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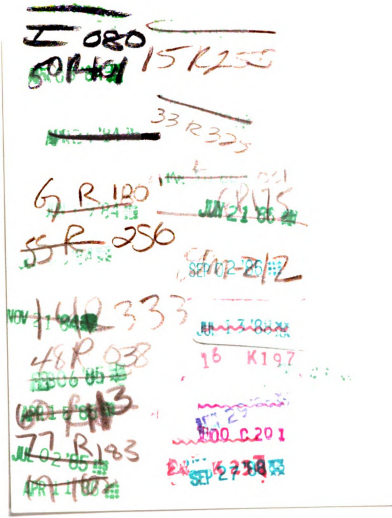

THE DIMENSIONS OF PERSUASION SITUATIONS: IMPLICATIONS FOR COMMUNICATION RESEARCH AND ASSESSMENTS OF TAXONOMY CONSTRUCTING METHODOLIGIES

By

Michael John Cody

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DEDICATION

For my Father

ABSTRACT

THE DIMENSIONS OF PERSUASION SITUATIONS: IMPLICATIONS FOR COMMUNICATION RESEARCH AND ASSESSMENTS OF TAXONOMY CONSTRUCTING METHODOLOGIES

By

Michael John Cody

The focus of the present study was to investigate the perceptions of persuasion situations and the question of trans-situational consistency of behavior. Four empirical approaches to the question of transituational consistency of behavior were identified and critiqued: (a) the predictive utility of trait measures; (b) the "sources of variance" paradigm; (c) the moderator variable approach; and, (d) the behavior observation approach. It was argued that prediction of behavior will be enhanced only under circumstances where prior knowledge of how individuals perceive the behavioral requirements of situations are obtained. Thus, research concerning taxonomies of situations was provided and an exploratory study was conducted in order to identify the major characteristics of the perceptions of persuasion situations. A study was conducted in order to provide a taxonomy of situations.

Several methodological questions concerning procedures used in deriving tzxonomies were identified: (1) questions pertaining tc similarities between factor analysis and multidimensional scaling; (2) similarities among various multidimensional scaling techniques; and (3) similarities between cluster analysis and multidimensional scaling. In order to provide assessments of the generality of dimensions, comparisons were made between factor analysis and multidimensional scaling solutions and

between multidimensional scaling solutions and cluster analysis solutions.

Another set of methodological questions was addressed: differences in scale usage and the replication of factors. Pretest data was used in order to construct a population of situations from which random samples of situations were drawn. Three sets of situations were randomly sampled and three sets of respondents were provided with a paired-comparison questionnaire with an interval scale for rating dissimilarity. A fourth group of respondents received one of the sets of situations with a ratio scale. Thus, a comparison of the rating scale was made. All respondents rating situations in their respective sample on 23 attributes.

The factor analysis solution provided six factors: formal vs. informal, superficial vs. intimate, influencibility, I benefit vs. I do not benefit, easy to persuade vs. difficult, and rights vs. favors. The multidimensional scaling solutions for each set of data indicated that four dimensional solutions were sufficient to account for major portions of the respective variances. The KYST and GALILEO solutions were similar, but the INDSCAL solutions failed to correspond to the other configurations. Several assumptions of the INDSCAL model were not supported.

Three dimensions were replicated across the KYST solutions: intense feelings, superficial vs. intimate and easy to persuade vs. difficult. Other dimensions obtained in the multidimensional scaling analyses included: subordinate vs. social affiliation, importance of goal, benefits, and familiarity. Only minor differences were obtained in the

interpretation of the solutions for the interval and ratio scaled data. The cluster analysis solutions were found to be compatible with the KYST interpretations. A number of divergent points of view in the perceptions of situations were obtained that could not be attributed to a sex difference.

A discussion of the outcomes of jointly employing factor analytic and multidimensional scaling techniques was provided. A discussion of the limitations of employing the INDSCAL model was also provided. Several avenues for future research were discussed.

Accepted by the faculty of the Department of Communication, College of Communication Arts, Michigan State University, in partial fulfillment of the requirements for the Doctor of Philosophy degree.

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CHAPTER I

INTRODUCTION

Persuasion is pervasive in our social environments. In everyday experience, individuals attempt to persuade others who to vote for, which contraceptive is best, to stop smoking, to improve grades, which computer analysis is appropriate, to purchase every item known to man, *ad infinitum*.

Theories of attitude changes have been developed based on notions of balance (Osgood and Tannebaum, 1955; Festinger, 1957), innoculation (McGuire, 1964), attitudinal anchors (Sheriff and Hovland, 1961), and many others. There exists a plethora of research on the nature of attitude change and the effectiveness of various manipulations on obtained attitude change (i.e., credibility, physical attraction, latitude of rejection, etc.) which attests to a thriving, active field of scientific enquiry.

However, a problem stems from the context within which nearly all communication research on persuasion phenomena is conducted. Most studies have assessed attitude change in the one-to-many context, often a message attributed to an anonymous source, sources varied in perceived credibility or physical attractiveness, or some variant of such a procedure. The problem is simply that persuasion phenomena *are* pervasive in our daily lives and past research lends no knowledge or insight whatsoever into the nature of daily, dyadic persuasion situations, how individuals perceive such situations and how they *construct* persuasion strategies and formulate messages based on perceptions of such situations.

In essence, the general problem is concerned with how appropriate or inappropriate it is to generalize the research results from the one-to-many context to the personal, dyadic persuasion situations. Without a doubt, hypotheses stemming from general theories of attitude change are applicable to the individual's everyday experience. However, in order to understand and predict behavior, it is essential to investigate the main features of how daily situations are perceived in order to assess the strategies daily employed, and their success and failure.

The approach taken in this paper should not be considered radical in and of itself. As Miller (1976) noted in the foreward of a recent book on communication research:

> . . .the 'times' reinforced the shift in emphasis from public platform to private doalogue: encounter groups and sensitivity sessions stressed communication purposes other than persuading and informing large heterogeneous audiences, and students themselves began to demand answers about how to relate communication with their acquaintances, close friends and romantic partners. (pp. 9, 10)

The emphasis placed in this paper on assessing the perceptions of common, relevant persuasion situations is representative of a current trend towards assessment of individuals interacting on a more private level.

An analysis of how individuals categorize persuasion situations is of value because it provides an understanding of individuals' daily persuasion existence and suggests limits on the generalizability of research results. However, the more theoretically important reason for assessing the perceptions of situations is concerned with the question of how such perceptions influence behavior. Of late, a considerable amount of interest has focused on the question of "consistency" of behavior across situations. While procedures for enhancing the predictive utility of trait measures may be devised, I argue that the search for consistency

in behavior across situations is a misguided quest.

It is unfortunate that Mischel's (1968) claim that a trait measure cannot predict behavior better than .33 is often interpreted as meaning that trait information is relatively unimportant and that "situations," in some way, are determininats of behavior. Trait information is of value in many instances (i.e., reliably differentiating individuals on a global orientation, assigning of individuals to treatments, testing of hypotheses in experiments [controlled situations], etc.). Further, "situations" are not determinants of behavior; how people assign meanings to situations may have such an influence. Given that people assign differential meanings to situations, it is not "consistency" or "inconsistency" across situations communication scholars ought to investigate: people are at least adaptable in their environments and how they adapt to their perceptions of situations ought to be our central concern. The individual judged to be "inconsistent" does not behave irrationally; he behaves in accordance with different perceptions of the situation and different perceptions of the behavioral requirements of the situation.

I submit that predictions of behvaior in naturalistic settings cannot be accomplished without a thorough examination of the individual's (a) behavior repertoire (ability to utilize any response pattern from a set of diverse response patterns); (b) the individual's perception of the situation and ability to discriminate among types of situations; (c) the ability of the individual to select, on the basis of such perceptions and discrimination abilities, a response pattern appropriate to the successful completion of a goal; and (d) the degree to which the individual values the expected outcomes. Finally, an individual's behavior at any point in time may be influenced by a self-regulatory strategy. For

instance, a domineering individual will be submissive in many instances in order to obtain a delayed goal or dominance at some future time.

These five person variables have been offered by Mischel (1973) as a challenge to construct a new conceptualization of personality. I will show that this challenge should be given serious consideration.

1.0 Statement of Purpose

Why is it important to assess the dimensional structure of the perceptions of persuasion situations? I will discuss three reasons: (1) the heuristic value of such knowledge; (2) pragmatic research utility for delimiting generalizability of research results and implications for assessing, and generating a taxonomy of strategies individuals use; and (3) implications concerning the degree to which "situations" influence behavior.

The first two reasons are discussed in Section 1.1. However, discussing the implications concerning the degree to which "situations" influence behavior requires considerable development. In Section 1.2, literature pertaining to the issue of trans-situational consistency of behavior will be reviewed, including research utilizing the "sources of variance" paradigm (see Endler and Magnusson, 1976a), in Section 1.2.2. The most severe problems in this research are interpreting interaction effects, problems in sampling situations and inflated interaction terms. Two alternative procedures for enhancing the prediction of behavior are also critiqued: the moderator variable approach and the behavioral observation approach (Section 1.2.3.1 and 1.2.3.2). These approaches are shown to have very limited utility in improving predictions of modes of responses.

Mischel's social learning theory reconceptualization of personality is presented (Section 1.2.3.3.) in order to highlight the various idiosyncratic reasons for why trait measures do not appear to predict behavior, even in situations which ought to enhance the emergence of individual differences in responses. As noted in the summary of these various reviews (Section 1.3), one of these idiosyncratic reasons will serve as the focus of the present inquiry: the individual's perception of the behavioral requirements of the situations.

The research investigating the perceptions of situations is reviewed in Section 1.4. Since this literature is found to be quite impoverished, an exploratory study is presented in Section 1.6 From this exploratory study, some of the major parameters of the perceptions of perceptions of persuasion situations will be identified. Sampling problems identified in the exploratory study prohibit generalizing to any larger category of situations. Section 1.7 details the appropriate procedures for correctly arguing for generalizable dimensions.

Chapter 2 of this paper provides a discussion of how the above procedures were implemented in the present study. Chapter 3 provides the results of various taxonomy constructing methodologies: factor analysis, multidimensional scaling analysis (GALILEO, KYST, and INDSCAL) and cluster analysis (Johnson's [1967] hierarchical clustering). Chapter 4 summarizes the results and discusses various avenues for future research.

1.1 Heuristic Value and Pragmatic Research Utility

Briefly, there exists an heuristic value in knowing the dimensions of perceived similarity of persuasion situations. The dimensional arrays of objects found in previous multidimensional scaling research have been found to correlate with independent judgments of communication behaviors (Jones and Young, 1972) and with the emotional intensity expressed in facial expressions and implicit in trait adjectives (see Section 4). That is, construct validity of multidimensional scaling solutions has been frequently supported, and the obtained dimensions of situations would relate to the cognitions and the behavioral expectations the respondents perceive in the situations. This information is of value in and of itself because it provides knowledge of the respondent's daily persuasion exsitence.

Further, it will be argued later that the domain of situations comprising the domain of persuasion situations is a very large subcategory of the domain of "social behavior" situations (see Section 2). To the extent that this is true, there ought to be strong commonalities between the dimensional structures of situations sampled from either of the two general domains. Thus, an analysis of the dimensions of persuasion situations not only informs us of the respondents' daily persuasion existence, but also suggests how one might attempt to assess the larger domain of social behavioral situations. Attempts at assessing such situations are long overdue. for they provide answers to two legitimate questions concerning generalizabilty: (1) to what additional situations can these research results be generalized?, and (2) in what other situations do other processes take precedence?

For instance, in assessing the stochastic process of relational

communication in marital dyads, Parks, Farace, Rogers, Albrecht, and Abbott (1976) conclude that their findings:

> . . .imply that most couples maintain relational definition in on-going interaction by means of control-neutralization and submission or acceptance. While these are definitely control strategies, they are not reflective of the blatant game of 'one-upmanship' often attributed to marital interaction. Prolonged struggles between the participants over such issues as who is to control interaction on a moment to moment basis were apparently infrequent.. . . .It had been hypothesized that relational communication patterns would vary as a function of how satisfied the participants were with their communication, length of marriage and the level of role discrepancy in the relationship. In no case did the difference in structure between groups constructed according to the values of these variables reach statistical significance. As emphasized above, a remarkable similarity in structure and pattern of relational communication was observed across all groups. (p. 17)

Parks et al., analyzed relational communication patterns for the following four discussion topics:

1) how the couple met and decided to marry,

2) preparation of and sharing of a home,

3) career versus family interests (for the wife), and

4) plans for protection during a tornado.

All discussion topics not only deal with family topics but cooperative tasks in a family setting (situation 3, however, may deal more with mutual compromise). It is to this class of situations that research results can be generalized. It is of no surprise that one-upmanship should be so infrequent in this set of situations. Nor would it be surprising to find that the hypothesized relationships dealing with length of marriage, etc., were to be supported if the situations sampled were family, uncooperative (or even non-cooperative) tasks.

In relation to research within the domain of persuasion situations, an assessment of the structure of situations will not only help address

the questions of generalizability but can also help facilitate research on two general questions concerned with persuasion strategies: (1) when will a particular strategy be employed? and (2) what are the strategies which individuals use in their daily persuasion experiences?

In terms of generalizability, Kaminski, McDermitt, and Boster (1977) did the only study on compliance-gaining strategies that included an analysis of the sampled situations. Kaminski et al., conducted a pretest on 40 persuasion situations and selected three situations entailing non-interpersonal relationships and three situations entailing interpersonal relationships. Respondents completed the Machiavellianism measure (Christie and Geis, 1970b) and indicated likelihood of use and preference of use for 16 compliance-gaining strategies offered by Marwell and Schmitt (1967).

Kaminski et al., supported a model of strategy selection proposed by Boster (1977): the sixteen compliance-gaining strategies can be ordered on a continuum from "negative" to "positive" strategies. Further, "negative" strategies were found to be used less often than more "positive" strategies. Finally, the authors contend that Machiavellianism and type of situation were not useful predictions of strategy selection. Indeed, the authors conclude by questioning the utility of the Machiavellianism measure in differentiating individuals on the basis of strategy use and preference.

Note that one is equally justified in concluding that the type of situation sampled had little utility in differentiating high and low Machiavellians on strategy use and preference. Nonetheless, the specific conclusion of the Kaminski et al., study is as follows: no difference exists in strategy use and preference of use between high and low

Machiavellians for "interpersonal relationship" and "non-interpersonal relationship" situations. To what population of situations, persons, and modes of responses can this conclusion be generalized? While it is likely that "interpersonal relationships vs. non-interpersonal relationships" is a very important attribute, "situations" also vary in many other ways: face-to-face, unstructured, who benefits from the persuasion, etc. Unless a complete analysis of these types of situations is conducted, this question of generalizability to situations will remain open.

To what modes of response can the result be generalized? High Machiavellians are "manipulative"; they lie better than low Machs (Exline, Thibaut, Hickey, and Gumpert, 1970); devise innovative manipulations (Geis, Christie, and Nelson, 1970); and do better than low Machs in competitive bargaining (Geis, Weinheimer, and Berger, 1970). Do the sixteen compliance-gaining strategies offered by Marwell and Schmitt (1967) include "manipulative" response modes? This question immediately implies the more general question: are the compliance-gaining strategies proposed by Marwell and Schmitt an exhaustive list of strategies (let alone relevant to a class of individuals and situations)? By putatively sampling situations, or pre-calibrating situations along a single attribure (or a few attributes), one is not assured that the more pronounced, salient features which (from the respondent's perspective) differentiate sets of situations from each other will be uncovered. Once a complete analysis of situations is conducted, then one can return to the question of relevant modes of response in an analysis which requires individuals to report their strategies along precalibrated situations. Aside from the strategies suggested by Marwell and Schmitt (1967), people

pout, cry, control the persuadee's information environment, employ "foot-in-the door" tactics, etc. Constructing such a taxonomy of relevant strategies is of prime importance for communication.

This is not to say that the strategies offered by Marwell and Schmitt have no utility. Wood, Weinstein, and Parker (1967) have found that the use of threat ("negative sanctions") is rare among children (kindergarten through third grade) when dealing with mothers, teachers, and peers. However, Wood et al., as well as Kaminski et al., analyzed the first attempt persuasion strategy. Still employing the strategies, it would be of interest to construct models for how certain strategies come into preferred usage based on various person and situational influences. For example, when will threat be used? Tentatively, I hypothesize that usage of threat is a function of (a) one's level of latent hostility; (b) the extent to which one has initially used more positive strategies and failed; (c) the extent to which one perceives one's rights have been infringed upon; (d) the extent to which one perceives the goal to be achieved as important; and (e) the extent to which one has "means control"--ability to exercise some threat. Other hypotheses can be constructed.

In sum, there are several distinct reasons for assessing the dimensional structure of the perceptions of persuasion situations: (1) there is an heuristic value in knowing the dimensions of the respondent's daily persuasion existence; (2) the analysis suggests how other domains may be similarly assessed, and some of the attributes which may characterize other domains of situations; (3) the analysis clarifies problems of generalizability (to situations); and (4) it facilitates construction of a taxonomy of relevant strategies.

Aside from these issues, the more theoretically interesting reason for the assessment of situations deals with the question of cross-situational consistency of behavior. This question has recently been the focus of considerable attention by psychologists (Mischel, 1968) and more recently in communication (Hewes, Haight, and Szalay, 1976). A number of different perspectives have focused on this question and I shall review these perspectives in Section 1.2.

1.2 Trans-situational consistency across what types of situations, for what types of modes or responses, for what types of persons?

1.2.1 Overview

Hewes, Haight, and Szalay (1976) have recently questioned the predictive utility of several personality constructs. Specifically, they assessed the ability of measures of reticence, predisposition toward verbal behavior, anxiety, self-concept, and extraversion to predict each of six communicative behaviors:

1) duration of conversation within a small group,

2) length of an extemporaneous speech,

3) number of persons contacted in unstructured class time,

4) choices of written versus oral presentation of an assignment,

5) duration of response to a free association task, and

6) latency of response in a free association task.

The authors found little predictive utility for four of the five measures and the fifth measure (predisposition toward verbal behavior) had a slight predictive ability on measures of duration only.

The authors were careful to note, however, that the results of their study ought not to imply a rejection of personality variables in

predicting communication behaviors. Instead, Hewes et al., present a number of alternative implications concerning future theorizing and methodology.

The Hewes et al., paper will undoubtedly catapult the general questions of cross-situational consistency of behavior from the discipline of psychology into the communication field. This paper reviews this current debate in order to obtain information relevant to future communication theory and research.

It should be noted at the onset of this paper that the question of cross-situational consistency of behavior (or the predictive utility of trait measures) is not a new issue. According to Bem and Allen (1974), the "controversy" existed in the 1930's (Hartshorne and May, 1928), when Allport (1937) and Stagner (1937) defended modified trait conceptions of personality against a number of studies questioning the consistency of behaviors across situations. The debate lasted for nearly a decade before receding into the background just prior to World War II.

Mischel (1968) has revived the debate by arguing that the commonly observed +.33 ceiling on cross-situational correlations probably reflects true behavioral variability rather than imperfect methodology. The debate is an active one, and the implications of the debate and the research generated by the debate to the field of communication are plentiful. Since "situations" form the background of all behavior, this debate should not be taken too lightly by communication theorists (c.f., Hewes et al.).

The goal of this section of the paper is to provide clarification concerning the various arguments provided by advocates of the trait, interactionist and situationist positions. Since providing this

clarification is no easy task, the goal of this overview is to provide a structure for the organization of the clarifications.

In Section 1.2.2, the research utilizing the "sources of variance" paradigm which provide the persons X situations interactions will be criticized on the grounds that: (a) they provide no substantive interpretation of the interaction effects; (b) interactions may be spuriously inflated; (c) interactions have not been demonstrated to have predictive utility; (d) insufficient attention has been paid to the problems of sampling situations; and (e) failure to specify why the particular mode of response or behavior is worthy of study. An application of generalizability theory (Cronbach, Gleser, Nanda, and Rajaratnam, 1972) would effectively avoid the problems encountered in (b) but does not address other problems. As Golding (1976) noted, only under the circumstances when indices of both persons and situations have been obtained can the interaction effects be interpreted in any substantive fashion. Another type of analysis (reaction mode analysis) provides an assessment of situations (factors of situations), and these studies will be reviewed in Section 1.4.

Aside from studies conducted in the "sources of variance" paradigm, several alternative procedures have been offered for assessing, and enhancing, predictions of behavioral performance. First, the "moderator variable" approach has been offered as a means to differentiate individuals on some criteria and to obtain differential predictions for the several subgroups. Unfortunately, while the differentiation of individuals on a criterion variable is done a priori, research utilizing the moderator variable approach will likely lead to variable success until such time as the selection of situations which yield the differential

predictions can also be done a priori. That is, the approach will be of value only if it ultimately specifies why the "high-variable" individual is very "friendly" in some situations and less "friendly" in others; and similarly for the "low-variable" individual.

The "behavior observation" approach also suffers from the same limitation: prediction of behavior from one observation to another will be of little value until an analysis of how the individuals perceive the behavioral requirements of situations, and act accordingly, is conducted. That is, the success of the behavior observation method rests solely on the respondent's implicit notion of functional equivalence of situations. Both the "moderator variable" approach and the "behavior observation" approach will be discussed in Section 1.2.3.1.

1.2.2. The "Sources of Variance" Paradigm

Recent emphasis has been given to the question of an individual's behavioral consistency across situations (Mischel, 1968, 1973; Alker, 1973; Bem, 1972; Bem and Allen, 1974; Hewes, Haight, and Szalay, 1976). There are three positions which must be considered when discussing this question: (1) the traditional trait psychology position; (2) the situationist position (see Bowers, 1973), and the interactionist position (Argyle and Little, 1972; Endler, 1973; Ekehammar, 1974).

As noted by Endler and Magnusson (1976b), the trait model assumes that there are various continuous dimensions with individual differences on each of these dimensions. The trait theorists emphasize traits as the prime determinants of behavior, where the factors determining behavior are withjn the person himself (i.e., $B = f(P)$). From the perspective of the trait model, the major interest lies in the relation between responses in different situations and between responses and the latent

dispositions for which the responses are supposed to be indicators. For the trait model, traits are the main sources of behavioral differences and the rank order of individuals with respect to a certain behavior is assumed to be consistent across different situations.

Situationism is usually considered to be the antithesis of the trait model. The general situationist model regards factors (or components of the situation) as the main determinant of individual behavior. This model is essentially a stimulus-response (S-R) model, and its advocates are typically sociologists (Goffman, 1975) who argue that individuals assume a role on the basis of implicit knowledge of its assignment--based on their perceptions of the situation. In general, assessment of the situationist model is done by manipulating or selecting situations that vary in some aspect and assessing the main effects on some dependent variable. Recently, however, Bowers (1973) noted that the interaction effects obtained by advocates of the interactionist position are "grist for the situationist mill" (p. 151). Apparently, some individuals would tend to be content with interactions between persons and situations, as opposed to holding a hard-line situationist perspective that situations are the main source of variance.

According to the interactionist model,

> . . .actual behavior is the result of an indispensable, continuous interaction between the person and the situations he encounters (i.e., B = f(P,S)). This implies that the individual's behavior is influenced by significant features of the situations, but furthermore the individual chooses the situations in which he performs and selects significant situational aspects in these situations. He subsequently affects the character of these situations. (Endler and Magnusson, 1976b, p. 3)

Of late, the interactionist position has received overwhelming support, but this support should be viewed skeptically. Based on research using

the "sources of variance" paradigm introduced by Endler (Endler, 1973; Endler and Hunt, 1966, 1968, 1969), a number of studies have found that a substantial amount of variance is accounted for by the interaction of persons and situations, more than by either persons or situations independently.

Unfortunately, the interpretation and implications of the obtained interaction effects are not clear. Golding (1975) noted that:

> . . .one must bear in mind that the currently available data are far too fragmentary, method specific, or confounded to allow for strong theoretical inferences. Most studies rely on self-report behavior in imagined situations (e.g., Endler and Hunt, 1966) or, more rarely, on behavioral observation of questionable generality or importance (e.g., frequency of head nods, leg movement, scratching, or smoking in Moos, 1969). This data base hardly qualifies as representative of the behavioral domain in which we would like to fashion our theories of human behavior. (P. 283)

Golding further notes that:

> Progress in the development of theories concerning the joint influence of individual differences and situations has been hampered by a lack of attention to methodological and logical rigor. Much of the debate has been waged without adequate specification of what is meant either by individual differences or by situations. For example, it is clear that all conceivable individual differences are not of equal importance in the theoretical construction of concepts of personality (Goldberg, 1971). Additionally, with few exceptions (Argyle and Little, 1972; Goldberg, 1972a) little attention has been given to various models of individual difference-situation interactions that could be subjected to competitive hypothesis testing. Moreover, as long as situations are arbitrarily defined without an attempt to assess their psychological differences and similarities (Magnusson, 1971; Moos, 1973), little progress in the development of comprehensive, noncircular theories about human behavior is possible. As Bowers (1973) has pointed out, it is currently common practice to reason, quite circularly, that if individuals behave differently, then the situations were "different," and if they behave similarly, then the situations were "not different." One can logically draw conclusions about the singular and joint influence of individual differences and situations only to the extent

> that each is explicitly and noncircularly defined and independently measurable by techniques that approach currently acceptable levels and definitions of reliability and validity. (p. 286)

Finally, Mischel (1973), Bowers (1973), and Golding (1975) have noted the extremely problematic questions dealing with the sampling of individuals and with the sampling of situations. For one, without knowledge of how persons or situations are sampled, it becomes impossible to generalize the results of any particular study to any domain of individuals or domain of situations. As noted above, without such knowledge, interpretation of such interaction effects are hazardous, study specific, and are not generalizable. Further, without such knowledge, it becomes impossible to place any value on the obtained interaction because the experimenter may have (unknowingly) sampled an extremely heterogeneous set of individuals and/or homeogeneous set of situations. If this is the case, then the results ought to support the trait position. Further, the experimenter may have (unknowingly) sampled an extremely homogeneous set of individuals and a heterogeneous set of situations, in which case some support for the situationist position would be obtained.

In essence, studies in the "sources of variance" paradigm can be designed to demonstrate almost any outcome. The problem of sampling "putatively different experimental situations" becomes a gravely disturbing problem when one notes that any situation may be perceived very differently by the respondents, contrasted to the perspective of the experimenter who sampled the situations. Thus, it is of critical importance to assess the respondents' perceptions of the situations.

A brief review of several of the studies conducted in the "sources of variance" paradigm would quickly inform the reader of the essential reasons for Golding's criticisms. Moos (1969--replicating Moos' 1968

study) had sixteen psychiatric patients describe their reactions to six psychiatric ward settings. Their behavior was also observed twice in each of six settings that were representative of regular ward activities. Patients were selected as respondents on the basis that:

> (a) their conversation had to be easily understandable,
> (b) they had to be able to cooperate in wearing a wireless radio transmitter and also be willing to answer a questionnaire about their reactions in each setting,
> (c) they had to be on the ward long enough for systematic behavioral change to occur.
> (p. 406)

Items selected for use in the questionnaire were taken partially from Nowlis' (1965) Mood Adjective Check List (anxiety, depression, vigor, and pleasantness); from Moos (1968--perceived self worth and perceived therapeutic benefits); and from Barker and Cump (1964--affiliation, participation, leadership). Each of the above nine scales was labeled a "dimension."

Two observers rated behaviors across the settings: hand and arm movement, foot and leg movement, scratch, pick, rub, general movement, nodding yes, smiling, talking, and smoking. Inter-rater reliability ranged from .77 to .99.

Results indicated that for each item on the questionnaire and for most behaviors observed, the Person X Setting interaction accounted for a larger portion of the variance than the amount of variance accounted for by either persons or situations. Smoking was found to be due to persons (some people consistently smoked more than others), and most of the variance of talking and nodding "yes" was due to setting.

Trickett and Moos (1970) selected twelve upper middle class high school students who were ". . .less representative of high school sophomores in general than those with well above average intelligence coming

from upper middle class families" (p. 400). For "situations" Trickett and Moos selected the four classes the twelve students had in common: mathematics, English, biology, and government. The individuals rated each class on thirteen feeling and mood adjective pairs. Five factors emerged from a factor analysis of the ratings. The results of the analysis of variance indicated that for each of the five factors, labeled "paying attention," "participation,' "anxious uncertainty," "satisfaction," and "seating," the Person X Setting interaction accounted for a larger portion of the variance than the amount of variance accounted for by either persons or situations.

Note, however, that it is impossible to generalize these results to any set of individuals and across only a very small number of situations. Further, note how Trickett and Moos described individual differences:

> Subject #7 obtained a higher mean satisfaction score than Subject #10 in all four classes. Also, Subject #7 differentiated very little between classes whereas Subject #10 viewed Government as far more satisfying than his other three classes. (p. 403)

There are two observations to be made in relation to the Moos (1968, 1969) and Trickett and Moos (1970) studies. First, without knowledge of the perceptions of situations and without knowledge of individual differences, uncovering the nature of the process becomes circular descriptions: respondents who report high satisfaction across all four classes do not "differentiate" between the classes. Further, no explanation is given for why subject #10 is more satisfied in government.

Second, for a Person X Situation interaction to be informative and of value, the exact nature of the interaction must be articulated, and specific interaction effects are often very elusive (see Goldberg, 1972b).

The Trickett and Moos study ought to be contrasted to the types of approaches parsimoniously utilized by advocates of the trait position; namely, tests of the hypotheses such as "individuals who are high in need to achieve will express more satisfaction across courses than individuals low in need to achieve" (thus arguing that levels of satisfaction rest primarily in the person), or a test of the hypothesis, "individuals high in authoritarianism will express more satisfaction in courses where instructors are authoritarian" (thus arguing that levels of satisfaction rest partly in the person and partly in some element of the situations). Further, what is it about the situations which influence satisfaction? Instructional format, instructor credibility, quizzes, lectures, difficulty, etc.? Trickett and Moos leave all of the important questions unanswered.

The main body of Person X Situation interaction studies have been conducted by Endler and his colleagues (Endler and Hunt, 1966, 1968, 1969; Endler, 1973). In these studies, the respondents are presented with a variety of potentially anxiety-arousing situations or hostility-arousing situations, and are required to indicate the perceived likelihood of their response in certain ways during each situation.

Endler and Hunt (1969) will be used as an illustrative study. Endler and Hunt provided six forms of the S-R Inventory of Anxiousness (in which from eleven to eighteen situations were provided with ten modes of responses indicative of anxiousness) for the respondents' use in rating their behavior in each situation. The results strongly supported the interaction effects. Further, Endler and Hunt noted that the variance due to situations was larger for females (7.78 percent) than for males (3.95 percent), which is not a very large difference. Differences due to age were also noted, but were also small.

A number of other studies utilizing the "sources of variance" paradigm attest to the attractiveness of the paradigm. Such studies include work in anxiety, leisure time behavior (Bishop and Witt, 1970), preference for drinking various beverages (Sandell, 1968), and moral behavior (Nelson, Grinder, and Mutterer, 1969). In all of these studies, no interpretation of the interaction effects was provided.

In all fairness to the trait position, it should be noted that the classic psychometric and/or trait theorists position does not ignore situational influences on behavior. Goldberg (1972a) notes that:

> . . .the classic psychometric position has been that situations "constrain" individual difference--that they profoundly affect both the mean and the variance of these differences, though the rank order of individuals on the "trait" should remain relatively invariant across those situations which permit sizable trait variations to occur. (p. 550)

The interactionists contend that the rank order of persons is not invariant. A considerable amount of attention has been given, on the part of the interactionists, to the fact that the interactions account for so much of the behavioral variance that they (interactions) are somehow "better" than a main effect for persons (trait measures). It seems legitimate, then, to ask a very simple question: does utilization of interactions enhance the prediction of behavior across situations?

Goldberg (1972b), in a thorough study of interaction hypotheses in college instruction (utilizing criteria such as course satisfaction, course achievement, and non-grading [extra-curricular] readings) tested the predictive utility of the best general predictor of each criterion (separately for males and females) and the most significant interaction effects (separately for males and females). Goldberg found that in no case (male-female for each criterion) did the significant interaction

effects result in predictions that were any more valid than simply using a single general predictor. About twice as much of the criterion variance was predictable by the "best" of the general predictors than by the "best" of the differential predictors. Golding concluded that:

> These poignant findings, when coupled with those concerning the fate of attempts to construct new empirica; interaction scales, suggest that the significant interactions discovered in this project--even if replicated at the very same strength in future studies--are unlikely to lead to differential predictions whivh are more valid than those achievable by general predictors alone. (p. 200)

Admittedly, I have over-exxagerated the claims of the interactionists; they do not explicitly argue that interaction effects can better predict behavior--only that persons (traits) and situations do not. I have included the comments of Goldberg only to point out that interaction effects, or differential predictors, have not been shown to have predictive utility. Mischel (1973) similarly criticized the interactionist research on this count: the interaction studies conducted by Endler and Hunt and by Moos have left the ultimate question of prediction unanswered.

Finally, Cartwright (1975) questioned how an inventory (the S-R inventory in particular--Endler, Hunt, and Rosenstein, 1962) can have reliability coefficients of .97 and .95 and yet account for only 5 percent of the variance due to persons. He argued that the inventory as an "inventory" be differentiated for the inventory as an "experiment"; and that as an "experiment" there exist a number of undesirable features, not the least of which is the question that modes of response do not form a single factor but two: anxiousness of anxiety and anxiousness of pleasurable anticipation. Both factors are utilized as a single "condition" in the analysis of variance, and Cartwright correctly argued that:

> . . .this factor should not be allowed to contribute

> variance to the total against which percentages of variance from other sources are evaluated. It is doubtful whether it should be entered as a factor at all. (p. 410)

A similar argument applied to "situations."

Cartwright's results confirmed his expectations that the inclusion of modes of response (and situations) as single conceptual categories is improper:

> We are now in a position to explain why the variance due to traits (individual differences) is so small when the original S-R Inventory is analyzed as an experiment (5%), whereas it is so large when the inventory is analyzed as a test (95%). The answer seems to be that as an experimental design, the inventory allows large quantities of variance from unjustified sources to enter into the total variance against which the individual differences component is evaluated. By summing across modes of response, the proportion of variance due to individual differences becomes relatively larger (33% to 59%), since variation due to the modes factor is eliminated from the total. By summing across situations (as in computing a total test score on the inventory) variation due to situation is also eliminated from the total. As a test, the Inventory's results do not appear to "doom omnibus inventories" at all. (p. 414).

The results of Cartwright's study are applicable to all of the "sources of variance" studies, though it is not certain to what degree these effects operate in other sets of data.

A distinction must be made between the set of studies which have employed the "sources of variance" paradigm and the set of studies that utilized a reaction mode analysis (see Section 1.4). The criticisms leveled at the "sources of variance" paradigm do not necessarily apply to the reaction mode abalysis studies. Concerning the former, I should state my argument succintly: the analysis using the "sources of variance" paradigm which provides the Persons X Situations interactions has little value. The primary reason for concluding this is the fact that no

substantive interpretation of the interaction is or can be provided. Other considerations taken into account in making this statement include: (a) the fact that interpretations may be spuriously inflated (Golding, 1975, p. 285); (b) interactions have not been demonstrated to have predictive utility; (c) insufficient attention given to the problems of sampling situations; and (d) failure to specify why the behavior or mode of response is worthy of study (Moos, 1968, 1969). Finally, Cartwright's observation must also be dealt with.

The reacion mode analysis entails factoring the response ratings over persons in order to provide an assessment of the factors of situations. Sometimes, when multiple response categories are employed, factors of situations and factors of responses can be obtained. When coupled with analysis that enables homogeneous subclusters of individuals to be identified (on the basis of similarities of responses), substantive interpretaion of interactions can be made.

