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Interpersonal Perceptions as Function of Personality Styles

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

by

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ABSTRACT

One hundred, sixty-nine undergraduates participated in a study that investigated the effects of interpersonal self-perceptions on judgements made about others. Subjects' interpersonal styles were assessed by self-ratings using the Interpersonal Adjective Scales (IAS). Subjects also rated the interpersonal styles of two videotaped stimulus others using the IAS. In addition, subjects' degree of identification and desire to affiliate with the stimuli were assessed. The general design was a two-group rating comparison (Friendly-Dominant and Friendly-Submissive, and more extreme and less extreme) across two stimulus conditions, Hostile-Dominant and Hostile- Submissive. There were several findings and interpretations were forwarded. Extreme subjects assigned higher, more extreme ratings to both the stimuli than did less extreme subjects. More extreme or interpersonally rigid individuals may interpret others' behavior as more extreme than do flexible individuals. Subjects assigned the most extreme ratings to the stimulus whose behavior was opposite of their own on the Interpersonal Circle. It may be that subjects responded with extreme ratings to the stimulus who greatly epitomized the impression they endeavor to avoid. Friendly-Submissive subjects indicated a preference for identifying and affiliating with the Hostile-Submissive stimulus, while Friendly- Dominant subjects indicated little preference between the two stimuli. Friendly-Submissive subjects apparently were more sensitive to the role demands for cooperative behavior inherent in a counseling-type stimulus situation than were Friendly-Dominant subjects. Less extreme subjects rated the Hostile-Dominant stimulus as more extreme than they rated the Hostile-Submissive stimulus, while more extreme subjects differed little in their ratings of the two stimuli. It is likely that less extreme, flexible individuals are more responsive to changes in situational contexts than are more rigid individuals. Overall, the results support the assertion that self-descriptions and descriptions of others are systematically- related, as well as providing support for the need to attend to traits, situations, and then interactions in the study of interpersonal behavior.

Chapter I

Review of the Literature

Introduction

The present study examined the effects of perceiver interpersonal style on perception of the interpersonal styles of others. In this chapter, the following points will be addressed: (1) Interpersonal behavior is influenced by the interaction of traits and situations. Behavioral predictions will increase in accuracy if individual predispositions are considered in terms of specific situations likely to interact with traits. (2) There is theoretical and empirical convergence on two underlying dimensions of interpersonal behavior, status and affiliation. (3) A circumplex model originated with Leary (1957) and expanded by others provides a framework to test interactional hypotheses. This model utilizes orthogonal dimensions of status and affiliation to make predictions about how individuals are likely to interact with others. Most predictions have remained untested. (4) Inadequate investigative attention has been given to the role of perceptions in influencing judgments about others. The circumplex model provides a conceptual framework to examine the role of perception as it influences interpersonal transactions. (5) Finally, by considering existing research findings on the personality trait, Need for Approval, it will be shown that the circumplex model can account for individual perceptions, likely situational interactions, and lead to predictions of practical as well as theoretical importance.

Background and Overview

Person perception refers to the process by which we perceive or infer the psychological characteristics of other people, including their

intentions, attitudes, emotions, ideas, abilities, traits, and perceptions. The perception of others is influenced by the interactions among three factors: (1) attributes of the stimulus person, (2) the nature of the interaction situation, and (3) the characteristics of the perceiver (Tagiuri, 1969). A component of the third factor, perceiver personality, is assumed to play a crucial role. The commonly held belief that who we are, and what type of personality we have, influences what we think of others is rarely questioned, and even more rarely subjected to systematic testing by psychological researchers. Little is known of the relationship of perceiver personality to judgments of others.

The study of person perception is a formidable task. Progress most efficiently occurs with attention to problems involving interactions among personality, situational, and perception variables (Shrauger & Altrocchi, 1964). Thus, for an accurate and full understanding of person perception, theory, and research methods, and measurements must faithfully represent the complexity of the area (Jackson & Messick, 1963). In the pages that follow, a context will be presented to understand contradictory conclusions in psychology about personality in perceptive processes.

Historically, there have been two main branches in this area of psychological research. The first may be termed the trait approach, and the second, the situational approach. Researchers from the trait tradition have been experimental psychologists and clinicians who have been most concerned with theoretical constructs of personality; they have focused on individual differences to account for variation in behavior. They might be viewed as asking the question, "How do people

differ from one another given the same situation?" Researchers who have adopted a situational approach are frequently social psychologists. To understand sources of behavioral variance, they have studied how individuals might respond across different environments or when presented with varying stimuli. Psychologists from the situational approach can be presented as asking the question, "On the whole, how do people react differently across various situations?" (c.f., Cronbach, 1966).

Most psychologists are now in general agreement that the trait versus situation argument is a pseudo-issue (e.g., Blass, 1977). Accounting for more of the behavioral variance and providing greater predictive power than either alone, the interaction of individual differences and situational variables is acknowledged as the most fruitful investigative path (e.g., Alker, 1972; Bem, 1972; Bowers, 1973; Ekehammer, 1974; Endler, 1973; Endler & Magnusson, 1976). However, a perusal of current literature reveals that most theorists and investigators still favor one or the other of the two viewpoints. For interactionalists, the problem is often not "what" to study, but "how" to study it. One researcher (Mischel, 1973) has noted that the relative importance of individual differences will depend on the situation selected, the type of behavior assessed, the particular individual differences sampled, and the purposes of assessment. Research in human behavior is complex, and the challenge is to determine the best method to specify and systematically study the interaction.

Scientific understanding usually is predictable in its course; typically the progression is from observations, to concepts, to constructs, to theory, to specific hypothesis-testing, to inferences,

to modifications, and ideally then to accurate prediction and control of events. Kaul and Bednar (1978) note that what is often not noticed of the scientific process is the reciprocal nature of theory and observation. Theory is generated from observations, but it also determines what other observations will be made. They suggest that it is this conceptual inadequacy which is characteristic of research today. Within a slightly different context, although still relevant to the current problem, Meehl (1954) alludes to the difference between someone who ascertains relationships between events by randomly "pushing buttons" and then watching the outcome, and another who could be called a "skilled mechanic." The skilled mechanic, according to Wiggins (1973), "adopts a 'trouble-shooting' approach to the problem. On the basis of a relatively small number of carefully chosen button presses, he attempts to arrive at a hypothesis concerning the internal structural arrangement of this particular box" (p. 155). This analogy is particularly apt for the quandry in studying the nature of interactions among individual differences and situations. There is a need for higher-order schema to guide investigations--theories to be judged on their heuristic value for generating hypothesis-testing. With such maps to guide the view, there will be access to more than rough probabalistic relationships and we will have "structural-dynamic hypotheses" (Wiggins, 1973) whose accuracy will more closely approximate the next level in science. In person perception, as in other areas of psychology, there is a call for theoretical proposals to understand, organize, and test the persistent emergency of interactions among the judge, the stimulus person, the context, the characteristics to be judged, and the methodology (Tagiuri, 1969). Researchers have been urged to move beyond a "shotgun" approach

to discovering empirical relationships among behavioral events. In the domain of personality research, Goldberg (1971) has observed that devices to measure personality constructs have more often resulted from social pressures than from constructs suggested by theories. Further, Wiggins (1980) states that whether or not constructs are related to one another is often not derived from theoretical considerations, but "... by an author's reading of the zeitgeist in terms of frequency with which the names of the constructs have appeared in titles of journal articles during the year" (p. 286). The need for integrative, conceptual models is illustrated vividly in the preface of London and Exner's (1978) book which presents research on the major dimensions of personality. Apologetically, the editors note that the organization of the book was not guided by any more sophisticated a scheme of "classification" than by arranging the chapters in alphabetical order.

In the present study, it is assumed that the best taxonomies for generating testable hypotheses will be those that are inherently interactional. These are conceptual schemes that not only specify relationships among traits, or predict organized classes of situations, but the best heuristic tools will elucidate and predict the interaction of specified traits with likely situational variables. Unfortunately, few research efforts have been directed so far at generating and testing such taxonomies (Wiggins, 1980).

The first step in building an interactional system entails articulation of an existing conceptualization of interpersonal trait research. Guilford (1959) says, "a trait is any distinguishable, relatively enduring way in which one individual differs from others" (p. 6). Wiggins (1979) notes that trait research, or the discovery of ways that

people differ from one another, can be classified along many dimensions, including: (1) interpersonal behavior, (2) attitudes, (3) beliefs, (4) cognitive styles, (5) defensive styles, and (6) affect. Most studies in such research have identified an individual difference variable, conceptualized it in terms of its presence or absence and its association to other variables of interest (e.g., dogmatism and religious beliefs, or locus of control and attributions of causality). Noteworthy, however, is the bipolarity, unidimensionality, "how much?" and "either-or" nature of these traits discovered and studied in isolation from one another. For example, a researcher may ask where along the single continuum of introversion and extraversion a given individual may be placed. Some attempts have been made to study the relationship of a trait with another trait, but often the lack of a conceptual base for the comparison results in a lack of generalizability of the findings and further accumulation of isolated "facts." Psychologists in roles of fact-finders rather than theory developers and testers create the tenuous position of having produced few statements of wide-ranging implication and transsituationality (Forsyth & Strong, in press; Royce, 1978). However, some trait researchers have made pioneering strides in the systematic study of traits in relation to each other (e.g., Eysenck, 1967, 1970, 1973; Royce,, 1977a,b,c, 1978b). Eysenck (1967), for example, has raised creative and interesting questions with his work on orthogonal combination of the individual difference traits of neurotism-normalcy and introversion-extraversion. Even this simple typology has suggested systematic research hypotheses not possible without a paradigm of bipolar contrasting variables.

In the domain of interpersonal traits, construct validity is also accruing for the richness and heuristic value afforded by systematic study of the relationships of interpersonal individual differences. Over the past 30 or more years, various theoreticians and researchers have worked independently only to recognize more recently the convergence of their paths in discoveries of interpersonal taxonomies. Although often using different dimensional labels, a circumples or radex model has been generated by many writers that identifies orthogonal dimensions portraying social and emotional outcomes of interactions. Most commonly, theorists speak of affiliation and dominance; however, the dimensions have also been termed love and status, affiliation and autonomy, relationship congruence and power, etc. Advocates of these or similar models include Adams, 1964; Benjamin, 1974; Carson, 1969; Foa and Foa, 1974; Freedman, et al., 1951; Kiesler, 1982a; Leary, 1957; McLemore and Benjamin, 1979; Schaefer, 1959; Strong, et al., 1982; and Wiggins, 1979. Such convergence in research may be viewed as a plea for integrative conceptual models and use of explicit structural theories in research (Wiggins, 1980). In addition to the many aforementioned advocates, others have expanded the circumplex model and even extended it to other domains of personality research (e.g., Becker & Krug, 1964; Homans, 1961; Rinn, 1965; Schaefer, 1959; Stern, 1970).

An impressive conceptual application of the circumplex model to interpersonal trait research is presented by Wiggins (1979, 1980, 1982). He notes that summaries of experimental and psychometric personality research (e.g., Byrne, 1974; Blass, 1977; London & Exner, 1978) all too frequently have resorted to the "alphabetical" structural model in organizing the literature. Further, since much of this research is

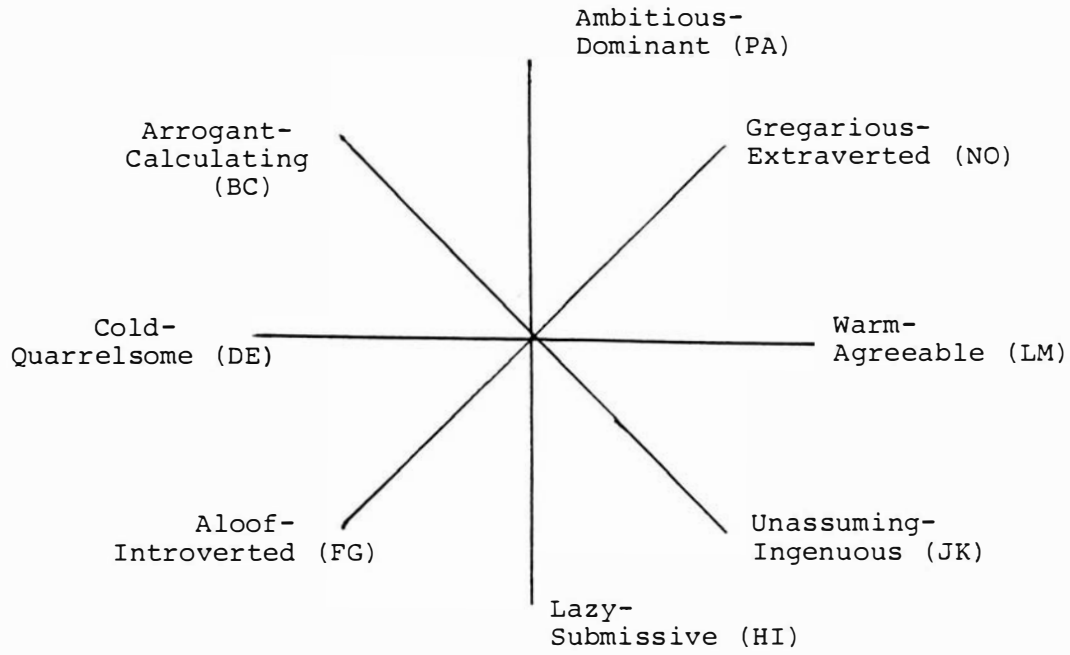


Figure 1: Circumplex Model of Interpersonal Behavior (Wiggins, 1980)

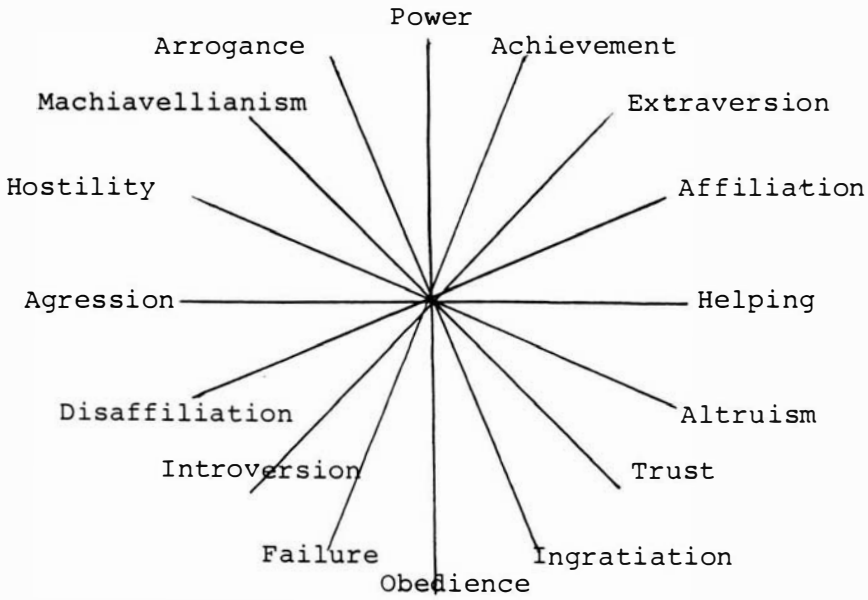


Figure 2. Hypothesized interrelationships among dimensions of experimental personality research. (Wiggins, 1980)

interpersonal in nature, it makes both conceptual and heuristic sense to construe such research in the circumplex framework. Wiggins (1980) says,

> If nothing else, the circumplex model of interpersonal behavior is based on a systematic theoretical framework that provides a coherent rationale for expecting a definite pattern of relationships to exist among indicants of personological constructs. Such a framework might postulate that some constructs (e.g., power and achievement) are so closely related as to be nearly interchangeable. Other constructs (e.g., machiavellianism and interpersonal trust) are conceptual opposites that should be negatively related. Still other constructs (e.g., dominance and nuturance) would be expected to be virtually unrelated (p. 287).

On both theoretical and empirical grounds, Wiggins argues for the efficacy of the circumplex model for hypothesizing interrelationships of variables identified in experimental personality research. His circumplex model contains descriptive variables that are, "'equally spaced' around the circle (and) reflects the extent to which the empirical variables satisfy the condition that correlations in the minor diagonals are equal to each other" (p. 267). His model is presented in Figure 1. Applied to interpersonal traits, he also hypothesizes relationships among dimensions of personality research. These proposed interrelationships are shown in Figure 2.

It is consistent with interactional assumptions to propose that individual differences of many kinds (e.g., interpersonal traits, cognitive styles, affects, defensive styles, etc.) might be organized around each individual's social and emotional construal of the world; and to this construing of traits another dimension might be added of flexibility and adaptiveness of a given person's construal. Further it is empirically feasible to consider a certain category of individual

differences, for example, defensive styles, and use the circumplex model to generate and test systematic predictions. This circular ordering of one type of individual difference characteristic could then be used effectively to make additional predictions about how this trait interacts with specified situations to produce a given behavior.

The need for taxonomies and classifications of situations (versus traits) has been addressed by many (e.g., Frederiksen, 1972; Krause, 1970; Sells, 1963). Some researchers have considered essential characteristics of such a taxonomy and some have attempted classifications of situations (Astin, 1963; Ekehammer, 1974; Hemphill, 1959; Sells, 1963). It remains for empirical study to confirm or deny the actual predictive power of existing situational taxonomies. Consistent with the nature of scientific revolutions (Kuhn, 1970), the usefulness and generalizability of such classifications will be aided by a guiding theoretical framework. The possibilities suggested by systematic ordering of traits may be a helpful tool when used in the service of person X situation interactional predictions.

To summarize, the zeitgeist in contemporary psychology has been on accumulation of observations and data. Explicit attempts are needed to understand and explain what empirical observations yield (Royce & Powell, 1983). In particular, little is known of the relationships that traits have as identified in literature on individual differences, or of the relationship of traits to situations in which they may be differentially manifested.

Historical Convergence on Dimensions of Self and Other Evaluation

The concept of self has become central in more recent research. A variety of phenomena (e.g., person perception, morality and prosocial action, cognitive consistency, processes of change in psychotherapy, and reactions to success and failure) are considered by theorists to reflect the individual's attempt to achieve or maintain a particular self-view (see e.g., Strong & Claiborn, 1982; Vallacher, 1980). Many accounts of the process of self-reflection agree on the basic premise that an individual is aware of himself or herself only because other people are aware of the individual, or have been in the past (e.g., Cooley, 1902; Duval & Wicklund, 1972; Goffman, 1959; James, 1890; Mead, 1934; Rogers, 1951; Sullivan, 1947).

There is ample evidence that unlike other animals, human beings come to control their impulses and to inhibit concerns for immediate gratification out of concern about self-evaluation rather than acting solely out of fears of punishment (see e.g., Wicklund & Frey, 1980). Self-control and delay of gratification are acquired during development and socialization. As perspectives of others are internalized, an individual learns to evaluate the desirability of his or her impulses, goals, and wishes. By adulthood, most individuals are more or less exempt from the psychological laws that dictate the behavior of lower animals. They have learned to moderate behavior based on evaluations of what is considered to be appropriate and good (Vallacher, 1980). Monitoring and self-evaluation are learned processes that are often habitual and automatic. In fact, intense negative self-evaluations stemming from rigid self-control and guilt about impulses and desires frequently characterize neutoric

behavior.

According to Vallacher (1980), two themes may be considered particularly salient in self-evaluation: (1) competence and (2) morality. Regarding competence, humans clearly can be characterized by a motivation to establish a contingency between actions and outcomes--a tendency to strive to affect the environment. Competence motivation is reflected in play, curiosity, and exploration. It also accounts for a number of self-evaluative dimensions such as intelligence, effort, ingenuity, talent, and power. This concept is central to many psychological perspectives (Berlyne, 1960; deCharms, 1968; Deci, 1975; Kelly, 1972; Maslow, 1954; Seligman, 1975; White, 1959). The second theme, morality, may be considered the internalization of interpersonal standards. Morality is reflected in human preoccupation with cooperation, fair play, justice, gratitude, courtesy, reciprocity, prosocial behavior, and altruism. Concern with maintaining a self-defintion of morality may often override tendencies to seek immediate rewards or gratification (e.g., altruistic behavior, or avoidance of cheating behaviors).

Vallacher notes that competence and morality are closely interrelated. A person who is seen as cooperative and fair, for example, engenders greater trust than someone who is perceived as competitive and devious. The cooperative and fair person is, therefore, in a better position to exert social influence in the form of interpersonal competence. According to Vallacher and Solodky (1979), many conflicts in daily life represent struggles to maintain self-evaluations of competency and morality. For example, a student's decision to cheat or not cheat on an exam he or she is ill-prepared for reflects a conflict

between appearing competent, but behaving immorally (cheating) and behaving morally, but appearing incompetent (not cheating).

There is little doubt that the two basic dimensions labeled competency and morality by Vallacher are indeed pervasive interpersonal constructs. Although different dimensional labels are frequently employed, a variety of otherwise divergent theoretical orientations in research (e.g., personality, person perception, and individual behavior in interpersonal and group situations) and empirical approaches of study (e.g., studies employing factor analyses, multidimensional scaling, and analysis of variance models) converge on at least two relevant dimensions in interpersonal behavior. These dimensions are variously labeled "equal-unequal," "dominance-submission," "autonomy-control," or "power" for the first dimension; and "love-hate," "sociability," "affection," or "positive-negative interpersonal disposition" for the second dimension (c.f., Bales, 1970; Foa, 1961; Schrauger & Altrocchi, 1964; Schutz, 1958; Strong & Claiborn, 1982; Tagiuri, 1969; Wiggins, 1980; Wish, Deutsch, & Kaplan, 1976).

The Circumplex Model

The circumplex model, introduced earlier, is advocated by many seeking conceptual organization for the finding that there are two dimensions of special importance in self and other evaluations. Figure 1 presents a two-dimensional representation of interpersonal behavior in which the variables are arranged in a circular fashion. Although there are actually 16 variables presented (e.g., ambitious (P), dominant (A), arrogant (B), etc.), for convenience they have been "collapsed" into eight categories (e.g., ambitious-dominant (PA), arrogant-calculating (BC), etc.) (Wiggins, 1982). An assumption of this model is that the

ordering of relationships among the variables is circular--an order without beginning or end (Guttman, 1954). However, variables located opposite to each other are considered bipolar contrasts (e.g., cold-quarrelsome is the opposite of warm-agreeable). Theorists most frequently refer to the two dimensions responsible for the circular ordering as affiliation and dominance. Each of the interpersonal variables in Figure 1 thus represent a particular blending of affiliation and dominance.

In the sections that follow, a brief description will be given of the history and development of the circumplex model, and then its diverse theoretical uses will be considered.

History and Development. Wiggins (1982) provides a comprehensive review of the development of the circumplex model; some highlights are presented here. In 1957, Leary published a landmark book, Interpersonal Diagnosis of Personality, that summarized and elaborated upon earlier investigations by Leary and his colleagues at the Kaiser Foundation Hospital in Oakland (Freedman, Leary, Ossorio, & Coffey, 1951; LaForge, Leary, Naboisek, Coffey, & Freedman, 1954; LaForge & Suczek, 1955). Leary sought to operationalize Sullivan's (1947) interpersonal theory. Due to the impact of Leary's (1957) book, the system of interpersonal diangosis developed by the Kaiser Group has generally become known as "the Leary System." The Kaiser Group was interested in interpersonal interactions in small groups both in and out of psychiatric settings. They generated a descriptive language to summarize interpersonal behavior. Sixteen categories were ultimately selected to subsume the general interpersonal motivations. The group then decided that the structural arrangement of these 16 variables

could best be represented as a circular ordering around orthogonal axes of dominance and affiliation. Of the decision that was to create repercussions, LaForge (1977) later recalled that the decision reflected, "... a close-fought battle with empirical fact, not lofty considerations of logical symmetry, produced the 16 categories" (p. 8).

