective.

Although previous research on willingness to communicate (e.g. McCroskey et al, 1975) has supported the uncertainty reduction theory, it might not work well with groups because the theory does not fully consider the content of communication. For example, the groups in this study might have contained individuals who complained a lot. According to the willingness to communicate scale, they would have been characterized as high-talkers. But the chances are high that this type of talking would have had a negative influence on the group outcome.

Past research also indicates that the conversational skills of others are influential predictors of communication satisfaction with an interaction. Spitzberg and Hecht (1984) state, "If satisfying communication is a conversational objective,
then being other-oriented is probably the best strategy" (p.588). So perhaps it’s the "content of the talk" that influences group communication outcomes versus "frequency of talk."

Also contrary to predictions, the interpersonal variable of self-monitoring did not positively predict group attraction or group communication satisfaction. Unexpectedly, the "ability to modify self-presentation" was negatively associated with group attraction. As indicated by the results, it appears that the more these individuals adapt and alter their images, the less they are attracted to their groups. During group exercises, the more these individuals work at altering their images, the less they like their group. The same social style that prompted high self-monitors to initiate conversation in one-to-one situations did not lead to rewarding interactions in group situations, as Snyder (1987) had predicted.

The "sensitivity to expressive behavior” dimension of self-monitoring was not associated with either group attraction or satisfaction with group communication. Past research by Snyder (1987) found that high self-monitors tend to motivate others by showing them that their efforts will be rewarded. They accomplish this by encouraging others to cooperate, by setting clear goals, by being supportive, putting others at ease, and listening to others’ suggestions. It could be that individuals who were sensitive and cooperative with their group members were instrumental in helping the group achieve its goal. But because they did so much of the work, perhaps they didn’t feel as rewarded or satisfied as other members of their group.
As predicted, the interpersonal communication variable of loneliness mediated self-reported group communication satisfaction. The lonelier the individuals were, the less they were satisfied with the group communication. This finding supports previous research that found group members are likely to be satisfied if they are not lonely (Anderson & Martin, 1995). This finding also supports previous research that states lonely people are apprehensive and anxious about their communication and social interactions (Bell & Daly, 1985). They are less involved during interactions, and they tend to evaluate their abilities as communicators negatively (Bell & Daly, 1985). The current research broadens our understanding of how individuals who are lonely interact with others in group situations. It seems their communication orientation negatively affects their satisfaction when engaging in teamwork.

All in all, perhaps too many other confounding variables exist with groups that cloud the relationship between communication orientation and group attraction and satisfaction. For example, high talkers in the group might have a negative effect on group attraction and communication satisfaction. It could be that the talkers bear the burden in most group projects, and therefore do not enjoy group work as much as the other group members do. Or perhaps those individuals who talk the most during group exercises do not have a chance to get to know the other group members. They aren’t the listeners in the group, and therefore do not walk away with any sense of group cohesion or involvement. The person who dominates the communication process, in turn, may be less satisfied with the experience and less
attracted to the group in general. Perhaps the talkers don’t get much out of group work, and it is the listeners who enjoy and benefit more.

This talkative behavior could also negatively affect the group experience for other group members. If there were a person who dominated the group exercises and controlled the process without allowing others to feel a part, then the whole experience could be tainted in the other group members’ evaluations.

A final explanation for why communication dispositions that focus on frequent communication did not predict group outcomes could be attributed to the simplicity of uncertainty reduction theory. There seem to be too many other factors besides communication that affect group attraction and group satisfaction. Sunnafrank’s predicted outcome value theory (1986) seems to offer a better explanation for the current study’s findings.

The predicted outcome value perspective modifies the verbal communication-uncertainty relationship. This perspective is in general agreement with Berger and Calabrese’s (1975) expectation that uncertainty reduction and amount of verbal communication are positively related in the beginning phase of initial interactions. But the predicted outcome value perspective assumes that during initial interactions individuals attempt to acquire information about others to enable them to predict future outcome values. Uncertainty reduction allows individuals to form tentative judgments of the outcomes to be obtained from others and their likely future behaviors.

When associated predicted outcome values are positive, individuals should seek continued interaction to realize these outcomes. The more positive the
predicted outcome values, the greater the likelihood of attempted communication. When behavioral uncertainty reduction produces tentative judgments that future outcomes will be negative, individuals should attempt to terminate or restrict the interaction. The more negative predicted outcome values, the more likely these attempts. One method of attempting termination or restriction would be to reduce the amount of verbal communication (Sunnafrank, 1986).

The relationship between amount of verbal communication, uncertainty reduction, and predicted outcome value is summarized in the following two propositions that advance the uncertainty reduction axioms presented in the introduction of the current study.