For example, Ekehammar, Magnusson, and Ricklander (1974) obtained three factors of situations, "threat of punishment," "anticipation fear," and "inanimate fear," and two interpretable factors of anxiety responses, "psychic anxiety" and "somatic anxiety." (For additional details of this study, see Section 2.) These factor analyses were done by (a) factoring ratings of anxiety responses for seventeen situations for eighteen modes of responses and by (b) factoring eighteen modes of responses for the seventeen situations.

Magnusson and Ekehammer (1975) reported analyses of the individuals who served as respondents in the Ekehammar et al., study. In order to isolate homogeneous subgroups of individuals, a method of latent profile analysis was employed. The results of the latent profile analysis

indicated that there were three homogeneous subclusters for both males and females. Females were found to be more anxious, for both types of anxiety and across all three types of situations. Females elicited substantially higher levels of psychic anxiety than males, particularly in "threat of punishment" situations and "inanimate fear" situations, while males reported far less anxiety in "inanimate fear" situations than in "threat of punishment" situations.

While the profiles of anxiety responses for males and females were non-parallel (there were strong interactions), Magnusson and Ekehammar found that 57 percent of the females were trans-situationally consistent in their reported responses, and an additional 17 percent were comparatively high in consistency across situation type. For males, 53 percent were judged as being trans-situationally consistent, and an additional 36 percent were judged as comparatively high in consistency. Unfortunately, no independent assessment of persons (trait measures) were utilized and these conclusions are post hoc.

I have discussed these two studies at this point in time only to point out that an analysis different than the "sources of variance" analysis, but done with the same type of input data, can yield valuable information: many of the individuals (both male and female) were fairly consistent in their responses--but the ordering of mean anxiety responses was different between males and females. Further, the pattern of anxiety responses for "inconsistent" individuals (of both sexes) indicated that the individuals elicited much higher levels of both types of anxiety for "threat of punishment" situations, somewhat higher anxiety responses for "inanimate fear" situations, and as low (or lower than) "anticipation fear" situations than the individuals who were judged as consistent.

In order to analyze the impact of situations, it is a basic concern to obtain an analysis of the situations themselves. This is true even when the analysis employs the generalizability theory offered by Cronbach, Gleser, Nanda, and Rajaratnam (1972). Utilization of the generalizability coefficients helps to avoid spuriously inflated interaction terms. However, Golding nonetheless recommended forming indices of situations (or providing some assessment of how situations vary) in order to provide the basic information for interpreting interaction effects.

1.2.3 The "Moderator Variable" Approach, the "Behavioral Observation" Approach, and the Idiosyncratic Behavioral Patterns of Individuals

1.2.3.1 Overview. It should be noted that the interactionists claim that trait psychologists have never addressed the question of situational influences is incorrect. Christie and Geis (1970b) go to great length to discuss the interaction of Machiavellianism and the environment. Indeed, one can measure a variable such as "expresses control" (or "assertiveness"), vary level of Machiavellianism and sample situations that: (a) are ambiguous or highly structures, and (b) allow for improvisation or do not allow for improvisation. In a factorial design, a strong interaction effect will (theoretically) be obtained. Analysis using the "sources of variance" paradigm will provide a large Persons X Situations effect that will not be interpretable.

Correlations between "social desirability" modes of responses and "need for approval" are also moderated by a situational variable: "interpersonal evaluation." Individuals who are rated as high on "need for approval" will elicit more "socially desirable" responses than low "need for approval" individuals only if they perceive the situation as

entailing an evaluation. Other examples can be given, but they are incidental to the purpose of this section of the paper.

No one disputes the claim that behavior is a function of both the individual and the environment. Further, no one disputes the claim that trait measures have the general utility of reliably differentiating individuals in a relevant, yet global, fashion. Further, no one disputes the fact that trait measures have specific utility in testing hypotheses concnering communication phenomena (i.e., dogmatism in persuasion [see Miller and Rokeach, 1968]; and reticence in identifying individuals who are high on speech anxiety [Phillips, 1968]; to cite only two examples). What is in dispute is the answer to the question: why is it not possible to predict from a trait measure to a specific behavior elicited in a specific instance?

It must be noted at the onset of this section of the paper that the theorist must specify a relationship between four classes of variables: (a) why a mode of response is relevant to a person measure; (b) why a set of situations will differentially elicit such a mode of response; (c) why the respondents ought to agree with the experimenter's differentiating the situations into classifications of high and low, in terms of eliciting the response; and (d) why the respondents ought to agree among themselves that the experimenter is essentially correct in classifying the situations. To the reader unfamiliar to the literature on consistency of behavior across situations, (c) and (d) may sound a bit unfamiliar. However, they are the crux of the whole matter, at least in terms of predicting behavior in a specific instance.

Most research in this area begins with the logic as follows: (1) Theorist T claims that Measurement M differentiates (at a global

level) people on the basis of behavior B; (2) Situations S_1, S_2, S_3, S_4, S_5, and S_6 are perceived such that they ought to elicit behavior B' (Closely related to or the same thing as B); (3) a study is done. Alas, at no point in time is $r_{BB'}$ greater than .33. Therefore, either (a) the study was poorly done (meaning almost anything); (b) M was a poor measure, go back to the blackboard; (c) M and the whole world of personality, plus parts of social psychology and communication are doomed to ultimate, unequivocal failure; or (d) people's response patterns are too idiosyncratic to permit such prediction.

It seems to me, and perhaps to many others as well, that (2) ought to be considerd as one of the culprits that usurps the predictive utility of our measures. Further, Theorist T ought not to be blamed, for the "ought to elicit" can be as tied, related, and relevant to the "M measurement of B" rationale as possible, yet the respondents may see something totally different in (any of, but not generally all of) the situations. Thus, (d) is the correct answer.

If it is possible to eliminate any future reference to the research conducted in the "sources of variance" paradigm, then few alternatives remain. In this section of the paper I shall argue that there are only two alternative procedures that enable (or, at least, enhance) the prediction of behavior in a specific instance: define the situation for all respondents (thus ensuring the experimenter's conception of operative behavioral expectancies of the situation will be made known to the respondents) or assess how the respondents themselves perceive the behavioral expectancies of the situation. However, before discussing these two alternatives, I shall explain why two other alternatives will lead to more adequate levels of prediction, but are less than totally desirable:

the "behavior observation method" and the "moderator variable approach."

1.2.3.2 The "moderator variable" approach and the "behavior observation" approach. When the consistency question thrived in the 1930's, Allport (1937) contrasted the nomothetic view of personality with an idiographic approach. The nomothetic view upholds an assumption that a trait (or set of traits) are universally applicable to all persons and that individual differences can be described in terms of different locations on these traits. For example, Hartshorne and May (1928) assumed that an "honesty-dishonesty" dimension could be used to describe all of the sample of children (i.e., people vary only in degree of "honesty-dishonesty").

Allport (1937) simply noted that a person's performance in any single instance may be overridden by other concerns. That is, a person may hold that being honest is simply less important than being loyal, etc. A child may lie to a teacher in order to maintain loyalty to friends or perhaps to avoid hurting someone's feelings. Similarly, a moderately high-anxiety individual's anxiety about delivering a speech may be overridden by the need to get good grades, a particularly high interest, etc.

Allport's idiographic view emphasized that individuals vary not only in locations on traits, but also in terms of which traits are relevant. Bem (1972) employed the term "equivalence classes" to denote the case where a sample of individuals share the same behavioral response patterns for the same types of situations. For instance, for some individuals "socially desirable responses" form an equivalence class of behaviors, and "interpersonal evaluation situations" form an equivalence class

of behaviors, and "interpersonal evaluation situations" form an equivalence class of situations. Other individuals do not share in these equivalence classes of responses and situations.

Bem and Allen (1974) extended Bem's arguments and identified a key problem of uncovering (constructing?) trans-situational consistency of behavior from the nomothetic conception:

> . . .the traditional trait-based research study will yield evidence of cross-situational consistency only if the individuals in the research sample agree with the investigator's a priori claim that the sampled behaviors and situations belong in a common equivalence class and only if the individuals agree among themselves on how to scale those behaviors and situations. (p. 510--emphasis theirs)

Thus, in any sample of individuals from a population, only a subset of individuals will share common equivalence classes for situations and behaviors and be judged (from the experimenter's perspective) as "consistent." One can do no better than predict some of the people some of the time.

Bem (1972) and Bem and Allen (1974) have argued that a "moderator variable" approach be employed to investigate the question of whether or not some subset of the sample does not share the same equivalence classes, and whose behavior would be less predictable. This procedure entails differentiating individuals on some criteria (self-ratings of consistency, for instance) and obtaining differential predictors for the two samples.

To demonstrate the moderator variable approach, Bem and Allen (1974) subgrouped individuals on the basis of the respondent's ratings of low-variability or high-variability on "friendliness" and on "conscientiousness." For each variable, several other evaluations were obtained, such as the mother's and father's perceptions of the respondent's level of

"friendliness." Five such measures, aside from the respondent's self-rating, were employed in order to assess friendliness; six additional evaluations for levels of conscientiousness. Bem and Allen found that, for both variables, low-variability subjects were less variable across situations than high variable subjects. Specifically, the mean correlations for friendliness across situations was .57 for low-variability and .27 for high-variability individuals; for conscientiousness, .45 for low-variability individuals and .09 for high-variability individuals (omitting "neatness").

Block (1961) sought to differentiate individuals on a dimension labeled role variability and correlate individuals arrayed on this dimension to maladjustment. "Role diffusion" was argued to be one end of the role variability continuum and individuals categorized at this level were described as "reacting in all ways to all people" (p. 392). At the other extreme, the "role rigidity" individual behaves uniformly in all situations. Block hypothesized a simple inverted U-shaped curve between levels of role variability and maladjustment. Role rigidity was not related to maladjustment (as measured by the California Psychological Inventory [CPI, Gough, 1957]). However, the hypothesis was supported for high variability individuals. Highly variable (inconsistent) individuals were described as "irritable and overreactive, talkative, ostentatious, and sarcastic" (p. 395).

Campus (1974) also demonstrated that it was possible to array people in terms of consistency across situations. For those individuals who were judged as consistent, a major portion of response variance was accounted for by personality needs. The consistent person responded to a situation in accordance with his internal needs and in such a way as

to maintain a consistent view of himself.

> By contrast, the interaction of Situations X Needs was the important determinant for the inconsistent individual. Since the inconsistent individual changes his definition of himself in accordance with his interpretation of the demands of the situation, he may be regarded as situationally bound in the way he perceives himself. (p. 598)

Further, Campus supported Block's contention that inconsistent individuals were ostentatious, hostile, etc.

Mischel (1973), as well as Bem and Allen (1974), note that some individuals may be situationally bound. In short, some people can be predicted some of the time from personality traits, some from situational variables. Unfortunately, these "situational variables" have not been identified by either Mischel (1968, 1973) or by Bem and Allen (1974).

While the moderator variable approach will undoubtedly provide considerable information concerning types of persons and modes of responses (but not necessarily types of situations, as the procedure is currently used), several theorists have voiced complaints concerning its utility (Endler, 1973; Zedeck, 1971; Wallach and Leggett, 1972; Mischel, 1973). The most serious problem for the approach is the problem of cross-validation. Specifically, Wallach and Leggett (1972), extending the observations made by Zedeck (1971), argued that the effectiveness of moderator variables in providing different validity coefficients is limited because results do not replicate. Wallach and Leggett offered two reasons for unstable effects of applying moderators: (1) the internal processes are sufficiently subtle to defy capture by the kinds of theorizing that have been advanced; and (2)

> . . .moderator effects are statistically complex--they involve statistical interactions such that the members of one part of a sample are expected to exhibit a relationship between two indicators while this relationship

> should not be found among the members of another part of that sample. Statistical interactions of the aforementioned kind are rather notorious for their lack of stability. (p. 601)

Indeed, it is possible to identify replications and failures to replicate within the Bem and Allen study. For instance, by taking self-report, mother's report and group discussion measures, one obtains little difference between correlations for self-report and group discussion ($r = .52, .59$ for low- and high-variable individuals, respectively). Correlations between self-report and mother's report indicate that the two measures are in higher agreement for the low-variable individual ($r = .61$) than for the high-variable individual ($r = .52$). However, the correlation between mother's report and group discussion is somewhat higher for the high-variable ($r = .41$) than for low-variable individuals ($r = .34$). Therefore, in sampling these three observations, one would conclude that one has failed to replicate Bem and Allen. Sampling three different observations (self-report, father's report, and spontaneous friendship) would provide average correlations highly supportive of the Bem and Allen study. Thus, replications of a study of consistency of behavior across situations using a moderator variable approach is dependent upon the type of and number of observations employed.

In sum, the moderator variable approach will help to improve predictions of certain behaviors in some situations for some individuals, and applications of the approach will ultimately lead to a large number of replications as well as failures to replicate. Will such an approach be of value? It will be of value only if the process ultimately leads to answers which will isolate the <u>necessary</u> parameters of prediction; such as, for one, the situational variables that (from an experimenter's point of view) make the respondent seem "inconsistent." The fact that

this parameter is left unspecified is one of the reasons that failures to replicate will result.

There is no answer to this question unless some analysis of "situations" is made. Already, Block (1961) and Campus (1974) have found that "inconsistent" persons are "hostile," "sarcastic," etc., yet Bem and Allen identified individuals high and low on variability of two orthogonal traits. Are there really persons who are hostile and "inconsistent," or does this relationship only hold at a global level of "inconsistency" (as in Block and Campus)?

As an alternative to the moderator variable approach, Wallach and Leggett argued that behavior itself (or the product of behavior) ought to be assessed, and this behavioral observation ought to be employed in assessing the consistency of behavior. However, their research deals with stylistic consistency of drawings across type of drawing and consistency over time. A child's stylistic drawing is of little interest here, and the consistency of behavior in the same or highly similar situation over time is well documented (Mischel, 1968). Nonetheless, a behavior observation approach has been employed by Magnusson and his colleagues (Magnusson, Gerzen, and Nyman, 1968; Magnusson, Heffler, and Nyman, 1968; Magnusson and Heffler, 1969).

Magnusson, Gerzen, and Nyman (1968) systematically varied situations on one of the following criteria: (a) whether or not the individual is alone or a member of a group; (b) the composition of the group (incentiveness); and (c) the type of task. Two tasks were utilized, planning a town and matching photographs of individuals with professions and nationalities. It should be noted that the authors did not regard the tasks to be either very similar or dissimilar. Indeed, they argued that:

> . . .the fact that they were chosen in the way they were, however, means that the variation in tasks cannot be generalized to refer to the variation between any other tasks. (p. 344)

The motivation of the respondents was manipulated by offering monetary incentives for the correct or best solution. Finally, three types of ratings were employed (purported to be relevant to the selection of military leaders--all respondents were military conscripts): cooperative ability, self-confidence, and leadership. Each measure was made on a single unidimensional scale anchored by "low in relation to average" and "high in relation to average." Two sets of trained judges made the ratings after observing performances:

In order to provide a full exposition of results as expediently as possible, the authors summarize:

> (1) The correlation between ratings made by two independent teams of judges after observation on one occasion for each of the teams of judges, is significantly different from zero when (a) the conditions are the same on the two occasions, (b) the variation in conditions refers only to task, and (c) when the variation in conditions refers only to the composition of the groups, and
>
> (2) when the variation between the two observational sessions refers to the task and the composition of the group simultaneously, the correlation is random between the ratings by the two teams of judges who saw one situation each. For none of the three (criterion) variables did the correlation exceed $\pm$0.10 in either of the experiments. (p. 354)

For the purpose at hand, it is sufficient to note that it is possible to obtain a high degree of stability in the ratings of behavior if only the group composition is altered or when the task is altered, but not when both group composition and task are altered.

The obvious questions to be asked are simply: how do situations vary greatly (or moderately)?; and, in what important ways do the

situations vary? Magnusson et al., noted the important impact situations have on behavior and recommended a replication with more differentiated sets of situations. In such a replication, Magnusson, Heffler, and Nyman (1968) utilized six situations: (1) a decision making task; (2) a word puzzle; (3) a construction of a hammer and pump; (4) a community planning task; (5) a beauty contest; and (6) a construction task. These tasks can probably be calibrated and differentiated along criteria as manual tasks and logical tasks, but no such assessment was made.

The conclusions of the results of this study, as well as a third replication (Magnusson and Heffler, 1969) confirm the results of the first study: when both task and group composition vary, the trans-situational consistency of the ratings of behavior decrease dramatically. In both the first and third studies, the authors note the urgent need to find an adequate and useful description of situations in relevant stimulus domains.

The Magnusson studies are informative, but not informative enough. They suggest that there is something about a change in both task and interactants that alters one's leadership-related behavior. However, Fiedler (1967, 1971) provides more information about this, at least in specifying the type of situational variable that makes a difference (task structure). What is is about an interaction of task and interactants is a remaining question. That is, the ultimate goal is to predict behavior in a particular instance, and the Magnusson study indicates that in order to do so one would need to observe behavior in a certain task and set of interactants. One would then be able to predict other instances, so long as tasks did not vary greatly (unspecified parameters), or interactants did not vary greatly (unspecified in terms of composition), or

both variables vary greatly. When both variables are altered, our prediction is worthless, unless we have measured behavior previously under the relevant constraints (unspecified parameters).

Most social scientists do not plan on expending so much energy with questionable gains. Aside from direct observation of behavior, it has generally been advocated that theorists ought to pay more attention to specific attitudinal and behavioral patterns in the construction of test items (Mischel, 1968; Burgoon and Burgoon, 1974), or to construct person measures on "abilities" (Wallace, 1966).

Shouval, Zakay, and Halfon (1976) can be used as an example. Shouval et al., questioned the utility of constructing a biopolar inventory of dependence-independence. Instead, the authors constructed an inventory of the concept of "autonomy." Four waves of data (2041 children) were analyzed to provide four factors of autonomy in children: "parent-press," "obstacle-press," "trauma," and "peer-press." These factors were obtained by rejecting the more global trait approach, and it would appear that items are closely related to the major areas of the child's expressed autonomous responses. Unfortunately, no report on the predictive utility of the measure is yet available.

To date, the procedure of employing test items that tap more specific behavioral responses across a range of situations (as in Shouval et al.) has not been demonstrated to improve the level of predictive utility of measures across situations. Specifically, test items used to construct the measure of predisposition to verbal behavior (Mortenson and Arnston, 1974) were specific to the impressions persons held of their own verbal behaviors, and Hewes et al. (1976) have demonstrated that this measure was found to have little predictive utility.

Further, Mischel (1968) argued that improvements in measures will not lead to improved predictions. Mischel (1968, 1973) argued that such improvements will not be obtained because response patterns are too idiosyncratic. His general perspective is worth reviewing.

1.2.3.3 Mischel's Social Learning Theory Reconceptualization of Personality

It is an appropriate time to review the main reason why some individuals feel that trait measures should predict behavior in some specific instance. Trait measures presumably assess a disposition which is internal, stable, consistent, yet global. Since trait measures measure an underlying tendency to behave a certain way, trait measures ought to be able to predict behavior. What is the limit of their predictive utility?

Trait measures are validated either in controlled settings (experimentally defined situations) or by utilizing the average of performance across situations. For example, Mortensen and Arnston (1974) report a significant correspondence between measures of predisposition toward verbal behavior and various instructors' ratings of students; ratings no doubt based on continuous observation over time. Also, in controlled settings, predisposition toward verbal behavior related to duration of verbal response in a word association task, a finding replicated by Hewes, Haight, and Szalay (1976).

McGowan and Gormly (1976) cite a study by Gormly and Champagne who found a median correlation between ratings of "energetic" and performance in various situations of .22. However, the correlation between ratings and the average performance was .78. In their own research, McGowan and Gormly obtained correlations between ratings and performances in various

settings which varied from .13 to .64, but the correlation between ratings and the average performance across situations (six behaviors) was ,70. Thus, trait measures have behavioral validity and general predictive utility, but not specific predictive utility.

The fact that specific predictive utility is lacking (i.e., so little behavioral consistency is observed) has prompted a number of theorists to propose alternative conceptual strategies for assessing personality consistency in naturalistic settings (settings in which the experimenter does not define the situation). Block (1968), for instance, offered several reasons why the degree of observed behavioral consistency has not been inspiring. First, situations in which behaviors are contrasted among the individuals arrayed on the trait may not be at all significant or salient for the individual. Being "energetic" hardly qualifies as an important disposition while one is waiting in a lobby for a movie. In many instances, some behaviors may be considered peripheral to the meaning assigned to the situations, while the same behavior may be central in other situations.

Second, and more important, formulations of personality have been context blind and have not attempted to take environmental factors into account. Attempts at explicit theoretical conceptualization of environmental factors have been ignored. Why should personality consistency be observed across even a <u>limited</u> range of situations? There are valid reasons why consistency should <u>not</u> be observed. For instance, the low-variable individual who scores high on "friendliness" has probably constructed a social environment by selectively approaching more friendly situations. By this, and for other reasons, most of his/her daily social encounters are friendly ones. This does not mean that the person

will behave in a friendly manner in all situations (or, for that matter, in any one situation). "Friendliness" is a preferred mode of response, not to be employed when confronted with perceived hostility, etc.

Similarly, the individual high in anxiety, but possessing the competency of constructing the behavior of standing in front of a large crowd to give a speech will probably not act as "anxious" during the performance as the individual equally high in anxiety but lacking such a capacity. High anxiety relates more to the perception of speech-giving as a challenge and/or something to be avoided, not necessarily to acting "anxious" in any event; though the correlation between anxiety expressions during performance and anxiety ratings is likely to be high if all sampled individuals shared common behavior construction competencies, shared the same need to do well, etc. (i.e., sampled individuals varied only in anxiety and not on any of the person variables suggested below; see Mischel, 1973). Further, high anxiety relates to more frequent expressions of anxiety over a set of performances than expressions of anxiety on one occasion.

Mischel (1973) explicitly acknowledged that the quest for "generality" of trait measures and behavioral consistency is futile. Trait measures, he notes, have certain levels of validity and have limited predictive utility. As an alternative to analyzing "situation-free" people, Mischel advocates analyzing the specific relations between psychological conditions and behavior. To this end, Mischel proposed a five person-variable cognitive social learning theory of personality. The five variables can be summarized as follows:

1) First, individuals vary in terms of construction competencies; the ability to construct or generate diverse behaviors under appropriate conditions.

Construction of diverse behavioral competencies reflects the degree to which the person can generate adaptive, skillful behaviors that will have beneficial consequences for the individual. For example, in persuading a waiter to do something out of the ordinary, some people are assertive while others use charm. Others enjoy a simple request, not totally comfortable with using any other type of strategy. Of course, success depends upon how correct the individual's behavior-outcome expectancy hypothesis is for the occasion (see below).

2) Individuals vary in terms of encoding strategies; how people categorize events and self-descriptors. For self-descriptors, a large body of literature exists which indicates that such categorizations are relatively stable (Schneider, 1973; Mischel, 1968). For "situations," persons may group and encode the same situations much differently. For instance, some individuals may perceive a waiter somewhat synonymous with "servant" (and thus "order" the person), others may perceive the waiter or waitress as an attractive member of the opposite sex (who can be charmed); finally, others perceive a waiter an employee of the establishment who has the power of making the dinner engagement an enjoyable experience or a nightmare.

3) Persons vary in terms of behavior-outcome expectancies and in terms of stimulus-outcome expectancies. Behavior-outcome expectancies are hypotheses or contingency rules that individuals employ. "In any given situation, a person will generate the response pattern which he expects is most likely to lead to the most subjectively valuable outcome of the situation" (Mischel, 1973, p. 189). When individuals categorize a specific situation as one highly similar to one in which a particular response pattern was judged as successful, the particular response pattern will be repeated; except in those instances when additional information alters the categorization of the event. For instance, a person may believe that a waiter is a form of "servant" and possess the capacity of several behavioral responses, the most frequent of which is "assertive." However, with a particular waiter, the person "knows" that being assertive will not lead to success. Therefore, charm is employed. A second, and highly related, set of expectations are stimulus-outcome expectancies; people vary in terms of "knowing" from certain events what other events are likely to follow.

4) People also vary in terms of subjective values of the expected outcomes. This person variable refers to the degree to which stimuli (features of situations) have acquired for the individual power to induce positive or negative emotional states and function as such to reinforce a particular reaction pattern (including avoidance).

5) Finally, people also vary in terms of self-regulatory systems; the rules and self-reactions for performance and for the organization of complex behavior sequences. "The essence of self-regulatory systems is the subject's adoption of contingency rules that guide his behavior in the absence of, and sometimes in spite of, immediate external situational pressures" (Mischel, 1973, p. 194).

Singularly, or in combination, these five variables can be used to explain why cross-situational consistency of behavior is not observed. They also identify areas for future research and theorizing.

Mischel (1973) uses these five variables to argue that an individual's response patterns are idiosyncratic. However, a claim of idiosyncracies and the individual's uniqueness seems to be an overstatement (and premature). It would appear to be safe (and parsimonious) to assume that some commonalities exist among individuals--at least until support for the notion of uniqueness is provided.

Nonetheless, these five person variables pose quite a task ahead for research concerning the selection of response patterns in naturalistic situations. However, since "situations" form the background for all behavior, I submit that the starting point that offers the most promise is how individuals encode and categorize situations. While an analysis of situation perceptions is not helpful in understanding the operation of self-regulatory systems, knowledge of how events are categorized facilitates further enquiry into one's abilities to construct diverse behavioral alternatives within a set of precalibrated situations, the context within which behavior-outcome expectancies are established (and

tested), and the subjective outcome values of the precalibrated situations.

Unfortunately, research on the perception of situations has been quite limited, especially concnering individual differences (see Section 1.4). Wish, Deutsch, and Kaplan (1976) found that all individuals share a common multidimensional configuration of role relationships (supporting one of the assumptions of the INDSCAL model) and that individual differences can be discussed solely in terms of dimensional salience weights (see Sections 1.4 and 1.7). While such results apparently fail to coincide with Mischel's notion of idiosyncracies, it should be kept in mind that the stimulus objects were role relationships, not specific (daily) situations.

Pervin (1976) provides the only published article that empirically investigated the question of idiosyncratic perceptions of specific situations. Pervin had six individuals report the situations that capture the essence of their current lives, and had the individuals rate the situations on traits, feelings, and behaviors. Pervin obtained factor analutic solutions ranging from four factors to five factors. Pervin found considerable diversity among individuals in terms of types of situations listed and in the number and content of the characteristics used to describe the situations. (Nonetheless, several commonalities could be made between several factors across individuals--see Section 1.4). Further, Pervin found that

> . . .while some individuals may be introverted in all situations and some individuals extroverted in all situations, many individuals are introverted in some situations and extroverted in others. . . .An individual who is exhibitionistic in public settings and nonexhibitionistic in private settings (can be) compared with an individual who follows the reverse pattern. . . .Whether

> a person exhibits a specific behavior in a situation will depend on whether that behavior is part of one's repertoire; if so, whether it is stable or varies according to the situation, and if variable, its relationship to the particular situation under consideration. One's personality, then, can be defined as one's pattern of stability and change in relation to defined situational characteristics. (pp. 470-471)

Pervin did not go so far as to conclude that individuals are "idiosyncratic," but noted that some procedure is needed in order to group individuals on the basis of commonality of response in relation to situations.

However, what is important to note is that individuals vary in terms of the types of situations which comprise their daily social lives; they vary in terms of descriptions of such situations, and they vary in terms of reactions to what might be referred to as the same "type" of situation (i.e., exhibitionist in "private" settings, "public" settings, or both, etc.).

Some examples of the three main ways in which I perceive individuals as varying in their selection of "appropriate" response patterns are provided here. First, individuals vary in terms of the scope (breadth) of situations inclusive of their immediate "social environments." For example, for the communication or psychology undergraduate voluntarily entering into his/her fourteenth laboratory experiment, a generic set of situational expectancies exist for the assimilation of the event. For the housewife who was called on the phone and consented, the role of research participant is novel. Because it is novel, she will use any salient perceivable characteristic in order to assimilate the experience into an existing generic set of situations.

Second, people may vary in how they perceive situations. For some

people, "alone on a high ledge on the side of a mountain" is exhilarating and somewhat scary; for others it is only frightening (example from Endler and Hunt, 1969). It is not surprising, then, that the "inconsistent" individual appears to see certain factors of situations (threat of punishment and inanimate fear) as much more anxiety arousing than other types of anxiety arousing situations (anticipation fear; see Magnusson and Ekehammer, 1975). Examples in communication are plentiful; the divorced individual, or the individual recently "dumped" by a romantic partner, enters into romantic encounters much differently than the individual considered unattractive in high school but blossoming in college. This difference in perceiving the encounter does not merely entail a difference in degree on some set of situational variables, but a difference in the kind of situational variables salient to the individuals.

For our purpose, only one other difference will be mentioned. A "situation" (any event) may be relevant to two individuals; the salient perceivable features may be similar, and the two individuals may also agree in terms of the importance of the goal, yet they differ remarkably in mode of response assumed to be effective. For example, two individuals may reason that grades obtained on recent papers were unjust. Further, they both perceive that their respective professors are formal, that the request for a grade change will entail resistance, etc. Yet one individual approaches the professor by criticizing the professor's judgment, and the other individual admits to the professor that the paper was not the best, but does contain in it positive aspects that perhaps the professor has overlooked or misinterpreted. The individuals vary in terms of behavior-outcome expectancies.

In general, these illustrations suggest that problems exist in

claiming that any set of situations are common and relevant in the social environments of any sample of individuals; that novel situations (newly experienced events) may be assimilated differently; that past experiences not only dictate the location of a situation along situational variables, but the relative salience of situational variables as well; and that individuals' selection of strategies vary.

Further, with these illustrations in mind, it is time to raise another question: by what right can an experimenter judge an individual to be "inconsistent" in the response pattern across situations? According to the sketch of the typical study at the beginning of this section of the paper, the experimenter possesses the individual's rating on M, responses on B', and assumes that S_1 through S_6 are "functionally equivalent" situations. The use of the term, "functionally equivalent" is synonymous with Bem and Allen's (1974) use of the term "equivalence classes." "Functionally equivalent" situations are situations which are perceived as similar; similar in (a) type of relationship with other interactant; (b) the behaviors and feelings appropriate (or central to) the situations; and (c) (most likely) similar in the type of goal to be obtained.

The fact that consistency is not obtained suggests, but does not demonstrate, that they are not perceived as functionally equivalent by the individuals. Given that individuals assign different meansings to situations (and differentially select behavior-outcome expectancies), it would appear that categorization of an individual as "inconsistent" is justified only when the individual perceives the two events as functionally equivalent but behaves differently. However, this instance of "inconsistency" should not be construed as "irrational" or "unpredictable" since other rival hypotheses must be eliminated before opting for such

a crude explanation (i.e., self-regulatory systems). In essence, behavior in naturalistic settings can be assessed and predicted only under the conditions that various classes of functionally equivalent situations are identified from the respondent's perspective.

In regards to the predictive utility of trait measures, I agree with Mischel (1968) that the ceiling correlation of .33 probably reflects true behavioral variability rather than imperfect methodology. However, I also agree with McGowan and Gormly (1976) that there is no reason to expect a global trait measure to predict behavior in specific, naturalistic instances. To hypothesize as much implicitly assumes that (a) individual differences do not exist among any of the five person variables suggested, and (b) individuals do not adapt to perceived behavioral requirements of situations (i.e., the individual high on "friendliness" blindly acts friendlt in the face of enumerable situational pressures--despite past arguments, hostilities, and conflicts with some specific (and possibly narrow) set of interactants. The argument for assessing how individuals perceive situations does not take the person out of the picture of personality consistency (as some situationists may assert), but places new emphasis on the person in aspects of daily functioning separate from the global disposition measure. Indeed, the person "paints" the picture.

Further, the apparent "limited utility" of trait measures does not suggest that trait measures have no utility. As noted above, the global dispositions (that theorists assume to exist in individuals) possess behavioral validity in certain circumstances and, more importantly, do reliably relate to the individual's general tendency to behave in certain ways.

1.3 Summary

Little can be gained in either the prediction of behavior or in understanding phenomena from research conducted in the "sources of variance" paradigm. By and large, trait theorists have not ignored the influence of "situations" on behavior, but have failed to integrate environmental factors into personality theorizing.

I have argued that the "moderator variable" approach and the "behavior observation" approach may enhance predictions of behavior (some of the time) but will be of value only when it becomes possible to uncover what situational variables make a difference (i.e., that the situations" which make a difference can be selected a priori). Otherwise, the outcome of consistency can only be generalized to some domain of situations or observations post hoc.

Finally, "situations" ought not be considered (and sampled) as if they were entities which may or may not influence behavior separate from individuals. Individuals assign meanings to situations and behave in accordance with such perceptions. It is only in those circumstances when the individual perceives situations as functionally equivalent and behaves differently that the individual truly is "inconsistent."

In review of the literature summarized in this part of the paper, our knowledge of the situations which comprise one's daily existence, the causes of behavior in such a daily existence and our ability to understand, let alone predict, behavior in such a context is abysmally limited. To initiate a remdy of this situation, I shall review literature pertaining to the perceptions of situations in Section 1.4 and present the results of an exploratory study in Section 1.6. However, proper procedures for arguing for "general" factors of situations, and for

generalizability of factors to a population of situations will be presented in Section 1.7.

1.4 Perceptions of Situations: A Literature Review

Very little is known how individuals perceive their environment, how individuals differentiate aspects of their environment and categorize various sub-classes of environments. One reason for this lack of research application perhaps stems from the fact that approximately 5 percent of the lexicon deals with terms describing persons (Allport and Odbert, 1936), a fact which facilitated research on person perception. However, few terms are available on which to construct taxonomies of situations. Most discussions of how specific aspects of the environment influence behavior are stated in relation to specific behaviors or traits (as in Fiedler, 1967, and Christie and Geis, 1970b). As such, very little attention has been given to situations directly, nor to what may account for individual differences in situations comprising the individual's social environment and different perceptions of the same situation.

On one hand, each and every daily situation can be considered unique: consisting of two or more individuals, at work or play, involved at a task or socializing, rewarding or punishing, entailing intense feelings or boredom, etc. Further, there is a continuous interaction among all of the components in a real-life situation, unique interruptions, etc. Thus, one may argue that no two situations are alike. At a less hlobal level, one may argue that situations do indeed vary in many ways, but within a finite system of variables. Sells (1963b), for instance, suggested a taxonomy that included over 200 variables. Unfortunately, such a list of basic aspects is of little utility to begin a research

program and a more parsimonious set of variables should be sought.

A number of theorists have discussed relevant factors of environments for a variety of specific climates. Pace (1970) has discussed factors of college and university environments; Stern (1970) has discussed organizational functioning, and Petterson, Centra, Hartnett, and Linn (1970) have discussed institutional functioning. Insel and Moos (1974) reviewed these studies and others and concluded that relationship, personal development, and system maintenance-change factors are common to them all. Insel and Moos, however, discuss the impact of the environment on physical and mental health and do not generalize any factors to the general category of "social behavior" situations.

Moos (1973) proposed a taxonomy of the environment based on "human functioning." However, the six categories were non-exclusive, overlapping, and mutually interrelated. Further, such categories as ecological dimensions (Craik, 1970) include dimensions such as "man-made vs. enclosed," "land vs. water" (Ward, 1977), which probably have little to do with communication research.

