AN ANALYSIS OF THE IMPACT OF PSYCHOLOGICAL AND RELATIONAL DOMINANCE AND SEX ON HUMOR AND SOCIAL INTERACTION

by

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Abstract

This study examines the impact of psychological and relational dominance and sex on humor in social interaction. Psychological dominance was measured by the California Psychological Inventory (Gough, 1975), and relational dominance was assessed by coding messages for their grammatical and response forms to describe control direction of response (Rogers-Millar and Millar, 1979).

Eighty subjects were classified as high or low dominant males or females from their CPI scores. The subjects were assigned to groups of four that were balanced for psychological dominance and sex. Each group was videotaped discussing a problem for 15 minutes.

Judges coded an utterance as attempted humor when a subject invited laughter (Jefferson, 1979). Humor attempts were classified as being "successful", "polite", or "ignored". The purpose of humor was coded as establishing identities (target absent, target present, self), defining situations (accounts, social control, alternative definitions, reinterpreting past events), or other (Fine, 1983). The grammatical and response forms for each sequential message were identified for the five most and least humorous minutes in each interaction.

Analysis of the collected data yielded results for seven research questions.

1) There was a significant relationship between psychological dominance and sex and domineering statements made.

2) There was no significant relationship between psychological dominance and sex and complementary responses to domineering statements.

3) There was a significant relationship between the psychological dominance and sex of the respondant and source of nonhumorous domineering messages except when the source was a low dominant male. There was no significant relationship for successful, polite, or ignored humor.

4) There was no significant relationship between psychological dominance and sex and humor attempts.

5) There was a significant relationship between psychological dominance and sex and humor purpose as groups defined situations through accounts and alternative definitions.

6) There was no significant relationship between psychological dominance and sex and humor purpose.

7) Correlations were computed for paired variables. The relationship between dominance score and domineering statements was significant for all subjects and females, but not for males. All correlations between domineering statements and humor attempts were significant, but none was between dominance scores and humor attempts.

DEDICATION

To Edie, Kristin, and Eric

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Chapter I

An Introduction and Overview

Understanding the role of humor and laughter in human experience has been a concern of philosophers and social scientists from antiquity to the present. Of the theories and research that have come to comprise the humor literature, most have been concerned with identifying and examining the motives of humorists; the characteristics of targets who judge particular stimuli to be amusing; and the nature of humorous stimuli. While these orientations have provided valuable insight into the intrapsychic functions of humor, other aspects of humor have been less well investigated. For example, comparatively little attention has been directed toward humor as a communication variable in social interaction. Yet, most humor occurs in social settings, comments upon shared experience, and is integral to the ongoing communication.

From the broadest perspective humor is a widely diverse phenomenon that ranges from the physical action of pratfalls and practical jokes to intellectual witticisms and satire. While types of humor vary dramatically, they all share the characteristic of being "nonliteral communication which should produce amusement" (Fine, 1983a, p. 84). Specifically within social interaction humor occurs in the context of talk or conversation, and has as its intent the creation of laughter, smiling, or verbal appreciation of others. This type of social humor evolves from the situation and rarely occurs through formally structured jokes. While the humor that arises in social

situations emerges spontaneously and may appeal only to those who are involved in the interaction, its role in communication must be given serious consideration because it is a powerful rhetorical device that can be "deployed to sharpen, blunt, or alter meaning, particularly definitions of identities and situations" (Fine, 1983a, p. 84).

Key Terms in Humor Research

In order to investigate humor in social interaction key terms need to be defined. These terms include the humorist, those who respond to the humor, and the targets of the humor. The concepts of humor and wit are differentiated, and the reasons for describing laughter inducing stimuli in interaction as humor rather than wit explained. Humor terms that describe humorous acts that solidify groups and reinforce trust and friendship and those that alienate and separate people are defined. Finally incongruity is defined because it provides a conceptual frame that explains humor development.

Terminology from models of communication are used to describe the humorous interaction investigated in this dissertation. A person who attempts to make a humorous remark is referred to as the source or humorist, those who are present when the comment is made are receivers, and a target or butt is the object of the humorous utterance. A target can be absent, but if present the target may be either one of the receivers, all of them, or the source.

As a research topic humor has been operationalized in manners ranging from recording observable smiling and laughing behavior

(Pollio, Mers, and Lucchesi, 1972) to the rank ordering of jokes in terms of "funniness" (Godkewitch, 1972). Although studies have provided data regarding humorous human behavior, they have not addressed the issue of defining key terms and concepts in humor research. Of these concepts wit and humor especially need to be distinguished. The process of distinguishing between wit and humor is not an easy task for as Rapp (1949) noted nearly every investigation of wit and humor since Aristotle has attempted to distinguish between wit and humor and the issue has yet to be resolved. However this dissertation attempts to differentiate between humor and wit as well as to define other relevant terms.

A traditional method of differentiating wit from humor has been to investigate the etymology of the terms. In both Latin and Greek humor referred to "wetness", but the significance of the term as related to contemporary definitions of humor emerged from the beliefs of Hippocrates who argued that four fluids or humors: blood, phlegm, yellow bile, and black bile, circulated through the body and determined health and vitality and the physical and mental qualities of a person. By the Middle Ages humor began to describe "disposition" or temperament" as a more general description of a person's emotional state. In its most contemporary sense humor has continued to suggest "a particular disposition, fancy, whim or caprice," but also a "quality of action, speech or writing that excites amusement." Humor also implies "the faculty of perceiving what is ludicrous or amusing, or of expressing it in speech or writing" (Oxford English Dictionary, 1961, vol. 5, p. 452-453).

Having roots in Old English, Old Fresian, Old High German, and Old Norse, wit has traditionally referred to the seat of consciousness or the mind in general. As its meaning evolved wit more specifically described the faculty of thinking, reasoning, and mental capacity, and eventually good mental capacity, intellectual ability, talent and quickness. By the seventeenth century a relationship between wit and laughter was established as the term wit suggested "that quality of speech or writing which consists in the apt association of thought and expression, calculated to surprise and delight by its unexpectedness" (Oxford English Dictionary, 1961, vol. 12, p. 201-202).

As related to the broad category of humor wit is more closely identified with mental processes. Bergler's (1956) description of wit as "laughter with accent on intellectualism" (p. 67) establishes this distinction. In his comparison of wit and humor Freud (1928) divided wit into the broad categories of "harmless wit" and "tendency wit" (p. 691). Harmless wit included wit that existed for its own sake, while tendency wit permitted a source to express hostility or sexual desire in a subtle manner. Freud discussed humor as having qualities which make it fine and elevating and more worthy than wit because it represents the triumph of the ego through the "victorious assertion of its own invulnerability" (p. 217). Leacock (1937) also emphasized the more gentle nature of humor by describing it as "the kindly contemplation of the incongruities of life and the artistic expression thereof" (p. 11). By comparison wit is more verbal, artificial and deliberate than humor which is natural, spontaneous, and to be discovered in both

word and action.

When emphasis is placed on their differences, wit is relatively more intellectual, artificial, deliberate, and hostile than humor, but since wit and humor are both forms of communication which are intended to amuse, it would seem that distinctions between wit and humor are ultimately differences in degree and not in kind (Gruner, 1978). From a preliminary investigation by this author, and a telephone conversation with Goodchilds (1983) regarding her investigations of wits in groups, it would appear that a very small percentage of the humor in laboratory groups is hostile or aggressive, and that the humor that does occur emerges spontaneously from the situation rather than being artificial or deliberate. Thus, the laughter inducing stimuli investigated in this study will be referred to as humor rather than wit.

Other Relevant Terms

The humor literature is filled with a variety of terms that are synonyms for humorous communicative acts that help solidify groups and reinforce trust and friendship. Key terms which represent this type of humor share very similar definitions and include:

> Ribbing - to tease a person, to poke fun at, to josh (Dictionary of American Slang, 1975, 2nd ed., p. 426)
>
> Wisecracking - a bright, smart, witty or sarcastic remark; an impertinence or a joke, especially when it emphasizes another's shortcomings (Dictionary of American Slang, 1975, 2nd ed., p. 583)
>
> Jocular - disposed to joking or jesting, speaking or acting in jest or merriment (Oxford English Dictionary, 1961, vol. 5, p. 590)

Joking - something said or done to excite laughter or amusement, or to poke fun at (Oxford English Dictionary, 1961, vol. 5, p. 600)

Kidding - to hoax or humbug, trying to make [one] believe what is not true (Oxford English Dictionary, 1961, vol. 5, p. 690)

Mirth - gaiety of mind, as manifested in jest and laughter (Oxford English Dictionary, 1961, vol. 6, p. 490)

The terms defined above represent the affectionate supportive qualities of humor. However, humor can also be a tool which rather than fostering communication alienates and separates individuals or groups. When used in this extreme manner, humor becomes ridicule "which makes persons or things objects of jest or sport" (Oxford English Dictionary, 1961, p. 660). In his discussion of the conflict functions of humor Stephenson (1951) suggested that "irony, satire, sarcasm, caricature, parody, [and] burlesque" (p. 569) are means of creating conflict. The inclusion of these terms does not suggest that these forms of humor always create conflict, but only that they can.

Burlesque - a grotesque imitation of what is, or is intended to be, dignified or pathetic in action, speech, or manner (Oxford English Dictionary, 1961, vol. 1, p. 1189)

Caricature - grotesque or ludicrous representation of persons or things by exaggeration of their most characteristic and striking features (Oxford English Dictionary, 1961, vol. 2, p. 119)

Irony - a figure of speech in which the intended meaning is the opposite of that expressed by the words used; usually taking the form of sarcasm or ridicule in which laudatory expressions are used to imply condemnation or contempt (Oxford English Dictionary, 1961, vol. 5, p. 484)

Parody - a composition in prose or verse in which the characteristic turns of thought and phrase in an author or class of authors are imitated in such a way as to make them appear ridiculous...(Oxford English Dictionary, 1961, vol. 7, p. 489)

Sarcasm - a sharp, bitter, or cutting expression or remark; a bitter gibe or taunt (Oxford English Dictionary, 1961, vol. 9, p. 107)

Satire - a composition in which prevailing vices or follies are held up to ridicule (Oxford English Dictionary, 1961, vol. 9, p. 119)

The final term to be defined is incongruity because it provides a developmental structure from which humor appreciation is learned. The Oxford English Dictionary (1961) defines incongruity as "want of accordance with what is reasonable or fitting; unsuitableness, inappropriateness, absurdity" (vol. 5, p. 170). An event is perceived as incongruous when the arrangement of its elements is incompatible with the normal or expected pattern. The incongruity disappears only when the pattern is seen as meaningful in a previously overlooked manner. In humor the discovery of the unexpected meaning leads to release and laughter or smiling.

Humor as Communication

As a means of communication humor differs from serious talk in that it is more metaphorical and connotative, but it also depends on a unique relationship between the humorist and the receivers. While in serious communication a receiver is not expected to respond in an overt manner to the other's utterance; an attempted humorous remark does invite a response. If the response to the invitation to smile or

laugh is silence or a serious comment, the humor has not succeeded and the humorist has been somewhat rejected.

The non-literal nature of a humorous remark provides its source with the unique ability to make comments and not have others assume that these statements represent the humorist's real thoughts and feelings. The assumption that there is little relationship between the content of a jocular remark and the beliefs of its source grants the humorist a wide variety of targets upon which to comment while not having his/her personal views questioned. Particularly in the banter and teasing that occurs among friends a humorist can say many things and not offend a target because he/she is "only joking." In these instances the literal "meaning of humor is less than what it says" (Fine, 1983a, p. 86). The capacity to mean less that what was said arises because a humorous comment contains a dual message which includes both the specific content and a meta-message that the content is play, or not to be taken seriously (Bateson, 1972; Apte, 1985; Fry, 1963). While the specific characteristics of the meta-communicative elements that announce playful intent are not fully known, they seem to be indicated by a "vocal quality, a body movement or posture, a lifted eye brow" (Fry, 1963, p. 138).

While humor can mean less than its literal content, it may also have far greater meaning than the specific message. In such instances the full range of humor's meaning is comprehensible only in light of the social and cultural environment in which it occurs. It has been argued that the ability to decode a humorous metaphor represents the

capacity to understand the meaningful structure of the society in which it occurs, and in this manner humor means more than what it says (Douglas, 1968; Geetz, 1973).

As a communication strategy humor can aid in meeting a variety of interpersonal goals, but four seem to reflect its key functions. A source may use humor to: 1) facilitate the creation or maintenance of in-group solidarity; 2) provide a means of attacking or establishing superiority over others; 3) gain others' approval; and 4) deflect unwanted attention from past acts or statements (Giles, Bourhis, Gadfield, Davies, and Davies, 1972). Although humor may help achieve interpersonal goals, its true power rests in the ability to construct social reality by establishing identities and defining situations (Fine, 1983a).

The manner in which humor shapes identities will vary according to whether the target is absent or present and whether the humor is directed at others or the humorist. Some theorists have argued that humor allows its source and the receivers to feel superior to the target, but instances in which humor is used to establish an inferior identity for the target generally occur when the target is absent. When directed against a non-present target humor may be very explicit and overt and is limited only by the sense of propriety of those present.

When a target is present humor generally takes on a different tone. It can serve to reinforce social patterns and establish intragroup control, but it can also initiate and maintain friendships and relationships (Traylor, 1973; LeMaster, 1975). The good natured

teasing that occurs among friends creates a public persona, and acknowledges an acceptance of each other. The ability and willingness to participate in humorous repartee demonstrates that a person can take a joke. This is a characteristic that is crucial in developing interpersonal trust (Haas, 1972).

In some instances the target of humor is the humorist him/herself. In such cases the humorist is establishing a public identity which is shared with others for their enjoyment. The persona created by this humor is based not on aspects of the humorist's self which are critical to maintaining self concept, but on social roles which the humorist fulfills with varying degrees of success.

While humor can shape identities, it can also define, confirm, and solidify the meaning of past and present situations. Humor does not create the meaning, but it does provide unique interpretations of events. In redefining a situation humor can present accounts or justifications of past, present, or future actions. If an account is greeted with smiles and laughter the explanation has been accepted, but if an affirming response does not occur the humorist may need to provide further humorous or serious explanation of the behavior. Humor may also be used to structure situations by influencing the actions of others. As a means of social control humor may maintain formal organization hierarchies (Goodrich, Henry, and Goodrich, 1954; Coser, 1960; Bradney, 1957; Martineau, 1972), or temporarily define patterns of interaction (Fine, 1983a). Alternate definitions of reality can also be proposed by humor. These redefinitions may vary from

suggesting a new interpretation of another's behavior to a more intense restructuring of environments because the very survival of a group or society is in question (Obrdlik, 1942; Kogon, 1958; Arnez and Anthony, 1968). In these instances humor is used to lift morale and attack an oppressor.

In addition to negotiating the meaning of ongoing experiences humor can reinterpret past events. Such humor is not intended to simply direct current group behavior but to "provide meaningful direction for present or future behavior by analogy" (Fine, 1983a, p. 97) or through a revised history. Since past events may not have been experienced collectively, they can provide an idealized standard by which to interpret and react to current events.

Dominance in the Use of Humor

As a participant in a group or dyad a humorist has been characterized as a psychologically dominant, energetic person who has significant influence over the nature of the interaction (Dunphy, 1969; O'Connell, 1969; Goodchilds, 1972). The construct of dominance has been measured in a variety of ways. Bales (1970) described specific strategies that characterize a dominant person who is asserting him/herself in group interaction. For Bales the act of addressing a group as a whole is in itself an act of dominance, and is characteristic of either established leaders or those who are vying for more power. When addressing an entire group an individual does not wait for the silent attention of all the members, but will at a sufficiently quiet

moment raise his/her voice in order to be heard by all. A greater level of vocal volume is maintained throughout the entire time the person is speaking in order to discourage interruptions. Dominant speakers will also let their eyes continually rove over the entire group being careful to never pause sufficiently long enough on any individual to encourage the belief that that person is being directly addressed. Even when pausing to think, a domineering person will either look away from the entire group to prevent others from gaining his/her attention in order to interrupt, or he/she will use vocalized pauses to maintain the floor.

Other approaches to the investigation of dominance have been presented by relational communication theorists (Watzlawick, Beavin and Jackson, 1967; Erickson and Rogers, 1973; Rogers and Farace, 1975; Rogers-Millar and Millar, 1979). These theorists have developed a means of operationalizing power and dominance in relational communication. For them the act of asserting power occurs through the transmission of "one-up messages" or messages which claim to assert definitional rights, but this communication act or behavior only reflects being domineering. Dominance which is only temporarily achieved in a relationship occurs when others accept the behavior through the transmission of "one-down messages" or messages which confirm dominance. When a one-up message is responded to by another one-up message, the attempt at asserting dominance is rejected, and the structure of the relationship is to be negotiated. Message responses can also be "one across," these neutralizing or control leveling responses are attempts to continue an interaction with minimized effort

at controlling the relationship (Rogers-Millar and Millar, 1979).

While dominance can be measured as a behavior or the consequence of relational negotiations, it has also been measured as a psychological construct. In the California Psychological Inventory Gough (1975) equated dominant behaviors with aggressiveness, confidence, persistence, being strategic and persuasive, verbal fluency, self-reliance, independence, and leadership potential. When relating these behaviors to humor Salameh (1980) found that professional comedians are dominant, ambitious, aggressive, self confident, impulsive, and verbally fluent. Children who clown and joke have also been found to be more socially assertive and verbally and physically aggressive (McGhee, 1979). It appears that there is a relationship between the manifestation of humorous behavior and psychological dominance. While a similar relationship has not been established between interactional power or dominance and the use of humor, it seems that the act of humorously defining identities and situations is an attempt to assert dominance in an interaction.

Gender Difference in the Use of Humor

Investigations of differences in male and female behavior have characterized males as being more assertive and domineering than females (Deaux, 1976; Eakins and Eakins, 1978). These traits seem to be similarly manifested in the use of humor especially in mixed sex groups in that males typically create and use humor while females react to it (Eakins and Eakins, 1978; Middleton and Moland, 1959;

Pollio and Edgerly, 1976; Smith and Goodchilds, 1959). Since children initiate humor equally prior to the end of the preschool years (McGhee, 1979), it would appear that the greater male use of humor is related to learned sex role expectations regarding assertiveness.

Assertive and domineering behaviors also seem to be reflected in humor preference. From investigations of disparaging humor, or humor with a clearly defined aggressor and target, it is apparent that humor enjoyment is greatest when subjects hold positive attitudes toward the aggressor and negative attitudes toward the target. Since there are learned differences in male and female behavior it would seem that males would find humor funnier when females are the target, and females when males are the victim. While this is true for males and some females, other females prefer humor in which females are the target, and do so to the extent that they report female target jokes to be funnier than males do (Cantor, 1976). In reporting a similar pattern Zillmann and Stocking (1976) speculated that these differences occur because these females are less concerned with being assertive and infallible, and could therefore find enjoyment in humor regardless of the sex of the humorist or target.

It was not the intent of the previous discussion to suggest that males and females differ in their ablility to appreciate humor, or that males and females differ in their psychological orientation toward dominance, because all types of humor are prevalent in all female groups (Goodchilds, 1959; Fine, 1983a), and the California Psychological Inventory (Gough, 1975) reports no significant difference in male and female dominance scores. However, it does appear that there are

differences in humor style, appreciation, and frequency of initiation for males and females in mixed and same sex groups.

Humor and Group Interaction

Studies of humor in social interaction have occurred in a variety of settings. Of particular concern to this dissertation are those investigations that have focused on laboratory and naturally occurring small groups. The following discussion will define a group; present Bales' (1959, 1970) Interaction Process Analysis as a method of investigating group process; and review the literature regarding wits and humorists as small group members.

A summary of small group research is a difficult task because there is little agreement on significant issues including the definition of what constitutes a group. A widely accepted definition of a group was proposed by Bales (1950) when he suggested that a

> "group [is] any number of persons engaged in a simple face to face meeting or a series of meetings in which each member receives some impression of each other member ... as an individual person, even though it is only to recall that the other person was present" (p. 33).

Although this definition emphasizes member perception in defining a group; other characteristics that have also been suggested as being significant in defining small groups. These qualities have included: personal motivation such as being rewarded by group membership (Bass, 1960); attaining group goals (Mills, 1967); organizational characteristics (McDavid and Harari, 1968); and interdependence (Lewin, 1951;

Fiedler, 1967; Stogdill, 1959).

In reviewing these varied descriptions of group characteristics Shaw (1981) acknowledged the value of each for pointing to and delineating some important aspect of the group. However, he also noted that each definition focused on different facets of a group and none presented a comprehensive definition. In his analysis member motivation accounted for the "formation" of a group; and when people genuinely sense that they are members of a group organization, patterns will occur that permit the emergence and formation of roles, statuses and norms that structure group organization to help attain goals. Having argued that none of these aspects is either necessary or sufficient to define a group, Shaw proposed a minimal definition of a group as "two or more persons who are interacting with one another in such a manner that each person influences and is influenced by each other person" (Shaw, 1981, p. 8). While the size of groups in these investigations has varied, most small group studies have involved groups of five or less. Following their formation groups continue to develop as they mature. During development the issues of organization, status, role relationships, norms, and power are negotiated in the group. The developmental stages that a group undergoes seem to follow consistent patterns including phases of orientation, the resolution of issues of authority and personal relations, and productivity (Shaw, 1981; Bales and Strodtbeck, 1951; Bennis and Shepard, 1956).

Procedures for analyzing ongoing group process have emerged from a variety of theoretical orientations that have ranged from investigating individual group members' views of themselves as they

relate to task and fellow group members (Sergiovanni, Metzcus, and Burden, 1960; Pfeiffer and Jones, 1969) to an assessment of group members' responses to each other (Halpen and Winer 1957; Patton and Giffin, 1978), or an analysis of group members' behavior by nonparticipant observers (Bales, 1970).

Since the methods devised by Bales are most closely related to the methodological concerns of this dissertation, Bales' Interaction Process Analysis is discussed in greater detail. For Bales the analysis of the interaction process rests on a "simple common-sense base" which assumed that much of what "one intuitively believes about everyday conversation" can be confirmed through observation, and that by "more systematic investigation the basic attitudes of people, their personalities, and their position in the group can be understood" (Bales, 1970. p. 95). This systematic investigation consists of categorizing the verbal and nonverbal behavior or "acts" of group members into 12 categories.

Bales defined an "act" in two ways. An act can be defined as "a communication or an indication, either verbal or nonverbal, which in its context may be understood by another member as equivalent to a single simple sentence" (Bales, 1970, p. 680). By grammatical definition a simple sentence may be declarative, interrogative, imperative or exclamatory; and it should provide a complete thought to which the person addressed may make a reasonable reply or reaction. However, from an interactional perspective an act is defined "as a communication or indication sufficiently complete to permit the other person to

interpret it and so react in relation to its context and to the speaker" (Bales, 1970, p. 68). Bales found the more vague interactional definition to be more valuable because it allows fragmentary communication to be coded.

Bales' 12 categories were created to identify and record the nature and not the content of each ongoing act in an interaction. Of the 12 the second Dramatizes and the eleventh Shows Tension are most directly related to the investigation of humor in groups. The other ten categories include:

1) Seems Friendly or any act which shows hospitality; demonstrations of affection; urgings of unity; expressions of cooperation; being protective; encouraging, or reassuring; complimenting or congratulating; exchanging objects; being appreciative or submissively friendly, or grinning with pleasure or smiling at another.

3) Agrees or any act which shows accord, concurrence, or assent about facts, inferences, or hypotheses.

4) Gives Suggestions is defined by Bales (1970) as "direct attempts to guide or counsel or prepare the other for some activity, to prevail upon him, to persuade him, exhort him, urge, enjoin, or inspire him to some action, by dependence upon authority or ascendence rather than by logical inference" (p. 111). Suggestions must be neutral rather than positive or negative in tone.

5) Gives Opinion involves any act that involves a moral obligation, offers a major belief, or value; or indicates adherence to a policy, or guiding principle. These opinions are based on inference or value judgment.

6) Gives Information includes acts reporting factual or potentially verifiable observations or experiences.

7) Asks for Information reflects acts that request a factual report. For Bales this category includes requests for a "descriptive, objective type answer, an answer based on experience, observation, or empirical research" (p.119).

8) Asks for Opinions are acts that seek inferential interpretation, a statement involving beliefs or values, a value judgment, or a report of one's understanding, or insight. A request for a diagnosis or a situation, or reaction to an idea.

9) Asks for Suggestions includes open ended requests for guidance in the problem solving process. These acts are neutral in tone and attempt to turn the initiative over to another.

10) Disagrees involves any initial act in a sequence that rejects other's statement of information, opinion, or suggestions. For Bales (1970) "the negative feeling conveyed is attached to the content of what the others have said, not to them as a person" (p. 123).

12) Seems Unfriendly is reflected in acts that are personally negative, and are not content oriented. They may include slight signs of negative feelings, attempts to subjugate others, or to judge another's behavior. The act may override, interrupt, deflate, depreciate, disparage, or ridicule.

Most instances of humor are coded in the second category Dramatizes. This category reflects any act that emphasizes hidden meanings, emotional implications, or is self-revealing about a person. Frequently such acts include jokes or stories "with a double meaning" (Bales, 1970, p. 108) in which emotional feelings about a person are expressed. These behaviors may occur as nonverbal expressions of amazement, surprise, fear or anger, and the double meaning in the dramatization may arise from an expressed opinion which contains overtones of partially hidden emotional feelings. For Bales the joke is a very common form of dramatization in a group interaction. "The joker expects, although perhaps not always too clearly, to produce a shock or recognition of the hidden meaning to provoke a laugh, a sudden release or display of tension." The concept that is offered by the humorist is emotionally charged, but by the time the laughter is over

he/she "can not be held guilty alone since whoever laughs has also admitted the hidden truth" (Bales, 1970, p. 108).

In addition to jokes that trigger a sudden explosion of laughs, there are stories that are meant to have a more delayed impact. Many stories and anecdotes are intended to amuse and entertain by eliciting interest and enjoyment, or by dealing playfully and in a prolonged manner with a theme. While these narrations are not task oriented, they do fulfill a serious psychological function by providing feelings of "cheerfulness, bouyancy, satisfaction, contentment, enjoyment, relish, zest, enthusiasm, pleasure, delight, joy or happiness [or] any indication that the member is thrilled" (Bales, 1970, p. 108).

The impact of laughter on a group is discussed in the eleventh category, Shows Tension. Data coded in Shows Tension reflects any act that exhibits conflict between submission and nonconformity, and yet does not clearly show negative feelings toward another person. For Bales showing tension includes "signs of anxious emotionality [that] indicate a conflict between acting and withholding action," or minor outbreaks of reactive anxiety may occur, such as appearing "startled, disconcerted, alarmed, dismayed, perturbed or concerned" (Bales, 1970, p. 124). Of special concern in this category is a type of laughter that Bales describes as being "a sudden escape into motor discharge of conflicting emotional states that can no longer be contained" (p. 125). On the surface laughter may seem to indicate reduced tension, and it may partially reduce tension. However, it would appear that some laughter is a more dependable sign of the existence

of tension rather than a sign of its reduction. This laughter is not pleasant laughter, but embarrassed, or tense laughter (Bales, 1970; Patton and Giffin, 1978).

In his discussion of the Dramatizes category Bales (1970) noted the frequency with which group members attempted to produce a shock or recognition of meaning, or provoke laughter or a sudden release of tension with a joke. When this behavior occurred the members would often enter into a short period of "group dramatization," joking and laughing before returning to "the more serious task oriented part of the session" (Bales, 1970, p. 108). Such dramatized instances will normally have occurred in 5.7 to 7.4 percent of the group interaction. During these periods of dramatization "a kind of hidden work is being done" (Bales, 1970, p. 108) which helps create a social reality for the group, and provides an insight into the group's culture, motivation, emotional style, and cohesion. The creation of this social reality occurs within group fantasies. For a group or an individual fantasies are a mode of psychological action that does not have the same restraints as more consciously controlled forms of thought. These fantasy actions mean not only what appears on the surface, but they also permit the expression of the underlying emotions which gave rise to the fantasy (Bales, 1970).

Group fantasies consist of characters, either real or fictitious who play out a dramatic situation in a setting removed in time and space from the here-and-now transactions of the group. While these fantasies are differentiated from the current group experience, the fantasy is often actually a mirror of the group's existing situation,

and its relationship to the outside environment. The fantasies may symbolize role collisions or ambiguity, a leadership conflict, or a problem related to the task dimension of the group.