Proposition 1: During the beginning stage of initial interactions, both the amount of verbal communication and uncertainty reduction increase. Further increases in amount of verbal communication occur when uncertainty reduction results in positive predicted outcome values, whereas decreases in amount of verbal communication follow from negative predicted outcome values (Sunnafrank, 1986, p. 15).

Proposition 7: When decreased uncertainty is associated with positive predicted outcome values, liking increases. When associated with negative predicted outcome values, liking decreases (Sunnafrank, 1986, p. 26).

The predicted outcome value offers an interesting explanation for the findings in this study. Again, it seems that the content of talk in group communication would be more predictive than the frequency of talk. If the content
is evaluated negatively by members of the group, then uncertainty does decrease but attraction decreases as well.

Perhaps the most provocative finding of this study is that group attraction increased after the students engaged in group exercises. Regardless of individual dispositions and communication preferences, once the students engaged in the group exercises and communicated with their group members, they liked their groups more. Although uncertainty reduction theory does not explain the relationship between self-reported individual dispositions and group outcomes, it does seem to support the notion that giving individuals an opportunity to communicate and work with their group members does increase their attraction to their groups.

Although not hypothesized in this study, another significant finding emerged: subjects who were not U.S. citizens were less attracted to their groups than U.S. citizens. One explanation for this finding is that Americans are more comfortable with team projects and group work based on the educational model in place in the United States. The students who were from Latin America (15% of the sample) might not be as comfortable engaging in group exercises with people they barely know.

**Pedagogical and Business Implications**

The findings in this study can be beneficial to pedagogical research. The first finding, that lonely individuals were less satisfied with group communication, can have profound effects in the university environment. In order to become part of the university community, students should become involved with campus and student organizations. Being a part of a club or organization requires effective team
and communication skills. If lonely individuals fail to become actively involved, they could become even more isolated and frustrated with the quality of their relationships. In the classroom, if lonely students continually have to engage in team projects with fellow classmates, they might become discouraged and develop a dislike for attending class. This could ultimately lead to poor grades and/or dropping out of school.

Characteristics that define lonely individuals can also have significant negative impacts in the business world. If people who are lonely enter into jobs that require teamwork, they could prohibit the company's success because of their dislike and lack of satisfaction with working with others. The other group members could be negatively affected as well. An unwilling or negative attitude can be detrimental to reaching goals, especially if other team members are dependent upon the lonely person. Conflict could be a result if other people's performance appraisals are contingent upon reaching team goals.

This finding can also benefit areas such as human resources and recruiting. If a battery of communication tests is given to job applicants and lonely characteristics are identified, the company could better match personality types with job positions. For example, as a result of advancements in technology, more opportunities exist for people to work out of their homes. Individuals who find it difficult to work in a team environment might be better fit for home-office jobs versus corporate America jobs.

The study's second significant finding, that group attraction increases after engaging in group exercises, also has pedagogical and business implications.
Businesses today need employees who can work well with others to pursue common organizational goals. University professors, particularly in the areas of communication and business, are encouraged to teach “teamwork” to prepare the next generation of students for the business world. But the question has arisen, how do you teach teamwork?

Most professors who employ teamwork do so with a final team project. This is adequate and beneficial, but the current findings suggest an alternative approach. If professors give the groups at least one class session to engage in group exercises, without the pressure of being graded, the students end up feeling more cohesive as a team and more positive about the group experience. They are allowed to practice their communication and team skills without the risk of being punished or penalized with a bad grade. Having accomplished goals with teammates and refined team and communication skills, the groups could ultimately perform better in the end when their grade counts.

This rational follows the well-known stages of team development: forming, storming, norming, performing (Tuckman, 1965). If educators introduce students to their groups in the beginning of the semester, it would allow them to form a group identity. Then the groups could be brought together later in the semester to engage in exercises that rely on communication and allow them to storm. Finally, the groups can spend the rest of the semester focusing on the final group project while developing team norms and ultimately performing. Perhaps students would enjoy group projects more and have increased confidence in their team skills. This would be beneficial to organizations that need employees with excellent team skills.
The study's third significant finding, the fact that non-U.S. citizens are not as attracted to their groups as are their American counterparts, can also be beneficial in the university environment. Educators should be aware that other cultures don't employ teamwork as often as we do. It might take the Latin American students a little longer to feel comfortable with group exercises and projects. This finding could also be beneficial to the training and consulting fields. When conducting seminars on communication and/or teamwork skills, trainers should engage the participants in team activities to overcome some of the resistance that exists with individuals who see themselves as non-team players or people who are from other cultures. Once people engage in exercises in which it's necessary to communicate, they will like each other more, and could ultimately be more satisfied with the learning experience.