Other taxonomies have been proposed (see Insel and Moos, 1974; Moos, 1973; Ekehammar, 1974), but only the ones offered by Krause (1970) and Miller and Steinberg (1975) have some relevance for communication theory and research. Krause (1970) proposed the following seven categories of social behavior situations:

1) joint working, involving a mutual goal and implying a reward,
2) trading, involving a compromise of conflict by exchange,
3) fighting, involving a means of settling a conflict without compromise,
4) sponsored teaching, involving modification of a learner's behavior,
5) serving, in which one participant services the needs

of another and is compensated,
6) self-disclosure, in which one's opinions are made known to another, and
7) playing, involving non-serious engagements of socializing and activities which bring pleasure to participants.

Unfortunately, Krause has apparently never conducted any empirical research in this framework.

Miller and Steinberg (1975) have proposed a taxonomy of four types of relations, not specifically of situations: 1) interpersonal relationships-commitment to future interaction; 2) interpersonal relationships-no commitment to future interaction; 3) non-interpersonal relationships-commitment to future interaction; and 4) non-interpersonal relationships-no commitment to future interaction. These categories of relationship types are purported to influence type of control strategies people employ, especially the interpersonal vs. non-interpersonal distinction (see Miller and Steinberg, 1975; Roloff, 1976).

Fortunately, the Miller and Steinberg taxonomy has prompted some empirical attention. Kaminski, McDermott, and Boster (1977) had respondents sort 40 situations into the four categories. Unfortunately, the respondents did not perceive many of the situations as located in the non-interpersonal-commitment to future interaction category, and none of the situations were sorted into the interpersonal-no commitment to future interaction category. However, additional research is needed to assess the viability of this taxonomy.

Aside from the Krause (1970) and Miller and Steinberg (1975) taxonomies, few of the proposed taxonomies relate directly to the issue of constructing a taxonomy of "social behavior" situations. However, some empirical studies have obtained useful dimensions of situations. These

studies can be categorized into two types: the reaction mode approach and the perception approach. The reaction mode approach is based on obtaining from the respondents the likelihood of their responding in a certain way (mode of response) for several situations. The reaction ratings are factored to obtain how situations can be categorized on the basis of responses (anxiety, unpleasantness, etc.). If only one reaction mode is employed, I shall refer to the study as a single reaction (or response) mode study; if multiple reaction modes are employed, I shall refer to it as a reaction pattern approach.

Levin (1965) is illustrative of the reaction pattern approach, where multiple responses are obtained for each person in each situation. Levin re-analyzed the Endler, Hunt, and Rosenstein (1962) data to obtain three factors for situations and three factors for responses (the original Endler et al. inventory consisted of fourteen responses to each of eleven situations). Due to methodological restrictions, the matrix corresponding to subject factors could not be computed. Nevertheless, the situation factors were labeled, similar to the original analysis offered by Endler et al. as "interpersonal stress," "inanimate personal danger," and "ambiguouse/psychological." The response factors were labeled "distress," "exhilaration," and "autonomic."

In a single response mode study, Hodges and Felling (1970) had respondents rate the degree of apprehensiveness for each of 40 situations A factor analysis of ratings resulted in a four factor solution. The first factor included situations which dealt with danger and pain, and was judged to be similar to the "inanimate personal fear" factor obtained by Endler, Hunt and Rosenstein (1962), and Levin (1965). The second factor included situations which dealt with feeling apprehensive in large

social gatherings, and the third factor included situations which deal with personal success, embarrassment, and academic failure. The "interpersonal stress" factor obtained by Endler et al. is representative in factors two and three of the Hodges and Felling factor solution. Finally, the fourth factor was composed of situations dealing with apprehension in dating and romantic settings.

In a multiple response mode study, Ekehammar, Magnusson, and Ricklander (1974) had respondents indicate levels of intensity of eighteen modes of response for each of seventeen situations. Three reaction factors were uncovered: "psychic anxiety, "muscle tension/autonomic arousal" (otherwise, uninterpretable), and "somatic anxiety." The three situation factors were labeled "threat of punishment," "anticipation fear," and "inanimate fear."

Magnusson and Ekehammar (1975) reported analyses of the individuals who served as respondents in the Ekehammar, Magnusson, and Ricklander study. In order to isolate homogenous subgroups of respondents, a method of latent profile analysis (LPA, cf. Gibson, 1959; Lazarsfeld and Henry, 1968) was employed. Responses for the two interpretable response factors (psychic and somatic anxiety) were employed across settings of situations which formed the three factors. For the aggregate solution, psychic anxiety was higher than somatic anxiety for all three factors of situations. Situations which comprised the "threat of punishment" factor elicited higher levels of anxiety of both types than inanimate fear situations. Anticipation fear situations aroused the lowest levels of both types of anxiety responses.

Females were found to be more anxious for both types of anxiety across all three types of situations. Females elicited substantially

higher levels of psychic anxiety than males, particularly in threat of punishment situations and inanimate fear situations. To provide a full exposition of the analysis of individual differences, I have listed the major characteristics of three homogeneous clusters of females (note "consistency of response" refers to the average difference between anxiety type across all situations):

Profile 1: 57% of sample

a. low anxiety level,
b. high trans-situational consistency, and
c. high consistency of response.

Profile 2: 17% of sample

a. high anxiety level,
b. comparatively high trans-situational consistency, and
c. low consistency of response.

Profile 3: 24% of sample

a. moderate anxiety level,
b. low trans-situational consistency, and
c. low consistency of response.

The major characteristics of three homogeneous clusters of males can also be briefly presented:

Profile 1: 53% of sample

a. low anxiety level,
b. high trans-situational consistency, and
c. high consistency of response.

Profile 2: 36% of sample

a. moderate level of anxiety,
b. comparatively high trans-situational consistency, and
c. low consistency of response.

Profile 3: 11% of sample

a. high anxiety level,
b. low trans-situational consistency, and
c. moderate consistency of response.

The information stemming from an analysis that includes indices of persons (even if only a breakdown of male and female respondents), situation and mode of response should be noted. First, Magnusson and Ekehammar found some support for the claim that some individuals are more consistent than others (Bem, 1972; Campus, 1974). However, the authors note that:

> The positive relationship between overall anxiety and trans-situational inconsistency, suggested by Campus (1974), is only partly supported here. For boys, the high anxiety group (Profile 3) is also the most inconsistent across situations, but this is not the case for the high anxiety group for girls. On the other hand, for girls the most inconsistent group across situations is also the most inconsistent across responses, which is not the case for boys. (p. 41)

However, as noted in Section 1.2.3.2, such partial replications are not surprising.

Second, and as noted earlier, substantive interpretation of interaction effects can be given. For instance, anxiety profiles for the sexes were not parallel. Females reported anxiety reactions for inanimate threat situations almost as strongly as for threat of punishment situations. Males reported strong reactions to threat of punishment situations, but much lower reactions to inanimate threat.

Shouval, Zakay, and Halfon (1976), as noted earlier, questioned the utility of constructing a biopolar inventory of dependence-independence. Instead, Shouval et al. sought to construct an inventory of "autonomy." Using a sentence completion task to obtain reactions, four waves of data (2041 children) were analyzed. The resultant four factor solution was interpreted as followd: "parent-press," "obstacle-press," "trauma," and "peer-press."

Magnusson and Ekehammar (1975) present a comparison between the

perception of situations approach and the response mode analysis. Ekman's (1965) multidimensional scaling model was employed in analyzing the similarity data. Forty individuals and twelve situations were employed in both tasks, and ten reaction modes of response were used.

Four dimensions of situations were obtained for the similarity data (in agreement with the authors' a priori classification of the situations): "threat of punishment," "threat of pain," "inanimate threat," and "ego threat." Three factors were obtained for the reaction analysis which were interpreted (after rotation to the similarity dimensional structure) as "threat of punishment," "threat of pain," and "inanimate threat." Situations which comprised the fourth factor, "ego threat," were dispersed across the first three factors. Nonetheless, the results of the Magnusson and Ekehammar (1975) study replicate three of the main factors of anxiety arousing situations and demonstrate a good deal of convergence across the two procedures for assessing the dimension structure of situations. Correlations for each situation across the factor matrix of perception data and factor matrix for reaction data were .91, .81, .96, .97, .91, .77, .93, .90, .98, .97, .69, and .41. The situations with the two lowest correlations were two situations initially placed in the "ego threat" factor on a priori basis but did not form a distinct factor in the reaction mode analysis. Since one factor was not common across the two procedures, Magnusson and Ekehammar suggested that future research jnestigate the similarities of the two procedures.

Ekehammar, Schalling, and Magnusson (1975) conducted such an additional investigation. Ekehammar et al. grouped 24 situations according to an a priori classification of "anticipation stress," "pain," "thrill," and "boredom." Respondents completed both a similarity questionnaire and

a mode of response questionnaires (ratings of "unpleasantness"). The response analytic analysis resulted in six factors. The "boredom" situations were subcategorized as "boredom at work" and "boredom in passive situations," and the "anticipation stress" situations were subcategorized as "anticipation of ego threat" and "anticipation of pain." Congruence between the solution obtained from the similarity data and the solution obtained from the response analytic data was quite high, particularly for the first four factors. Coefficients of congruence ranged from .92 to .55. Rotation of the two solutions to a maximal possible agreement had no major influence on the degree of congruence. The authors concluded that both procedures can play a role in developing taxonomies.

Otber reaction analytic studies have been conducted; for "pain" (Schalling, 1971), and in organizational environments (Fredericksen, Jacksen, and Beaton, 1972). The reaction analytic studies have clearly demonstrated a good deal of utility in constructing factors of situations (and, in some cases, factors of reactions) in relation to very specific types of responses.

Briefly summarizing the obtained factors, four factors of situations were obtained for autonomy responses: parent, peer, obstacle, and trauma. For anxiety purposes, it would appear that three situation factors generally emerge: threat of punishment, anticipation fear (or threat of pain) and inanimate fear (Ekehammar, Magnusson, and Ricklander, 1974) with the occasional occurrence of an ego threat and interpersonal stress factors. For apprehensiveness ratings, four factors of situations have been found: inanimate personal fear, apprehensiveness in large social gatherings, fear of failure, and romantic apprehension (Hodges and Felling, 1970). Finally, for unpleasantness responses, six factors have

emerged: pain, thrill, boredom at work, boredom in passive situations, anticipation of ego threat, and anticipation of threat (Ekehammar, Schalling, and Magnusson, (1975).

Thus, for selected modes of responses and for selected samples of situations, meaningful factors of situations have been obtained. It is comforting to note that the reaction mode analysis provides an analysis of situations which is highly compatible with the results of the perception of situations approach because such similarities between the two approaches enhances the confidence one might place on the results of both procedures. This finding also supports the claim that dimensional solutions obtained by multidimensional scaling techniques do indeed relate to perceived behavioral responses (see also Section 1.7). While some differences were noted between the two procedures, one ought to keep in mind that the factor which correlated the poorest (.55 for the fifth factor in Ekehammar, Schalling, and Magnusson, 1975) usually occurred for the smaller factors and that sample sizes in these studies are fairly small (77 in Ekehammar et al.) for factor analytic research. Nonetheless, allow me to discuss the few studies employing the perception approach.

Magnusson (1971) selected 36 situations chosen subjectively to represent ". . .a definite domain of situations, namely, those which are common for studies in connection with academic studies" to be used for analysis using multidimensional scaling analysis (Ekman, 1965). Three responses rated the situations on the basis of perceived similarity. For the aggregate solution, five dimensions of academic settings were obtained: "rewarding-positive," "unrewarding-negative," "passiveness," "social interaction with close friends," and "work along." (Note that Magnusson labeled the fifth dimension "active." I have labeled this

dimension "work alone." Situations which formed this factor include: "sit alone at home and do homework," "sit alone at home and write a laboratory report," "sit alone at home and prepare an oral report," and "undergo a written examination.") Correlation coefficients for the unrotated factor solutions for the three respondents indicated a very strong agreement in the perceptions of situations--at least for the first four dimensions. Magnusson recommended additional research on the perception of situations, particularly studies that limit the sampled situations to specific domains of situations (e.g., interpersonal relationships, leisure situations, work duties, etc.).

Magnusson and Ekehammar (1973) investigated the generality of Magnusson's dimensions by selecting a different and larger sample of individuals from the same population. Twelve individuals rated the similarity of 36 situations (see Magnusson, 1971) on two separate occasions 16 days apart. Coefficients of concordance (Harman, 1967, p. 257) across the two occasions were .99, .99, .99, .99, .98 for two five-factor solutions. Thus, the structures were found to be quite stable. The five factors were labeled: positive, negative, passive, social, and ambiguous. However, I prefer to label the fifth factor "work alone." Situations which formed this factor include: "sit alone at home and write a laboratory report," "sit alone at home and prepare an oral report," and "sit alone at home and do homework." Thus, Magnusson and Ekehammar (1973) replicated the five factors of academic situations for college undergraduates initially obtained by Magnusson (1971).

Wish, Deutsch, and Kaplan (1976) have presented an INDSCAL analysis of role relationships and Wish (1975) has presented an INDSCAL analysis of "communication episodes." Wish et al. (1976) had respondents rate the

degree of dissimilarity among 25 typical and 19 "own" relations. The 25 dyads forming the class of typical relations were selected on the basis of reflecting a wide variety of ways in which people relate to each other. These dyads included "close friends," "business rivals," "guard and prisoner," "supervisor and employee," etc. Dyads inclusive of the "own" relations included seven childhood relationships and twelve current relations. Each relationship was based on 25 biopolar scales. Respondents were selected from Columbia University and the Wharton School.

For the combined "typical relation" and "own relations" solution, a four-factor solution was interpreted as yielding the following dimensions: "competitive and hostile-cooperative and friendly," "equal-unequal power," "intense-superficial," and "socio-emotional and informal-task oriented and forman." The same dimensional structure was obtained for "own relations" and "typical relations," but individuals' patterns of salience weights were different.

Some comments are in order concerning individual differences obtained by Wish et al. For the "own relations" solution, individuals who were older, married, tending to be more on the political right than left and respondents from the Wharton School had higher weights on the "cooperative and friendly-cooperative and hostile" dimension, while individuals who were younger, single, more politically liberal and from Columbia University had higher weights on the "socio-emotional and informal-task oriented and formal" dimension. Further, Wharton students placed more emphasis on the power dimension than individuals sampled at Columbia. Finally, Jews, Christians, political conservatives, females, and individuals of higher socio-economic status had higher weights on the "intense-superficial" dimension than the complementary subgroups. Similar individual

differences were obtained for the "typical" relations solution (see Wish et al., 1976, p. 418).

Wish (1975) selected 128 communication episodes by varying eight situational contexts (compromise, blaming one another for a serious error, etc.; many of these situational contexts were recommended by Krause, 1970), with 16 interpersonal relations (eight role relations and eight relations involving the respondents). In general, Wish sampled a wide range of communication episodes, from "husband and wife attempting to work out a compromise when their goals are strongly opposed" to "you and your supervisor pooling your knowledge and skills to solve a difficult problem." Each episode was rated on 14 biopolar scales in order to interpret the solutions.

The resultant five dimensions were interpreted as follows: "cooperative and friendly-competitive and hostile," "intense-superficial," "equal and symmetric-unequal and asymmetric," "informal and open-reserved and cautious," and "task oriented-non-task oriented." Thus, Wish replicated four dimensions obtained by Wish et al., and the emergence of the fifth factor posed no problem for arguing for generality. Wish noted that more task oriented episodes were sampled in the latter study.

In order to discuss the dimensional and hierarchical structures of the social worlds of two subcategories of individuals, Forgas (1976) pretested situations for relevance for the social worlds of housewives; 23 for students. Forgas interpreted a two-dimensional structure for housewives: "perceived intimacy" and "subjectuve self-confidence." A three-dimensional solution for students was interpreted as "involvement," "pleasantness," and "know how to behave." Analysis of clustering the situations complemented these interpretations.

Pervin (1976) had six individuals list the situations which they felt best characterized their current lives. Each individual listed between 23 to 29 situations. For each individual, trait, feeling, and behaviors were rated for each situation. A factor analysis of each individual's ratings (for trait, feelings, and behaviors separately) yielded a factor solution of four to five factors. Across individuals, three factors were labeled similarly: home, work, and friends. However, descriptions of these situations varied across individuals. For example, while most individuals classified behaviors such as "sensitive" and "caring" as applicable to home-family situations, others felt that such situations were "too demanding," etc.

The main problems with the studies conducted using the reaction mode analysis is the sampling of situations. While situations which elicit anxiety, unpleasantness, apprehension, and autonomy are totally compatible with the various interests of the theorists, it is impossible, despite the existing commonality between the solutions of the reaction mode analysis and the perception approach, to form a synthesis among the various results. The situations sampled in the studies using the reaction mode analysis which do involve encounters between people include apprehension in romantic settings (Hodges and Felling, 1970), anxiety in ego threat situations (or unpleasantness in ego threat settings; Ekehammar, Schalling, and Magnusson, 1975), and autonomy with parents and peers (Shouvall, Zakay, and Halfon, 1976). Such factors of social behavior situations may be of some interest to some communication theorists, but have little bearing on enquiries into communication phenomena in general.

The fact that so little attention has been given to the question of relevance and frequency of the situations utilized in the typical

response analytic study further poses problems in generalizing to a larger set of situations. As Pervin (1976) noted, there exists a strong analogy between the response analysis and situation perception research to that of person perception research, where the question of trait relevance has been a constantly recurring question (Hastorf, Richardson, and Dornbush, 1958; Loltuv, 1962; Schneider, 1973). It is long overdue to question the relevance of many of the situations provided individuals for assessment, particularly situations such as "counseling bureau for personal problems," "sailing a boat on a rough sea," and "on a ledge high on a mountain side" (Endler et al., 1972). Aside from problems of generality, there exists the strong likelihood that individuals will more likely perceive situations they have never been in before more commonly in terms of feelings and behaviors than situations they have frequently experienced--different situation "stereotyping." The past experiences individuals have in various relevant situations would lead to more valid classification of individuals on the basis of individual differences in their perceptions.

In contrast, some commonalities can be observed across the studies employing the perception approach. It appears as though the obtained factors of situations can be subsumed under three categories of factors:

I. Type of relationship

social interaction--close friends	(Magnusson, 1971)
equal-unequal power	(Wish et al., 1976; Wish, 1975)
informal and open-reserved and cautious	(Wish, 1975)
intimacy	(Forgas, 1976)

II. Type of behavior (or feelings)

passiveness	(Magnusson, 1971)
work alone	(Magnusson, 1971)
competitive and hostile-cooperative and friendly	(Wish et al., 1976; Wish, 1975)

intense interaction	(Wish et al., 1976; Wish, 1975)
self-confidence	(Forgas, 1976)
pleasantness	(Forgas, 1976)
involvement	(Forgas, 1976)
know how to behave	(Forgas, 1976)

III. Goal of the interaction (or consequence of the event)

reward-positive	(Magnusson, 1971)
unreward-negative	(Magnusson, 1971)
work alone	(Magnusson, 1971)
task oriented non-task oriented	(Wish, 1975)

This observation suggests a meaningful way of viewing naturalistic situations. Any daily situation can be broken down into the type of relationship involved, the type of behaviors relevant (or central) to the event, and the goal of the interaction. Of course, while the goal of the event may sometimes be an unimportant aspect of the event (such as in passive, boredom events), goals may be central to some events--such as those events where the goals of the interactants are incompatible and lead to "simple conflict" (see Miller and Steinberg, 1975).

Nonetheless, some support for this categorization of type of factors can be found in Wish (1975). Wish conducted various analyses in order to assess the relative contribution of the relationships and situation type on the variance of rating scales used to interpret the obtained five-dimensional solution. Wish found that most of the variance in the "informal and open vs. reserved and cautious" and "equal and symmetric vs. unequal and asymmetric" dimensions was accounted for by the type of relationship while most of the variance in the "task oriented vs. non-task oriented" dimension was due to type of situation. Both types of relationships and situations equally accounted for variance in ratings of situations in terms of the "friendly and cooperative vs. unfriendly and

competitive" and "intense vs. superficial" dimensions. Thus, Wish's two factors that I have categorized as "type of relationship" (Category I) result primarily from considerations of the relationships sampled, and I have categorized the dimension ("task oriented vs. non-task oriented") due to "situations" as a factor resulting from considerations of the goals of the situation. The remaining two factors have been categorized as behavior, or feeling, types of factors.

I would like now to ask the question: along what components of the situations might individual differences be found? Pervin (1976) noted that individuals classified events in their current lives on the basis of relationship type (family, home, work, close friends), but that descriptions of feelings and behaviors varied. Since one would expect individual differences to occur because of "past experiences," little in the way of individual differences ought to be expected for either of the types of relationship factors or the types of goal factors. That is, most individuals would agree that interactions with parents are more informal and intimate than most situations, but would vary in terms of perceiving such encounters as friendly, intense, pleasant, caring, demanding, etc. Pervin (1976) noted that ". . .subjects may differ in the way they perceive a particular situation but be similar in the dimensions used to perceive situations generally" (p. 469). While all individuals differentiated between types of relationships--family, friends, co-workers, etc.--affects and behaviors central to situations in each of these categorizations varied.

Pervin did not address the question of individuals being idiosyncratic, but did argue that a priori taxonomies and laboratory research will not be helpful in constructing a taxonomy of relevant situations,

nor in terms of understanding individual differences in regard to behaviors and affects perceived as applicable in situations. Further research of situations relevant to individuals is needed.

Finally, some comments are in order concerning the relationship between dimensions of social behavior situations in general and a subcategory of situations comprising the domain of persuasion situations. Persuasion phenomena are pervasive in social life, and a properly sampled set of persuasion-related situations would include situations of all types of relationships. Thus, some commonality ought to exist between samples of social behavior situations and persuasion situations in terms of factors of relationships (i.e., intimacy, Forgas, 1976; "informal and open vs. reserved and cautious," Wish, 1975).

Further, since persuasion attempts vary considerably, it is likely that persuasion attempts are made in both friendly and unfriendly contexts, as well as in terms of intense interactions, etc. Thus, some factors of behaviora are likely to be common between the two general types of situations, but others will not be common. The central reason that some factors of behaviors will not be common relates to the central differentiation between persuasion situations and the more general category of social behavior situations. By definition, persuasion situations entail a goal, though the goal may vary in terms of providing the persuader with a benefit, the persuadee with a benefit or entail a mutual benfit. Nonetheless, a properly sampled set of relevant persuasion situations ought to provide relationship factors and several factors of behaviors (or feelings) common to the larger domain of social behavior situations. However, the extent to which factors of situations are common

between the two categories of situations, and the question of what aspects of persuasion situations are apecific to such a domain of situations, ultimately rests on empirical evidence, to which I shall turn in Section 1.6

1.5 Summary

The reviews of literature pertaining to the question of trans-situational consistency of behavior resulted in a number of important conclusions. First, trait measures do not predict to behavior in any single instance due to a number of idiosyncratic reasons, but trait measures do predict to the average of performances across situations (at least to some type of situation). Second, while the interactionists' research may be criticized on the grounds of inflated interaction terms, dubious procedures for sampling situations and uninterpreted interaction terms, there is little doubt that situations do indeed influence behavior, as well as dispositions. The problem relates to the ability to specify what characteristics of situations make a difference in the selection of a mode of response (and for what types of individuals, if not the entire aggregate).

Without knowledge of how sampled situations may vary, it is impossible to (a) utilize the behavior observation approach with any degree of practical utility; (b) utilize the moderator variable approach with any degree of practical utility; and (c) test specific hypotheses concerning the role of situation types of behavior. Therefore, a review of studies providing taxonomies of situations was provided.

I have reviewed the few studies that have obtained, by various procedures, factors of situations. While strong similarities exist between

the solutions offered by the reaction mode analysis and perception approaches, a synthesis between factors of situations is impossible because of the differences in sampled situations and because so little attention has been given to the relevance of situations sampled in the reaction mode analysis approach.

Several factors of situations have emerged across the few perception studies. Specifically, factors of situations can be categorized on the basis of relationship types, behaviors or feelings, and goals and consequences. It was suggested that individual differences may be operative most often in terms of perceptions of behaviors and feelings than in terms of relationship types. Finally, since persuasion phenomena are pervasive, it was suggested that several factors of situations are likely to be common across the general domain of social behavior situations and persuasion situations: namely, intimacy, equal vs. unequal power, and formal and open vs. reserved and cautious. However, the extent to which these aspects of perceiving situations will form orthogonal dimensions in the perception of persuasion situations is an empirical question. Further, other aspects of perceiving situations which may be specific to the category of persuasion situations is also a question left to empirical research.

The empirical research which will provide some insight into the two questions mentioned above will be presented in the following section of this paper. In Section 1.6, I shall present an exploratory study in which a sample of persuasion situations was obtained from a sample of undergraduate students. Utilizing this list of situations, a list of 40 situations was written, 10 inclusive of the four-part category scheme offered by Miller and Steinberg (1975). Sixty-one respondents sorted the

situations on the basis of similarity and were interviewed in order to obtain a list of attributes relevant to the domain of persuasion situations. Despite the fact that some situations were rewritten in order to be subjectively categorized into the Miller and Steinberg taxonomy (some degree of situation relevance was lost), intrepretable clusters (Johnson, 1967) and interpretable dimensions (Woelfel, Saltiel, McPhee, Danes, Cody, Barnett, and Serota, 1975) were obtained. Thus, the results of the exploratory study can be used to address the questions of what attributes are used in the perceptions of persuasion situations, and suggests, but does not demonstrate, which factors of situations may be common between the global domain of social behavior situations and the category of persuasion situations.

The exploratory study does not address questions of individual differences and the question of the generalizability of factors of situations. These topics will be covered in Section 1.7.

1.6 Exploratory Examination of the Perceptions of Persuasion Situations

In this section of the paper, I shall discuss a pretest that was conducted in order to create a list of persuasion situations and the procedures and results of an exploratory study of the dimensional and hierarchical structure of a set of 40 situations. The exploratory study itself involved having respondents sort situations into categories on the basis of similarity. Respondents were interviewed afterwards to obtain a list of attributes which may be relevant to this domain of situations. Data from the sorting task was analyzed using Johnson's (1967) hierarchical clustering program and a multidimensional scaling program (Woelfel, Saltiel, McPhee, Danes, Cody, Barnett, and Serota, 1975).

1.6.1 Initial List of Situations

In order to obtain a sample of persuasive situations that would be relevant to the social world of the respondents, 54 students in Communication 100 and 101 and Psychology 450 volunteered to write persuasive situations. They were instructed not to limit the situations they were to write to family, friends, etc., but to include situations that also deal with professionals and strangers. They were instructed to write situations that they had personally experienced.[1] The respondents were given bluebooks for this task.

A list of situations which were considered fairly non-redundant was compiled.[2] While nearly all of the respondents wrote over 10 situations each, the complied list included only 106 situations. This initial list of situations is included in Appendix A.

1.6.2 Construction of Situations

The goals of the Sorting Task Pretest were to have respondents sort situations into categories based on the similarity they perceived among the situations, analyze the clusters or dimensions of situations in order to interpret the clusters or dimensions and to interview respondents in order to obtain the attributes the respondents claim to have utilized during the sorting task.

One method for selecting the situations to be sorted would be to randomly sample situations from the list of situations in Appendix A. However, an alternative procedure would entail selecting situations that should theoreticallt form distinct clusters. Therefore, from the cluster analysis and interviews it would be feasible to discover whether the respondents likewise perceived the same distinctions as the theorists

hypothesized, and to discover what additional attributes respondents utilized. This latter strategy was employed in the Sorting Task Pretest.

Recall that Miller and Steinberg (1975) discussed a taxonomy of relationships which resulted in four categories: (1) non-interpersonal-commitment to future interaction; (2) non-interpersonal-no commitment to future interaction; (3) interpersonal-commitment to future interaction; and (4) interpersonal-no commitment to future interaction. Ten situations were written to fit each of these four categories. The basis for most of the 40 situations stems from the situations included in Appendix A. However, the situations in Appendix A do not include a sufficient number of situations that fall into the categories of non-interpersonal-commitment to future interaction relationships and interpersonal-no commitment to future interaction relationships. Thus, several additional situations were written. However, the majority of situations inclusive of the non-interpersonal-no commitment to future interaction and interpersonal-commitment to future interaction categories were taken directly from the list of situations in Appendix A.[3]

The 40 situations employed in the Sorting Task are presented in Table 1. They are presented in Table 1 in the order by which they will be discussed in relation to the resutls of the cluster analysis (Figure 1 and discussion below) and not according to the categories hypothesized by Miller and Steinberg (1975). A statement at the bottom of each situation indicates the category in which the situation was considered to be a member.[4]

1.6.2.1 Materials and Respondents

Each of the situations in Table 1 was typed on a card and given an identification code. Respondents were volunteers receiving course credit from introductory Communication courses during the Spring and Summer terms of 1976. Sixty-one respondents sorted the situations and were subsequently interviewed. Twenty-five respondents were male and 36 were female. Data for one male respondent was discarded when the interview revealed that he sorted the situations on the basis of the language used to describe the situation and not on any psychological criterion.

1.6.2.2 Procedures

Each respondent was given a deck of situations as s/he arrived at one of four test sessions. Each deck of situations was shuffled several times for each respondent. Each respondent was given a written set of instructions which were also read aloud to him/her. The written instructions are included in Appendix B. Respondents were informed that they could use as many categories (or "piles") as they wished to use such that "all situations in each pile are similar to each other and distinct from situations included in other piles." A minimum of 11 categories was used by the respondents, and a maximum of 16.

1.6.3 Results

After the respondents sorted the situations into categories, a brief interview was held with them on an individual basis. The results of this interview will be briefly discussed because the attributes the respondents reported as using will be helpful in discussing how the situations clustered.

TABLE 1

Forty Situations Used in Sorting Task Pretest

1. YOUR BEST FRIEND HAS A HABIT OF BORROWING MONEY FROM YOU AND NOT REPAYING IT FOR LONG PERIODS OF TIME. RECENTLY. HE (SHE) BORROWED $20 FROM YOU. BECAUSE OF SOME EXPENSES YOU HAVE INCURRED, YOU NEED THE MONEY BACK QUICKLY. YOU WANT TO PERSUADE HIM (HER) TO REPAY THE LOAN VERY SOON.
(interpersonal-commitment to future interaction)

2. YOUR NEXT DOOR NEIGHBOR HAS THE HABIT OF BORROWING THINGS FROM YOU AND NEVER RETURNING THEM. IN FACT, HE USUALLY FORGETS THAT HE HAS EVEN BORROWED THEM. NOW, HOWEVER, HE IS MOVING TO SEATTLE. HE HAS SEVERAL BOOKS OF YOURS AND YOU WOULD LIKE TO GET THEM BACK BEFORE HE LEAVES TOWN.
(interpersonal-no commitment to future interaction)

3. YOU HAVE BEEN WORKING IN A SMALL SPORTING GOODS STORE FOR THE LAST FOUR YEARS. DURING THAT TIME, YOU HAVE GOTTEN TO KNOW THE OWNER, JOHN MEAD, QUITE WELL. NOW, HOWEVER, YOU ARE QUITTING THIS JOB TO TAKE A BETTER JOB IN ANOTHER CITY. MR. MEAD STILL OWES YOU OVER 100 DOLLARS IN BACK PAY. IT IS YOUR LAST DAY AT WORK AND YOU WANT TO GET YOUR MONEY.
(interpersonal-no commitment to future interaction)

4. SUPPOSE YOU ARE A SALESPERSON FOR A CLOTHING STORE. FURTHER CONSIDER THAT THE MAYOR, WHO IS A REGULAR CUSTOMER, HAS JUST PURCHASED THREE NEW SUITS. SHORTLY AFTER THE MAYOR LEAVES, YOU REALIZE YOU UNDERCHARGED HIS/HER $100.00. THE MANAGER INFORMS YOU THAT IF YOU CAN'T GET THE MONEY FROM THE MAYOR, IT WILL HAVE TO COME FROM YOUR OWN POCKET. HOW WOULD YOU PERSUADE THE MAYOR TO PAY THE ADDITIONAL $100.00?
(non-interpersonal-commitment to future interaction)

5. YOU PURCHASED SOME CAR INSURANCE THREE MONTHS AGO. ONE MONTH AGO YOU WERE INVOLVED IN AN ACCIDENT. YOU FILED A CLAIM IMMEDIATELY AFTER THE ACCIDENT. HOWEVER, YOU STILL HAVEN'T RECEIVED ANYTHING FROM YOUR INSURANCE COMPANY. HOW WOULD YOU PERSUADE YOUR AGENT TO SPEED THINGS UP?
(non-interpersonal-commitment to future interaction)

6. YOU JOINED A RECORD CLUB THREE MONTHS AGO. AS PART OF YOUR CONTRACT, YOU PROMISED TO BUY ONE RECORD A MONTH FOR TWELVE MONTHS. RECENTLY, YOU'VE BEEN RECEIVING BILLS FOR RECORDS YOU NEVER ORDERED AND NEVER RECEIVED. HOW WOULD YOU PERSUADE THE COMPANY THAT THEY ARE IN ERROR?
(non-interpersonal-commitment to future interaction)

TABLE 1 (cont'd.)

7. YOU HAVE HAD THE DAILY NEWSPAPER (WHICH YOU ENJOY READING VERY MUCH) DELIVERED TO YOUR HOME FOR A FEW YEARS. RECENTLY, A NEW CARRIER HAS TAKEN OVER THE ROUTE. THIS CARRIER KEEPS THROWING THE PAPER ON THE PORCH, WHERE IT OFTEN GETS WET OR IT BLOWS AWAY. HOW WOULD YOU PERSUADE THIS CARRIER TO PUT THE PAPER INSIDE THE STORM DOOR?
(non-interpersonal-commitment to future interaction)

8. YOU HAVE RECENTLY RENTED A NEW APARTMENT WITH A ONE YEAR LEASE. AFTER A WEEK, YOU NOTICE THAT THE PLUMBING LEAKS. YOU WANT TO PERSUADE YOUR LANDLORD TO FIX THE PLUMBING.
(non-interpersonal-commitment to future interaction)

9. YOU HAVE SERVED AS A WORK-STUDY ASSISTANT FOR A PROFESSOR FOR THE PAST YEAR AND HAVE DEVELOPED A CLOSE RELATIONSHIP WITH HIM/HER. YOU HAVE LEARNED THAT YOU ARE SCHEDULED TO RECEIVE THE SAME SALARY FOR THE SECOND YEAR AND YOU WANT TO CONVINCE THE PROFESSOR THAT YOU DESERVE A RAISE.
(interpersonal-commitment to future interaction)

10. DURING YOUR UNDERGRADUATE STUDY YOU HAVE TAKEN SEVERAL COURSES FROM A PROFESSOR, AND THE TWO OF YOU HAVE COME TO KNOW EACH OTHER QUITE WELL. NOW AS YOU ARE ABOUT TO GRADUATE AND MOVE TO ANOTHER PART OF THE COUNTRY, YOU DISCOVER THE PROFESSOR HAS GIVEN YOU A LOW GRADE ON A TERM PAPER. SINCE YOU HONESTLY BELIEVE THE PAPER IS A GOOD ONE, YOU WANT TO CONVINCE THE PROFESSOR TO CHANGE THE GRADE.
(interpersonal-no commitment to future interaction)

11. YOU HAVE RECENTLY ENTERED INTO A CAR-POOL WITH ANOTHER PERSON THROUGH THE HELP OF YOUR LOCAL NEWSPAPER. THE OTHER PERSON IS ALWAYS LATE IN PICKING YOU UP, THUS MAKING YOU LATE. HOW WOULD YOU PERSUADE THIS PERSON TO PICK YOU UP ON TIME?
(non-interpersonal-commitment to future interaction)

12. YOU RECENTLY RENTED A HOUSE AND SIGNED A ONE-YEAR LEASE. YOUR NEIGHBORS, WHO YOU DON'T KNOW WELL, OWN A DOG OUTSIDE. THE DOG BARKS AND HOWLS ALMOST ALL NIGHT, WHICH CAUSES THE OTHER DOGS IN THE NEIGHBORHOOD TO BARK. YOU WANT TO PERSUADE YOUR NEIGHBOR TO DO SOMETHING ABOUT THIS SITUATION.
(non-interpersonal-commitment to future interaction)

13. YOUR PROFESSOR, WHOM YOU DON'T KNOW WELL, HAS INSTRUCTED YOU TO WORK WITH A GROUP OF PEOPLE ON A PROJECT. YOUR GROUP IS RESPONSIBLE FOR A TERM PAPER AT THE END OF THE TERM. EVERY MEMBER OF THE GROUP WILL RECEIVE THE SAME GRADE, WHICH IS BASED ON THE FINAL PAPER. ONE MEMBER OF THE GROUP IS NOT PROVIDING ANY HELP IN COMPLETING THE TASK. HOW WOULD YOU PERSUADE THIS MEMBER TO DO HIS/HER SHARE OF THE WORK?
(non-interpersonal-commitment to future interaction)

TABLE 1 (cont'd.)