Leary (1957) used the system for assessment of clinical and interpersonal diagnosis and employed various diagnostic instruments to define several "levels" of personality. At level I, an MMPI, sociometric ratings, ratings by psychologists, and a situation test are used to supply an interpersonal diagnosis of the "public self." At level II, the Interpersonal Check List (a self-rating instrument) is used to provide the "conscious level." At level III, projective measures provide the "private level." Level IV is measured with the MMPI and termed, "level of the unexpressed." Level V, measured by the Interpersonal Check List, was termed level of values or the "Conscious Ideal Level." A complete diagnosis of personality included a single point diagnosis of personality type on the Interpersonal Circle at each of the levels of personality. Discrepancies in diagnoses among the levels of personality were interpreted by Leary to reflect maladjustment and defenses such as repression, displacement, and preconscious idealization. Criticisms have since been raised against multi-level diagnosis of personality for both conceptual and empirical reasons. For example, it has not been demonstrated that the Kaiser Group's system of 16 variables (later collapsed into octants by Leary) conforms to a circumplex structure under all the methods of measurement (e.g., TAT measures used to assess the private level) (Wiggins, 1982).

However, the two most important contributions of Leary and the

Kaiser Group (reflected by continuing interest) are perhaps the original concept of a circular ordering of interpersonal variables, and the development of the self-report measure of interpersonal behavior, the Interpersonal Check List (ICL) (LaForge & Suczek, 1955; Leary, 1957). The ICL was designed to tap subjects' conscious levels of their social behavior for purposes of personality diagnosis. Later research has more broadly conceived of the ICL as a self-report measure of interpersonal style. The ICL contains 128 adjectives or phrase items that subjects rate on a Likert-type scale indicating degree of descriptiveness. Wiggins (1979) extensively revised the ICL to more closely conform to mathematically correct circumplex properties, and he calls the revised form the Interpersonal Adjective Scales (IAS). The IAS will be considered in greater detail in the next chapter. Since the Leary System, a number of other two-dimensional measures have been developed. Excellent elaborations and critiques of the various systems are provided by Kiesler (1982a) and Wiggins (1982).

Wiggins writes that the period immediately following publication of Leary's (1957) book was characterized by proliferation of two (or more) dimensional models. (See Table 1). In spite of striking similarity of conceptualizations, most models were developed independently of each other. Of those, the systems of Leary (1957), Schaefer (1957), Schutz (1958), and Stern (1958) became the most well-developed and widely used.

The sixties was a period of theoretical elaboration and integration. Foa (1961) wrote of the convergence of thinking on a common paradigm, formalized the circumplex model in terms of analytic and mathematical properties specified by Guttman (1958), and theorized

Table 1

Milestones in the History of Two-Dimensional Models of Interpersonal Behavior (Wiggins, 1982)

Author(s)	Subjects	Dimension I	Dimension II
Freedman et al. (1951)	Psychiatric patients	Dominance vs Submission	Affiliation vs Hostility
Carter (1954)	Small groups	Individual Prominence	Sociability
Leary (1957)	Psychiatric patients	Dominance vs Submission	Love vs Hate
Schaefer (1957)	Mothers	Control	Hostility
Roe (1957)	Literature review	Overdemanding vs Casual	Loving vs Rejecting
Schutz (1958)	College students	Control	Affection
Stern (1958)	College students	Achievement Orientation	Emotional Expression
Borgatta et al. (1958)	Small groups	Individual Assertiveness	Sociability
Chance (1959)	Families in treatment	Active vs Passive	Positive vs Negative
Foa (1961)	Literature review	Dominance vs Submission	Love vs Hostility
Slater (1962)	Reported parental behavior	Discipline	Warmth
Lorr & McNair (1963)	Therapists ratings of patients	Control	Sociability
Becker & Krug (1964)	Ratings of children	Emotional Stability	Extraversion
Rinn (1965)	Counselors	Dominant vs Submissive	Affectionate vs Critical
Baumrind & Black (1967)	Ratings of children	Stable vs Unstable	Conforming vs Nonconform.
Bayley (1968)	Interviews of adults	Outward vs Inward Orientation	Accepting vs Hostile
Carson (1969)	Literature review	Dominance vs Submission	Love vs Hate
Benjamin (1973)	Psychiatric patients	Interdependence	Affiliation
Conte (1975)	Judges' similarity ratings	--	--
Wiggins (1979a)	College students	Dominance vs Submission	Love vs Hate
Kiesler (1979b)	College students	Dominance vs Submission	Love vs Hate

about social exchange of interpersonal resources in social interactions. Other efforts in the sixties included Becker and Krug's (1964) application of the model to organization of literature on ratings of children, Lorr and McNair's (1965) integration of earlier work on Interpersonal Circles, Rinn's (1965) extension of the model to non-interpersonal domains, and Carson's (1969) theoretical work that defined interpersonal behavior and the circumplex model as worthy of a broad field of inquiry in psychology (Wiggins, 1982).

The seventies and early eighties have been a period of further elaboration, refinement, and extension of the model. Noteworthy examples of such work include Benjamin's (1974) structural analysis of social behavior, Conte's (1975) multi-dimensional scaling procedures, Kielser's (1979, 1982a) theoretical explications and measurement of the impact of interpersonal messages, Strong, et al.'s (1982) applications of the model to social psychology and impression management theory, and Wiggins' (1979, 1980) classification of interpersonal behavior in relation to other domains of research.

Theoretical Use in Study of Individuals and Interactions. In order to understand the circumplex model as it applies to interpersonal dynamics, some basic assumptions of interpersonal theory will be reviewed. The Interpersonal movement, as it has come to be called, embodies a diverse group of clinicians and researchers who are united on a common set of principles for understanding and predicting behavior. Use of the circumplex model to explain intrapsychic and interpersonal dynamics is often associated with Interpersonal theory since it was developed by Leary and his colleagues' attempts to operationalize Sullivan's original interpersonal theory.

In the recently published Handbook of Interpersonal Psychotherapy (Anchin & Kiesler, 1982b), Kiesler identifies basic assumptions of the Interpersonal approach to personality. Kiesler derived his assumptions after extensive purusal of interpersonal literature. Salient points will be reviewed here. Perhaps the most basic assumption of Interpersonal theory of personality is that the origin of individual personality is inextricably embedded in social interactions. Sullivan believed that the concept of an individual apart from other people is a myth peculiar to our culture, and that personality is manifested in interpersonal situations. Carson (1969) interprets Sullivan's notions by saying that personality is, "nothing more (or less) than the patterned regularities that may be observed in an individual's relations with other persons, who may be real in the sense of actually being present, real, but absent and hence 'personified' or illusory" (p. 26). Kielser also notes that even when alone, an individual is influenced by the presence of fantasized persons. Personality formation may be seen as arising out of individuals' early interactions with others, and is believed to be maintained in both actual on-going interactions and imaginary interactions.

Building on these assumptions of Interpersonal theory, Kiesler posits that there is a need to study persons behaving in social situations rather than in impersonal environmental contexts. He notes that most personality theories focus on individuals and their intrapsychic, intrapersonal, and overt behavioral events. Kiesler urges investigators to study actual social transactions. He reasons that since the origins of personality arise from childhood social interactions, and the maintenance of personality is in present day

interactions (real and fantasized), it is, therefore, imperative that the unit of personality study be behavioral transactions rather than isolated individuals. However, it is a contention of the present study that individuals need not be behaviorally interacting to provide interpersonal information. Indeed, as Kiesler himself states, individuals are social creatures who cannot be studied apart from others, even when they are alone. Therefore, it seems feasible to conduct investigations of individuals within the interpersonal framework both with and without studying actual interactions since interpersonal interactions occur within individuals as well as are acted out between individuals. Indeed, it may not be possible to separate out the various contributions of person X situation interactions without attempts to study the part of the variance that individuals bring to an interaction.

As outlined by Kiesler, Interpersonal theory adopts an interactionalist position in which a person's social behaviors are a function of both his or her predispositions toward transactions and situational/environmental events. The most important situational factors are environmental events as perceived by the person. The subjective rather than objective environment, or as Murray (1938) called it, the "beta press" rather than the "alpha press," determines human perceptions and ultimately governs transactions. Sullivan's writings (1953a, 1953b, 1954, 1956, 1962, 1964) on the self-system in Interpersonal theory contain the notion that illogical associations and parataxic distortions are built in to early human development. Interpersonal relationships are especially important when a young child acquires language and begins sorting through what is true by the process of consensual validation (e.g., if his or her needs are not being met and everyone around the

child denies that fact, major emotional confusions abound). The self-system takes on autonomy during this early period, and others' reactions to the child are very important in reflected appraisals of the self. According to Sullivan, if significant people respond with anxiety to major portions of the child's personhood, these parts of self will be blocked off from awareness so that the child can survive with some self-esteem. Further, Sullivan states that a child may develop three parts of self--"good me," "bad me," and "not me" from these looking-glass appraisals. The two former parts of self are permitted into awareness, while the latter is perceived as causing too great a risk for rejection by others. Therefore, this is not permitted into the conscious self-definition.

Kiesler notes that one of the self-system's major functions involves the self-presentations that we make to others. He says, "This presentation is accomplished by messages (primarily nonverbal) sent to interactants about our emotional states and our 'claim' regarding the reciprocal responses we want from them. This claim pulls others into the kind of dyadic system-state that is most comfortable, least threatening, in terms of our conceptions of who we are" (p. 6). According to Interpersonal theory, receiving feedback from others that is consistent with a person's self-view reduces anxiety. Indeed, research in social psychology supports the assertion that self-view influences both interactions and how feedback from others is received and interpreted; even positive feedback will be rejected if it differs too much from self-evaluation (see e.g., Jacobs, Bercheid & Walster, 1971; Jones, 1973; Shrauger, 1975; Strong & Claiborn, 1982). In Interpersonal theory, it is held that an individual is motivated to

consensually validate his or her self-view. This occurs through a process in which the individual constricts the choices or responses available to another, thereby increasing the probability of interactions that reinforce the individual's self-view (Beier, 1966). Personality is manifested in reciprocal patterns of interactions with others and it is through interactions that individuals attempt to resolve complementary needs (Sullivan, 1954).

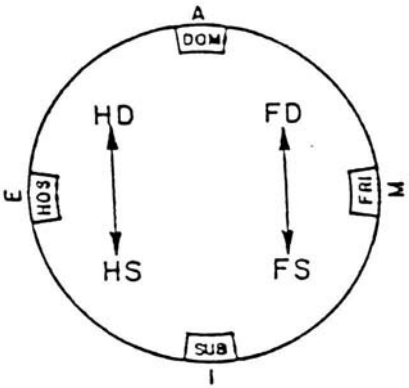
Complementarity in dyadic transactions is a key concept (c.f., Carson, 1969; Foa & Foa, 1974; Kiesler, 1982a; Leary, 1957; Watzlawick, Beavin, & Jackson, 1967). Leary (1957) notes that interpersonal actions invite and initiate reciprocal interpersonal reactions that serve to sustain the original actions. Although not specifying the exact process, Leary predicted characteristic reactions to actions in all octants of the circumplex model. According to Carson (1969) the initial behavior of an actor involves a subtle metacommunication designed to influence the definition of the interpersonal situation in terms of love and status. However, Wiggins (1982) says, that the notions of reciprocity and complementarity in interpersonal transactions, although intuitively appealing, have not been given precise or uniform definitions and have rarely been subjected to empirical testing. Most agree that a complementary relationship is one in which participants' needs are being met and in which they are in agreement as to the definition of the relationship in terms of status or love.

Implied throughout Leary's (1957) volume is the concept that on the vertical axis of the circumplex model (status), dominant actions elicit submissive reactions, and vice versa. On the horizontal axis (affiliation), love pulls love and hate pulls hate. Carson (1969)

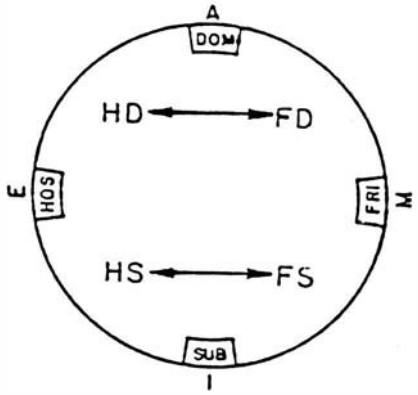
was the first to articulate the rules and principles of complementarity that were implicitly present in Leary's book. He specified, "Generally speaking, complementarity occurs on the basis of reciprocity in respect to the dominance-submission axis (dominance tends to induce submission and vice versa), and on the basis of correspondence in respect to the hate-love axis (hate induces hate, and love induces love") (p. 112, emphases added). To reduce confusion regarding the previously interchangeable terms, complementarity and reciprocity, Carson identified complementarity as the more general term and specified reciprocity and correspondence as subsidiary concepts. In addition, Carson was the first to specify the noncomplementary relationships on Leary's Interpersonal Circle. He renamed Leary's horizontal axis Hostile-Friendly with resulting quadrants becoming Hostile-Dominant (HD), Friendly-Dominant (FD), Hostile-Submissive (HS), and Friendly-Submissive (FS).

Kiesler (1982a) reviewed and extended Carson's work. He specifies several possible interpersonal outcomes of dyadic interactions. If one member of a dyad offers behavior that invites the other participant into a complementary interaction, the other's reactions can take the following forms (see Figure 3): a) a complementary position is adopted when the other person accepts both aspects of the interpersonal invitation in line with the circumplex rules of reciprocity and correspondence (i.e., HD pulls HS, HS pulls HD, FD pulls FS, FS pulls FD). b) An anticomplementary position is adopted if the other person rejects both aspects of the interpersonal invitation (i.e., HD pulls FD, FD pulls HD, HS pulls FS, FS pulls HS). c) An acomplementary position is adopted if the other person accepts only one of the component messages. This can occur in two forms: an isomorphic acomplementary

COMPLIMENTARY
QUADRANTS



ANTICOMPLIMENTARY
QUADRANTS



ACOMPLIMENTARY
QUADRANTS

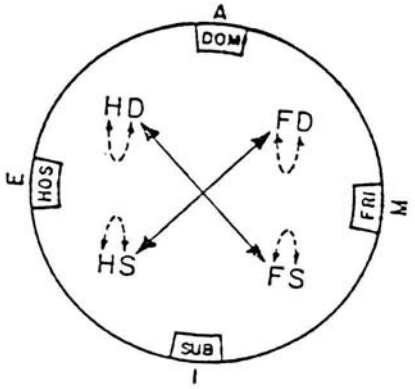


Figure 3. Types of Transactions on the Circumplex Model (Kielser, 1982a)

position is a transaction in which the other person adopts the identical quadrant stance (i.e., HD pulls HD, FS pulls FS, FD pulls FD, HS pulls HS); and the semimorphic acomplementary position is a transaction in which the other person adopts a complementary stance on one, but not on both circle axes (i.e., HD pulls FS, FS pulls HD, FD pulls HS, HS pulls FD).

Kiesler applies the generic term, "noncomplementary, to refer to any transactions that are not complementary ones. He notes that complementary and noncomplementary characterizations in interpersonal theory are significant departures from commonly held notions that either "opposites" or "likes" attract. He says, "In interpersonal theory, 'likes' (isomorphics) and 'opposites' (semimorphics) only partially attract while they also partially repel. Rather, complementaries attract totally, and anticomplementaries repel totally" (p. 35). Thus, theoretically, the complementary transaction is in itself mutually rewarding. The acomplementary transaction leaves open one avenue of interaction and negotiation. The anticomplementary position rejects the person's self-definitional bid for both status and love, and therefore, curtails any attraction. Regarding behavioral tendencies of interactants, Kiesler predicts that complementary interactions will evoke approach behaviors; acomplementary ones will evoke a mixture of approach and avoidance responses; while anticomplementary interactions will lead to avoidance and escape.

Kiesler further theorizes that the "radical trait" assumptions of transsituationality and transtemporality (Mischel, 1968), or the concepts of persistence of behavior across situations and across time, more validly apply to maladjusted people than they do to more normal

individuals. He proposes that the actions of of abnormal individuals (extreme and rigid acts on the Interpersonal Circle) will override the demands of different interpersonal situations. Interpersonal situations will figure more prominently in behavioral outcomes of more normal people (mild to moderate levels on the Circle). Thus, the prediction is made that more extreme or rigid interpersonal styles will be less likely to show complementary responses in reaction to others' bids. A number of other Interpersonal theorists have also predicted this outcome (e.g., Young & Beier, 1982; Carson, 1982; Duke & Nowicki, 1982). Further empirical examinations are needed to validate predictions made by Kiesler and others, since most theoretical statements have remained untested.

Kiesler also notes that an important task remaining for interpersonal investigators is to specify the classes of situational factors relevant to elicitation of interpersonal acts from quadrants and octants on the Interpersonal Circle (e.g., what kinds of situations does a Friendly-Dominant person seek out as well as avoid). While Kiesler has produced a viable interpersonal situational taxonomy with his predictions regarding complementarity and noncomplementarity, he notes that most Interpersonal theorists have not specified situations beyond the general category of "significant others." Since Interpersonal theory adopts an interactionalist position (Endler & Magnusson, 1976) in which both person and situational factors are components (Carson, 1969; Duke & Nowicki, 1982), situational taxonomies such as those now appearing (e.g., Argyle, Furham, & Graham, 1981; Duke & Nowicki, 1982) need to be interfaced directly with the circumplex model. The next section will deal directly with the task of constructing such a taxomony.

The Efficacy of the Circumplex Model in an Interactional Framework

Earlier it was argued that psychology will most effectively proceed with efforts aimed at theory-building and testing rather than at continued accumulation of relatively isolated research findings. In this section, it will be illustrated how existing research findings may be theoretically organized in an interactional framework using the circumplex model.

The individual difference variable identified in personality research as Need for Approval (Napp) will be discussed. Subjects in the present study were chosen based on quadrants on the Interpersonal Circle with which Napp is theorized to be associated. Results of this study will later be considered within this larger framework of the circumplex model and personality research in experimental and social psychology, as well as within the framework provided by Interpersonal theory. Napp as a trait will be examined, as will the situations with which Napp is expected to interact. Finally, it will be shown that clinical implications are readily available when the circumplex model receives consideration.

Need for Approval: The Measure and the Construct Defined

The trait of Napp was originally conceived of as a moderator variable: a source of bias or error variance that investigators hoped to control or eliminate in order to get an accurate assessment of individuals on personality inventories. Thus, initially Napp was not studied as a trait in its own right and with its own personality and situational moderators. With the advent of psychological testing arose an awareness by testers that their subjects might not be representing themselves in a "true" light. For various reasons, individuals may

be motivated to present themselves in a particularly favorable way and even, at times, in negative ways. Descriptions and explanations of the phenomena depend on psychologists' theories or areas of study. For example, the tendency of some to moderate their self-presentations may be accounted for in any of the following ways: as defensiveness (psychodynamic framework), demand characteristics (social psychology), expectancies of reward (social learning theory), attempts to control others (impression management theory), or within Interpersonal theory as a bid for status or love.

When asked to answer questions about themselves, individuals may respond in ways dependent on the impression that they wish to make, the behaviors and attitudes communicated by another (such as an experimenter or tester), or the context of the situation (such as the testing situation and the use to which a test may be put). Several assessment instruments (e.g., the MMPI) were devised to account for item variance that reflected negative and positive response bias. Edwards (1953, 1957) was a pioneer in his research on positive response biases and socially-desirable responding. He created a scale, the Edwards Social Desirability Scale, to identify those people who may be likely to respond in a socially desirable manner. Problems arose, however, because the items were drawn from the MMPI and it was unclear whether subjects were indicating a true lack of pathology or were responding to socially desirable ways. Crowne and Marlowe (1960) corrected this difficulty by constructing a scale with items containing little pathological content. These items, if endorsed, had a low likelihood of actual occurance and likely represented a subject's desire to appear favorably. After extensive testing and subsequent refining of the

instrument, 33 questions (to be answered true or false) were selected for the final version of the scale, called the Crowne-Marlowe Social Desirability (M-C SD) Scale. Several studies by the authors as well as by others show the test-retest reliabilities and internal consistency to be quite high.

Edwards (1957) conceptualized the tendency of some people to choose socially desirable responses on self-report inventories as unintentional self-deception or an unwillingness to examine and admit faults. Crowne and Marlowe (1964) and others (e.g., Frederiksen, 1972) suggested that this tendency may be related to a more general need to socially conform, avoid criticism, and receive approval. Within a social learning framework, Crowne and Marlowe held that people may be motivated to seek approval if they expect that they will receive a valued reinforcement for their behavior. It was hypothesized that the individual who endorses items in a socially desirable manner on a self-report inventory is also likely to be motivated to seek approval more generally and in other life situations. Indeed, this hypothesis has been supported in numerous studies. That is, Napp, as a trait variable is manifested across diverse situations.

Specification of Person Moderator Variables

Whether or not an individual will show tendencies toward approval-seeking behaviors interacts, or is moderated by, variables associated both with the person and the situation. Although a high Napp score is associated with socio-economic status and sex, the clearest relationships have been found through studies that have assessed approval motivation in children and young adults. Ordinal position in the family, sex, and family size have been associated with Napp scores.

Studies on these person moderators have, at times, been contradictory, but high Napp scores seem to occur more often in firstborn children, females, and in children in larger families (Dites, 1961; Johnson, 1973; Masterson, 1971; Moran, 1967; Schachter, 1959, 1964; Nowicki, 1971; Walker & Jahmision, 1967). Age is a significant factor in approval motivation. Younger children are more approval motivated than older children, and in particular, young females and young black children when compared with white children show the higest Napp scores (Allaman, Joyce, & Crandall, 1972). Parental styles also seem to provide antecedent conditions in the development of high Napp scores. Generally, disapproving parents, parents who threaten rejection, or parents who suddenly decrease their attention to a child may increase the likelihood that a child or young adult will strongly seek approval or avoid disapproval through overtly conforming behaviors (Allaman, et al., 1972). This result is called into question in studies of adults with high Napp tendencies (Strickland, 1977). Such adults often report their parents to be less controlling than low Napps subjects. Clearly, this finding does not dismiss the possibility of undesirable parental styles as it is precisely high Napp subjects who are by definition more likely to report the most socially desirable responses--including their family rearing practices.

Other researchers have found age and sex to interact with situational moderator variables. (Fulkin, Muller, & Conn, 1969). Specifically, high Napp young females are often very popular among their peers while high Napp males are least popular. This finding makes sense in light of the social desirability and reinforcement provided conforming young females. Further, regarding intelligence

and need for approval, research suggests that high Napp scores are associated with lower rather than higher intellectual functioning, especially for adolescents. Allaman, Joyce, & Crandall (1972) interpret this finding as being an artifact--individuals who do not decrease in approval needs in adolescence are more likely those who have not received intellectual gratification because of lack of skills and abilities. Another interpretation seems possible, however; intellectually capable high Napp scorers in early childhood may later score lower on need for approval measures by transferring their drive to be accepted later into a need for achievement, success, or power. This is an intriguing hypothesis that could be tested simply enough by locating bright, high Napp children and testing them later in adolescence on measures designed to identify need for achievement and power. A final source of person moderator variables with Napp is summarized by Strickland (1977) who states that the bulk of research on age factors in interaction with performance in children suggests that high Napp scores for young children enhance learning performance because of the facilitating effects of seeking external cues for behavior, while performance decrements are noted for older children who are inhibited by their apparent inability to learn and accomplish tasks independently.