Bales' research was not only concerned with interpersonal behavior, but with personality as well. He described 26 personality types which were presented as existing within a sphere. From a center point direction can be measured upward or downward; positive or negative; left or right; and forward and backward. An upward personality is outgoing or ascendent, and a backward personality is unconventional. For Bales the upward-backward personality is a group member who most frequently initiates dramatizations and humor. This person is nontask oriented, often unconventional, or even deviant. He/she "is neither clearly friendly nor unfriendly, but entertaining, joking, dramatic, relativistic, free in his associations, taking pleasure in play, activity, novelity, and creativity....Life is more a festival than a workshop for moral discipline" (Bales, 1970, p. 245). When telling jokes or stories a humorist will present cues that indicate that jokes or other dramatization techniques are being utilized. In such instances the humorous member seems to suddenly think of a story and volunteers it on little pretext. The person may seem to be emotionally caught up in the event and shade or tone his/her voice for effect, or even act out the part physically.

A group member who choses to use humor may do so to enhance his/her self image, to feel more attractive and powerful, or to discharge aggression, or dispel anxiety, or give indirect suggestions, and may

be unaware of the extent to which dramatization is being employed (Bales, 1970). Group members who are involved with the humor by listening may also become involved in the interplay of emotions. While they may be conscious that their feelings are very mixed or that they are resentful of being pulled along indirectly, the listeners may be unable to change the modality or the emotional tone of the interaction (Bales, 1970).

In describing the impact of humor on a group other investigators have concluded that witty members have high status in a group, are very involved in the group activities, and tend to be dominant (Dunphy, 1969; O'Connell, 1969; Goodchilds, 1972). Other group members are generally positive about group wits who have been described as "likeable", "helpful", "enthusiastic", "influential", and "less worried" (Goodchilds, 1972, p. 182); and in distinguishing between "clowning" and "sarcastic" wit Smith and Goodchilds (1959) found that "sarcastic" or aggressive wits are viewed as being more influential than "clowning" wits. Groups with wits report greater satisfaction with the group experience, are more efficient, and have more correct scores for problems with specific answers than do groups without wits (Smith and Goodchilds, 1963).

Smiling, Laughing and Humor

While humor has been measured and investigated in empirical studies, it often has not been consistently defined or operationalized. A frequent assumption in humor investigations is that humor can be measured by the presence of smiling and laughing. Certainly a genuine

response to humorous stimuli frequently is laughter or smiles, but the same responses can also be indicative of feigned or polite reaction to stimuli that are not humorous. While no direct relationship has been established between humor and smiling and laughing, investigations by ethnomethodologists and studies of nonverbal reactions have described patterns which characterize invitations to laughter, and distinguished between felt and feigned smiles.

Jefferson (1979) described laughter as a "managed" (p. 93) interaction in which a humorist invites laughter which can be accepted or declined. A humorist can invite laughter by beginning to laugh during an utterance, immediately after the statement, or after a brief pause. If the invitation is accepted receivers will begin to laugh voluntarily at a legitimate place or when the source begins to laugh, but when declining the invitation to laugh a person will remain silent or begin serious conversation about the topic.

In an elaborate analysis of smiling behavior Ekman and Friesen (1978) were able to distinguish real from feigned smiles and laughs. They found that in a particular smiling pattern the "lip corner puller," in which the lip corners are pulled obliquely up and back and the furrow running from nostril to lip corner deepens correlates with self reports of happiness. Others have found that as responses to humor, genuine laughter and smiles begin either with the utterance or within one second of source laughter; felt smiles without laughter are spontaneous and symmetrical and will last no longer than 4.0 seconds; and that smiles and laughter that occur after explanation or a time

delay of more than one second are polite laughter and smiles and will differ from those which are genuine (LaFrance, 1983).

Statement of the Problem

Given Fine's (1984) contention that humor is used to define identities and situations; observations that males use humor, especially in mixed sex groups to assert themselves (Middleton and Moland, 1959; Pollio and Edgerly, 1976; Smith and Goodchilds, 1959; Eakins and Eakins, 1978); but that females use all types of humor in same sex groups (Goodchilds, 1972); and the description of people who use humor as being more psychologically dominant (McGhee, 1979; Salameh, 1980) some interesting questions arise.

1. Is there a significant relationship between psychological dominance and sex and attempts at relational dominance?
2. Is there a significant relationship between psychological dominance and sex and responses that confirm dominance?
3. Is there a significant relationship between psychological dominance and sex and humor attempts?
4. Is there a significant relationship between the amount and type of humor and psychological dominance and sex in small group interaction?
5. Is there a significant relationship between psychological dominance and sex and responses to nonhumorous and humorous messages?

Methodology

In order to answer the questions raised above and in formal

hypotheses presented later, the following procedures were used in this study.

Subjects: Subjects were selected from students who were enrolled in the Introduction to Human Communication class at Central College, Pella, Iowa.

Measures of Dominance: All students in the class had completed the Dominance (Do) scale of the California Psychological Inventory (Gough, 1975, see Appendix A) which requires responding to a series of true/false statements. The median Do scores for female and male subjects were computed and used to divide subjects into high dominant females (HDF); high dominant males (HDM); low dominant females (LDF); and low dominant males (LDM) as in a procedure used by Bohn (1965). Eighty (80) subjects were placed in 20 groups of four using the following distribution pattern. There were two groups using each pattern.

Pattern I (All Male Groups)
1. HDM, HDM, HDM, HDM
2. HDM, HDM, LDM, LDM
3. LDM, LDM, LDM, LDM

Pattern II (Mixed Sex Groups)
4. HDM, HDM, HDF, HDF
5. HDM, HDM, LDF, LDF
6. LDM, LDM, HDF, HDF
7. LDM, LDM, LDF, LDF

Pattern III (All Females Groups)
8. HDF, HDF, HDF, HDF
9. HDF, HDF, LDF, LDF
10. LDF, LDF, LDF, LDF

While there are more possible combinations for groups than those proposed, it seemed that other sex role variables would have arisen in

groups in which there is one male and three females or three males and one female, and thus these possible groups were eliminated. The choice was made to balance males and females so that there were at least two members of one sex in each group.

In addition to the self-report measures of dominance in the California Psychological Inventory dominance was coded as it emerged in ongoing message exchanges in communication transactions (Rogers and Farace, 1975; Rogers-Millar and Millar, 1979). In this analysis procedure messages are coded according to their grammatical form: assertion, question, talk-over, incomplete, and other; and response form: support, nonsupport, extension, answer, instruction, order, disconfirmation, topic change, initiation-termination, or other. Messages are coded as being "one-up", a statement that asserts dominance; "one-down", a message that defers dominance; or "one-across", a statement that minimizes the effort to control the relationship. The ongoing negotiation of dominance occurs as the result of the control direction of a response to a preceeding message. Selected periods of interaction from each group will be analyzed as evolving communication transactions.

Group Task: In an attempt to facilitate as much natural interaction as possible, the groups were given a relatively innocuous task. Each group had 15 minutes to develop a group answer for the following problem:

> "You are marooned on a desert island with no immediate hope of rescue. You are allowed to take with you three and only three things. What will you choose to take?" (Goodchilds, 1959).

The Dependent Measure: Data regarding the amount of humor in the groups and the effect of the humor were collected by videotaping each group interaction. The videotapes were evaluated by three trained raters who used tally forms (See Appendix B). Attempts at humor were coded by laughing/smiling responses as being "genuinely accepted," "politely accepted," or "ignored". All humor attempts were categorized regarding the purpose, the respondent following the laughter, and grammatical and response categories for the humorous remark and the statement following the laughter. In order to compare the grammatical and response categories for humorous remarks with non-humorous comments, all statements in the five most and five least humorous minutes in each group interaction were coded for their grammatical and response forms. Appropriate statistical analysis techniques were used to compare these categories with subject sex and dominance scores.

Dissertation Overview

The succeeding chapters in this dissertation are organized in the following manner in order to investigate the impact of dominance and sex on humorous interaction.

Chapter II reviews the major theoretical explanations of humor. Following a discussion of physiological change induced by humor, there is a review of the superiority, relief-from-restraint, and incongruity theories of humor. An examination of a theory of humor development in children is presented in support of incongruity theory.

In Chapter III the role of humor in social interaction is investigated. After a discussion of the social psychological contributions to humor research, a symbolic interactionist view of humor as a means of creating identities for self and others and of defining situations is presented. The characteristics of a humorist, the role of status, the relationship of smiling and laughing to humor, and a method of analyzing ongoing interaction are also examined.

Chapter IV presents the methodology and procedure used in this investigation. In the first section subject selection, a means of establishing dominance and group assignments; and videotaping techniques, are discussed. Then humorous and nonhumorous segments of the videotapes are analyzed to investigate the correlations between psychological and relational dominance behaviors, and the response patterns of group members. The data from the interaction analysis of the tapes are analyzed statistically in order to compare high and low dominant male and female interaction styles and responses to nonhumorous statements, successful humor, and humor attempts coded as "polite" and "ignored" with a chi square test (Morrison, 1982, p. 247). Correlations between humor and domineering strategies are established using nonparametric correlation procedures including Spearman's rho and Kendall's tau (Morrison, 1982, p. 185).

Chapter V reports the results of the statistical analysis, and Chapter VI presents a concluding discussion and recommendations.

Chapter II

Traditional Theoretical Explanations of Humor

For more than twenty-five centuries philosophical speculation and empirical investigation have attempted to delineate the essential characteristics of humor and describe the nature of those who create and appreciate it. The resulting literature has yielded physiological and psychological descriptions of the humorist, the audience, and the characteristics of laughter-inducing stimuli as independent variables in the humor process. Although these characteristics are important, humor is more than the sum of these variables since it emerges in a context and fulfills social functions. This chapter begins by reviewing the literature that describes humor as a physiological or psychological occurrence, a phenomenon occurring in a social context, and concludes with a discussion of a unifying perspective of humor theory.

The Physiological Aspects of Humor

Historically the study of humor as a physiological phenomenon was rooted in an assumption that laughter served an adaptive physical function, and was an important and natural part of maintaining balance in the nervous system. Laughter was characterized as being good for the body because it stimulated circulation, facilitated digestion, restored homeostasis, and produced a general sense of well being (Keith-Spiegel, 1972), but more significantly it was believed to be a "safety-valve" (Spencer, 1860, p. 395) or a means of releasing

excess "psychic energy" (Freud, 1938, p. 773) which would accumulate in the nervous system.

Contemporary neurophysiological explanations of humor are best exemplified by the views of Berlyne (1960, 1969, 1972) who noted that the concept of laughter releasing excess energy is inconsistent with current knowledge of the nervous system, but that "laughter seems clearly to be capable of a cathartic effect" (Berlyne, 1972, p. 52). For Berlyne (1972) humor is a unique occurrence in that "it can hardly be mistaken for anything else" (p. 44). However humor does possess qualities that are shared with other physiological phenomenon such as curiosity and exploratory behavior, play, and art because of their common association with pleasure, and the sources of pleasure. Pleasure can be stimulated by sexual, scatological, or hostile material; things which cause fear; or even basic needs such as hunger when it results in jocular remarks about food. While the precise role of these stimuli in causing pleasure was unclear for Berlyne, he was convinced that some pleasure would inevitably come from structure, or "collation or interrelation of stimulus elements, thoughts, and items of information" (Berlyne, 1972, p. 44). The pleasure experienced from these arousal changes depends upon the outcome of comparing comparable past experiences with present stimuli. Novelty, complexity, incongruity, and redundancy are discussed as important stimulus elements in these "collative" variables (Berlyne, 1972, p. 45-46).

Berlyne believed that humor investigations must be concerned with the relationship between pleasure and arousal change. He argued that arousal changes occurring in response to humorous stimuli are

related to two types of arousal mechanisms which correlate with pleasure in general. They are: (1) an arousal "boost" mechanism which contributes to enjoyment by elevating arousal to moderately high levels which are enjoyable in themselves; and (2) an arousal "jag" which occurs when arousal reaches a very high level and then is sharply reduced. The reduction produces pleasure because the arousal is sufficiently high to cause aversion.

This position seems to describe arousal's relationship to humor appreciation as an inverted - U. If both the arousal boost and jag operate in humor, then progressively greater levels of arousal should initially be associated with increases in enjoyment, but when arousal becomes sufficiently high to cause aversion, then further increases will reduce enjoyment.

Wilson (1979) criticized this position by arguing that if the punch line of a joke is associated with a sharp reduction of arousal, the arousal jag mechanism will actually lead to increases in pleasure as arousal levels rise. Wilson suggested that a positive linear relationship exists between arousal level and humor appreciation and that the arousal boost mechanism alone can produce this relationship.

Investigations of physiological correlates with humor appreciation have supported the contention that the arousal boost mechanism best explains the relationship between arousal and humor appreciation. Results obtained from measurements of heart rate (Godkewitsch, 1976; Langevin and Day, 1972); galvantic skin response (Averill, 1969; Godkewitsch, 1976; Langevin and Day, 1972); muscle

tension (Spencer, 1860; Chapman, 1973, 1976); respiratory changes (Fry and Rader, 1977; Spencer, 1860; Svebak, 1975, 1977); and brain wave changes (Svebak, 1982) support a positive linear relationship between arousal and degree of humor appreciation.

Since increased levels of arousal have been observed in other stimulating experiences including aesthetic appreciation and problem solving, when specifically relating arousal to humor, Berlyne (1972) proposed that arousal induced by humor differs from other intellectually arousing experiences because of a unique arousal dimension and certain cognitive factors. He argued that there is a difference in the "time scale" between humorous and non-humorous arousal changes in that in jokes there is a prolonged expectation of the punchline during which arousal increases slowly, and then "the humorous configuration appears suddenly and is over quickly" (Berlyne, 1972, p. 55). However, many humorous stimuli, such as captionless cartoons, do not depend upon prolonged expectations (Pitchford, 1960).

Berlyne further argued that humor depends on extreme divergence from what is expected while other psychological experience such as art appreciation or exploration are more satisfying when there are less radical deviations from what is known. Humorous situations also seem to contain cues which indicate that the events involved are not to be taken seriously. Others such as Bateson (1956, 1972), Fry (1963), Rothbart (1973), and McGhee (1972) have made similar observations. Specifically, Rothbart's (1973) work with young children has demonstrated that "arousal increases in any size will be accompanied by pleasurable affect when they are associated with the subject's

judgment that the situation is a 'safe' or nonthreatening one" (p. 251).

Regarding the relationship between arousal and humor it appears that arousal boosts are sufficiently pleasurable so that human beings will seek out the events which produce them. However, humor is only one of the sources of this type of pleasure, so while arousal explanations do contribute to an overall understanding of humor, they do not provide a unique means of differentiating humor from other physiological experiences.

The Psychological Aspects of Humor

Superiority Theories

One of the earliest and most enduring explanations of humor and laughter has stressed that humor provides an opportunity to feel superior or to triumph over others. Both Plato and Aristotle argued that laughter arises in delight in the sufferings of others. In Philebus Plato (1952) presented a theory of humor in which delight in others sufferings produces both pleasure and pain. He described the ridiculous as a misfortune which is based on a lack of self-knowledge. In the weak this ignorance of self is ridiculous, but in the powerful and strong it is to be despised. While Plato found the pleasure of laughing and rejoicing at the ridiculousness and misfortune of enemies to be appropriate, when such laughter is directed at friends' misfortunes, it is malicious gloating and is ultimately painful for those who laugh.

While Plato was concerned with the moral appropriateness of humor, Aristotle was interested in the source of humor. In the Poetics (1952) he noted that "the ludicrous is merely a subdivision of the ugly. It may be defined as a defect or ugliness which is not painful or destructive" (p. 683). In Nicomachean Ethics (1952) Aristotle did distinguish between witty humor or joking "in good taste," and malicious humor which he found to be aesthetically undesirable. He found "those who go into excess in making fun appear to be buffoons and vulgar, sticking to their joke at all hazards, and aiming rather at raising a laugh than at saying what is seemly and avoiding pain to their butt" (p. 375).

The most influential of the superiority theorists was Thomas Hobbes, who envisioned laughter as being caused by "sudden glory" which occurred when the perceived infirmities of others could be compared to the "eminency" of the self.

In his Treatise On Human Nature (1930) Hobbes stated that

> the passion of laughter is nothing else but sudden glory arising from a sudden conception of some eminency in ourselves, by comparison with the infirmity of others, or with our own formally: for men laugh at the follies of themselves past, when they come suddenly to remembrance, except they bring with them any present dishonor (p. 34).

This position was reiterated in the Leviathan (1952) when Hobbes claimed "Sudden glory is the passion which maketh those grimaces called laughter..." (p. 63).

As with Plato and Aristotle, Hobbes believed that the weaknesses

and vanities of others are the source of humor, but he differed from them regarding who would laugh at whom. While Plato and Aristotle believed that the pretentious, defective, and ugly would be targets of laughter for the strong and powerful, Hobbes contended that it is the imperfect and weak who laugh at those who are even less fortunate. In the Leviathan Hobbes (1952) reasoned that people who "are conscious of the fewest abilities in themselves; who are forced to keep themselves in their favor by observing the imperfections of other men" (p. 63) are the ones who laugh at others.

Others have partially used or modified the concept of superiority in explaining humor. Keith-Spiegel (1972) suggested that some of the other views of humor based on superiority approaches include "pleasure in out-stripping one's competitors;" "joy of getting another at a disadvantage;" "delight in the suffering and misfortune of others;" or in their "ugliness, deformity or mental afflictions;" and "amusement at the stupid actions of others"; and "elation in triumph or victory" (p. 7). Of these "elation in triumph or victory" has had significant theoretical impact as a means of explaining the origins of humor as emerging through triumphant laughter (Leacock, 1935; Rapp, 1951). Leacock (1935) found that

> Laughter originated then, it would seem, long before our speech as a sort of natural physical expression, or outburst, of one's feeling suddenly victorious. It was a primitive shout of triumph. The savage who cracked his enemy over the head with a tomahawk and shouted 'Ha Ha" was the first humorist (p. 8).

Rapp (1951) also reasoned that wit and humor emerged from the "roar of triumph in an ancient jungle duel" (p. 21).

While humor has been described as a means of claiming superiority, a more significant function has been attributed to humor as means of social control. For Bergson (1911) laughter is the social laughter of the group, and the laughable is the "mechanical encrusted upon the living." The origin of laughter rests in the need for continual adaptibility because "what life and society require of each of us is a constantly alert attention that discerns the outlines of the present situation, together with an elasticity of mind and body to enable us to adapt ourselves in consequence" (p. 18). When societies become inelastic, there is a general sickness and infirmity which can be corrected by laughter. For Bergson laughter is perceived as a corrective tool or a "social gesture" which, through the fear it inspires, restrains "eccentricity" (p. 20) and punishes unsocial persons.

Those who have subscribed to superiority theories of humor have also claimed that laughter is not always scornful, but that it can arise from congeniality, sympathy, or empathy. Bain (1888) believed that a cause of humor is triumph over or degradation of a foe, but in many situations the degradation is modified or "as it were oiled" because of an element of the "genial or loving" in humor. This laughter reinforces the collective "we" which emerges in a congenial atmosphere after activity "when our work [is] done," and "we need to let off steam" (Bain, 1888, p. 198). Gregory (1923) agreed that

> the germ of amusement is satirically lodged in the laughter of triumph or scorn, but triumphant or scorning laughter is very different from pure laughter at the ludicrous.... The detachment of the amusing from its satrical connerion [sic.] with superiority or contempt is to find the humanisation [sic.] of laughter and the final achievement of humor (p. 332).

Technically William McDougall's (1923) explanation of laughter and its causes was not based on superiority. However, it shares a common assumption that the misfortunes of others provide the basis of laughter, and his explanation presents further insight into the function of humor and laughter in society. For McDougall laughter is not to be perceived as derisive or degrading, but rather as an antidote to sympathy. He believed that smiling and laughter must be differentiated, and that only smiling is a sign of pleasure. Laughter occurs only in situations that might otherwise be unpleasant because of feelings that would arise if people sympathize with all the misfortunes of others. For McDougall, if people dwell excessively on others' problems they will become neurotic, and thus, laughter is an antidote for sympathetic feelings. He concluded that "the perfect happy man does not laugh, for he has no need for laughter" (p. 170).

One contemporary humor theorist has been an advocate of superiority as an explanation for humor and particularly of the Hobbesian position. Gruner (1978) stated that Hobbes' explanation is "the most useful" for explaining the phenomenon of laughter. He agreed with Hobbes that the words "sudden" and "glory" represent the key elements needed for evoking laughter, and that the opportunity to perceive a difference between the victim and ourselves when we have not been deflated or defeated makes us feel glorified. This perception of

glory must be sudden for after the surprise has worn off the humor will cease (p. 30).

While Gruner has advocated the absolute validity of Hobbes' position, he also indicated that a distinction must be made with regard to the impact that humor will have. A story or joke among friends that points out some sudden glory can still be harmless as compared to the "derisive laughter or deliberate ridicule" of teasing the less fortunate (Gruner, 1978, p. 34).

While superiority theories have offered insight into the general nature of humor, they have proven to be too general to provide specific data or to be useful in empirical investigation. Having recognized that reactions to attempts to humiliate or embarrass others are dependent upon the receiver's feelings regarding the target, Wolff, Smith, and Murray (1934) proposed that enjoyment of disparagement is dependent upon disposition. Agreeing with James' (1952) contention that

> A man's Self is the sum total of all that he can call his, not only his body and his psychic powers, but his clothes, and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht, and bank account (p. 188).

Wolff, et al. (1934) distinguished between "affiliated" (cherished) and "unaffiliated" (not cherished) objects, and argued that people hold attitudes toward affiliated objects which are similar to the attitudes they hold toward themselves. They further reasoned that disparagement of an unaffiliated object will "evoke mirth," but

disparagement of an affiliated object will result in disappointment and annoyance (p. 344).

Having specified a limited condition for mirthful responses to disparaging humor, Wolff, and his collegues (1934) investigated the imposed affiliations of ethnicity and gender. They reported that when presented with jokes disparaging Jews, Gentiles and Jews do differ in intensity of mirthful response; and jokes which depreciate men and women are more favorably received by the opposite sex. However, the validity of affiliation as a construct was challenged when predictions that control jokes which substitute Scots for Jews would not significantly distinguish Gentiles and Jews were not confirmed (Wolff, et al., 1934). Later research by Middleton (1959) provided only partial support concerning ethnicity when he observed that Blacks do surpass Whites in their appreciation of anti-White jokes; but Blacks and Whites do not differ in their appreciation of anti-Black jokes, and Cantor (1976) and Losco and Epstein (1975) found no confirmation of the general effects of gender identity in humor appreciation.

Reference Group, Identification Classes, and Superiority

Having proposed that the concept of affiliation was too general and that "reference groups" or "identification classes" might permit more specific hypotheses, LaFave and his collegues (1972, 1973, 1974, 1976, 1977) suggested that Jews might identify with Scots because of a shared "stinginess" stereotype, or that middle class Blacks identify with Whites and thus, subjects may identify with other reference

groups. The LaFave model (1972) was still based on an assumed dichotomy of sentiment, but it argued that both negative and positive sentiments will control and influence mirthful reactions. Specific hypotheses from this model were: 1) humor which esteems subjects' positive reference groups will be judged funnier relative to humor which esteems negative reference groups; and 2) jokes which disparage positive reference groups will be judged unfunny relative to those which disparage negative reference groups. Research has investigated the response to the disparagement of persons from one well-defined group at the hands of others from another well-defined group by members of the disparaging group and members of the disparaged group. LaFave, McCarthy, and Haddad (1973) assumed that in the broad reference groups of "American" and "Canadian", pro-Americans and pro-Canadians can be distinguished from Americans and Canadians in general. They found that enjoyment reported when a Canadian disparages an American was greater for a pro-Canadian than for a Canadian, or American, or pro-American. The reverse is true for pro-Americans. The same approach provides distinctions in the appreciation of feminists by pro-and anti-feminist males and females (LaFave, Billinghurst, and Haddad cited in LaFave, Haddad, and Maesen, 1976). Analyses of reference group and identification class have demonstrated that members of apparent social groups may hold neutral or negative sentiments toward the group or some members of the group, and these sentiments may influence in part the enjoyment of depreciating humor directed toward the group.

Disposition and Superiority

While acknowledging the work of LaFave, the dispositional theory of humor proposed by Zillmann and Cantor (1972, 1976) claims to have transcended reference groups and identification classes because predictions of enjoyment of disparagement are based on affective disposition toward disparaging and disparaged entities. For Zillmann and Cantor dispositions are conceived of as being positive or negative, varying in intensity, and "as acute, transitory states that are superimposed on comparatively stable dispositions that may or may not be consistent with them" (Zillman, 1983, p. 91). In light of the transitory quality of dispositions Zillmann (1983) argued that disposition theory provides explanations for specific instances when best friends who are temporarily annoyed with each other can enjoy witnessing the other's disparagement, or situations in which persons with high self-esteem who are annoyed with their own behavior can enjoy their own disparagement.

Disposition theory is only concerned with disparagement, and does not address the impact of enhancement as a condition in disparaging humor. Mirthful reactions are believed to vary proportionally with the degree of negativeness of the affective disposition toward the disparaged party, and the positiveness of the affective disposition toward the disparaging party. Evidence supporting disposition theory was reported by Zillmann and Cantor (1972) and Cantor and Zillmann (1973). In this research disparagers and disparagees were manipulated to influence subject's reactions of sympathy or antipathy, in

order to find whether there would be significantly more mirth when a sympathetic agent disparaged an antipathic one. Studies using superior subordinate relationships at work, in the home, and in education demonstrate that those who are subordinate do enjoy the disparagement of superiors, and that superiors enjoy the disparagement of subordinates (Zillmann and Cantor, 1972). However, when disparagement of an antipathic agent occurs by accident, from unidentified sources, children, or pets, mirthful reaction is even more intense (Cantor and Zillmann, 1973).

Apparently dispositional responses have a moral component, because when a disparagee commits either a flagrant or minor transgressive act against the disparager the degree of the disparager's response must be in kind to produce a mirthful reaction. Responses which are too severe or mild seem to disturb an intuitive sense of justice and impair mirthful reactions (Zillmann and Bryant, 1974).

Zillmann (1983) summarized the current state of dispositional analysis of humor and found that disparagement may motivate or evoke enjoyment, but it will not produce mirthful responses unless humor cues are part of the disparagement. After having cited Berlyne's (1972) research regarding collative variables, Rothbart's (1973) observations that signals need to be present to announce "play" or "fun" and McGhee's (1972) research on "fantasy assimilation," Zillmann concluded that since disposition theory relies on cues or elements which are separate from dispositional considerations, it and by extension superiority theory are theories of humor facilitation rather than theories of humor.

Restraint Theory of Humor

The "relief from restraint" theory of humor was most extensively developed by Freud and his disciples. Freud felt that the investigation of humor's role in psychoanalytic theory was a worthy undertaking because "there is an intimate connection between all mental occurrances," and his studies of dreams had suggested a similarity between the purpose of dreams and wit.

Rather than presenting a general study of humor Freud was primarily concerned with wit and its relationship to the unconscious. He began his analysis of wit with a discussion of the techniques of wit, and distinguished between "word wit" and "thought wit." In his discussion Freud (1938) divided word wit into three subcategories each of which had a number of variations. The first and most important is "condensation with substitute formation" which describes "the nucleus of the technique of word wit" (p. 643-645), and occurs when two ideas are collapsed into a single newly created word, or when a familiar phrase is modified. In "the application of the same material" (p. 647-649), the second category, the original sense of an idea is altered when a particular combination of words or syllables is repeated with a variation. Other alterations may include changes in the word order, or modification of the material itself through word substitution. The final category is based on "double meanings" (p. 649-652) that can occur because homonyms exist in the language (Monro, 1951) so that the same word can be used in a metaphorical or literal sense.

Freud's discussion of thought wit was more diverse, and cannot be as easily summarized. He specifically cited "displacement", "absurdity", "indirect expression", and "representation through the opposite" (p. 656-674) as being significant because of their similarity to the techniques of dreams. Dream patterns are dependent upon displacement for their strange appearance which then hinders recognition of the continuation of our waking thoughts in them. Similarly displacement occurs in humor when the response to a statement abruptly turns the stream of thought and interfers with its continuation. Freud believed that when criticism, ridicule, and derision need to be given expression, the dream work provides absurd dreams, and that the use of nonsense or absurd statements will allow a wit to indirectly express criticism through humor because "sense lurks in such witty nonsense" (Freud, 1938, p. 663). Representation through the opposite in dreams allows wish fulfillment to prevail and censorship to be defeated, by substituting a "yes" where a "no" belongs. Humor uses this technique when "but," is added to an affirmative response so that the "yes" and "but" provide the equivalent of a "no". The difference between waking thoughts and dream thoughts is best represented by indirect expression which allows for substitution by analogous symbol or allusion. The humorous use of indirect expression also permits the wit to subtly and metaphorically present thoughts which cannot be stated directly.