14. TOMORROW YOU HAVE MIDTERMS. AS YOU ARE STUDYING IN THE LIBRARY, A COUPLE AT THE NEXT TABLE ARE JOKING, LAUGHING AND TALKING LOUDLY. YOU ATTEMPT TO PERSUADE THEM TO BE QUIET OR TO LEAVE.
(non-interpersonal-no commitment to future interaction)

15. SUPPOSE YOU HAVE JUST BEEN HIRED BY A COMPANY AFTER BEING OUT OF WORK FOR ALMOST A YEAR. IN YOUR NEW JOB, YOU SHARE A SMALL OFFICE WITH ANOTHER PERSON WHO SMOKES TWO PACKS OF CIGARETTES A DAY. YOU HAVE A LUNG INFESTION AND CAN'T BE AROUND CIGARETTE SMOKE. HOW MIGHT YOU PERSUADE YOUR OFFICE MATE NOT TO SMOKE AROUND YOU?
(non-interpersonal-commitment to future interaction)

16. YOU ARE EATING AT A RESTAURANT AND THE PERSON AT THE NEXT TABLE STARTS TO SMOKE A CIGAR. THE CIGAR SMOKE BEGINS TO MAKE YOU FEEL ILL. YOU WOULD LIKE TO PERSUADE THIS PERSON NOT TO SMOKE WHILE YOU EAT.
(non-interpersonal-no commitment to future interaction)

17. THE TELEPHONE COMPANY RECENTLY DISCONTINUED YOUR PHONE SERVICE BECAUSE YOU WERE LATE WITH THE PAYMENT OF YOUR LAST THREE BILLS. FURTHER, THEY WILL NOT REINSTATE SERVICE UNTIL YOU PAY A LARGER DEPOSIT. YOU CANNOT AFFORD TO PAY THEM THE EXTRA DEPOSIT MONEY. HOW WOULD YOU PERSUADE THE PHONE COMPANY TO REINSTATE YOU WITHOUT THE ADDITIONAL DEPOSIT?
(non-interpersonal-commitment to future interaction)

18. A CLOSE FRIEND IS GOING TO HAVE A BIRTHDAY. THIS FRIEND HAS OFTEN DISCUSSED A ROCKING CHAIR HE/SHE LIKES. YOU FIND THAT THE OWNER OF THE ANTIQUE STORE WANTS MORE MONEY FOR THE CHAIR THAN YOU HAVE, SO YOU ATTEMPT TO GET HIM TO LOWER THE PRICE.
(non-interpersonal-commitment to future interaction)

19. YOU ARE OUT OF TOWN AND YOU HAVE JUST HAD YOUR CAR FILLED WITH GAS. YOU DISCOVER THAT YOU HAVE NEITHER ENOUGH MONEY NOR A CREDIT CARD. YOU TRY TO PERSUADE THE GAS ATTENDANT TO ALLOW YOU TO GO BACK TO YOUR HOTEL ROOM FOR SOME MONEY AND THEN RETURN TO PAY THE BILL.
(non-interpersonal-no commitment to future interaction)

20. YOU HAVE JUST BEEN STOPPED BY A POLICE OFFICER FOR SPEEDING IN YOUR CAR. YOU WOULD LIKE TO PERSUADE THE OFFICER NOT TO GIVE YOU A TICKET.
(non-interpersonal-no commitment to future interaction)

21. A DRIVER WHO PICKED YOU UP WHILE YOU WERE HITCH-HIKING IS GOING TO A DESTINATION ONE MILE FROM WHERE YOU ARE GOING, SO YOU ATTEMPT TO CONVINCE THE DRIVER TO GO THE ONE MILE OUT OF HIS/HER WAY TO DROP YOU OFF.
(non-interpersonal-no commitment to future interaction)

TABLE 1 (cont'd.)

22. YOUR FAMILY PHYSICIAN IS OUT OF TOWN AND YOU HAVE AN APPOINTMENT WITH ANOTHER PHYSICIAN. THERE ARE A LARGE NUMBER OF PEOPLE PRESENT AND YOU FIND YOURSELF WAITING AND WAITING. YOU REALIZE THAT THERE ARE A LARGE NUMBER OF PEOPLE WHO ARE AHEAD OF YOU. YOU ARE GOING TO THE RECEPTIONIST AND TRY TO PERSUADE HERE THAT YOU SHOULD GO NEXT.
(non-interpersonal-no commitment to future interaction)

23. LEAVING THE MOVIES LATE ONE NIGHT, YOU GO TO YOUR CAR AND FIND THAT IT REFUSES TO START. YOU SEE SOMEONE ELSE WALKING IN THE PARKING LOT AND YOU TRY TO CONVINCE THEM TO GIVE YOU A RIDE.
(non-interpersonal-no commitment to future interaction)

24. YOU ARE 17 YEARS OLD AND WOULD LIKE TO BUY SOME BEER. YOU ASK A PERSON IN THE PARKING LOT TO DO YOU THIS FAVOR.
(non-interpersonal-no commitment to future interaction)

25. YOU AND YOUR ROOMMATE HAVE LIVED TOGETHER IN THE FORM FOR 2 YEARS. YOU ARE TRYING TO PERSUADE YOUR ROOMMATE THAT THE TWO OF YOU SHOULD MOVE TO AN APARTMENT OFF CAMPUS.
(interpersonal-commitment to future interaction)

26. YOU HAVE BEEN CARRYING ON A CLOSE RELATIONSHIP WITH A WOMAN (MAN) FOR THE PAST 2 YEARS. ON THIS PARTICULAR EVENING AN OLD ACQUAINTANCE UNEXPECTEDLY PASSES THROUGH TOWN. YOU WANT TO VISIT WITH YOUR ACQUAINTANCE, BUT YOU HAVE ALREADY PROMISED TO GO TO THE MOVIES WITH YOUR FRIEND AND SHE/HE HAS MADE IT CLEAR THAT SHE/HE IS COUNTING ON IT VERY MUCH.
(interpersonal-no commitment to future interaction)

27. YOUR SPOUSE WANTS TO GO DANCING TONIGHT. HOWEVER, YOU WANT TO GO TO THE MOVIES. SINCE YOU DEFINITELY WANT TO BE TOGETHER THIS EVENING, YOU HAVE TO DECIDE TO GO TO ONE OR THE OTHER. HENCE, YOU WOULD LIKE TO CONVINCE YOUR SPOUSE TO GO TO THE MOVIES.
(interpersonal-commitment to future interaction0

28. OVER THE SUMMER YOU HAVE WORKED IN A CAMP WITH A STUDENT FROM ANOTHER UNIVERSITY AND HAVE COME TO KNOW HIM/HER QUITE WELL. IT IS TIME FOR BOTH OF YOU TO RETURN TO SCHOOL, AND YOUR FRIEND WANTS TO SPEND THE LAST EVENING AT A PARTY FOR THE ENTIRE CAMP STAFF. YOU WANT TO CONVINCE YOUR FRIEND TO SPEND THE EVENING ALONE WITH YOU.
(interpersonal-no commitment to future interaction)

29. YOU HAVE BEEN CARRYING ON A CLOSE RELATIONSHIP WITH A WOMAN/MAN FOR THE PAST 2 YEARS. YOU HAVE RECENTLY RECEIVED 2 EMPLOYMENT OFFERS: ONE IN THE IMMEDIATE VICINITY AND ONE IN THE SOUTHWEST--OVER 1,000 MILES AWAY. ALTHOUGH BOTH OF YOU WISH TO STAY TOGETHER AND TO CONTINUE THE RELATIONSHIP, YOU FIND THE LATTER POSITION MUCH MORE CHALLENGING AND ATTRACTIVE, WHILE SHE/HE WANTS YOU TO TAKE THE LOCAL POSITION SO THAT SHE/HE CAN REMAIN CLOSE TO FRIENDS AND RELATIVES.
(interpersonal-commitment to future interaction)

TABLE 1 (cont'd.)

30. YOU AND YOUR BOY/GIRLFRIEND HAVE BEEN GOING TOGETHER FOR THE LAST TWO YEARS. RECENTLY, YOU HAVE BEGUN TO GROW DISSATISFIED WITH THE RELATIONSHIP. YOUR BOY/GIRLFRIEND, HOWEVER, WANTS TO CONTINUE THE RELATIONSHIP. YOU WANT TO BREAK IT OFF AND WANT TO TELL HIM/HER THIS.
(interpersonal-no commitment to future interaction)

31. YOUR ROOMMATE AND YOU HAVE BECOME CLOSELY ACQUAINTED DURING YOUR SENIOR YEAR. SINCE YOU ARE IN THE SAME FIELD, THE TWO OF YOU ARE INTERESTED IN SIMILAR JOBS. YOU HAVE LEARNED OF TWO JOBS, ONE IN SAN FRANCISCO AND ONE IN ATLANTA. ALTHOUGH YOU STRONGLY PREFER THE SAN FRANCISCO POSITION, YOU HAVE REASON TO BELIEVE THAT YOUR ROOMMATE WILL ALSO BE INTERESTED IN THIS JOB, AND YOU KNOW SHE/HE WILL BE STRONG COMPETITION. HENCE, YOU WANT TO CONVINCE YOUR ROOMMATE TO PURSUE THE ATLANTA POSITION.
(interpersonal-no commitment to future interaction)

32. YOU AND ANOTHER PERSON, JILL, HAVE BEEN JURORS INVOLVED IN A RATHER COMPLEX LEGAL CASE OVER THE LAST SEVERAL MONTHS. DURING THAT TIME, THE TWO OF YOU HAVE GROWN RATHER CLOSE. AT THE MOMENT, THE JURY IS DEADLOCKED OVER ITS VERDICT. YOU THINK THE PERSON IS INNOCENT, WHILE YOUR FRIEND JILL FEELS HE IS GUILTY. SINCE THIS IS THE LAST TASK THE JURY HAS TO DO, YOU WOULD LIKE TO TALK JILL INTO SEEING YOUR POINT OF VIEW.
(interpersonal-no commitment to future interaction)

33. YOU AND YOUR FIANCE(E) PLAN TO MARRY THIS AUTUMN. YOUR FIANCE(E) DOES NOT WISH TO HAVE INTERCOURSE UNTIL AFTER THE WEDDING. YOU, HOWEVER, DO NOT SHARE THESE FEELINGS. YOU WOULD LIKE TO COAX YOUR FIANCE(E) INTO SEEING YOUR POINT OF VIEW.
(interpersonal-commitment to future interaction)

34. YOU HAVE SPENT THE NIGHT WITH A MAN/WOMAN THAT YOU MET IN A BAR THE PREVIOUS EVENING. DURING THE EVENING AND THE NIGHT YOU GOT TO KNOW THIS PERSON QUITE WELL. IN THE MORNING, YOU WOULD LIKE TO GO OUT TO BREAKFAST WITH HIM/HER. HOWEVER, THIS PERSON WANTS TO GET HOME. YOU APPEAL TO HIM/HER TO SEE YOUR POINT OF VIEW AND GO OUT TO BREAKFAST.
(interpersonal-no commitment to future interaction)

35. YOU ARE NEAR THE END OF A LONG NON-STOP FLIGHT FROM SAN FRANCISCO TO NEW YORK. ON THE FLIGHT, YOU MET A WOMAN/MAN AND GOT TO KNOW HER/JIM QUITE WELL. YOU WOULD LIKE TO PERSUADE HER/HIM TO GO OUT TO DINNER WITH YOU WHEN YOU ARRIVE IN NEW YORK.
(interpersonal-no commitment to future interaction)

TABLE 1 (cont'd.)

36. YOU HAVE JUST SPENT THE EVENING IN A BAR WHERE YOU MET A WOMAN/MAN. YOU HAVE SPENT MOST OF THE EVENING DISCUSSING HER/HIS PERSONAL PROBLEMS. YOU WOULD NOW LIKE TO PERSUADE HER/HIM TO LEAVE THE BAR AND COME UP TO YOUR PLACE TO CONTINUE THE DISCUSSION AND HAVE A NIGHTCAP.
(interpersonal-no commitment to future interaction)

37. YOUR ROOMMATE OF 3 YEARS HAS JUST BROKEN UP WITH HIS/HER GIRL/BOYFRIEND. SINCE THEN HE/SHE HAS BEEN CONSTANTLY DEPRESSED AND DESPONDENT. CONSEQUENTLY, HIS/HER GRADES HAVE BEGUN SLIPPING AND HE/SHE HAS BEEN WITHDRAWN AND IRRITABLE. YOU ARE TRYING TO CONVINCE HIM/HER TO SEEK PROFESSIONAL HELP.
(interpersonal-commitment to future interaction)

38. YOUR TEENAGE SON DICK, WHO IS A HIGH SCHOOL STUDENT, HAS BEEN GETTING POOR GRADES. YOU WANT HIM TO INCREASE THE AMOUNT OF TIME HE SPENDS STUDYING FROM 6 TO 12 HOURS A WEEK.
(interpersonal-commitment to future interaction)

39. BECAUSE OF THEIR EXPERIENCES WITH YOUR OLDER BROTHER, YOUR PARENTS ARE RELUCTANT TO LET YOU USE THE FAMILY CAR. THIS WEEKEND YOU AND YOUR GIRL/BOYFRIEND WERE TO DOUBLE DATE WITH ANOTHER COUPLE. UNFORTUNATELY, THE PERSON WHO WAS TO DRIVE HAS MAJOR CAR TROUBLES. HENCE, YOU WOULD LIKE TO BORROW THE FAMILY CAR.
(interpersonal-commitment to future interaction)

40. YOU ARE A DOOR-TO-DOOR SALESPERSON, ATTEMPTING TO SELL A SET OF ENCYCLOPEDIAS COSTING $150 TO MR. FREDRICKS, THE FATHER OF TWO SCHOOL-AGE CHILDREN.
(non-interpersonal-no commitment to future interaction)

1.6.3.1 Interview Results

Respondents were asked what major differences they perceived between situations and used in placing the situations into various categories. Respondents did not mention attributes such as friendly, competitive, productive, harmonious, active, relaxed, or any work-oriented type of attribute. Many respondents mentioned that there were situations in which they would not become involved. However, when the respondents mentioned which situations, there was not much consistency across respondents concerning the situations which were unfamiliar to them.

Respondents reported that one of the major distinctions they perceived dealt with one's rights. That is, they perceived that some of the situations involved someone infringing on their rights, while other situations dealt with asking a favor from someone else. For example, one has a right to demand a repayment of a loan, but does not have a right to ask a gas station attendant for permission to go home for a wallet.

Another general distinction was made between situations which dealt with strangers and situations that dealt with friends. This distinction took several forms. Nearly all respondents mentioned the stranger-close friend distinction, but some respondents differentiated situations that dealt with strangers, acquaintances, close friends, and family. Other respondents reported that situations dealing with professionals (college professors and other professionals) are distinctly different from other types of situations; stating that such situations were more formal encounters. Thus, a distinction concerning the degree of familiarity with the other interactant was quite apparent, with some overtones of a

formal-informal distinction.

Another major distinction respondents reported dealt with who benefits from the persuasion. Persuading others not to smoke, persuading a depressive to seek help, and someone to study more, were mentioned as situations where the person involved in attempting to persuade another person to do something for that person's own benefit. Other situations, such as avoiding a traffic violation, are situations that deal with personal gains.

In sum, few of the respondents mentioned any task oriented or productivity type of distinction in their perceptions of the situations. Generally, the main distinctions mentioned by the respondents dealt with familiarity with the other interactant (parents, close friends, etc.), rights vs. favors, who benefits from the situation and, to some degree, whether the situation was formal or informal.

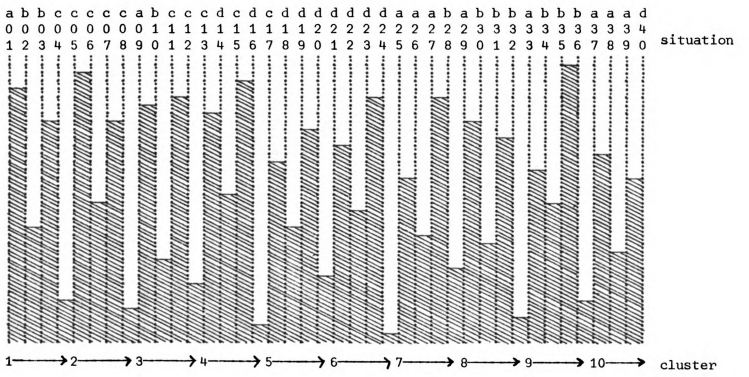
1.6.3.2 Cluster Analysis Results

A matrix of similarity data was constructed by obtaining the frequency by which pairs of situations co-occurred in the same category for each respondent. A dissimilarity matrix was constructed by subtracting the entry of every cell of the matrix from 60 (the maximum number of times that any two situations can co-occur). This dissimilarity matrix was used as input into Johnson's (1966) hierarchical clustering program and into a multidimensional scaling program (Woelfel et al., 1975).

Figure 1 presents the resutls of the cluster analysis.[5] Situations are identified as a, b, c, or d, depending upon the category in which they are considered to be members (see note at bottom of figure). To read this figure, note that each situation (numbered one to 40 as they

FIGURE 1

Tree Diagram of Results of Johnson's (1967) Hierarchical Clustering of 40 Persuasion Situations*



a = Interpersonal -- Commitment
b = Interpersonal -- No Commitment
c = Non-interpersonal -- Commitment
d = Non-interpersonal -- No Commitment
* Situations are listed in Table 1.

also appear in Table 1) has a dotted line that goes downward. Situations that have merged are depicted by the shaded bars. Thus, during the clustering process, situations 35 and 36 merged together first, then situations 5 and 6, etc. (see Figure 1). All situations eventually merge together.

For the sake of clarity, I have placed situations into 10 numbered clusters. Cluster one contains a combination of situations from three of the four Miller and Steinberg categories. The first two situations entail retrieving one's property from a close friend and from a next door neighbor. Situations three and four entail obtaining money that is due the persuader. In general, these four situations entail a right of the persuader to request or retrieve money or tangible goods, regardless of the type of relationship involved.

Situations 5, 6, 7, and 8 are all non-interpersonal-no commitment to future interaction situations. Each of these situations entails an infringement of the persuader's rights by companies or "professionals" (insurance companies, record companies, newspapers, landlord). Clusters 1 and 2, then, comprise clusters of situations which involve the infringement of the persuader's rights in general; and a distinction is apparently made between money, etc., due them and the general inconveniences sometimes involved in dealing with professionals. In all of these situations, the persuader has a right to make the request.

Cluster 3 consists of situations 9, 10, 11, and 12. While situations 11 and 12 are non-interpersonal relationship-commitment to future interaction, these four situations appear as if they commonly deal with a certain type of relationship in which the other person has let them down (professor didn't give a raise, gives poor grade, dog barks, and

car-pooler is always late). Generally, these situations entail a failure on the other individual's part to uphold what the persuader probably perceives as an implicit agreement.

Cluster 4 consists of situations 13, 14, 15, and 16. All of these situations deal with persuading someone to stop an action which irritates the persuader, as well as failing to uphold an implicit rule (failure to work on a group project, be quiet in the library, stop smoking). In general, situations in cluster 3 and 4 deal with persuading others to acknowledge their responsibility and to stop an action which is irritating.

Note that at a global level all situations in clusters 1 through 4 deal with the individual's rights. However, situations in clusters 1 and 2 deal with exercising specific rights, while situations in clusters 3 and 4 deal with the other individual's responsibility to the persuader.

Situations in clusters 5 and 6 will be discussed together. Aside from situation 17, all of the situations in these clusters are non-interpersonal-no commitment to future interaction situations. The distinguishing feature of situations in cluster 5 is the fact that they entail bargaining; the persuader attempts to bargain down the price of a rocking chair, get out of a speeding ticket, reinstate the phone without an additional deposit, and to obtain permission to return to the hotel for a wallet. Cluster 6 situations deal with requesting special favors (a ride, buy beer for the persuader, and permission to see the doctor next).

Cluster 7 consists of situations 25, 26, 27, and 28, all of which are interpersonal relationship-commitment to future interaction (except situation 28, a non-interpersonal-commitment to future interaction

situation). These situations involve persuading a friend to do something especially for the persuader's benefit (move off campus, permit the persuader to visit with an old friend instead of going to the movies, go to the movies instead of dancing, spend the evening alone with the persuader).

Cluster 8 situations are all interpersonal relationship-no commitment to future interaction situations (except situation 29, interpersonal-commitment situation). These situations (29 through 32) perhaps deal with more important matters than other situations. Aside from this, these situations appear as if they deal with more intense interactions and possibly overcome resistance (take a job in the immediate vicinity, break off a long-term relationship, persuade a job competitor to take a less attractive offer, break a deadlocked jury). Situations in both clusters 7 and 8 deal with personal benefits, but situations in cluster 8 may be more important, more intense or occur with less frequency than those in cluster 7.

All of the situations in cluster 9 consist of interpersonal relationship-no commitment to future interaction situations (expcept situation 33, an interpersonal-commitment situation). These situations (33 through 36) deal with persuading a person to do something for the persuader's benefit and lead to further interactions (possible becoming more acquainted with each other). These situations include persuading a person to have pre-marital sex, going out to breakfast in the morning, and having dinner at the end of the flight.

Cluster 10 consists of situations which are all interpersonal relationships-commitment to future interaction situations (except situation 40, a non-interpersonal-no commitment to future interaction situation).

These four situations (37 through 40) are situations entailing helping others (persuade a friend to seek professional help, a son to get better grades, borrow the family car to help out a friend, and purchase a set of encyclopedias for a person's children).

In general, the results of the cluster analysis indicate the following breakdown of the four-part typology:

1) Interpersonal-commitment to future interaction

    a) personal benefits
    b) help others

2) Interpersonal-no commitment to future interaction

    a) personal benefits--casual
    b) personal benefits--intense, important

3) Non-interpersonal-commitment to future interaction

    a) infringements of rights
    b) irritation--failure to uphold responsibility

4) Non-interpersonal-no commitment to future interaction

    a) baraginaing (compromise)
    b) requesting special favors)

1.6.3.3 Multidimensional Scaling Results[6]

The percent of variance accounted for by each dimension, for the first six dimensions, are as follows: 23.29, 13.27, 10.02, 6.39, 5.98, 5.14. It would appear that a change in the slope of the scree line occurs between the fourth and fifth dimensions. A four-dimensional solution accounts for 52.97 percent of the variance.

The first dimension can be interpreted as an "interpersonal relationship vs. non-interpersonal relationship" dimension with situations 28, 33, 29, 26, 27, 34, 21, 30, and 36 all having high positive loadings. Non-interpersonal relationship situations (14, 6, 7, 5, 11, 13, 12, 8, 16, etc.) have high negative loadings on this dimension.

The second dimension more or less represents a split among the non-interpersonal relationship situations. Situations with high positive loadings include situations 12, 13, 15, 11, 14, 16, and 7. These are non-interpersonal relationships entailing an infringement of rights. The situations that load negatively on dimensions (situations 20, 23, 24, 40, 19, 21, 18, and 17) are those situations which entail non-interpersonal relationships and subsuming both bargaining and special favors situations. Thsi dimension can be labeled a "non-interpersonal relationship-infringements vs. non-interpersonal negotiation" dimension.

Situations that load positively on the third dimension include situations 3, 1, 5, 9, 10, 2, 4, 6, and 8. Situations that load negatively on this dimension include situations 14, 16, 21, 22, 23, and 24. The positive loading situations correspond to an infringement of one's rights, while the negative loading situations correspond (in general) to the set of non-interpersonal relationship situations; more specifically to the subset of situations entailing a request for special favors. This dimension, then, can be labeled an "infringements vs. requests" dimension.

Situations with positive loadings on the fourth dimension include situations 35, 36, 34, 5, 6, 8, and 17. These situations deal with persuading someone to do something for the persuader's benefit. Situations with negative loadings include situations 38, 37, 39, and 9. All of these situations entail persuading someone to do something for their own benefit (i.e., help others). This dimension can be labeled a "personal benefit vs. helping others" dimension.

In sum, the four-dimensional solution can be labeled as follows: (1) "interpersonal relationship vs. non-interpersonal relationship";

(2) "non-interpersonal-infringements vs. non-interpersonal negotiating";

(3) "infringements vs. requests"; and

(4) "personal benefits vs. helping others."

1.6.4 Discussion

There are three main topics to be discussed in relation to the results of the exploratory study: (1) the classification of situations on the basis of being perceived as "functionally equivalent" situations; (2) the potential commonality between factors of situations across the domains of social behavior situations and persuasion situations; and (3) generalizability of the factors (or dimensions) and clusters of situations to a larger population of situations.

I concluded the discussion of the question of behavioral (personality) consistency by noting that one can conclude that the individual behaves "inconsistently" only when the individual perceives several situations as functionally equivalent and yet behaves differently across the situations. While no behavior data was collected in the exploratory study, some observations can be made regarding the functional equivalence in the perceptions of situations.

The situations provided the respondents were constructed in such a way as to vary along two criteria: "interpersonal vs. non-interpersonal relationships" and "commitment to future interaction vs. no commitment to future interaction." However, the respondents obviously perceived a large number of additional differences between the situations. In constructing the situations, no attempt was made to vary the situations in terms of who benefits, if one's rights were involved, whether the interaction involved negotiating (bargaining) or requests for special favors, or even the intensity of the interaction. However, such concerns are

perceived to be important differences in the perceptions of the respondents.

While a sorting task makes it difficult to uncover reliable individual differences in the perceptions of the situations, it would be of interest to conjecture about differences in behaviors and strategies employed across the clusters and dimensions of situations. Indeed, Boster (personal communication) has noted that somewhat higher levels of threat (in first-attempt strategies) may be used in situations where the persuader is involved as persuading a close individual (interpersonal relationship) to do something for their own benefit. This can be explained by the fact that the negative consequences of generally using threat as a first attempt strategy are attenuated in such a situation: the relationship will not end or suffer other consequences that would (usually) result by emlpoying threat for the persuader's benefit, etc.

In general, however, I suspect that different strategies would be employed in special favors situations as opposed to helping others, and infringements of rights as opposed to negotiating. One can be more assertive or demanding when one's rights are involved; but one needs to be more tactful in negotiating. Simple requests are likely to be used in special favors (or, indeed, ingratiation), while strategies employed in helping others are likely to be quite varied.

In regard to the commonality between the global social behavior domain of situations and persuasion situations, it would appear that there does exist a relationship factor (interpersonal vs. non-interpersonal relationship). Further, several factors relate to behaviors or feelings. Specifically, situations which deal with non-interpersonal infringements of fights are likely to be perceived as less friendly and

potentially more hostile than non-interpersonal negotiating. Also, situations which form the general category of "infringements of rights" are likely to be perceived as more intense than the situations comprising the general category of special requests. Finally, the fourth dimension of persuasion situations deals with the goals or consequences of event--personal benefits vs. helping others. This last dimension is undoubtedly specific to the domain of persuasion situations.

Finally, are these dimensions and clusters of persuasion situations generalizable to any larger sample of situations, such as to the domain of persuasion situations? Unfortunately, they cannot be generalized as such for the simple reason that neither cross-validation nor proper sampling from a population were employed in the study. The only warranted conclusion is that the obtained clusters and dimensions of situations obtained in this study describe the similarities and dissimilarities among the situations specifically employed in this analysis. The problem of generalizability of factors of situations to a lrager sample is a topic I shall discuss in detail.

1.7 Criterion for Assessing "Generality" of Dimensions Obtained by Multidimensional Scaling Techniques

Several comments should be made concerning the general use of multidimensional scaling techniques. Early investigators were content to find that multidimensional scaling techniques yield several dimensions that were interpretable (Abelson, 1955; Jackson, Messick, and Solley, 1957). As Stewart (1974) noted, these findings were important in fostering later work in multidimensional scaling research; however, there are any number of meaningful and interpretable dimensions that could describe a set of

complex stimuli. If this were not true, then there would be no reason to employ multidimensional scaling. Therefore, a criterion must be sought, aside from interpretability, to assess whether or not dimensions obtained from multidimensional scaling are general--are true dimensions and not artifactual.

Three procedures are usually recommended for assessing such "generality" of dimensions. One procedure for assessing generality of dimensions is to assess the degree to which a spatial representation can be used to account for behavior in a variety of independent tasks or situations. This procedure is synonymous to construct validation. Usually, the procedure entails deriving dimension by a multidimensional scaling technique and then applying some model or rule to the resultant configuration to predict behavior in one or two tasks. Cliff (1972) found that an additive model could be used to predict the respondents' ratings of emotional connotation of adjectives. Cliff and Young (1968) found that the distance from a hypothetical origin in a configuration could be used to predict the respondents' ratings of the intensity of the emotions expressed in photographs of facial expressions. Jones and Young (1972) found that an individual's socialization into an academic department could be observed by the implementation of data collection procedures over time. Jones and Young further found it possible to predict relevant communication phenomena from the obtained dimensions (i.e., interaction frequency and selection of commitee membership from among the faculty).

Cliff (1969), however, found weak results for predicting liking judgments from a multidimensional configuration of 20 academic fields.

It may be the case that some academic titles may be fairly unfamiliar to some individuals, whereas trait adjectives, emotions and familiar faculty members are objects within specific domains for which more reliable dimensions can be obtained (see below for a discussion of effects of aggregation). Nonetheless, many of these "construct" validation studies yield support for the claim that the obtained dimensions are meaningful.

A second approach, used by Magnusson and Ekamn (1970), AIken and Brown (1969), and Wiggins and Hoffman (1968) consists of deriving the multidimensional scaling configurations in different ways, and then comparing two configurations on the basis of similarity. The studies re--iewed in Section 2, which compared the reaction mode analysis and perception approaches, fit into this category. For the specific samples of stimulus objects, these studies illustrate a good deal of similarity in solutions across procedures.

Stewart (1974) argued that a third procedure be adopted. Stewart obtained a five-factor solution from factor analytic procedures, which were labeled Sociability, Ability to Supervise Others, Athletic Ability, Accept as an Intimate Friend, and Extremity. The factor analysis was done on data on four basic cues (traits) of 81 profiles. Stewart selected 15 profiles to be used in a multidimensional scaling analysis. This analysis provided a five-dimensional configuration and the multiple correlations between the five dimensions and the scale values of the 15 stimulus profiles on the four basic cues were .968 (excitable), .986 (cautious), .994 (sophisticated), and .987 (talkative). The two structures were rotated such that four dimensions would correlate maximally with each of the four cues. This rotation enabled Stewart to identify the extremity dimension in the multidimensional configuration. Thus,

both the results of the factor analysis procedures and the multidimensional scaling procedures were quite compatible, and such compatability obviously enhances the confidence in the solutions of both techniques.

Stewart notes, however, that such compatability may not often be obtained. First a factor analytic space may have one more dimension than the solution obtained when employing the multidimensional scaling procedures. In this case, Stewart argued that:

> Since it did not appear in the multidimensional scaling, its generality might be subject to some question and an investigation of the set of judgments would be indicated to determine if the specific combination of judgments included could have caused such a factor to arise artificially. If not, then the generality of the multidimensional scaling dimensions would have been shown to be limited. Given the multidimensional scaling alone, such a dimension would have been missed. Given the factor analysis alone, the dimension might have been accepted as general without further examination. (p. 516)

Second, a multidimensional scaling solution may have one more dimension than the factor analytic solution and contain the factor analysis as a subspace. Stewart noted that:

> In this case, the extra dimension would be singled out for study with regard to the following questions: Has some important component been omitted from the set of judgments used for factor analysis? Is this dimension introduced because of a specific characteristic of the type of psychological distance measure employed? (p. 516)

The answers to these two questions hinge on the immediate replication of the study, with an inclusion of scale which should tap the additional dimension.

To this list of procedures, I shall include a fourth. If it is the goal of a miltidimensional study to obtain a dimensional analysis of a set of objects that one can generalize the obtained dimensions to

a wider set of objects, then it seems legitimate to argue that a superior assessment of the generality of the multidimensional techniques lies in randomly sampling various sets of objects from a population or universe of objects, and then comparing the various solutions for the generality of dimensions. The degree to which various dimensions re-occur across random samples of objects enhances the confidence one might have for concluding that such dimensions are part of the respondents' perceptions of entire class of objects. Such a study also possesses a self-contained replication.

1.7.1 Effects of Aggregation

Of the various criteria mentioned above, the second criterion deserves some consideration. There are several reasons why a particular multidimensional scaling solution may be different using similar data and different techniques. One of the main reasons deals with the effects of aggregation. Anderson (1970) utilized the non-metric INDSCAL program to assess the dimensional structure of 12 adjectives. The average correlation between each individual's solution and the aggregate was .74. Thus, Anderson concluded that a configuration for the group did not differ greatly from that of the individual. Anderson (1973) retracted this conclusion when the average correlation between each individual's configuration for "public figures" and that of the aggregate was only about .38. Anderson recommended the utility of the INDSCAL model to assess the relationship between individual and aggregate.

The INDSCAL model assumes that the aggregate solution is a solution common to all respondents and that different respondents will have different dimensional salience weights, which are indicative of the emphasis

individuals placed on the dimension. To the author's knowledge, the only studies that have explicitly tested this assumption is a study by Sherman (1972) using trait adjectives, and a study by Carrol and Chang (1970) using tea preference data.

Woelfel and Danes (1977), however, note that the INDSCAL solutions are not general if the stimulus structure is not invariant across individuals. That is, if two individuals rank three objects in different orders, the solution will be a two-dimensional solution, as opposed to the one-dimensional solution obtained for the two individuals separately. This suggests that the generality of the INDSCAL solutions is a function of how many various points of view are sampled and the degree to which individuals comprising the points of view hold diverse viewpoints (namely, the extent to which objects are ranked differently across the points of view). For some sets of data (i.e., adjectives, colors, etc.), the diversity of points of view is not great and the dimensional solutions will be general. However, when the objects are complex (public figures, interaction situations, etc.), effects of aggregation may be more pronounced. In order to assess diversity (and ultimately the effects of aggregation), attention must be given to individual differences in perception.

At this point in time, it is difficult to report on the extent of different points of view in the perceptions of situations. Pervin (1976) undoubtedly uncovered what might be called diverse points of view. However, Magnusson (1971) and Magnusson and Ekehammar (1973) found individual differences in the perceptions of academic situations to be trivial. Further, Wish, Deutsch, and Kaplan (1976) found that the individual differences in the perceptions of role relations to be adequate handled

within the INDSCAL assumptions, and Wish (1975) unfortunately is mute on the topic. Finally, Magnusson and Ekehammar (1975) found three homogeneous samples of males and three samples of homogeneous females in terms of similarities of anxiety responses. In general, it would appear safe to conclude that either the INDSCAL model can adequately represent the extent of individual differences or that some small number of clusters of individuals can be identified.