As mentioned previously, Eysenck (1967) provides a conceptual scheme for understanding and describing individual differences. His framework employs orthogonal dimensions of neuroticism-normalcy and introversion-extraversion and merits attention because of its potential for generating specific researchable hypotheses. It is likely that individuals who have a high need for approval would be descriptively classified as unstable rather than stable in Eysenck's system. This

is so because their behavior is believed to be subject to evaluation of potentially reinforcing social situations. That is, if high Napp subjects seek external sources of approval and are motivated to conform to socially valued norms, their behavior is likely to show greater change across situations when social reinforcements change in differing environments. However, there are some confounding variables in this prediction. For example, extremely high Napp scores may rigidly embrace a given set of perceived pleasing behaviors so that they show stability of behavior across situations. Thus, it might be predicted, that highest scorers appear stable although rigid in behavior, while medium-high scorers adopt more situationally-specific norms of behavior. Further, it is not known whether high Napp individuals behave in ways that differ from their internal beliefs and feelings in order to gain approval. While they may appear unstable, externally-focused and driven by perceived situational expectations, they may, in fact, hold an entirely different set of internal standards that are virtually inaccessible by self-report measures. Available evidence, however, suggests that they are more anxious, moody, and cautious (thus, unstable or neurotic in Eysenck's system). For example, Fishman (1965) reported maintenance of emotional arousal as evidence by no decrease in systolic blood pressure for high Napp subjects following legitimate verbal aggression, while low Napp subjects showed a decrease in emotional arousal following legitimate verbal aggression.

Eysenck's second orthogonal dimension, introversion and extraversion, is most likely unrelated to Napp scores. While high Napp individuals appear more cautious and conforming in their behavior, it is entirely possible that the behavior chosen as most likely to receive

approval is outgoing, friendly and gregarious. Such is the case with histrionic individuals. If this is so, one could expect incongruency between verbal and nonverbal channels of communication; high Napp scores would probably show "nonverbal leakage" even in extraverted behavior as they search for approval-attaining reinforcements (or "forced" friendliness). Thus, using Eysenck's framework, several interesting questions emerge concerning the relationship between Napp, neuroticism-normalcy and introversion-extraversion. Are high Napp scorers more or less stable? The answer may depend on how rigidly the individual has internalized external standards, and whether or not a different set of standards are held inside the person when compared with what he or she shows to the world. Are high Napp scorers more or less introverted or extraverted? This answer may depend on the individual's past history or reinforcement or the particular situational reinforcements. If introversion and extraversion is defined as being self versus other focused, it is likely that the high Napp scorer is in continual conflict in this arena.

Specification of Situational Factors

According to Strickland (1977) who has reviewed research on the Napp variable, "The approval-motivated individual responds to his need to gain acceptance, to obtain dependency gratification, and achieve recognition and/or status by engaging in approval-seeking behaviors in particular situations through positive self-presentation and denial of inadequacies" (p. 317, emphases added). Contained in this quote are points worth elaboration. First, out of the high Napp individual's core construal of reality emerge particular constructs, interpretation of events, assignment of meaning, and parataxic distortions that determine how events are viewed from the person's self-system. Particular

situations are likely to be troublesome to those with high needs for approval. Second, desires for acceptance (or affiliation and love) and status (or autonomy and dominance) are hypothesized as key constructs in this self-system. High Napp people are likely to view most situations as having a social component and evaluate events in terms of potential gratification of their desires for acquiring love and status. The exchange of love and status in social interactions serves as a meta-communication defining the interpersonal situation, according to Wiggins (1980). If Napp is hypothesized as a strategy for eliciting complementary responses from others, then the dynamics of the trait, and also the situations likely to elicit the individual differences in behavior, can be understood. The overriding features of a situational taxonomy for the Napp trait will, therefore, be organized around situations that are perceived as having potential love and status outcomes. The relative importance of either love or status as means for achieving approval in a given individual will determine his or her placement on the circumplex model. This descriptively places such people in the right-hand side of the circumplex. Motives to seek approval or avoid negative evaluations comprise two factors cited in the literature as possible separate factors which some believe confounds the theoretical and empirical clarity of Napp. Approval-seeking through either positive self-presentation ("approach") or as a defense against negative evaluation ("avoidance") are two factors in Napp which previously have evaded attempts to conceptually separate the quite different motives. Seeking approval through a positive self-presentation or through the avoidance of negative consequences (such as rejection) can been seen as distinct entities if the circumplex model is again examined. Active

seekers of approval would be placed in the upper right quadrant as outgoing, gregarious individuals; while those who are typified as avoiders of negative social consequences could be placed in the lower right quadrant. Thus, the efficacy of our model is apparent in clarifying two previously confused components of Napp: not only do people show individual differences in need for approval, but even those who show clear needs for approval differ in their assignment of the relative importance of either receiving acceptance at the risk of rejection, or avoiding rejection at the risk of not receiving acceptance. The circumplex model provides descriptive placement and heuristic possibilities for locating the relative importance of these two components in people who have extensive needs for approval.

Following from this conceptual scheme is a classification of situations important for the Napp trait presented in Table 2. While examining this taxonomy, it is important to consider that the greatest predictive power comes from considering those situations that have implications for love and/or status. Further, individuals will differ in the intensity with which they seek these reinforcements, their past histories of reinforcement (and thus, the value assigned the reward), and their rigidity or degree of perceiving these constructs as crucial determinants and core construals of their realities.

The classification scheme presented in Table 2 is intended to be broad enough to subsume most research findings on the Napp variable, yet sufficiently specific to identify those situations predictive of individual differences on the trait. Under each of the four major classes of situations are both alpha and beta press moderators. Alpha press, or the actual, "out there" reality, is a crucial determinant

Table 2

A GENERAL CLASSIFICATION OF SITUATIONS
HYPOTHESIZED AS INTERACTING WITH NAPP

I. Situations involving or inducing conformity, compliance, or influence.

-status of authority
-source credibility
-quality of communication
-perception of importance of consequences
-expectation of positive or negative evaluation or outcome
-perception of situation as reflecting evaluation of subject
-emotional state and motivational arousal of subject
-content of influence attempt
-available cues in environment
-presence of peers

II. Situations involving task performance.

-perception of atmosphere (competetive or relaxed)
-level of task difficulty
-familiarity with task
-expectation of success or failure
-incentives, degree of motivation
-perception as pleasant or aversive
-public versus private
-perception as having evaluative component
-task type
-cued by authority or expert

III. Situations involving attention to social stimuli.

-evaluative situations
-available social cues
-perceived demand characteristics
-value of outcome
-expectation of reward or punishment

IV. Situations involving interpersonal interactions.

-familiarity of situation
-public versus private
-structured versus unstructured
-other perceived as same or different
-other familiar or unfamiliar to subject
-situation of aggression
-situation of conflict
-perceived risk
-expectation of positive or negative outcome
-evaluative situation
-situation involving communication or self-disclosure
-type of interpersonal interaction (peer, authority, therapist)

of behavior. Beta press, or an individual's interpretation of a situation, is (as interactionalists have noted) an equally strong predictive moderator of behavior. The utility of the situational classes will be illustrated by examining the classes with research findings in the literature on Napp, and the theoretical basis with which to understand (and thus, predict) why particular situations interact with the trait.

Studies that have examined Napp (usually measured with the M-C SD scale) and conformity, compliance, persuasion, and attitude change suggest that high Napp subjects are much more likely to yield to influence attempts than are low Napp subjects. High Napp individuals are more likely to overtly change their behavior or opinions if others, particularly an expert or authority, make influence attempts than are low Napp individuals. They also seem to question less than low Napp's the credibility of the communcation source (any "authority" will do), and attend less to the quality of the communication (arguments need not be sound, based on solid reasoning, etc.) (e.g., see Skilnich & Heslin, 1971). Following from the premise that acceptance and status are prime motivators in a high Napp subject's assessment of a situation, the literature suggests that such people will conform to influence attempts when they perceive even subtle social cues or demand characteristics in "experimenter-bias" studies (Rosenthal, 1966). They are more field dependent, taking cues from the context of the situation and acting according to perceptions of the external field (Rotter & Tinkleman, 1970). Arousal of motivation and expectations of positive reinforcement for conforming behaviors (Dixon, 1970) also support the contention that high Napp subjects wish to please others. Apparently, the social cues

and potential for interpersonal exchanges of love and status are more important than the actual content of influence attempts. The "real" reality, or alpha press, figures less prominently in high Napp behavior; while their perceptions, or beta press, of interpersonal exchanges seem to account for more of the behavioral variance between high and low Napp individuals. An important question remains, however. Attitude change experiments suggest that high Napp subjects will change their reported beliefs if they must make a public statement counter to previously stated beliefs. It is not clear whether the presence of peers and public avowals create genuine attitude change, or whether simple overt conformity may explain their altered self-reports. However, it is known that high Napp individuals will change their behavior in predicted directions in situations hypothesized to interact with their need for approval.

Similar themes pervade situations involving task performance. Research findings may be summarized by stating that if a high Napp scorer perceives a task situation as having potentially positive social and emotional outcomes, he or she will make attempts to succeed at the task. Perceived competitive situations that have a good probability for success (versus failure) and that have social and evaluative consequences are important to people with high needs for approval. They often out-perform others not so greatly motivated (Willingham & Strickland, 1965) except when they are performing alone and they believe that their behavior will not be socially evaluated. Their drive to achieve and attain approval also may account for studies finding high Napp subjects more likely to cheat than find themselves in a failure situation (Berger, 1971). This defensive response is manifested only

in situations where detection of cheating is not likely (Millham, 1974) because to get caught may be to risk even greater censure and disapproval than failure might bring.

By definition, the hign Napp person is sensitive to acceptance by others. Therefore, situations involving interpersonal interactions show the expected differences between high and low Napp subjects. High Napp's are characterized by the lengths to which they protect their vulnerable self-image and seek liking by others. They are more attracted to people who also have such needs (Posavac, 1971); express greater liking for others who display positive expressive behaviors toward them (Holstein, Goldstein, & Bem, 1971); and rationalize and blame others when they experience self-failures, but only within socially acceptable limits (Dies, 1970). They also have little latency in response time to those who disagree with their self-evaluations (Jones & Tager, 1972); and demonstrate social exchange and reciprocity, as shown, in part, by vocal convergence studies (Natale, 1975).

Consistent with their hypothesized desire to avoid disapproval and/or be liked, high Napp persons have great difficulty in expressing legitimate anger, show high thresholds for retaliatory behaviors, and apparently gain little emotional release when demonstrating appropriate counter-aggression (Fishman, 1965; Hetherington & Wray, 1964; Taylor, 1970). The results of Hetherington and Wray's experiment suggest that when inhibitions or expectations for "proper" behavior are lowered by intake of alcoholic beverages, high Napp subjects will allow themselves to be less tied to perceived social mores. Convergent validity for the defensive posture of these indivdiuals is also provided by standard measures of defensiveness on objective personality inventories (e.g.,

the MMPI validity scales) and projectives (e.g., fewer responses and conforming , innocuous answers to Rorschach and TAT cards).

An interesting example of a situation of interpersonal interaction is psychotherapy. High Napp's seem to show preferences for the less personally challenging affronts to their self-esteem found in reflective, non-directive therapy versus speculative and directive therapy (Kanfer & Marston, 1964). One study has shown that they may be less self-disclosing (Burhenne & Mirels, 1970). Some studies have found that they terminate therapy after fewer sessions than do low Napp individuals (Strickland & Crowne, 1963). Findings are discrepant in this area, though, and there may be a reason for the conflicting findings of these studies. As stated earlier, the lack of conceptual clarity as to whether high Napp scores are related to active approval seeking, or to avoidance of negative evaluation, may be explained if it is considered that high Napp people may differ on the relative importance of these two motivations. Using the circumplex model shown earlier in Figure 1, predictions may be made regarding Napp and psychotherapy. Active seekers of approval and status (upper right quadrant in the model) are probably more likely to stay in therapy and tolerate the necessarily negative self-revelations inherent in the process. High Napp clients whose primary motive is to avoid negative evaluations and unpleasant self-reflective insights (lower right quadrant) are likely to terminate when approval from a therapist is not forthcoming. More research in this area is needed.

Napp, Psychopathology, Psychotherapy, and the Circumplex Model

Literature that reports studies on Napp in relation to psychological adjustment also shows conflicting results. It is not

clear whether high Napp people are fairly well-adjusted or standard self-report measures are inadequate to tap these persons' internal worlds and past their positive self-presentations. On the MMPI, in addition to evidence on the validity scales of attempts to present themselves in a favorable light, high Napp subjects generally appear free from the usual clinical symptoms, particularly extreme symptoms and more severe disorders such as psychopathic deviancy and schizophrenia. Other self-report measures suggest that these individuals are repressed, not very anxious, socially responsible, self-controlled, and self/other judging (for an overview of this research, see Strickland, 1977). There is further confusion regarding their self-concept; that is, it is not known whether a person is well-adjusted because he or she knows how to appear as such. While some researchers have found moderate linear relationships between low self-concept and Napp, others have found moderate relationships in the opposite direction. High Napp subjects are also likely to report positive mood states, although some investigators believe that this finding would not hold under conditions of good rapport, confidentiality, and continued interactions (Gorman, Wessman, & Ricks, 1975). "Hard" drug users may more often be high Napp scorers than are "soft" drug users. This finding has been interpreted to mean that high Napp's are more likely to yield to peer pressure than are low Napp's (Scherer, Ettinger, & Murdick, 1972).

Using the circumplex model, it may be possible to obtain a clearer understanding of these findings. First, consider the premise that high Napp scorers descriptively may be placed on the right side of the radex model. The left side is "reserved" for disaffiliative interpersonal behaviors, while "pleasing" behaviors are those that characterize high

Napp individuals. The right side descriptively contains those people who are "moving towards" others, and the left side holds those who are "moving away" or "moving against" others. It is to be expected that the most socially unacceptable or severe forms of pathology will be those that reject socially accepted standards of behavior. The high Napp individual is one who is eagerly embracing societal standards of acceptability. He or she may do this either actively and thus, be placed on the higher status or dominant dimension on the circumplex, or more passively, keeping "out of trouble," and be placed on the lower status or dependent dimension. The most extreme forms of oversocialization are the DSM III diagnostic categories of depenoent personality disorder, histrionic personality, and chronic hypomania (Wiggins, 1982). Wiggins explicitly hypothesizes relationships between psychiatric diagnosis and the circumplex model. His proposed correspondences are presented in Figure 4.

According to proponents of Interpersonal theory (e.g., Kiesler, 1982a ; Wiggins, 1982), rigid interpersonal behaviors tend to elicit or "pull" responses from others than are complementary with respect to affiliation, (i.e., friendliness begets friendliness, and hostility begets hostility) and symmetric with respect to status (e.g., dominance is a bid for another to be submissive). Thus, the dependent personality disorder might be viewed as a bid for a friendly caretaker, and chronic hypomania or extremely gregarious dominance may be viewed as a plea for friendly admirers. The defensive posture of high Napp individuals could further be hypothesized as a fear that others can't be trusted with the other side of their emotional polarity, i.e., their angry or hostile responses.

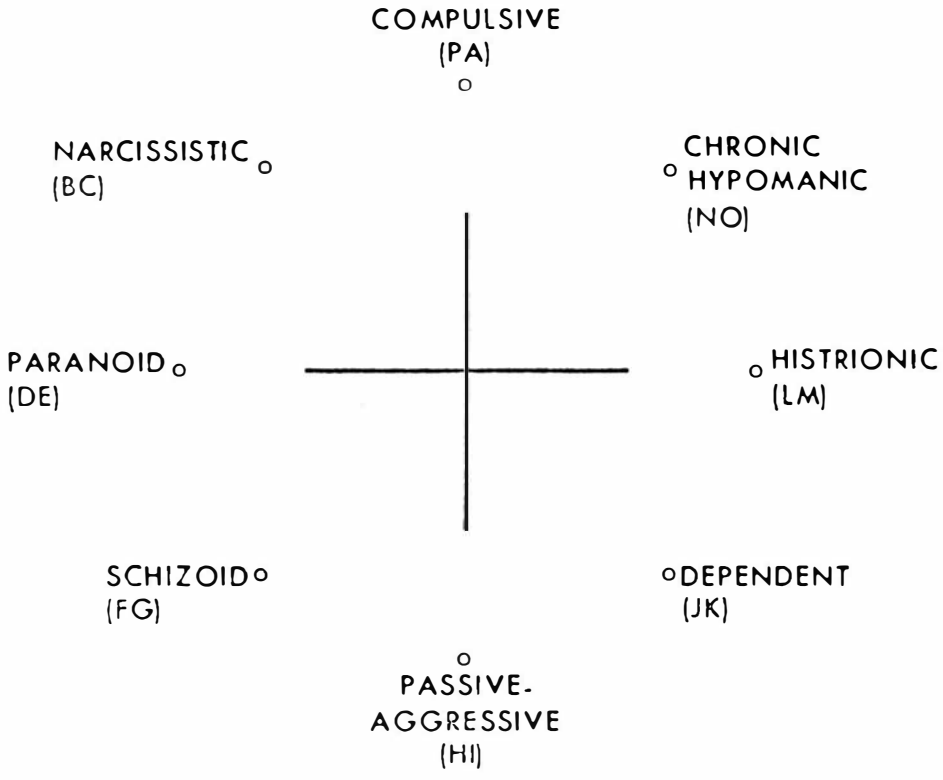


Figure 4. Hypothesized Correspondences between DSM-III Categories and an Interpersonal Circumplex (Wiggins, 1982)

The circumplex model may have implications for psychotherapists. Consider that effective therapists are flexible in their use of techniques and will react differently to different clients. Often this amounts to therapeutic behavior that provides support while denying clients the complementary responses that their rigid interpersonal behaviors typically evoke in others. Productive change may occur because therapists provide an atmosphere that is supportive, while also challenging clients to find new ways of responding and greater flexibility in cognitive, affective, and behavioral repertoires. For therapists who rigidly choose techniques regardless of the varied needs of their clients, effectiveness may more often result from chance combinations of client need and therapist personality/technique. Such rigidity is exemplified by therapists who are almost always friendly/dominant or therapists who must always be distant/controlling. If these professionals hold to a theoretical framework that supports their techniques and these are used with unconditionality, then clients will likely be helped only when these techniques are the ones specifically needed to challenge them into new ways of responding. Thoughtful flexibility in choice of interpersonal interaction with clients may lead to a greater number of clients helped by a given psychotherapist. Specifically with high Napp clients, techniques that encourage expressions of hostility and anger (possibly accomplished by frustrating bids for approval) while providing underlying concern for client welfare have a great chance of being helpful. The goal may be for these individuals to discover that rigid adherance to pleasing and placating behaviors restricts their choice and freedom in life. For the gregarious, "approach" Napp type of client, a therapist may encourage

the client to find out what might happen if he or she was angry, submissive, and did not attempt to succeed perfectly at all desired goals. For the dependent, "avoidance" Napp type of client, a therapist would provide conditions that urged this person to not only find out what happens when he or she is angry or hostile, but to try out more demanding and dominant behaviors. While conceptualizing in terms of the circumplex model, this process may be accomplished from the viewpoint of many theoretical orientations.

To summarize, the position has been forwarded that the circumplex model may serve as a useful tool for generating conceptually organized and testable hypotheses to account for existing research findings about the interaction of individual traits and interpersonal situations. The circumplex model explicitly provides a framework to examine how individuals are likely to perceive and react in interpersonal situations. In addition, this conceptual model allows specific predictions of perceptions and behavior based on the extremeness of individuals' interpersonal orientation. The purpose of the present study is to test such predictions in support of the preceeding arguments for the efficacy of the model.

Chapter II

Statement of the Problem

It is widely assumed that perceiver personality influences judgments about others. In spite of this assumption, many studies treat individual differences in perception as error variance or judgment bias and seek to control or eliminate the variance in order to obtain more "objective" assessments. The dynamic interactions of three factors influence perception of other people: the characteristics of the perceiver, the attributes of the stimulus person, and the nature of the interaction situation (Tagiuri, 1969). Most psychological theories, however, deal with perceiver (personality) variables, or social (situational) variables, but almost never with both (Schrauger & Altrocchi, 1964). The best theories for generating testable hypotheses in person perception are those that are inherently interactional. These are conceptual schemes that not only specify relationships among personality traits or present organized classes of situations, but elucidate and predict the interaction of specified traits with likely situational variables. Triple interaction studies are rare, but they are feasible--that is, "what kinds of people are describing what kinds of other people in what situations" (Schrauger & Altrocchi, 1964, p. 301).

The circumplex model, originated by Leary (1957) and expanded by others, is a useful model for generating conceptually organized and interactional hypotheses. Systematic predictions are available for personality variables such as control and affiliation, and for how these traits interact with relevant situations; that is, situations that have potential outcomes for interactants both socially (status, power) and

emotionally (love, acceptance).

The circumplex model is gaining recognition by psychologists of diverse theoretical and empirical approaches. Interpersonal theorists are perhaps the strongest advocates of the model. A number of predictions may be inferred from Interpersonal theory regarding use of the circumplex model in social interactions and individual perceptive processes. However, theoretical assumptions as presented in the literature are often implicit, conflicting, and untested. At the most basic level, it is assumed that a person perceives and responds differently to others depending generally upon which quadrant of the circumplex model the perceiver is oriented in: Friendly-Dominant, Friendly-Submissive, Hostile-Dominant, or Hostile-Submissive. How strong, intense, or extreme the orientation is within the quadrant is also assumed to be a factor. Further, the class of others whom the perceiver observes, judges, or interacts with is assumed to affect the perception. How all these factors interact has rarely been specified, and even more rarely tested.

One Interpersonal theorist, Kiesler (1982), posits that complementary interactions evoke approach behaviors from participants of an interaction; anticomplementary ones lead to escape or avoidance reactions; and acomplementary interactions create approach and avoidance reactions in participants (see Figure 3). Kielser also predicts that interpersonal actions at a particular level of intensity will evoke responses from others at the equivalent level of intensity (e.g., extreme stimuli pull extreme responses). As may be observed, this prediction is more situational than interactional. It assumes tht all perceivers in a quadrant, regardless of their own intensity of

orientation, will respond the same to a social stimulus of a given intensity level.

Although acknowledging the components of an interactional model, interpersonal theory has generally failed to separate the effects of perceiver characteristics, attributes of the stimulus person, and the interaction situation. Interpersonal theories using the circumplex model often focus on the differential impact of stimulus persons of various interpersonal orientations on an unspecified other person. However, it may be expected that perceivers, rather than passive vehicles awaiting impact by another, are active in assigning meaning to their experiences. This assumption has important practical implications. For example, some Interpersonal theorists employ the circumplex model to make specific predictions about how different patient personality types will impact on a psychotherapist. Psychotherapists are not necessarily passively waiting to be impacted by patients of a given interpersonal style; they may also react with their own interpersonal orientation (i.e., "countertransference")--indeed, interactionalists would predict this.

Thus, while Interpersonal theorists are making significant strides with the circumplex model in elucidating the differential effects on perceivers of people of varying interpersonal orientations, much remains unclear as to how perceiver interpersonal orientations affect judgments of those others, as well as the interaction process of the above factors.