Limitations

While the findings of this investigation are informative, several limitations must be acknowledged. The Southern, private university sample could be a weakness. Also, the sample in the current study consisted of students from business communication classes. Results obtained from this particular student population may not be fully generalizable to the rest of the population. And perhaps the higher education level enabled them to be more aware of communication styles and the importance of teamwork. Thus, they could have presented image management biases in their responses.

One aspect of these findings that differs from many conceptualizations of the impact of communication behavior on group outcomes is that respondents provided
self-perceptions rather than evaluations of others. It must be recognized that the
criteria we use when forming perceptions of ourselves may be distinctively different
from how we perceive others.

The group exercises chosen for this study could also be a limitation.
Subjects could have negatively evaluated the group exercises as “fun” and not
serious or related to the class. These perceptions could have negatively affected
their experiences.

Future Studies
To address the student population issue, future studies could investigate
interpersonal communication variables and their impact on group outcomes by
utilizing a different sample. Professionals who work full-time and are a part of in-
tact work teams could be used for the sample. Using these subjects could be
beneficial in two ways: a) the subjects would be working adults who face team
dilemmas frequently, and b) the group exercises would be eliminated entirely and
the subjects instead would fill out the questionnaires based on their experiences with
a real team they work with on a regular basis.

Future studies could also divide the sample into two groups. Both groups
would fill out the initial questionnaire at time one. Then only one group would
actually go through the intervention of group exercises at time two. Both groups
would then fill out the second questionnaire. This alternative design would give a
clearer picture as to whether the group exercises increased attraction or whether the
mere passing of time can attribute to increased group attraction.
Another suggestion for future studies that would address the "content" versus "frequency" of talk issue would be to tape-record the communication that occurs while individuals participate in group exercises. This would offer an opportunity to isolate "type of talk" and explore its relationship to group attraction and group communication satisfaction.

Finally, future research needs to explore the relationship of group communication satisfaction and group attraction. A post-hoc analysis revealed that group communication satisfaction was a significant predictor of group attraction. It seems that satisfaction with group communication is a better determinant of group attraction than interpersonal communication dispositions. More research needs to address this finding.

The relationship between the individual dispositions and initial group attraction also needs to be further addressed. The Pearson correlations revealed significant relationships between willingness to communicate, self-monitoring, loneliness and initial group attraction. But they didn’t predict initial group attraction when they were analyzed together in the multiple regressions. Future studies need to address this interesting finding.

In summary, the interpersonal communication variable of loneliness does impact group communication satisfaction. Individuals who view themselves as lonely are less satisfied with group communication. No relationships were found between willingness to communicate and the group outcomes of attraction and satisfaction. The self-monitoring dimension of "ability to modify self-presentation" was negatively associated with group attraction; but the dimension of "sensitivity to
expressive behavior” was not associated with either group outcome. Non-U.S. citizens were less attracted to their groups than U.S. citizens, and finally, participating in group exercises does seem to override individual dispositions. No matter what communication orientation people have, engaging in group exercises has a positive effect. They simply like each other more.
References


Appendix A
Description of Group Exercises

Exercise 1: Blindfolded Triangle

Steps for Researcher:

1. Divide the class into the groups they have been assigned to work on their group projects. (4-5 people each)

2. Give blindfolds and one long piece of rope to each group.

3. Ask each group to help each other put the blindfolds on.

4. Ask the groups to make an equilateral triangle.

5. When a team verbally comes to consensus that they have made an equilateral triangle, they may take off their blindfolds and observe other groups.

6. Hold a discussion on how each team communicated to reach the goal.

Exercise 2: Paper and Tape Building

Steps for Researcher:

1. Hand each team a roll of tape (any kind) and 50 pieces of paper.

2. Tell each group to make the best building possible with the resources allocated to them.

3. Give a time limit of 15-20 minutes.

4. After time is up, go around the room and ask each group how they defined “best building.”

5. Lead a discussion on the importance of setting goals and communicating them before you begin a project.
Appendix B
Survey of Communication

Please use a #2 pencil to record your answers to the following questions.
Your answers on this questionnaire are private and anonymous. Please record the survey number from this questionnaire for future purposes.

SECTION I
Below are twenty situations in which a person might choose to communicate or not to communicate. Presume you have completely free choice. Please circle on your scantron the number that represents the percentage of time you would choose to communicate in each type of situation.
You may choose a number anywhere between 0 and 100.