In sum, these disucssions concerning generality of factors and effects of aggregation suggest, first, that several methods be employed in order to assess "generality" of dimensions. Of the various criteria, the investigation of the similarity between factor analysis and multidimensional scaling solutions would be the most informative. Second, similarities between solutions offered by several multidimensional scaling techniques would also be informative and help to identify any dimension or factor that a particular technique may yield artifactually. Further, it is possible to employ the INDSCAL model as one of the techniques to be compared and help to identify individual differences at the same time. Of the other criteria, it should be noted that the "construct validity" of the dimensions has been assumed throughout this paper. That is, I have assumed that the obtained dimensions can be related to differential strategies and behaviors. The commonalities between the response analytic and perception approaches discussed above support the claim that the perceptions of situations yield factors which correspond to behaviors. Obviously, this assumption leads directly to the implications of future research for daily persuasion situations (Section 1.8).

Further, attention should be paid to the question of generalizability of dimensions to situations which form a distinct domain of situations

(i.e., persuasion situations). Unless such generalizability can be demonstrated, one can only conclude that the obtained dimensions of situations are specific to the sampled situations. Since it is usually the case that generalizability is desirable (indeed, if not an implicit assumption), it would seem appropriate to select a sample of relevant (to the respondents) situations inclusive of the domain of interest and drawn random samples of situations from this "population" of situations.

In combination with the suggestion made above, one can eliminate problems of artifactual dimensions while generalizing "general" dimensions to the domain of situations. With these issues resolved, it becomes possible to assess strategies and behaviors and outcome-expectancy hypotheses individuals find applicable according to pre-calibrated situations.

1.8 Conclusions and Implications

I have argued that the proper procedure for assessing behavioral consistency across situations must begin with a careful analysis of how individuals categorize events which comprise their social environments. This is necessary in order to understand what aspects of the meaning assigned to situations influence the individual's selection of an "appropriate" behavioral response. Understanding the emergence of a behavioral response in a naturalistic situation can only be achieved by understanding what the individual perceives as a "situational requirement."

A review of the literature on the perceptions led to the conclusion that three classes of dimensions have been obtained; yet information concerning the generality of these dimensions across domains of situational types (let alone generality within a domain of situations) is severely lacking. Further, information concerning individual differences--

what accounts for them, how they are manifested in the perceptions of situations, and the degree or the scope of individual differences--is also severely lacking. Finally, I have discussed two methodological issues which need to be resolved concerning the "generality" of dimensions and the generalizability of dimensions. Thus, there are a number of general questions concerning how individuals categorize events which need to be considered in order to provide a complete, unbiased understanding of the perceptions of naturalistic situations.

Implications of this research on the perceptions of situations are enumerable. I will suggest only a few of the more important implications. First, it is informative in the sense of uncovering what the dimensions of these situations are, their generality and the extent of individual differences. Second, possessing the set (or various sets) of situations pre-calibrated along meaningfully interpreted, non-artifactual dimensions makes it possible to assess what strategies individuals select differentially according to a meaning system. "Strategies," of course, are what Mischel (1973) referred to as "behavior-outcome expectancies" and relate to onw way in which individuals vary in selecting "appropriate" modes of response. There are other variables that remain to be explored, such as one's "abilities" (Wallace, 1966) or construction competencies (Mischel, 1973). Such analyses as these entail differentiating individuals on the basis of ability to conceptualize a number of various strategies appropriate to the pre-calibrated situations which are likely to be successful, and on the abilities of executing any number of such devised alternatives. Furhter, in order to assess the "consistency" of behavior, one would also have to assess the values individuals place on the outcomes of various situations.

NOTES

1. I wish to acknowledge the assistance of Frank Boster and Eileen Thompson for collection of this data.

2. I wish to acknowledge Ed Kaminski for assistance in this task.

3. Several of the situations dealing with "friends" and "roommates" in the list of situations in Appendix A were switched to "close friends," "acquaintance," or "neighbor" for this task.

4. I wish to acknowledge the assistance of Dr. G. R. Miller, Mr. Ed Kaminski, and Mr. Frank Boster in writing these situations.

5. Because of space requirements in Figure 1, the entry levels are not included. The entry levels can be obtained from the author. Write to the author at the Department of Speech Communication, Texas Tech University, Lubbock, Texas 79409.

6. Because the presentation of a 4 x 40 matrix is somewhat difficult to present here, I have taken the liberty of not presenting the solution. The printout is available to those interested. Write to the author at the Department of Speech Communication, Texas Tech University, Lubbock, Texas 79409.

CHAPTER 2

Four topics will be discussed in this chapter. First, a pretest for nominating situations was conducted in order to select situations relevant to the social environments of the individuals. Second, after a set of relevant situations was selected, three sets of twelve situations were randomly sampled (with replacement) to be analyzed. Third, I shall discuss the procedures and materials used in the study. Fourth, an analysis of the respondents' reactions to the study will be presented.

2.1 Pretest for Nominating Situations

Since any one individual could have nominated a situation to be included in the list of situations in Appendix A, the relevancy of any situation is not guaranteed. Therefore, a pretest was conducted in order to assess the relevancy of the situations. In the Fall of 1976, 38 individuals --15 males and 23 females--volunteered to complete a questionnaire which presented 93 of the situations from Appendix A and required the respondents to circle +1 if the situation "definitely applies to them," 0 if the situation "possible applies to them," and -1 if the situation "does not apply to them." All respondents, who were enrolled in either Communication 199 or 205, received course credit for their participation. The situations were grouped on the basis of "parents," "roommates," "friends," "people you know," "professionals," and "strangers." After each of the sets of situations, respondents were asked to list four additional situations which were relevant to them.

Two lists of situations were constructed: a list of the "most frequently nominated" situations and a list of the "least objectional"

situations. The first list was based on the frequency by which the respondents reported the situations as applicable to them. The second list was based on the frequency by which the respondents reported the situations as not applicable to them. There was very little difference between the two lists of situations, with the least objectionable set of situations containing 12 more situations than the most frequently nominated situations.

The least objectionable set of situations will be used as the starting basis for the main study. Selection of this list, over the most frequently nominated list of situations, helps ensure that both very familiar and unfamiliar situations would be provided the respondents, so that the familiarity distinction will not be severely attenuated.

The list of selected situations is provided in Appendix C. The frequency of nomination is listed behind each situation, followed by the frequency of rejection. Both are presented as percentages. Several of the situations included in Appendix C were included from the free response nominations given by the respondents in this pretest. These were included on the basis that at least two (if not more) individuals freely nominated the same situation (or one similar to it). This list contains 87 situations.

2.2 Selection of Situations

To assess the robustness and replicability of the dimensions obtained in the perceptions of these situations, a random number generator program was utilized to provide 12 numbers at random within the limits of 1 and 87, inclusive. Three sets of situations were selected. Situations in set one included:

1. Persuade your roommate(s) to leave phone messages for you while you are out.
2. Persuade a professor to let you enroll in an already crowded class.
3. Persuade a group of people to stop teasing a friend of yours.
4. Persuade your boy/girlfriend to meet your relatives.
5. Persuade a friend not to swear so much.
6. Persuade your friend to let you stay out late.
7. Persuade your boy/girlfriend not to date another person.
8. Persuade a group of people to order a pizza because you feel like eating one.
9. Persuade a friend to take a class with you.
10. Persuade your father to take more time off from work and find something relaxing to do.
11. Persuade a bouncer to let you into a bar even though you have forgotten your I.D.
12. Persuade your parents to give you money.

Situations in set two include:

1. Persuade your boss to let you leave work early.
2. Persuade a group of people to go to the bar with you.
3. Persuade a professor that an answer on a test is incorrect.
4. Persuade a friend to go shopping with you.
5. Persuade your boy/girlfriend to go to a party where there is mostly your friends.
6. Persuade your boy/girlfriend not to date another person.
7. Persuade a friend to give you a ride.
8. Persuade a sister/brother to go to a four-year university.
9. Persuade a boy/girlfriend to study more.
10. Persuade a person to ask you out.
11. Persuade a group of people to participate in an experiment for your group project.
12. Persuade parents that marijuana is not bad.

Situations in set three include:

1. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.
2. Persuade your roommate to keep quiet when you are trying to sleep.
3. Persuade your boy/girlfriend to confide in you more.
4. Persuade a professor that a test item was ambiguous.
5. Persuade a professor that his grading scale is too hard.
6. Persuade a person you know in class to help you with your homework.
7. Persuade your landlord to fix the plumbing in your apartment.
8. Persuade an old boy/girlfriend that the relationship is worth saving.
9. Persuade your father into getting a check-up.
10. Persuade a police officer not to give you a ticket.
11. Persuade a professor to increase your grade.
12. Persuade your mother to go back to college and get a degree.

It should be noted that this procedure entails a random sampling of situations from a population of situations (Appendix C) with replacement. Therefore, the obtained dimensions of situations can be generalized to the population of situations.

2.3 Procedures Employed in the Study

The study was conducted in the Winter of 1977. Two hundred sixty-three individuals enrolled in Communication 100 and 101 classes volunteered to participate. All received courses for their participation.

2.3.1 Materials

All respondents received two questionnaires. The first questionnaire included instructions on the use of paired comparison scales and presented all non-redundant pairs of 12 situations. The instructions of an assumed interval scale are presented in Appendix D. Woelfel (1974) has argued that a ratio scale will provide more precise measurement of multidimensional scaling solutions. For this reason, an additional group of individuals was used and was provided an assumed ratio scale. Instructions for the assumed ratio scale are included in Appendix E.

Four different types of paired comparison questionnaires were constructed. Form 1 utilized an assumed interval scale and included situations in set one. Form 2 utilized an assumed interval scale and included situations from set two. Form 3 utilized an assumed interval scale and included situations from set three. Form 4 utilized the assumed ratio scale and included situations from set three. Woelfel, Cody, Gilham, and Holmes (1977) have noted that the first reponse on a paired comparison questionnaire is usually the least reliable. Therefore, a dummy first pair was included and not used in the analyses. The pairs of situations

were not randomized, but presented row-wise. The first questionnaire also contained questions concerning demographic information (i.e., sex, age, race, major, and year in school).

A second questionnaire included instructions on the use of the attribute scales and 23 attributes on which each of the 12 situations were to be rated. Some discussion of how these 23 attributes were selected in in order.

In order to assess the perceived level of friendliness of a situation, the following set of attributes was selected:

I. Friendly vs. unfriendly

friendly-unfriendly
easy to resolve conflicts-difficult to resolve conflicts
confortable-uncomfortable
frank and open-reserved and cautious

Since the type of relationship varies considerably across these sampled situations, several attributes were employed to assess perceived levels of intimacy:

II. Superficial vs. intimate

superficial-intimate
impersonal-personal

and several attributes were employed to assess perceived levels of status and/or formality of the situation:

III. Formal vs. informal

formal-informal
I have relatively low status-high status
one totally dominates-treat each other as equals

However, since the disctibution of social power may be of a nature that is only partly related to status or intimacy, two attributes were included to assess general influencibility:

IV. Influencibility

s/he has a major effect on my life-does not have a major effect
I have a major effect on his/her life-I do not have a major effect

Two attributes were employed to assess perceived levels of differential benefits:

V. I benefit vs. I do not benefit

I benefit-I do not benefit
persuade him/her to do something for his/her benefit-not to do something for his/her benefit

and two attributes were employed to assess familiarity:

VI. Familiarity

I have been in this situation many times before-I have never been in this situation before
I know how to behave-I do not know how to behave

Since the situations under investigation deal with persuasion, several attributes were included in order to assess perceived levels of difficulty in persuasion:

VII. Easy to persuade vs. difficult to persuade

easy to persuade-difficult to persuade
resistant to persuasion-not resistant to persuasion
I must be assertive-I need not be assertive

and one attribute was used to assess the general type of strategy preference: "I would use a short term strategy-long term strategy."

Several additional attributes were also employed. One attribute was employed to assess whether or not the situation involved a favor or involved a right of the respondent. With the Miller and Steinberg (1975) categories in mind, the attribute "no commitment to future interaction-commitment to future interaction" was included. Further, the attribute "emotional-unemotional interaction" was included to assess perceived levels of emotional feelings. Finally, the attribute, "s/he will think less

of me-will not think less of me" was included in order to assess whether or note the respondents perceive that some situations entail a negative altercasting or a blemish of their perceived character.

In relation to the attributes found by Forgas (1976) and Wish, Deutsch, and Kaplan (1976) to correspond to dimensions of situations (see Table 2), I have included two sets of attributes which could be subsumed into the set of "friendly vs. unfriendly" attributes. Further, I have subsumed the status and formal vs. informal set of attributes into one category. Further, for the present study, I have eliminated attributes dealing with work and task-oriented projects, but have added attributes which deal with the perceptions of difficulty of persuasion, influencibility, benefits and have included attributes which should assess familiarity (see Forgas, 1976).

The 23 attributes were re-ordered and many of the end points reversed in order to avoid response bias. The order by which attributes were presented is provided in Appendix F. Instead of randomizing the attributes for each situation, the same order of presentation was employed for each situation. Since the second questionnaire was a lengthy questionnaire, requiring 276 responses, the order by which situations were presented was reversed for one-half of the respondents. That is, one-half of the respondents in each of the four groups received the situations in the order as they are listed above, and one-half of the respondents received situation 12 first, followed by 11, etc. This was done in order to counterbalance fatigue effects.

2.3.2 Procedures

Data was collected during four test sessions. Respondents were presented in the first questionnaire, instructed to read the instructions to

themselves and to take as long as they needed in order to complete the questionnaire. When the respondents returned the first questionnaire, they were given the second questionnaire.

Respondents were assigned to one of the four groups on the basis of their arrival at the test session. Therefore, individuals were randomly assigned to one of the groups during each of the test sessions. Every other individual who completed a paired comparison questionnaire of a particular type received the second questionnaire of a different order of presentation of situations.

2.3.3 Respondents

Two hundred sixty-three individuals participated in the study: 64 were assigned to Form 1 (29 males and 35 females); 67 were assigned to Form 2 (21 males and 46 females); 66 to Form 3 (17 males and 49 females); and 66 to Form 4 (23 males and 43 females). Most respondents were Caucasion. There were 10 non-Caucasians assigned to Forms 1 and 2, seven to Form 3, and nine to Form 4. The mean ages of respondents, for the four groups, are 20.3, 19.3, 19.2, and 19.5, respectively.

2.4 Analysis of Respondents' Reactions to the Study

Three open-ended questions were presented to the respondents at the end of the second questionnaire which allowed them to (a) suggest additional attributes not included in the study; (b) to report whether they considered their participation in the study as laborious or interesting, and (c) report which, if any, of the situations presented in their questionnaire did not apply to them. Thus, an analysis of the open-ended questions provides an indivation of the exhaustiveness of attributes provided the respondents, the feasibility of boredom (or fatigue), and a further indication

TABLE 2

Attributes Used to Interpret Dimensions Obtained by Wish, Deutsch, and Kaplan (1976), and by Forgas (1976)

Wish et al.:	Forgas:
FRIENDLY vs. UNFRIENDLY	
harmonious-clashing	friendly-unfriendly
cooperative-competitive	pleasant-unpleasant
friendly-unfriendly	informal-formal
compatible goals-incompatible	intimate-superficial
productive-destructive	at ease-ill at ease
easy-difficult to resolve conflicts	
altruistic-selfish	
fair-unfair	
relaxed-tense	
INVOLVED-UNINVOLVED	
active-inactive	involved-uninvolved
intense-superficial interaction	intimate-superficial
intense-superficial feelings	
interesting-dull	
STATUS	
equal-unequal status	
similar-different roles	
FORMAL-INFORMAL	
important-unimportant to society	
pleasure-work oriented	
formal-informal	
FAMILIARITY	
	know how to behave-do not know
	at ease

if any situation is not a common, relevant situation.

Sixty-four respondents completed questionnaire Form 1. Thirteen respondents left the question concerning additional attributes blank. Of the remaining respondents, 15 males and 17 females reported that they could offer no remaining attributes. The remaining individuals reported a wide range of attributes. Two males and two females reported that the "importance" of the persuasion was a distinction they made. One male suggested a difference between public persuasion and more private persuasion settings. One male suggested a difference between being sincere or insincere.

Of the 67 individuals in the Form 2 group, 14 left the question blank, 14 of the 21 males and 28 of the 46 females indicated that they could not suggest additional attributes. Two individuals noted that in some situations, damage to future communication was eminent. Three individuals stated that all situations were unique.

Of the 66 individuals in the Form 3 group, eight individuals left the question blank, and seven of the 17 males and 29 of the 49 females indicated that they could not suggest additional attributes. Two females suggested that the emotional strength required to engage in the situation was an important consideration for them. Two females suggested that the importance of the persuasion was an important consideration. One male and one female suggested that whether the persuasion had short term effects on the relationship or long term effects on the relationship was an important consideration. One male indicated that the likelihood of frequency of situation occurrence was worthy of consideration, and two females noted that each situation is unique.

Of the 66 individuals in the Form 4 group, nine individuals left the question blank, and 14 of the 23 males and 26 of the 43 females

reported that they could not suggest additional attributes. Two females and one male noted that the impersonal-personal distinction was important, one male responded that who benefits was an important consideration, and one male and one female noted that a high regard for the other person's opinion was an important consideration. One individual suggested that perceptions of situations vary more as a funtion of the other interactant than the nature of the goal of the persuasion, particularly situations dealing with professors.

In sum, most of the individuals felt that the attributes employed in the present study were quite exhaustive. Many of the suggested attributes were already included in the study (i.e., benefits, impersonal-personal, emotional-unemotional, etc.). However, two attributes, perceived degree of importance and the degree to which the situation affects the relationship, are two attributes worthy of future consideration in studies of this type.

Of the 66 individuals in the Form 1 group, eight males and 11 females perceived their participation in the study as monotonous, five males and six females as laborious, six males and 12 females as easy, and eight males and 18 females perceived the study as interesting. For the Form 2 individuals, nine males and 10 females perceived the study as monotonous, eight males and 17 females as easy, three males and one female as laborious, and eight males and 19 females as interesting.

For the Form 3 individuals, six males and nine females perceived the study as monotonous, seven males and 14 females as easy, one male and four females as laborious, and seven males and 22 females as intersting. For the Form 4 group, eight males and 11 females perceived the study as monotonous, three males and 13 females as easy, six females as laborious,

and 10 males and 23 females as interesting.

It would appear that the respondents, by and large, perceived their experience in this study as an interesting one. Very few individuals perceived the task as laborious; most perceived it as interesting and approaching the point of monotony.

In general, the results of the analysis of the third open-ended question confimrs the results of the Pretest for Nominating Situations. Nearly all of the situations sampled are common, relevant situations for the majority of individuals. For the Form 1 individuals, seven females and three males reported that they would never be in the situation "persuade a boy/girlfriend not to date another person." This means that less than 10 percent of the respondents reject this situation as being relevant. Only seven respondents left this open-ended question blank.

For the Form 2 group, eight individuals left the question blank, and only two situations were rejected by a number of individuals. The situation "persuade your parents that marijuana is not bad" was rejected by 19 (of the 46) females and by eight (of the 23 males). The situation "persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person" was rejected by 10 females and four males.

For the Form 3 group, eight individuals left the question blank, eight males and five females rejected the situation "persuade your mother to go back to college and earn a degree," seven females and four males rejected the situation "persuade a police officer not to give you a ticket," 10 females and one male rejected the situation "persuade a professor that his grading scale is too hard," and five females and three males rejected the situation "persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person." These situations were

rejected by more or less the same number of individuals in the Form 4 group.

After respondents completed the questionnaires, they were given a debriefing document to take with them which described the goals of the experiment.

CHAPTER 3

RESULTS

Overview

In order to assess the interrelationships among the attributes, a factor analysis of the unidimensional attributes was done. The results of this analysis are presented in Section 3.1.

The stability of situations in the multidimensional spaces was done in two ways. First, configurations for random split-halves of the respondents for each of the four groups were compared. Second, configurations for males and females for each of the four groups were compared. A metric multidimensional scaling program (GALILEO), which has the capacity of performing least-squares Procrustean rotation was used in these comparisons (see Cliff, 1966; Schonemann, 1966; Woelfel, Saltiel, McPhee, Danes, Cody, Barnett, and Serota, 1975, for a discussion of this rotation procedure). The results concerning stability of the locations of situations in the multidimensional spaces will be presented in Section 3.2.

The paired comparison data for each of the four sets were analyzed using three multidimensional scaling models (GALILEO, KYST [with TORSCA option] and INDSCAL) and Johnson's (1967) hierarchical clustering program. Results from the utilization of all three multidimensional scaling programs which have a bearing on determining the number of usable dimensions will be presented in Section 3.3.

It will be argued in Section 3.3 that there are four usable dimensions. Zero order correlations between the four dimensional (KYST) solutions and the first four dimensions obtained by utilizing the metric

(GALILEO) program are as follows:

— for Form 1: -.99, .99, .99, and .98;

— for Form 2: .99, -.95, .97, and -.75;

— for Form 3: -.93, .95, .97, and .97; and,

— for Form 4: -1.00, .99, -.93, and .93.

A rotation of the KYST configurations to that of the GALILEO configurations would do little to the configurations except to reverse the signs on the appropriate dimensions. It would appear that the major features of the perceptions of situations are equally represented in the GALILEO and KYST solutions. Therefore, only the results of using the KYST model will be presented in this paper. The GALILEO program will be employed, when appropriate, for comparing various solutions.

Thus, three sections of this paper deal with the psychological interpretation of the dimensional structures of clusters obtained from the other three analytic tools. Section 3.4 presents the psychological interpretation of the four dimensional (KYST) solutions. In Section 3.5, I will discuss the results of hierarchically clustering the situations in relation to the interpretation of dimensions presented in Section 3.4. In Section 3.6, I shall discuss (briefly) the interpretation of the INDSCAL solutions, the dimensional salience weights for all respondents and a clustering of the respondents on the basis of correlations among dimensional salience weights.

Note that in Section 3.2 I discuss the fact that some situations are perceived differently by males and females. To assess these sex differences, coordinate loadings for situations for males were regressed onto the mean ratings (for males) on attributes. The same was done for the females in each group (the coordinate loadings for situations from a

configuration which was rotated to the male configuration was used). For all practical purposes, there was essentially no difference in the interpretation of the first four dimensions. Apparently, there is not a male point of view, or a female point of view. For pragmatic reasons, this regression analysis will not be presented in this paper. Other points of view will be analyzed.

Repeatedly throughout this section of the paper I will make reference to the operation of various points of view. No less than eight distinct clusters of individuals were obtained in Section 3.6. Respondents representative of two clusters for one of the sets of data will be identified, and, in Section 3.7, I will compare the multidimensional configurations for these individuals.

In Chapter 4 of this paper, I shall discuss the implications of the obtained interpreted (aggregated) dimensions and the implications concerning the points of view that are obtained concerning future research on (a) the perceptions of situations, and (b) the influence of perceptions of situations on behavior.

3.1 Factor analysis of unidimensional attributes

Recall that attributes were chosen in such a way as to assess the dimensions that were obtained by Wish, Deutsch and Kaplan (1976) and by Forgas (1976). Further, several attributes were included from the exploratory study and from other literature.

However, neither the Forgas or Wish, Deutsch and Kaplan studies reported an assessment of the interrelations of the attributes separate from the obtained multidimensional scaling solutions. An assessment of the interrelationships among the 23 unidimensional attributes is of

interest for two reasons. First, such an assessment would be of benefit to future research in (a) constructing indices of attributes, (b) selecting attributes which may be better suited to measure a single construct or factor of perceptions, and (c) eliminate attributes which do not measure a single factor (i.e., have high cross loadings between multiple factors). Thus, a factor analysis of the unidimensional attributes was performed, and I shall make some recommendations for future research.

The second reason for such analysis relates directly to the paper at hand. With the knowledge of how attributes form into factors, a discussion of how each dimensional representation relates to the attributes can be simplified. That is, instead of discussing how each dimension corresponds to each of the 23 unidimensional attributes, it would be more convenient and parsimonious to discuss how each dimension corresponds to each factor of attributes. Further, the degree to which commonalities exist between the factor analytic and multidimensional scaling solutions is one criteria for assessing the "generality" of the dimensions.

In order to assess the interrelationships among the attributes, a factor analysis (principal components with interactions; varimax rotation) was performed. Table 3 presents the results of this factor analysis (n = 263). Six factors had eigenvalues greater than unity. A six factor solution accounts for 59.2 per cent of the variance.

Factor one contains four attributes which load highly only on one factor: "formal-informal" loads .608; "one totally dominates-treat each other equally" loads .619; "s/he will think less of me-will not think less of me" loads .642; and "I have relatively low status-high status" loads .315. Further, the following attributes have cross loadings with other factors: (with factor five) "friendly-unfriendly", "difficult to

TABLE 3

Results of Factor Analysis of Unidimensional Attributes (n=263)

Attributes	Factors: 1	2	3	4	5	6
friendly-unfriendly	-.435	.025	.002	-.083	.417	.150
difficult-easy to resolve conflicts	.441	.173	.003	.088	-.373	-.075
short term-long term strategy	.019	.124	.014	.028	.186	.096
comfortable-uncomfortable	-.536	.039	-.065	-.110	.622	.155
resistant-not resistant to persuasion	.288	.121	-.071	.312	-.587	.101
easy to persuade-difficult to persuade	-.148	-.075	.159	-.051	.849	-.009
I benefit-I do not benefit	.022	.033	.105	.578	.006	-.091
I have been-I have never been in this situation	.085	-.030	.319	.253	.310	.252
involves a favor-involves a right	-.047	-.074	.031	-.106	.179	.639
do something for his/her benefit-not do something for his/her benefit	.122	-.004	.261	.358	.187	-.202
I have relatively low status-high status	.305	.027	-.006	.140	-.133	.140
formal-informal	.607	.136	-.072	.104	-.079	-.119
one totally dominates-treat each other equally	.619	.124	-.043	-.021	-.133	.003

TABLE 3 (cont'd.)

Attributes	Factors: 1	2	3	4	5	6
superficial-intimate relationship	.337	.740	-.192	.080	-.172	-.179
no commitment to future interaction-commitment	.041	.457	-.152	-.075	.129	.087
frank and open-reserved and cautious	-.420	-.063	-.034	.203	.499	.089
impersonal-personal relationship	.193	.871	-.087	-.018	-.129	-.169
emotional-unemotional situation	.313	-.229	.243	.329	-.058	-.121
I know-I do not know how to behave	-.182	.020	.181	.266	.594	.062
he/she will think less of me-will not think less	.642	.128	.111	.036	-.036	.124
he/she has a major effect-does not have a major effect on my life	.034	-.194	.792	.120	-.001	.026
I have a major effect-do not have a major effect on his/her life	-.078	-.170	.829	.061	.195	.007
I must be assertive-I need not be assertive	.079	-.060	-.022	.293	-.041	.220

resolve conflicts-easy to resolve conflicts", "comfortable-uncomfortable", and "frank and open-reserved and cautious". It would appear, however, that this factor contains only the four attributes which load cleanly on this factor. This factor is a "formal-informal" factor.

Factor two consists of three attributes with clean loadings: "superficial-intimate" loads .740; "no commitment-commitment to future interaction" loads .457; and, "impersonal-personal" loads .871. This factor is a "superficial-intimate" factor.

Factor three consists of two attributes: "s/he has a major effect on my life-does not have a major effect on my life" loads .792; and, "I have a major effect on his/her life-I do not have a major effect" loads .829. Thus, the two items which were included in order to assess overall influencability among the participants appears to be fairly independent of both the more formal or informal situations and fairly independent of the degree of intimacy of the relationship.

Because of problems of cross loading attributes, discussion of the fourth factor is a bit more problematic. There are two attributes which have their highest loadings on the fourth factor: "I benefit-I do not benefit" loads .578; and, "do something for his/her benefit-not do something for his/her benefit" loads .358. One attribute has cross loadings with the fourth and fifth factor: "resistant to persuasion-not resistant to persuasion". Further, the following two attributes have small loadings across a number of factors, but load highest on the fourth factor: "emotional-unemotional" and "I must be assertive-I need not be assertive". However, I will not attempt to categorize attributes with high cross loadings as belonging to a distinct factor. It should be sufficient to conclude that the two items which attempt to assess who benefits from the

persuasion form a distinct unit and represent the fourth factor.

As noted above, a number of unidimensional attributes have high cross loadings between the fifth factor and other factors. Attributes which have fairly pure loadings on the fifth factor include: "easy to persuade-difficult to persuade" loads .849, and "I know how to behave-I do not know how to behave" loads .594. Of the attributes which cross load with factors one and five, the "comfortable-uncomfortable" attribute loads highest on the fifth factor (.622) and the "frank and open-reserved and cautious" attribute also loads highest on the fifth factor (.499). Of the attributes which load on both factors four and five, the "resistant-not resistant to persuasion" attribute loads highest on the fifth factor (-.587).

This factor appears to be an "easy to persuade-difficult to persuade" factor and I shall include in this factor the following four attributes because I feel that these attributes jointly assess perceived resistance: (1) "easy to persuade-difficult to persuade", (2) "I know how to behave-I do not know how to behave", (3) "comfortable-uncomfortable", and (4) "resistant-not resistant to persuasion".

While I have labeled this factor an "easy to persuade-difficult to persuade factor", it is interesting to note that the "I know how to behave-I do not know how to behave" attribute has more to do with this factor than with the formal-informal, intimate-superficial or influencability factors. Evidently, perceiving difficulty in persuading another has a lot to do with not knowing how to behave in the face of resistance and feeling undomfortable during the persuasion. Further, these relationships are somewhat (according to the factor analysis) independent of the intimacy and influencability of the relationship. These attributes

however, may be somewhat related to the perceived formality of the situation, given the high cross loadings of such attributes as "friendly-unfriendly", etc., across factors one and five.

The sixth factor includes only one attribute. It is the "favor-rights" factor, since the attribute "involves a favor-involves a right" loads .639 on this factor and does not cross load with any other factor.

To summarize, the following six factors have been obtained:

I. Formal-informal

1. formal-informal
2. one totally dominates-treat each other equally
3. s/he will think less of me-will not think less
4. I have relative low status-high status

II. Superficial-intimate

1. impersonal-personal
2. superficial-intimate
3. no commitment to future interaction-commitment

III. No major effect-influencability

1. I have a major effect on his/her life-I do not
2. s/he has a major effect on my life-does not

IV. I benefit-I do not benefit

1. I benefit-I do not benefit
2. do something for his/her benefit-not do something for his/her benefit

V. Easy to persuade-difficult to persuade

1. easy to persuade-difficult to persuade
2. I know how to behave-I do not know how to behave
3. comfortable-uncomfortable
4. resistant-not resistant to persuasion

VI. Favors vs. rights

1. involves a favor-involves a right

Further, there are several attributes which fail to be categorized into any factor: (1) "friendly-unfriendly" relates to both the formal and perceived resistance factors; (2) "difficult to resolve conflicts-

easy to resolve conflicts" relates to both the formal and perceived resistance factors; (3) "emotional-unemotional" relates to both the formal and perceived resistance factors; and (4) "frank and open-reserved and cautious" relates to both the formal and perceived resistance factors. Three attributes do not relate to any factor: "I have been-I have never been in this situation"; "short term-long term strategy"; and "I must be assertive-I need not be assertive".

Therefore, in the discussion below concerning the psychological interpretation of the dimensions of situations, reference will be made to these seven attributes.

Recall that Wish et al. obtained a four dimensional structure (by regressing the dimensional coordinates onto the unidimensional attributes) which were labeled as follows: (1) "friendly-unfriendly"; (2) "involved-uninvolved"; (3) "status"; and, (4) "formal-informal". At first glance, it may appear that the six factor structure I have obtained suggests some major discrepancies from the structure obtained by Wish et al. However, there exists a major methodological difference in how these two structures were obtained.

In factor analysis, the goal is to reduce a number of attributes onto a $\underline{m}$ matrix of coordinate values based on the zero order correlations among the attributes. There is nothing (as McLaughlin [1975] and Cody, Marlier, and Woelfel [1975] have noted) to ensure that the $\underline{m}$ factors obtained by factor analysis are relevant to the perceptions of objects rated, nor is it possible to discover what distinctions exist among the objects rated aside from the factors (formed by the attributes) given the respondents for their use.

Multidimensional scaling requires paired comparison data, in which respondents rate levels of perceived similarity (or dissimilarity) among the objects. From a matrix of interpoint mean distances, orthogonal axes are obtained which correspond to the major distinctions the respondents perceive among the objects. To interpret the dimensional solution, it is possible to regress the coordinate loadings for r number of dimensions onto the median ratings (if the sample size is small) or the mean ratings (if the sample size is large enough to believe the mean is robust).

Obviously, one would expect an immediate resemblance between the factor structure obtained by factor analysis and that obtained by regression of coordinate loadings onto attributes. However, such a resemblance may be substantially weaker than one would expect. While Stewart (1974) found a fairly strong resemblance between a factor analytic solution and a multidimensional scaling solution for trait terms, there is no guarantee that the two types of procedures will provide similar solutions in the present study. A high degree of similarity may be obtained by comparing the factor analytic solution for each of the three sets of situations with each respective multidimensional scaling solution, but an overall factor analysis of the ratings across all three sets of situations would be based on the degree to which attributes consistently correlated across the various sets of situations. Since it is very likely that some subset of attributes will correlate less with another subset of attributes in some set of situations than in another set of situations, the degree of correspondence between each of the four multidimensional scaling solutions and the overall factor analytic solution will be attenuated. Nonetheless, the overall factor analytic solution is useful in providing a convenient means for interpreting the multidimensional

scaling solutions and some comparisons between the overall factor analytic solution and the four multidimensional scaling solutions will be noted below (see below).

Before discussing the dimensional configurations of situations, a final comment is in order. The factor analysis of the unidimensional attributes was done in order to facilitate a discussion of the psychological interpretation of the dimensional configurations. It was also done in order to discuss ways in which to improve the factor analysis in future research. Obviously, nothing has been gained, from a factor analysis point of view, by including the attributes which did not fit into any of the factors. However, the factor analysis of unidimensional scales is a fragile procedure and results are strongly influenced by the inclusion (or deletion) of additional items. For example, it was originally felt that the two familiarity items ("I have been-I have never been in this situation" and "I know how to behave-I do not know how to behave") should have loaded highly on the same factor. The inclusion of several additional items, such as "occasional-regular", may enhance the emergence of such a factor. Second, several items would be needed to better assess the "rights vs. favors" factor, such as "I have a moral obligation to make this request-I do not have a moral obligation," etc. Several additional items such as these would be necessary if indices were to be constructed.

Further, it is discouraging to note that attributes such as "I must be assertive-I need not be assertive" are not included in a factor. From a factor analysis point of view, such items would be eliminated from a second wave of data collections (if "pure" factors were to be obtained). This is unfortunate, from the perspective of the dimensional

analysis, because the attributes which have high cross loadings prove to be extremely helpful in discussing individual differences in perceptions.

3.2 An assessment of the stability of situations in the multidimensional configurations[1]

To assess reliability of the aggregated paired comparison ratings, data from respondents in each of the four groups were randomly split into two halves. Each split-half was factored and one of the split-half configurations was rotated onto the respective second split-half configuration. A least-squares Procrustean rotation was used (Cliff, 1966; Schoneman, 1966; see Woelfel and Danes, 1977). Correlations were computed between the loadings of the situations for respective columns of the factor matrices. These column correlations indicate the degree of stability between dimensions. Correlations were also computed between respective rows of the factor matrices. These row correlations indicate the degree of stability of each of the situations across the split-half configurations. In computing these correlations, loadings of situations across all of the real dimensions were used (usually eight or nine of the dimensions were real — accounting for 98 percent or 99 percent of the variance). Finally, the distance between each situation's location in the first split-half configuration and the second split-half configuration was obtained.