Table 3 presents potential sources of variance for the basic assumptions of Interpersonal theory presented earlier: (1) a person perceives and responds to others depending upon the perceiver's as well as other's orientation in the circumplex model, and (2) how strong,

Table 3

Sources of Interaction of Perceiver Characteristics and a Stimulus Other

TRAIT VIEW	SITUATIONAL VIEW	OUTCOME
Perceiver	Stimulus Other	Perceiver Reaction
Interpersonal Orientation	Interpersonal Orientation	Level
-Friendly-Dominant	-Friendly-Dominant	--overt
-Friendly-Submissive	-Friendly-Submissive	--covert
-Hostile-Submissive	-Hostile-Submissive	
-Hostile-Dominant	-Hostile-Dominant	Target
		-implications for self
		-implications for interacting with others
Extremeness in Orientation	Extremeness in Orientation	Affect/Behavior
-high	-high	-positive (attraction)
-low	-low	-positive & negative (conflicted)
		-negative (withdrawal/escape)

intense, or extreme the orientation is within the quadrant for both the perceiver and the other interacts to affect a judgment about the other. The classification system outlined in Table 3 is purposefully restricted in sources of interaction to four quadrants of interpersonal orientations with two intensity levels for perceivers and stimulus others, and specifies three outcomes of perceiver reactions. The focus of the classification system is on perceiver reactions as the dependent variable. When perceivers interact with stimulus others, their behavior then becomes an independent variable in an interaction. Because outcomes of complex interactions have been a focus in research using the circumplex model, it has remained unclear what contribution perceivers' personality styles have on their perceptions, and how these styles interact with the styles of stimulus others to produce a given perception. Interpersonal theory using the circumplex model is intriguingly complex with a large number of assumptions, multi-level variables and three sources of interaction. More research is needed utilizing simple, clearly specified classification schemes that test the most basic assumptions on which the complex theory builds.

The present study examined the effects of perceiver interpersonal style (Friendly-Dominant or Friendly-Submissive), and the effects that extremeness of style (high or low) have on judgments of stimulus others' interpersonal styles (Hostile-Submissive and Hostile-Dominant). The target of perceiver reactions (implications for self and implications for interacting with the stimulus others) was also examined.

General Design

The general design of the study was a two-group rating comparison (Friendly-Dominant and Friendly-Submissive) (more extreme and less

extreme) across two different stimulus conditions (Hostile-Dominant and Hostile-Submissive). Subjects observed a counterbalanced presentation of two five-minute videotaped interactions that depicted qualitatively and empirically distinct interpersonal styles of stimulus others.

Subjects' interpersonal styles were assessed by self-ratings using the Interpersonal Adjective Scales (IAS) (Wiggins, 1979). They also rated the interpersonal styles of the two stimulus others using the IAS after viewing each videotape. Subjects' perceptions of the degree with which they identified, and the degree with which they desired to affiliate with the types of persons depicted on the stimulus tapes were also assessed..

It was expected that subjects serving as judges of others' interpersonal styles would do so from a distinct frame of reference that would influence their perceptions. Generally, subjects who had more extreme interpersonal orientations were expected to view the stimulus others' interpersonal orientations as more extreme than would subjects with less extreme interpersonal orientations. It was also expected that subjects' quadrants on the Interpersonal Circle would systematically influence their perceptions of extremeness in the interpersonal orientation of the stimulus others. Finally, subjects were expected to identify differentially with the two stimulus others, and show differences in desire to affiliate with the stimulus other depending on subjects' quadrant placement on the Interpersonal Circle. Specific hypotheses are outlined in the next chapter.

Chapter III

Method

Subjects

One hundred and seventy-four undergraduate students enrolled in Introductory Psychology classes at a large Midwestern University volunteered to serve as subjects. Volunteers received credit for their participation. Five did not meet the criteria of placement in either Friendly-Dominant or Friendly-Submissive circumplex quadrants, leaving a total of 169 subjects. General characteristics for these 169 subjects are presented in Table 4. Eighty-four subjects (50%) were female, 81 (48%) were male, (4 subjects did not indicate their gender). Ninety percent of the subjects were between 18-24 years old. Most were freshmen at the university (72%), and most were white students (91%). Thirty-nine percent of the subjects reported a grade point average of 3.0 to 4.0, 57% indicated 2.0 to 2.9, and 3% had a grade point average below 2.0. The greatest number of subjects said that they had never received counseling or psychotherapy (86%).

Selection Measure

The IAS is a checklist that contains 128 interpersonally descriptive adjectives. The 128 items form a circumplex ordering of 16 scales, or 8 combined subscales, and 2 orthogonal dimensions of Status and Affiliation, presented in Figure 5. The items are presented by scale in Appendix A. On the orginial instrument, subjects are instructed to indicate for each item whether it is descriptive of their interpersonal style. In the present study, subjects rated themselves on the IAS using a five-point Likert-type scale that contained endorsements ranging

Table 4

Demographic Characteristics of Sample
n = 169

Variable	Frequency	%
Age		
18-19	86	51
19-20	41	24
20-21	17	10
21-22	9	5
22-23	1	1
23-24	2	1
24-25	1	1
Missing	12	7
Sex		
Male	81	48
Female	84	50
Missing	4	2
Grade		
Sr.	4	2
Jr.	12	7
Soph.	31	18
Fr.	119	72
Missing	3	1
GPA		
2.00	5	3
2.0-2.49	35	21
2.5-2.99	60	36
3.0-3.49	52	31
3.5-4.00	13	8
Missing	4	2

Variable	Frequency	%
Race		
Asian	1	1
Black	6	4
Hispanic	1	1
White	153	91
Other	4	2
Missing	4	2
Therapy Sessions		
None	145	86
1-3	9	5
4-7	4	2
8-11	1	1
12+	5	3
Missing	5	3

Note: Percentages are rounded to the nearest whole number and may not sum to 100.

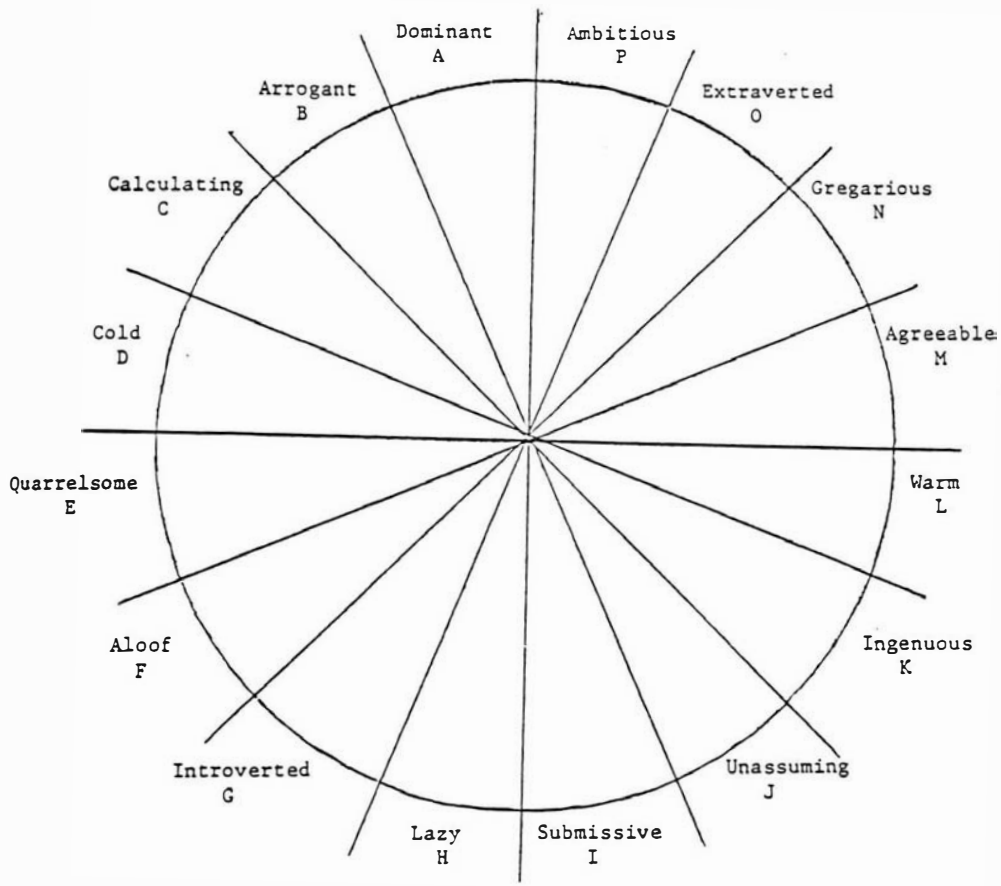


Figure 5. Circumplex Vectors Labeled According to IAS Subscales

from, "1 - Not at all true," to "5 - Very much true." Interpersonal self-perceptions were obtained by calculating the degree of endorsement of items within each of the eight combined subscales. A single position was then identified for each subject on the Interpersonal Circle. Following Leary (1957), subscales were mathematically combined to give quadrant scores (Dominant, Submissive, Hostile, and Friendly), and then further combined to give scores on the Status and Affiliation dimensions. Plotting these two scores using circumplex geography yielded an exact placement on the Interpersonal Circle for each subject. Volunteers were included in the study if their scores indicated placement on the Interpersonal Circle in either the Friendly-Dominant (FD) quadrant, or the Friendly-Submissive (FS) quadrant. High and low tertiary splits were used to divide subjects into high and low extreme groups and to divide subjects into dominant and submissive groups. Appendix B provides specific details of the scoring procedure using the IAS to determine a subjects' scores.

Wiggins (1979) derived the IAS from a series of psychometric trials on a massive group of interpersonal adjectives. Earlier he found, as did Lorr and McNair (1965), that Leary's (1957) original interpersonal categories failed to provide continuous and evenly-spaced circumplex ordering of item clusters. From an original pool of 1,710 adjectives, Wiggins identified eight best-fit adjectives for each of the 16 scales to form eight combination variables: 1) ambitious-dominant, 2) arrogant-calculating, 3) cold-quarrelsome, 4) aloof-introverted, 5) lazy-submissive, 6) unassuming-ingenuous, 7) warm-agreeable, and 8) gregarious-extraverted. Final items were chosen so that, both

semantically and empirically, the eight clusters represented variables that were true bipolar opposites. That is, an item from a given cluster showed a high negative correlation with its opposite cluster and zero correlation with the theoretically orthogonal clusters.

The final form of the IAS was cross-validated on four separate samples of North American college students. Obtained orderings of correlations for each sample were excellent approximations of the theoretically perfect circumplex. Wiggins culled normative data on the combined sample of 610 subjects, and for each of the eight combined variables normative mean, standard deviation, and internal consistency values were derived. For the total sample, Alpha coefficient values for all variables ranged from .74 to .91, with most in the upper .80's. Thus, the IAS has excellent psychometric and theoretical characteristics, with superior circumplex properties, high internal consistency for variable clusters, and substantial normative data on samples of college students.

Experimental Conditions

The experimental conditions of the study consisted of two five-minute videotaped dyadic interactions in which the interpersonal style of the focal person (stimulus) was either Arrogant-Calculating or Aloof-Introverted (see Figure 6). To make the tapes, two confederates were trained as two different stimuli. They were each coached and instructed in the particular interpersonal style that they would portray.

The confederates portrayed clients speaking to a counselor during the first five minutes of an initial counseling interview. A third confederate portrayed the counselor for both counseling enactments.

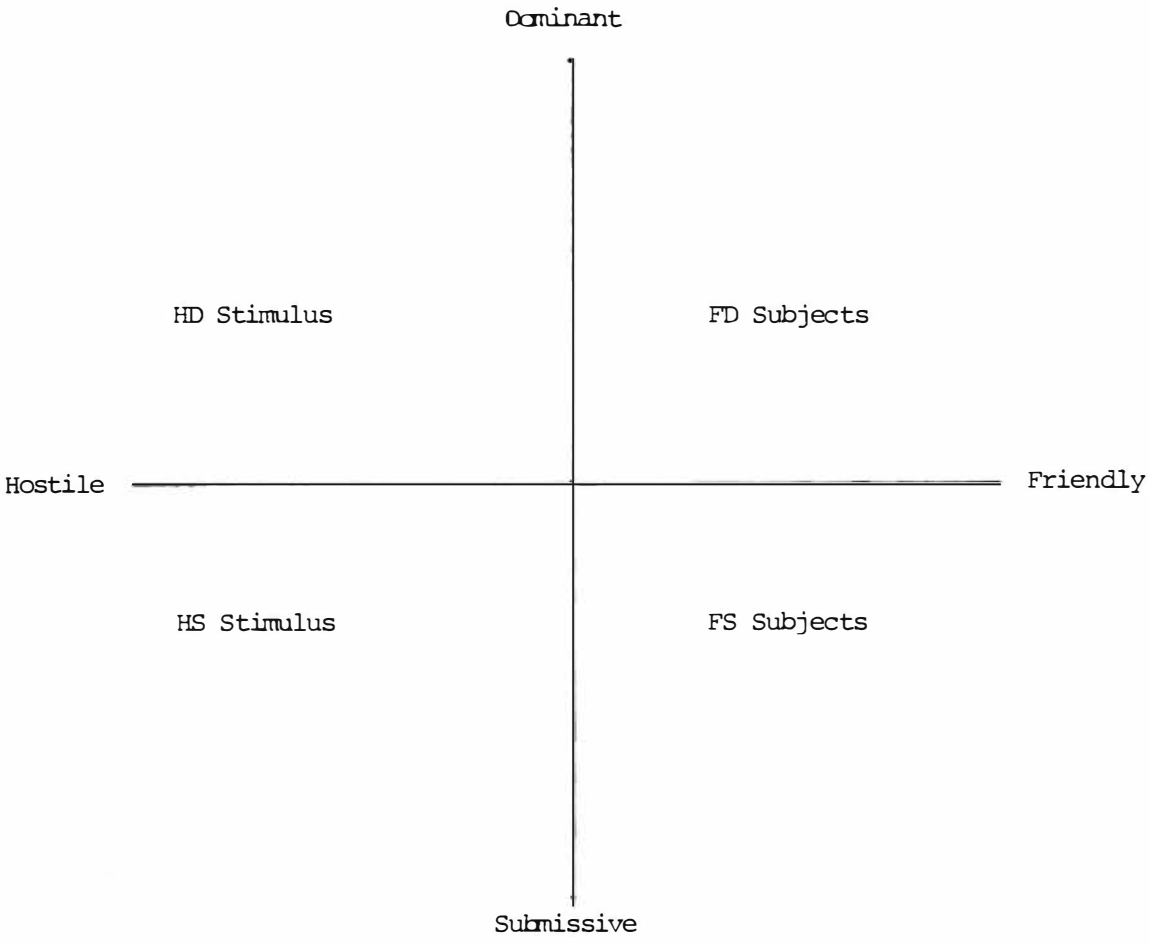


Figure 6. Circumplex Model Location of Subject Groups and Stimulus Others.

In order to maximize attributions to the stimulus others, the camera focused on the "client," while recording only the hands, feet, and voice of the "counselor." Movement, rate of speech, tone of voice, and number of counselor verbalizations were essentially equivalent in both portrayals. The actors were trained from scripts based on IAS adjectives and Interpersonal theory. The scripts were prepared to maximize attributions to the "clients." "Counselor" responses, while within limits of appropriate and expected behavior, were brief and neutral.

As an empirical check of the enactments of the interpersonal styles, videotapes were rated independently by six graduate psychology students. They were trained in the theory and use of the circumplex model, given a description of traits that typified the two quadrants of the Interpersonal Circle using IAS adjectives, and then viewed the stimulus videotapes. Raters were given the task of placing each of the two stimuli in one of the four circumplex quadrants. All of the six raters independently placed the stimuli in the appropriate quadrants that they were designed to represent.

The Confederates

All three confederates, one who portrayed the counselor, and two who portrayed the clients, were white males between the ages of 25-34 years old. All held doctoral degrees in Counseling Psychology and were employed as psychological service providers.

Dependent Variable Measures

The Interpersonal Adjective Scale (IAS; Wiggins, 1979) served as a measure of the subjects' perceptions of extremeness of the "stimulus others" viewed on videotape. The IAS, thus served as the selection

measure from which subject classifications were derived and as the dependent variable of subject perceptions of the stimulus others.

The scoring prcoedure for dependent measures used subject ratings of how well the IAS items described the interpersonal styles of the stimuli. Using Leary's (1957) formula, subscales were combined to derive subject appraisal of the interpersonal extremeness of stimuli. By comparing the endorsed degree of extremeness by the subject groups, the following question was considered: "Do subjects differ in their perceptions of the extremeness of others' interpersonal orientations based on their self-perceptions?" Detail on scoring procedures is provided in the section on derivation of variables.

Other Measures

In addition to completing the IAS on the stimulus others, subjects were asked to respond on a five-point scale to six questions following the viewing of each videotape. These questions were the basis for two other dependent variables: 1) subject similarity or degree of identification with the stimulus others, and 2) subject attraction to or desire to affiliate with the stimulus others. The question used to measure these variables are listed below, with dependent variable category indicated in parentheses:

-He is the type of person who is most difficult for me to get along with. (desire to affiliate)

-I would expect this person not to receive peoples' approval. (degree of identification)

-If he and I worked together each day, I would always feel very awkward talking to him. (desire to affiliate)

-There is no similarity between the way he acts and the way I would ever act. (degree of identification)

-He and I would not "compliment" that is, be a good match as friends. (desire to affiliate)

-Even if I would sympathize with his problem, I would never choose to behave the way this person does. (degree of identification)

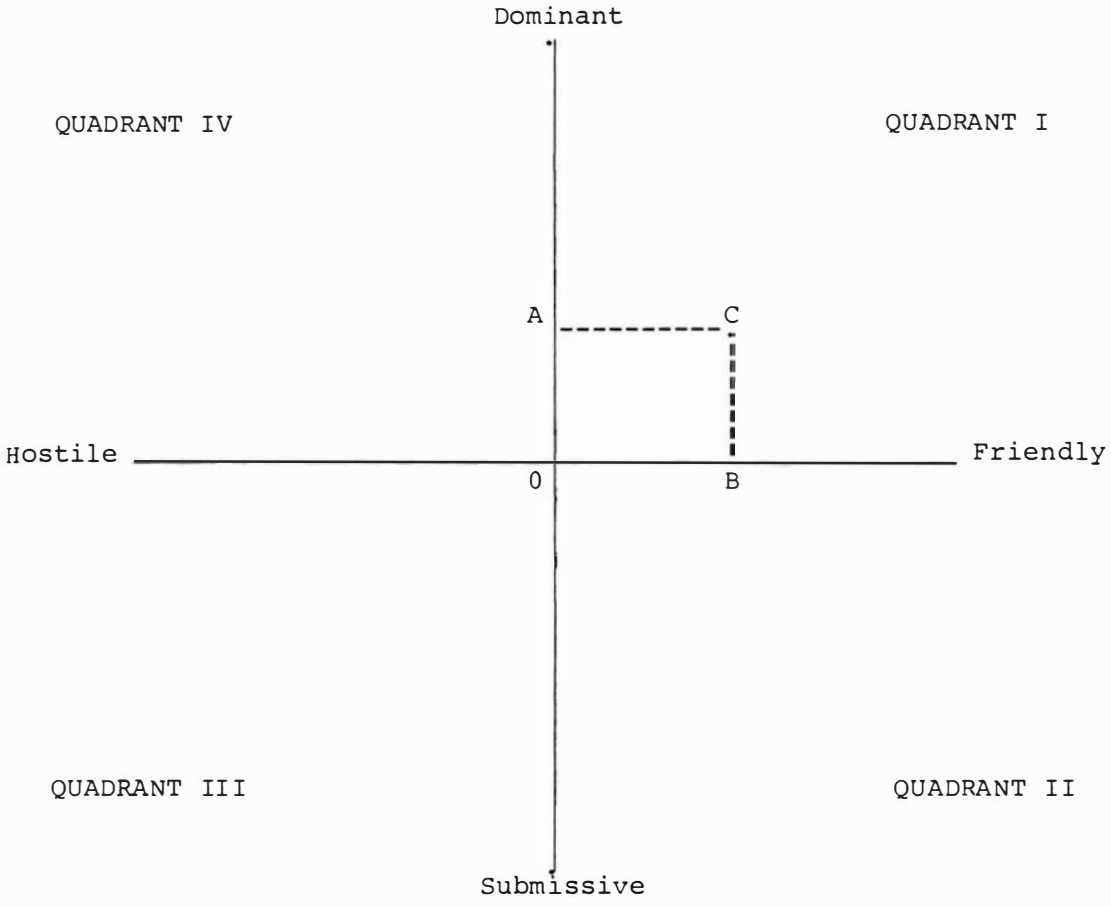
After the subjects viewed both videotapes, they were asked to compare in a forced-choice manner both stimulus others using the affiliation and identification variables. These questions are listed below with dependent variable category in parentheses:

-Please think for a moment about the two videotapes you watched. The two people shown on the tapes may have acted differently than you would. However, if you had to choose, which of the two people acted more like you usually act? (degree of identification)

-Again, think of the two videotapes. Imagine that you had to interact frequently with one of these people (for example, at work each day). Which person would you choose? (desire to affiliate)

Derivation of Variables

The self-report IAS was employed to define subjects' quadrant placement and generate a numerical score indicating subjects' distance from the circumplex origin as a measure of extremeness of perceptions. The 128 items of the IAS yielded 16 eight-item scales which were combined in pairs to create octant scores. Pairs of octant scores were combined to generate four scales: Dominant, Submissive, Friendly, and Hostile (see Figure 7). The numerical difference between Dominant and Submissive scales yielded subjects' placement on the vertical axis of the circumplex (represented by point "A" in Figure 7). The difference between Friendly and Hostile scales yielded placement on the horizontal axis (point "B"). Point "C," the point of intercept between points A and B, defined both the subjects' quadrant placement and numerical distance from the circumplex origin. That is, the distance from origin to C (circumplex score) equaled $A^2 + B^2$.