Following his discussion of the techniques of wit Freud further divided wit into "harmless" and "tendency" wit. These categories are entirely independent of word and thought wit. In regard to

theoretical examination Freud considered harmless wit, or wit for its own sake, to be of greatest value because it is "wit in its purest form" (Freud, 1938, p. 690) with no tendency or underlying judgment.

Harmless wit originates in the child's pleasure in play, and occurs when psychic focus is directed away from the sense of a word and toward its sound which then provides delight in simple sound associations. For adults this experience is reawakened when the sounds of words establish connections between remote ideas. A similar positive response occurs in the discovery of the familiar when something new is expected. This familiarity becomes even more comfortable when it is combined with "actuality" or dealing with actual persons, things, or events (Freud, 1938, p. 691) because it is easier to deal with the known rather than the unknown. Finally false logic, absurdity, displacement, and representation through the opposite all lead to harmless wit because: it is more convenient to turn from specific patterns of thought than to follow them; to mix together rather than distinguish things; and to follow reasoning unsanctioned by logic.

For Freud harmless wit emerged in a rebellion against criticism or reason, (Freud, 1938) that inhibits play-pleasure. Tendency wit provides a means for releasing repressed tendencies or desires (Freud, 1938) that he believed dominated most people's lives. Tendency wit is divided into "hostile wit," which serves as a means of expressing aggression, satire, and defense, and "obscene wit" which allows sexual exhibition (p. 692-694).

Freud speculated that historically obscene wit began with the smutty joke. Such jokes are directed toward a woman who sexually

excites the humorist. When a smutty joke is told and a woman is not physically present, the sexual intent is symbolically represented, and other males are spectators who witness this symbolic sexual aggression. If a smutty joke does not ultimately lead to the sexual act, it then becomes "obscene wit as its own end" (Freud, 1938, p. 695).

In many ways, Freud found hostile wit to be similar to obscene wit. Just as sexual desires are repressed, so too must hostility be subjected to restrictions and repressions. While the inclination toward physical combat or the use of overtly abusive language is socially restricted, hostile feelings can be subtly expressed through wit. In his discussion of hostile wit, Freud described witty communication as including the witty person; a target; and the audience. In such cases wit is an appeal from its source to the audience for help in getting rid of hostile feelings through their response to his ridicule. "By belittling and humbling our enemy by scorning and ridiculing him, we directly obtain the pleasure of his defeat by the laughter of the third person, the inactive spectator" (Freud, 1938, p. 698).

Freud concluded his discussion with some specific types of tendency wit. For him cynical wit provides its user with a weapon to attack or criticize persons or institutions that restrict behavior. Specifically when cynicism is directed at the church, it becomes blasphemous wit. Finally, skeptical wit does not attack persons or institutions, but rather the certainty of others' knowledge.

Although wit depends on both techniques and tendencies, its purpose is the gratification of a tendency. Pleasure from wit corresponds to the extent that there is an "economy of psychic expenditure" (Freud, 1938, p. 712), and this psychic pleasure is heightened when wit is subtle rather than blatant. In verbal or "word wit" the pleasure arises from condensation or the economy of expression, while in tendency wit "economy in the expenditure of inhibitions or suppressions" leads to relief (Freud, 1938, p. 712). When listening to wit these repressions are freed because another is responsible for the aggressive remark, and consequently the psychic energy required for repressing hostile or sexual thoughts is released and transformed into laughter.

Freud continued his analysis by distinguishing wit from "the comic" and humor. He described the task as a complex undertaking, and it was "with misgiving only that we approach the problem of the comic" (Freud, 1938, p. 762). However, in his analysis he did note a number of differences between wit and the comic. While wit is made, the comic form is found, and because it is found it only requires two persons: one who finds the comical, and the one in whom it is found. While the comic primarily occurs in people, it can also be discovered in objects or situations. Unlike wit it does not depend only on verbal symbols. but may occur in movements, shapes, actions, or characteristic traits.

Freud found the comic form most closely related to the wit is the "naive" (1938, p. 763). When found in children and uneducated adults, naive behavior occurs when a person places himself/herself beyond

inhibition, and spectators accept that inhibition does not exist for this person. The spectator then imagines himself/herself in the psychic state of the naive individual and compares that state with his own. The comparison of the other's psychic expenditure with his own results in an economy of thought expenditure which is discharged through laughter for the spectator.

Freud concluded Wit and Its Relation to the Unconscious with the observation that the pleasure of wit originates from an "economy of pleasure in inhibition," the pleasure of the comic form from an "economy of pleasure in thought," and the pleasure in humor from an "economy of expenditure in feeling." Humor, as Freud used the term in German, refers "to a series of painful emotions transformed in a manner that produces pleasure" (Bergler, 1956, p. 39). The economy of feeling in humor occurs when a spectator to an event realizes that the victim is not taking the situation seriously, and thus empathetic feeling need not be expended. Freud suggested that pity, sympathy, anger, pain, compassion, etc. are emotions that can be economized through humor.

Regardless of the emotion involved, humor is a defense mechanism against potential inner pain. The defense process is an automatic adjustment that can prove harmful if not controlled by conscious thinking. Freud described humor as the "loftiest of these defense functions" (1938) because it does not smother painful ideas, but withdraws psychic energy from them and "through discharge changes the same into pleasure" (p. 802-810). Later Freud (1959) divided humor into

humor that is directed against the self or humor that comments on the behavior of others. He further described humor's positive role in psychic function as reflecting a triumph of the ego's "assertion of its own invulnerability" (p. 217). In humor the ego is not "resigned; it is rebellious" (p. 217), and in being so it possesses dignity because it repudiates the compulsion to suffer (Freud, 1959).

In his analysis of humor Freud actually developed three theories of humor which explained wit, the comic, and humor. He argued that wit provides relief from restraint through the tendency to economize inhibition. The comic depends upon the perception of incongruities in the language, actions, or movements of persons, animals, or objects, and arises in an economy of thought. Humor is a defense against mental pain, and evolves in an economy of feeling. Freud's disciples have essentially agreed with his explanation of humorous phenomena, although some have extended his position. For example Theodor Reik maintained that upon hearing a witticism an element of unconscious fear and shock is experienced, and that humor lives "in an emotional realm between fear and laughter," (Reik, 1948, p. 240-241) because it touches upon taboos, or forbidden ideas which exist in the subconscious. Upon being heard a joke awakens the temptations of forbidden thoughts which challenge the inhibitions society establishes. This temptation is first rejected from fear of the thought expressed in the joke, but the fear lasts only momentarily until freedom from repressed tendencies is accepted.

Edmund Bergler's (1956) theory of humor differed in many respects from the Freudian explanations because of Bergler's conception

of the super ego. For Bergler the super ego is not to be "confused with conscious conscious" (p. 44), those cultural restrictions communicated by others. Rather, the super ego is an "inner monster created and enthroned by the child himself" (Bergler, 1956, p. 44). As the child becomes an adult, the super ego continues to constantly punish him. Defense against the constant punishment developes as the child learns to enjoy it through pleasure in displeasure or psychic masochism. "Psychic masochism is the unconscious approval of -- and desire for, rejection, humiliation, and defeat" (Bergler, 1956, p. 46). However since psychic masochism is "the crime of crimes in the unconscious legal code," (Bergler, 1956) the super ego will not even allow this slight pleasure, but rather provides a lesser crime -- pseudo-aggression, which permits retaliation "for the wrong done him" (Bergler, 1956, p. 46). From this perspective all forms of humor are directed at one specific danger: the inner conscience's accusation of being a psychic masochist. Laughter is described as an internal debunking device which facilitates the fear reduction process. It is not "directed at external powers as more than fourscore investigators have claimed for centuries, but at internal powers" (Bergler, 1956. p. viii). Regardless of the joke's target, the real target is the "half-frightened child proving to himself that there is no reason to be either frightened or overawed" (Bergler, 1956, p. 74-75).

While Bergler did acknowledge humor's ability to reduce fear, others in the psychoanalytic tradition (Grotjahn, 1957; Mindess, 1971) have assumed that humor functions as a coping mechanism that can

provide new insight into a threatening situation and facilitate a means of coping with a problem. For Grotjahn (1957) the sense of humor is significant for the individual because its emergence is indicative of "emotional maturity" (p. 81). A person with a healthy sense of humor has learned to accept others and the self, and has moved toward internal peace.

Related Empirical Studies

Freud's distinction between wit, as an indirect means of releasing repressed urges, and humor, as an uplifting mature response to life's stresses prompted Walter O'Connell (1976) to investigate wit and humor through psychometric tests and experimental studies. From these investigations humor was found to be a rather stable personality characteristic that is associated with self-defined maturity (O'Connell, 1960). As compared to wit humor appreciation is not affected by situational stressors, insults or death themes, and there are no sex differences except when hostile themes occur in a humorist's remarks (O'Connell, 1962). Low levels of humor response are related to repressive life styles (O'Connell and Cowgill, 1970; O'Connell and Petersen, 1964), while humor appreciation is correlated to a nonblaming creative orientation to life (O'Connell, 1968a). In general outgoing personalities rank higher in humor appreciation (O'Connell, 1969). When a distinction is drawn between those who simply appreciate humor, and people who also create humor, humor producers are

found to be more socially creative and prominent as leaders (O'Connell, 1969c; O'Connell, Rothaus, Hansen, and Moyer, 1969).

While the relief from restraint, or psychoanalytical, approach has made a major contribution to further understanding the intrapsychic aspects of humor the distinction drawn between wit and humor is of greatest significance to this dissertation. As a means of expression, wit permits the temporary rejection of social norms, as well as providing a socially acceptable means of expressing sexual and aggressive impulses, but humor gives people the capacity to respond to stress in an appropriate manner, while triumphing over feelings of vulnerability.

Incongruity Theory

While his comments were very general, incongruity theories of humor have often been traced to Immanuel Kant. Kant (1952) defined laughter as "an affection arising from a strained expectation being suddenly reduced to nothing" (p. 199). Laughter then is the result of alteration of a mind set which is ready to proceed in one direction and is abruptly turned in another.

Kant's observations were more fully developed by Schopenhauer (1957), who believed that "the source of the ludicrous is always the paradoxical, and therefore unexpected, subsumption of an object under a conception which in other respects is different from it" (p. 271). He further argued that it is possible to trace everything ludicrous to a syllogism with an undisputed major premise, an unexpected and only sophistically valid minor premise, and a conclusion which was humorous

because of the minor premise. Hazlitt (n.d.) also referred to the concept of incongruity when he observed "the essence of laughter is the incongruous, the disconnecting of one idea from another, or the jostling of one feeling against another" (p. 7).

More recently Maier, Bateson, and Fry continued to emphasize the importance of mental shifts in incongruous humor, and further suggested that incongruity only produces laughter in the presence of a play signal or when a playful state has been established. Maier (1932) had constructed a Gestalt theory of humor which sought to analyze the mental processes involved in the humorous experience. In his view the thought pattern which causes a humorous experience must be: 1) unprepared for; 2) appear suddenly and bring a change in the meaning of its elements; 3) be made up of elements which are experienced entirely objectively; 4) contain as its elements the facts appearing in the story; and 5) have the characteristics of the ridiculous in that its harmony and logic apply only to its own elements. He maintained that humor can only be experienced when people do not sympathize or implicitly participate with the target of the humor.

Bateson (1956, 1972) and Fry (1963) in closely related views have suggested that humorous situations are characterized by a series of paradoxes and that humor results when a punch line or other key information unexpectedly provides resolution. For Fry "during the unfolding of humor one is suddenly confronted by an explicit-implicit reversal when the punch line is delivered...but the reversal also has the unique effect of forcing upon the humor participants an internal

redefining of reality" (1963, p. 153). Bateson stressed the nature of reversal when the point of the joke is reached. The structure of the joke draws attention to certain elements while deemphasizing others which then form a background or setting for the apparent focal point of the joke. When the punch line is delivered there is a "dissolution and resynthesis" (Bateson, 1972, p. 203) so that the background material is suddenly and unexpectedly brought to the foreground. Both Fry and Bateson thought that a playful state or the presence of a playful signal is essential to perceiving this restructuring as humorous.

Arthur Koestler (1964) contended that humor is related to scientific insight, art, and other forms of creativity and occurs through "bisociation," or "the perceiving of a situation or idea ...in two self-consistent but habitually incompatible frames of reference" (p. 35). These "frames of reference" or matrices refer to "any ability, habit, or skill, any pattern of behavior governed by a 'code' of fixed rules" (p. 38). The rules may be innate or acquired by learning, but all behavior is controlled by these rules which provide coherence and stability while allowing sufficient freedom for stategic adaptation to environmental conditions. Koestler proposed that the concept of matrices with fixed codes and adaptable strategies is a unifying formula which is equally applicable to perceptual, cognitive and motor skills and conceptual orientations such as mind sets or perceptual schemata. Matrices can vary from fully automatized skills to those with a high degree of plasticity, but even the more plastic matrices are controlled by rules that function below the level of awareness and are condensed into habits. While habits are necessary for stability

or order they can create conditioned automatons. It is the role of humor as a part of the creative act to provide a means of transcending habit and creating new liberating insights. Specifically, in humorous situations bisociation "causes an abrupt transfer of the train of thought from one matrix to another which is governed by a different logic or 'rule of the game'" (p. 95). When the leap from one matrix to another occurs certain emotions, "owing to their greater inertia and persistence, cannot follow such nimble jumps of thought; discarded by reason, they are worked off along channels of least resistence in the form of laughter" (p. 95).

The emotions that respond less quickly are those which are aggressive-defensive in nature and occur as an automatic response to situations perceived as potentially threatening and in which normal reactions include taking flight or standing to fight. The opposite of aggressive-defense emotions is "participatory or self-transcending" (p. 54) emotions such as compassion or rapture in which physiological processes are slowed down, and emotions are discharged through tears. In self-transcending emotions Koestler included those feelings of becoming a part of some real or imagined entity that rise above the boundaries of the self.

Most emotional states include a mixture of both aggressive-defensive and self-transcending emotions, but in humor there must always be an element of aggression. In more subtle types of humor the aggression is faint and discreet, but in the maliciousness of parody or the cruelty of children's humor aggression is more evident. The

ability to respond to others' aggression with laughter is a luxury reflex arising only when reason has gained a degree of autonomy from the urges of emotions in order to acknowledge one's having been fooled.

More recent psychological investigations of incongruity's role in humor have led to two positions. The first is that incongruity alone is the necessary and sufficient element needed to elicit humor, and the other claims that incongruous elements must be resolved for humor to occur.

Nerhardt (1977) claimed that "humor is the consequence of the discrepancy between two mental representations, one of which is an expectation, and some other idea or a percept" (p. 47). In the case of a joke the expectation is the part that preceeds the punchline, while the punch line is the other idea. Nerhardt argued that the greater the divergence of a punchline from its expectation, the funnier the stimulus is. However, since not all deviations from the expected are funny; perception of incongruities must occur in a safe, non-threatening environment. Nerhardt tested his hypothesis in a series of studies in which expectations and divergence from expectations were manipulated. In one set of experiments subjects lifted a series of weights, and when the final weight was greatly discrepant from the previous weights, the subjects laughed and smiled more than they did with less discrepancy. Nerhardt (1976) also found that when a pattern is established for non-representational shapes moving across a screen that divergence in size or shape will cause increased funniness ratings.

While Nerhardt's approach can explain the cause of some humorous experiences, others have questioned whether incongruity alone can explain humor or simply provide a cause for laughter. Incongruity-resolution theorists contend that the response to incongrous humorous stimuli is an attempt at resolution either through the retrieval of information in the joke or from personal knowledge. Suls (1972) described this procedure in a two stage model in which retrieval includes finding a cognitive rule which reconciles the incongruity. For Suls a cognitive rule is defined as a "logical proposition, a definition, or a fact of experience" (p. 82).

Evidence in support of the incongruity-resolution model has been provided by Schultz and his collegues. Schultz and Horibe (1974) created jokes which contain incongruity-resolution elements and forms with the incongruity and the resolution removed. They found that for children beyond eight years of age that the original form is funnier than the resolution-removed form and that both are funnier than incongruity-removed jokes. However, for six year olds there is no difference between the original and the resolution-removed forms, but both are funnier than forms without incongruity. Schultz suggested that at an earlier stage only incongruity is necessary to produce humor, but beyond age eight both incongruity and resolution are necessary.

Wicker, Thorelli, Barron, and Ponder (1981) had subjects rate jokes for funniness and 13 other scales which were suggested as accounting for humor. Surprise, resolution, and originality all correlated with funniness, and partial correlations also indicated that painfulness and anxiety scales are related to funniness through their

common relationship with incongruity and resolution scales. The data appears to suggest that both incongruity and resolution are important in humor appreciation, but that affect elements may also influence humor through their effect on cognitive structures related to resolution. Apparently painful or anxious material increases funniness not only because it allows greater tension release, but because it is also associated with increases in surprise and resolution.

The relationship between cognitive processes and affective/emotional mechanisms in humor was studied by Leventhal (1979) as a part of a broader study of emotions. Leventhal was concerned with the nature of affective responses and how they are the result not only of a person's objective judgment of a stimulus but of environmental factors and subjective expressive cues such as others smiling and laughing. He concluded that there are two distinct but interacting modes for making judgments that lead to humorous appraisals. On one level objective judgments are made regarding joke attributes such as incongruity and resolution; and on the other level subjective judgments are based on feedback from expressive reactions. Expressive reactions are not independent of social or external influences, and thus the laughter of others can influence overall joke appraisal.

While both subjective and objective modes of processing are assumed to be integrated and essential in humor appreciation, Leventhal contended that because males tend to be more analytical and field independent than females there will be differences in male and female humor processing. Levanthal and Safer (1977) found that "females are

more responsive to the independent variable of audience laughter and monitoring of one's own expressive behavior" (p. 344), and they concluded that humor judgments for females are more influenced by changes in feeling states and environmental factors. A further explanation of differences in humor appraisal is suggested from evidence of differences in males and females in cerebral hemispheric processing of data. When males and females hear humorous material through only the left ear (right hemisphere) or the right ear (left hemisphere) females find material from the left ear funnier, while males find material from the right ear funnier (Leventhal and Cupchik, 1976).

Leventhal investigated the apparently spontaneous nature of humor processing, and he proposed that a linkage exists between expressive cues such as facial expressions and the evaluative reactions which follow. Cupchik and Leventhal (1974) found that drawing deliberate attention to a subject's laughter can diminish the enjoyment of the experience. This study and those investigating environmental cues, and gender related processing styles and skills demonstrate that factors beyond the psychological nature of the humor itself influence its appreciation.

As a means of explaining the nature of humor, incongruity resolution theories do not prove to be without limitations. While existing theories apparently delineate the elements necessary for humor comprehension, they do not explain why humor is appreciated. The issue of incongruity as an explanation of humor as compared to incongruity-resolution has not been resolved.

Incongruity-resolution theorists have not effectively dealt with

other contentions that not all humorous stimuli emerge from an incongruity-resolution structure. Suls attempted to negate these observations by labeling such stimuli "meta humor" because "they pretend to humor but do not possess all of the requiste features" (Suls, 1983, p. 53). Other humor theories have also encountered the final problem of differentiating humor from other events such as problem solving and artistic creation. Incongruity-resolution theorists have cited Berlyne's (1972) argument for extreme divergence from what is expected, McGhee's (1972) "fantasy assimulation", and Rothbart's (1973) contention that the situation must be a "safe or nonthreatening one" as being characteristic of humor. Suls (1983) has argued that incongruity-resolution theory has specified a unique time scale in that the body of the joke must take enough time for an erroneous expectation to emerge, and the resolution must follow quickly or the humorous experience will be minimal. In order to satisfactorily distinguish humorous from nonhumorous stimuli incongruity-resolution theory must address the issues of play cues, nonincongruous humor, and timing.

The Social Context

While superiority, relief from restraint, and incongruity theorists have all described humor as a means of fulfilling psychological needs, humor is also an interpersonal behavior which is temporal and contextual. If an attempt at humor is to be perceived as being funny, it must be responsive to the immediate social situation and to the normative rules of the more general social circumstances, but it

is also the responsibility of the group members who are present to define what physical or verbal behaviors are humorous and to continually renegotiate this definition within a changing social context. In the following discussion the social characteristics of humor are summarized from research regarding: 1) joking relationships among friends and coworkers; 2) contextual rules which structure humorous interactions in terms of power, status, sex and appropriateness; and 3) the results of ethnomethodological studies of joking and laughter.

1. Joking relationships among friends and coworkers

As compared to industrialized Western societies, many nonindustrial societies have evolved formalized role relationships which substitute joking interactions for more serious conversation. These patterns emerge where people must communicate with others with whom they have little in common, and would not normally develop a relationship (Radcliffe-Brown, 1940; Brandt, 1948; Hammond, 1964). Radcliffe-Brown (1940) described cases of in-law communication in which one person "is by custom permitted, and in some cases required to tease or make fun of the other, who is in turn required to take no offense" (p. 197). He described the interaction as a "peculiar combination of friendliness and antagonism," which seems to provide a harmless release of negative feelings as they emerge.

While formalized joking relationships have not evolved in Western family relationships, patterns of communication based on joking have been discovered among groups of friends and coworkers (LeMaster, 1975; Traylor, 1973). In his investigation of a working class

tavern LeMaster found on-going bantering and kidding among certain long-time patrons. At the tavern, status is measured and maintained according "to the ability to 'dish it out' in a rapid fire exchange called 'joshing'" (1975, p. 136). These joking relationships permit intimacy and emotional release among males who are otherwise constrained in expressing feelings and personal information. Traylor (1973) reported that joking among an isolated group of workers helps define social groupings, reinforce rankings of group members within and without the group, and clarifies the status of one group to another.

The role of joking among coworkers as a means of structuring relationships and relieving the tedium of work has been investigated by Roethlisburger and Dickerson (1939), Bradney (1954), Roy (1959-60), Coser (1960), and Vaught and Smith (1980). By way of example, Roy's participant observer study details a set of joking procedures in which a group of machine operators are able to structure the work day and are able to deal with potential conflicts by establishing ritualized procedures such as "banana time" (Roy, 1959-60, p. 158) when one worker will steal another's banana at nearly the same time each day and thus provides an excuse for ongoing teasing and interaction. Bradney (1954) described how humor helps maintain a balance between the conflicting norms of cooperation and competition in a British department store by providing a release from the anxiety of selling on commission.

2. Contextual rules that structure interaction based on power, status, sex, and appropriateness

In light of relational differences based on status, power and sex, joking must be understood as a strategic activity that is defined in terms of self-presentation and audience expectations. Having argued that there are no explicit rules for joking and that appropriateness is defined within each situation, Fine (1983) suggested that contextual rules of humor can be discerned by discovering the intent or goal of the humor. Goodrich, Henry and Goodrich (1954) and Coser (1960) found that in psychiatric staff conferences the largest number of jokes are made by senior staff psychiatrists, who direct their humor at patients, interns, and nurses, and in doing so affirm their power and status. Other investigators have found that superiors use humor to establish rapport with their subordinates (Malone, 1980), and that psychiatrists will help patients relax through humor (Mindless, 1976; O'Connell, 1976). Situational definitions of appropriateness depend upon various factors, but especially on whether the target is present. Fine found regarding "putdown" humor that when the target is present there is a "veneer of diplomacy," but when the target is absent such niceties can be ignored and replaced by brutal sarcasm (Fine, 1983b, p. 166).

Humor can also be used as a strategy for communicating sexual interest or arousal. Davis and Farena (1970) demonstrated that men laugh more at risque jokes told by attractive females. In a study of "pick-up" behavior in bars Walle (1976) found that men attempt to shift relationships from impersonal to personal through humor. A

positive response to sexual humor is interpreted as a sign that the female is interested in additional contact, while humor not well received is interpreted not as a personal rejection, but as a rejection of the humor. Fine (1982) found that obscene humor is used as a rite of passage and to establish community among preadolescent males, in that it provides a means of learning about sex without revealing ignorance.

3. Ethnomethodological Studies

In their investigations ethnomethodologists and conversational analysts have assumed that the behaviors occurring during humorous experiences are neither random or accidental. Ethnomethodological studies demonstrate that people can convey a wide variety of messages through laughter. Schenkein (1972) argued that "hehehs", or conversational laughs, are a means of displaying affiliation or alienation toward another during conversation. When consciously placed in the pattern of talk, hehehs reveal shared thoughts or attitudes, while an intentionally withheld heheh signifies disaffiliation, ridicule, or a putdown, and an inappropriate placed heheh suggests that the speaker is foolish or his behavior unwise.

While investigations of laughter have provided insight into responses to humor, conversational analysts have also analyzed jokes. In his extensive analysis of a single dirty joke, Sacks (1975, 1978) concluded that a joke follows the conventions of talk, and that it contains a sophisticated narrative which is elaborately organized in

such a way that part of its structure is devoted to "concealing some of the ways the joke works on its recipients from those recipients" (Sack, 1978, p. 250), by directing their attention to other elements. Thus, it appears that all aspects of humorous interactions from joke organization, to pauses, or internal laughter influences the impact of humor.

A Preferred Perspective

This chapter has reviewed literature that discusses humor from a physiological, psychological, and sociological perspective. It is apparent that certain physiological changes do occur when humor is experienced; however, these changes do not significantly distinguish humor from other physiological experiences. Studies were also cited regarding humor as a social phenomenon, in families, among friends, and in the work place. However, these studies focus upon humor's influence and not its origin.

While each of the psychological approaches to humor has contributed to an overall understanding of humor, none clearly stands out as being the definitive theory. At this point it is argued that, while not perfect, incongruity theory provides the most satisfactory explanation of the essence of humor. While critics of incongruity theory argue that even if incongruity is the core of humor, other qualities such as allusions to sex and aggression are far more important. Certainly the role that these qualities play in humor appreciation cannot be denied; however, this fact does not negate the contention that

the essential developmental experiences necessary for humor appreciation emerge through encountering natural incongruities during development. The position is particularly influenced by McGhee (1972, 1974, 1976, 1977, 1979) who described incongruity as "the foundation stone" of humor, and has assumed that in order for the appreciation of incongruities to emerge, there is a "certain level of cognitive or intellectual development" (McGhee, 1979, p. 46) to aid in making comparisons between what is expected and what is encountered.

While incongruity is a necessary prerequisite for all occurrences of humor, it is not argued that it is sufficient because the perception of an incongruity leads to: 1) interest or curiosity; 2) anxiety or fear; or 3) humor or amusement. The factor distinguishing humorous interpretation from those of interest or fright was previously discussed in light of the work of many others who noted that the humorous experience depends upon play signals which declare that the situation is not to be taken seriously. While these signals are necessary to humor appreciation, they are not sufficient because play signals alone do not create humor.

In relating incongruity to cognitive development McGhee (1979) contended that the most basic form of humor emerges from incongruities which are perceived in the absence of sexual or aggressive elements, and through imagination, make-believe, and fantasy. Early in the first years of life an infant has a strong sense of curiosity about the world about him/her, and a natural desire to explore. This tendency to explore is greatest when basic biological needs such as hunger are not aroused, and it is most satisfied when moderate levels

of novelty are experienced. As greater cognitive development occurs in an infant this novelty seeking characteristic is used to establish an internal state which is optimally balanced between new and familiar events. This drive for internal balance is a motivating force behind fantasy activity because in fantasy new and interesting experiences can be created by simply rearranging some aspect of reality. Thus a child can create experiences which he/she knows cannot occur in reality, but he/she enjoys because they offer new ideas and events to explore.

While the impact of moderate levels of novel and incongruous events extend to emerging reality constructs as well as fantasy, there are essential differences between the two. In non-playful situations, when an event does not fit or match an existing schema, an attempt is made to enlarge the schema to incorporate the additional qualities. This is "reality assimilation" (McGhee, 1972, p. 64) and according to Piaget (1952), it is how cognitive development occurs. However, between twelve and eighteen months an infant begins to exhibit a new behavior for dealing with incongruous events. He/she begins to use one object "as if" (Piaget, 1962, p. 64) it were another, i.e. using a finger to represent a tooth brush. At this time the child is developing a memory image of an object or event, the child is free to create incongruities by simply bringing the wrong image to bear on the object. Since the object normally associated with the exhibited behavior exists only in the child's imagination there is "fantasy assimilation" (McGhee, 1972, p. 64). Fantasy

assimilation differs from reality assimilation in that there is no accompanying attempt to alter the schema or to eliminate the mismatch between schema and an incongruous object.