Before discussing the stability information, it should be noted that departures from stability can either suggest unreliability in the respondent's distance estimates or suggest the operation of varying "points of view". It is impossible to distinguish the two effects. In utilizing paired comparison data, averaging across divergent points of view would

yield a solution that may represent only the more salient aspects of a particular point of view. Thus, if unstability is observed, the proper course of action is to question the random assignment of respondents to each split-half and to suggest that there are various points of view that are operative. If the points of view cannot be parsimoniously explained, then one must conclude that the data are unreliable. I shall discuss the question of points of view in detail in Section 3.7.

Figure 2 presents the three dimensional representation of the locations of the 12 situations in the split-half comparison of Form 1 data. It would appear that situations 2, 7, 8, and 10 exhibit some change. Such a conclusion, however, is unwarranted because there is only one view of the comparison in Figure 2 (one angle by which the viewer perceives the three dimensional configuration) and only three dimensions are represented.

Table 4 presents the distance between the location of each situation in the first and second split-half comparisons. For the split-half comparison of Form 1 data, the mean distance between situations is 1.955 (see the first column of Table 4). The situation that exhibits the most change is situation six ("persuade your parents to let you stay out late") which "moved" a distance of 4.009 units. Further, the seventh situation ("persuade your boy/girlfriend not to date another person"), which moved a distance of 2.759 units, exhibits some change. All other situations in this comparison appear to be quite stable.

Column correlations for the split-half comparisons are presented in Table 5. For the split-half comparison of the Form 1 data, the first three dimensions are very stable (see the first column of Table 5). The stability of the fourth dimension drops ($r = .756$), but the stability of dimensions five through seven are fairly high (.814-.871). Finally, the

FIGURE 2

Three-Dimensional Representation of 12 Situations for Split-Half Comparison of Form 100 Data

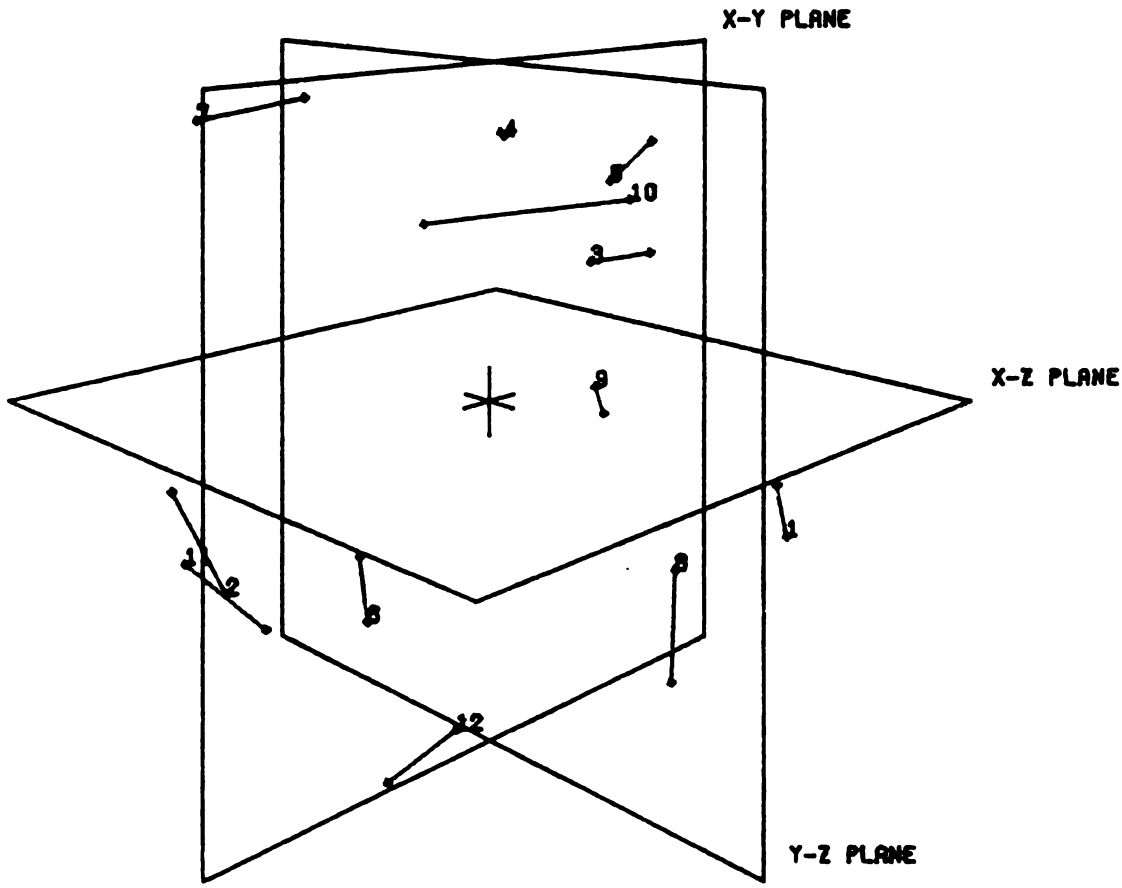


TABLE 4

Distances Between Situations in Split-Half Comparisons[a]

Situation	Split-half FORM 1 (n=32, 32)	Split-half FORM 2 (n=34, 33)	Split-half FORM 3 (n=33, 33)	Split-half FORM 4 (n=33, 33)
1	1.545	4.664	1.431	22.147
2	2.154	2.545	1.569	33.087
3	1.006	4.283	2.264	20.408
4	1.220	1.581	2.293	21.729
5	1.789	.881	2.018	26.380
6	4.009	4.425	.773	29.127
7	2.759	3.104	.701	22.180
8	1.359	6.706	1.870	23.385
9	1.980	5.254	1.194	27.697
10	2.380	1.281	.872	18.578
11	1.293	2.607	1.949	14.109
12	1.914	3.832	1.369	23.185
Mean distance	1.955	3.283	1.525	23.501

[a] For Forms 1, 2 and 3, an assumed (eleven-point) scale was used. For Form 4, the "distance" specified for the criterion pair was 100 units.

TABLE 5

Column Correlations for Split-Half Comparisons for Eight Dimensions[a]

Column	Split-half FORM 100 (n=32; 32)	Split-half FORM 200 (n=34; 33)	Split-half FORM 300 (n=33; 33)	Split-half FORM 400 (n=33; 33)
1	.975 12.82	.982 10.77	.996 5.31	.971 13.87
2	.975 12.85	.248 75.59	.964 15.34	.953 17.71
3	.908 24.84	.627 51.19	.978 11.95	.959 16.39
4	.756 40.87	.819 35.02	.879 28.48	.802 36.70
5	.857 31.00	.678 47.30	.947 18.78	.742 42.08
6	.814 35.55	.230 76.72	.826 34.27	.904 25.24
7	.871 29.44	.305 72.23	.883 27.96	.742 42.12
8	.720 43.97	.603 52.90	.535 57.65	.934 20.86

[a] The first number is the correlation; the second is the angle.

stability of the eighth dimension drops (r = .720), but not sufficiently to exclude it from further analysis.

Row correlations for all of the split-half comparisons are presented in Table 6. For the split-half comparison of Form 1 data, only situation six ("persuade your parents to let you stay out late") correlates poorly across the two configurations (r = .326). All other situations correlate .823 or better. Thus, for the split-half of Form 1 data, there appear to be eight fairly stable dimensions and one situation that is not stably located in the space. Note that while some situations (namely, situation seven) appeared to "move" between the two configurations, this movement is an expansion of the vector representing the situation further out into the space (or contracting towards the centroid). I say this because the situation moved, yet the vectors representing the locations of the situation in the two configurations correlate highly (situation seven, for example, correlates .823 across the two configurations).

Figure 3 presents a three dimensional representation of the locations of the twelve situations in a split-half of Form 2 data. Evidently there are some serious problems in fitting the second split-half configuration to that of the first. The mean distance between situations is 3.283 (see second column of Table 4), and the situations that exhibit change in this comparison include the following: situation eight ("persuade a sister/brother to go to a four-year University") moved 6.706 units; situation nine ("persuade a boy/girlfriend to study more") moved 5.254 units; situation one ("persuade your boss to let you leave work early") moved 4.283 units; situation six ("persuade your boy/girlfriend not to date another person") moved 4.425 units; and situation three ("persuade a professor that an answer on a test is incorrect") moved

TABLE 6

Row Correlations for Split-Half Comparisons[a,b]

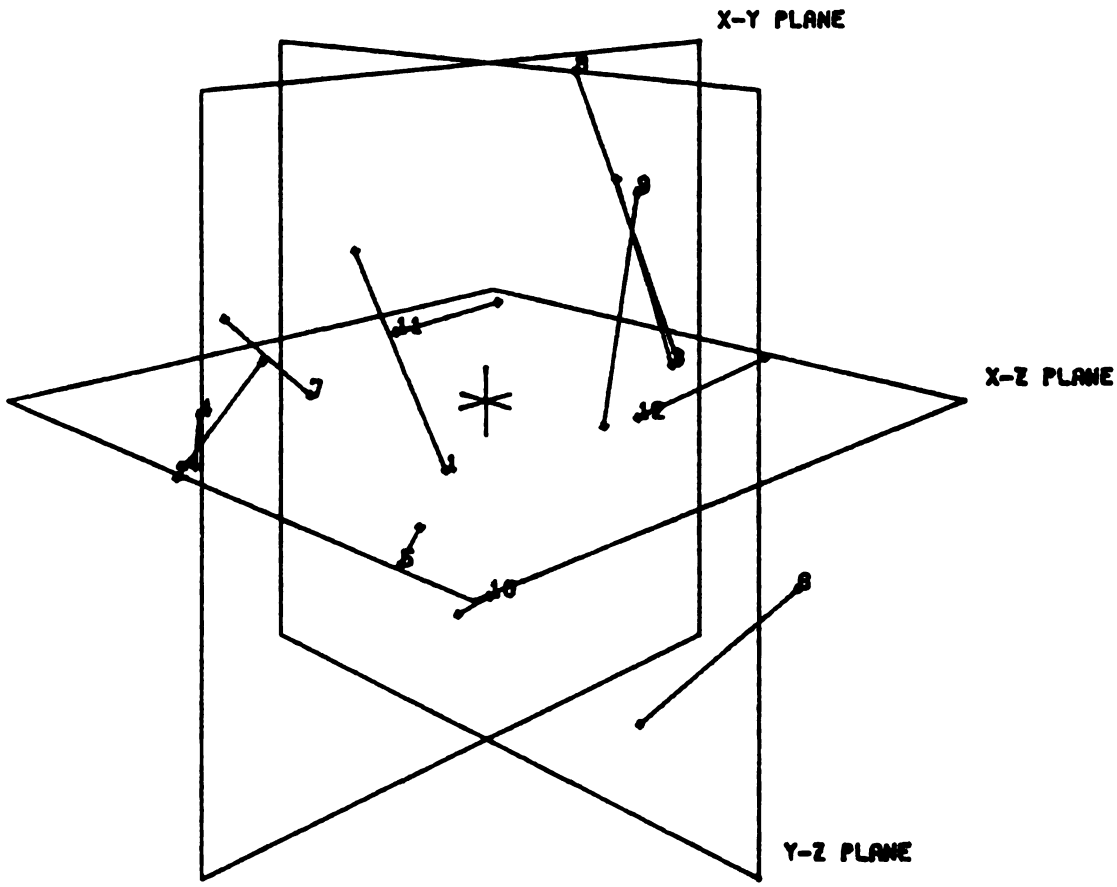
Situations	Split-half FORM 1 (n=32; 32)	Split-half FORM 2 (n=34; 33)	Split-half FORM 3 (n=33; 33)	Split-half FORM 4 (n=33; 33)
1	.954 17.43	.598 53.35	.934 20.84	.915 23.73
2	.881 28.23	.835 33.40	.929 21.68	.917 23.47
3	.953 17.61	.642 50.08	.861 30.50	.945 19.15
4	.924 22.94	.874 29.03	.854 31.31	.924 22.51
5	.917 23.43	.905 25.19	.870 29.56	.901 25.75
6	.326 70.95	.609 52.47	.952 17.67	.850 31.78
7	.823 34.56	.741 42.16	.987 9.38	.894 26.55
8	.936 32.98	.166 80.45	.768 39.86	.937 20.38
9	.839 32.98	.293 72.97	.950 18.12	.901 25.69
10	.889 27.30	.930 21.59	.979 11.76	.882 28.06
11	.953 17.60	.655 49.07	.842 32.64	.963 15.62
12	.856 31.12	.778 38.94	.959 16.41	.918 23.38

[a] The first number is the correlation; the second is the angle.

[b] All real dimensions were used in calculating correlations and angles.

FIGURE 3

Three-Dimensional Representation of 12 Situations for Split-Half Comparison of Form 200 Data



4.283 units. Column correlations for this comparison indicate that only dimensions one and four reach acceptable levels of stability (see second column of Table 5). Evidently, the instability of the above five situations is sufficient to alter the factor structure of the Form 2 data.

Row correlations indicate that six situations do not correlate well across the split-half comparison configurations (see Table 6): (1) situation eight correlated only .166; (2) situation nine correlated .293; (3) situation one correlated .598; (4) situation six correlated .609; (5) situation three correlated .642; and (6) situation eleven ("persuade a group of people to participate in an experiment for your group project") correlated .655.

Six of the twelve situations in the Form 2 data are not stable. Thus, either there exists substantive unreliability in the distance estimates, or this particular random split-half split the sample into two different points of view. Sex differences may play a role in understanding the differences observed in this comparison and I shall discuss sex differences in a following subsection of this paper.

Alternatively, various "points of view" may account for this apparent lack of stability. However, at this point in time, I believe that it is permissable to present the results of a second random split-half of the Form 2 data. Row correlations for this new analysis are as follows: situation one, r = .800; situation two, r = .875; situation three, r = .783; situation four, r = .890; situation five, r = .832; situation six, r = .569; situation seven, r = .920; situation eight, r = .487; situation nine, r = .486; situation ten, r = .899; situation eleven, r = .744; and situation twelve, r = .837. Thus, situations which are unstable include situations six, eight and nine.

Column correlations for this second split-half comparison indicate a substantial increase in the stability of the dimensional structure: dimension one, r = .973; dimension two, r = .739; dimension three, r = .794; dimension four, r = .943; dimension five, r = .820; dimension six, r = .789; dimension seven, r = .526; and dimension eight, r = .668. Thus, it would appear that there are probably two (or more) very strong points of view.

Figure 4 presents the three dimensional representation of the twelve situations for the split-half of Form 3 data. There appears to be an extremely good fit between the two configurations. The mean distance between each situation and its counterpart is 1.525 units (see third column of Table 4). The three situations that exhibit the most change are as follows: situation four ("persuade a professor that a test item was ambiguous") moved a distance of 2.293 units; situation three ("persuade a boy/girlfriend to confide in you more") moved 2.264 units; and situation five ("persuade a professor that his grading scale is too hard") moved 2.018 units.

Column correlations indicate that the first seven dimensions are stable (see third column of Table 5). Dimension eight correlates .535. Row correlations indicate that all of the situations are stable in this comparison (see third column of Table 6). If any situation is unstable, it is situation eight ("persuade an old boy/girlfriend that the relationship is worth saving"), which correlates .768.

Figure 5 presents the three dimensional representation of the locations of the twelve situations in the split-half of Form 4 data. While it appears that several of the situations exhibit movement, it also appears that this movement is in the form of expansions (or contractions)

FIGURE 4

Three-Dimensional Representation of 12 Situations for Split-Half Comparison of Form 300 Data

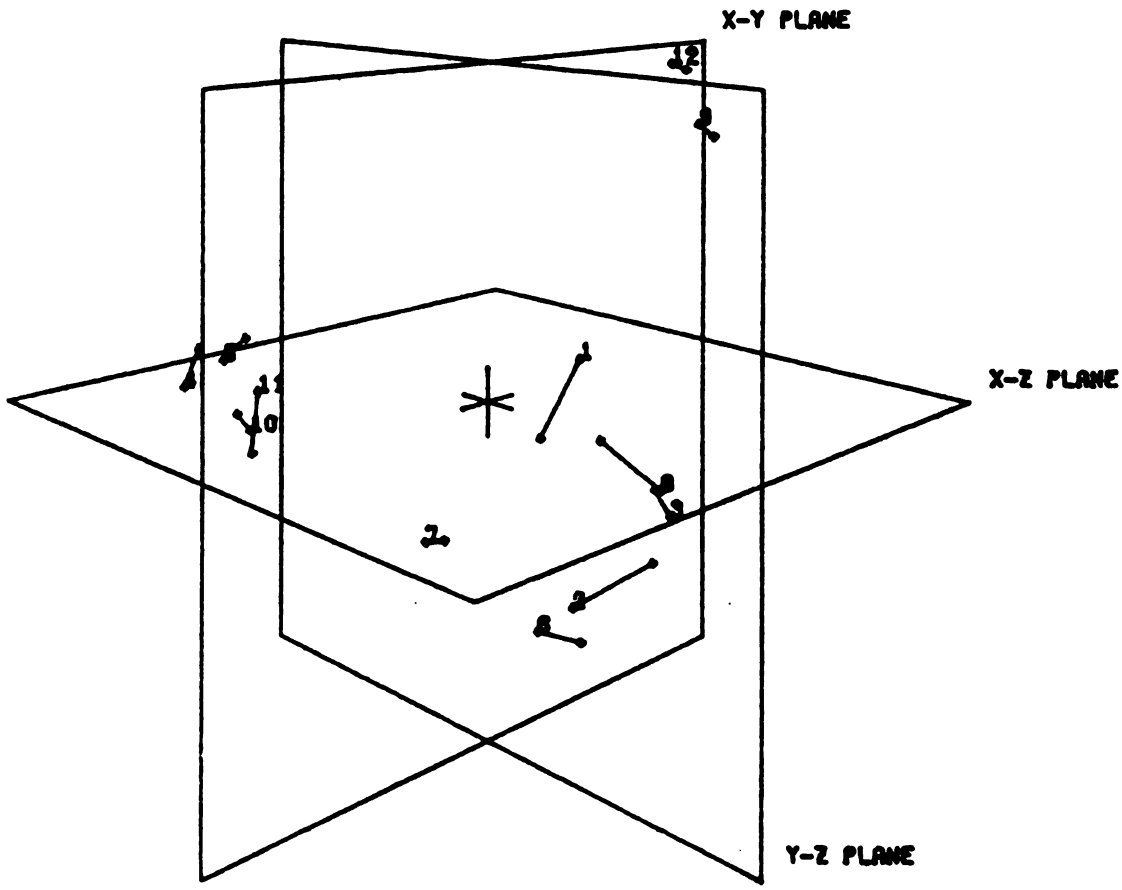
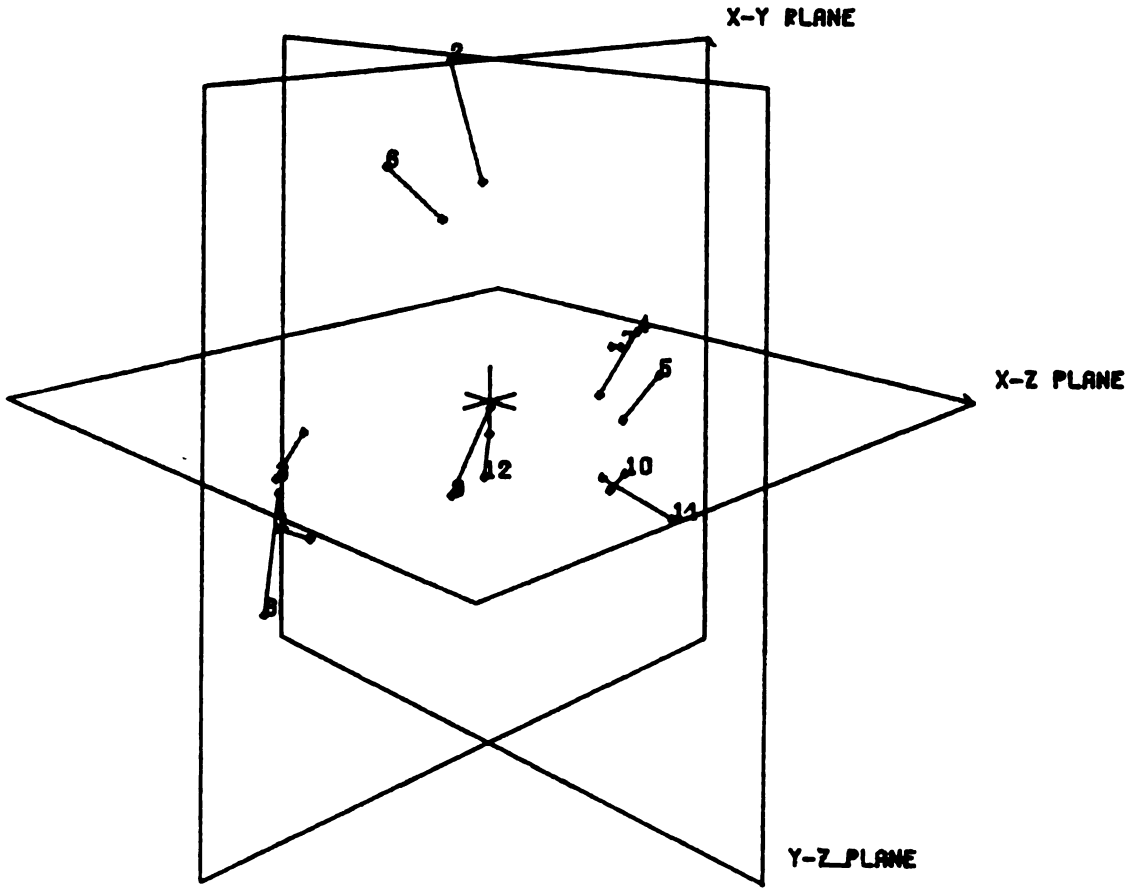


FIGURE 5

Three-Dimensional Representation of 12 Situations for Split-Half Comparison of Form 400 Data



along the vector which identifies the situation's location between the two configurations. Thus, the situations could exhibit some change in their locations in the two configurations, but correlate highly.

The mean distance between situations in this comparison is 23.501 units (see the fourth column of Table 4). The situations that exhibit movement are as follows: (1) situation two ("persuade your roommate to keep quiet when you are trying to sleep") moved 33.087 units; (2) situation six ("persuade a person you know in class to help you with your homework") moved 29.127 units; and (3) situation nine ("persuade your father into getting a checkup") moved 27.697 units.

Column correlations for this comparison indicate that the first four dimensions are stable (see column four of Table 5). Stability of the dimensional structure drops for the fifth dimension ($r = .742$) and for the seventh dimension ($r = .742$), but dimensions six and eight are extremely stable (.802-.971). Row correlations indicate that all of the situations are stable (see column four of Table 6). The smallest row correlation is for situation six ("persuade a person you know in class to help you with your homework"), which correlates .850.

In general, the multidimensional configurations generated by randomly splitting the data for each of the four groups yield extremely stable dimensions. This was true for both the assumed interval dissimilarity data (Forms 1-3) and for the assumed ratio dissimilarity data (Form 4). The analysis of the first random split of Form 2 data was both very disappointing as well as informative. The fact that a second random split improved the stability of the dimensional structure obviously indicates that the stability of any of the comparisons is dependent upon choosing the sample in such a way as to obtain either the right point of

view or some mixture of various points of view.

I shall return to the question of points of view in Section 3.7 of the paper. For the present, I will discuss the similarity of male-female configurations.

3.2.1 Reliability of the paired comparison data: assessing reliability between male-female configurations.

In order to assess sex differences in the perceptions of situations, data for all male respondents in each group was factored, data for all female respondents in each group was factored and the female configuration was rotated (least-squares Procrustean; see Cliff, 1966; Schonemann, 1966; and Woelfel et al., 1975) into congruence with the male configuration. The coordinates for these solutions will not be provided. Presently, I wish to discuss the stability of the dimensions and situations across the various male-female comparisons.

Figure 6 presents the three dimensional representations of twelve situations for the male-female comparison of Form 1 data. As illustrated in the figure, several situations exhibit some change in their locations between the two configurations.

Table 7 presents the amount of distance moved by a situation across the male-female configurations. The mean distance moved by situations in Form 1 is 2.645 units (see column one of Table 7). The situations which exhibit the most change are as follows: situation six ("persuade your parents to let you stay out late") moved 3.431 units; situation ten ("persuade your father to take more time off from work and find something relaxing to do") moved 3.44 units; situation eight ("persuade a group of people to order a pizza because you feel like eating one") moved 3.295 units; and situation one ("persuade your roommates to leave phone

FIGURE 6

Three-Dimensional Representation of 12 Situations for Male-Female Comparison of Form 100 Data

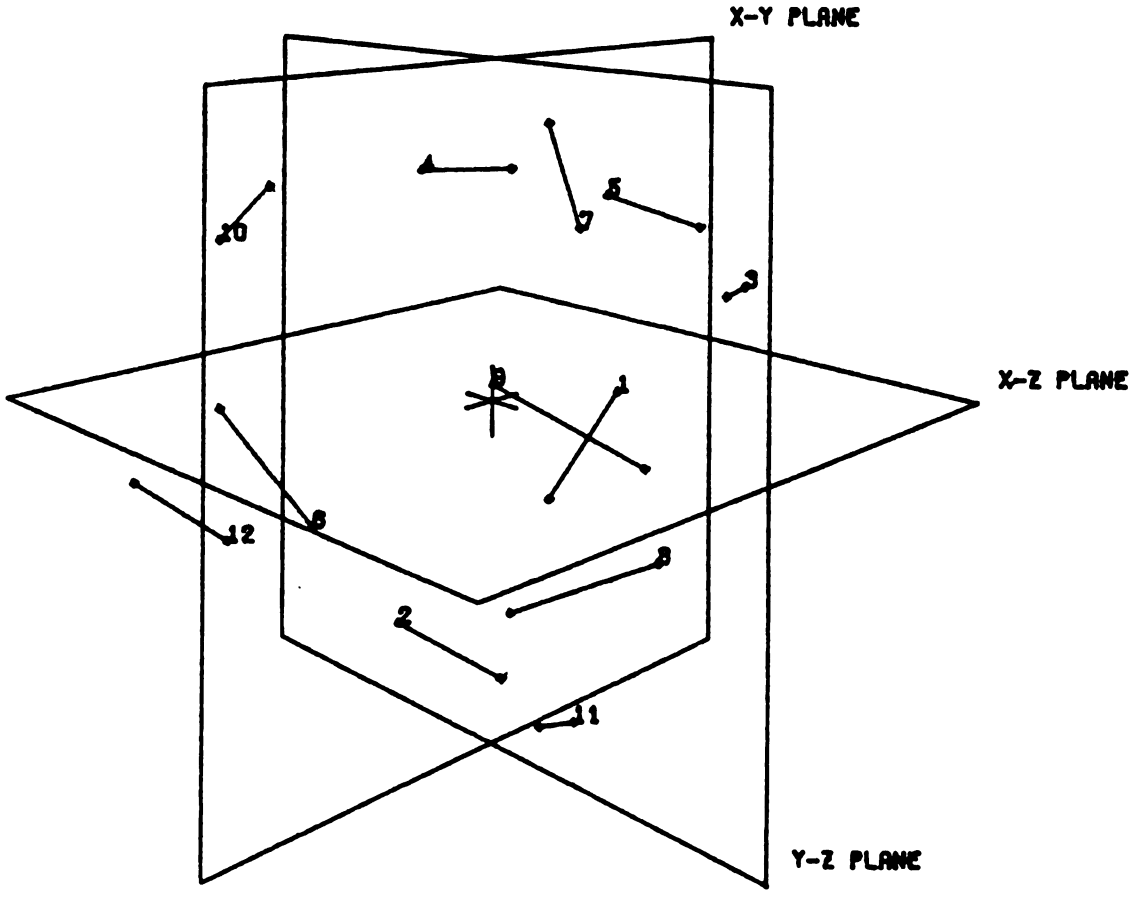


TABLE 7

Distances Between Situations in Male-Female Comparisons[a]

Situation	Male-Female FORM 1 (male n=29; female n=35)	Male-Female FORM 2 (male n=21; female n=46)	Male-Female FORM 3 (male n=17; female n=49)	Male-Female FORM 4 (male n=23; female n=43) trimmed
1	3.032	3.265	1.128	30.883
2	1.397	1.329	2.852	19.992
3	1.721	1.870	2.547	33.135
4	1.912	1.422	1.715	25.455
5	2.892	1.617	1.863	19.828
6	3.431	4.937	2.137	28.039
7	2.789	1.608	2.105	25.481
8	3.295	5.157	2.155	29.832
9	2.677	2.931	2.617	33.074
10	3.344	2.917	1.427	25.507
11	2.286	2.418	1.112	24.510
12	2.940	2.680	2.721	33.706
Mean distance	**2.645**	**2.458**	**2.036**	**27.454**

[a] For Forms 1, 2 and 3, an assumed (eleven-point) scale was used. For Form 4, the "distance" specified for the criterion pair was 100 units.

messages for you while you are out") moved 3.032 units.

The factor structure stability appears to be somewhat lower for the male-female comparison than for the split-half comparison. For the male-female comparison, the first three dimensions are fairly stable, but stability is lower for dimensions four to eight (see column one of Table 8). In contrast with the split-half comparison (see Table 5), the correlation for the sixth dimension drops appreciably ($r = .814$ for the split-half comparison; $r = .508$ for the male-female comparison). Thus, there are some changes in dimensional structure in the male-female comparison, but this change is extremely small — the first three dimensions are very similar and they account for approximately 60-65 per cent of the variance. If the dimensional structure is somewhat different between males and females, the differences exist in the smaller dimensions in which case it would be hard to differentiate true differences from unreliability.

Row correlations (see first column of Table 9) indicate that the following situations are located differently across the male-female configurations: situation six ("persuade your parents to let you stay out late") correlated .556; situation nine ("persuade a friend to take a class with you") correlated .730; and situation eight ("persuade a group of people to order a pizza because you feel like eating one") correlated .747. Several other situations correlated less well than in the split-half comparison (see first column of Table 6). However, it would appear that sex differences are not very strong. In general, the dimensional structure stability decreases from correlations which range from .720 to .975 (column one of Table 5) to correlations which range from .508 to .924; and row correlations indicate that only a few situations are

TABLE 8

Column Correlations for Male-Female Comparisons for Eight Dimensions[a]

Column	FORM 1 (male n=29; female n=35)	FORM 2 (male n=21; female n=46)	FORM 3 (male n=17; female n=49)	FORM 4 (male n=23; female n=43)
1	.893 26.69	.982 10.77	.991 7.83	.909 24.56
2	.924 22.45	.754 41.04	.980 11.36	.890 27.10
3	.904 25.24	.459 62.67	.913 24.01	.847 32.15
4	.733 42.87	.834 33.46	.846 32.17	.780 38.69
5	.720 43.97	.869 29.70	.829 34.03	.822 34.65
6	.508 59.47	.821 34.80	.504 59.76	.737 42.53
7	.757 40.75	.317 71.53	.701 45.51	.332 70.59
8	.698 45.69	.851 31.64	.752 41.25	.069 86.05

[a] The first number is the correlation; the second number is the angle.

TABLE 9

Row Correlations for Male-Female Comparisons[a,b]

Situation	FORM 1 (male n=29; female n=35)	FORM 2 (male n=21; female n=46)	FORM 3 (male n=17; female n=49)	FORM 4 (male n=23; female n=43)
1	.824 34.49	.815 35.38	.972 13.64	.756 40.92
2	.951 18.04	.881 28.26	.831 33.78	.854 31.39
3	.934 20.95	.895 26.49	.808 36.10	.682 47.01
4	.862 30.44	.840 32.87	.865 30.08	.844 32.42
5	.774 39.27	.740 43.09	.827 34.15	.928 21.82
6	.556 56.19	.488 60.81	.849 31.85	.791 37.75
7	.811 35.84	.915 23.84	.889 27.26	.753 41.16
8	.747 41.71	.501 59.91	.883 27.97	.724 43.60
9	.730 43.14	.699 45.67	.851 31.72	.814 35.48
10	.793 37.49	.720 43.95	.949 18.35	.776 39.06
11	.867 29.91	.775 39.20	.955 17.33	.718 44.09
12	.787 38.11	.865 30.11	.872 29.11	.761 40.43

[a] The first number is the correlation; the second number is the angle.

[b] All real dimensions were used in calculating these correlations and angles.

located in the female configuration at small angles from the situation's locations in the male configurations.

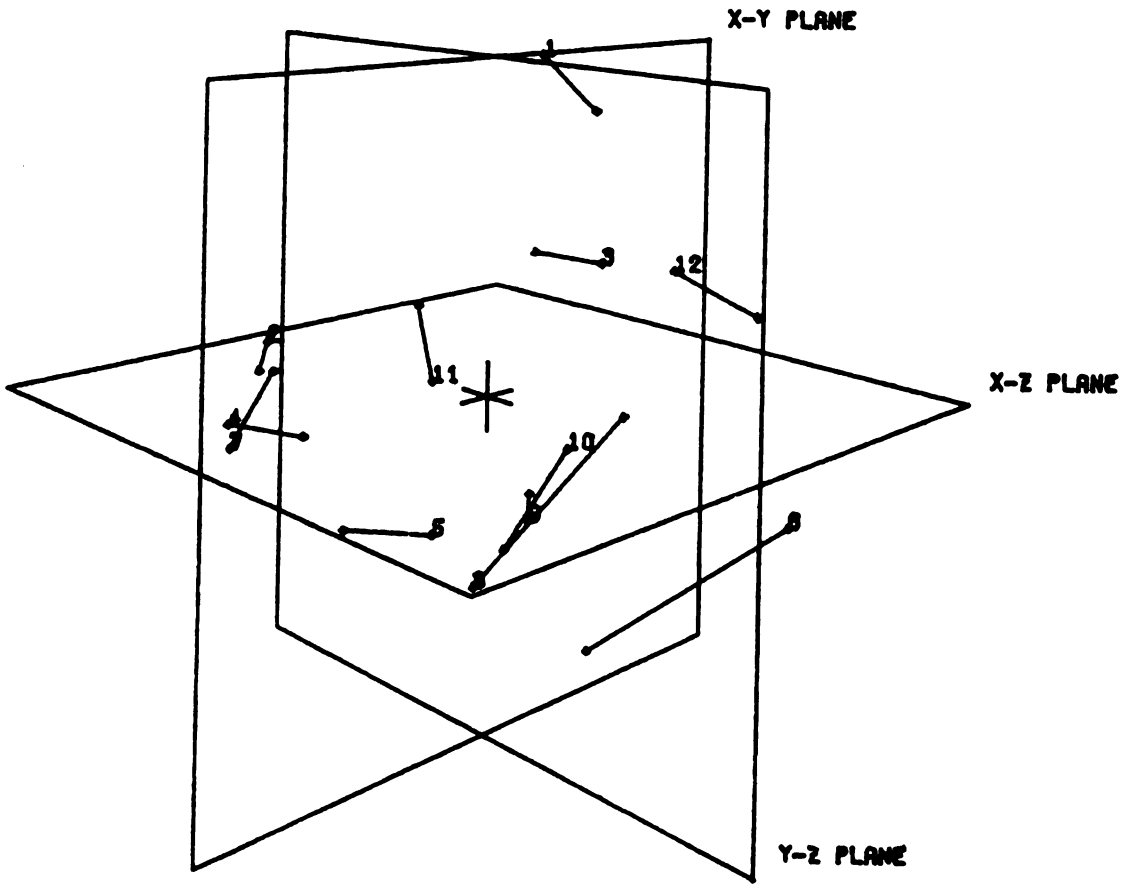
Figure 7 presents the three dimensional configuration of twelve situations for the male-female configuration of Form 2 data. Again, several situations exhibit some changes, most notably situations eight and six. The mean distance moved between situations is 2.458 (see second column of Table 7). Situations that exhibit the most change are as follows: situation eight ("persuade your brother/sister to go to a four-year University") moved 5.157 units; situation six ("persuade your boy/girlfriend not to date another person") moved 4.937 units; and situation one ("persuade your boss to let you leave work early") moved 3.256 units.