A = vertical axis score (Dominant - Submissive)

B = horizontal axis score (Friendly - Hostile)

C = intercept of A and B

0 = origin of the circumplex

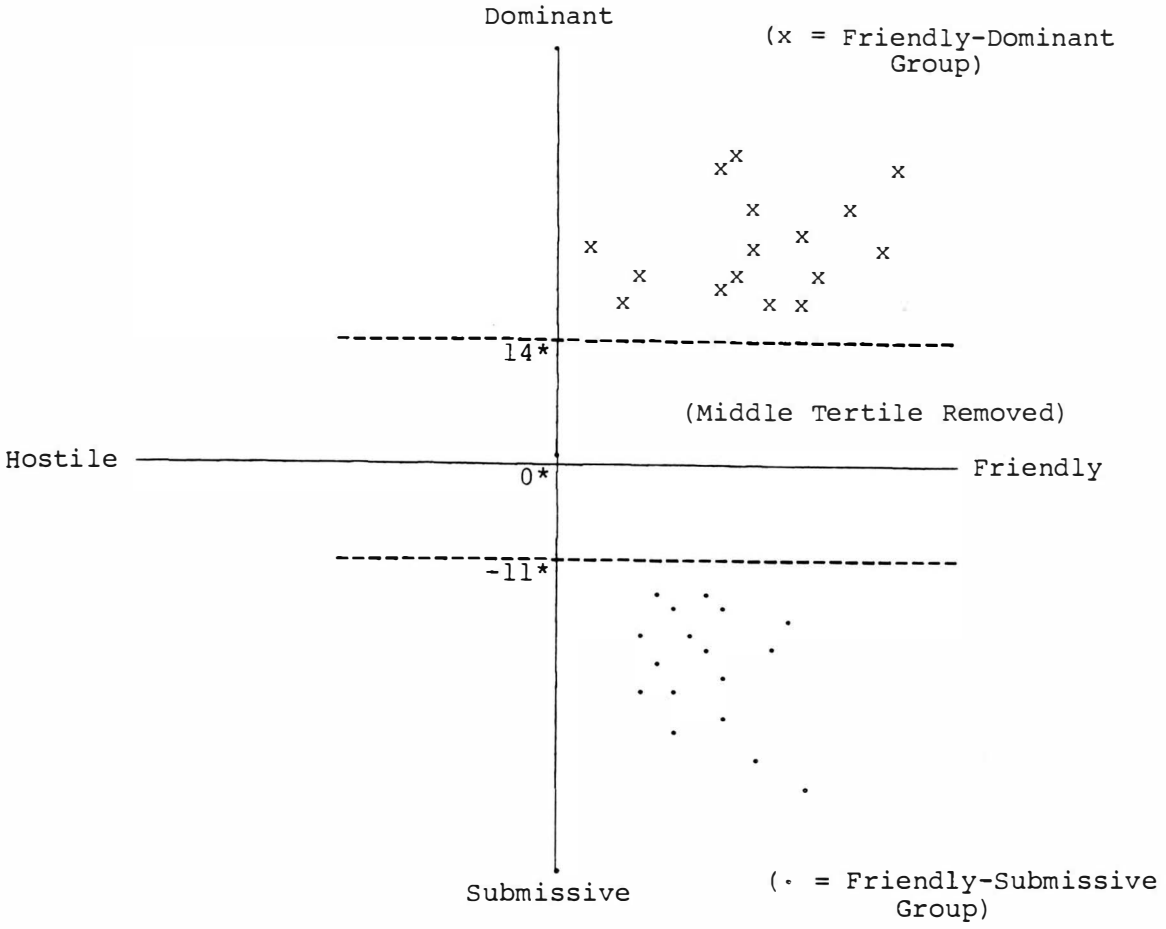
"Circumplex" score (distance 0 to C) = $\sqrt{A^2 + B^2}$

Figure 7. IAS Axis and "Circumplex" Scoring.

All subjects in the sample were included for analyses if they placed to the right of the circumplex origin. Sample scores on the vertical axis (Dominant-Submissive) ranged from -54 to 87 with a mean of 29. Dominant scale scores used in computing subjects' quadrant placement and circumplex score were adjusted by subtracting the mean value of 29 to set the sample mean equal to zero. Comparisons to normative IAS data reported by Wiggins (1979) supports this adjustment; i.e., the present sample mean and standard deviation values for octant and axis scores were similar to those of the 610 college students examined by Wiggins. (See Appendix B for a comparison of the present sample with Wiggins' psychometric data).

"Quadrant" Independent Variable. (Measured by the self-report IAS). To operationalize the Friendly-Dominant (Quadrant 1) and Friendly-Submissive (Quadrant 2) independent variable groups for analyses, the middle third of the sample distribution on the Dominance-Submission axis was removed. The adjusted range of the total sample equaled -83 to 58, M = 0, and SD = 28.8. Subjects who had scores in the upper third of the Dominance-Submission distribution comprised the group labeled Friendly-Dominant (M = 32.56, SD = 11.31. range = 16 to 58), and subjects who had scores in the lower third of the distribution comprised the group labeled Friendly-Submissive (M = -31.07, SD = 17.55, range = -83 to -12). Figure 8 depicts the two groups represented by the Quadrant variable.

"Circumplex" Independent Variable. (Measured by the self-report IAS). To operationalize a measure of the extremeness of subjects' placement on the circumplex, the middle third of the circumplex score distribution was removed to define two groups of "High" and "Low"



*Note: Dominant Axis scores adjusted by subtracting the sample mean.

Figure 8. Derivation of groups of the Quadrant Independent Variable.

Circumplex scores. The distribution ranged from 6 to 160 with x = 88.3, and SD = 31.1. Subjects who had scores in the outer third of the Circumplex distribution comprised the group labled High Circumplex (M = 123.02, SD = 15.58, range = 99 to 160) and subjects who had scores in the inner third of the distribution comprised the group labeled Low Circumplex (M = 53.77, SD = 15.36, range = 6 to 72). Figure 9 depicts the High and Low Circumplex variable groups.

"Extremeness" Dependent Variable. (Measured by IAS ratings of each experimental stimulus). The Extremeness variable was a measure of how far from the circumplex origin subjects perceived the actors depicted in the experimental stimuli. Subject ratings were derived using Leary's (1957) formula and the method earlier described for the derivation of the circumplex variable.

"Octant Score" Dependent Variable. (Measured by IAS ratings of each experimental stimulus). A second method of operationalizing the concept of relative extremeness in subjects' perceptions of the stimulus others was derived from their ratings of stimulus others on the appropriate Hostile-Dominant and Hostile-Submissive subscales on the IAS; the "BC" octant score and the "FG" octant score were examined for ratings by subject groups of the Hostile-Dominant stimulus and Hostile-Submissive stimulus, respectively.

"Affiliation" Dependent Variable. The Affiliation score was the sum of three item scores that subjects endorsed after viewing each stimulus. Affiliation scores could range from 3 to 15, with higher scores indicating greater desire to affiliate with the stimulus actor.

"Identification" Dependent Variable. The Identification score was

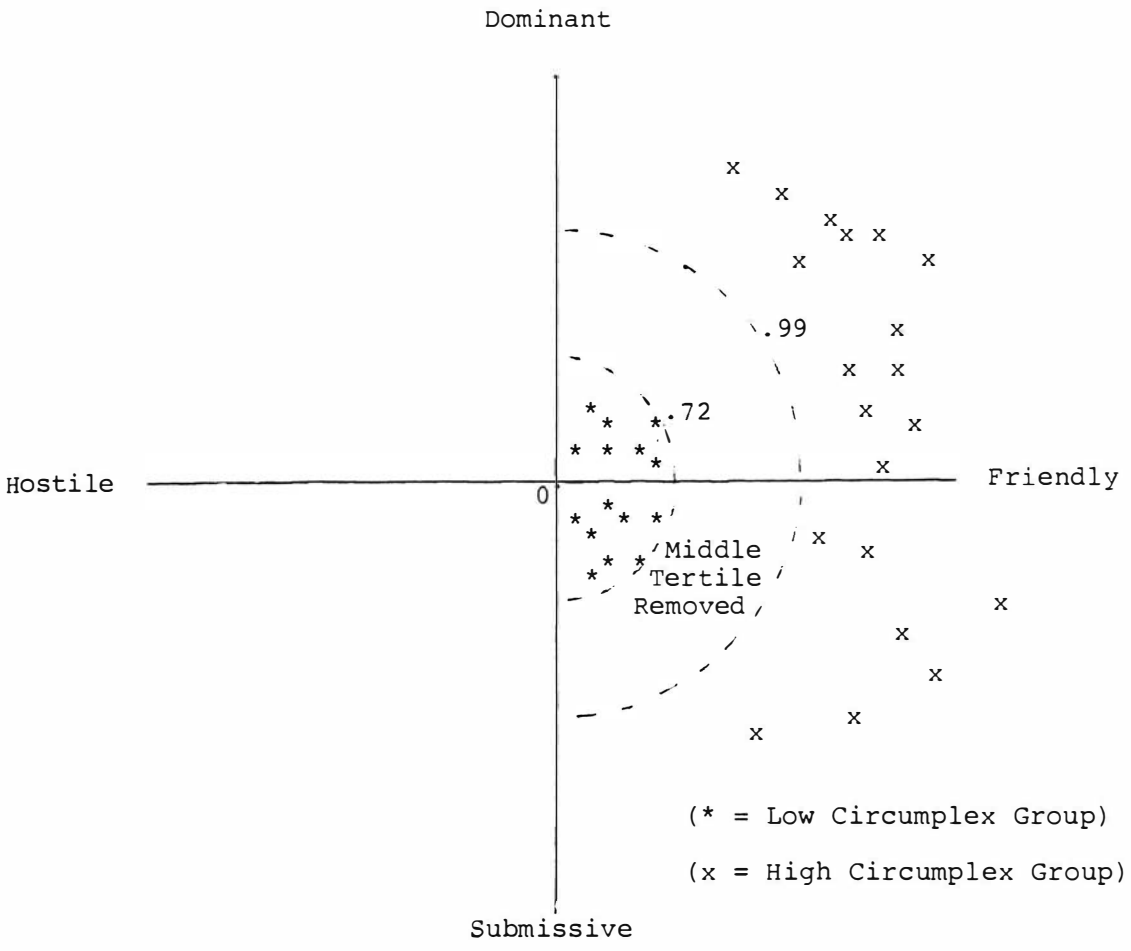


Figure 9. Derivation of groups of the Circumplex Independent Variable.

similarly generated from three items used to endorse perceptions of each stimulus. Higher Identification scores indicated greater identification with the stimulus actor.

"Affiliation-Choice" and "Identification-Choice" Dependent Variables. These were derived from two forced-choice items at the end of the experiment that required subjects to indicate the stimilus actor with whom they most identified and desired to affiliate. A value of "1" indicated preference for the Hostile-Submissive stimulus and "2" for the Hostile-Dominant stimulus.

The Analyses

Each of the subject variables, Circumplex and Quadrant, were examined for distribution of subject demographics. The demographic characteristics were evenly represented across the independent variables (i.e., gender, race, age, grade, and therapy experience), except in the case of Circumplex and gender (to be discussed later).

In using a 2X2 mixed factorial design (or partially repeated measures), the subject variable (i.e., Quadrant or Circumplex) in each analysis was specified as a "between subjects" factor and Stimulus Type as a repeated "within subjects" factor (Keppel & Saufley, 1980; Kirk, 1968). Appropriate mean-square terms were used to test the between versus the within subject factors while specifying Quadrant, Circumplex, and Stimulus Type variables as fixed effects, and subjects as a random effect. When cell sizes were unequal, one to two data sets were randomly selected and removed to allow analyses with equal cases per cell.

Post Hoc Analysis

Gender type was the subject variable in a post hoc analysis. In his

study of 610 North American college students, Wiggins (1979) found, "clear-cut, and to some extent predictable, sex differences in self-report (on the IAS)" (p. 407). In his study, men presented themselves on the IAS octants as more ambitious-dominant, arrogant-calculating, cold-quarrelsome, and aloof-introverted than did women; while women presented themselves as more gregarious-extraverted, warm-agreeable, unassuming-ingenuous, and lazy-submissive than did men. Thus women, in contrast to men, saw themselves as more friendly and somewhat more submissive than did men (i.e., they obtained higher scores on octants on the right and lower part of the interpersonal circle). Men, in contrast to women, saw themselves as more hostile and somewhat more dominant (i.e., they obtained higher scores on octants on the left and upper part of the Interpersonal Circle). Wiggins cautions that not all university samples are so uniformly "stereotyped." He has found samples that contain differing proportions of completely "sex-reversed" subjects. Because of the sex differences in self-presentation found by Wiggins, the sample in the present study was checked for any sex differences that could account for results of the analyses. Gender was paired as an independent variable with Stimulus Type across each dependent variable (i.e., Extremeness, Octant, Affiliation, and Identification).

Procedure

Subject Recruitment

Sign-up sheets announcing several dates and times of the experiment were posted on the Introductory Psychology Experiment Bulletin Board at a large Midwestern University. Subjects were given a brief description of the study and told that it would take about one and one-half hours and

that class credits would be given for their participation.

Administering the Treatment and Measures

One large room equipped for videotape viewing was used for all five of the experimental administrations. Groups of subjects were arranged to watch videotapes in counter-balanced order to control for order effects. A maximum of 50 subjects were in each group. After completing a consent form (see Appendix C) subjects were given Questionnaire #1. (Appendix D presents all of the questionnaires used in the study.) This questionnaire contained instructions to subjects to record their birthdate, sex, and grade in school, followed by instructions for completing the 128 item IAS based upon how well the adjectives described the subjects' self-impressions. The experimenter read the directions aloud and announced that any person who wished to know a definition of any adjective while completing the scale could raise his or her hand to receive help (this procedure is recommended by Wiggins, 1979). Subjects completed the IAS, and then answered three other questions at the end of the questionnaire. The last questions asked for subjects' grade point average, ethnic origin, and whether they have ever received counseling or psychotherapy (if answering, "yes," they were asked to indicate number of sessions).

When subjects finished, Questionnaire #1 was collected and they were given Questionnaire #2. The experimenter read aloud the instructions to subjects explaining that they were about to watch a simulated counseling session and that they would be asked to give their perceptions of the person depicted on the video-tape using the 128 item checklist. Subjects watched the first five-minute videotape and then completed the IAS. Six

other questions followed the IAS in the second questionnaire. These questions asked subjects to judge on five-point scales how well they believed that they could affiliate with the person depicted on tape, as well as their identification with or similarity to the person shown. When subjects completed this phase of the experiment, questionnaires were collected.

Questionnaire #3 was then given to subjects and the experimenter read the directions aloud. Subjects were told that just as in the preceeding phase, they would watch a videotape of a simulated counseling session and complete the adjective checklist. After watching the tape, subjects completed the IAS and the same six questions as in the second questionnaire. Several other items then followed. As a process check, subjects were asked to indicate how well they could see and hear the videotapes. In addition, they were asked to choose which stimulus person depicted on the videotapes was most similar to the subject, and then to rate the strength of their preference for the chosen stimulus other. In the final questions, subjects were asked which stimulus person shown on the videotapes they would prefer to interact with regularly, and to rate the strength of their preference.

At the conclusion of the experiment, the experimenter collected the last questionnaire and announced that students who wanted to receive a summary of the study could fill out an address on the envelopes that were provided. Students were thanked for their participation in the study and dismissed.

Hypotheses and Analyses

A two-way analysis of variance (ANOVA) was used to determine the

effects of IAS self-ratings of extremeness on subjects' IAS ratings of the extremeness in interpersonal orientation of the stimulus others.

It was expected that subjects who were more extreme (High Circumplex) would rate the two stimulus others as more extreme than would subjects who were less extreme (Low Circumplex).

A two-way analysis of variance (ANOVA) was used to determine the effects of subject self-rated IAS quadrant classification on IAS ratings of the extremeness in interpersonal orientation of the stimulus others.

It was expected that FD and FS subjects would systematically differ in their ratings of the extremeness of the stimulus others.

Specifically, a quadrant x stimulus interaction was expected so that Friendly-Dominant subjects would rate the Hostile-Dominant stimulus as more extreme than would Friendly-Submissive subjects, and Friendly-Submissive subjects would rate the Hostile-Submissive stimulus as more extreme than would the Friendly-Dominant subjects. This hypothesis was tested by operationalizing the dependent variable, extremeness, in two ways:

(a) Extremeness Score, as measured by now far from the circumplex origin subjects perceived the stimulus others, and

(b) Octant Score, as measured by subject ratings on appropriate Hostile-Dominant and Hostile-Submissive subscales (BC and FG octant scores for Hostile-Dominant stimulus and Hostile-Submissive stimulus, respectively).

A two-way analysis of variance (ANOVA) was used to determine the effects of subjects' IAS self-ratings of quadrant classification on ratings of identification with the stimulus others, and of desire to

affiliate with the stimulus others. Subjects provided this information both a) after viewing each stimulus other on the videotape and rating their responses on five-point scales, and b) after viewing both stimulus others and using a forced-choice format to rate their preferences.

It was expected that there would be an interaction between subject quadrant classification and identification with stimulus others.

Specifically, it was expected that Friendly-Dominant subjects would indicate greater identification with the Hostile-Dominant stimulus than would Friendly-Submissive subjects, and Friendly-Submissive subjects would indicate greater identification with the Hostile-Submissive stimulus than would Friendly-Dominant subjects.

This hypothesis was tested by operationalizing the dependent measure, identification, in two ways:

(a) Identification Score, as measured by ratings of degree of identification after viewing each stimulus other, and

(b) Identification-Choice, as measured by forced-choice ratings of identification after viewing both stimulus others.

It was expected that there would be an interaction between subject quadrant classification and desire to affiliate with stimulus others.

Specifically, it was expected that Friendly-Dominant subjects would indicate greater preference to affiliate with the Hostile-Submissive stimulus than would Friendly-Submissive subjects, and Friendly-Submissive subjects would indicate greater preference to affiliate with the Hostile-Dominant stimulus than would Friendly-Dominant subjects.

This hypothesis was tested by operationalizing the dependent measure, affiliation, in two ways:

(a) Affiliation Score, as measured by ratings of desire to affiliate after viewing each stimulus other, and

(b) Affiliation-Choice, as measured by forced-choice ratings of affiliation after viewing both stimulus others.

Chapter IV

Results

Overview

A 2 x 2 mixed factorial design (partially repeated measures) was used to examine subjects' ratings of the two stimuli in a series of analyses with the following three independent variables: (1) Quadrant as measured by self-rating on the IAS, (2) Circumplex as measured by self-ratings on the IAS, and (3) Gender. While the particular combination of independent and dependent variables differed in the individual analyses, the dependent variables were the following: (1) Extremeness as measured by self-ratings of the stimulus others on the IAS, (2) Octant as measured by ratings of the stimulus others on the IAS, (3) Identification as measured by ratings of the degree of identification with the stimulus others after viewing each stimulus, (4) Affiliation as measured by ratings of desire to affiliate with the stimulus others after viewing each stimulus. One-way analyses of variance (ANOVAs) were used for the final two dependent variables, (5) Identification-Choice as measured by forced-choice ratings of identification after viewing both stimulus others, and (6) Affiliation-Choice as measured by forced choice ratings of affiliation after viewing both stimulus others. Table 5 specifies the relationship of these variables to the study's hypotheses and additional analyses that were completed.

Subject Extremeness

Subject IAS ratings of the stimuli were grouped by Circumplex scores (High or Low) based on self-ratings on the IAS, and by Stimulus Type (Hostile-Dominant or Hostile-Submissive), resulting in the

Table 5

Specification of Variables in
Hypotheses and Additional Analyses

Test of Hypotheses

Analysis 1 Independent Variables: Stimulus Type (HD and HS) and Circumplex (High and Low)

Dependent Variable: Extremeness

Analysis 2 Independent Variables: Stimulus Type (HD and HS) and Quadrant (FD and FS)

Dependent Variables: A) Extremeness and B) Octant

Analysis 3 Independent Variables: Stimulus Type (HD and HS) and Quadrant (FD and FS)

Dependent Variables: A) Identification and B) Identification-Choice

Analysis 4 Independent Variable: Stimulus Type (HD and HS) and Quadrant (FD and FS)

Dependent Variables: A) Affiliation and B) Affiliation-Choice

Additional Analyses

Analysis 5 Independent Variables: Stimulus Type (HD and HS) and Circumplex (High and Low)

Dependent Variables: Octant, Identification, Affiliation

Analysis 6 Independent Variables: Stimulus Type (HD and HS) and Gender (Male and Female)

Dependent Variables: Extremeness, Octant, Identification, and Affiliation.

two-by-two design. A two-way ANOVA was performed on each of four ratings of the stimuli, Extremeness, Octant, Identification, and Affiliation. Means and standard deviations for the four ratings are shown in Table 6. Summary tables of the ANOVA results are presented in Appendix E.

On the Extremeness measure, means of the High Circumplex group were higher (M = 95.76 and 96.42 for the Hostile-Dominant and Hostile-Submissive stimulus, respectively) than means for the Low Circumplex group (M = 76.78 and 76.94 for the Hostile-Dominant and Hostile-Submissive stimulus, respectively). The differences in High and Low Circumplex group means resulted in a significant main effect, F (1, 98) = 20.59, $p < .001$. There were not significant differences in means for the Hostile-Dominant and Hostile-Submissive stimuli, F (1, 98) = .02, $p < .876$. There was also no significant interaction effect for Circumplex and Stimulus type, F (1, 98) = .01, $p < .924$.

On the Octant measure, means for the High Circumplex group were higher (M = 67.86 and 68.76 for the Hostile-Dominant stimulus and Hostile-Submissive stimulus, respectively) than were means for the Low Circumplex group (M = 64.02 and 60.90 for the Hostile-Dominant and Hostile-Submissive stimuli). These differences were significant, F (1, 98) = 23.01, $p < .001$. The differences among means for the Hostile-Dominant and Hostile-Submissive stimuli did not result in a significant main effect for Stimulus Type, F (1, 98) = 1.70, $p < .195$. However, there was a significant interaction effect for Circumplex and Stimulus Type, F (1, 98) = 5.59, $p < .02$. An inspection of group means shows that the Low Circumplex group assigned higher Octant scores to the Hostile- Dominant stimulus than they assigned to the Hostile-Submissive

Table 6

Means and Standard Deviations for Ratings of the Stimuli for Circumplex by Stimulus Type

Subject Group	Stimulus	IAS Ratings		Questionnaire Ratings	
		Extremeness	Octant	Identification	Affiliation
High Circumplex	Hostile-Dominant				
	M	95.76	67.86	5.06	6.44
	SD	18.51	6.09	2.15	2.88
	Hostile-Submissive				
	M	96.42	68.76	6.16	7.48
	SD	24.66	6.93	2.49	2.92
Low Circumplex	Hostile-Dominant				
	M	76.78	64.02	5.52	7.16
	SD	25.01	7.19	2.83	2.89
	Hostile-Submissive				
	M	76.94	60.90	6.94	7.48
	SD	30.18	9.17	2.95	2.92

Note: High scores indicate more extreme perceptions of the stimuli for the Extremeness and Octant measures, while high scores indicate preference for the stimuli on the Identification and Affiliation measures.

stimulus, while the High Circumplex group differed little in Octant ratings assigned to the two stimuli.

On the Identification measure, means of high and low subject groups were not significantly different, F (1, 98) = 2.40, $p < .125$. However, means for the Hostile-Submissive stimulus were higher (M = 6.16 and 6.94 for the High and Low Circumplex groups, respectively) than means for the Hostile-Dominant stimulus (M = 5.06 and 5.52 for High and Low Circumplex groups), (1, 98) = 13.81, $p < .0003$. There was not a significant Circumplex by Stimulus Type interaction effect, F (1, 98) = .22, $p < .638$.

On the Affiliation measure, means of the High and Low Circumplex groups were not significantly different, F (1, 98) = 1.13, $p < .291$. As in the Identification measure, however, means for the Hostile-Submissive stimulus were higher (M = 7.48 and 7.68 for the High and Low Circumplex groups, respectively) than means for the Hostile-Dominant stimulus (M = 6.44 and 7.16 for High and Low Circumplex groups), F (1,98) = 3.93, $p < .05$. There was not a significant Circumplex by Stimulus Type interaction effect for the Affiliation measure, F (1, 98) = .44, $p < .511$.

Subject Quadrant

Subjects' IAS ratings of the stimuli were grouped by Quadrant scores (Friendly-Dominant or Friendly-Submissive) based on self-ratings on the IAS, and by Stimulus Type (Hostile-Dominant or Hostile-Submissive). A two-way ANOVA was performed on each of the four ratings of the stimuli, Extremeness, Octant, Identification, and Affiliation. Means and standard deviations for these four measures are given in Table 7. Summary tables of the ANOVA results are presented in

Table 7

Means and Standard Deviations for Ratings of the Stimuli for Quadrant by Stimulus Type

Subject Group	Stimulus	IAS Ratings		Questionnaire Ratings	
		Extremeness	Octant	Identification	Affiliation
Friendly-Dominant	Hostile-Dominant				
	M	87.84	66.40	5.56	7.09
	SD	23.74	6.95	2.48	2.95
	Hostile-Submissive				
	M	93.87	65.29	5.75	6.89
	SD	28.81	6.95	2.59	2.22
Friendly-Submissive	Hostile-Dominant				
	M	88.00	66.33	4.73	5.85
	SD	25.08	7.10	2.19	2.65
	Hostile-Submissive				
	M	84.22	64.78	7.87	8.33
	SD	25.60	8.74	2.59	3.61

Note: High scores indicate more extreme perceptions of the stimuli for the Extremeness and Octant measures, while high scores indicate preference for the stimuli on the Identification and Affiliation measures.