While a child is entertained by this fantasy world he/she does "not find it humorous" (McGhee, 1979, p. 60). In order for humor to occur the additional element of playfulness is required. When a child is in a playful frame of mind while attending to incongruous events at a fantasy level, he/she is not concerned with exploring the world of fantasy. Rather the primary concern is acknowledging the impossibility or absurdity of the imagined events. These events are humorous because they are accepted as being at odds with reality.

Once the capacity for fantasy play is developed a child passes through a series of stages in humor development which correspond to stages in cognitive development described by Piaget (1962). The first stage is characterized by the ability to represent objects with internal images, and it is the knowledge of the inappropriateness of actions toward the object which leads to humor. The second stage is represented by the incongruous labeling of objects or events and the "absence of action toward the objects" (McGhee, 1979,p. 64). Verbal statement creates the incongruity.

Stage three begins at approximately age three when a child's ability to perceive incongruities is extended by a developing capacity for conceptual thinking. At this time the child realizes that the words he/she uses reflect classes of objects or events which share defining characteristics but differ in others. This humor is more complex because incongruities occur when one or more aspects of a

concept are altered. At this point repetitious rhyming and nonsense words are common sources of humor.

Stage four humor emerges at seven to eight years of age, and represents the first step toward adult humor through the realization that the meanings of words are ambiguous, and the misuse of a meaning is often the key to a joke. This ability is the result of the acquisition of concrete operationalized thinking skills (Piaget, 1952) which allows the child to perceive logical incongruities. By stage four a child comprehends qualities of humor beyond simple incongruities. At this stage the child is less egocentric, and can see another point of view which affects humorous reactions. While a younger child laughs directly at other's physical characteristics, by stage four the child waits until the person has gone to laugh. At this stage a child expresses a sense of morality in humor appreciation (McGhee, 1974) in that harm to a target is funny only if it is unintentional or accidental. After stage four individual differences in patterns of humor appreciation become more predominant than changes related to development or age.

In extending his theory McGhee (1979) argued that incongruity theory explains the emergence of tendentious humor. Having acknowledged that incongruous relationships "form only the bare bones of humor," and that "the real meat or substance of the event that makes us laugh is the emotional investment we have in the situation" McGhee (1979, p. 79) reasoned that the overall pleasure of a joke depends on both emotionally neutral incongruities and feelings regarding

sexuality and hostility. He suggested that the earliest form of tendentious humor involves acting out or saying taboo words or concepts as a reaction to imposed rules of behavior that do not immediately make sense. These frequently are related to toilet training and the anxiety this process creates. As the child masters this function, the act of repeating these words is less humorous, but because of the continued stress on the importance of proper toilet habits, more complex toilet jokes emerge. Throughout the child's development tensions which occur from new and seemingly incongruous rules for social behavior are expressed through jokes.

While McGhee proposed that incongruity theory explains the emergence of tendentious humor, Suls (1977, 1983) claimed the incongruity-resolution theory provides a new interpretation of disparagement humor. He contended that if a receiver sympathizes or identifies with a disparaged party, he is less likely to make sense of the unexpected misfortune, or to be able to resolve the joke; or he may even "interpret the communication as not being a joke" (Suls, 1977, p. 42). However, when the receiver feels hostility toward the target, the surprising misfortune makes much more sense. Wicker, Barron, and Willis (1980) found that jokes with disliked victims are rated funnier and higher in resolution than are jokes with neutral or liked victims, and that when the victim's misfortune occurs from over-retaliation, the rating of funniness and resolution decreases. When perceived resolution is controlled through an analysis of co-variance, the effect of the degree of resolution is non-significant. This suggests that disparagement enhances humor only if it is seen as providing a reasonable

resolution, and that feelings toward protagonists influence humor appreciation through the resolution of the incongruity.

The developing sense of incongruity was discussed as if it is funny only when seen as make-believe or occurring in fantasy. An event is described as funny when a child acknowledges that it does not occur in reality. However, incongruities do occur in the real world. For a young child they are most noticeable when appearances or sounds differ from the expected. As the child grows older and develops clearer concepts of what is or is not probable, the appearance of an event presumed to be impossible interferes with humor rather than causing it. As a child approaches adolescence, he/she discovers that everyday events often turn out differently than expected. With the acceptance of life's surprises a sense of irony develops. This ironic sense of humor is a mature humor which allows the individual to appreciate unique, and frequently uncomfortable experiences. Thus, ironic humor appears to have many qualities similar to the characteristics of humor which Freud described.

McGhee (1979) did not attempt to resolve the issue of whether incongruity or incongruity-resolution best explains humor. He acknowledged the importance of both incongruity and resolution when he noted that it is unclear as to exactly what contribution each element makes to funniness, and he doubted whether any individual ever completely passes through the stage of responding to the pure incongruities of nonsense humor. At this point it is sufficient to note that humor is a social phenomenon which is appreciated when it

facilitates a sense of release of sexual or hostile feelings, or leads to a reasonable disparagement of an enemy. However, the core of humor rests in the perception of the unexpected, inappropriate, unreasonable, or illogical incongruities. While these incongruities lead to puzzlement or anxiety, often the result is humor. Thus, incongruities are a core or necessary prerequisite for all humor, but not a sufficient one.

Summary

Encounters with humor can occur in situations that vary from the formal presentation of jokes by a professional commedian to the informal teasing of a group of friends. The humor that emerges in daily interaction is seldom comprised of structured jokes, but rather reflects the shared perceptions of incongruities which occur when normative expectations are not met. In such instances, humor is responsive to the immediate social situation, and rules that order the social circumstances. Definitions of what will be accepted as humorous must be continually negotiated within an evolving social context.

The development of the ability to appreciate and to respond with laughter or smiles to the incongruities of life occurs when a child experiences the unexpected in a manner which defines the encounter as safe and nonthreatening. Some theorists have argued that the essence of humor rests in establishing a sense of superiority or in the release of feelings of hostility or sexual desire. While these qualities can add to humor appreciation, the key to humorous experience arises in the violation of expectations.

In this dissertation the impact of humor on social interaction is investigated. It is assumed that humor is an intentional message that comments upon perceived incongruities. Such comments invite laughter when a humorist uses gesture, laughter, or smiles within an utterance, immediately following the utterance, or after a brief pause. If there is an appreciative response, a smile or a laugh, the attempt at humor has been accepted.

Chapter III

Humor in Social and Relational Interaction

The major theoretical approaches to the study of humor demonstrate that humor is experienced in a social context, results in measurable physiological changes, and is psychologically pleasant when incongruities are resolved and tensions released. However, the impact of humor is greater than a series of internal physiological and psychological reactions because of the role it plays in daily social interaction.

This chapter begins with a review of the social psychological literature that has investigated humor in group process. A model describing and categorizing the motives of the source of the humor is presented as a tool for further analysis. The impact of sex, dominance, and status on humor initiation is discussed, as is the relationship between humor, smiles, and laughter.

Social Psychological Contributions to Humor

While it would be possible to suggest many specific social functions that humor fulfills, three seem to be most prominent and provide the broadest view of humor's role in social interaction. As a part of communication humor has been investigated as a catalytic agent that helps activate cohesiveness, intragroup and intergroup conflict and social control.

Humor seems to facilitate group cohesiveness through shared laughter that encourages a sense of unity by creating a common

perspective. In his investigation of a Chippewa Indian Tribal Council, Miller (1967) described a category of humor for which the purpose was clearly to "promote group solidarity" (p. 266). This humor was directed internally through ribbing and self-deprecation in such a manner that the ability of the members to laugh at their own foibles created a sense of fellowship and a trusting communal relationship.

When groups encounter outside forces that threaten the existence of the group and the safety of the individual members, ridicule and satirical humor will often emerge as a means of striking out against the oppressor. This "gallows humor" reinforces a sense of comraderie and maintains the member's self-confidence (Obrdlik, 1942; Kogon, 1958; Arnez and Anthony, 1968).

Positions regarding humor's role in conflict and social control have been most clearly developed by sociologists Stephenson (1951) and Martineau (1967, 1972). As a tool in interpersonal conflict humor is indirectly aggressive and uses irony, sarcasm, burlesque, caricature and parody as a means of attacking others. While conflict humor will often serve primarily to delineate an in-group from an out-group, in some more overt instances it may be used to invite hostility or retaliation. An example of the official recognition of the power of humor to disrupt the social system was evident in the Soviet Union where a prison term in a labor camp was the result of a joke that was deemed to be subversive by the authorities (Bauer and Gleicher, 1953).

If directed against an out-group, conflict humor can reinforce

group unity, but when humor is directed against in-group members the result of the humor can be frustration and the dissolution of the group. As compared to conflict humor, control humor is intended to influence group member behavior by influencing members to accept norms and to stop deviant behavior. Most of control humor involves "kidding" as a means of revealing the expectations friends have for each other's behavior (Fine, 1983b, p. 174). As a specific example the conflict and control aspects of humor were studied in the civil rights movement by Arnaz and Anthony (1968) who analyzed "Negro humor" as social satire. They found that as social satire humor may influence both the in-group and out-group in three ways by 1) satirizing the customs of the group which controls the in-group behavior; 2) public humor that pokes fun at the in-group and thereby serves a contol function, but also lessens the aggression others feel toward the group; and 3) satire that is directed against out-group foes and produces in-group solidarity and heightens conflict.

Theoretical Models of the Social Funtions of Humor

From the broad perspective of viewing the social functions of humor as influencing group cohesion, conflict, and control several more specific models have emerged (Martineau, 1972; Kane, Suls and Tedeschi, 1977; Giles, Bourhis, Gadfield, Davies, and Davies, 1976; Fine, 1983a). Martineau (1972, p. 115) distinguished between humor that is directed toward an in-group or an out-group, and between "esteemed" and "disparaged" humor types. Depending upon the type, humor can influence in-group behavior by solidifying the group;

fostering demoralization and social disintegration of the group; or inducing a hostile attitude toward an out-group. The effect of the humor depends on the social position of the humorist, his/her attitude toward the target group, and the social situation.

Martineau did not address the issue of why humor is used in lieu of praise or blame, or why humor occurs in social interaction. However, Kane, Suls, and Tedeschi (1977) did provide an explanation of why humor is used in particular situations and circumstances. These authors assumed that humor is utilized in interaction because it is ambiguous and can generally be interpreted in a variety of ways simultaneously. Since humor contains cues that it is non-serious or play, the humorist can communicate a message and later deny responsibility for its impact because "it was only a joke" (Kane, Suls and Tedeschi, 1977, p. 13). As a tool of strategic communication humor provides a safe means of self-disclosing and of probing other's attitudes and concerns; an opportunity for decommitment or rejection of responsibility for past acts; a technique for saving face in embarrassing situations; a manner for unmasking the pretensions of others; a method of presenting oneself as being interpersonally attractive; and a way of being ingratiating. While this model does describe humorist's motives, it has been criticized (Chapman, 1983) for overemphasizing humor initiation to the detriment of the target and receivers, and in doing so creating an incomplete procedure for interaction analysis.

The most elaborate model for explaining the interaction process in humor was developed by Giles, Bourhis, Gadfield, Davies, and Davies

(1972) who proposed that adult humor can be more fully understood through a model that describes the encoding and decoding of humorous stimuli in social exchange. Having assumed that a source's decision to encode a humorous remark depends on personal attributes; knowledge of the social situation; the nature of the relationship with the receivers; and the relative social status of those involved, these authors claimed that the decision to present a humorous remark arises from four motives. The first is the creation or maintenance of in-group solidarity. In an emerging group or dyadic relationship, humor serves to reduce tension and to facilitate the creation of an atmosphere conducive to formulating and evolving group norms and structures. As a means of attack and superiority humor can derogate and belittle an individual or group, and in this way the humorist enhances his/her self-esteem. If receivers are made to laugh, they may be disposed to evaluate a source more favorably (Gruner, 1967), and therefore, some sources use humor to fulfill their need for approval. Finally, a humorist facilitates the removal of attention from acts that he/she has or is about to commit. Giles, et al. did not assume that these categories are mutually exclusive, but rather that the motivation for using humor can be multidimensional.

The structure of the humorous message is also considered to be significant. Giles, et al. distinguished between linguistic content, or the speech patterns in which a humorous message is encoded, the semantic thematic content, which describes the topic and theme of the humor, and the cognitive content, or the cognitive complexity of the humor. It is expected that a jocular message will be sequentially

coded so that the humorist can monitor his linguistic, semantic thematic, and cognitive strategies on the basis of receiver responses. The results of a subsequent experimental investigation of linguistic strategies used when encoding a humorous message (Giles, et al., 1972) found that 24 of 25 subjects were aware in retrospect that they change their speech patterns when relating humorous material. However, linguistically naive judges perceived these changes as relating only to hesitancy in that the subject humorists are more fluent when relating prepared humorous rather than serious material.

In their analysis of the decoding process, Giles, et al. discussed successful and unsuccessful decodings of humor. In a successful decoding the receiver's first reaction is psychophysiological arousal which stems from an anticipatory fear of not being able to decode the humor and of losing esteem. In the second phase an incongruity is both perceived and comprehended, and in the third step the humor is evaluated as to whether it is funny. The last step involves responding to successful humor with genuine "humorous laughter" (Giles, et al., 1970, p. 13). Failure to respond positively to an attempt at humor arises from not perceiving the incongruity in the message, not understanding the resolution of the incongruity, or because the humor is linguistically or cognitively inadequate; the content too familiar, or in bad taste. However, the lack of appreciation of a humor attempt does not exclude the possibility of laughter because if the receiver needs the humorist's approval polite "social laughter" may occur. Such social laughter serves a homeostatic function which can

eliminate cognitive and social dissonance through the acquisition of group acceptance. As a response laughter can also arise from "ignorance, anxiety, derision, and apologetic laughter and the phenomenon of tickling" (Giles and Oxford, 1970, p. 97).

A discussion of the social functions of humor that most clearly analyzes the role of interaction was presented by Fine (1983a). Fine distinguished humor from serious talk by noting that: 1) humor requires an immediate audience response; 2) the implication of a humorous remark generally can be denied by its maker with little loss of face; and 3) humor contains dense layers of meaning that go beyond the overt meanings of the language. In social interaction humor operates to construct meaning because it is a rhetorical device that can be utilized to sharpen, dull, alter, or maintain the meaning of identities and situations.

Humor and the Definition of Identities

The strategies that a humorist employs in establishing identities will depend upon whether the humor is directed at another or the self, and if the target is absent or present. Humor directed toward an absent target may be blatant and aggressive, while when the target is present humor initiates and maintains friendships, or influences other's behavior. Humor that is self directed comments on the humorist's role behavior.

Non-Present Target

One result of humorous interaction is the creation of identities

that emerge from placing the target into a social category (Miller, 1977). The manner in which the humorous categoric assignment occurs will vary depending upon whether the target is absent or present when the comment is made. When the target is absent the humorist may select from a wider range of material, and take liberties so that the humor may become more overt or even cruel. The only considerations in limiting the nature of the humorist's remarks are a sense of propriety on the part of the humorist and the receivers and a fear that the remark may reach the target. Examples of this type of humor can be found in three girls' descriptions of their male peers and "boyfriends". "Alan's the summer puke and Carl's the fall puke," and in a group member's description of a former member, "Leo is a great white slug" (Fine, 1983a, p. 91). This humor was clearly intended to create a negative identity for the targets and to place them in an undesirable social position. The humor in these statements arose because it is not a literal depiction of reality but rather an image that meant both more and less than the denotative meanings of the words. Specifically in the case of comparing Leo to a "slug" the humor occurred because the group members sensed the appropriateness of the comparison between Leo and the "presumed social characteristics" (Fine, 1983a, p. 9) of a slug.

In order to more conveniently distinguish "non-present target" humor from "present target" during training for coding, the judges began to refer to the non-present target category as "target absent", and this practice continued.

Present Target

When the target of a humorous remark is present, the humor generally has a different quality in that it is more civil in tone. The function of humor directed at a present target varies from controlling another's behavior to establishing and maintaining group solidarity. As a means of establishing interpersonal relations or group unity humor creates "a social stereotype or public persona" (Fine, 1983a, p. 91) for the interacting members. While among friends, humorous comments if taken at face value appear to be quite derogatory, such comments are not taken literally because of playful cues such as smiling and atypical paralinguistic emphasis. The willingness to accept others' playful attacks and to respond in kind demonstrates that a member can "take it" and this ability is critical in developing interpersonal trust (Haas, 1972). Miller (1967) in his study of a Chippewa Indian Tribal Council reported that "ribbing" and "wisecracking" humor is used to "create an atmosphere of good feelings" (p. 265), a trusting communal relationship, and a shared perspective within the group. Humor is thus a vehicle through which the members are able to express acceptance and approval of each other.

In the work environment where co-workers spend extended periods of time together, relationships are frequently structured through practical jokes and ongoing humorous exchanges. Studies of relatively isolated groups of blue collar workers who are performing repetitious and tedious jobs reveal elaborate patterns of ongoing humorous interactions (Roethlisberger and Dickson, 1939; Roy, 1959-60; Bradney,

1957; Coser, 1960; Sykes, 1966).

Humor which is based on playful attack is found primarily among all male groups. The ability to joke and tease in a give and take manner begins early in a boy's life and becomes an accepted part of normal interaction patterns by preadolesence. For many males, derogatory teasing is an indication that the parties are having a good time (Fine, 1980, 1981; LeMaster's, 1975). In such interactions the target is expected to collaborate in his/her degradation, and then respond as if the remark has not affected the core self. In many instances the target will smile and then reciprocate with a remark about the humorist. This type of interaction is based on a willingness to accept "an eye for an eye" all in fun relationship. The shaping of the target's identity is moderated by the social proprieties associated with a joking relationship. A specific example of this type of interaction was reported by Fine (1983a, p. 91) who when describing his professional work to friends had one ask, "Why are you doing this?" Another immediately responded, "because he's insane!" Fine felt neither anger nor alienation, but "warmth" from the comraderie.

The emergence of cohesion among patients in a hospital was described by Coser (1959) who found when patients are anxious about themselves and frustrated by demands to submit to the rigid authority of the hospital structure and routine that humor or jocular griping, "the collective expression of an individual complaint" (Coser, 1959, p. 176) lifts their spirits. Through humor the patients in a brief span of time and with a minimum of effort are able to join together to

mutually reinterpret their experiences, entertain, reassure, communicate, convey interest in one another, and transform individual experiences into collective experiences that increases a sense of equality.

Self-Deprecating Humor

In some humorous instances a source will make the self a target by presenting a less than perfect public self who he/she is willing to let others enjoy. Such self-disparaging behavior seems to be motivated by the humorist's desire to be viewed by others in a positive light. This concept was supported by Zillmann and Cantor (1976) who observed that there seems to be a common assumption in American society that a person who is willing to make him/herself the butt of a joke can gain from the action because the person will be perceived as a "good guy" or a secure person who can face personal short-comings and smile. When directing humor at the self, a humorist is creating an identity that is based on aspects of the self that are not central to the self concept. The humor comments on roles the humorist fulfills. Zillmann and Stocking (1976) cited a quip Alex Karras made regarding his role as a "dumb" football player. Karras noted that he did not receive his degree from the University of Iowa because he was there only two terms -- Truman's and Eisenhower's (p. 154).

In investigating professional comics Levine (1976) found that females make more self-disparaging comments than do males. Females used self-deprecating humor 63% of the time, while 12% of the male comedians' remarks were self-deprecating. A study of responses to self deprecating humor (Zillmann and Stocking, 1976) reported that both

males and females described a self-disparager to be "appealing", but that females were most positive regarding this type of humor. Females found self-disparagers to be "significantly more intelligent, provocative, and skillful" than humorists who disparaged others (p. 161).

Humor and the Definition of Situations

Humorous Interaction and the Construction of Situations

In addition to establishing identities, humor can define situations, and encourage others to accept the proposed definition. Since talk can reflect the past it can redefine previous situations as well as confirming, solidifying or altering the present. In doing so humor does not create new meaning, but it builds upon that which is accepted to present alternative definitions.

Immediate Situational Relevance

The immediate situation is always an appropriate subject for commentary in either a serious or jocular vein. The definition of meaning suggested by humorous comments may only last as long as a joke, or it may become a permanent view point. Humorous talk structures situations by providing: accounts (excuses or justifications for actions); social control over the situation; or alternative definitions of the experience.

Accounts

In their discussion of humor as a social tool, Kane, Suls and Tedeschi (1977) suggested that humor can be a face saving-device that transforms an embarrassing situation into a favorable one, and a means of decommitment or a method of denying responsibility for acts. Accounts are frequently used to justify actions that may carry a social stigma. The account may propose a "denial of injury" (Fine, 1983a, p. 94). By presenting an account the humorist is requesting immediate support for the action, and laughter or a positive response will indicate that the account has been accepted. If the account is not accepted, the humorist may propose another explanation to negotiate meaning. An instance of this type of humor occurred when a girl threw a sandwich from a car window and accounted for her behavior by saying, "I littered, but it's biodegradable. A peanut butter and jelly sandwich. No big threat to the ecology." Her companions responded with laughter (Fine, 1983a).

Alternative Definition

Humor can be used to structure situations by presenting alternative claims about the nature of the on-going reality. By humorously proposing alternative definitions the source can strategically distance him/herself from the interpretation if it is rejected. An example of a failed attempt at alternative definition occurred in a Chippewa Tribal Council meeting in which an announcement was made that "the sawdust would be flying by New Year's Day" on a new construction

project. When a council member who was opposed to the project asked, "When will the dirt start flying," his remark was followed by silence, his belated laugh, and two or three abortive snickers (Miller, 1967, p. 268-269). In a more threatening environment humor can be used to redefine a situation, influence group members' attitudes and spirits, and attack an oppressor. For Obrdlik (1942) the gallows humor of the Czechoslovakian freedom fighters was a powerful weapon with which "to ridicule with irony, invective, and sarcasm" (p. 716) the Nazi invaders, while strengthening the morale and spirit among the resistence. He related the story of a village in which the Gestapo men found a "hanged hen with the following inscription fastened to her neck: 'I'd rather commit suicide than lay eggs for Hitler'" (p. 715). The story quickly spread all over the country.

Social Control

Humor can be used as a device to control intragroup behavior, and to encourage members to accept group norms (Martineau, 1976). While these control techniques may be aggressive, or even ridicule group members (Powell, 1977), they need not be abrasive. Miller (1967) cited an instance in which the tribal chairman noted the late arrival at a morning meeting by two council members by ironically saying, "Good afternoon" (p. 266) and Fine (1983a) described a situation where a referee in a fantasy game attempted to speed things up by reminding the group that one member was outside, "being bored out of his gourd" (p. 95).

Reinterpreting Past Events

In addition to negotiating the meaning of current situations, humor can be used to reconstruct past events. Since all those present may not have experienced a significant event, a humorist may depict the event as he/she choses. The use of such humor is not intended to channel current behavior but to provide a meaningful direction for future behavior by "analogy" (Fine, 1983a, p. 97). By giving meaning to past events the humor may shape present and future events by presenting them with a "moral background" (Fine, 1983a, p. 97). Fine cited the following example when the date of a fantasy game player did not go as planned, one of the group members claimed credit by commenting gleefully, "My spell worked," (Fine, 1983a, p. 96).

Personal Attributes of the Humorist

While it is apparent that humor can be used to define identities and situations, not everyone uses humor. In their description of humor encoding and decoding processes Giles, Bourhis, Gadfield, Davies, and Davies (1972) declared that humor creation is influenced by the defining attributes of the encoder or source and the relative status of the source and receivers. A review of the humor literature suggests that significant attributes include sex and psychological orientation toward dominance.

The body of literature that discusses differences in male and female learned behavior (see Eakins and Eakins, 1978; Deaux, 1976) describes males as generally being more dominant and competitive than

females. These traits also seem to be reflected in the social use of humor in that males in mixed sex groups more often assert themselves by initiating humor while females smile and laugh in response to it (Eakins, and Eakins, 1978; Middleton and Moland, 1959; Pollio and Edgerly, 1976; Smith and Goodchilds, 1959). For example Pollio and Edgerly (1976) found in one study of a mixed sex group that of 111 attempts at humor females made only 15. Since males do not use more humor until the end of the preschool years (McGhee, 1979) it would appear that the development of the ability to utilize humor is related to sex role expectations regarding assertiveness. Other evidence does suggest that people who use humor do tend to be more aggressive and domineering than those who do not. McGhee (1979) found that children who clown and joke do demonstrate more social assertiveness and physical and verbal aggression," and Salameh (1980) reported that professional comedians differ from control groups by being "higher in dominance, social ambition, aggression, self-confidence, impulsivity, and verbal fluency" (Salameh, 1980, quoted in Fisher and Fisher, 1983, p. 43).

In laboratory and naturally occurring groups, self described wits or humorists see themselves as being active group participants who fulfill a variety of task and maintenance roles (Smith and Goodchilds, 1959). Others tend to agree with the wits' positive self-descriptions. Witty females are seen as being "likeable" and "helpful to the group" and "enthusiastic" (p. 181); while males are seen as being "influential" and "less worried" (Goodchilds, 1972, p. 182). Not all group members are equally positive about wits in groups since some

members labeled all wits as being "loud" and some males as "annoying" (Goodchilds, 1972). In mixed sex groups only males use "sarcastic" or aggressive humor (Smith and Goodchilds, 1959); but all types of humor occur in all female groups (Goodchilds, 1972). Males who use sarcastic humor are seen as being more active, more varied in role function, and are more favorably rated by self and peers than are nonsarcastic wits (Smith and Goodchilds, 1959). The members of groups with deliberate wits report greater satisfaction with the group. These groups are more efficient, and have more correct scores for problems with specific answers than do groups in which there is little or no humor (Smith and Goodchilds, 1963).

The relationship between dominance, sex, and humor is also reflected in humor preference studies. Chapman and Gadfield (1976) reported that aggressive humor is rated funnier by males, and that females prefer humor based on the absurd. Zillmann and Stocking (1976) had subjects react to scripts in which a character either disparaged himself, a friend, or an enemy. Subsequent analysis found that males and females react very differently to the scripts. For males it is significantly funnier to see a male disparage a male enemy rather than himself, while for females it is funnier to see a male disparage himself rather than an enemy. Only in the "disparage friend" condition is there agreement between the sexes, and in that case neither males nor females are particularly amused. Since there is frequently an element of antagonism between males and females it would seem that males should find humor to be funnier when females are

the victim, and females when males are the butts. While this is true for males, it is not for all females, in that some females prefer humor in which males victimize females (Cantor, 1976; Losco and Epstein, 1975). These female subjects perceived the jokes to be even funnier than the males did (Cantor, 1976). Zillmann and Stocking (1976) suggested that these differences may occur because females are less concerned with being dominant and infallible than are males.

While females may be less concerned with being dominant than males are, there is no evidence to suggest any significant difference in males' and females' psychological orientation toward dominance, or that males or females use humor differently in same sex groups. Goodchilds (1959) noted that all types of humor are present in all female groups, and the California Psychological Inventory (Gough, 1975) does not indicate any significant difference in male or female dominance scores on his self report scales. In one sample it was reported that the mean for 52 high dominance males was 28.00, while for 51 high dominance females 28.12 was the mean. However, social expectations regarding humor do seem to lead to different patterns of humor usage for males and females when they are in mixed sex groups. In mixed sex groups not only do males use more humor, but the style of humor is different from female humor.

The Impact of Status

The importance of status in humor production is evident in studies of humor in the work place, and especially in the hierarchically structured health care field. Individuals in high status

position initiate more jocular comments than do lower status employees, and this humor is more likely to be made at the expense of others. Goodrich, Henry, and Goodrich (1954) and Coser (1960) found that a substantial portion of the humor that occurred in psychiatric staff conferences was disparaging humor directed toward others. In analyzing 103 witty remarks, Coser found 90 directed at a target, with 53 of the 90 made by senior staff members. Of these 53 comments 30 were directed at junior staff and patients, and four (4) at themselves. Of the 37 junior staff jokes 13 were directed at patients and 12 at themselves. While this humor reinforces the hierarchical structure, it also serves other functions in that it helps release tension, reduces social distances, promotes teaching and learning, and reduces role conflicts (Coser, 1960). In doing so it both creates group solidarity and reinforces essential control structures.