Column correlations for this comparison indicate very fragile dimensional stability across the male-female configurations (see second column of Table 8). The first dimension correlated very highly (.982), but stability is somewhat low for dimension two (.754) and (particularly) dimension three (.459). Dimensional stability is moderately high for dimensions 4, 5, 6 and 8, but extremely low for dimension 7 (.317).

Row correlations for this comparison indicate that the following situations are located differently in the two configurations (see second column of Table 9): situation six correlated .488; situation eight correlated .501; situation nine ("persuade a boy/girlfriend to study more") correlated .699; situation ten ("persuade a person to ask you out") correlated .720; and situation five ("persuade a boy/girlfriend to go to a party where there is mostly your friends") correlated .730. All other situations correlate very well (.775-.915). Thus, there are five situations which do not optimally correlate across the sexes.

FIGURE 7

Three-Dimensional Representation of 12 Situations for Male-Female Comparison of Form 200 Data



It would appear that sex differences are much more prevalent in the male-female comparison of Form 2 data. These differences affect some of the larger dimensions (dimensions two and three, which account for 20% and 15% of the variance, respectively). Note that with the exception of situation eight ("persuade a brother/sister to go to a four-year University") all of the situations that differ between males and females are situations that deal with boy/girlfriend relationships. Further, such sex differences cannot explain the instability obtained in the first random split-half comparison of the Form 2 data. In that comparison, situations eight ("persuade a sister/brother to go to a four-year University"), nine ("persuade a boy/girlfriend to study more"), one ("persuade your boss to let you leave work early"), three ("persuade a professor that an answer on a test is incorrect"), five ("persuade your boy/girlfriend to go to a party where there is mostly your friends"), and eleven ("persuade a group of people to participate in an experiment for your group project") were found to be instable. Of these, several which deal with boy/girlfriend relationships may be attributable to sex differences. However, the majority of situations found instable in the first random split-half of the Form 2 data are not the same situations observed to be instable in the sex difference comparisons.

In general, the situations found to be instable in the first random split-half dealt with one (or more) of the following: (1) persuading an individual who has higher relative status (situations one and three); (2) a brother/sister relationship (situation eight); (3) a group (situation eleven); or (4) a boy/girlfriend relationship (situations five and nine). Thus, it would seem reasonable to suspect a different perspective, separate from the sex differences, may be operative. Such a point

of view may place more emphasis on the level of status of the persuadee (as in situations one and three), or perhaps a subset of individuals locate situations they have never been in at a different location in the multidimensional configuration (given that some set of people may have neither sister nor brother to persuade, nor have they ever persuaded a group of people to participate in an experiment for their group project). Thus, an analysis of individual differences (points of view) will be a paramount aspect of the present inquiry (see Section 3.7). That is, it seems clear that in order to construct a taxonomy of situations of this type (and perhaps any type of situations), points of view must be taken into account.

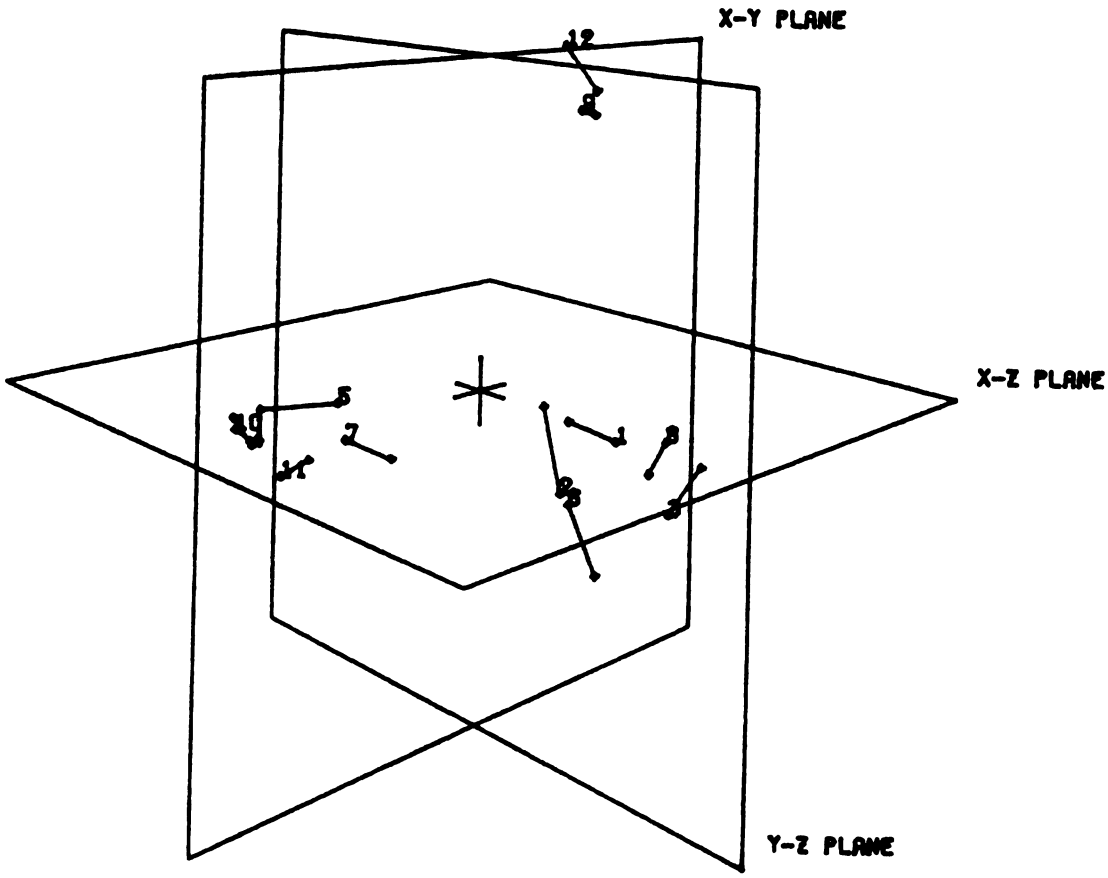
Figure 8 represents the three dimensional representation of the twelve situations in the male-female configuration of Form 3 data. As illustrated in the figure, there appears to be little difference between situations across the two configurations.

The mean distance between situations in this comparison is 2.036 units (see third column of Table 7). The three situations which exhibit the most change include: situation two ("persuade your roommates to keep quiet when you are trying to sleep") moved 2.852 units; situation nine ("persuade your father into getting a checkup") moved 2.617 units; and situation three ("Persuade your boy/girlfriend to confide in you more") moved 2.547 units.

Column correlations for this comparison indicate that the first three dimensions are extremely stable (.991-.913), and that dimensions four and five correlate moderately high. The sixth dimension did not correlate highly ($r = .504$), but this dimension is a fairly small dimension — accounting for five per cent of the variance. Finally, dimensions

FIGURE 8

Three-Dimensional Representation of 12 Situations for Male-Female Comparison of Form 300 Data



seven and eight correlate moderately well (r = .701 and .752, respectively).

Row correlations for this comparison indicate that all situations correlate highly across the male-female configurations (see column three of Table 9). The lowest correlation is .808 (situation three, "persuade your boy/girlfriend to confide in you more").

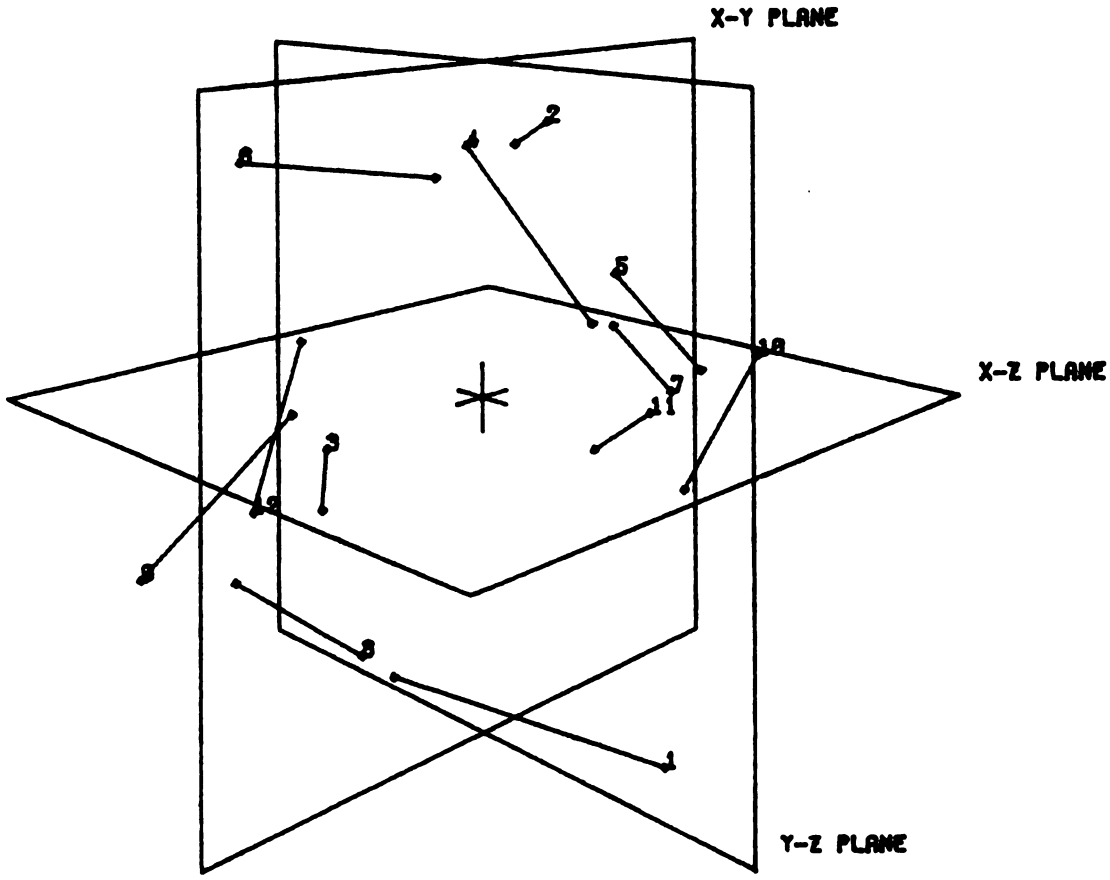
Figure 9 presents the three dimensional representation of the location of twelve situations in the male-female comparison of Form 4 data. It would appear that a number of situations are not stably located across the male-female configurations. The mean distance between situations in this comparison is 27.454 units (see column four of Table 7). Situations which exhibit the most change are: situation twelve ("persuade your mother to go back to college and get a degree") moved 33.706 units; situation nine ("persuade your father into getting a checkup") moved 33.074 units; situation three ("persuade your boy/girlfriend to confide in you more") moved 33.135 units; situation one ("persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person") moved 30.883 units; and situation eight ("persuade an old boy/girlfriend that the relationship is worth saving") moved 29.832 units.

Column correlations for this comparison indicate the first three dimensions are highly correlated (.909-.847) and that dimensions four through six correlate moderately high (.822-.737). Dimensions seven and eight do not correlate well, but they account for only a small portion of the variance.

Row correlations for this comparison indicate that the following situations do not correlate highly across the male-female configurations (see column four of Table 8): situation three (r = .682); situation

FIGURE 9

Three-Dimensional Representation of 12 Situations for Male-Female Comparison of Form 400 Data



eleven ("persuade a professor to increase your grade", r = .718); situation eight (r = .724); situation seven ("persuade your landlord to fix the plumbing in your apartment", r = .753); situation one (r = .756); situation twelve (r = .761); and situation ten ("persuade a police officer not to give you a ticket", r = .776). All other situations correlate .791 or better.

By way of concluding these assessments of stability, several observations should be noted. First, the level of stability obtained in the random split-half comparisons is apparently not affected as much by the type of scale used to collect the data (assumed interval or assumed ratio) as it is by the situations included in the questionnaire. This observation is supported by the fact that the row and column correlations for the split-half of the Form 3 data and the Form 4 data are comparably high, while the row and column correlations for neither of the two split-halves of the Form 2 data reached the levels of stability obtained for the other three comparisons. As noted above, the lack of stability of the dimensional structure of the Form 2 data can be attributed to the fact that more of the situations included in that set of situations dealt with boy/girlfriend relationships and status relationships (and/or unfamiliar situations). It may be the case that such situations enhanced the emergence of individual differences.

Several comments are in order concerning the comparison of the male and female configurations. A scree line test of the GALILEO solutions indicates four dimensional solutions (see Section 3.3 for details concerning the scree line tests for the aggregated solutions) and, as noted earlier, the first four dimensions for both the male and female configurations are very similar (except for Form 2 data). However, a number

of situations were found to correlate poorly across the male-female comparisons. These situations deal with boy/girlfriend relationships (not to date another person, ask you out, to study more, confide in you more, go to a party where there is mostly your friends), with parents (stay out late, mother to go back to college, brother/sister to go to a four-year University) and with professionals (professor to increase a grade, landlord to repair plumbing, police officer not to give a ticket).

While it may be save to posit a sex difference in the perceptions of boy/girlfriend relationship situations, it ought to be noted that a sex difference may indeed mask a different true relationship. That is, some other variable may correlate with sex and is the correct explanation of the different perceptions. Given the situations dealing with parents and professionals for which the apparent sex differences were obtained, it may be the case that a differentiation of individuals on a measure such as dependence-independence (or autonomy) may account for the apparent sex differences. Specifically, if more of the sampled females are dependent upon others than the sampled males, than it is likely that this dependence may be the explanatory variable which accounts for these differences. If this is true, then the "sex differences" obtained may not be replicated in other research using different samples, while a measure such as dependence or autonomy may prove useful.

Nonetheless, it would appear that for most of the large dimensions substantive stability in the dimensional structure has been obtained. This is true for both the random split-halves as well as for the male-female comparisons. The exception to this conclusion is the poor dimension to dimension, or column correlations, for the second and third dimensions of the Form 2 data. However, a second random split-half

comparison improved congruence and the situations found to be instable in the random split-half and the male-female comparison were different. These observations indirectly support the claim that diverse points of view are operative. The question of the diversity of such points of view will be discussed in Section 3.7.

3.2.2 Comparison of Form 3 and Form 4 Solutions

The single most feature which distinguishes Form 3 and Form 4 data is the difference in the scale provided the respondents. In order to compare the solutions obtained by utilizing an assumed interval scale and an assumed ratio scale, the means matrices for the two sets of data were factored and the coordinates for the Form 3 solution were rotated into congruence with that of the Form 3 solution. The dimension to dimension correlations (column correlations) for the first eight dimensions are as follows: .855, .945, .707, .832, .749, .736, .907 and .560. Thus, it would appear that the type of scale provided the respondents had little impact on the resultant solutions; at least for the first four dimensions. However, as will be noted below, the correspondence between dimensional arrays of situations and the twenty-three attributes are different for the two solutions; although the interpretation of three of the four dimensions is similar.

The reason for this difference may be due to the fact that one situation was located differently across the two configurations: situation eleven ("persuade a professor to increase your grade") correlated only .315. All other row correlations ranged from .734 to .885. Advocates of the assumed ratio (unbounded) scale may argue that the assumed interval scale may encumber ceiling effects or not allow sufficient

gradations of the scale to allow precise measurement of dissimilarity. Advocates of the assumed interval scale may argue that the above situation is simply measured unreliably by the assumed ratio scale. However, since the purpose of the present study is to interpret a dimensional structure of situations, it should be sufficient to note that the two four-dimensional solutions correspond fairly well.

The results of the various analyses concerning stability presented in this section of the paper indicate that a large number of dimensions are stable, for either the random split-half comparisons or for the male-female comparisons. In the comparisons made in these analyses, all of the dimensions obtained in the GALILEO solutions were used. However, it is doubtful whether each of the eight dimensions would be representative of equally important distinctions in the perceptions of situations. In the following section, I shall utilize procedures typically employed in multidimensional scaling to parsimoniously limit the number of dimensions that will be employed in the subsequent analyses.

3.3 The number of dimensions problem resolved

One of the basic purposes of multidimensional scaling is to obtain a dimensional configuration of objects in as small a number of dimensions as possible. For each of the three multidimensional scaling procedures employed, a particular criterion is used to decide what number of dimensions should be retained for interpretation. Traditionally, a value of stress is calculated in order to measure the "goodness of fit" for each dimensional solution (Kruskal, 1964; Spence and Ogilvie, 1973, Woelfel and Danes, 1977). This criterion is used in conjunction with the KYST (TORSCA) program.

When employing the INDSCAL model, a plot of percent of variance accounted for by each dimensional solution is made, and the researcher chooses whether or not there is any advantage of selecting a configuration of higher dimensionality. That is, the researcher asks the question, "how much gain is there in the percent of variance in moving from a one dimensional solution to a dimensional solution of higher dimensionality?"

Usually, no criterion is applied in selecting a minimum number of dimensions when using the GALILEO program, since all dimensions are used in subsequent analysis. For the purposes of the present analysis, a scree line test will be employed (plotting percent of variance accounted for by each dimension).

First, I shall present information concerning stress values. Data for each questionnaire were analyzed using the KYST multidimensional scaling program (with TORSCA option) for dimensional solutions one through five. Table 10 presents the stress values for each dimensional representation.

Usually, stress values of twenty percent and higher are considered "poor"; stress values of ten percent are "fair"; five percent are "good" two and one-half percent are "excellent"; and zero as "perfect". For a one dimensional solution, the stress values are extremely high (see first row of Table 10). For the two dimensional solutions, the stress values improve markedly, but stress values of 9.6 percent and 14.4 percent are still poor. The stress values for the three dimensional solutions indicate that the fit again improves, approaching what could be considered a good fit. Stress values for the four dimensional solutions for all sets of data are very good. For the five dimensional solutions,

TABLE 10

Stress Values for Dimensions One to Five For Each of the Four Questionnaire Types (KYST Analysis)

Dimensions	Questionnaire type: 1	2	3	4
1	34.4 %	30.8 %	21.6 %	33.5 %
2	14.4 %	11.5 %	9.6 %	12.0 %
3	6.7 %	5.2 %	3.1 %	6.3 %
4	4.6 %	3.3 %	1.5 %	2.7 %
5	2.9 %	1.9 %	0.9 %	1.3 %

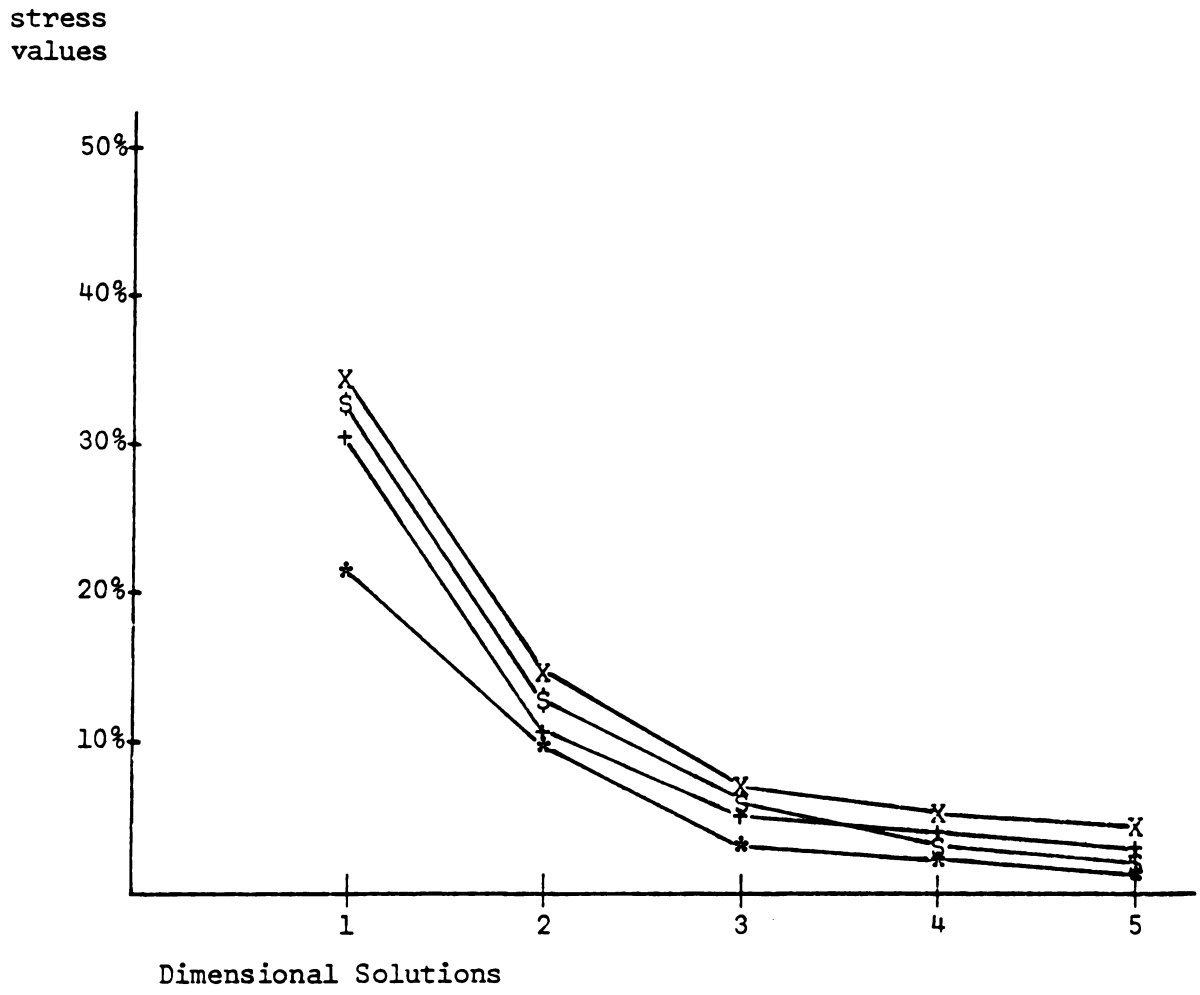
several stress values approach the "perfect" category (Forms 2, 3 and 4).

Figure 10 plots the stress values by dimensional solutions for all four sets of data. Note that there is a substantial decrease in stress from the one dimensional solutions to the two dimensional solutions; some improvement from the two dimensional solutions and the three dimensional solutions; and very little improvement from the three dimensional solutions to the fourth. Overall, there is some advantage in moving from the three dimensional solutions to the four dimensional solutions. For all practical purposes, however, there is not enough of an improvement in stress values between the four and five dimensional solutions to accept the five dimensional solutions. Therefore, I shall accept the four dimensional solutions for further analysis — there is a general improvement from the three dimensional solutions to the four dimensional solutions, and all of the four dimensional solutions have "good" stress values.

Table 11 presents correlations between the input data and scores computed by the INDSCAL program for dimensional solutions two through six. These correlations are squared to provide the assessment of the variance accounted for by each dimensional solution. A one dimensional solution for each of the questionnaire forms was not obtained because it seemed obvious (from the KYST analysis) that a one dimensional representation would be poor. Further, there exists a limit internal to the INDSCAL program such that the number of respondents multiplied by the maximum number of dimensions cannot exceed 3. Thus, in order to assess the dimensional solutions of a dimensionality higher than four, a random split-half of the data was used. As discussed below, the solutions account for substantially less variance than expected. For this reason, solutions for six dimensions were obtained.

FIGURE 10

Plot of Stress Values for Dimensions One to Five For Each of the Questionnaire Forms (KYST Analysis)



X = Form 1 data

\+ = Form 2 data

* = Form 3 data

$ = Form 4 data

TABLE 11

Correlations Between Input Data and Predicted Scores and Percent of Variance Accounted for by Two through Six Dimensional Solutions (INDSCAL Analysis)

Dimensional Solution		Questionnaire: FORM 1	FORM 2	FORM 3	FORM 4
2	Corr.	.501	.608	.621	.584
	Percent	25.09	36.94	38.59	34.08
3	Corr.	.562	.673	.686	.648
	Percent	31.55	45.27	47.12	42.03
4	Corr.	.613	.707	.722	.709
	Percent	37.60	49.96	52.18	49.72
5 (I)	Corr.	.660	.737	.756	.774
	Percent	43.54	54.35	57.14	59.88
5 (II)	Corr.	.684	.736	.740	.714
	Percent	46.54	54.19	54.80	51.04
6 (I)	Corr.	.672	.772	.788	.775
	Percent	49.69	59.54	62.10	60.12
6 (II)	Corr.	.688	.762	.769	.768
	Percent	47.30	58.09	59.10	59.07

For the Form 1 data, a two dimensional solution accounts for only 25.09 percent of the variance (see column one of Table 11). Each subsequent dimensional solution yields a moderately slow improvement in the amount of variance accounted for the by solution. Yet, even a six dimensional solution accounts for less than half of the variance (49.69 and 47.30 percent of variance, for the respective split-halves).

For the Form 2 data, a two dimensional solution accounts for 36.94 percent of the variance (see second column of Table 11). There is a marked improvement in moving from a two dimensional solution to the three dimensional solution, which accounts for 45.27 percent of the variance. Some improvement can be noted in moving from the three dimensional solution to the four dimensional solution (49.96 percent of the variance) and from the four dimensional solution to the five dimensional solution (54 percent). Roughly speaking, the degree of improvement in moving from the three dimensional solution to the four dimensional solution, and each subsequent step, accounts for the same, small degree of improvement — about 4 to 5 percent of the variance. For this set of data, the degree of improvement seems to be fairly trivial after the three dimensional solutions.

For the Form 3 data, the two dimensional solution accounts for 38.59 percent of the variance (see the third column of Table 11). Again, there is a marked improvement in moving to a three dimensional solution (47.12 percent of the variance). A small gain can be observed in moving to a four dimensional solution (52.18 percent of the variance) and to a six dimensional solution (roughly, 61 percent of the variance). Again, the primary gain in improvement occurs between the two and three dimensional solutions, though there is some improvement between the three dimensional

and four dimensional solutions.

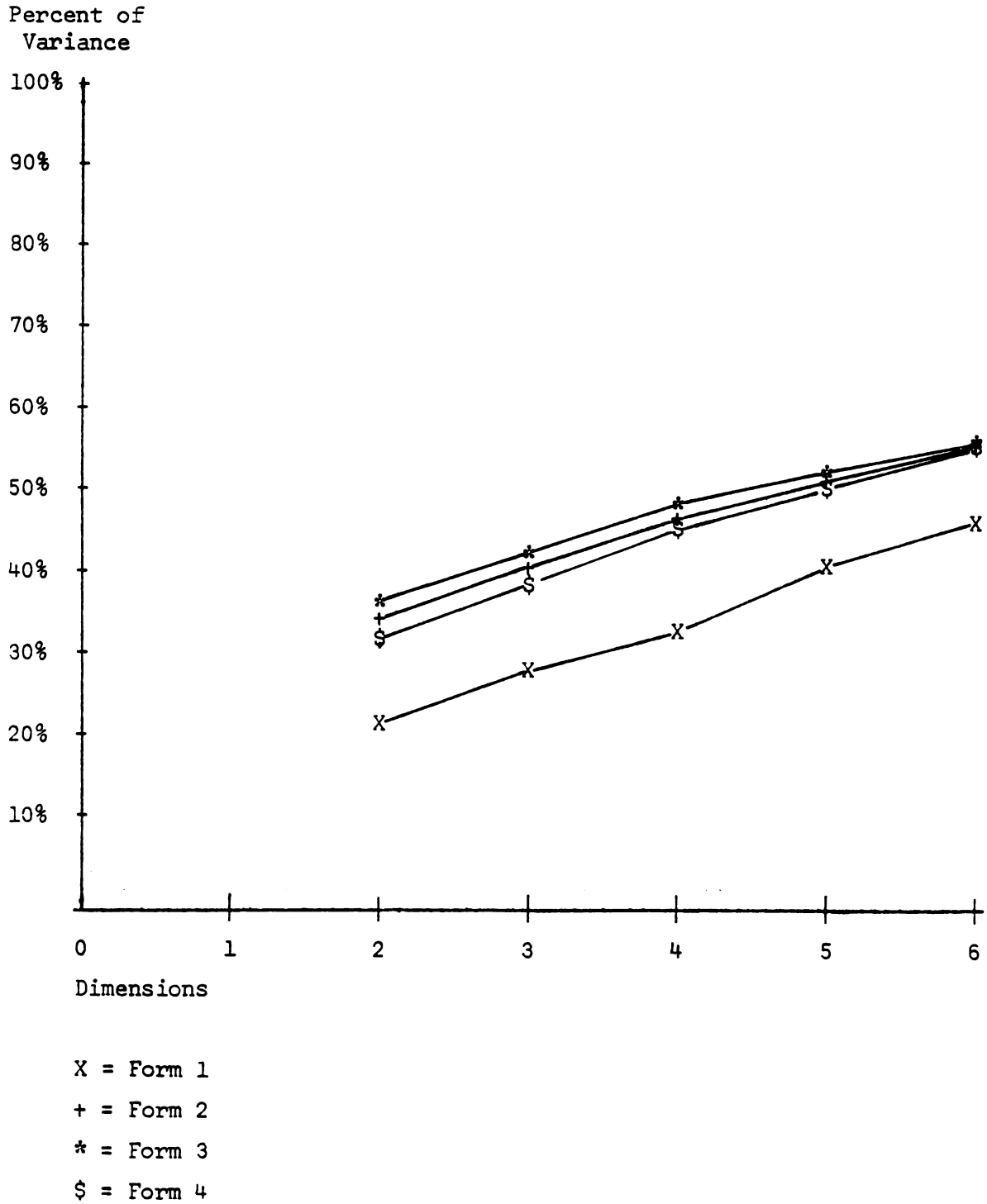
For the Form 4 data, a two dimensional solution accounts for 34.08 percent of the variance (see column four of Table 11). For this set of data, there is roughly the same amount of improvement in moving from a two dimensional solution to a three dimensional solution (42.03 percent of the variance) and from a three dimensional solution to a four dimensional solution (49.72 percent of variance). Curiously, the degree of improvement in moving from a four dimensional solution to a five dimensional solution depends upon the random split-half that is chosen for comparison; 59.88 percent or 51.04 percent of the variance. Taking a rough average of these two five-dimensional solutions would indicate that the gain obtained from moving from the four dimensional solution to the five dimensional solution is less than the gain in moving from the three dimensional solution to the four dimensional solution.

Figure 11 presents a plot of the percent of variance accounted for by each of the dimensional solutions for each of the data sets. It does not appear that the percent of variance tapers off as one would expect. While the linear trend in improvement is gradual, the only subtle break in the degree of improvement appears between the four dimensional solutions and the five dimensional solutions (except for the Form 1 data). This conclusion, of course, is arbitrary. Others may note that the primary improvement in moving from one dimensional solution to another occurs between the two and three dimensional solutions and that little is gained by accepting solutions of higher dimensionality.

I shall not accept a three dimensional solution for three reasons. First, the assessment of the KYST solutions suggested the retainment of four dimensional solutions (as well as the GALILEO assessment discussed

FIGURE 11

Plot of Percent of Variance Accounted for by (INDSCAL)
Dimensional Solutions Two through Six



below). Secondly, if one accepted the three dimensional solutions, one would be accepting solutions which account for less than one-half of the variance. Apparently, this criteria for selecting the number of usable dimensions is not as functional for these sets of data as it has been for other researchers. For example, Wish, Deutsch and Kaplan (1976) obtained dimensional solutions in six, five, four and three dimensions. These solutions accounted for 79, 78, 75 and 67 percent of the variance, respectively. These researchers concluded that the degree of improvement tapered off at four dimensions. In the present study, however, the degree of improvement does not taper off drastically, nor do the INDSCAL solutions account for 75 percent of the variance; at most, the four dimensional solution for the Form 3 data accounts for 52.18 percent of the variance.

A third reason for accepting the four dimensional solutions over the three dimensional solutions deals with how the original data for each respondent is adequately represented in the INDSCAL solutions. An option internal to the INDSCAL model was used in order to obtain the correlation between the individual respondent's data to that of the computed scores (configuration of situations). For the three dimensional solution of Form 1 data, 44 of the 64 respondents had correlations less than .60. The average correlation between respondents' data and the INDSCAL solution was .551. For the three dimensional solution of Form 2 data, 18 of the 67 respondents had correlations less than .60. The average correlation between the respondents' data and the INDSCAL solution was .665. For the Form 3 three dimensional solution, 13 of the 66 respondents had correlations less than .60, and the average correlation was .677. For the Form 4 three dimensional solution, 22 of the 66 respondents had

correlations less than .60, and the average correlation was .635.

For the Form 1 four dimensional solution, 26 of the respondents had correlations below .60, and the average correlation was .606. For the Form 2 four dimensional solution, nine of the 67 respondents had correlations below .60, and the average correlation was .701. For the Form 3 four dimensional solution, 10 of the 66 respondents had correlations below .60, and the average correlation was .715. Finally, for the Form 4 four dimensional solution, 11 of the 66 respondents had correlations less than .60, and the average correlation was .670. Thus, by accepting the four dimensional solutions over the three dimensional solutions, a substantial improvement can be obtained in the degree to which the individual's responses are represented in the INDSCAL solution. For three of the sets of data, the number of respondents whose correlations were less than .60 decreased by about one-half when moving to the four dimensional solution (data sets for Forms 1, 2 and 4.

Admittedly, the correlation level of .60 in the above comparison is arbitrary. However, a similar pattern could be revealed for almost any correlation cut-off level. The above comparison is important because I shall attempt to cluster individuals on the basis of the dimensional salience weights generated by the INDSCAL model. Obviously, if the INDSCAL solution accepted for analysis subsumes only 36 to 40 percent of the variance for a large number of the respondents, the generality of the obtained clusters would be severely weakened. Thus, the four dimensional INDSCAL solutions will be utilized in the subsequent analysis.