Appendix F. One-way ANOVAs were used for two other measures, Identification-Choice and Affiliation-Choice. Means and standard deviations for these measures are shown in Table 9. Results of the ANOVAs are shown in Appendix G.

On the Extremeness measure, means of the Friendly-Dominant and Friendly-Submissive subject groups were not significantly different, F (1, 108) = 1.42, $p < .236$. There were not significant differences in means for the Hostile-Dominant and Hostile-Submissive stimuli, F (1, 108) = .24, $p < .627$. There was, however, a significant interaction effect for Quadrant and Stimulus Type, F (1, 108) = 4.50, $p < .036$. Inspection of group means shows that the Friendly-Dominant group assigned higher Extremeness scores to the Hostile-Submissive stimulus (M = 93.87) than to the Hostile-Dominant stimulus (M = 87.84), while the Friendly-Submissive group gave higher Extremeness scores to the Hostile-Dominant stimulus (M = 88.00) than to the Hostile-Submissive stimulus (M = 84.22).

On the Octant measure, the difference between means for the Friendly-Dominant and Friendly-Submissive groups did not result in a significant main effect for Quadrant, F (1, 108) = 1.42, $p < .235$. Differences in means for the Hostile-Dominant and Hostile-Submissive stimuli on the Octant measure were not significant, F (1, 108) = .10, $p < .753$. There also was no significant Quadrant by Stimulus Type interaction effect, F (1, 108) = .06, $p < .814$.

For Identification, means for the Friendly-Dominant and Friendly-Submissive quadrant group did not significantly differ from each other, F (1, 108) = 2.87, $p < .093$. A main effect for Stimulus Type was found, F (1, 108) = 30.08, $p. < .0001$. Subjects indicated greater identification with the Hostile-Submissive stimulus than with the

Table 8

Means and Standard Deviations for
Ratings of the Stimuli for Quadrant

Subject Group	Identification-Choice	Affiliation-Choice
Friendly-Dominant		
M	1.43	1.41
SD	.56	.56
Friendly-Submissive		
M	1.41	1.35
SD	.53	.58

NOTE: 1 = Preference for the Hostile-Submissive stimulus and
2 = Preference for the Hostile-Dominant stimulus.

Hostile-Dominant stimulus. In addition, there was a Quadrant by Stimulus Type interaction effect, F (1, 108) = 23.87, $p < .0001$. The mean was higher for the Friendly-Submissive group's rating of the Hostile-Submissive stimulus (M = 7.87) when compared to the mean for the Hostile-Dominant stimulus (M = 4.73), while means were similar for the Friendly-Dominant subjects (M = 5.75 for the Hostile-Submissive stimulus and M = 5.56 for the Hostile-Dominant stimulus). This result indicates that Friendly-Submissive subjects identified more with the Hostile-Submissive stimulus than with the Hostile-Dominant stimulus, while Friendly-Dominant subjects did not have a strong preference between the stimuli.

On the Affiliation measure, means for the Friendly-Dominant and Friendly-Submissive groups were not significantly different, F (1, 108) = .06, $p < .80$. There was a main effect for Stimulus Type, F (1, 108) = 9.50, $p < .003$. Subjects indicated a preference to affiliate with the Hostile-Submissive stimulus rather than the Hostile-Dominant stimulus. There was also a Quadrant by Stimulus Type interaction effect, F (1, 108) = 13.15, $p < .0004$. The mean was higher for the Friendly-Submissive group's rating of the Hostile-Submissive stimulus (M = 8.33) when compared to the mean for the Hostile-Dominant stimulus (M = 5.85), while means were similar for the Friendly-Dominant subjects (M = 6.89 for the Hostile-Submissive stimulus and M = 7.09 for the Hostile-Dominant stimulus). This result indicates the Friendly-Submissive subjects had a greater preference to affiliate with the Hostile- Submissive stimulus rather than the Hostile-Dominant stimulus, while Friendly-Dominant subjects did not have a strong preference between the stimuli.

On the Identification-Choice measure, ratings by the Friendly-Dominant and Friendly-Submissive subject groups were M = 1.43 and M = 1.41, respectively (1 = preference for the Hostile-Submissive stimulus, and 2 = preference for the Hostile-Dominant stimulus). A one-way ANOVA was used to determine that these differences were not significant, F (1, 111) = .016, $p < .898$.

On the Affiliation-Choice measure, ratings by the Friendly-Dominant and Friendly-Submissive subject groups were M = 1.41 and M = 1.35, respectively (1 = preference for the Hostile-Submissive stimulus, and 2 = preference for the Hostile-Dominant stimulus). A one-way ANOVA was used to determine that these differences were not significant, F (1, 111) = .40, $p < .528$.

Subject Gender

In the final analyses, subjects' IAS ratings of the stimuli were grouped by Gender (male or female), and the by Stimulus Type (Hostile-Dominant or Hostile-Submissive). Two-way ANOVAs were performed on each of the four ratings of the stimuli, Extremeness, Octant, Identification, and Affiliation. Means and standard deviations for these measures are given in Table 9. Summary tables of the ANOVA results are presented in Appendix H.

On the Extremeness measure, women's ratings resulted in significantly higher means (M = 88.47 and 87.02 for the Hostile-Dominant and Hostile-Submissive stimuli, respectively) than did men's ratings (M = 81.43 and 81.02 for the Hostile-Dominant and Hostile-Submissive stimuli, respectively), F (1, 160) = 3.80, $p < .053$). There were not significant differences in means for the Hostile-Dominant and Hostile-

Table 9

Means and Standard Deviations for Ratings of the Stimuli for Gender by Stimulus Type

Subject Group	Stimulus	IAS Ratings		Questionnaire Ratings	
		Extremeness	Octant	Identification	Affiliation
Males	Hostile-Dominant				
	M	81.43	63.70	5.55	6.62
	SD	24.85	7.91	2.56	2.88
	Hostile-Submissive				
	M	81.02	63.74	6.92	7.94
	SD	27.00	8.50	2.59	2.93
Females	Hostile-Dominant				
	M	88.47	66.02	5.43	6.70
	SD	19.65	6.28	2.51	2.89
	Hostile-Submissive				
	M	87.02	64.98	6.73	7.68
	SD	27.46	8.69	3.02	3.16

Note: High scores indicate more extreme perceptions of the stimuli for the Extremeness and Octant measures, while high scores indicate preference for the stimuli on the Identification and Affiliation measures.

Submissive stimuli, F (1, 160) = .21, $p < .650$. There was also no significant interaction effect for Gender and Stimulus Type, F (1, 160) = .06, $p < .800$.

For the Octant measure, means of men's and women's ratings were not significantly different, F (1, 160) = 3.16, $p < .07$. There were not significant differences in means for the Hostile-Dominant and Hostile-Submissive stimuli, F (1, 160) = .47, $p < .492$. There was no significant Gender and Stimulus Type interaction effect, F (1, 160) = .55, $p < .461$.

On the measure of Identification, means for men's and women's ratings were not significantly different from each other, F (1, 160) = .26, $p < .614$. There was a main effect for Stimulus Type on the Identification measure, F (1, 160) = 23.30, $p < .0001$; subjects indicated greater identification with the Hostile-Submissive stimulus than with the Hostile-Dominant stimulus. There were no significant interaction effects, F (1, 160) = .02, $p < .893$.

On the measure of Affiliation, means for men's and women's ratings were not significantly different from each other, F (1, 160) = .07, $p < .795$. There was a main effect for Stimulus Type on the measure of Affiliation, F (1, 160) = 12.37, $p < .0006$; subjects indicated a greater preference to affiliate with the Hostile-Submissive stimulus than with the Hostile-Dominant stimulus. There was no significant Affiliation by Stimulus Type interaction effect, F (1, 160) = .28, $p < .597$.

Chapter V

Discussion

Overview

The results of the present study offer support for the predictions based on Interpersonal theory that extreme self-presentations are related to extreme perceptions of others, and that individuals who have less extreme self-presentations may be more responsive to changing situational role requirements than are individuals who have more extreme self-presentations. However, the role of interpersonal complementarity in perceptions of others was not found to conform to expectations. Results suggest that acomplementary others, those who have self-presentations that are interpersonally opposite of the perceivers', are seen as more extreme than are anticomplementary others. In addition, it was found that perceivers' reported identification and tendencies to affiliate with others may be influenced by situational factors rather than by interpersonal complementarity when there are perceived demand characteristics in the situational context.

The first hypothesis predicted that subjects who were more extreme based on IAS self-ratings would rate the two stimuli as more extreme on the IAS than would subjects who were less extreme. This hypothesis was tested in two ways; first, with the extremeness measure, derived from IAS ratings of distance of the stimuli from the origin of the Interpersonal Circle; and second, in an additional analysis, with the octant measure, derived from ratings of the stimuli on the octants that the enactments represented. It was found on both measures that extreme subjects gave significantly higher, more extreme ratings to both the

stimuli than did less extreme subjects. It is assumed by Interpersonal theorists that extreme individuals respond with an extreme or rigid style regardless of the intensity level of actions presented by others. Results of these analyses suggest that such a response to others may be based on the differences in perceptions between more and less extreme individuals.

The second hypothesis predicted an interaction between subject quadrant and ratings of the extremeness of the stimuli. Friendly-Dominant and Friendly-Submissive subjects were expected to rate their anticomplementary stimulus as more extreme than they would rate their acomplementary stimulus. This hypothesis was also tested in two ways; 1) with the extremeness measure, and 2) with the octant measure. A significant interaction effect was found for the extremeness measure. However, subjects rated acomplementary stimuli, rather than anti-complementary stimuli, as most extreme. There was no interaction effect for the octant measure. The results of the first measure suggest that while perceptions may be influenced by the type of Interpersonal Circle complementarity between the perceiver and others, anticomplementary others are not seen as more extreme than are acomplementary others. Results of the second measure may suggest that complementarity is not a viable predictor of reactions to others when reactions are measured by specified sets of Interpersonal Circle segment descriptors.

The third hypothesis predicted an interaction between subject quadrant and degree of identification with the stimuli. The fourth hypothesis predicted an interaction between subject quadrant and desire to affiliate with the stimuli. Subjects were expected to identify more

with the anticomplementary stimulus than with the acomplementary stimulus because of shared characteristics with the former on the dominance-submission axis of the Interpersonal Circle. However, for desire to affiliate, subjects were expected to indicate greater attraction to the acomplementary stimulus than with the anticomplementary stimulus because of the greater social exchange possibilities theoretically inherent in acomplementary versus anticomplementary relationships. Results showed a main effect for stimulus type for both the "Identification" and "Affiliation" measures; subjects indicated greater identification and desire to affiliate with the Hostile-Submissive stimulus than they did with the Hostile-Dominant stimulus. There was also a significant interaction effect for both of these measures. Friendly-Submissive subjects preferred to identify and affiliate with the Hostile-Submissive stimulus rather than with the Hostile-Dominant stimulus, while Friendly-Dominant subjects did not strongly prefer one stimulus over the other on either of the two measures. This finding suggests that the stimulus situation exerted a more powerful influence on subjects' perceptions than did subject and stimulus complementarity, and that Friendly-Submissive subjects may have been most responsive to demand characteristics that were likely to be in the stimulus situation (i.e., behavior appropriate to seeking help in an initial counseling session).

In an additional analysis, there was a significant interaction effect for subject extremeness and ratings of the extremeness of the stimuli on the octant measure. Less extreme subjects rated the Hostile-Dominant stimulus as more extreme than they rated the Hostile-Submissive

stimulus. More extreme subjects differed little in their ratings of the stimuli; while no hypothesis was forwarded for this analysis, the findings support the theoretical notion in Interpersonal literature that less extreme individuals are more responsive to changes in situational contexts than are more extreme individuals. Traits, rather than situations, may be better predictors of the behavior of persons with extreme self-presentations.

Subject Self-Presentations

Out of 174 individuals originally sampled, only five individuals were excluded from the analyses because of self-presentations that were on the left or hostile side of the circle. While the remaining subjects described themselves in mostly Friendly-Dominant terms, subject quadrant groups were formed by dividing the sample into an upper, dominant third and a lower, submissive third of the total sample. Normative data from the sample tested by Wiggins (1979) showed a similar clustering of subjects in the upper, right quadrant. While it is plausible that many university students may be accurately portraying their interpersonal styles with Friendly-Dominant IAS adjectives, it is perhaps more likely that social desirability figures prominently in their self-presentations. A Friendly-Dominant interpersonal style is probably the most socially valued of all styles for striving young adults in North American culture. This type of behavior may serve as a reference point or prototype in assessment of interpersonal adjustment (Rosch, 1975; Rosch, Mervis, Gray, Johnson, & Boyer-Braem, 1976). There is evidence that self-presentation on the IAS is moderated by subjects' desire to create

a good impression. Wiggins (1979) collected social desirability ratings of IAS adjectives from 100 undergraduates. In comparing his total sample of 610 subjects' mean self-report octant scores with corresponding mean social desirability ratings by the smaller sample, he concluded that the frequently found relationship between endorsement and desirability is found in the interpersonal domain (Edwards, 1957).

Wiggins describes a number of efforts by researchers to cope with the endorsement-desirability confound in self-report personality data. For example, LaForge and Suczek (1959) rewrote the ICL (Leary, 1957) phrases so that half of all undesirable phrases were made to sound socially desirable (e.g., "Can be strict if necessary") and half of all the desirable phrases were made to sound undesirable (e.g., "Spoils people with kindness"). Other procedures to cope with desirability biases include statistically removing the desirability variance. However, whether or not it is even necessary to correct for social desirability sample skewness (such as found in the present study) is debatable. Wiggins provides an interesting perspective on the topic:

> The extent to which an investigator may feel the need to 'correct for' the ubiquitous endorsement-desirability confound will vary with the purpose of the investigation and with the investigator's theoretical stance on the meaning of the evaluative dimension of affective meanings. A set of interpersonal variables that did not differ in desirability (or did not reveal sex differences) would be a feeble representation of real-life categories of social perception ... In any event, interpretation of individual and group scores on the interpersonal scales should be made with reference to normative data of kind provided ... Whether or not a person scores high on warm-agreeable or low on cold-quarrelsome can be judged only with reference to the scores of others. (p. 408)

Trait Results

Several of the analyses considered whether characteristics of subjects accounted for ratings of the stimuli. The first hypothesis was that subjects who were more extreme on IAS self-ratings (High Circumplex) would rate the two stimulus others as more extreme on the IAS than would subjects who were less extreme (Low Circumplex). The results supported this hypothesis.

Leary (1957) believed that less effective interpersonal functioning is marked by narrow ranges of interpersonal responses that are expressed intensely whether or not they are appropriate to the situation. Less effective interpersonal functioning is characterized by extremeness and rigidity in responses regardless of the intensity level of actions presented by others. This responding exerts a "pull" for similarly rigid and constricted relationships with others (Kielser, 1982a). Sullivan (1953) called this rigidity "parataxic distortion." According to Carson (1982), the distortions of the more rigid individual lead to a "self-fulfilling prophecy." Carson contends that maladaptive behavior persists over time because it is based on perceptions, expectations, or constructions of the characteristics of other people that tend to be confirmed by the interpersonal consequences of the behavior emitted. The self-fulfilling prophesy might be seen, in effect, as an unbroken causal loop between social perception, behavioral enactment, and environmental reaction. He says, "... by far the most important cause of persistently maladaptive behavior is the tendency of the interpersonal environment to confirm the expectancies mediating its enactment. In simpler terms, if (someone) expects the world to be

a hostile place, he or she will tend to behave in a manner that conforms to that expectation and will thereby induce others sooner or later to enact behaviors confirming the reality of the original expectancy" (p. 71).

Interpersonal theorists, then, believe that there is a continuous dynamic interplay between internal process, situations, and behavior. According to Anchin (1982), each interactant in an interpersonal situation engages in a rapidly firing, complex, yet organized array of covert affective and cognitive processes. These "inner world" processes, in turn, affect an individual's perception and interpretation of overt acts. The results of the first hypothesis suggested that subjects' "inner world" perceptions did, in fact, influence their ratings of the stimuli. More extreme subjects assigned higher, more extreme ratings to the stimuli than did the less extreme subjects.

In addition, these results were buoyed by findings from Analysis Five. While the first hypothesis used subject ratings of extremeness of the stimuli that were measures of "distance" in any direction from the circumplex origin, Analysis Five used the Octant dependent measure to ascertain subject ratings on the specific octants that the Hostile-Dominant and Hostile-Submissive stimulus enactments were designed to represent; that is, Arrogant-Calculating (BC) and Aloof-Introverted (FG), respectively. Results of this analysis also supported the assumption that more extreme subjects saw the Hostile-Dominant actor as being more arrogant and calculating and the Hostile-Submissive actor as being more aloof and introverted than did less extreme subjects.

These analyses are supportive of assertions by proponents of

Interpersonal theory that individuals perceive others through ideosyncratic "biases" and "filters" (Murray's "beta press") that may ultimately shape their behavior and influence their interactions with others. It is plausible to construe subject groups in the sample as not only more less extreme in self-perceptions, but also as more or less rigid and inflexible. People who are extremely Friendly-Dominant or who are extremely Friendly-Submissive are expected to have difficulty relinquishing concommitant Friendly-Dominant or Friendly-Submissive behaviors even in situations that call for appropriate changes in behavior (Kiesler, 1982a). Subjects' scores in the study were derived in a manner that accounted for both their endorsement of particular adjectives and their lack of endorsement for other adjectives. For example, subjects whose score placed them in the extreme group in the upper, right quadrant (Friendly-Dominant) of the Interpersonal Circle, both endorsed more Friendly-Dominant adjectives as being true of them and endorsed fewer contrasting adjectives (bipolar opposites) as being true of them than did other subjects. Further support for the construal of extremeness as rigidity is derived from standard use of the Interpersonal Checklist (ICL; Leary, 1957) from which Wiggins' IAS is derived to explicitly operationalize rigidity (Kiesler, 1982a). While the IAS does not provide for systematic assessment of high and low levels of extremeness, varying degrees of endorsement are possible with the Likert-like scale format. These differing degrees of endorsement are accounted for in forming more and less extreme groups.

If, indeed, more extreme subjects in the sample are appropriately labeled rigid and inflexible, then the finding that they viewed

the stimulus others as more extreme than other subjects follows the predictions of Interpersonal theory. Such individuals not only view others as extreme, but may act on these perceptions in their daily interpersonal interactions. Theory and research described in an earlier chapter on individuals with high needs for approval (Napp) may apply to extreme subjects in this sample of Friendly-Dominant and Friendly-Submissive subjects.

Quadrant was a second subject variable. Subject quadrant type was expected to interact with stimulus type in the second hypothesis. A main effect was not predicted and was not found. That is, subjects did not differ by quadrant type in their IAS ratings of the extremeness of the stimuli. While quadrant type did not influence perceptions of others, Quadrant in interaction with presentation of differing stimuli did account for a significant portion of the variance in perceptions of the stimulus others (to be discussed in a later section).

In the fifth and sixth analyses, subject extremeness was considered with the dependent variables "Identification" and "Affiliation." No main effect was predicted--subjects were not expected to differ in the overall degree of identification or affiliation with the stimuli based on extremeness. No main effect was found. Thus, subject extremeness, per se, did not increase or diminish identification or affiliation tendencies with the stimuli.

Several interpretations are possible for the finding of sex differences with Extremeness. Women assigned higher IAS ratings of extremeness to both the stimuli than did men. While the statistical significance of this analysis does not reach the same level of

confidence as was found in most other analyses, and Octant (the other measure of extremeness) did not show significance, the finding that women saw the stimuli as more extreme merits attention. When data were checked for frequencies of males and females represented in the independent variable groups, it was found that gender was evenly distributed except in the case of subject self-ratings of extremeness (High and Low Circumplex groups). There were 38 males and 14 females in the less extreme group, and there were 11 males and 38 females in the more extreme group. More women than men were found in the extreme third of the Circumplex distribution. Described earlier, it was found in analysis of Hypothesis One that more extreme subjects rated the stimuli as more extreme than did less extreme subjects. It was suggested that rigidity and inflexibility concepts apply to subjects' extreme self-perceptions as well as to the observed finding tht they also view others with an extreme valance. One immediate conclusion is that sex differences may account for the results of Hypothesis One. Perhaps women are more extreme in self-ratings and ratings of others because they are "more sensitive" to interpersonal data about themselves and others than are men. However, since self-ratings of extremeness and gender are covariates, it is not possible determine a casual relationship for the results; other studies are needed that separate the effects of sex and self-ratings of extremeness in perception of extremeness in others.

One further interpretation is offered for the above findings. As previously described, Wiggins (1979) found that women gave higher IAS self-ratings on octant scores that were largely located on the right

or friendly side of the Interpersonal Circle. Men gave higher ratings to octants located on the left or hostile side of the Circle. These were differences in gender found in the sample despite overall descriptions of themselves in Friendly-Dominant terms. That is, using the procedure in the present study to derive from scale scores an exact Circle placement, subjects tested by Wiggins presented a profile that was skewed toward the upper, right quadrant of the Circle. Normative data for the total sample in the present study was similar to that found in Wiggins' sample. Wiggins' finding that more women than men described themselves with higher ratings on octants located on the right side of the Circle suggests that if his subjects had been divided into high and low extreme groups, more women than men would have been classified as extreme Friendly-Dominants in his study, while men's greater endorsement of adjectives on the Hostile side of the Circle would have excluded them from this extreme group.

This further suggests that Friendly-Dominant and Friendly-Submissive self-descriptions are seen as more socially desirable for women when compared with men. More women than men may be rigidly embracing these standards while more men than women might rigidly adhere to less affiliatory behaviors. Perhaps if stimuli had been presented to subjects from all four quadrants of the Circle, men would have been overrepresented in the group that responded extremely to affiliatory enactments. In addition, it is not known whether sex of the stimuli interacts with subject judgments; for example, would subject ratings differ if the Hostile-Dominant stimulus had been a woman instead of being a man? Further research is needed to clarify these issues.

Situation Results

No main effects for situational variables were expected or predicted. Care was taken to assure that subjects were exposed to standardized testing conditions. Except for the salient differences between the stimuli in Hostile-Dominant or Hostile-Submissive behaviors, efforts were made to match the stimuli in terms of such variables as movement, rate of speech, length of time spent speaking, and physical appearance. However, when subjects rated the stimuli for degree of identification and desire to affiliate, they preferred the Hostile-Submissive stimulus more than the Hostile-Dominant stimulus. Several possible interpretations of this finding are described below.