Humor, Laughter, and Smiling

Since smiling and laughter frequently occur in the presence of humor, a temptation in humor research is to quantitatively and qualitatively investigate laughter and smiling as measures of humor. Smiling and laughter appear to be optimal dependent variables for measuring humor because their presence can easily be detected and provide high inter-observer reliability. Measures can also readily be devised for evaluating latency, duration, amplitude, and intensity of these variables. However, people do laugh and smile at humorous stimuli, other conditions also bring forth these behaviors such as

being sociable; feeling embarrassment or anxiety; acting derisively or apologetically; or rough housing and tickling (Giles and Oxford, 1970). Thus, the occurrence of laughter and smiling is not a valid measure of humor.

The issue of non-humorous laughter and smiling has not always been addressed in humor investigations. Humor has been operationalized in such diverse ways as asking subjects to rank order jokes for their "funniness" (Godkewitsch, 1972, p. 153) and recording observable behavior on graduated scales (Pollio, Mers, and Lucchesi, 1972). La France (1983) noted that when humor is operationalized as smiling or laughing, there is often an implicit assumption that a relationship exists between the degree of felt funniness and visible response, while in many instances the person who is most animated in his/her laughter may be simply being polite, and the person smiling the least may be waiting for a more appropriate time to laugh. In such cases social context rather than humor influences the response. Measures of amplitude, duration and intensity may describe the nature of laughter; however, what they best assess is how people laugh, rather than the range of things they find humorous. The assumption that physical responses to humor can be measured on a continuum excludes the possibility that "there are types of laughter and types of smiles" (La France, 1983, p. 2) which vary in their relationship to each other.

While research has not clearly delineated the relationship between humor and smiling and laughing behaviors, investigators in

various disciplines have begun to describe the behaviors that occur when a source requests a humorous response, and the nature of responses that are characteristic of genuine and false smiles and laughs. However, any attempt to analyze humor based on laughing or smiling responses must investigate the relationship between smiling and laughing. Darwin (1872) stated that "a man smiles - and smiling as we shall see, graduates into laughter" (p. 210). Berlyne (1972) reasoned that while smiling and laughing are distinct, they are not independent. The assumption that smiling and laughter are sufficiently similar to be measured on the same scales is reflected in the observational studies of humor by Pollio, Mers, and Lucchesi (1972) and La Gaipa (1977). This dissertation will assume that smiling and laughter are related behaviors, reflecting similar internal states.

Nonverbal Studies of Smiling and Humor

A complex and sophisticated method of describing and analyzing facial movements, or action units was proposed by Ekman and Friesen (1978). The Facial Action Coding System (FACS) objectively describes 44 action units in terms of intensity, laterality, temporal location, and timing. One unit related to self-reported happiness, the "lip corner puller", genuine smile, involves three visual changes: 1) the nasolabial furrow is raised slightly up and laterally; 2) the infraorbital triangle is slightly raised and puffed out at its side top corner; and 3) the lip corners are slightly elongated and upward. The "cheek puffer" which lifts and puffs out the cheeks by pulling upon the lip corners while narrowing and tightening the lips, and the

"dimpler" which tightens the mouth corners by pulling to form wrinkles and a bulge at the lip corners are more representative of feigned or unfelt smiles.

While the FACS' approach to analyzing facial movement provides important information regarding facial responses and internal states, presently there is no data relating facial actions to humor. While this method of investigation may have future potential in humor studies, it is presently financially and technically beyond the scope of this dissertation. However, other more general information has emerged from these studies which will be of use. The placement or location of a smile within an interaction is an important consideration. A felt smile occurs suddenly and is reflexive and brief in appearance (McGrew, 1972). It lasts between .67 and 4.0 seconds (Ekman and Friesen, 1982), and is symmetrical. A deliberate smile is a partial smile in which only one side of the mouth is pulled upward (Ekman, Hager, and Friesen, 1981).

Laughter in Interaction

In addition to the finding by Giles, et al. that speakers become more "fluent" when relating prepared humorous rather than serious material, ethnomethodologists have reported that people use specific techniques to invite laughter. While not specifically investigating humor, Jefferson described laughter as a managed interaction in which a source invites receivers to laugh and the receivers either accept or decline. Source's laughter invites laughter from others. This

outline occurs during an utterance, "within speech laughter;" immediately following an utterance; or after a brief pause, "post utterance completion" laughter (Jefferson, 1979, p. 80).

Acceptance to the invitation to laughter that is genuinely felt begins voluntarily during the utterance at a "recognition point" which is a legitimate and acceptable place to laugh (Jefferson, 1979, p. 81). However, genuine laughter can also begin with post utterance completion laughter because the receiver is awaiting a cue that a laughing response is expected.

If an invitation to laughter is declined, the receiver must do more than remain silent because silence induces the source to "systematically generate a pursuit of laughter" which leads to polite laughter. Genuine voluntary laughter will occur between .67 and 1.0 seconds of utterance completion (Pollio, et al., 1972). Jefferson found that the most effective means of declining laughter was to initiate serious conversation about the topic.

Summary

As an element in the process of social interaction, humor can define persons and describe situations. In this dissertation humor is defined as an intentional verbal act designed to create laughter, smiling, or an appropriate verbal response. Although humor is primarily verbal, nonverbal facial actions and gestures do add to the humorist's impact. The desire to have an utterance considered to be humorous is cued by laughter within speech, laughter occurring immediately after the utterance, or laughter arising after a pause of no

longer than one second in duration.

Genuine laughter and smiles as humorous responses begin either within the utterance, or within one second of utterance completion, or after no more than one second of source laughter. Smiles without laughter are spontaneous and symmetrical, and last no longer than 4.0 seconds. Smiles and laughter which occur from physical stimuli such as tickling, or after an explanation are defined as "polite laughter or smiles" and have a different impact on interaction than do genuine humorous smiles and laughter.

Chapter IV

Procedures and Methods

Underlying Assumptions

Two underlying assumptions have guided the research for this dissertation. The first is that humor, as an intentional verbal act, can influence the construction of social reality through establishing definitions of identity and descriptions of social situations. The second assumption is that psychologically dominant people use humor as a tool to create social meaning more often than less psychologically dominant persons. However, the validity of the second premise cannot be clearly established without considering the nature of psychological dominance, dominant behavior in interactions and the impact of learned sex-role behavior on social interaction.

Although it has been clearly established that no significant differences exist between males and females on self-report dominance scales (Gough, 1975), the relationship between psychological dominance and domineering transactional behaviors is less clearly understood. In reporting an analysis by Erickson (1972) of psychological dominance and complementary and symmetrical transactions, Millar and Rogers (1976, p. 98-99) noted that there were no significant relationships. However, when utilizing a deviation-from-randomness score, Erickson did find a general indication of non-randomness in transactional patterns. Specifically marital dyads used fewer transactional types when discussing a "family situation topic" than an "emergency situation

topic." Since the Erickson study investigated marital dyads rather than groups, the nature of the relationship between psychological dominance and relational dominance in groups was not apparent. The impact of dominance on humor initiation and type is also unknown. While there are no significant differences in humor type in same sex groups (Smith and Goodchilds, 1959; Goodchilds, 1972), there are definite differences in humor initiation and type in mixed sex groups (Eakins and Eakins, 1978; Middleton and Moland, 1959; Pollio and Edgerly, 1976; Smith and Goodchilds, 1959; Goodchilds, 1976). Consequently questions arise regarding whether:

1. There is a significant relationship between psychological dominance and sex and attempts at relational dominance in stranger interactions.

2. There is a significant relationship between psychological dominance and sex and responses that confirm dominance.

3. There is a significant relationship between psychological dominance and sex and humor attempts.

4. There is a significant relationship between psychological dominance and sex and the amount and type of humor in small group interaction.

5. There is a significant relationship between psychological dominance and sex and responses to non-humorous and humorous statements.

Measures of Dominance

In order to compare humor initiation and response by dominance, two measures of dominance will be utilized. The California Psychological Inventory (Gough, 1975) measures dominance as a psychological construct, and relational dominance will be evaluated from transactional perspective (Rogers-Millar and Millar, 1979).

California Psychological Inventory

The California Psychological Inventory (Gough, 1975) was created to develop theoretically "descriptive concepts which possess broad personal and social relevance" (p. 5) to characterize human behavior and to devise "brief accurate and dependable subscales of personality traits" (p. 5). The inventory provides 18 standard scores, but only the Dominance scale is used in this dissertation. The Dominance scale consists of 46 true/false statements (see Appendix A). An individual who scores high on the scale has been characterized as being "forceful, persistent, and self assured," while a low scoring person tends to be "retiring, unassuming, and perhaps inhibited and lacking in self-confidence" (Gough, 1975). Standard scores were derived from a sample of 1,133 males and 2,120 college females. The mean for the males was 28.3 and the standard deviation 6.3. For the females the mean was 28.5 and the standard deviation 5.9. A specific subsample of 204 high school students yielded a mean of 28.00 for high dominant males (HDM), and 21.58 for low dominant males (LDM). The standard deviations were 6.39 and 4.58 respectively. High dominant females (HDF) had a mean of 28.12 with a standard deviation of 5.22, and low dominant females (LDF) had a mean of 21.08 with a standard deviation of 5.84.

In evaluating the California Psychological Inventory Baucom (1985) described it as a popular research tool, that measures "folk concepts," or the manner in which most people think about social

behavior. The scales do not purport to measure personality traits, but they do claim to 1) predict what people might say or do in defined situations, or 2) identify how specified people will be described by others. Since the inventory was developed to assess broad behavioral tendencies, extremely high correlation with external criteria have not been reported. Validity correlations have ranged from .2 to .5. However, the scales are regarded as measuring what their titles suggest because such relationships are "typical in personality research" (Bausom, 1985, p. 251).

Relational Dominance

Descriptions of the role of dominance in interpersonal communication have emerged from the studies of Ruesch and Bateson (1951), Watzlawick, Beavin, and Jackson (1967), Erickson (1972), Erickson and Rogers (1973), Rogers and Farace (1975), Millar and Rogers (1976), and Rogers-Millar and Millar (1979). These studies have described social interaction as "a continually experienced joint negotiation process" (Rogers-Millar and Millar, 1979, p. 238) in which the resultant structure is co-determined by the actions of the system's members. Interactional studies have been based conceptually on a distinction made by Ruesch and Bateson (1951) that all messages contain report and command aspects in which the report content conveys information and the command or relational element defines the nature of the relationship. A procedure for coding and analyzing the "relational" and "processual" aspects of interpersonal communication systems was proposed by Rogers and Farace (1975, p. 222). For them the

relational or control aspects of the message defines those elements in message exchange by which interactors reciprocally define the nature of their relative "position" or dominance in "their interaction" (Rogers and Farace, 1975, p. 222). The processual aspects of interpersonal communication are concerned with understanding "relational control 'patterns' in ongoing interaction systems" (Rogers and Farace, 1975, p. 222). In further application Rogers-Millar and Millar (1979) undertook the task of investigating dominance and domineeringness (the attempt to be dominant) in married couples' relationships.

Influenced by Olson and Cromwell (1975), Rogers-Millar and Millar viewed power as a generic construct that consists of three different but interrelated domains. The first is the power base which has the potential to influence, constrain, or structure social behaviors because of available "resources". Power processes are negotiated interactions in which influence attempts are exerted and accepted or resisted through messages. Finally, power outcomes result from after the fact conclusions about who "decides" or "wins", and are concerned with the consequences of negotiation on the relational structure. From Rogers-Millar and Millar's perspective, power is viewed as emanating from the resource domain because of the potential to define, modify, or influence the behavior of others. Relational control which is concerned with defining the interpersonal system, emerges from the process domain and is characterized by the "message exchange patterning of sequential attempts at defining the system's relational shape" (Rogers-Millar and Millar, 1979, p. 239). Dominance is derived

from process outcomes and is the result of "the actual relational control definitions that have occurred in the interaction" (Rogers-Millar and Millar, 1979, p. 239).

Of the three domains, the "power processes" is the most dynamic and of greatest concern because it indexes the emerging and evolving patterns of behavior exchange. When relational control is investigated both individual acts which are control maneuvers (attempts to give control direction to a given message) and control patterns (joint transactions based on combined individual control maneuvers) must be considered. This process of seeking relational control involves not only "ego-casting", reflecting a particular relational definition, but also "alter casting" by seeking an appropriate response that will confirm the definition. Since most control maneuvers are associated with "one-up" messages, or statements that assert dominance, the expected response is a "one-down" statement deferring to the domineering attempt and acknowledging the ego's dominance. When the response to a "one-up" message is "one-down" the transaction is complementary and the ego is in a dominant position. However, when the alter ego responds to a "one-up" statement with a "one-up" response the transaction is symmetrical and the ego has not been permitted to establish a dominant position. The act of transmitting verbal statements which claim the right to be dominant is an act of domineeringness. Only when the message is accepted in a "one-down" complementary manner does dominance occur.

The actual analysis of interactions was based on Sluzki and Beavin's (1965) premise that the control definition of a message rests

in both the grammatical and response form. The five categories of the grammatical codes are: 1) assertion, any completed referential statement, either declarative or imperative in form; 2) question, any speech which takes on an interrogative grammatical form; 3) talk-over, an interruptive manner of entering an ongoing utterance by the other actor; 4) incomplete, any utterance that is initiated but not expressed in a complete form; and 5) other, verbal utterances which are unclassifiable as to their form. Response categories that were coded include: 1) support, the giving and seeking of agreement, assistance, acceptance, or approval; 2) nonsupport, which denotes disagreement, rejection, demands, and challenges; 3) extension, which continues the flow or theme of the preceeding message, and includes noncommittal responses to a question; 4) answer, a response to a question which has substance and/or commitment; 5) instruction, a suggestive and evaluative statement which is often accompanied with qualification and clarification; 6) order, an unqualified command with little or no explanation; 7) discomfirmation, which occurs after a statement has been made that demands a response by the other individual and he/she does not respond to the demand; 8) topic change, which occurs with the introduction of a new idea after the discussion of another topic so that the second message has nothing in common with the first; 9) initiation-termination, which either begins or attempts to end an interaction; and 10) other, which is used if the response is unclear or unclassifiable.

Coding of messages and response forms includes one-up, one-down,

and neutralizing or control-leveling categories. Responses that are perceived as an attempt to gain control of the exchange are coded as one-up (↑) and include: nonsupport responses (such as questions demanding an answer); answers with substance; instructions; orders; disconfirmations; topic changes; complete statements of initiation; talk-overs (except supportive talk-overs); and those with unclassifiable response modes. The one-down code (↓) reflects messages which seek or accept control by the other. These categories are all support responses: including questions that seek affirmation; incomplete phrases that allow others to take control; supportive talk-overs; and questions that continue the dialogue (extensions) or have uncodable responses (other). Neutralizing (→), or control leveling, categories are viewed as carrying an interaction along with a minimized effort at controlling the relationship. Code categories that are seen as one-across maneuvers are assertions of extension; utterances with uncodable response modes; incomplete phrases; and "other" (unclassifiable message forms) that are extensions. This category would include questions (i.e., the empty answer response); incompletes that initiate or terminate and have unclear response modes; and utterances with both uncodable messages and response modes (i.e., "other-other"). Visually the relationship between message type and control direction can be represented in the following figure:

Figure 1
Message Type and Control Direction
Rogers and Farace

		Support 1	Nonsupport 2	Extension 3	Answer 4	Instruction 5	Order 6	Disconfirmation 7	Topic Change 8	Initiates-Terminates 9	Other 0
Assertion	1	↓	↑	→	↑	↑	↑	↑	↑	↑	→
Question	2	↓	↑	↓	↑	↑	↑	↑	↑	↑	↓
Talk-over	3	↓	↑	↑	↑	↑	↑	↑	↑	↑	↓
Noncomplete	4	↓	↑	→	↑	↑	↑	↑	↑	→	→
Other	5	↓	↑	→	↑	↑	↑	↑	↑	↑	→

The ability to code the control aspects of messages provides a basis for relational analysis. However, the impact of relational communication occurs not from the intent of single messages, but as a result of interaction between sequential messages. From the analysis of these evolving messages it is possible to describe the continual shifts in control patterns.

There are nine types of interaction patterns which occur from the combination of the three directional possibilities. Symmetrical transactions can occur as competitive symmetry ↑↑; submissive symmetry ↓↓; or neutralized symmetry →→. Dissimilar or complementary ex-

exchanges include one-down/one-up ↓↑ and one-up/one-down ↑↓ interactions. The across or transitional category provides greater insight into control measures which do not directly respond to the preceeding message. These responses can neutralize one-up or one-down messages ↑→, ↓→ , or permit others to respond in a one-up or one-down manner →↑, →↓. No attempt to gain control or defer to the other can be represented as a double neutralizing movement ↕.

Although the critics of relational communication theory are generally sympathetic with its goals, they have charged the work with lacking conceptual clarity. Parks (1977) found the distinctions between one-up, one-down, and one-across to be rudimentary and needing elaboration. After citing Carson (1969), who claimed that there are two underlying dimensions for each communication episode - dominance/submission and hate/love, Wilmot (1980) challenged the specification of complementarity and symmetry as the only constructs of a theory of relational communication. He also questioned whether control moves in a conversation are synonymous with overall relational definitions. In a specific reference to Rogers-Millar and Millar, Wilmot argued for not equating "these excellent studies of <u>conversation</u> control as being synonymous with relational control.

While the distinction Wilmot drew between conversation control and relational communication should be appreciated for providing definitional clarity, clearly the methods devised by Rogers-Millar and Millar are a significant part of relational communication theory. By adopting their analytical methods for group discussion, it is possible

to investigate the immediate impact of humor on relational interaction.

The Method of Investigation

Subject Selection

Subjects for this study were selected from the 83 students who were enrolled in Introduction to Human Communication, the basic speech/communication course at Central College, Pella, Iowa during the fall term 1984. During a class session the students completed the Dominance Scale of the California Psychological Inventory. This inventory has often been used to describe the personality characteristics of a specific group of subjects. However, others have used the inventory to separate subjects into subgroups. Waid and Orne (1982) divided subjects into high, medium and low subgroupings according to the "sociability" scale, and Bohn (1965) separated counselors into two groups by their dominance scores. Waid and Orne, (1982) divided subjects into high and low dominance groups to measure the emergence of leadership. The procedure of dividing subjects into "high" and "low" subcategories was followed in this dissertation.

The male subjects' scores ranged from 41 to 14, and the females' scores from 39 to 13. Medians, means, and standard deviations were computed for all subjects and the males and females in order to assign the subjects to high and low dominant categories. For all the subjects the median was 27.50, the mean 27.25, and the standard deviation 5.93. The median was also 27.50 for the males, the mean was 27.675

and the standard deviation 5.94. For the female subjects the median was 27.50, the mean 26.825, and the standard deviation 5.97. One female subject had a dominance score of 27.00. Since her score placed her below the median and slightly above the mean, it was difficult to assign her to a dominance category. However, because there were 20 females who were both above the median and mean, a decision was made to classify her as a low dominant female. Thus, high dominant males and females were both defined as being subjects with scores of 28.00 or above, and low dominant males and females as those with scores of 27.00 or below. The mean for high dominant males (HDM) was 30.95 and for high dominant females (HDF) the mean was 30.25. For low dominant males (LDM) and low dominant females (LDF) the means were 22.95 and 20.95 respectively. Of the 40 females who completed the California Psychological Inventory there were 20 high dominant females and 20 low dominant females, all of whom agreed to participate in the study. Of the 43 males 22 were high dominant and 21 low dominant. One of the high dominant males was disqualified because he had participated in a pilot study the previous summer, and another's schedule was incompatible with the proposed taping times. One low dominant male was unwilling to participate in the study.

The Method

The subjects were divided into 20 groups of four that were matched to obtain the following ten composition patterns. There were two groups for each pattern.

All Male Groups

1. HDM, HDM, HDM, HDM
2. HDM, HDM, LDM, LDM
3. LDM, LDM, LDM, LDM

Mixed Sex Groups

4. HDM, HDM, HDF, HDF
5. HDM, HDM, LDF, LDF
6. HDF, HDF, LDM, LDM
7. LDF, LDF, LDM, LDM

All Female Groups

8. HDF, HDF, HDF, HDF
9. HDF, HDF, LDF, LDF
10. LDF, LDF, LDF, LDF

While there were obviously more potential combinations for groups than those chosen, it seemed that other sex role variables might arise in groups with only one member of each sex or with only one high or low dominant member. Thus, these potential groups were eliminated and the groups were either all male, all female, or balanced with two men and women.

Data Collection

Each of the 20 groups was videotaped in a large room on the second floor of the Geisler Learning Resource Center on the Central College Campus. Taping sessions were held from 4:00 to 4:30 p.m.; 4:30 to 5:00 p.m.; 7:00 to 7:30 p.m.; and 7:30 to 8:00 p.m. from Monday, October 22, 1984, through Thursday, October 25, 1984, and on Monday, October 29, 1984. Every attempt was made to coordinate the taping sessions with student schedules.

The taping sessions were conducted by two student assistants. One taped the afternoon sessions, and the other the evening sessions. When the subjects entered the room, they were asked to write their names on the blackboard and to sit in the same order in chairs that had been placed in a semi-circle.

Once the group was settled, the assistant was asked to read the following instructions to the group:

> "Mr. Lerstrom is interested in how people interact in groups. You will be given a short problem to solve as a group. We know that being in front of a video camera seems a bit strange, but please act as naturally as possible -- relax and do not be afraid to have some fun as you interact."

After reading the instructions the assistants gave each subject a sheet of paper with the following problem:

> You are marooned on a desert island with no immediate hope of rescue. You are allowed to take with you three and only three things. What will you choose to take? (Goodchilds, 1959)

Once the sheets had been passed out the assistants started the video equipment, and left the room. An electronic digital readout was superimposed on the videotape, and appeared at the bottom of the screen. When viewing the tapes, judges were able to note when a comment occurred within 1/100th of a second. After 15 minutes the assistant returned. The subjects were thanked for participating, but they were not debriefed.

Judges and Training

The judges who analyzed the videotape material for this dissertation faced a variety of tasks, and consequently the analysis was divided into a series of sequential steps. The initial judges were Edith Lerstrom, M.S., the wife of the author, and two Central College collegues, Dr. Daniel V. Collins, and Dr. Lee J. Collins. It was assumed that the opportunity to use all experienced classroom teachers (and in the case of the Collins, student teaching supervisors who are skilled at observing and describing classroom interactions), would provide higher levels of reliability. The initial task had two goals. The first was to identify intentional humorous messages and to locate them on the videotapes. The second goal was to identify the initial respondent and to code the response as being "genuine", "polite", or "ignored" (see Appendix B, Humor Sheet).

Following the completion of this task, a second series of training sessions were held to learn to classify the humorous message's purpose according to a system developed by Fine (1983a). This process entailed categorizing humor as Establishing Identities: target absent, target present, or target self; Describing Situations: accounts, social control, alternative definition, or reinterpreting past events; or Other: not fitting into the given categories (see Appendix B, Humor Sheet)

Following the classification of the humorous messages the five most humorous and the five least humorous minutes in each tape were identified by the author through examining the humor sheets for each

judge in order to code the number of pieces of humor and their distribution. This was easily accomplished as the judges listed the time of each humor attempt on the humor sheet. There was little consistency among the groups as to when the least and most humor would occur. Sixty percent of the time the five minute segment with the most humor would occur after the group had been working for seven minutes, and in 55% of the groups the least humor occurred in the first seven minutes as the members were getting acquainted. At this point judge Lee Collins was unable to continue, and the author became the third judge. In the third analysis each message in the five most and least humorous minutes of tape were coded according to their Grammatical Form: assertion, question, talkover, incomplete, and other; and Response Mode: support, non-support, extension, answer, instruction, order, discomfirmation, topic change, initiation-termination, and other. These analyses were referred to as "control direction of response" (see Appendix C, Control Direction of Response Sheet).

In all three training blocks the sessions included discussions and practice sessions using tapes from a pilot study. Following the training blocks a composite reliability coefficient was computed for "humor attempts;" "purpose of humor;" and "control direction of response." The formula for composite reliability is:

$$CR = \frac{N \text{ (average inter-judge agreement)}}{1 + [(N - 1) \text{ (average inter-judge agreement)}]}$$

The reliability coefficients were .98, .99, and .875

respectively. The reliability coefficient for the "control direction of response" was comparable to the .86 average reliability reported by Erickson and Rogers (1973).

The Definition and Operationalization of Terms

Message

The primary unit of analysis in this study was the message. A message was defined as "each verbal intervention by participants in a dialogue" (Rogers and Farace, 1975, p. 228). The message can be a single utterance, or a flow of continuing utterances. In most utterances each message was treated as a response to the preceeding message and as a stimulus for the one that follows. However, since the interactions in this study occurs in groups, there were instances in which simultaneous conversations arose, and in those instances separate analyses were noted and maintained for each interaction.

Humorous Messages

As a type of message, humorous messages were defined as an intentionally managed interaction (Jefferson, 1979; Fine, 1983a) that invited receivers to laugh or smile. The invitation could have occurred within the utterance, immediately following the utterance, or after a brief pause. Most often the invitation was a laugh or smile, but occasionally it was expressed through facial expression or gesture.

Response to Humor Attempts

Polite and Ignored Responses

When a humorist seemed to systematically demand a smiling or laughing acknowledgment of his/her joke either through repetition of the remark or by overt gesture, the laughter or smile that resulted was classified as "polite" laughter. If all receivers responded to attempted humor with silence or by initiating serious comment about the topic, the response was coded as "ignored".

Genuine Responses

A genuine response to attempted humor was characterized by a felt smile or laughter. La France distinguished between feigned and felt smiles. A feigned smile is asymmetrical with one side pulled obliquely upward (La France, 1983) while a felt smile is symmetrical and lasts between .67 and four seconds. A felt smile and genuine laughter begin suddenly and voluntarily either during an utterance, at an appropriate recognition point at the beginning of the humorist's post completion laughter or within 1.0 seconds after the post completion laughter, or within 1.0 second after the post utterance laughter has ceased.

Humor Type

The humor was coded according to the categories proposed by Fine (1984). Since Fine's work was discussed in Chapter III, only the essential concepts that the judges were asked to learn will be reviewed

here. The judges were given notes with a brief description of each humor type.

Establishing Identities

In social interaction humor can shape identities by assigning a target a social role or by creating a social type (Stone, 1962). Humor that creates social identities refers to non-present others (target absent), present others, and the humorist him/herself.

1. Target Absent

When a target is not present, humor may be overt and cruel in its depiction of the other. This humor is intended to create a negative identity for the target and to place him/her in an undesirable social position by attributing qualities to the target that are not literal depictions of reality, but images that reflect identifiable traits or characteristics.

2. Target Present

Humor that is directed at a present target is more civil than that aimed at an absent target. Target present humor has two distinct functions. It may be used as a means of achieving social control in order to influence others behavior, or it may assert a supportive caring relationship among friends. By specifying others' idiosyncracies, humorous interactions can create "social stereotypes or public persona" (Fine, 1983a, p. 91). When cued by accompaning paralingual

or nonverbal behaviors indicating that the remarks are not to be taken seriously, this humor can be an expression of affection and caring that transcends the literal content of the comment. In male groups, the ability to first act as if a remark does not affect the self and then being able to reciprocate is a sign that the target can "take it" and can be trusted.

3. Self-Deprecating

In some instances a humorist will become his/her own target and create humor at personal expense. When used to establish an identity, self-deprecating humor is not directed at the "core self", but at a public self. The humorist has treated the self as object and strategically distinguished between the "role self" grounded in the joke's context and the "real self" grounded in one's self concept. This humor is role or identity deprecating, "not person deprecating" (Fine, 1983a, p. 93).

Defining Situations

Just as humor can shape identities, it can also define situations and influence others' perceptions of those situations. Through symbolic construction the definition of both past and present situations are created.

Immediate Situational Relevance

The immediate situation is always a fitting subject for comments

of either a serious or humorous nature. These comments can structure perceptions in a temporary manner as during the length of a humorous observation, or in a more permanent way if the comment impacts upon future interactions. Humorous talk structures situations by providing: accounts (excuses or justifications for actions); social control of others' behavior; or alternative definitions of the situation.

1. Accounts

Humor can be used to justify a person's actions, and especially those actions whose consequences may result in social stigma. As a type of humor the account may propose a "denial of injury" (Fine, 1983a, p. 94), and a request for immediate support for the action taken. Laughter or a positive response will indicate that the account has been accepted. If the response is not favorable, the humorist may attempt either a more humorous or a serious explanation of his/her behavior in order to negotiate the meaning of the situation.

2. Social Control

Humorous attempts at social control seek to structure a situation in a manner so as to limit the range of actions open to group members. Through the use of humor members may be influenced without "chafing under the control" (Fine, 1983a, p. 95) of the humorist. If the value or validity of the humorist's definition is challenged an exchange of humorous remarks that attempt to assert control may result.