0 = NEVER 100 = ALWAYS

1. Talk with a service station attendant.
2. Talk with a physician.
3. Present a talk to a group of strangers
4. Talk with an acquaintance while standing in line.
5. Talk with a salesperson in a store.
6. Talk in a large meeting of friends.
7. Talk with a police officer.
8. Talk in a small group of strangers.
9. Talk with a friend while standing in line.
10. Talk with a waiter/waitress in a restaurant.
11. Talk in a large meeting of acquaintances.
12. Talk with a stranger while standing in line.
13. Talk with a secretary
14. Present a talk to a group of friends.
15. Talk in a small group of acquaintances.
16. Talk with a garbage collector.
17. Talk in a large meeting of strangers.
18. Talk with a spouse or significant other.
19. Talk in a small group of friends.
20. Present a talk to a group of acquaintances.
### SECTION II

Please use the following scale for the next items:
(1) Often (2) Fairly often (3) Sometimes (4) Rarely (5) Never

<table>
<thead>
<tr>
<th></th>
<th>Often</th>
<th>Fairly often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. I feel in tune with the people around me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22. I lack companionship.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. There is no one I can turn to.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. I do not feel alone.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. I feel part of a group of friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. I have a lot in common with the people around me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27. I am no longer close to anyone.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. My interests and ideas are not shared by those around me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29. I am an outgoing person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30. There are people I feel close to.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>31. I feel left out.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>32. My social relationships are superficial.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>33. No one really knows me well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>34. I feel isolated from others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>35. I can find companionship when I want it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36. There are people who really understand me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>37. I am unhappy being so withdrawn.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>38. People are around me but not with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>39. There are people I can talk to.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>40. There are people I can turn to.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
SECTION III
Please use the following scale for the following questions:

(1) Always  (2) Almost always  (3) Sometimes  (4) Not very often  (5) Never

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Almost always</th>
<th>Sometimes</th>
<th>Not very often</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>41.</td>
<td>In social situations I have the ability to alter my behavior if I feel that something else is called for.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>42.</td>
<td>I am often able to read people's true emotions correctly through their eyes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>43.</td>
<td>I have the ability to control the way I come across to people, depending on the impression I wish to give them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>44.</td>
<td>In conversations I am sensitive to even the slightest change in the facial expression of the person I am conversing with.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>45.</td>
<td>My powers of intuition are quite good when it comes to understanding others' emotions and motives</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>46.</td>
<td>I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>47.</td>
<td>When I feel that the image I am portraying isn't working, I can readily change it to something that does.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>48.</td>
<td>I can usually tell when I've said something inappropriate by reading it in the listeners' eyes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>49.</td>
<td>I have trouble changing my behavior to suit different people and different situations.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>50.</td>
<td>I have found that I can adjust my behavior to meet the requirements of any situation I find myself in.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>51.</td>
<td>If someone is lying to me, I usually know it at once from the person's manner of expression.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>52.</td>
<td>Even when it might be to my advantage, I have difficulty putting up a good front.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>53.</td>
<td>Once I know what the situation calls for,</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
it's easy for me to regulate my actions accordingly.

54. I feel that I like this group.  
55. I believe that I will like working with this group.  
56. I could get something accomplished with this group.  
57. I have confidence in the group's ability to get the job done.

<table>
<thead>
<tr>
<th>Strogly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Stroly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**SECTION IV**

**Demographic Information**

Please mark the appropriate response:

58. Sex:  
1 = Male  
1 = Female

59. Age:  

60. Year in College  
1 = Freshman  
2 = Sophomore  
3 = Junior  
4 = Senior  
5 = Graduate

61. Ethnic Origin:  
1 = Asian  
2 = Caucasian/Non-Hispanic  
3 = African-American  
4 = Hispanic  
5 = Other

62. Have you ever participated in team activities before?  
1 = Yes  
2 = No

63. If you've participated in team activities before, describe your experience:  
1 = Excellent  
2 = Good  
3 = Average  
4 = Bad  
5 = Horrible

64. Have you had formal communication training before?  
1 = Yes  
2 = No

65. Are you a U.S. Citizen?  
1 = Yes  
2 = No
Appendix C
Survey of Group Communication

Please use a #2 pencil to record your answers to the following questions. Your answers on this questionnaire are private and anonymous. Please use the following scale to answer the questions.