Interaction Results

Hypothesis Two stated that subjects would systematically differ by quadrant in ratings of extremeness of the stimuli. Friendly-Dominant subjects were expected to assign higher, more extreme ratings to the Hostile-Dominant versus the Hostile-Submissive stimulus, while Friendly-Submissive subjects were expected to assign higher, more extreme ratings to the Hostile-Submissive versus the Hostile-Dominant stimulus. The rationale for this prediction was based on rules of complementarity in interactions posited in Interpersonal theory using the Circumplex Model. As outlined in earlier chapters, complementarity occurs on the basis of reciprocity for the dominance-submission axis (i.e., dominance "pulls" submission, and vice versa), and on the basis of correspondence for the Hostile-Friendly axis (i.e., hostility begets hostility, and friendliness begets friendliness) (Carson, 1969). A complementary position is adopted in an interaction when a person accepts only one of the

component messages. An anticomplementary position occurs if a person rejects both aspects of the invitation. Complementary relationships are said to attract totally, while anticomplementary relationships are expected to repel totally (Kielser, 1982a). As applied to the present study, when Friendly-Dominant and Friendly-Submissive subjects perceived the anticomplementary stimulus other (Hostile-Dominant and Hostile-Submissive, respectively), they were expected to rate that stimulus as having more extreme behavior when compared with their ratings of the acomplementary stimulus.

An interaction between perceiver and stimulus quadrants was found, but it was not in the predicted direction. Subjects rated acomplementary stimuli rather than anticomplementary stimuli, as most extreme. That is, Friendly-Dominant subjects assigned more extreme ratings to the Hostile-Submissive stimulus than to the Hostile-Dominant stimulus, while Friendly-Submissive subjects assigned more extreme to the Hostile-Dominant stimulus than to the Hostile-Submissive stimulus.

One explanation for this finding is that reactions to others based on interpersonal complementarity do not operate as expected in the behavior of extreme individuals. While anticomplementary relationships are expected to be very unattractive to many people because there is no possibility for complementary social exchange, extreme individuals may have the greatest difficulty with behaviors that fall exactly opposite of theirs on the Interpersonal Circle (Anchin, 1982; Kiesler, 1982b) for these are the impressions that they endeavor to avoid (Kiesler, 1982b,c; McLemore & Hart, 1982; Strong, Bradford, & Zodun, 1982; Young & Beier,

1982). For example, it is assumed that an extreme Friendly-Submissive person embraces such a self-presentation in order to protect himself or herself against displays of overt anger, conflict, dominance, and aggression. The individual appears non-assertive and ingratiating to others and even appropriate dominance or hostility are difficult to show others. Since subject quadrant groups were formed by removing the middle third of the sample for these analyses, included subjects were more Friendly-Dominant or more Friendly-Submissive than were the individuals who were removed. Thus, the finding that subjects assigned the most extreme ratings to acomplementary stimuli may be accounted if it is considered that more extreme subjects may have a greater desire to avoid behavior that appears opposite from their own when compared with less extreme subjects. Additional research is needed to clarify this issue. While Interpersonal theory may offer a possible explanation for these findings, the prediction that the anticomplementary stimulus would be seen as more extreme than would the acomplementary stimulus was not supported by the results.

The second hypothesis also examined subject ratings of extremeness of the stimuli with another conceptually-related dependent variable, Octant. No interaction was found with this analysis. While extremeness scores described above were derived by considering distance in any direction from the circumplex origin, octant scores were derived from measures on the specific IAS octant the stimuli enactments represented. It is not clear why results showed an interaction on the extremeness measure, but not on the octant measure. One possibility is that the effect of complementarity on the Interpersonal Circle is not powerful

enough to occur consistently in measures that are theoretically related (particularly since the octant measure requires subjects to pinpoint and rate a highly specific set of behaviors belonging to a segment of the Circle). Another possibility is that the more extreme subjects used in these analyses have a difficult time accurately perceiving the behavior of others. While they may be able to globally rate the behavior of one stimulus as more extreme than the behavior of the other, they are not able to locate the specific descriptors necessary for the octant measure to be elevated. A third possibility is that these measures are not actually related and are measuring different subject reactions than expected.

The third and fourth hypothesis predicted interactions on the dependent measures "Identification" and "Affiliation." From the literature review, it was suggested that Interpersonal theory has generally failed to note that observations of others can lead to different judgments about them depending on whether the observer is comparing the other with self or is considering what interactions would be like with the other (see Table 3, p. 53). Thus, subjects were expected to identify with one stimulus more than with the other, and to choose the other as a preference for affiliation. Interpersonal theory predictions regarding rules of complementarity were not expected to apply when subjects were asked to identify with the stimuli. Subjects were expected to identify with their anticomplementary stimulus because of shared dominance or submission characteristics, while they were expected to want to affiliate with their acomplement because of complementary on the dominance-submission axis of the Circle.

Results showed that there was an interaction between subjects' quadrant and their ratings of identification and affiliation with the stimuli. However, as shown by group means, it was not in the predicted direction. While Friendly-Submissive subjects indicated greater identification with the Hostile-Submissive stimulus than with the Hostile-Dominant stimulus, Friendly-Dominant subjects differed very little in ratings of identification with the stimuli. Further, Friendly-Submissive subjects responded with similar ratings concerning affiliation; they preferred to affiliate with an anticomplementary stimulus, the Hostile-Submissive stimulus. Friendly- Dominant subjects again differed very little in their preference to affiliate with one or the other of the stimuli.

An explanation for the interactional results may involve the significant main effect for stimulus situation with the dependent variables Identification and Affiliation. The Hostile-Submissive stimulus was preferred by subjects on the two measures. As shown by group means, Friendly-Submissive subjects in both analyses rated the Hostile-Dominant stimulus lower than the Hostile-Submissive stimulus. Friendly-Dominant subjects differed little in their ratings of the two stimuli. This may have occurred for less complex reasons than originally formed. The stimulus situation presented to subjects was based on enactment of an initial counseling session between a client (the stimuli) and a therapist. Submissive and cooperative behavior may have been seen as more appropriate to the role of someone seeking counseling. While the Hostile-Submissive stimulus was designed to show hostile as well as submissive behavior (e.g., passive-aggressiveness)

this behavior may have been seen as more situationally acceptable to subjects than the overt hostility and dominance in the Hostile-Dominant enactment.

Friendly-Submissive subjects may have been more sensitive to the dominance and role-incongruous behavior of the Hostile-Dominant stimulus than the Friendly-Dominant subjects. Friendly-Submissive subjects endorsed an IAS self-presentation that was very cooperative and non-aggressive in relation to others. They apparently found the behavior of the Hostile-Dominant stimulus to be aversive in a situation with demand characteristics for overt cooperativeness. The Friendly-Dominant subjects apparently perceived the dominant behavior as more acceptable; they responded with less sensitivity to the situational "pulls" for cooperative client behavior than did Friendly-Submissive subjects so that both enactments were about equally likely to elicit their identification and affiliatory tendencies. Had the experimental situation had demand characteristics for dominant behaviors (e.g., teaching a task to an observer), Friendly-Dominants may have shown a marked preference for the dominant stimulus just as the Friendly-Submissives did in the counseling situation shown to subjects. This interpretation of the results of the Identification and Affiliation analyses suggests that situations are reference points around which behavior is deemed appropriate or inappropriate. As shown in the attribution and person perception literature, deviation from expected behavior in a given situation increases an observer's confidence about judgments made of another (Jones & Davis, 1965; Jones, Kanouse, Kelley, Nisbett, Valins, & Weiner, 1972; Kelley, 1967; Strong & Claiborn, 1982).

The significant negative correlations (shown in a table in Appendix I) of subject ratings of degree of identification and desire to affiliate with the Hostile-Dominant stimulus with order of presentation of the stimuli are suggestive of a situational interpretation of the results ($r = -34$, $p < .001$ for Identification and Order; and $r = -33$, $p < .001$ for Affiliation and Order). There were no significant correlations between order of presentation of stimuli and the dependent variables for the Hostile-Submissive stimulus. Thus, whether subjects had already viewed one stimulus before rating the other stimulus influenced reactions to the Hostile-Dominant stimulus. Subjects indicated less desire to identify or affiliate with this stimulus when its presentation was second rather than first. Apparently, the Hostile-Dominant enactment was seen as less desirable or more deviant when it was compared to the enactment of the Hostile-Submissive stimulus. Again, demand characteristics of the situation may have influenced subjects' perceptions so that they found the Hostile-Dominant behavior less acceptable in this help-seeking situation after they had already viewed the more appropriate submissive behavior of the other stimulus.

Duke and Nowicki (1982) and others (e.g., Peterson, 1982) have noted a tendency for Interpersonal theorists to underestimate the effect of situations on interpersonal behavior. According to Duke and Nowicki, some Interpersonal theorists (e.g., Leary, 1957 and Carson, 1969) emphasize complementarity or lack of it to predict satisfaction in relationships. Disordered individuals are seen as frequently using a particularly narrow range of behavior regardless of the situation to force others to respond to them in a similarly narrow way. However,

these theorists do not describe how disordered individuals communicate their interpersonal styles. Other Interpersonal theorists (e.g., Kielser, et al., 1976) have focused more than prior theorists on the disordered communication of maladapted individuals. Thus, incongruence between verbal and non-verbal channels of communication is emphasized more than complementarity in descriptions of disordered behavior. (Note: Duke and Nowicki point out that in spite of this definition of interpersonal maladaptiveness, incongruence may be quite adaptive in many social situations where "true" feelings are not appropriate to disclose.) Few Interpersonalists emphasize that the very normality or appropriateness of a behavior lies not in the behavior itself, but within the context in which the behavior occurs. Accordingly, Duke and Nowicki have generated a three-level interactional taxonomy of interpersonal behavior in which contextual aspects of behavior are accorded equal recognition in the determination of normal and disordered adjustment. The three levels include the "relational level" (complementary, non-complementary, and anticomplementary responses to others), the "communicational level" (congruence or incongruence between verbal and non-verbal channels of communication), and the "situational level" (appropriate or inappropriate behavior within the situational context). Duke and Nowicki say, "Within this taxonomy, for example, the behavior manifested by a schizophrenic person might be classified as ... inappropriate-incongruent-non-complementary--while the behavior of a couple having intercourse at McDonald's would be deemed ... inappropriate-congruent-complementary" (p. 92). Based on the results of the present study, the point made by these authors is important

concerning situational moderators in judgments about interpersonal behavior. In this case, an understanding of the context in which the stimuli were presented provides a fuller accounting of the results than does interpersonal complementarity predictions alone.

Forced-choice ratings of the stimuli on Identification and Affiliation dependent variables (Hypotheses 3b and 4b) were not statistically significant; that is, Friendly-Dominant and Friendly-Submissive subjects did not differ in their choices for the stimuli on these two variables. In questionnaire items immediately following the forced-choice questions, subjects were asked how strong their preferences had been for identifying and affiliating with the stimulus they chose. Most subjects indicated that they did not have a strong preference for the stimulus chosen. Thus, like the Likert ratings of the six "identification" and "affiliation" items that followed presentation of each stimulus (Hypotheses 3a and 3b), subjects' forced-choice ratings did not support the hypothesis that complementarity as forwarded by Interpersonal theory is a predictor of preferences for identifying and affiliating with others. However, unlike the results found with the Likert ratings, forced-choice ratings did not show a greater preference by Friendly-Submissive subjects for the Hostile-Submissive stimulus. It is possible that the forced-choice response format implied greater commitment than did the Likert measurement of preferences and that subjects were not willing or able to draw such distinctions between the stimuli. In any event, complementarity was not found to be an effective predictor of subjects' choices.

The last interaction was obtained in one of the additional

analyses. The interaction effect of extremeness of subjects (High or Low Circumplex) and Stimulus Type was statistically significant for the octant dependent variable. Described previously in Analysis Five, the effects due to extremeness were also significant; that is, more extreme subjects saw both stimuli as more extreme on their respective octants than did less extreme subjects. In the interaction found in this analysis (shown in Figure 15, p. 89), less extreme subjects assigned higher octant scores to the Hostile-Dominant stimulus than to the other stimulus, while more extreme subjects differed only slightly in their ratings of the stimuli. Less extreme subjects discriminated between the stimuli to a greater extent than did more extreme subjects. Less extreme subjects may have judged the behavior of the Hostile-Submissive stimulus as more appropriate to the counseling-like situation (thus, lower ratings) than they judged the behavior of the Hostile-Dominant stimulus to be (thus, more extreme ratings). More extreme subjects apparently did not discriminate between the stimuli as more or less appropriate to the situational context as did less extreme subjects. Theoretically, flexible individuals are expected to adopt situationally-specific norms for behavior, while rigid individuals are not. The results conformed to these Interpersonal theory predictions. In all, the present findings provide a bridge between trait and situational influences in interpersonal interactions. As Duke and Nowicki (1982) forwarded, Interpersonalists need to attend to the context in which behavior occurs. The results of this study suggest that the situation figures more prominently in interpersonal judgments for flexible individuals than for rigid individuals. Trait predictors may prove

more powerful than situation predictors only in the behavior of more rigid individuals.

Summary and Conclusions

Overall, results of the study support the need to attend to traits, situations, and then interactions in the study of interpersonal behavior. While many of the interpersonal predictions were supported by the findings, the results point to the complex and multifaceted nature of research in this area.

More interpersonally extreme subjects rated the stimuli as more extreme when compared with less extreme subjects. Apparently, more extreme subjects interpret others' behaviors as being more extreme. Perhaps this perceptual factor affects the individual's way of thinking, feeling, and acting towards others. The result may be that these individuals may elicit extreme acts from others, generating a "self-fulfilling prophecy" that defines their reality (Carson, 1982).

It was also found that women perceived the stimuli as more extreme than did men. This finding is likely a result of more women than men being classified as extreme subjects on the IAS self-ratings. Women appear to be more likely to present themselves as affiliatory than men and thus, were overrepresented in the group chosen for this research.

The Hostile-Submissive stimulus was preferred over the Hostile-Dominant stimulus in subject ratings of Identification and Affiliation. It may be that subjects perceived the demand characteristics in the stimulus situation as favoring submissive behavior; thus, they viewed the behavior of the Hostile-Submissive stimulus as more appropriate than the behavior of the Hostile-Dominant stimulus.

Friendly-Dominant subjects rated the Hostile-Submissive stimulus (the acompliment) as more extreme than the other stimulus, while Friendly-Submissive subjects rated the Hostile-Dominant stimulus (also the acompliment) as more extreme than the other stimulus. This finding did not support the Interpersonal theory prediction that anticomplimentary others will be seen as most extreme. Thus, subjects rated the stimulus with behaviors exactly opposite to their own self-presentations most extremely. It may be that subjects responded with extreme ratings to the stimulus who greatly epitomized the impression that they endeavor to avoid.

Friendly-Submissive subjects indicated a greater preference for identifying and affiliating with the Hostile-Submissive stimulus rather than the other stimulus. Friendly-Dominant subjects indicated little preference between the two stimuli. Perhaps the Friendly-Submissive subjects were more sensitive to the role demands for cooperative behavior inherent in a counseling-type stimulus situation than were the Friendly-Dominant subjects.

Less extreme subjects were found to rate the Hostile-Dominant stimulus as more extreme than they rated the Hostile-Submissive stimulus. More extreme subjects differed little in their ratings of the stimuli. It was suggested that these findings support the theoretical notion that less extreme, flexible individuals are more sensitive and responsive to changes in situational contexts than are more extreme, rigid individuals. Traits are likely to be more accurate predictors of the behavior of rigid indivdials, while situations are likely to exert more influence on the behavior of flexible individuals.

Several methodological considerations are relevant to subsequent research on predictions investigated in the present study. Recommendations include the following:

(1) A sample size several times larger than the number of subjects in the present study would permit use of correlational analyses (rather than dictomous variables) to test the prediction that there is a systematic relationship between how a person describes himself or herself and how he or she observes and describes others. Interpersonal Circle quadrants and levels are expected to be continuous versus discrete categories. A larger sample size would increase confidence in the findings.

(2) More scales are needed with a larger number of items to test subjects' attraction to and desire to affiliate with others, as well as their degree of identification with others.

(3) To test comprehensively Interpersonal theory regarding complementarity in interactions, stimuli from all quadrants of the Circle are needed. In addition, presentation of stimuli of both sexes in each quadrant would be a valuable source of information regarding sex differences in interpersonal behavior.

(4) Subjects from all quadrants of the Interpersonal Circle are needed. Since social desirability (Wiggins, 1979) may continue to result in subjects' overrepresentation in some quadrants and levels, relative ratings might be used to determine subject groups in large samples.

(5) The relative contribution of traits and interactions in determining behavior is made clearer when situational influences are

controlled. Presentation of a neutral context would reduce the influence of demand characteristics behavior.

(6) Greater specificity may result in octant rather than quadrant placements are used both in self-ratings and ratings of the stimuli.

(7) More research is needed using additional measures hypothesized to be associated with Interpersonal theory constructs (e.g., addition of a scale that test subjects' needs for approval).

(8) Finally, the present study was of the initial stage of relationship formation. Research is needed that charts the process and changes that occur in relationships over an extended period of time.

Results of the study support the Interpersonal theory assumption that self-descriptions and descriptions of others are systematically related. These descriptions may reflect individuals' needs and interpretations of their interpersonal worlds (Strong, Note 1). Situational events may serve as better predictors of the behavior of individuals who describe themselves in a less extreme and flexible manner, while trait descriptions may be better predictors for those who describe themselves in a more extreme and rigid manner. Central themes in people's lives are related to their experiencing of others. Core features are likely to be played out with others (Anchin, 1982).

In applied settings, knowledge of a client's interpersonal style can provide useful hypotheses about interpersonal and intrapsychic problem areas and the nature and direction of adaptive interpersonal change. Interventions may be designed to encourage a fuller experiencing of self and others (Anchin, 1982; Kielser, 1982a; Strong, Bradford, & Zodun, 1982). For example, less flexible individuals, when

compared with more flexible individuals, are likely to see opposite behaviors from their own on the Interpersonal Circle as more extreme and aversive than other behaviors. This may restrict adaptive experiencing of themselves and others. Increased expression of behaviors opposite from their initial inflexible presentations may be a sign that therapy is progressing effectively. In addition, knowledge of clients' interpersonal styles would help clinicians to be aware of how clients are experiencing the therapeutic relationship. Therapist behaviors of varying intensity level and location on the Interpersonal Circle might be expected to impact clients' experiencing of the relationship.

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APPENDICES

APPENDIX A

Wiggins' Interpersonal Adjective Scales (1979) (Revised, 1981; Original Items in Parentheses)

P. Ambitious

7. Self-Disciplined
20. Persistent
34. Determined (Stable)
46. Productive (Deliberative)
69. Persevering
109. Industrious
119. Organized
123. Steady

A. Dominant

8. Forceful
11. Bold (Un-Selfconscious)
22. Firm
33. Self-Confident
84. Dominant
98. Domineering
107. Self-Assured
120. Assertive

B. Arrogant

9. Conceited
24. Swell-Headed
41. Big-Headed
50. Pushy (Overforward)
73. Cocky
80. Loud-Mouthed (Boisterous)
90. Boastful
115. Show-Off (Flaunty)

C. Calculating

21. Slick (Cunning)
32. Crafty
37. Calculating
61. Deceitful (Overcunning)
75. Tricky
102. Sneaky (Wily)
111. Sly
117. Exploitative

D. Cold

35. Ruthless
40. Unfeeling (Warmthless)
47. Cruel
57. Unsympathic
65. Hard-Hearted
74. Iron-Hearted
87. Uncharitable
106. Cold-Hearted

E. Quarrelsome

6. Contrary (Ungracious)
27. Disrespectful
52. Uncooperative
63. Impolite
70. Hostile (Discourteous)
89. Irritable (Uncivil)
100. Rude (Uncordial)
114. Ill-Mannered

F. Aloof

10. Impersonal
19. Aloof (Anti-Social)
36. Sullen (Uncheery)
64. Detached (Unneighborly)
67. Embittered (Dissocial)
96. Distant
112. Unfriendly (Unsmiling)
122. Unsociable

G. Introverted

1. Bashful
18. Silent
38. Quiet (Undemonstrative)
44. Reserved (Unrevealing)
68. Solemn (Unsparkling)
78. Introverted
81. Withdrawn (Inward)
94. Shy

APPENDIX A (Con't)

Wiggins' Interpersonal Adjective Scales (1979)
(Revised, 1981; Original Items in Parentheses)

H. Lazy

2. Lacks Purpose (Unbusinesslike)
16. Impractical
28. Disorganized
42. Undisciplined (Unthorough)
76. Inconsistent
83. Lazy
101. Irresponsible (Unindustrous)
113. Unproductive

I. Submissive

15. Inhibited (Unauthoritative)
30. Spineless
49. Submissive (Forceless)
86. Self-Defeating (Self-Effacing)
88. Meek
99. Passive
108. Timid

J. Unassuming

4. Modest (Unvain)
13. Unassuming (Conceitless)
55. Unargumentative
60. Humble (Boastless)
66. Undemanding
91. Non-Egotistical
103. Unpretentious (Pretenseless)
121. Tolerant (Unwild)

K. Ingenuous

3. Trusting (Uncalculating)
26. Not Devious (Uncrafty)
45. Sincere (Unwily)
51. Dependent (Uncunning)
92. Inexperienced (Undeceptive)
95. Grateful (Unsly)
116. Persuadable (Undevious)
124. Unsophisticated (Guileless)

L. Warm

5. Kind
17. Sympathetic
23. Emotional
48. Appreciative
71. Tender
77. Gentle-Hearted
82. Soft-Hearted
110. Tender-Hearted

M. Agreeable

25. Well-Mannered
29. Cordial
54. Charitable,
62. Forgiving
79. Respectful
93. Cooperative
105. Accomodating
126. Courteous

N. Gregarious

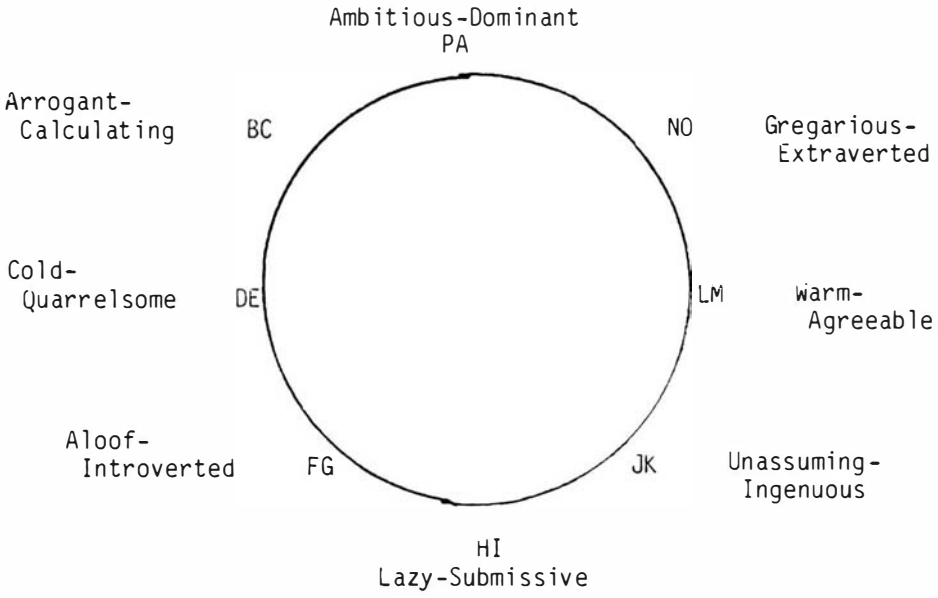
12. Pleasant
14. Companionable
56. Neighborly
59. Approachable
72. Friendly
97. Good-Natured
104. Genial
128. Congenial

O. Extroverted

31. Jolly (Jovial)
39. Cheerful
43. Enthusiastic
53. Bubbly (Vivacious)
85. Outgoing
118. Lively (Perky)
125. Talkative (Unshy)
127. Extraverted

APPENDIX A (Con't)

Wiggins' Interpersonal Adjective Scales (1979)



APPENDIX B

Total Sample Norm Comparisons for Wiggins (1979) and the Present Study*

Octants	Wiggins (1979) M	Wiggins (1979) SD	Present Study M	Present Study SD
PA	5.79	.99	4.76	.81
BC	3.87	1.05	2.82	.88
DE	2.66	.84	2.15	.79
FG	4.03	1.17	2.94	.96
HI	4.06	.99	2.83	.85
JK	4.95	.97	4.32	.66
LM	6.91	.77	5.87	.83
NO	6.40	.96	5.44	.94

Using the method in the present study and Leary's (1957) formula, the following calculations were made to arrive at a single-point placement of subjects on the Interpersonal Circle:

Step 1	Wiggins (1979)	Present Study
Dominance Score = (BC+NO+PA)-(FG+JK+HI) =	3.02	2.93
Love Score = (JK+NO+LM)-(BC+FG+DE) =	7.70	7.72

Step 2

Exact Placement = $\sqrt{\text{Dominance Score}^2+\text{Love Score}^2}$ = 8.27 8.25

*Note: Means are on an eight-point scale. For purposes of comparison in this table, means of the present study were transformed from five-point scales into the eight-point scales used by Wiggins, 1979.