3. Alternate Definition

Attempts may be made to redefine a situation by presenting an alternative vision of the on-going reality. By using humor the humorist can strategically remove him/herself from the proposed definition if others do not respond positively.

4. Reinterpreting Past Events

In addition to negotiating the meaning of ongoing events, humor can be used to reconstruct past experiences. In many instances for humor to be successful the humor must be depicted because not all members may have experienced or understood the events. This humor is not intended to influence current behavior, but to provide a meaningful direction for future behavior by "analogy" (Fine, 1983a, p. 97). By defining past events, present and future events are shaped by giving them a revised moral background.

Relational Dominance

The issue of whether psychological dominance influences communication strategies that assert dominance are addressed by adapting the model Rogers-Millar and Millar (1979) presented for measuring domineeringness and dominance in marital relations. The Rogers-Millar and Millar model is based on the assumption that dominance is derived from process outcomes and is the result of the actual relational control definitions that have been presented in the interaction (Rogers-Millar and Millar, 1979). The act of asserting dominance is an attempt at

relational control, and can only be understood by analyzing sequential individual acts that are control maneuvers. The assertion of dominance is an act of making a domineering statement that becomes dominant when the following statement confirms the dominance. The analysis of interaction is based on Sluzki and Beavins' (1965) premise that the control definition of a message emerges from the grammatical and response form of the message.

Grammatical Form

Assertion, any completed referential statement, either declarative or imperative in form.

Question, any speech that takes on an interrogative grammatical form.

Talk-over, an interruptive manner of entering an ongoing utterance by another actor.

Incomplete, any utterance that is initiated but not expressed in a complete form.

Other, verbal utterances that are unclassifiable as to their form.

Response Form

Support, the giving and seeking of agreement, assistance, acceptance, or approval.

Non-support, denoting disagreement, rejection, demands, and challenges.

Extension, continuing the flow or theme of the preceeding message, includes noncommital responses to a question.

Answer, a response to a question that has substance and/or commitment.

Instruction, a suggestive and evaluative statement that is often accompanied with qualification and clarification.

Order, an unqualified command with little or no explanation.

Discomfirmation, occurs after a statement has been made that demands a response to it by another and the other does not respond to the demand.

Topic Change, occurs with the introduction of a new idea after the discussion of another topic so that the second message has nothing in common with the first.

Initiation-Termination, either begins or attempts to end an interaction.

Other, used if the response is unclear or unclassifiable.

Hypotheses

In analyzing the impact of psychological dominance and sex on humor in interaction, this dissertation will attempt to answer the following research questions.

1. Considering the measures of dominance used in the study, is there a significant relationship between the number of domineering messages that occur in interaction and psychological dominance and sex?

   Null Hypothesis: There will be no significant difference between

the number of domineering statements made and psychological dominance and sex.

2. Domineering statements are made dominant by the response of others. If there is a significant relationship between psychological dominance and numbers of domineering messages transmitted, is there a significant relationship between the number of domineering messages and complementary response that confirms dominance by psychological dominance and sex?

   Null Hypothesis: There will be no significant relationship between the number of domineering statements and complementary response that confirms dominance and psychological dominance and sex.

3. If there is a significant relationship between psychological dominance, sex, and domineering messages, will the control direction of the response be influenced by the psychological dominance and sex of the respondent? Additionally, will the content of the message in terms of its having been non-humorous, or attempted humor that was successful, or responded to in a "polite" or "ignored" manner influence the control direction of the response?

   Null Hypothesis: A. There will be no significant difference in the control direction of responses made by A_1) high dominant males, A_2) low dominant males, A_3) high dominant females, A_4) low dominant females to domineering messages sent by A_5) high dominant males, A_6) low dominant males, A_7) high dominant females,

and A_8) low dominant females.

B. There will be no significant difference in the control direction of responses made by B_1) high dominant males, B_2) low dominant males, B_3) high dominant females, B_4) low dominant females to successful humorous messages made by B_5) high dominant males, B_6) low dominant males, B_7) high dominant females, and B_8) low dominant females.

C. There will be no significant difference in the control direction of responses made by C_1) high dominant males, C_2) low dominant males, C_3) high dominant females, C_4) low dominant females following a humorous attempt coded as "polite" that was initiated by C_5) high dominant males, C_6) low dominant males, C_7) high dominant females, and C_8) low dominant females.

D. There will be no significant difference in the control direction of responses made by D_1) high dominant males, D_2) low dominant males, D_3) high dominant females, D_4) low dominant females following a humorous attempt coded as "ignored" that was initiated by D_5) high dominant males, D_6) low dominant males, D_7) high dominant females, and D_8) low dominant females.

4. If humor is a means of asserting dominance there should be a significant relationship between humor attempts and psychological dominance and sex.

   Null Hypothesis: There will be no significant relationship between humor attempts and psychological dominance and sex.

5. If there are significant differences in the amount and purpose (establishing identities and defining situations) that occur in

mixed sex groups and same sex groups, will there be a significant difference in the amount and purpose of humor that occurs in mixed and same sex groups whose members who are all high, all low, or of mixed psychological dominance?

Null Hypothesis: A. There will be no significant difference between the purpose of humor regarding establishing identities or defining situations in mixed and same sex groups with all high, all low, or mixed psychological dominance.

B. There will be no significant difference between the specific purposes of humor (establishing identities: target absent, target present, or self, and defines situations: accounts, social control, alternative definitions, or reinterprets past events) in mixed and same sex groups with all high, all low or mixed psychological dominance.

6. If humor is used to establish identities and describe situations, will psychological dominance and sex influence the general purpose of humor used by individuals? More specifically, will the use of humor that establishes identities by being directed at an absent target, a present target, or the humorist him/herself, or humor that defines situations by utilizing accounts, social control, alternative definition, or reinterpretation of past events be influenced by psychological dominance and sex?

Null Hypothesis: A. There will be no significant difference between the use of humor that establishes identities and humor that describes situations by psychological dominance and sex.

B. There will be no significant difference between the use of humor that is directed at an absent target, a present target, or the humorist him/herself, and humor that describes through accounts, social control, alternative definition, and reinterpretation of past events by psychological dominance and sex.

7. If there is a significant relationship between psychological dominance, sex, and humor attempts and psychological dominance, sex, and domineering relational statements, are there positive correlations between the paired variables of dominance score, humor attempts, and domineering statements for all subjects, males, and females?

   Null Hypothesis: A. There will be no significant correlation between dominance score and domineering statements for A_1) all subjects, A_2) all males, and A_3) all females.

   B. There will be no significant correlation between domineering statements and humor attempts for B_1) all subjects, B_2) all males, and B_3) all females.

   C. There will be no significant correlation between dominance scores and humor attempts for C_1) all subjects, C_2) all males, and C_3) all females.

Data Analysis

This dissertation was designed to investigate the use of humor as a means of asserting dominance in interaction. In doing so, the relationship between psychological dominance, humor, and relational dominance for males and females was examined. The data analyzed was

collected from a group of 80 subjects who were enrolled in an Introduction to Human Communication class at Central College, Pella, Iowa. The subjects were rank ordered by self-reported dominance scores, and were then divided into four categories of high and low dominant males and females. Since no assumptions were made regarding the shape of the parent distribution (Runyon and Haber, 1977), the data analysis used nonparametric tests for significance.

The relationships between the variables of sex, psychological dominance, humor, domineering statements and control direction of response were investigated in various combinations. The analyses were completed using a chi square (X^2) test of the independence of categorical variables (Runyon and Haber, 1977; Morrison, 1982). The formula for calculation is:

$$X^2 = \sum_{r=1}^{r} \sum_{c=1}^{c} \frac{(fo - fe)^2}{fe}$$

where

Fo = the observed number in a given category

Fe = the expected number in that category

$\sum_{r=1}^{r} \sum_{c=1}^{c}$ = summing the ratio over both rows and columns.

Since the subjects were initially rank ordered by dominance scores and domineering statements; dominance scores and humor attempts; and humor attempts and domineering statements were calculated using the nonparametric correlations (Morrison, 1982) of

Kendall's tau and Spearman's rho. Results were reported for Spearman's rho (Runyon and Haber, 1977, p. 134) for which the formula is:

$$r\ rho = 1 - \frac{6 \Sigma D^2}{n (n^2 - 1)}$$

where

$$D = X - rank\ Y.$$

Summary

Two underlying assumptions have guided the research for this investigation. The first is that humor, as an intentional verbal act, can influence the social construction of reality in interaction, and the second is that psychologically dominant people will use humor as a tool to construct symbolic reality more often than will psychologically less dominant people. The California Psychological Inventory (Gough, 1975) was presented as a means of measuring psychological dominance as was a procedure for analyzing relational dominance (Rogers and Farace, 1975; Rogers-Millar and Millar, 1979).

A discussion of specific procedures include: means of choosing subjects, methods of data collection, and the selection and training of judges. The unit of analysis, the message, was defined as a verbal intervention by participants (Rogers and Farace, 1975), and humorous messages were described as intentional interactions that invite variables of dominance score, successful humor, and domineering statements.

The data collected in the investigation were analyzed using a chi square test of independence of categorical variables and a

nonparametric correlation, Spearman's rho. The results of these statistical analyses are reported in Chapter V along with a discussion of the relationship between the results and the related literature.

Chapter V

Results

Overview

The preceeding chapter presented seven hypotheses regarding the relationship among psychological dominance, sex, relational dominance, and humor, and a discussion of the statistical methods used to analyze the data. This chapter will report the results of those analyses through discussion and graphic presentation. The relationship between these findings and the previous research will be explored. It should be noted that the comparisons between these results and the literature will often be very tentative because much of the relevant research was investigating other conditions. The relational communication studies of Erickson (1972), Rogers and Farace (1975), and Rogers-Millar and Millar (1979) dealt with dyads and not groups of four. Fine's (1983a) model for describing humor in social interaction did not predict with what frequency humor with various purposes would occur.

The first three hypotheses were designed to explore the relationship between psychological dominance, sex, and relational dominance through the use of domineering statements; the impact of the psychological dominance and sex of the source and receiver on message type, and the control direction of response. The next three hypotheses were intended to analyze the relationship between psychological dominance, sex, and humor, and humor purpose by groups and individuals. The

last hypothesis investigates the relationship between sex, individual dominance scores, domineering statements, and humor attempts.

Results for Research Question 1: The interaction between psychological dominance, sex, and domineering statements.

Null Hypothesis: There would be no significant difference between psychological dominance, sex, and domineering statements.

In his investigation of the interaction between psychological dominance and complementary and symmetrical transactions Erickson (1972) found no relationship. However, Erickson's study was of married couples rather than groups of four that balanced by sex and dominance. Thus, Erickson's findings need not be true in all situations. In order to investigate the relationship between psychological dominance and sex and domineering statements, a concept of domineeringness needed to be operationalized. Rogers-Millar and Millar (1979) proposed that a general measure of domineering behavior is the proportion of domineering statements an individual makes during a conversation so that domineeringness is the number of one-up messages divided by the total number of statements sent.

Following this procedure the number of one-up messages sent by high and low dominant males and females were divided by the total number of messages sent by the respective dominance/sex groups. The results were:

HDM	LDM	HDF	LDF
$\frac{535}{654} = 82\%$	$\frac{531}{724} = 70\%$	$\frac{553}{735} = 75\%$	$\frac{382}{566} = 67\%$

However these raw percentages provided no information about the relationship between psychological dominance and domineering statements in interaction. Consequently, two chi square tests of independence of categorical variables were computed. The first compared psychological dominance and sex by the number of domineering statements. The chi square yielded the following result: $X^2 = 16.1076$ with 1 df; $p < .0001$ (see Figure 2).

It had been assumed that the relationship between male dominance and domineering statements would account for most of the difference. However, this was clearly not the case, as the arithmetic totals reflect high dominant females made more domineering statements (553) than did high dominant males (535) or low dominant males (531), and that all three groups made many more dominant statements than low dominant females (382).

If the small number of domineering statements sent by low dominant females was largely responsible for the difference in the interaction, would the relationship hold when comparing total messages sent? Total messages were 654 for high dominant males, 724 for low dominant males, 735 for high dominant females and 566 for low dominant females. A chi square produced the following result $X^2 = 19.8332$ with 1 df; $p < 0.0001$ (see Figure 3).

Thus, it is apparent that the interaction between psychological dominance, sex, and domineering statements is significant, and that the null hypothesis should be rejected. Upon further analysis two points should be noted. While high dominant males made less domineering statements than high dominant females and fewer total statements

Figure 2

Domineering Statements:
by Psychological Dominance and Sex

		High Dominance	Low Dominance	Row Total
Male	Count	535	531	1066
	Row Pct.	50.2	49.8	53.3
	Col. Pct.	49.2	58.2	
	Tot. Pct.	26.7	26.5	
Female	Count	553	382	935
	Row Pct.	59.1	40.9	46.7
	Col. Pct.	50.8	41.8	
	Tot. Pct.	27.6	19.1	
	Column Total	1088 54.4	913 45.6	2001 100.0

$X^2 = 16.10716$ with 1 df
$p < 0.0001$

Figure 3

Total Number of Statements:
by Psychological Dominance and Sex

		High Dominance	Low Dominance	Row Total
Male	Count	654	724	1378
	Row Pct.	47.5	52.5	51.4
	Col. Pct.	47.1	56.1	
	Tot. Pct.	24.4	27.0	
Female	Count	735	566	1301
	Row Pct.	56.5	43.5	48.6
	Col. Pct.	52.9	43.9	
	Tot. Pct.	27.4	21.1	
	Column Total	1389 51.8	1290 48.2	2679 100.0

$X^2 = 19.8332$ with 1 df
$p < 0.0001$

than low dominant males or high dominant females, a very large percentage 82% of their messages were one-up. Their behavior was very domineering from Rogers-Millar and Millar's perspective. Low dominant females were relationally nondominant in that they made relatively fewer domineering and total statements.

Results of Research Question 2: The relationship between psychological dominance, sex, and complementary responses to domineering statements.

The second null hypothesis was designed to continue the investigation of the relationship between psychological dominance, sex, and domineering relationships. The only previous investigation of this relationship was undertaken by Erickson (1972), who reported no relationship between psychological dominance and complementary and symmetrical transactions for married couples. In order to further explore this relationship, relational submissiveness needs to be operationalized. Rogers-Millar and Millar (1979) proposed that an index of an individual's relative pattern of assertion and submissiveness could be established by finding the ratio of one-up statements to one-down statements made by an individual. It is possible to use the same ratio to measure assertiveness and submission for groups measured by psychological dominance and sex. The ratios were found to be:

HDM	LDM	HDF	LDF
$\frac{535}{94} = \frac{5.69}{1}$	$\frac{531}{90} = \frac{5.90}{1}$	$\frac{553}{145} = \frac{3.80}{1}$	$\frac{382}{129} = \frac{2.96}{1}$

From these ratios it is apparent that females used proportionately more submissive statements than males did. However, these ratios are not informative about interaction patterns. Consequently, a chi square was computed to measure the impact of psychological dominance and sex on complementary responses to domineering statements. The results $X^2 = 0.38037$ with 1 df; $p > 0.5374$ (see Figure 4) supported the null hypothesis. As a final observation, it would appear that the proportion of symmetrical and complementary responses is influenced by the nature of the model established by Rogers and Farace (1975; see Figure 1, p. 107) when of the 50 possible response directions 35 or 70% are coded as one-up; 8 or 16% are one-down responses; and 7 or 14% one-across responses. Perhaps another measure of submissiveness should be silence, or exercising the perogative of not speaking.

Results of Research Question 3: The interaction between psychological dominance and sex and the control direction of response to domineering messages that are A) nonhumorous, B) humorous, C) attempted humor that yielded a "polite" response, and D) attempted humor that yielded and "ignored" response when the psychological dominance and sex of the source is known.

Null Hypothesis A: There will be no significant difference in the control direction response made by A_1 high dominant males, A_2 low dominant males, A_3 high dominant females, and A_4 low dominant females to nonhumorous domineering messages sent by A_5 high dominant males, A_6 low dominant males, A_7 high dominant females, and A_8 low dominant females.

Figure 4

Complementary Responses to Domineering Statements: by Psychological Dominance and Sex

		High Dominance	Low Dominance	Row Total
Male	Count	77	65	142
	Row Pct.	54.2	45.8	39.2
	Col. Pct.	40.7	37.6	
	Tot. Pct.	21.3	18.0	
Female	Count	112	108	220
	Row Pct.	50.9	49.1	60.8
	Col. Pct.	59.3	62.4	
	Tot. Pct.	30.9	29.8	
	Column Total	189	173	362
		52.2	47.8	100.0

$X^2 = 0.38037$ with 1 df
$p > 0.5374$

Null Hypothesis B: There will be no significant difference in the control direction response made by B_1 high dominant males, B_2 low dominant males, B_3 high dominant females, and B_4 low dominant females to successful humorous messages made by B_5 high dominant males, B_6 low dominant males, B_7 high dominant females, and B_8 low dominant females.

Null Hypothesis C: There will be no significant difference in the control direction response made by C_1 high dominant males, C_2 low dominant males, C_3 high dominant females, and C_4 low dominant females following a humorous attempt coded as "polite" that was initiated by C_5 high dominant males, C_6 low dominant males, C_7 high dominant females, and C_8 low dominant females.

Null Hypothesis D: There will be no significant difference in the control direction response made by D_1 high dominant males, D_2 low dominant males, D_3 high dominant females, and D_4 low dominant females following a humorous attempt coded as "ignored" that was initiated by D_5 high dominant males, D_6 low dominant males, D_7 high dominant females, and D_8 low dominant females.

Research question 2 was concerned with the use of complementary responses, by group psychological dominance and sex to domineering messages in order to better understand the role of submissiveness in group interaction. Research question 3 proposed to continue this investigation by comparing the control direction of all responses by group psychological dominance and sex to domineering messages sent by high and low dominant males and females that are nonhumorous, humorous, and attempted humor that had "polite" or "ignored" responses.

The relational communication literature has not specifically addressed this issue.

Null Hypothesis 3A proposed that there would be no significant difference in the control direction response made by high dominant males (A_1), low dominant males (A_2), high dominant females (A_3), and low dominant females (A_4) to nonhumorous domineering messages sent by high dominant males (A_5), low dominant males(A_6), high dominant females (A_7), and low dominant females (A_8). With the exception of the control direction of response to low dominant males (A_6) the null hypothesis should be rejected. The chi square analysis for the high and low male and female (A_1-A_4) response patterns to domineering messages made by high dominant males (A_5) was significant. $X^2 = 25.58421$ with 6 df; $p < 0.0003$ (see Figure 5). A further analysis of the response patterns indicated that the difference occurred because of the one-down, or complementary responses of the female subjects. While high and low dominant males responded in a complementary manner 15.4% and 11.4% of the time, high and low dominant females used one-down responses in 19.5% and 37.9% of their respective interactions.

The chi square analysis of the control direction of response by psychological dominance and sex yielded a different result when the source was a low dominant male (A_6). $X^2 = 9.2513$ with 6 df; $p > 0.1595$ (see Figure 6). In these interactions the majority of all responses were symmetrical, one-up statements (high dominant males 74%, low dominant males 80%, high dominant females 89%, low dominant females 82%).

Figure 5

Responses to Non-humorous Domineering Statements Made by High Dominant Males: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	279	12	53	344
	Row Pct.	81.1	3.5	15.4	64.5
	Col. Pct.	67.2	57.1	54.6	
	Tot. Pct.	52.3	2.3	9.9	
Low Dominant Males	Count	35	4	5	44
	Row Pct.	79.5	9.1	11.4	8.3
	Col. Pct.	8.4	19.0	5.2	
	Tot. Pct.	6.6	0.8	0.9	
High Dominant Females	Count	69	1	17	87
	Row Pct.	79.3	1.1	19.5	16.3
	Col. Pct.	16.6	4.8	17.5	
	Tot. Pct	12.9	0.2	3.2	
Low Dominant Females	Count	32	4	22	58
	Row Pct.	55.2	6.9	37.9	10.9
	Col. Pct.	7.7	19.0	22.7	
	Tot. Pct.	6.0	0.8	4.1	
	Column Total	415	21	97	533
		77.9	3.9	18.2	100.0

$X^2 = 25.58421$ with 6 df
$p < 0.0003$

Figure 6

Responses to Non-humorous Domineering Statements Made by Low Dominant Males: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	31	1	10	42
	Row Pct.	73.8	2.4	23.8	8.0
	Col. Pct.	7.2	4.0	13.5	
	Tot. Pct.	5.9	0.2	1.9	
Low Dominant Males	Count	263	17	49	329
	Row Pct.	79.9	5.2	14.9	62.3
	Col. Pct.	61.3	68.0	66.2	
	Tot. Pct.	49.8	3.2	9.3	
High Dominant Females	Count	86	5	6	97
	Row Pct.	88.7	5.2	6.2	18.4
	Col. Pct.	20.0	20.0	8.1	
	Tot. Pct.	16.3	0.9	1.1	
Low Dominant Females	Count	49	2	9	60
	Row Pct.	81.7	3.3	15.0	11.4
	Col. Pct.	11.4	8.0	12.2	
	Tot. Pct.	9.3	0.4	1.7	
Column Total		429	25	74	528
		81.2	4.7	14.0	100.0

X^2 = 9.25913 with 6 df
p > 0.1595

The interaction of the control direction of response to domineering nonhumorous statements by high dominant females (A_7) was significant $X^2 = 23.4541$ with 6 df; $p < 0.0007$ (see Figure 7). A review of the control direction of the response statements found that high and low dominant males responded with one-up symmetrical statements 89% and 88% of the time, and that high and low dominant females used one-up statements in 70% and 69% of their responses. However, the high and low dominant females used one-down, complementary responses, in 26% and 28% of their comments, and this accounted for the difference.

The analysis of the control direction of responses to domineering nonhumorous statements by low dominant females (A_8) was significant $X^2 = 18.51577$ with 6 df; $p < 0.0049$ (see Figure 8). The source of the variance was surprising in that high dominant males used one-up responses in 74% of the responses and one-down statements 24% of the time, and thus were willing to grant dominance to low dominant females when they spoke. Low dominant female response patterns were also significant in that 67% of the responses were one-up, while 26% were one-down. Low dominant males and high dominant females used one-up responses in 83% and 82% of their responses.

It would appear that the psychological dominance and sex of the source of a nonhumorous dominant statement may well influence the control direction of responses made by high and low dominant males and females. All females, but especially low dominant females grant dominance to high dominant males. None of the subjects would permit low dominant males to often assert dominance, but high and low dominant females would respond in a complementary manner to domineering

Figure 7

Responses to Non-humorous Domineering Statements Made by High Dominant Females: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	68	2	6	76
	Row Pct.	89.5	2.6	7.9	13.8
	Col. Pct.	16.3	10.0	5.3	
	Tot. Pct.	12.4	0.4	1.1	
Low Dominant Males	Count	80	3	8	91
	Row Pct.	87.9	3.3	8.8	16.5
	Col. Pct.	19.2	15.0	7.0	
	Tot. Pct.	14.5	0.5	1.5	
High Dominant Females	Count	228	13	84	325
	Row Pct.	70.2	4.0	25.8	59.1
	Col. Pct.	54.8	65.0	73.7	
	Tot. Pct.	41.5	2.4	15.3	
Low Dominant Females	Count	40	2	16	58
	Row Pct.	69.0	3.4	27.6	10.5
	Col. Pct.	9.6	10.0	14.0	
	Tot. Pct.	7.3	0.4	2.9	
	Column Total	416 75.6	20 3.6	114 20.8	550 100.0

$X^2 = 23.45141$ with 6 df
$p < 0.0007$

Figure 8

Responses to Non-humorous Domineering Statements Made by Low Dominant Females: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	25	1	8	34
	Row Pct.	73.5	2.9	23.5	9.0
	Col. Pct.	9.2	3.3	10.4	
	Tot. Pct.	6.6	0.3	2.1	
Low Dominant Males	Count	53	8	3	64
	Row Pct.	82.8	12.5	4.7	16.9
	Col. Pct.	19.6	26.7	3.9	
	Tot. Pct.	14.0	2.1	0.8	
High Dominant Females	Count	36	3	5	44
	Row Pct.	81.8	6.8	11.4	11.6
	Col. Pct.	13.3	10.0	6.5	
	Tot. Pct	9.5	0.8	1.3	
Low Dominant Females	Count	157	18	61	236
	Row Pct.	66.5	7.6	25.8	62.4
	Col. Pct.	57.9	60.0	79.2	
	Tot. Pct.	41.5	4.8	16.1	
	Column Total	271 71.1	30 7.9	77 20.4	378 100.0

$X^2 = 18.59577$ with 6 df
$p < 0.0049$

statements made by high dominant females. High dominant males and low dominant females responded in complementary manner to domineering statements made by low dominant females with sufficient frequency to account for the significance in the chi square.

Null Hypothesis 3B proposed that there would be no significant difference in the control direction of responses made by high dominant males (B_1), low dominant males (B_2), high dominant females (B_3), and low dominant females (B_4) to successfully humorous statements made by high dominant males (B_5), low dominant males (B_6) high dominant females (B_7), and low dominant females (B_8).

None of the chi squares that were the result of the analysis of these interactions were significant. The interaction of the control direction of responses by high and low dominant males and females (B_1-B_4) to successful humor yielded the following: High dominant males (B_5) $X^2 = 5.63401$ with 6 df; $p > 0.4654$ (see Figure 9); low dominant males (B_6) $X^2 = 1.76049$ with 6df; $p > 0.94041$ (see Figure 10); high dominant females $X^2 = 6.35266$ with 6 df; $p > 0.43849$ (see Figure 11); low dominant females $X^2 = 10.21660$ with 6 df; $p > 0.1158$ (see Figure 12). Since 77% of all responses to successful humor were one-up, symmetrical statements, it would appear that the most common response to successful humor regardless of psychological dominance or sex is an attempt to reassert dominance by responding with a domineering statement.

Null Hypothesis 3C predicted that there would be no significant difference with the control direction of responses made by high

Figure 9

Responses to Successful Humor Made by High Dominant Males: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	35	2	5	42
	Row Pct.	83.3	4.8	11.9	59.2
	Col. Pct.	60.3	100.0	45.5	
	Tot. Pct.	49.3	2.8	7.0	
Low Dominant Males	Count	7	0	1	8
	Row Pct.	87.5	0.0	12.5	11.3
	Col. Pct.	12.1	0.0	9.1	
	Tot. Pct.	9.9	0.0	1.4	
High Dominant Females	Count	9	0	1	10
	Row Pct.	90.0	0.0	10.0	14.1
	Col. Pct.	15.5	0.0	9.1	
	Tot. Pct.	12.7	0.0	1.4	
Low Dominant Females	Count	7	0	4	11
	Row Pct.	63.6	0.0	36.4	15.5
	Col. Pct.	12.1	0.0	36.4	
	Tot. Pct.	9.9	0.0	5.6	
	Column Total	58	2	11	71
		81.7	2.8	15.5	100.0

$X^2 = 5.63401$ with 6 df
$p > 0.4654$

Figure 10

Responses to Successful Humor Made by Low Dominant Males: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	3	0	1	4
	Row Pct.	75.0	0.0	25.0	8.7
	Col. Pct.	8.6	0.0	11.1	
	Tot. Pct.	6.5	0.0	2.2	
Low Dominant Males	Count	27	2	7	36
	Row Pct.	75.0	5.6	19.4	78.3
	Col. Pct.	77.1	100.0	77.8	
	Tot. Pct.	58.7	4.3	15.2	
High Dominant Females	Count	2	0	1	3
	Row Pct.	66.7	0.0	33.3	6.5
	Col. Pct.	5.7	0.0	11.1	
	Tot. Pct.	4.3	0.0	2.2	
Low Dominant Females	Count	3	0	0	3
	Row Pct.	100.0	0.0	0.0	6.5
	Col. Pct.	8.6	0.0	0.0	
	Tot. Pct.	6.5	0.0	0.0	
	Column Total	35	2	9	46
		76.1	4.3	19.6	100.0

$X^2 = 1.76049$ with 6 df
$p > 0.9404$

Figure 11

Responses to Successful Humor Made by High Dominant Females: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	4	0	0	4
	Row Pct.	100.0	0.0	0.0	9.5
	Col. Pct.	15.4	0.0	0.0	
	Tot. Pct.	9.5	0.0	0.0	
Low Dominant Males	Count	2	0	1	3
	Row Pct.	66.7	0.0	33.3	7.1
	Col. Pct.	7.7	0.0	9.1	
	Tot. Pct.	4.8	0.0	2.4	
High Dominant Females	Count	15	4	10	29
	Row Pct.	51.7	13.8	34.5	69.0
	Col. Pct.	57.7	80.0	90.9	
	Tot. Pct.	35.7	9.5	23.8	
Low Dominant Females	Count	5	1	0	6
	Row Pct.	83.3	16.7	0.0	14.3
	Col. Pct.	19.2	20.0	0.0	
	Tot. Pct.	11.9	2.4	0.0	
	Column Total	26	5	11	42
		61.9	11.9	26.2	100.0

X^2 = 6.35266 with 6 df
$p > 0.3849$

Figure 12

Responses to Successful Humor Made by Low Dominant Females: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	6	0	0	6
	Row Pct.	100.0	0.0	0.0	16.7
	Col. Pct.	26.1	0.0	0.0	
	Tot. Pct.	16.7	0.0	0.0	
Low Dominant Males	Count	2	0	0	2
	Row Pct.	100.0	0.0	0.0	5.6
	Col. Pct.	8.7	0.0	0.0	
	Tot. Pct.	5.6	0.0	0.0	
High Dominant Females	Count	1	1	1	3
	Row Pct.	33.3	33.3	33.3	8.3
	Col. Pct.	4.3	50.0	9.1	
	Tot. Pct.	2.8	2.8	2.8	
Low Dominant Females	Count	14	1	10	25
	Row Pct.	56.0	4.0	40.0	69.4
	Col. Pct.	60.9	50.0	90.9	
	Tot. Pct.	38.9	2.8	27.8	
	Column Total	23	2	11	36
		63.9	5.6	30.6	100.0

X^2 = 10.21660 with 6 df
p > 0.1158

dominant males (C_1), low dominant males (C_2), high dominant females (C_3), and low dominant females (C_4) to humor attempts coded as "polite" by high dominant males (C_5), low dominant males (C_6) high dominant females (C_7), and low dominant females (C_8). It was not possible to complete this analysis because only four messages were coded as "polite" humor. These four statements were made by a high and low dominant male and two low dominant females. The control direction of response was one-up for the high dominant male and one of the low dominant females, and one-down for the low dominant male's and the other low dominant female's humor attempts.