(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) strongly Disagree

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The other group members seemed to enjoy the group exercises.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Nothing was accomplished in the group exercises.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I would like to participate in more group exercises like these.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. The other group members genuinely wanted to hear my point of view.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I was very dissatisfied with the group exercises.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I had something else to do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I felt that during the group exercises I was able to present myself as I wanted the other group members to view me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. The other group members showed me that they understood what I said.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. I was very satisfied with the group exercises.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. The other group members expressed a lot of interest in what I had to say.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I did not enjoy the group exercises.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. The other group members did not provide support for what they were saying.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I felt I could talk about anything with the other group members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. We each got to say what we wanted.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I felt that we could laugh easily together.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

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16. The group exercises flowed smoothly.  
17. The other group members changed the topic when their feelings were brought into the group exercises.  
18. The other group members frequently said things which added little to the group exercises.  
19. We talked about something I was not interested in.  
20. I liked this group.  
21. I enjoyed working with this group in group exercises.  
22. I have confidence in the group’s ability to get the job done.  
23. I got something accomplished with this group.  
24. Please indicate your number from the first questionnaire.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td>24</td>
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</tbody>
</table>
### Appendix D

**Correlation Matrix**

<table>
<thead>
<tr>
<th></th>
<th>Willingness to communicate</th>
<th>Loneliness</th>
<th>Ability to Modify Self-presentation</th>
<th>Sensitivity to Expressive Behavior</th>
<th>Training</th>
<th>Citizenship</th>
<th>Initial Group Attraction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Willingness to communicate</strong></td>
<td>( r = 1.00 )</td>
<td>( p = .00 )</td>
<td>.31*</td>
<td>.00</td>
<td>-.31*</td>
<td>.27*</td>
<td>-.21*</td>
</tr>
<tr>
<td><strong>Loneliness</strong></td>
<td>.31*</td>
<td>1.00</td>
<td>-.26*</td>
<td>-.19*</td>
<td>-.01</td>
<td>.10</td>
<td>.26</td>
</tr>
<tr>
<td><strong>Ability to Modify Self-presentation</strong></td>
<td>.37*</td>
<td>-.26*</td>
<td>1.00</td>
<td>.55*</td>
<td>-.10</td>
<td>-.09</td>
<td>.22*</td>
</tr>
<tr>
<td><strong>Sensitivity to Expressive Behavior</strong></td>
<td>.27*</td>
<td>-.19*</td>
<td>.55*</td>
<td>1.00</td>
<td>-.03</td>
<td>.03</td>
<td>.25*</td>
</tr>
<tr>
<td><strong>Training</strong></td>
<td>-.20*</td>
<td>.02</td>
<td>.85</td>
<td>.25</td>
<td>.77</td>
<td>.74</td>
<td>.00</td>
</tr>
<tr>
<td><strong>Citizenship</strong></td>
<td>.03</td>
<td>.10</td>
<td>.30</td>
<td>.74</td>
<td>.15</td>
<td>.00</td>
<td>.81</td>
</tr>
<tr>
<td><strong>Group Com Sat</strong></td>
<td>.09</td>
<td>-.17*</td>
<td>-.06</td>
<td>-.02</td>
<td>-.17</td>
<td>-.16</td>
<td>.15</td>
</tr>
<tr>
<td><strong>Group Attraction (Pre)</strong></td>
<td>.24*</td>
<td>-.21*</td>
<td>.22*</td>
<td>.25*</td>
<td>-.00</td>
<td>-.02</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Group Attraction (Post)</strong></td>
<td>.18*</td>
<td>-.13</td>
<td>-.02</td>
<td>.04</td>
<td>-.17</td>
<td>-.18*</td>
<td>.36*</td>
</tr>
</tbody>
</table>

Note: * = significant correlations  
The top number is the \( r \) value, the bottom number is the \( p \) value
Vita

Michelle Kirtley Johnston grew up in various cities and states, starting in Alexandria, Virginia, stretching as far north as Detroit, Michigan, and as far south as Tampa, Florida. She currently resides in New Orleans, Louisiana, where she has found her home.

Michelle received her bachelor of arts degree in public relations and journalism from Auburn University. She then returned to Auburn University to obtain her masters degree in communication. After joining the communication consulting firm, Spectra Inc., based out of New Orleans, LA, she headed to Baton Rouge to earn the degree of Doctorate of Philosophy from Louisiana State University, specializing in interpersonal, group, and organizational communication.

Currently Michelle is a full-time faculty member of the College of Business Administration at Loyola University New Orleans. She teaches undergraduate and graduate courses in business and managerial communication. She is also a consultant with Spectra, Inc., where she specializes in helping companies reach their full potential through better communication.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Michelle Diane Kirtley

Major Field: Speech Communication

Title of Dissertation: The Influence of Interpersonal Communication Variables on Group Attraction and Group Communication Satisfaction

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

August 25, 1999