APPENDIX C

INFORMED CONSENT FORM

You are being asked to participate in a research study that will take about one and a half hours of your time. The study examines how interpersonal orientation affects counseling perception. You will complete a questionnaire that asks you to describe yourself, watch two videotapes of simulated counseling interactions, and then be asked to describe the characteristics of the clients you have seen.

All information and data gathered in the course of this study will be numerically coded to ensure strict confidentiality. Your name will not be used. The focus of this study is on group results not individual performance. There is no risk involved and you are free to withdraw at any time without penalty. A written summary of the results will be available to participants when the study is completed.

I have read and understood the above and give my consent to participate.

_____

subject

_____

witness

_____

date

APPENDIX D

The Questionnaires

QUESTIONNAIRE #1

This study will ask you to complete a questionnaire describing how you perceive yourself, and then to view two simulated counseling sessions and give your perceptions of the people depicted in each session.

Step 1: Please remove the computer scored answer sheet and look at the side with "Name and Student Number" printed on it. In the grid labeled "Student Number", please use the last four columns to record the last four digits of your social security number.

DO NOT PUT YOUR NAME ON THE SHEET - your responses are to remain anonymous.

Step 2: Now look to the grid labeled "Special Codes". In the first column mark a "1". In the second column mark the number that the experimenter announces. In the third column mark another that the experimenter announces.

Step 3: Record your birthdate, sex and grade in the boxes so labeled. For your grade in school; 13=Fr., 14=Soph., 15=Jr., 16=Sr., and 17=graduate or unclassified. Now rotate the sheet and read "Directions For Marking Answer Sheet".

Step 4: Turn your answer sheet over. You will be using these items to respond to the questionnaire. Use a #2 lead pencil only, and darken each answer completely. Erase completely if you change an answer.

Instructions: This questionnaire asks you to describe your impression of yourself. Record how you view yourself by indicating how well each item fits your self-image and your typical behavior. If you are uncertain about any item, make the best guess you can. Do not leave any items blank. Use the following scale to rate how well each item fits you:

1 Not At All
2 Slightly
3 Moderately
4 Mostly
5 Very Much

Work as quickly as you can and leave no blanks. Remember, if you are unsure about an item make your best guess.

Do not mark on the questionnaire. Use the answer sheet to record all responses. On the questionnaire, use the note "Check Response Number" as a reminder to make sure items and answers are matching.

Turn to the next page in this questionnaire and begin with item 1.

1 = NOT AT ALL 2 = SLIGHTLY 3 = MODERATELY 4 = MOSTLY 5 = VERY MUCH

1. Bashful
2. Lacks Purpose
3. Trusting
4. Modest
5. Kind
6. Contrary
7. Self-disciplined
8. Forceful
9. Conceited
10. Impersonal

(Check Response Number)

11. Bold
12. Pleasant
13. Unassuming
14. Companionable
15. Inhibited
16. Impractical
17. Sympathetic
18. Silent
19. Aloof
20. Persistent

(Check Response Number)

21. Slick
22. Firm
23. Emotional
24. Swell-headed
25. Well-mannered
26. Not Devious
27. Disrespectful
28. Disorganized
29. Cordial
30. Spineless

(Check Response Number)

31. Jolly
32. Crafty
33. Self-confident
34. Determined
35. Ruthless
36. Sullen
37. Calculating
38. Quiet
39. Cheerful
40. Unfeeling

41. Big-headed
42. Undisciplined
43. Enthusiastic
44. Reserved
45. Sincere
46. Productive
47. Cruel
48. Appreciative
49. Submissive
50. Pushy

(Check Response Number)

51. Dependent
52. Uncooperative
53. Bubbly
54. Charitable
55. Unargumentative
56. Neighborly
57. Unsympathetic
58. Self-doubting
59. Approachable
60. Humble

(Check Response Number)

61. Deceitful
62. Forgiving
63. Impolite
64. Detached
65. Hard-hearted
66. Undemanding
67. Embittered
68. Solemn
69. Persevering
70. Hostile

(Check Response Number)

71. Tender
72. Friendly
73. Cocky
74. Iron-hearted
75. Tricky
76. Inconsistent
77. Gentle-hearted
78. Introverted
79. Respectful
80. Loud-mouthed

[Please continue to next page]

1 = NOT AT ALL 2 = SLIGHTLY 3 = MODERATELY 4 = MOSTLY 5 = VERY MUCH

81. Withdrawn
82. Soft-hearted
83. Lazy
84. Dominant
85. Outgoing
86. Self-defeating
87. Uncharitable
88. Meek
89. Irritable
90. Boastful

(Check Response Number)

91. Nonegotistical
92. Inexperienced
93. Cooperative
94. Shy
95. Grateful
96. Distant
97. Good-natured
98. Domineering
99. Passive
100. Rude

(Check Response Number)

101. Irresponsible
102. Sneaky
103. Unpretentious
104. Genial
105. Accommodating
106. Cold-hearted
107. Self-assured
108. Timid
109. Industrious
110. Tender-hearted

(Check Response Numbers)

111. Sly
112. Unfriendly
113. Unproductive
114. Ill-mannered
115. Show-off
116. Persuadable
117. Exploitative
118. Lively
119. Organized
120. Assertive

(Check Response Numbers)

121. Tolerant
122. Unsociable
123. Steady
124. Unsophisticated
125. Talkative
126. Courteous
127. Extroverted
128. Congenial

Please also answer the following questions

129. What is your college Grade Point Average (GPA)? [Guess if you are unsure]

1 below 2.0
2 2.0 to 2.4
3 2.5 to 2.9
4 3.0 to 3.4
5 3.5 to 4.0

130. What is your ethnic origin?

1 Asian
2 Black
3 Hispanic
4 White
5 Other

[Please continue to next page]

131. Have you ever received counseling or psychotherapy (if yes, indicate the approximate number of sessions)?

1	No
2	1 - 3 sessions
3	4 - 7 sessions
4	8 - 11 sessions
5	12 or more sessions

WHEN YOU HAVE FINISHED, PLEASE WAIT FOR THE NEXT PHASE OF THE EXPERIMENT

QUESTIONNAIRE #2

Step 1: Please remove the computer scored answer sheet and turn to the side labeled with "Student Number". As you did earlier, mark the last four digits of your social security number in the last four columns under "Student Number".

Step 2: Now look to the grid labeled "Special Codes". In the first column mark the number that the experimenter announces.

[You need not complete any other information on this side of the answer sheet]

Step 3: Turn your answer sheet over. In a moment you will view a videotape of a simulated counseling session. When the tape is finished you will complete this questionnaire. However, this time you will be giving your perceptions of the person depicted on the videotape.

That is, for each item indicate how well that item describes the person shown on the tape. Again, if you are unsure make your best guess. Do not leave any items blank.

After you view the videotape, turn to the next page in this questionnaire and begin with item 1.

1 = NOT AT ALL 2 = SLIGHTLY 3 = MODERATELY 4 = MOSTLY 5 = VERY MUCH

1. Bashful
2. Lacks Purpose
3. Trusting
4. Modest
5. Kind
6. Contrary
7. Self-disciplined
8. Forceful
9. Conceited
10. Impersonal

(Check Response Number)

11. Bold
12. Pleasant
13. Unassuming
14. Companionable
15. Inhibited
16. Impractical
17. Sympathetic
18. Silent
19. Aloof
20. Persistent

(Check Response Number)

21. Slick
22. Firm
23. Emotional
24. Swell-headed
25. Well-mannered
26. Not Devious
27. Disrespectful
28. Disorganized
29. Cordial
30. Spineless

(Check Response Number)

31. Jolly
32. Crafty
33. Self-confident
34. Determined
35. Ruthless
36. Sullen
37. Calculating
38. Quiet
39. Cheerful
40. Unfeeling

41. Big-headed
42. Undisciplined
43. Enthusiastic
44. Reserved
45. Sincere
46. Productive
47. Cruel
48. Appreciative
49. Submissive
50. Pushy

(Check Response Number)

51. Dependent
52. Uncooperative
53. Bubbly
54. Charitable
55. Unargumentative
56. Neighborly
57. Unsympathetic
58. Self-doubting
59. Approachable
60. Humble

(Check Response Number)

61. Deceitful
62. Forgiving
63. Impolite
64. Detached
65. Hard-hearted
66. Undemanding
67. Embittered
68. Solemn
69. Persevering
70. Hostile

(Check Response Number)

71. Tender
72. Friendly
73. Cocky
74. Iron-hearted
75. Tricky
76. Inconsistent
77. Gentle-hearted
78. Introverted
79. Respectful
80. Loud-mouthed

[Please continue to next page]

1 = NOT AT ALL 2 = SLIGHTLY 3 = MODERATELY 4 = MOSTLY 5 = VERY MUCH

81. Withdrawn
82. Soft-hearted
83. Lazy
84. Dominant
85. Outgoing
86. Self-defeating
87. Uncharitable
88. Meek
89. Irritable
90. Boastful

(Check Response Number)

91. Nonegotistical
92. Inexperienced
93. Cooperative
94. Shy
95. Grateful
96. Distant
97. Good-natured
98. Domineering
99. Passive
100. Rude

(Check Response Number)

101. Irresponsible
102. Sneaky
103. Unpretentious
104. Genial
105. Accommodating
106. Cold-hearted
107. Self-assured
108. Timid
109. Industrious
110. Tender-hearted

(Check Response Numbers)

111. Sly
112. Unfriendly
113. Unproductive
114. Ill-mannered
115. Show-off
116. Persuadable
117. Exploitative
118. Lively
119. Organized
120. Assertive

(Check Response Numbers)

121. Tolerant
122. Unsociable
123. Steady
124. Unsophisticated
125. Talkative
126. Courteous
127. Extroverted
128. Congenial

Please also answer the following questions about the person you just viewed.

To answer items 129 - 134, use the following response options:

1 = Not at All True 2 = Slightly True 3 = Moderately True 4 = Mostly True 5 = Very Much True

129. He is the type of person who is most difficult for me to get along with.

130. I would expect this person to not receive people's approval.

131. If he and I worked together each day, I would always feel very ackward talking to him.

132. There is no similarity between the way he acts and the way I would ever act.

[Please continue to next page]

1 = Not at All True 2 = Slightly True 3 = Moderately True 4 = Mostly True 5 = Very Much True

133. He and I would not "compliment", that is, be a good match, as friends.

134. Even if I would sympathize with his problem, I would never choose to behave the way this person does.

WHEN YOU HAVE FINISHED, PLEASE WAIT FOR THE NEXT PHASE OF THE EXPERIMENT

QUESTIONNAIRE #3

Step 1: Please remove the computer scored answer sheet and turn to the side labeled with "Student Number". As you did earlier, mark the last four digits of your social security number in the last four columns under "Student Number".

Step 2: Now look to the grid labeled "Special Codes". In the first column mark the number that the experimenter announces.

[You need not complete any other information on this side of the answer sheet]

Step 3: Turn your answer sheet over. In a moment you will view a second videotape of a simulated counseling session. When the tape is finished you will complete this questionnaire.

As you did before, respond to each item and indicate how well that item describes the person shown on the second videotape. Do not leave any items blank.

After you view the second videotape, turn to the next page in this questionnaire and begin with item 1.

1 = NOT AT ALL 2 = SLIGHTLY 3 = MODERATELY 4 = MOSTLY 5 = VERY MUCH

1. Bashful
2. Lacks Purpose
3. Trusting
4. Modest
5. Kind
6. Contrary
7. Self-disciplined
8. Forceful
9. Conceited
10. Impersonal

(Check Response Number)

11. Bold
12. Pleasant
13. Unassuming
14. Companionable
15. Inhibited
16. Impractical
17. Sympathetic
18. Silent
19. Aloof
20. Persistent

(Check Response Number)

21. Slick
22. Firm
23. Emotional
24. Swell-headed
25. Well-mannered
26. Not Devious
27. Disrespectful
28. Disorganized
29. Cordial
30. Spineless

(Check Response Number)

31. Jolly
32. Crafty
33. Self-confident
34. Determined
35. Ruthless
36. Sullen
37. Calculating
38. Quiet
39. Cheerful
40. Unfeeling

41. Big-headed
42. Undisciplined
43. Enthusiastic
44. Reserved
45. Sincere
46. Productive
47. Cruel
48. Appreciative
49. Submissive
50. Pushy

(Check Response Number)

51. Dependent
52. Uncooperative
53. Bubbly
54. Charitable
55. Unargumentative
56. Neighborly
57. Unsympathetic
58. Self-doubting
59. Approachable
60. Humble

(Check Response Number)

61. Deceitful
62. Forgiving
63. Impolite
64. Detached
65. Hard-hearted
66. Undemanding
67. Embittered
68. Solemn
69. Persevering
70. Hostile

(Check Response Number)

71. Tender
72. Friendly
73. Cocky
74. Iron-hearted
75. Tricky
76. Inconsistent
77. Gentle-hearted
78. Introverted
79. Respectful
80. Loud-mouthed

[Please continue to next page]

1 = NOT AT ALL 2 = SLIGHTLY 3 = MODERATELY 4 = MOSTLY 5 = VERY MUCH

81. Withdrawn
82. Soft-hearted
83. Lazy
84. Dominant
85. Outgoing
86. Self-defeating
87. Uncharitable
88. Meek
89. Irritable
90. Boastful

(Check Response Number)

91. Nonegotistical
92. Inexperienced
93. Cooperative
94. Shy
95. Grateful
96. Distant
97. Good-natured
98. Domineering
99. Passive
100. Rude

(Check Response Number)

101. Irresponsible
102. Sneaky
103. Unpretentious
104. Genial
105. Accommodating
106. Cold-hearted
107. Self-assured
108. Timid
109. Industrious
110. Tender-hearted

(Check Response Numbers)

111. Sly
112. Unfriendly
113. Unproductive
114. Ill-mannered
115. Show-off
116. Persuadable
117. Exploitative
118. Lively
119. Organized
120. Assertive

(Check Response Numbers)

121. Tolerant
122. Unsociable
123. Steady
124. Unsophisticated
125. Talkative
126. Courteous
127. Extroverted
128. Congenial

Please also answer the following questions about the person you just viewed.

To answer items 129 - 134, use the following response options:

1 = Not at All True 2 = Slightly True 3 = Moderately True 4 = Mostly True 5 = Very Much True

129. He is the type of person who is most difficult for me to get along with.

130. I would expect this person to not receive people's approval.

131. If he and I worked together each day, I would always feel very ackward talking to him.

132. There is no similarity between the way he acts and the way I would ever act.

[Please continue to next page]

1 = Not at All True 2 = Slightly True 3 = Moderately True 4 = Mostly True 5 = Very Much True

133. He and I would not "compliment" each other, i.e., be a good match as friends.

134. Even if I would sympathize with his problem, I would never choose to behave the way this person does.

Now, please answer the following six questions:

135. During this experiment, how well could you see the videotapes?

1 Very well
2 Adequately
3 Had some difficulty
4 Had great difficulty
5 Could not see at all

136. How well could you hear the videotapes?

1 Very well
2 Adequately
3 Had some difficulty
4 Had great difficulty
5 Could not hear at all

137. Please think for a moment about the two videotapes you watched. The two people shown on the tapes may have acted differently than you would. However, if you had to choose, which of the two people acted more like you usually act?

1 The person on the first tape.
2 The person on the second tape.

138. In question 137, you had to choose one of the two people. Given the prospect of having to compare yourself to the unchosen person, how strong is your preference for the one you did choose?

1 Really, no preference - I picked one because I had to
2 Slight preference
3 Moderate preference
4 Somewhat strong preference
5 Very strong preference

139. Again, think of the two videotapes. Imagine that you had to interact frequently with one of these people (for example, at work each day). Which person would choose?

1 The person on the first tape.
2 the person on the second tape.

[Please continue to next page]

140. In question 139, you had to choose one of the two people. Given the prospect of having to interact with the unchosen person, how strong is your preference for the one you did choose?

1 Really, no preference - picked one because I had to
2 Slight preference
3 Moderate preference
4 Somewhat strong preference
5 Very strong preference

WHEN YOU HAVE FINISHED, PLEASE WAIT FOR FURTHER INSTRUCTIONS

APPENDIX E

Summary Tables for 2 X 2 Analyses of Variance

--Circumplex X Stimulus--

Extremeness Dependent Variable
n = 100

Source	SS	d.f	MS	F	p
Circumplex	18489.65	1	18489.65	20.59	.0001
Between Ss Error	88013.73	98	898.10		
Stimulus	8.41	1	8.41	.02	.876
Circumplex X Stimulus	3.13	1	3.13	.01	.924
Within Ss Error	33844.97	98	345.36		

Octant Dependent Variable
n = 100

Source	SS	d.f	MS	F	p
Circumplex	1711.13	1	1711.13	23.01	.0001
Between Ss Error	7287.73	98	74.36		
Stimulus	61.61	1	61.61	1.70	.195
Circumplex X Stimulus	202.01	1	202.21	5.59	.020
Within Ss Error	3542.89	98	36.15		

Identification Dependent Variable
n = 100

Source	SS	d.f	MS	F	p
Circumplex	19.22	1	19.22	2.40	.125
Between Ss Error	785.50	98	8.02		
Stimulus	79.38	1	79.38	13.81	.0003
Circumplex X Stimulus	1.28	1	1.28	.22	.638
Within Ss Error	563.34	98	5.75		

Affiliation Dependent Variable
n = 100

Source	SS	d.f	MS	F	p
Circumplex	10.58	1	10.58	1.13	.291
Between Ss Error	921.20	98	9.40		
Stimulus	30.42	1	30.42	3.93	.050
Circumplex X Stimulus	3.38	1	3.38	.44	.511
within Ss Error	759.20	98	7.74		

APPENDIX F

Summary Tables for 2 X 2 Analyses of Variance

--Quadrant X Stimulus--

Extremeness Dependent Variable
n = 100

Source	SS	d.f	MS	F	p
Quadrant	1238.56	1	1238.56	1.42	.236
Between Ss Error	93999.36	108	870.36		
Stimulus	69.89	1	69.89	.24	.627
Quadrant X Stimulus	1325.45	1	1325.45	4.50	.036
Within Ss Error	31779.65	108	294.26		

Octant Dependent Variable
n = 100

Source	SS	d.f	MS	F	p
Quadrant	96.89	1	96.89	1.42	.235
Between Ss Error	7349.31	108	68.05		
Stimulus	4.65	1	4.65	.10	.753
Quadrant X Stimulus	2.62	1	2.62	.06	.814
Within Ss Error	5060.73	108	46.86		

Identification Dependent Variable
n = 100

Source	SS	d.f	MS	F	p
Quadrant	22.91	1	22.91	2.87	.093
Between Ss Error	862.47	108	7.99		
Stimulus	152.22	1	152.22	30.08	.0001
Quadrant X Stimulus	120.76	1	120.76	23.87	.0001
Within Ss Error	546.51	108	5.06		

Affiliation Dependent Variable
n = 100

Source	SS	d.f	MS	F	p
Quadrant	.55	1	.55	.06	.80
Between Ss Error	916.58	108	8.49		
Stimulus	71.02	1	71.02	9.50	.003
Quadrant X Stimulus	98.22	1	98.22	13.35	.0004
Within Ss Error	806.25	108	7.47		

APPENDIX G

Summary Tables for One-Way Analyses of Variance

--Quadrant--

Identification-Choice Dependent Variable

Source	SS	d.f	MS	F	p
Between Groups	.005	1	.005	.016	.899
Error	31.61	111	.285		

Affiliation-Choice Dependent Variable

Source	SS	d.f	MS	F	p
Between Groups	.132	1	.132	.401	.528
Error	36.51	111	.329		

APPENDIX H

Summary Tables for 2 X 2 Analyses of Variance

--Gender X Stimulus--

Extremeness Dependent Variable
n = 162

Source	SS	d.f	MS	F	p
Sex	3441.78	1	3441.78	3.80	.053
Between Ss Error	145064.17	160	906.65		
Stimulus	69.44	1	69.44	.21	.650
Sex X Stimulus	21.78	1	21.78	.06	.800
Within Ss Error	53865.78	160	336.66		

Octant Dependent Variable
n = 162

Source	SS	d.f	MS	F	p
Sex	256.00	1	256.00	3.16	.078
Between Ss Error	12981.00	160	81.13		
Stimulus	20.75	1	20.75	.47	.492
Sex X Stimulus	23.90	1	23.90	.55	.461
Within Ss Error	7007.34	160	43.79		

Identification Dependent Variable
n = 162

Source	SS	d.f	MS	F	p
Sex	2.08	1	2.08	.26	.614
Between Ss Error	1308.57	160	8.18		
Stimulus	144.00	1	144.00	23.30	.0001
Sex X Stimulus	0.11	1	0.11	.02	.893
Within Ss Error	988.89	160	6.18		

Affiliation Dependent Variable
n = 162

Source	SS	d.f	MS	F	p
Sex	0.60	1	0.60	.07	.795
Between Ss Error	1433.57	160	8.96		
Stimulus	106.78	1	106.78	12.37	.0006
Sex X Stimulus	2.42	1	2.42	.28	.597
Within Ss Error	1380.80	160	8.63		

APPENDIX I

Intercorrelation Matrix of the Independent and Dependent Variables

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A		07	04	13	05	07	16 *	-30 ***	-18 *	-19 **	-25 ***	-02	-12	02	-08
B			12	94	-04	03	-09	-04	06	07	-11	-04	-17 *	09	00
C				07	-07	10	06	-10	-01	-11	-03	08	-02	08	03
D					04	60 ***	04	-40 ***	-15 *	-17 *	-33 ***	11	-01	-08	07
E						00	53 ***	-17 *	-34 ***	-09	-13	-03	05	15 *	-33 ***
F							14	-39 ***	-11	-05	-29 ***	17 *	01	05	09
G								-12	-21 **	-02	-13	-03	-02	15 *	-34 ***
H									46 ***	27 ***	70 ***	-05	21 **	05	-02
I										70 ***	34 ***	07	12	-07	02
J											28 ***	00	-04	-10	-13
K												-02	22 **	05	-07
L													13	11	04
M														37 ***	-02
N															06
O															

A-Quadrant
B-Sex
C-Circumplex
D-HS Affiliation
E-HD Affiliation
F-HS Identification
G-HD Identification
H-HS Extremeness
I-HD Extremeness
J-HD Octant
K-HS Octant
L-Therapy
M-GPA
N-Race
O- Order

* < .05
** < .01
*** < .001

VITA