Null hypothesis 3D assumed that there would be no significant difference in the control direction of responses made by high dominant males (D_1), low dominant males (D_2), high dominant females (D_3), and low dominant females (D_4) to humor attempts coded as "ignored" by high dominant males (D_5), low dominant males (D_6) high dominant females (D_7), and low dominant females (D_8). While more humor attempts were coded as "ignored" than "polite", the data were still not extensive.

High dominant males made 15 attempts at humor that were coded as "ignored". The only responses were by high dominant males and high and low dominant females. Of the responses 87% were one-up statements, and there were no one-across statements. $X^2 = 0.35503$ with 2 df; $p > 0.8373$ (see Figure 13).

Thirteen humor attempts made by low dominant males were coded as "ignored". Since all responses were one-up with eight having been made by low dominant males, three by high dominant females, and two by low dominant females, there was no statistical analysis.

Figure 13

Responses to Ignored Humor Made by High Dominant Males: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	11	2	0	13
	Row Pct.	84.6	15.4	0.0	86.7
	Col. Pct.	84.6	100.0	0.0	
	Tot. Pct.	73.3	13.3	0.0	
Low Dominant Males	Count	0	0	0	0*
	Row Pct.	0.0	0.0	0.0	0.0
	Col. Pct.	0.0	0.0	0.0	
	Tot. Pct.	0.0	0.0	0.0	
High Dominant Females	Count	1	0	0	1
	Row Pct.	100.0	0.0	0.0	6.7
	Col. Pct.	7.7	0.0	0.0	
	Tot. Pct.	6.7	0.0	0.0	
Low Dominant Females	Count	1	0	0	1
	Row Pct.	100.0	0.0	0.0	6.7
	Col. Pct.	7.7	0.0	0.0	
	Tot. Pct.	6.7	0.0	0.0	
	Column Total	13	2	0*	15
		86.7	13.3	0.0	100.0

$X^2 = 0.35503$ with 2 df
$p > 0.8373$

* Empty column and row not used in calculation of chi square.

High dominant females attempted 13 pieces of humor that were coded as "ignored". Low dominant females did not respond at all, although high dominant males made two responses, and low dominant males made three. The control direction of five responses was one-up. High dominant females made seven one-up responses and one one-down response. A chi square was computed $X^2 = 0.67708$ with 2 df; $p > 0.7128$ (see Figure 14).

Seventeen pieces of humor attempted by low dominant females were coded as "ignored". Some members of high and low males and females responded from all three control directions with one dominant male having made the one-across response. One high dominant male and female and three low dominant females made one-down, complementary responses. The high dominant males and females and the low dominant males made two one-up statements each. The low dominant females made five one-up responses. The $X^2 = 5.76970$ with 6 df; $p > 0.4495$ (see Figure 15).

The investigation of the interaction between control direction of response by dominance and sex by domineering nonhumorous statements, successfully humorous statements, and attempted humor coded as "polite" or "ignored" and dominance and sex suggests that responses to domineering, nonhumorous messages may be one-up, one-across, or one-down, but the response following successfully humorous, "polite" and "ignored" humor attempts are usually one-up, symmetrical statements that attempt to reassert dominance on the part of the respondant.

Figure 14

Responses to Ignored Humor Made by High Dominant Females: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	2	0	0	2
	Row Pct.	100.0	0.0	0.0	15.4
	Col. Pct.	16.7	0.0	0.0	
	Tot. Pct.	15.4	0.0	0.0	
Low Dominant Males	Count	3	0	0	3
	Row pct.	100.0	0.0	0.0	23.1
	Col. Pct.	25.0	0.0	0.0	
	Tot. Pct.	23.1	0.0	0.0	
High Dominant Females	Count	7	0	1	8
	Row Pct.	87.5	0.0	12.5	61.5
	Col. Pct.	58.3	0.0	100.0	
	Tot. Pct.	53.8	0.0	7.7	
Low Dominant Females	Count	0	0	0	0*
	Row Pct.	0.0	0.0	0.0	0.0
	Col. Pct.	0.0	0.0	0.0	
	Tot. Pct.	0.0	0.0	0.0	
	Column Total	12	0*	1	13
		92.3	0.0	7.7	100.0

$X^2 = 0.67708$ with 2 df
$p > 0.7128$

* Empty column and row not used in calculation of chi square.

Figure 15

Responses to Ignored Humor Made by Low Dominant Females: by Control Direction of Response and Dominance-Sex

		One-Up Statement	One-Across Statement	One-Down Statement	Row Total
High Dominant Males	Count	2	0	1	3
	Row Pct.	66.7	0.0	33.3	17.6
	Col. Pct.	18.2	0.0	20.0	
	Tot. Pct	11.8	0.0	5.9	
Low Dominant Males	Count	2	1	0	3
	Row Pct.	66.7	33.3	0.0	17.6
	Col. Pct.	18.2	100.0	0.0	
	Tot. Pct.	11.8	5.9	0.0	
High Dominant Females	Count	2	0	1	3
	Row Pct.	66.7	0.0	33.3	17.6
	Col. Pct.	18.2	0.0	20.0	
	Tot. Pct.	11.8	0.0	5.9	
Low Dominant Females	Count	5	0	3	8
	Row Pct.	62.5	0.0	37.5	47.1
	Col. Pct.	45.5	0.0	60.0	
	Tot. Pct.	29.4	0.0	17.6	
	Column Total	11	1	5	17
		64.7	5.9	29.4	100.0

$X^2 = 5.76970$ with 6 df
$p > 0.4495$

Results for Research Question 4: The interaction between psychological dominance, sex, and humor attempts.

Null hypothesis: There will be no significant relationship between psychological dominance, sex, and humor attempts.

A guiding assumption in this research has been that psychological dominance and sex will influence the amount of humor used in social interaction. By extension it was further assumed that high dominant males would use significantly more humor that other groups as measured by dominance and sex. These presumptions were based on previous research that present males as being more competitive and dominant than females (Eakins and Eakins, 1978; Deaux, 1976), and as more likely to initiate humor (Eakins and Eakins, 1978; Middleton and Moland, 1959; Pollio and Edgerly, 1976; Smith and Goodchilds, 1959). A relationship between psychological dominance and professional comedians was established by Salameh (1980), and with children by McGhee (1979). Smith and Goodchilds (1979) reported that only males used "aggressive" humor in groups.

No literature discusses the relationship between humor and relational dominance. In order to investigate this relationship the Rogers-Millar and Millar (1979) definition of general measure of dominance as the proportion of one-up messages to total messages was adapted to describe a measure of humorousness by substituting humor messages for one-up messages. The results were as follows:

HDM	LDM	HDF	LDF
$\frac{90}{654}$ = 14%	$\frac{63}{724}$ = 09%	$\frac{58}{735}$ = 08%	$\frac{57}{566}$ = 10%

When these percentages as compared with the 5.7 - 7.4% Bales (1970) predicted when describing the Dramatizes category, it is evident that these subjects use a substantial percentage of humor in their interactions. However, not all subjects used humor with the same frequency. Figure 16 presents a frequency distribution for the number of humor attempts by dominance and sex. An interesting note is that eight or ten percent of all subjects used no humor, and slightly more than 50% of all humor attempts were made by subjects who used humor from one to six times in the interaction. Only six subjects used humor eight or more times with only two using it ten or more times, and of these subjects one male used humor 15 times.

A comparison of humor attempts in interaction was undertaken with a chi square analysis between psychological dominance, sex, and attempted humor. The results were $X^2 = 1.886842$ with 1 df; $p > 0.1717$ (see Figure 17) and the null hypothesis should be accepted. Although high dominant males did attempt more humor as a group, the interaction yielded no significant difference because of the relatively even distribution of humor attempts. As a rhetorical device that can alter identities and social meaning, humor should be viewed as a tool that is used by a variety of people in social interaction.

Results for Research Question 5: The interaction between group type and the amount and purpose of humor.

Null hypothesis 5A: There will be no significant difference between the purpose of humor regarding establishing identities or defining situations in mixed and same sex groups with all high, all low,

Figure 16

Humor Attempts:
by Number and Psychological Dominance/Sex

	Number of Humor Attempts															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
High Dominant Males	1	3	4	2	2	2	2	0	0	2	1	0	0	0	0	1
Low Dominant Male	2	6	1	2	4	1	1	2	1	0	0	0	0	0	0	0
High Dominant Females	3	3	6	2	1	1	2	1	0	1	0	0	0	0	0	0
Low Dominant Females	2	6	1	6	1	1	1	1	0	1	0	0	0	0	0	0
Total	8	18	12	12	8	5	6	4	1	4	1	0	0	0	0	1
Total Humor Represented	0	18	24	36	32	25	36	28	8	36	10	0	0	0	0	15

Figure 17

Humor Attempts:
by Psychological Dominance and Sex

		High Dominance	Low Dominance	Row Total
Male	Count	90	63	153
	Row Pct.	58.8	41.2	57.1
	Col. Pct.	60.8	52.5	
	Tot. Pct.	33.6	23.5	
Female	Count	58	57	115
	Row Pct.	50.4	49.6	42.9
	Col. Pct.	39.2	47.5	
	Tot. Pct.	21.6	21.3	
	Column Total	148 55.2	120 44.8	268 100.0

X^2 = 1.86842 with 1 df
p > 0.1717

or mixed psychological dominance.

Null hypothesis 5B: There will be no significant difference between the specific purpose of the humor (establish identities: target absent, target present, target self and defining situations: accounts, social control, alternative definitions, reinterpreting past events) in mixed and same sex groups with all high, all low, or mixed psychological dominance.

The conceptualization in this dissertation was based on the work of Fine (1983a). As a tool in interaction humor is a rhetorical device that can sharpen, dull, alter or maintain socially created identities of persons or definitions of situations. As distinct from other types of communication humor: 1) requires an immediate audience response, 2) can be cast in a manner that denies the inferences of others with little loss of face, and 3) has layers of meaning that go beyond the overt meaning of language.

When humor is used to establish identities, the strategies the humorist employs may depend upon whether the target is absent, present, or the humorist him/herself. Humor that is directed at an absent target is more overt and cruel. When the target is present, humor is more civil and may be used to control others' behavior or to create group solidarity. Self-deprecating humor is used in order to be viewed by others in a more positive manner, by making light of the roles one fulfills.

When humor is employed to define situations the humorist is encouraging others to accept an altered perspective. Humorous talk may structure the interpretation of situations by providing: accounts

(excuses or justifications for actions), social control over the situation, or alternative definitions of experience. Humor may also provide a reinterpretation of past events, and in doing so provide direction for future behavior.

The fifth research question was intended to investigate the amount and purpose of humor in groups on two levels. The first was concerned with general purpose of the humor (establishing identities, defining situations, and other, uncodable). The second with the specific purpose of humor (establishing identities: target absent, target present, target self; defining situations: accounts, social control, alternative definitions, reinterpreting past events; or other, uncodable) by group type.

Figures 18 and 19 report the results of null hypothesis 5A. Figure 18 is a frequency distribution of humor amount in each of the ten group types (high dominant male; high dominant female; low dominant male; low dominant female; high dominant male, low dominant male; high dominant male, high dominant female; high dominant male, low dominant female; high dominant female, low dominant male; high dominant female, low dominant female; low dominant male, low dominant female). The greatest amount of humor, 44 pieces, occurred in high dominant male, low dominant female groups, and the least amount of humor, 16 pieces, was used in low dominant male, low dominant female groups.

Figure 19 reports the result of the chi square analysis of general purpose by group type which was significant $X^2 = 35.53830$ with 18

Figure 18

Humor Attempts: by Group Type

HDM	HM/LF	HM/HF	LDM	HM/LM	HF/LF	LM/LF	LM/HF	HDF	LDF
23	44	35	32	20	26	16	25	21	26

Figure 19

Humor Attempts:
by Group Type and General Purpose

General Purpose	All HM	HM/ LF	HM/ HF	All LM	HM/ LM	HF/ LF	LM/ LF	LM/ HF	All HF	All LF	Row Total
Other	5	5	1	4	2	0	3	0	3	5	28
Establish Identities	2	12	11	5	2	4	0	8	2	0	46
Define Situations	16	27	20	23	16	20	12	16	16	20	186
Column Total	23	44	32	32	20	24	15	24	21	25	260

$X^2 = 35.53830$ with 18 df
$p < 0.0081$

df; $p < 0.0081$. The difference occurred because the purpose pf most of the humor was to define situations.

By extension it is logical to assume that the subjects in these stranger groups were not willing to risk establishing personal identities for self or others. Null hypothesis 5B further considered humor purpose by analyzing the specific uses of humor in the group.

Null hypothesis 5B contended that there would be no significant difference in the specific purpose of the humor (establish identities: target absent, target present, target self; defining situations: accounts, social control, alternative definitions, reinterpreting past events; or other, uncodable) by group type. The null hypothesis should be rejected since the chi square $X^2 = 89.26386$ with 54 df; $p < 0.0018$ was significant. The majority of the subjects' humor was directed at defining situations by giving accounts that justified their reasoning and proposing alternative definitions that made the situation more absurd or unreal (see Figure 20). Again it would appear that the subjects were more comfortable defining situations than they were creating identities.

Results of Research Question 6: The interaction between psychological dominance, sex, and humor purpose.

Null hypothesis 6A: There will be no significant difference between the use of humor that establishes identities or defines situations by dominance and sex.

Null hypothesis 6B: There will be no significant difference between the use of humor that is directed at an absent target, a present

Figure 20

Humor Attempts:
by Group Type and Specific Purpose

Specific Purpose	All HM	HM/ LF	HM/ HF	All LM	HM/ LM	HF/ LF	LM/ LF	LM/ HF	All HF	All LF	Row Total
Other	5	5	1	4	2	0	3	0	3	5	28
Target Absent	0	0	0	0	1	0	0	0	0	0	1
Target Present	2	11	8	4	1	1	0	8	1	0	36
Target Self	0	0	2	1	0	3	0	0	1	0	7
Accounts	8	16	6	8	5	7	3	9	8	7	77
Social Control	0	1	0	0	0	0	0	0	2	2	5
Alternate Definition	7	7	10	12	11	12	7	7	6	9	88
Reinter-preting Past Events	0	0	0	0	0	0	0	0	0	0	0*
Column Total	22	40	27	29	20	23	13	24	21	23	242

$X^2 = 89.26386$ with 54 df
$p < 0.0018$

* Empty row was not used in calculating chi square

target, or the humorist him/herself; and humor that describes situations through accounts, social control, alternative definitions, or reinterpreting past events by psychological dominance and sex.

Research question 6 was designed to continue the application of Fine's model to the humor in this study. However, rather than studying the humor as it occurred in groups, the analysis will focus on humor as created by high and low dominant males and females.

Null hypothesis 6A proposed that there would be no significant difference between the general purpose of humor that establishes identities and humor that describes situations and dominance and sex. The null hypothesis should be accepted because statistical analysis was not significant $X^2 = 11.79094$ with 6 df; $p > 0.0668$ (see Figure 21).

It would appear that the null hypothesis was confirmed because humor that established identities was more concentrated when gathered by psychological dominance and sex. The total percentage of identity establishing humor was 17.7%, and high dominant females were responsible for much of the humor 29.8%. High and low dominant males were close in the use of identity establishing humor (18.4% and 14.8% respectively). Low dominant females used little humor to establish identities, 7.3%.

Null hypothesis 6B predicted that there would be no significant difference between the specific purpose of humor (establish identities: target absent, target present, target self; defining situations: accounts, social control, alternative definitions,

Figure 21

Humor Attempts
by General Purpose and Dominance-Sex

		Other	Establish Identities	Redefine Situations	Row Total
High Dominant Males	Count	9	16	62	87
	Row Pct.	10.3	18.4	71.3	33.5
	Col. Pct.	32.1	34.8	33.3	
	Tot. Pct.	3.5	6.2	23.8	
Low Dominant Males	Count	8	9	44	61
	Row Pct.	13.1	14.8	72.1	23.5
	Col. Pct.	28.6	19.6	23.7	
	Tot. Pct.	3.1	3.5	16.9	
High Dominant Females	Count	3	17	37	57
	Row Pct.	5.3	29.8	64.9	21.9
	Col. Pct.	10.7	37.0	19.9	
	Tot. Pct.	1.2	6.5	14.2	
Low Dominant Females	Count	8	4	43	55
	Row Pct.	14.5	7.3	78.2	21.2
	Col. Pct.	28.6	8.7	23.1	
	Tot. Pct.	3.1	1.5	16.5	
	Column Total	28	46	186	260
		10.8	17.7	71.5	100.0

$X^2 = 11.79094$ with 6 df
$p > 0.0668$

reinterpreting past events; or other, uncodable) and psychological dominance and sex. However, the result of the chi square was not significant $X^2 = 27.21238$ with 18 df; $p > 0.0751$ (see Figure 22), and there are several reasons for this.

For all subjects the majority of the humor used involved giving accounts, 31.8% or alternative definitions of the situation, 36.4%. No one used reinterpretation of past events, and one high male used humor directed at a nonpresent target. While only five subjects (one high dominant male, and two high and low dominant females) used social control humor, high dominant males and females and low dominant males directed several pieces of humor at present targets (13, 11, and 8 respectively). With five attempts, only high dominant females used self-deprecating humor more than once. Thus, the majority of the humor was directed at defining situations, but some humor was used to establish identities of present targets and the self.

Results of Research Question 7: The correlation between paired variables of dominance score, humor attempts, and domineering statements for all subjects, male subjects, and female subjects.

Null hypothesis 7A: There will be no significant correlation between dominance scores and domineering statements for all subjects (A_1), all male subjects (A_2), and all female subjects (A_3).

Null hypothesis 7B: There will be no significant correlation between domineering statements and humor attempts for all subjects (B_1), all male subjects (B_2), and all female subjects (B_3).

Null hypothesis 7C: There will be no significant correlation

Figure 22

Humor Attempts:
by Specific Purpose and Dominance-Sex

		Other	Target Absent	Target Present	Target Self	Accounts	Social Control	Alternate Def.	Reinterp. Past Events	Row Total
H D M	Count	9	1	13	1	28	1	26	0	79
	Row Pct.	11.4	1.3	16.5	1.3	35.4	1.3	32.9	0.0	32.6
	Col. Pct.	32.1	100.0	36.1	14.3	36.4	20.0	29.5	0.0	
	Tot. Pct.	3.7	0.4	5.4	0.4	11.6	0.4	10.7	0.0	
L D M	Count	8	0	8	1	15	0	25	0	57
	Row Pct.	14.0	0.0	14.0	1.8	26.3	0.0	43.9	0.0	23.6
	Col. Pct.	28.6	0.0	22.2	14.3	19.5	0.0	28.4	0.0	
	Tot. Pct.	3.3	0.0	3.3	0.4	6.2	0.0	10.3	0.0	
H D F	Count	3	0	11	5	20	2	13	0	54
	Row Pct.	5.6	0.0	20.4	9.3	37.0	3.7	24.1	0.0	22.3
	Col. Pct.	10.7	0.0	30.6	71.4	26.0	40.0	14.8	0.0	
	Tot. Pct.	1.2	0.0	4.5	2.1	8.3	0.8	5.4	0.0	
L D F	Count	8	0	4	0	14	2	24	0	52
	Row Pct.	15.4	0.0	7.7	0.0	26.9	3.8	46.2	0.0	21.5
	Col. Pct.	28.6	0.0	11.1	0.0	18.2	40.0	27.3	0.0	
	Tot. Pct.	3.3	0.0	1.7	0.0	5.8	0.8	9.9	0.0	
Column Total		28	1	36	7	77	5	88	0*	242
		11.6	0.4	14.9	2.9	31.8	2.1	36.4	0.0	100.0

X^2 = 27.21238 with 18 df
$p > 0.0751$

* Empty column not used in calculation of chi square.

between dominance scores and humor attempts for all subjects (C_1), all male subjects (C_2), and all female subjects (C_3).

Research question 7 was designed to examine relationships among individual subjects based on dominance scores, humor attempts, and domineering statements (see Figure 23).

Null hypothesis 7A proposed that there would be no significant correlation between dominance scores and domineering statements for all subjects (A_1), all male subjects (A_2), and all female subjects (A_3).

The null hypothesis was partially confirmed as there was a significant correlation between dominance scores and domineering statements for all subjects (A_1), correlation coefficient = 0.1955; $p < 0.041$ (see Figure 24), and all females (A_3), correlation coefficient = 0.3329; $p < 0.018$ (see Figure 25), but not for all males (A_2), correlation coefficient = 0.0441; $p > 0.393$ (see Figure 26). The differences in levels of significance for these correlations appears to have occurred because low dominant females made so few domineering statements that the relationship between their low scores and few statements was sufficiently strong to influence the correlations for all females and all subjects.

Null hypothesis 7B proposed that there would be no significant correlation between the number of domineering statements and humor attempts for all subjects (B_1), all male subjects (B_2), and all female subjects (B_3). The null hypothesis should be completely rejected as strong correlations were found between domineering statements and humor attempts for all groups. The correlation coefficients were

Figure 23

List of Subjects' Sex, Psychological Dominance Score, Number of Humor Statements, and Number of Domineering Statements

Sub. No.	Sex	Dom. Score	Humor Atmpt.	Dom. State.	Sub. No.	Sex	Dom. Score	Humor Atmpt.	Dom. State.
1.	F	29	0	15	41.	M	20	3	31
2.	F	29	5	22	42.	M	19	1	13
3.	F	29	4	34	43.	M	20	U	12
4.	F	28	1	7	44.	M	18	7	26
5.	F	13	2	13	45.	F	25	1	19
6.	F	16	3	5	46.	F	27	9	22
7.	M	28	4	44	47.	F	26	3	20
8.	M	30	6	34	48.	F	25	4	27
9.	M	33	15	38	49.	F	25	1	15
10.	F	25	1	13	50.	F	31	2	20
11.	M	33	6	21	51.	F	19	3	6
12.	F	25	7	17	52.	F	31	9	46
13.	M	29	1	21	53.	F	30	2	17
14.	M	28	0	8	54.	F	30	0	13
15.	M	29	4	33	55.	F	30	6	41
16.	M	29	5	40	56.	F	30	3	26
17.	M	33	3	20	57.	F	33	2	52
18.	M	35	2	7	58.	F	34	6	54
19.	M	31	5	19	59.	M	21	6	80
20.	M	34	3	16	60.	M	24	7	39
21.	M	26	0	19	61.	F	36	3	22
22.	F	32	2	14	62.	M	37	2	24
23.	M	26	2	24	63.	M	41	9	43
24.	F	32	0	9	64.	F	35	1	5
25.	M	27	5	19	65.	M	23	3	23
26.	M	27	8	37	66.	F	18	0	13
27.	M	27	4	30	67.	M	14	1	15
28.	M	26	4	18	68.	F	16	3	11
29.	M	34	2	30	69.	F	35	2	24
30.	M	40	1	24	70.	F	39	2	34
31.	M	24	1	17	71.	F	23	1	4
32.	M	25	1	2	72.	F	22	6	37
33.	F	30	7	58	73.	F	23	3	52
34.	F	31	1	41	74.	F	22	1	32
35.	M	31	10	58	75.	M	24	1	16
36.	M	31	2	9	76.	M	24	4	48
37.	F	20	1	17	77.	M	22	1	24
38.	F	25	0	4	78.	M	22	4	37
39.	F	20	5	35	79.	M	31	1	13
40.	F	24	3	20	80.	M	31	9	30

Figure 24

Subjects'
Psychological Dominance Score and Number of Domineering Statements

Subject Number	Dominance Score	Dominant Statements	Subject Number	Dominance Score	Dominant Statements	Subject Number	Dominance Score	Dominant Statements
1.	29	15	28.	26	18	55.	30	41
2.	29	22	29.	34	30	56.	30	26
3.	29	34	30.	40	24	57.	33	52
4.	28	7	31.	24	17	58.	34	54
5.	13	13	32.	25	2	59.	21	80
6.	16	5	33.	30	58	60.	24	39
7.	28	44	34.	31	41	61.	36	22
8.	30	34	35.	31	58	62.	37	24
9.	33	38	36.	31	9	63.	41	43
10.	25	13	37.	20	17	64.	35	5
11.	33	21	38.	25	4	65.	23	23
12.	25	17	39.	20	35	66.	18	13
13.	29	21	40.	24	20	67.	14	15
14.	28	8	41.	20	31	68.	16	11
15.	29	33	42.	19	13	69.	35	24
16.	29	40	43.	20	12	70.	39	34
17.	33	20	44.	18	26	71	23	4
18.	35	7	45.	25	19	72.	22	37
19.	31	19	46.	27	22	73.	23	52
20	34	16	47.	26	20	74.	22	32
21.	26	19	48.	25	27	75.	24	16
22.	32	14	49.	25	15	76.	24	48
23.	26	24	50.	31	20	77.	22	24
24.	32	9	51.	19	6	78.	22	37
25.	27	19	52.	31	46	79.	31	13
26.	27	37	53.	30	17	80.	31	30
27.	27	30	54.	30	13			

Correlation Coefficient = 0.1955
N = 80
$p < 0.041$

Figure 25

Female Subjects'
Psychological Dominance Score and Number of Domineering Statements

Subject Number	Dominance Score	Dominant Statements	Subject Number	Dominance Score	Dominant Statements
1.	29	15	49.	25	15
2.	29	22	50.	31	20
3.	29	34	51.	19	6
4.	28	7	52.	31	46
5.	13	13	53.	30	17
6.	16	5	54.	30	13
10.	25	13	55.	30	41
12.	25	17	56.	30	26
22.	20	14	57.	33	52
24.	32	9	58.	34	54
33.	30	58	61.	36	22
34.	31	41	64.	35	5
37.	20	17	66.	18	13
38.	25	4	68.	16	11
39.	20	17	69.	35	24
40.	24	20	70.	39	34
45.	25	19	71.	23	4
46.	27	22	72.	22	37
47.	26	20	73.	23	52
48.	25	27	74.	22	32

Correlation Coefficient = 0.3329
N = 40
$p < 0.018$

Figure 26

Male Subjects'
Psychological Dominance Score and Number of Domineering Statements

Subject Number	Dominance Score	Dominant Statements	Subject Number	Dominance Score	Dominant Statements
7.	28	44	31.	24	17
8.	30	34	32.	25	2
9.	33	38	35.	31	58
11.	33	21	36.	31	9
13.	29	21	41.	20	31
14.	28	8	42.	19	13
15.	29	33	43.	20	12
16.	29	40	44.	18	26
17.	33	20	59.	21	80
18.	35	7	60.	24	39
19.	31	19	62.	37	24
20.	34	16	63.	41	43
21.	26	19	65.	23	23
23.	26	24	67.	14	15
25.	27	19	75.	24	16
26.	27	37	76.	24	48
27.	27	30	77.	22	24
28.	26	18	78.	22	37
29.	34	30	79.	31	13
30.	40	24	80.	31	30

Correlation Coefficient = 0.0441
N = 40
$p > 0.393$

0.5881; $p < 0.000[1]$ for all subjects (B_1) (see Figure 27), 0.4892; $p < 0.000[1]$ for all female subjects (B_3) (see Figure 28), and 0.6833; $p < 0.000[1]$ for all male subjects (B_2) (see Figure 29). Apparently there is a strong relationship between domineering statements and the use of humor.

Null hypothesis 7C proposed that there would be no significant correlation between dominance score and humor attempts for all subjects (C_1), all female subjects (C_3), and all male subjects (C_2). The null hypothesis must be completely accepted as there were no significant correlations. The correlation coefficients were 0.1016; $p > 0.198$ for all subjects (C_1) (see Figure 30), 0.0135; $p > 0.469$ for all female subjects (C_3) (see Figure 31), and 0.1531; $p > 0.183$ for all male subjects (C_2) (see Figure 32).

From these correlations it would seem that there is some relationship between dominance score and domineering statements largely due to the interaction between low dominant female scores and the small number of domineering statements made. When the number of domineering statements was considered apart from dominance scores, there was a strong correlation between domineering statements and humor attempts, but there was no relationship between self-reported dominance and humor.

These findings suggest that any relationship between dominance and humor is tied to the desire to assert relational dominance through communicative behavior and not self-perception preceived dominance.

Figure 27

Subjects'
Humor Attempts and Number of Domineering Statements

Subject Number	Humor Attempts	Dominant Statements	Subject Number	Humor Attempts	Dominant Statements	Subject Number	Humor Attempts	Dominant Statements
1.	0	15	28.	4	18	55.	6	41
2.	5	22	29.	2	30	56.	3	26
3.	4	34	30.	1	24	57.	2	52
4.	1	7	31.	1	17	58.	6	54
5.	2	13	32.	1	2	59.	6	80
6.	3	5	33.	7	58	60.	7	39
7.	4	44	34.	1	41	61.	3	22
8.	6	34	35.	10	58	62.	2	24
9.	15	38	36.	2	9	63.	9	43
10.	1	13	37.	1	17	64.	1	5
11.	6	21	38.	0	4	65.	3	23
12.	7	17	39.	5	35	66.	0	13
13.	1	21	40.	3.	20	67.	1	15
14.	0	8	41.	3	31	68.	3	11
15.	4	33	42.	1	13	69.	2	24
16.	5	40	43.	0	12	70.	2	34
17.	3	20	44.	7	26	71.	1	4
18.	2	7	45.	1	19	72.	6	37
19.	5	19	46.	9	22	73.	3	52
20.	3	16	47.	3	20	74.	1	32
21.	0	19	48.	4.	27	75.	1	16
22.	2	14	49.	1	15	76.	4	48
23.	2	24	50.	2	20	77.	1	24
24.	0	9	51.	3	6	78.	4	37
25.	5	19	52.	9	46	79.	1	13
26.	8	37	53.	2	17	80.	9	30
27.	4	30	54.	0	13			

Correlation Coefficient = 0.5881
N = 72
$p < 0.000$[1]

Figure 28

Female Subjects'
Humor Attempts and Number of Domineering Statements

Subject Number	Humor Attempts	Dominant Statements	Subject Number	Humor Attempts	Dominant Statements
1.	0	15	49.	1	15
2.	5	22	50.	2	20
3.	4	34	51.	3	6
4.	1	7	52.	9	46
5.	2	13	53.	2	17
6.	3	5	54.	0	13
10.	1	13	55.	6	41
12.	7	17	56.	3	26
22.	2	14	57.	2	52
24.	0	9	58.	6	54
33.	7	58	61.	3	22
34.	1	41	64.	1	5
37.	1	17	66.	0	13
38.	0	4	68.	3	11
39.	5	35	69.	2	24
40.	3	20	70.	2	34
45.	1	19	71.	1	4
46.	9	22	72.	6	37
47.	3	20	73.	3	52
48.	4	27	74.	1	32

Correlation Coefficient = 0.4892
N = 35
$p < 0.000$[1]

Figure 29

Male Subjects'
Humor Attempts and Number of Domineering Statements

Subject Number	Humor Attempts	Dominant Statements	Subject Number	Humor Attempts	Dominant Statements
7.	4	44	31.	1	17
8.	6	34	32.	1	2
9.	15	38	35.	10	58
11.	6	21	36.	2	9
13.	1	21	41.	3	31
14.	0	8	42.	1	13
15.	4	33	43.	0	12
16.	5	40	44.	7	26
17.	3	20	59.	6	80
18.	2	7	60.	7	39
19.	5	19	62.	2	24
20.	2	16	63.	9	43
21.	0	19	65.	3	23
23.	2	24	67.	1	15
25.	5	19	75.	1	16
26.	8	37	76.	4	48
27.	4	30	77.	1	24
28.	4	18	78.	4	37
29.	2	30	79.	1	13
30.	1	24	80.	9	30

Correlation Coefficient = 0.6833
N = 37
p < C.000[1]

Figure 30

Subjects'
Psychological Dominance Score and Number of Humor Attempts

Subject Number	Dominance Score	Humor Attempts	Subject Number	Dominance Score	Humor Attempts	Subject Number	Dominance Score	Humor Attempts
1.	29	0	28.	26	4	55.	30	6
2.	29	5	29.	34	2	56.	30	3
3.	29	4	30.	40	1	57.	33	2
4.	28	1	31.	24	1	58.	34	6
5.	13	2	32.	25	1	59.	21	6
6.	16	3	33.	30	7	60.	24	7
7.	28	4	34.	31	1	61.	36	3
8.	30	6	35.	31	10	62.	37	2
9.	33	15	36.	31	2	63.	41	9
10.	25	1	37.	20	1	64.	35	1
11.	33	6	38.	25	0	65.	23	3
12.	25	7	39.	20	5	66.	18	0
13.	29	1	40.	24	3	67.	14	1
14.	28	0	41.	20	3	68.	16	3
15.	29	4	42.	19	1	69.	35	2
16.	29	5	43.	20	0	70.	39	2
17.	33	3	44.	18	7	71.	23	1
18.	35	2	45.	25	1	72.	22	6
19.	31	5	46.	27	9	73.	23	3
20.	34	3	47.	26	3	74.	22	1
21.	26	0	48.	25	4	75.	24	1
22.	32	2	49.	25	1	76.	24	4
23.	26	2	50.	31	2	77.	22	1
24.	32	0	51.	19	3	78.	22	4
25.	27	5	52.	31	9	79.	31	1
26.	27	8	53.	30	2	80.	31	9
27.	27	4	54.	30	0			

Correlation Coefficient = 0.1016
N = 72
$p > 0.198$

Figure 31

Female Subjects'
Psychological Dominance Score and Number of Humor Attempts

Subject Number	Dominance Score	Humor Attempts	Subject Number	Dominance Score	Humor Attempts
1.	29	0	49.	25	1
2.	29	5	50.	31	2
3.	29	4	51.	19	3
4.	28	1	52.	31	9
5.	13	2	53.	30	2
6.	16	3	54.	30	0
10.	25	1	55.	30	6
12.	25	7	56.	30	3
22.	32	2	57.	33	2
24.	32	0	58.	34	6
33.	30	7	61.	36	3
34.	31	1	64.	35	1
37.	20	1	66.	18	0
38.	25	0	68.	16	3
39.	20	5	69.	35	2
40.	24	3	70.	39	2
45.	25	1	71.	23	1
46.	27	9	72.	22	6
47.	26	3	73.	23	3
48.	25	4	74.	22	1

Correlation Coefficient = 0.0135
N = 35
$p > 0.469$

Figure 32

Male Subjects'
Psychological Dominance Score and Number of Humor Attempts

Subject Number	Dominance Score	Humor Attempts	Subject Number	Dominance Score	Humor Attempts
7.	28	4	31.	24	1
8.	30	6	32.	25	1
9.	33	15	35.	31	10
11.	33	6	36.	31	2
13.	29	1	41.	20	3
14.	28	0	42.	19	1
15.	29	4	43.	20	0
16.	29	5	44.	18	7
17.	33	3	59.	21	6
18.	35	2	60.	24	7
19.	31	5	62.	37	2
20.	34	2	63.	41	9
21.	26	0	65.	23	3
23.	26	2	67.	14	1
25.	27	5	75.	24	1
26.	27	8	76.	24	4
27.	27	4	77.	22	1
28.	26	4	78.	22	4
29.	34	2	79.	31	1
30.	40	1	80.	31	9

Correlation Coefficient = 0.1531
N = 37
$p > 0.183$

Summary

This chapter reported the results of the investigation of seven research questions. The first three were designed to explore the relationship between psychological dominance, sex and relational dominance through the use of domineering statements, and the control direction of response to humorous and nonhumorous domineering messages. Questions four, five, and six analyzed the relationship between psychological dominance, sex, and the amount and purpose of humor by groups and individuals. The last research question studied the interaction by correlation between dominance scores, sex, domineering statements, and humor attempts.

The first research question explored the interaction between psychological dominance, sex, and the use of domineering statements. The chi square test yielded a significant interaction. A further analysis of the data indicated that the difference between the groups occurred because low dominant females made so many fewer total statements and domineering statements than the other psychological dominance/sex groups.

In the second research question the relationship between psychological dominance, sex, and complementary responses to domineering statements was studied. Although females did use proportionately more submissive responses than males, the differences were not significant. This lack of difference may have occurred, in part, because the relational transaction model used in the analysis defined 70% of all response type as being domineering statements.

Research question 3 explored several interactions. The first continued the analysis of the relationship between domineering statements when the psychological dominance and sex of the source is specified and the control direction of response when measured by group psychological dominance and sex. The results of this analysis were mixed, but largely significant in that only the interaction between low dominant males and the dominance/sex groups were nonsignificant. When responding to domineering statements by high dominant males the difference was accounted for by the percentage of complementary responses given by female subjects. Similarly the number of complementary responses made by all females to high dominant females' domineering statements was significant. As low dominant females asserted themselves by making domineering statements, low dominant females and high dominant males would respond in a complementary manner. The response pattern to low dominant males was inconsistent with the others in that the responses to domineering statements by low dominant males by all groups was consistently one-up symmetrical.

The analysis of responses to successful humor by group psychological dominance and sex was not significant in that response to a successful humor attempt by any subject led to one-up responses. The respondants always seemed to challenge the attempt to use humor to assert dominance.

It was difficult to measure the control direction of responses to humor attempts coded as "ignored" or "polite" because of the sample size. Only four messages were coded as having a "polite" response to

the humor attempt. While more humor attempts received "ignored" responses, the results were only partially reported, and none was significant.

The fourth research question investigated the interaction between psychological dominance, sex, and humor attempts. It had been assumed that high dominant males would use more humor that the other dominance/sex groups. While high dominant males did use more humor, the difference was not significant as females used proportionately more humor than previous literature had reported.

Research question 5 used the Fine (1983a) model to categorize the amount and the purpose of humor in both a general and specific manner in groups balanced for psychological dominance and sex. The general purpose of humor is to establish identities or define situations. The specific purpose established identities of absent targets, present targets, and the self or defined situations by accounts, social control, alternative definitions, or reinterpreting past events. The greatest amount of humor occurred in high dominant male, low dominant female groups and the least in low dominant male, low dominant female groups. The interaction between group type and general purpose of humor was significant because most of the humor defined situations. More specifically the type of humor that defined situations provided accounts and alternate definitions.

The sixth research question continued the application of Fine's model by comparing the general and specific purposes of humor as used by psychological dominance and sex. Neither of the analyses was significant. While most of the humor defined situations, when humor

that established identities was measured by psychological dominance and sex the difference was more evenly distributed. High dominant males and females used humor to establish the identities of present targets and high dominant females targeted themselves.

Research question seven was designed to assess relationships by computing correlations for the paired variables of dominance score and domineering statements; domineering statements and humor attempts; and dominance score and humor attempts for all subjects, all males, and all females.

The correlations for dominance score and domineering statements yielded mixed results. There were significant correlations for all subjects and all female subjects, but not male subjects. Further analysis suggested that the correlations for all subjects and females were significant because low dominant females made so few domineering statements that the relationship between their low scores and few statements influenced the correlations for all subjects and female subjects.

The strongest correlations were found between domineering statements and humor attempts for all subjects, female subjects, and male subjects. The weakest correlations existed between dominance score and humor attempts. Thus it appear that humor use is related to the desire to assert relational dominance, but not self reported dominance.

Figure 33

Summary of Hypotheses and Results of Analysis

Null Hypothesis	Accepted	Rejected
1. There will be no significant difference for psychological dominance and sex by domineering statements.		X
2. There will be no significant difference for psychological dominance and sex by complementary, one-down responses.	X	
3. There will be no significant difference between the control direction of response for psychological dominance, sex, and nonhumorous, humorous, "polite" and "ignored" humor attempts by high and low males and females.		
A_1 Control direction of response, psychological dominance, and sex by nonhumorous statements made by high dominant males.		X
A_2 Control direction of response, psychological dominance, and sex by nonhumorous statements made by low dominant males.	X	
A_3 Control direction of response, psychological dominance, and sex by nonhumorous statements made by high dominant females.		X
A_4 Control direction of response, psychological dominance, and sex by nonhumorous statements made by low dominant females.		X
B_1 Control direction of response, psychological dominance, and sex by humorous statements made by high dominant males.	X	
B_2 Control direction of response, psychological dominance, and sex by humorous statements made by low dominant males.	X	

Null Hypothesis	Accepted	Rejected
3. cont'd		
B_3 Control direction of response, psychological dominance, and sex by humorous statements made by high dominant females.	X	
B_4 Control direction of response, psychological dominance, and sex by humorous statements made by low dominant females.	X	
C_1 Control direction of response, psychological dominance, and sex by "polite" humor attempts made by high dominant males.	*	*
C_2 Control direction of response, psychological dominance, and sex by "polite" humor attempts made by low dominant males.	*	*
C_3 Control direction of response, psychological dominance, and sex by "polite" humor attempts made by high dominant females.	*	*
C_4 Control direction of response, psychological dominance, and sex by "polite" humor attempts made by low dominant females.	*	*
D_1 Control direction of response, psychological dominance, and sex by "ignored" humor attempts made by high dominant males.	X	
D_2 Control direction of response, psychological dominance, and sex by "ignored" humor attempts made by low dominant males.	*	*
D_3 Control direction of response, psychological dominance, and sex by "ignored" humor attempts made by high dominant females.	X	

* Insufficient data to compute statistical analysis.

Null Hypothesis	Accepted	Rejected
3. cont'd D_4 Control direction of response, psychological dominance, and sex by "ignored" humor attempts made by low dominant females.	X	
4. There will be no significant difference for psychological dominance and sex by humor attempts.	X	
5. There will be no significant difference for groups balanced by psychological dominance and sex by general and specific purpose of humor.		
A There will be no significant difference for groups balanced by psychological dominance and sex and the general purpose of humor.		X
B There will be no significant difference for groups balanced by psychological dominance and sex and the specific purpose of humor.		X
6. There will be no significant difference for psychological dominance and sex by general and specific purpose of humor.		
A There will be no significant difference for psychological dominance and sex by general purpose of humor.	X	
B There will be no significant difference for psychological dominance and sex by specific purpose of humor.	X	
7. There will be no significant correlation between the paired variables of dominance score and dominant statements, dominant statements and humor attempts, or dominant score and humor attempts for all subjects, male subjects, and female subjects.		

	Null Hypothesis	Accepted	Rejected
7.	cont'd		
	A_1 There will be no significant correlation between dominance score and dominant statements for all subjects.		X
	A_2 There will be no significant correlation between dominance score and dominant statements for male subjects.	X	
	A_3 There will be no significant correlation between dominance score and dominant statements for female subjects.		X
	B_1 There will be no significant correlation between dominant statements and humor attempts for all subjects.		X
	B_2 There will be no significant correlation between dominant statements and humor attempts for male subjects.		X
	B_3 There will be no significant correlation between dominant statements and humor attempts for female subjects.		X
	C_1 There will be no significant correlation between dominant score and humor attempts for all subjects.	X	
	C_2 There will be no significant correlation between dominant score and humor attempts for male subjects.	X	
	C_3 There will be no significant correlation between dominant score and humor attempts for female subjects.	X	

Chapter VI

Assessment and Recommendations

Introduction

The purpose of this dissertation is to analyze the impact of psychological and relational dominance and sex on humor in social interaction. The investigation yielded several significant statistical results regarding the nature of humorists, the rhetorical purposes of humor, and the transactional conversation patterns that follow a humorous utterance. Although statistical analyses provided useful information regarding humor in social conversation, there were important aspects of the interactions that could not be described quantitatively. In order to more fully appreciate the data some anecdotal information is presented. Since a dissertation is a capstone to an educational process, there is an assessment of the procedures and methods used in data collection and analysis so that further research by the author can be accomplished more expediently in the future. The analyses of procedure includes an assessment of using two measures of dominance. Finally recommendations for further research are presented.

An Anecdotal Description of Some of the Video Tapes

The analysis of the data collected for this dissertation provided several statistical results regarding the traits of humorists, the rhetorical purpose of humor, and relational conversation patterns that

follow humorous utterances. The following generalizations were drawn from the statistical analyses. While males in the study did make more humor attempts than the females, the females used humor more frequently and effectively than some literature has suggested (Eakins and Eakins, 1978; Pollio and Edgerly, 1976). There is a very strong relationship between the use of humor and the use of domineering statements in interaction. However, responses to humorous statements are not complementary one-down messages, but one-up statements to assert dominance by the respondent. In groups balanced by psychological dominance and sex, the most prevelant type of humor describes situations through accounts and alternate definitions.

The impact of humor as a facilitating device in social interaction was evident in a comparison of the groups with high dominant males and females. In one group the subjects immediately began to work on the task. The occurrence of smiles and nods of affirmation encouraged participation by all four members. Of the 15 pieces of coded humor all but two were directed at defining the situation through accounts or alternative definitions and the other pieces were directed at the self. Humor added spontaneity and variety to the problem solving process. A good example was a piece of humor that suggested that the sense of loneliness and isolation could be avoided by selecting The New York Times - delivered daily as one of the three things to be taken.

Humor in the other high dominant male and female group served a different purpose. In part the differences occurred because of cross cultural variables that were not accounted for in the study. The

males in the study were white, small-town Iowans who were not sophisticated. The females were an urban black and a Samoan who were very outgoing and outspoken. At times the females clearly intimidated the males. In this group humor was a weapon that was used to define and evaluate other group members. Of the 24 pieces of humor, nine provided accounts and alternative definitions, but nine others were directed at group members and resulted in the person being "laughed at" and not "laughed with". Other statements were not coded as attempted humor because the intent was to ridicule the target. Unlike studies that report only males use aggressive humor in mixed sex groups (Smith and Goodchilds, 1959), seven of the nine attacking pieces of humor were made by the females. The result was a group divided by sex that spent more energy protecting self images than solving the problem.

A similar division of group members by sex occurred in a high dominant female, low dominant male group in which there was a continual struggle for power. One of the males talked frequently and at length, a behavior pattern that is characteristic of traditional male dominance (Strodtbeck and Mann, 1956; Soskin and John, 1963). This male made 80 domineering statements as compared to 58 by the next most talkative subjects. Many of these statements ridiculed the females' ideas and suggestions. While the females were more polite in nonhumorous interaction, both they and the males used humor as a means of attack. "Target present" pieces of humor were used five times by males and four times by females. This group was very uncooperative,

and for a period of time conversations between the males and the females were taking place simultaneously.

The specific impact of attempted humor on interpersonal interaction was evident in a high dominant male, low dominant female group. One of the males asserted dominance by speaking frequently and by using a disproportionate number of humor attempts. The subjects' 15 humor attempts were 19% of the total statements he made. After the first four minutes of interaction one of the females made several humor attempts. However, six of her eight humor attempts were ignored, and frequently the talkative high dominant male responded to her humor attempts in a serious manner. The female's frustration became increasingly apparent in her gestures and facial expressions, and for several minutes she withdrew from active participation.

The behavior of the female whose humor was ignored, and of the other who was silent throughout most of the discussion, raises the issue of silence as a means of signaling submissiveness. Zimmerman and West (1975) compared silences in mixed and same sex groups. They reported that while silences were evenly distributed in same sex groups, females fell silent most often in mixed sex groups. Of the female silences in mixed sex groups, Zimmerman and West reported that 62 percent occurred when there was: 1) a delayed, minimal response by a male; 2) an overlap by a male; or 3) a male interruption. In this group female silences occurred after minimal responses to attempted humor, or an interruption by the most talkative male. The use of silence by the females was a means of granting dominance to the male.

Since low dominant females made many fewer total statements than

the other subjects, the use of silence as a measure of submissiveness needs further exploration. From the analyses of these interactions it is apparent that humor is a tool that can facilitate communication through a spontaneous sharing of visions, or destroy it by establishing identities that threaten self concept.

An Assessment of the Dissertation

Problems with Data Collection

In reflecting upon the process of collecting and analyzing the data for this dissertation several observations and reactions should be reported. Problems that arose during data collection are discussed along with an evaluation of using two measures of dominance.

Three issues regarding data collection occurred because of the limited number of potential subjects, using students to give the instructions and taping the interactions, and problems with sound reproduction. In collecting data a decision was made to use as subjects the students enrolled in Introduction to Human Communication at Central College during the fall of 1984. Only 83 students were enrolled in the class, and 80 subjects were needed. Although 40 males and 40 females were willing to participate, and it was possible to establish means and medians to divide the subjects in high and low dominant groups; the distinction between high and low dominant subjects was not sufficiently great. To assign the behaviors of a subject with a dominance score of 28 to one category and the behaviors of another subject with a dominance score of 27 to a different category seems to

arbitrarily depend on a very slim distinction. The distinctions between high and low dominant groups might have been more valid if the subjects in each category had been closer to the means of 30.95 and 30.25 for high dominant males and females and 22.95 and 20.95 for low dominant males and females.

Since the author did not wish to influence subject behavior, two students were used to give the instructions and to videotape the interactions. The student assistants were given instructions to read to each group. From watching segments of the tapes that occurred while one group was leaving and another entering, it was evident that the assistant did not read the instructions, but explained them. The explanations were not consistent. In this study the difference in instructions was not critical because the interaction process and not the results of the discussion were of primary concern. However, the author was aware of this potential problem.

The videotapes were a source of concern because of sound quality. A decision had been made to place the four chairs for the subjects in a semicircle with the microphone on a stand in front of the subjects. Although sound checks demonstrated that the sound level would be acceptable, some subjects did not speak loudly enough for the tape to be heard clearly. The greatest problems in coding reliability occurred at the points where the judges disagreed on what had been said. In the future all videotaped subjects will wear individual, lapel microphones.

Data Analysis from Two Measures of Dominance

During the planning stages of this dissertation doubts arose as to the wisdom of using two measures of dominance. In retrospect the decision seems to have been justified because of information that emerged. Specific differences in male and female relational behaviors became more apparent when the data analysis revealed that low dominant females used many fewer total statements and domineering statements than high dominant females and all males. Patterns of interaction between nonhumorous domineering statements and the control direction of response became more meaningful when the psychological dominance and sex of the message source were known.

A greater understanding of humor usage resulted from the observations that groups with high dominant males and females made the most humor attempts, and low dominant males and females the least. High dominant males and females directed more humor toward establishing identities than low dominant males or females. Finally correlational analyses found that there was no significant relationship between dominance score and humor attempts, and a very strong relationship between domineering statements and humor attempts. Of all of these findings the correlation between dominant statements and humor attempts may be the most important because it encourages the further investigation of the role of humor in relational communication.

Recommendations for Future Research

The following recommendations for research will address three

levels that range from very general to specific. On the broadest level, requests for research for additional research call for more theory building. As with other students of human behavior, humor scholars are divided as to the most appropriate approach to theory construction. Some researchers have called for the development of a single meta-theory of humor, while others argue that this goal is not attainable, and that several restricted but well developed theories are preferable. Still others argue that a dynamic field of study grows in both directions simultaneously. Practically, it seems that communication scholars can contribute to humor theory building by explaining how humor influences communication that occurs in contexts ranging from dyads to the mass media.

On a less lofty plane this dissertation defined humor as a rhetorical device that can alter meaning by establishing identities or defining situations. This definition of humor was selected because it provided a means of assessing humor's impact on relational communication. Hopefully future research will provide a broader understanding of the role humor plays in achieving relational control, trust, and intimacy.

On the most specific level, two immediate research goals include investigation of humor in dyads that are intimate and self disclosing, and the use of humor to establish identities and define situations in public speeches.

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APPENDIX A

CALIFORNIA PSYCHOLOGICAL INVENTORY

Appendix A

True or False

Answer True if you agree with the sentence or False if you disagree.

_____ 1. I doubt that I would make a good leader.

_____ 2. I think I would enjoy having authority over other people.

_____ 3. I find it hard to keep my mind on a task or job.

_____ 4. I have sometimes stayed away from another person becasue I feared doing or saying something that I might regret afterward.

_____ 5. When in a group of people I have trouble thinking of the right things to talk about.

_____ 6. School teachers complain a lot about their pay, but it seems to me that they get as much as they deserve.

_____ 7. I don't blame anyone for trying to grab all he can get in this world.

_____ 8. Every citizen should take the time to find out about national affairs, even if it means giving up some personal pleasures.

_____ 9. I should like to belong to several clubs or lodges.

_____ 10. I am certainly lacking in self-confidence.

_____ 11. When I work on a committee I like to take charge of things.

_____ 12. If given the chance I would make a good leader of people.

_____ 13. Sometimes at elections I vote for men about whom I know very little.

_____ 14. I very much like hunting.

_____ 15. A person does not need to worry about other people if only he looks after himself.

_____ 16. I can honestly say that I do not really mind paying my taxes because I feel that's one of the things I can do for what I get from the community.

_____ 17. When prices are high you can't blame a person for getting all he can while the getting is good.

_____ 18. In school I found it very hard to talk before the class.

_____ 19. I am a better talker than a listener.

_____ 20. I would be willing to give money myself in order to right a wrong, even though I was not mixed up in it in the first place.

_____ 21. We should cut down on our use of oil, if necessary, so that there will be plenty left for the people fifty or a hundred years from now.

_____ 22. When a community makes a decision, it is up to a person to help carry it out even if he had been against it.

_____ 23. I would rather have people dislike me than look down on me.

_____ 24. I must admit I try to see what others think before I take a stand.

_____ 25. People should not have to pay taxes for the schools if they do not have children.

_____ 26. In a group, I usually take the responsibility for getting people introduced.

_____ 27. I would be willing to describe myself as a pretty "strong" personality.

_____ 28. There are times when I act like a coward.

_____ 29. I must admit I am a pretty fair talker.

_____ 30. I have strong political opinions.

_____ 31. I think I am usually a leader in my group.

_____ 32. I seem to do things that I regret more often than other people do.

_____ 33. Disobedience to any government is never justified.

_____ 34. I enjoy planning things, and deciding what each person should do.

_____ 35. I would rather not have very much responsibility for other people.

_____ 36. I usually have to stop and think before I act even in trifling matters.

_____ 37. It is pretty easy for people to win arguments with me.

_____ 38. I have not lived the right kind of life.

_____ 39. I have a natural talent for influencing people.

_____ 40. I like to give orders and get things moving.

_____ 41. I am embarrassed with people I do not know well.

_____ 42. The one to whom I was most attached and whom I most admired as a child was a woman (mother, sister, aunt, or other woman).

_____ 43. I'm not the type to be a political leader.

_____ 44. People seem naturally to turn to me when decisions have to be made.

_____ 45. I dislike to have to talk in front of a group of people.

_____ 46. I have more trouble concentrating than others seem to have.

APPENDIX B

HUMOR SHEET

Group Number _____ Rater _____

Location on Video Tape — Location

Humor Attempts — Source

Response: Genuine Smiles Laughter; Polite Smiles/ Laughter; Ignored

Purpose of Humor: Establish Identity — Target Absent; Target Present; Target Self

Define Situation — Accounts; Social Control; Alternative Definition; Reinterpreting Past Events

Respondent

Location	Source	Response: GS	PS	I	Purpose: TA	TP	TS	A	SC	AD	RPE	Respondent

APPENDIX C

CODING SHEET

CODING SHEET

Group # _____ Rater _____

Source	Grammatical Code	Message Code	Control Code	Respondant	Grammatical Code	Message Code	Control Code