Table 12 presents the percent of variance accounted for by each of the eight (GALILEO) dimensions for all four sets of data. The plot of these values is presented in Figure 12. For three of the sets of data

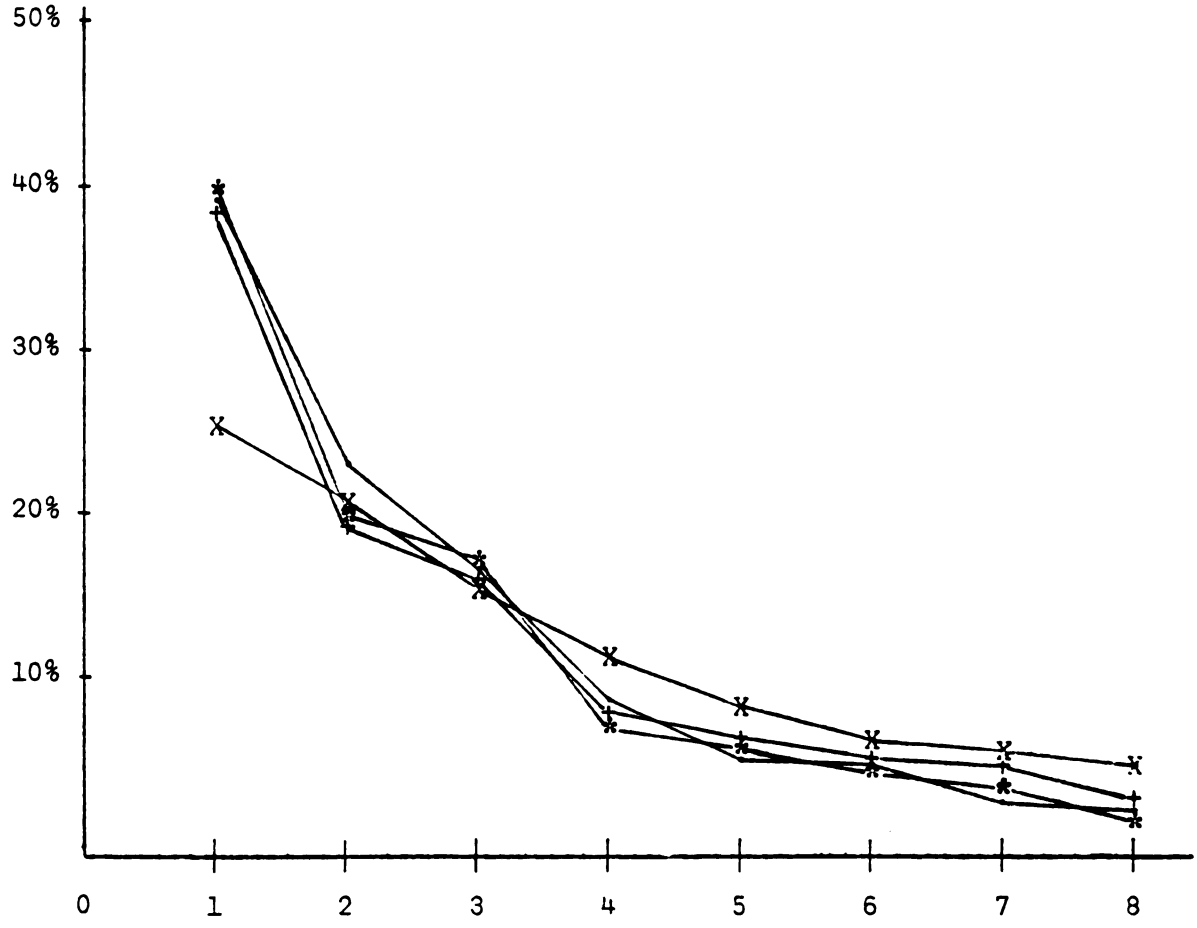
TABLE 12

Percent of Variance Accounted for By Each of Eight Dimensions (GALILEO Analysis)

Dimension	Questionnaire: FORM 1	FORM 2	FORM 3	FORM 4
1	25.224	38.549	38.920	38.828
2	21.360	19.268	20.438	23.141
3	14.646	15.053	16.483	15.180
4	10.676	8.470	6.896	8.343
5	8.675	6.831	6.267	5.553
6	6.705	5.118	4.151	4.788
7	5.272	4.485	3.307	2.527
8	4.012	2.017	1.482	1.640

FIGURE 12

Plot of Percent of Variance Accounted for by Each Dimension
(GALILEO Analysis)



X = Form 1

\+ = Form 2

* = Form 3

· = Form 4

(Forms 2, 3 and 4) the line representing a linear, downward trend in the amount of variance accounted for by each dimension changes slope between the fourth and fifth dimensions. For Form 1 data, however, this change is very subtle. Thus, a conclusion similar to that made when the KYST analysis was presented is apparently supported: a four dimensional solution will be used for interpretation.

Before discussing the psychological interpretation of the solutions, it would be of interest to make some comparisons among the three solutions provided by the three multidimensional scaling programs. First, it is puzzling that the four dimensional solutions generated by the INDSCAL model account for only one-half of the variance in each of the four solutions (see Table 11). For the GALILEO solutions, considerably higher levels of variance were accounted for by four dimensions (71.906, 81.340, 82.737 and 85.492 percent of variance, respectively).

This difference is due to the divergent ways in which the percent of variances are computed. For the INDSCAL model, a correlation between the input data (averaged across individuals) and the computed scores is squared. For the GALILEO model, a means matrix is calculated and factored (obtaining the coordinate loadings, eigenvalues and trace of the matrix). (The same procedure is employed in using the KYST (TORSCA) model, except that only the coordinate loadings and stress values are provided.) Thus, the points of view (individual differences) and unreliability influence the calculation of means in the KYST and GALILEO models. In the three-way multidimensional scaling model (INDSCAL), the operation of divergent points of view (as well as unreliability) strongly influence the quality (or generality, if you will) of the overall dimensional structure. For example, if there is one very strong point of view

(a point of view which included one-half of the respondents) and two other points of view, the INDSCAL model would generate a solution that would be more or less general for the main point of view, but not as representative of the other two points of view.

A major premise of the INDSCAL model is that the solution is generally representative of the solution which would be generated for each individual. However, the INDSCAL model will give a dimensional salience weight of zero for some individuals on some dimensions, and while an individual may have a weight on each dimension, there may be other distinctions the individual perceives which are not representative in the overall solution. (See Woelfel and Danes, 1977, for other comments concerning similarities and dissimilarities among the models.) Thus, if there are divergent points of view operative in these sets of data, the percent of variance accounted for by the INDSCAL model would be attenuated. The fact that so little of the variance is accounted for by dimensional solutions two through six adds indirect support that there are various points of view which are operative in these sets of data.

A second note must also be made. While I do not intend to rotate various dimensional solutions to congruence in order to assess differences across the three multidimensional scaling procedures, it would be of interest to briefly mention commonalities among the solutions. Since the KYST (TORSCA) procedure and the GALILEO procedure are two-way factoring models using assumed interval and assumed metric data (for respective data sets), one would believe that the four dimensional KYST solutions would resemble the first four dimensions generated by the GALILEO procedure. This is evident in the correlations between unrotated dimensional solutions: for the Form 1 data, the correlations are -.99, .99, .99

and .98; for the Form 2 data, the correlations are .99, -.95, .97 and -.75; for the Form 3 data, -.93, .95, .97 and .97; and for the Form 4 data, -1.00, .99, -.93 and .93. A rotation of the KYST solutions to that of the first four dimensions of the GALILEO solutions would do little to the structure of the obtained solutions, aside from reversing the signs of the loadings of situations on the appropriate dimensions.

Correlations between the coordinate loadings of the KYST solutions and the INDSCAL solutions (unrotated) are as follows: for the Form 1 data, -.94, .88, -.81 and .83; for Form 2 data, .57, -.35, .53 and .21; for Form 3 data, -.77, .20, .40 and .54; and for Form 4 data, .68, .35, .03 and .81. The main point to this observation is obvious: if one were to rely solely on either the INDSCAL model or the KYST/GALILEO models, one would obtain a fairly different structure of situations.

3.4 Dimensional Structure: Results of the four dimensional (KYST) solutions

Table 13 presents the coordinate loadings of the 12 situations included in Form 1 in the four dimensional representation generated by the KYST (TORSCA) solution. Table 14 presents the standardized regression coefficients obtained by regressing the coordinate loadings of the situations for all four dimensions onto the mean ratings for each attribute. In relation to the first dimension, only a few attributes seem to be related to the manner in which situations are arrayed on this dimension: "emotional-unemotional" (β = -.679); "dominates-treat each other equally" (β = -.535); "s/he has a major effect-does not have a major effect on my life" (β = -.676); and "I have a major effect-do not have a major effect on his/her life" (β = -.463). However, each of these attributes apparently lies across the first three dimensions. Thus, the first

TABLE 13

Coordinates of 12 Situations (Form 1) in Four Dimensions from KYST Analysis (Stress = 4.65%)

Situation	Dimension 1	2	3	4
1. Persuade your roommate(s) to leave phone messages for you while you are out.	-1.094	-.124	-.416	-.560
2. Persuade a professor to let you enroll in an already crowded class.	.486	-.546	.629	-.069
3. Persuade a group of people to stop teasing a friend of yours.	-.517	.268	.583	.630
4. Persuade your boy/girlfriend to meet your relatives.	.107	.709	-.256	-.416
5. Persuade a friend not to swear so much.	-.569	.599	.227	.319
6. Persuade your parents to let you stay out late.	.613	-.274	-.128	-.102
7. Persuade your boy/girlfriend not to date another person.	.482	.788	.481	-.446
8. Persuade a group of people to order a pizza because you feel like eating one.	-.587	-.704	-.295	.375
9. Persuade a friend to take a class with you.	-.509	.039	-.217	-.122
10. Persuade your father to take more time off from work and find something relaxing to do.	.768	.578	-.621	.537
11. Persuade a bouncer to let you into a bar even though you have forgotten your I.D.	.156	-.726	.536	-.181
12. Persuade your parents to give you money.	.663	-.607	-.522	.036

TABLE 14

Standardized Regression Weights for Four (KYST) Dimensions Used to Predict Mean Ratings on Unidimensional Attributes (Form 1; n=64)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	.168	-.023	.890[a]	.039	.822[a]
difficult-easy to resolve conflicts	-.074	.167	-.865[a]	-.148	.803[b]
short term-long term strategy	.315[b]	.831[a]	-.198	.238	.885[a]
comfortable-uncomfortable	.316[b]	-.049	.878[a]	.034	.874[a]
resistant-not resistant to persuasion	-.394[c]	-.083	-.713[a]	-.296	.758[b]
easy to persuade-difficult to persuade	.389[c]	.149	.674[a]	.388	.779[b]
I benefit-I do not benefit	-.089	.629[a]	-.030	.674[a]	.858[a]
I have been-I have never been in this situation	.117	.466	.460	-.110	.455
involves a favor-involves a right	-.161	.701[b]	-.029	-.161	.544[c]
do something for his/her benefit-not do something for his/her benefit	.169	-.772[a]	.222	-.454[b]	.880[a]
I have relatively low status-high status	-.268	.607[a]	-.594[b]	-.025	.794[b]
formal-informal	-.475[b]	.238	-.750[a]	.059	.848[a]
one totally dominates-treat each other equally	-.535[b]	.566[b]	-.422[b]	-.099	.794[b]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 14 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	-.110	.347	-.247	-.408	.360
no commitment to future interaction-commitment	.239	.614[b]	-.502[b]	-.158	.710[b]
frank and open-reserved and cautious	.448[b]	-.440[b]	.675[a]	-.077	.856[a]
impersonal-personal relationship	.219	.606[b]	-.586[b]	-.104	.769[b]
emotional-unemotional situation	-.679[a]	-.592[a]	-.293[b]	.011	.897[a]
I know-I do not know how to behave	.408[b]	.497[b]	.614[a]	.154	.815[b]
he/she will think less of me-will not think less	-.037	-.121	-.820[a]	-.167	.717[b]
he/she has a major effect-does not have a major effect on my life	-.676[a]	-.435[b]	.441[b]	.058	.844[a]
I have a major effect-do not have a major effect on his/her life	-.463[b]	-.519[b]	.546[b]	.080	.787[b]
I must be assertive-I need not be assertive	-.295	.086	-.710[a]	-.469	.818[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

dimension is not distinctly characterized by any of the attributes.

As such, the array of situations does not relate to intimacy or formality. However, this dimensional array of situations roughly corresponds to what Insel and Moos (1974) have referred to as a relationship type of dimension. All situations with negative loadings (friend to take a class with you, stop teasing a friend, friend not to swear so much, order a pizza, have roommates leave phone messages) deal with social, casual situations entailing cohesiveness and affiliation. These are informal situations but the formal-informal set of attributes do not correspond to the dimensional array of situations simply because the situations which load positive on the dimension are not particularly formal in nature. That is, persuading a father to take time off from work, parents to provide financial support, permission to stay out late, a professor to let you enroll in an already crowded class, etc., are only somewhat more formal (as indicated by the Beta weight of -.475). Unfortunately, the way in which situations load on this dimension apparently does not coincide with a bipolar notion of formal-informal.

Further, the situations which load positive can hardly be referred to as non-affiliation or non-cohesive situations. These situations can best be described as "subordinate relationship" situations in which the persuader is in a subordinate relationship with parents, professors, a bouncer and a boy/girlfriend who they wish to persuade not to date another person. Therefore, this dimension can be labeled a "subordinate relationship vs. social-affiliation relationships" dimension.

In terms of a psychological interpretation of the second dimension, respondents perceived situations with positive loadings as those situations where a long-term strategy is preferable ("short term-long term

strategy", β = .831). Further, situations which have positive loadings on this dimension are perceived as having more to do with the respondents' rights, as opposed to favors (β = .701) and entailing more to do with future interactions (β = .614), higher relative status (β = .607), treating each other as equals (β = .566) and more personal relations (β = .606). Finally, the two benefit items correspond to the second dimension: "I benefit-do not benefit" (β = .629) and "something for his/her benefit-not for his/her benefit" (β = -.722). It would appear that this dimension can be labeled as a "short term strategy-I benefit-involves a favor vs. long term strategy-do something for his/her benefit-involves a right" dimension.

However, this is not a very parsimonious way of labeling a dimension. Note that situations with positive loadings on this dimension all entail important future consequences for the relationship (not to date another person, meet relatives, friend not to swear so much, father to relax, a group of people to stop teasing a friend). Further, situations with negative loadings have little bearing on the directions of the relationship (bouncer, pizza, parents to provide financial support, etc.).

Thus, this dimension may also relate to an "important consequences for the relationship vs. no important consequences for the relationship" distinction. Situations which do not entail important consequences for the relationship usually involve simple requests, a favor, no future interaction and a benefit for the persuader. Of these, some clarification is in order concerning the attributes "no commitment to future interaction-commitment" and "I benefit-I do not benefit". The commitment-no commitment to future interaction attribute corresponds to this dimension only moderately well (β = .614). The reason this

correspondence is not greater is simply because a number of situations exist in which a commitment to future interaction does not entail any change in the relationship. This is particularly true of the parent situations.

The "I benefit-I do not benefit" attribute also corresponds only moderately well with this dimension (β = .629). I suspect that the attributes used to assess "benefits" do so only at a global level. "Benefits", it should be noted, can be long term benefits (such as in the improvement of relationships — situations with positive loadings on this dimension) or short term gains (as in the situations with negative loadings). Further, the situations that load positive also entail mutual benefits — both people benefit. Obviously, future research in this area should be well advised to differentiate the general notion of "benefits".

All of the attributes which formed the "easy to persuade-difficult to persuade" set of attributes correspond with the third dimensional array of situations: "easy to persuade-difficult to persuade" (β = .674); "I know how to behave-I do not know how to behave" (β = .614); "comfortable-uncomfortable" (β = .878); and "resistant-not resistant to persuasion" (β = -.713). More importantly, however, the attributes which ought to form a friendly-unfriendly factor correspond highly to this dimensional array of situations: "friendly-unfriendly" (β = .890); "difficult-easy to resolve conflicts" (β = -.865); "frank and open vs. reserved and cautious" (β = .675); and "s/he will think less of me-will not think less of me" (β = -.820). Further, the attribute "assertive-I need not be assertive" corresponds to this dimensional array of situations (β = -.710), as well as the "formal-informal" attribute (β = .750);

however, the remaining status items do not correspond well to this dimension. It would appear that the third dimension is an "easy to persuade-friendly vs. difficult to persuade-unfriendly" dimension in which the attributes which tap friendliness and resistance merge together in the sense that they are predicted to by the same dimensional array of situations.

Apparently, the fourth dimensional array of situations corresponds to only one attribute: "I benefit-I do not benefit" (β = .674). This suggests that the benefit attribute relates to two dimensions and further suggests how the notion of a "benefit" can be differentiated. The second dimension related to long term benefits in the sense of improved relationships. With regard to the fourth dimension, the term benefit can be used to refer to both long term benefits (boy/girlfriend not to date another, meet relatives) and short term benefits (roommates to leave phone messages, bouncer to let you into bar, etc.). It should be noted that there are nine situations in the Form 1 set of situations which can be subsumed under the heading of a general category of personal (long- and short-term benefits), while only three situations entail a persuasion attempt for another person's benefit (persuade a group of people to stop reasing a friend, a father to take time off from work and a friend not to swear so much). These situations load high and positive on the fourth dimension. Thus, this dimension appears to correspond to a "general benefits" distinction.

Table 15 presents the coordinate loadings of the twelve situations included in Form 2 in the four dimensional KYST solution. Table 16 presents the results of the regression analysis. The first dimension can be interpreted as the friendly-unfriendly dimension (see column one of

TABLE 15

Coordinates of 12 Situations (Form 2) in Four Dimensions from KYST Analysis (Stress = 3.30)

Situation	Dimension 1	2	3	4
1. Persuade your boss to let you leave work early.	.307	-1.042	.258	.145
2. Persuade a group of people to go to the bar with you.	-.963	-.224	-.052	-.396
3. Persuade a professor that an answer on a test is incorrect.	.876	-.333	-.065	.324
4. Persuade a friend to go shopping with you.	-.996	-.041	-.140	-.381
5. Persuade your boy/girlfriend to go to a party where there is mostly your friends.	-.549	.605	.107	.085
6. Persuade your boy/girlfriend not to date another person.	.361	.755	.632	.027
7. Persuade a friend to give you a ride.	-.766	-.179	-.063	.575
8. Persuade a sister/brother to go to a four-year University.	.560	.294	-.884	-.272
9. Persuade a boy/girlfriend to study more.	.254	.490	-.299	.494
10. Persuade a person to ask you out.	-.329	-.016	.635	-.113
11. Persuade a group of people to participate in an experiment for your group project.	-.095	-.275	-.367	-.023
12. Persuade parents that marijuana is not bad.	1.341	-.033	.235	-.465

TABLE 16

Standardized Regression Weights for Four (KYST) Dimensions Used to Predict Mean Ratings on Unidimensional Attributes (Form 2; n=67)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	-.905[a]	.052	.333[b]	.035	.933[a]
difficult-easy to resolve conflicts	.833[a]	.071	-.275	-.257	.841[a]
short term-long term strategy	.569[b]	.228	.181	-.442	.604[c]
comfortable-uncomfortable	.808[a]	-.113	.515[a]	.141	.951[a]
resistant-not resistant to persuasion	-.923[a]	-.031	-.193	-.141	.909[a]
easy to persuade-difficult to persuade	.957[a]	.062	.140	.042	.941[a]
I benefit-I do not benefit	.530[b]	.379	-.486[b]	-.225	.711[b]
I have been-I have never been in this situation	.787[a]	.246	.088	-.280	.766[b]
involves a favor-involves a right	.816[a]	.155	.111	-.131	.720[b]
do something for his/her benefit-not do something for his/her benefit	.171	-.487[c]	.279	.525[c]	.620[c]
I have relatively low status-high status	-.447[b]	.702[a]	.301[c]	-.201	.824[a]
formal-informal	-.657[a]	.515[b]	-.229	-.247	.811[b]
one totally dominates-treat each other equally	-.682[a]	.588[a]	-.118	-.222	.874[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 16 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	-.176	.845[a]	.076	- 246	.811[b]
no commitment to future interaction-commitment	.213	.678[b]	.104	-.190	.552
frank and open-reserved and cautious	.576[a]	-.572[a]	.370[c]	.144	.818[a]
impersonal-personal relationship	-.094	.787[a]	.106	-.297	.728[b]
emotional-unemotional situation	-.524[a]	-.685[a]	-.449[a]	.065	.950[a]
I know-I do not know how to behave	.737[a]	.290[c]	454[b]	-.145	.853[a]
he/she will think less of me-will not think less	-.719[a]	-.037[a]	-.664[a]	.018	.959[a]
he/she has a major effect-does not have a major effect on my life	-.488[c]	-.643[b]	-.126	.110	.679[c]
I have a major effect-do not have a major effect on his/her life	-.184	-.810[a]	.008	.185	.725[b]
I must be assertive-I need not be assertive	-.807[a]	.087	.125	-.152	.698[c]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

Table 16): "friendly-unfriendly" (β = .905); "difficult-easy to persuade" (β = -.833); "comfortable-uncomfortable" (β = .808); "resistant-not resistant" (β = -.923); "easy to resolve-difficult to resolve conflicts" (β = .957); "he/she will think less of me-will not think less of me" (β = -.719); and "I must be assertive-I need not be assertive" (β = -.807). Further, this dimension also corresponds to familiarity: "I have been-I have never been in this situation" (β = .787) and "I know how to behave-I do not know how to behave" (β = .737). Finally, the more positive the loadings in this situation, the more the respondents perceive the situation as involving their rights, as opposed to favors (β = .816).

A number of the attributes from the superficial-intimate factor correspond with the second dimensional array of situations: "superficial-intimate" (β = .845); "impersonal-personal" (β = .787); and "no commitment-commitment to future interactions" (β = .678). Further, the two items which assess influencability also correspond with this dimension: "I have-I do not have a major effect on his/her life" (β = -.810), and "s/he has a major effect-does not have a major effect on my life" (β = -.643). Two of the status related items also appear to correspond somewhat to this dimension ("I have relatively low-high status", β = .701, and "dominates-treat each other as equals", β = .588); however, the attributes which formed the "formal-informal" set of attributes generally correspond to both the first two dimensions. Finally, the "frank and open-reserved and cautious" attribute and the "emotional-unemotional" attribute correspond to this dimension (β = -.572 and -.685, respectively). Nonetheless, this dimension is clearly a "superficial-intimate" dimension.

Only two attributes correspond to the third dimension: "comfortable-uncomfortable" (β = .515) and "s/he will think less of me-will not think less of me" (β = -.664). I believe that this dimension corresponds to an "intense feelings vs. non-intense feelings" distinction. Situations that load positive on this dimension deal with more intense feelings: persuade a person to ask you out, persuade a boy/girlfriend not to date another person, a boss to let you leave work early, parents that marijuana is not bad. Situations which load negative on this dimension are comfortable, unemotional and entail considerably less intense feelings (i.e., persuade a sister/brother to go to a four-year University, a group to participate in a group project, a boy/girlfriend to study more, a friend to go shopping).

None of the attributes correspond to the fourth dimension. Further, the manner in which the situations are arrayed on the dimension does not offer any interpretation. Therefore, this dimension will not be labeled.

Table 17 presents the coordinate loadings of the twelve situations included in Form 3 in the four dimensional KYST solution. Table 18 presents the results of the regression analysis. A number of attributes from the "superficial-intimate" factor and the "no major effect-major effect" factor correspond to the first dimensional array of situations (see column one of Table 18); "superficial-intimate" (β = -.914); "impersonal-personal" (β = -.928); "no commitment-commitment to future interaction" (β = -.838); "s/he has a major effect on my life-does not have a major effect" (β = .858); and "I have a major effect-I do not have a major effect" (β = .919). Further, this dimensional array corresponds with the type of strategy to be employed ("short term strategy-long term strategy", β = -.901), perceived level of emotional feelings ("emotional-

TABLE 17

Coordinates of 12 Situations (Form 3) in Four Dimensions from KYST Analysis (Stress = 1.48%)

Situation	Dimension 1	2	3	4
1. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.	-1.115	-.679	.093	.001
2. Persuade your roommate to keep quiet when you are trying to sleep.	.415	.594	-.723	-.426
3. Persuade your boy/girlfriend to confide in you more.	-.855	-.199	-.402	-.059
4. Persuade a professor that a test item was ambiguous.	.769	-.303	.415	-.133
5. Persuade a professor that his grading scale is too hard.	.635	-.254	.340	-.188
6. Persuade a person you know in class to help you with your homework.	.213	.179	-.736	.065
7. Persuade your landlord to fix the plumbing in your apartment.	.645	.200	-.409	.612
8. Persuade an old boy/girlfriend that the relationship is worth saving.	-.927	-.431	-.226	.032
9. Persuade your father into getting a checkup.	-.481	.845	.470	-.070
10. Persuade a police officer not to give you a ticket.	.652	-.487	.315	.172
11. Persuade a professor to increase your grade.	.586	-.300	.196	-.160
12. Persuade your mother to go back to college and get a degree.	-.536	.835	.665	.154

TABLE 18

Standardized Regression Weights for Four (KYST) Dimensions Used to Predict Mean Ratings on Unidimensional Attributes (Form 3; n=66)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	.659[a]	-.581[a]	.146	-.112	.807[b]
difficult-easy to resolve conflicts	-.647[a]	.516[b]	-.390[b]	-.024	.839[a]
short term-long term strategy	-.901[a]	.138	.137	.133	.868[a]
comfortable-uncomfortable	.466[b]	-.741[a]	.187	-.080	.808[b]
resistant-not resistant to persuasion	-.365[b]	.480[a]	-.742[a]	.026	.916[a]
easy to persuade-difficult to persuade	.330[a]	-.479[a]	.781[a]	064	.952[a]
I benefit-I do not benefit	-.707[a]	.442[a]	.525[a]	.091	.980[a]
I have been-I have never been in this situation	.244	.043	.574[a]	.665[a]	.833[a]
involves a favor-involves a right	.234	-.147	-.035	-.019	.076
do something for his/her benefit-not do something for his/her benefit	.806[a]	-.483[a]	-.194[c]	-.131	.939[a]
I have relatively low status-high status	-.683[a]	.387[b]	-.480[a]	-.033	.848[a]
formal-informal	-.708[a]	.541[a]	-.403[a]	-.076	962[a]
one totally dominates-treat each other equally	-.706[a]	290[b]	-.592[a]	-.043	.936[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 18 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	-.941[a]	.293[a]	-.103[b]	-.094[b]	.991[a]
no commitment to future interaction-commitment	-.838[a]	.469[a]	-.104	.079	.940[a]
frank and open-reserved and cautious	.659[a]	-.576[a]	.354[b]	.030	.892[a]
impersonal-personal relationship	-.928[a]	.326[a]	-.100[b]	-.121[a]	992[a]
emotional-unemotional situation	.843[a]	.344[b]	-.201	.133	.887[a]
I know-I do not know how to behave	.256[c]	-.597[a]	.600[a]	.317[b]	.883[a]
he/she will think less of me-will not think less	-.359[c]	.779[a]	-.800	.120	.750[a]
he/she has a major effect-does not have a major effect on my life	.858[a]	-.312[a]	-.334[a]	.150	.966[a]
I have a major effect-do not have a major effect on his/her life	.919[a]	-.347[a]	-.118[b]	-.027	.979[a]
I must be assertive-I need not be assertive	-.645[a]	.308[c]	-.571[a]	-.116	.850[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

unemotional", β = .843), and who benefits from the persuasion ("I benefit-I do not benefit", β = -.707; and "do something for his/her benefit-not do something for his/her benefit", β = .806). This dimension is the "superficial-intimate" dimension, subsuming the two items which assess influencability.

Only two attributes appear to correspond to the second dimension: "comfortable-uncomfortable" (β = -.741) and "s/he will think less of me-will not think less of me" (β = .779). This dimension can be labeled similarly to the third dimension of the Form 2 solution: "intense feelings vs. non-intense feelings".

There is good reason to believe that the situations arrayed on the third dimension correspond to the attributes which formed the "easy to persuade-difficult to persuade" factor: "easy to persuade-difficult to persuade" (β = .781), "resistant-not resistant to persuasion" (β = -.742), and "I know how to behave..." (β = .600). A careful scrutiny of how the situations are arrayed on this dimension will support this conclusion. First, when persuading a mother to go back to college, or when persuading a father to get a checkup, one has to overcome some non-trivial obstacles. Other situations which have positive loadings on this dimension include the situations dealing with professors and the police. Resistance in such situations is obvious. In contrast to the "easy to persuade-friendly vs. difficult to persuade-unfriendly" dimensions obtained in the solutions for the Form 1 and Form 2 data, the friendly-unfriendly set of attributes do not correspond to the same dimension of situations as the "easy to persuade-difficult to persuade" attributes in the Form 3 solution. The friendly-unfriendly set of attributes correspond moderately to the first two dimensions.

The first thing that should be noted about the fourth dimension is that most of the situations have essentially a zero coordinate loading. In reality, this dimension appears to be marked by three situations with positive loadings (repairing plumbing, .612; police officer, .172; and persuading your mother to go back to college, .154), and by four situations with negative loadings (roommate(s) to keep quiet, -.426; a professor about his grading scale, -.188; a professor about an increase in a grade, -.160, and a professor that a test item was ambiguous, -.133). The only attribute which faintly corresponds to this dimensional array of situations is the attribute "I have been-I have never been in this situation" (β = .665). Given the manner in which the situations load on this dimension, it seems that this dimension may be a familiarity dimension, in which the respondents have rarely, if ever, attempted to persuade their mother to go back to college, to persuade a police officer not to ticket them or ever needed to persuade a landlord to repair the plumbing. On the other hand, the respondents have apparently requested their roommate(s) to be quiet a number of times, and have discussed grading scales and increases in grades with professors at least occasionally.

Table 19 presents the coordinate loadings of the twelve situations included in Form 4 in the four dimensional KYST solution. Table 20 presents the results of the regression analysis. Since the situations included in Form 3 are the same as in Form 4, one would expect to obtain an extremely similar interpretation of the Form 4 dimensional solution. However, it appears as though the first dimensional array corresponds to five of the six factors of attributes, and to a number of additional attributes (see column one of Table 20): "friendly-unfriendly" (β =

TABLE 19

Coordinates of 12 Situations (Form 4) in Four Dimensions from KYST Analysis (Stress = 2.73%)

Situation	Dimension 1	2	3	4
1. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.	.386	-.784	.655	.091
2. Persuade your roommate to keep quiet when you are trying to sleep.	.340	1.044	.559	.150
3. Persuade your boy/girlfriend to confide in you more.	.762	-.290	.139	-.547
4. Persuade a professor that a test item was ambiguous.	-.836	.180	-.157	-.396
5. Persuade a professor that his grading scale is too hard.	-.928	-.022	-.096	-.133
6. Persuade a person you know in class to help you with your homework.	.384	.733	.021	-.462
7. Persuade your landlord to fix the plumbing in your apartment.	-.512	.339	.126	.627
8. Persuade an old boy/girlfriend that the relationship is worth saving.	.730	-.525	.114	.025
9. Persuade your father into getting a checkup.	.711	-.036	-.448	.475
10. Persuade a police officer not to give you a ticket.	-.776	-.337	.266	.182
11. Persuade a professor to increase your grade.	-.903	-.343	-.314	-.109
12. Persuade your mother to go back to college and get a degree.	.642	.042	-.864	.097

TABLE 20

Standardized Regression Weights for Four (KYST) Dimensions Used to Predict Mean Ratings on Unidimensional Attributes (Form 4; n=56)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	-.813[a]	-.065	.345[c]	.251	.847[a]
difficult-easy to resolve conflicts	.927[a]	.274[a]	-.049	-.166[c]	.965[a]
short term-long term strategy	.619[b]	-.511[b]	-.238	.218	.749[b]
comfortable-uncomfortable	-.843[a]	-.342[b]	.283[b]	.144	.929[a]
resistant-not resistant to persuasion	.789[a]	.488[a]	.017	-.247[c]	.922[a]
easy to persuade-difficult to persuade	-.728[a]	-.572[a]	-.147	.169	.908[a]
I benefit-I do not benefit	.542[b]	-.307	-.530[b]	.241	.727[b]
I have been-I have never been in this situation	-.147	-.314	-.363	.638[b]	.659[c]
involves a favor-involves a right	-.440	.076	.425	.338	.494
do something for his/her benefit-not do something for his/her benefit	-.800[a]	.283[c]	.357[b]	-.203	.890[a]
I have relatively low status-high status	.933[a]	.063	.093	.038	.884[a]
formal-informal	.940[a]	.302[a]	-.028	.027	.977[a]
one totally dominates-treat each other equally	.909[a]	.156	.242[c]	-.015	.910[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 20 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	.954[a]	-.224[b]	.006	-.040	.962[a]
no commitment to future interaction-commitment	.932[a]	-.150	-.056	.060	.899[a]
frank and open-reserved and cautious	-.881[a]	-.274[c]	-.022	-.079	.858[a]
impersonal-personal relationship	.945[a]	-.235[b]	-.018	-.044	.950[a]
emotional-unemotional situation	-.483[a]	.828[a]	-.130	.030	.936[a]
I know-I do not know how to behave	-.519[b]	-.636[a]	-.147	.379[b]	.838[a]
he/she will think less of me-will not think less	.746[a]	.356[b]	-.474[a]	.045	.910[a]
he/she has a major effect-does not have a major effect on my life	-.728[a]	.502[a]	.268[c]	.090	.862[a]
I have a major effect-do not have a major effect on his/her life	-.879[a]	.315[b]	.117	-.169	.914[a]
I must be assertive-I need not be assertive	.891[a]	.289[b]	.047	-.265[b]	.951[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

-.813); "difficult-easy to resolve conflicts" (β = .927); "frank and open-reserved and cautious" (β = -.881); "comfortable-uncomfortable" (β = -.843); "resistant-not resistant to persuasion" (β = .789); "easy-difficult to persuade" (β = -.728); "superficial-intimate" (β = .954); "impersonal-personal" (β = .945); "no commitment to future interaction-commitment" (β = .932); "formal-informal" (β = .940); "I have relatively low status-high status" (β = .933); "dominates-treat each other as equals" (β = .909); "s/he will think less of me-will not think less of me" (β = .746); "I benefit-I do not benefit" (β = .542); "do something for his/her benefit-not do something for his/her benefit" (β = -.800); "s/he has a major effect-does not have a major effect on my life" (β = -.728); "I have a major effect-I do not have a major effect on his/her life" (β = -.879); and "I must be assertive-I need not be assertive" (β = .891).

When I discussed the interpretation of the four dimensional solution of Form 3 data, I labeled the first dimensional array of situations as the "superficial vs. intimate" dimension (subsuming the two influencability items). It was also noted that the attributes in the formal-informal factor of attributes (along with those attributes which assess the perceived level of friendliness) corresponded to both of the first two dimensional arrays of situations. Apparently, the use of the assumed ratio scale (or a change in the mean ratings on attributes) was sufficient to have merged the various factors such that attributes from five different factors relate to a single dimensional array of situations.

In terms of providing a psychological interpretation of the second dimensional array of situations, only the attribute "emotional-unemotional" (β = .828) corresponds to this dimension. Situations with

negative loadings are situations perceived as more emotional than the situations which have positive loadings. In the solution for Form 3, the "comfortable-uncomfortable" attribute corresponded with the second dimension and the attribute "emotional-unemotional" corresponded to both the first two dimensions, primarily the first. In the Form 4 solution, the "comfortable-uncomfortable" attribute corresponds to the first three dimensions, but primarily the first. Apparently, a difference in scale usage (assumed interval vs. asumed ratio) resulted in substantial changes in the dimensional structure; the second dimensional array of situations in the Form 4 data is an "emotional-unemotional" dimension. Since the zero order correlation between the two second dimensions for the Form 3 and Form 4 solutions is .954, it seems legitimate to conclude that this dimension is an "intense feelings" dimension, a construct assessed by either of these two attributes.

Apparently, there is no attribute which corresponds to the third dimensional array of situations. Despite the fact that the zero order correlation between the third dimensions for the Form 3 and Form 4 solutions is .707 and despite the fact that the third dimension of the Form 3 solution was labeled "easy to persuade vs. difficult to persuade", the third dimension of the Form 4 solution does not appear to correspond to this distinction. This dimension will not be labeled.

Finally, the fourth dimension is apparently the familiarity dimension: "I have been-I have never been in this situation" (β = .638). It is similar to the fourth dimension obtained for the Form 3 data. Situations with negative loadings are situations in which the respondents have been more often than the situations with positive loadings.

The following can summarize the obtained dimensions, and attributes relevant to the dimensions:

For Form 1:

I. "subordinate relationship vs. social affiliation"

- emotional-unemotional (β = -.679),
- s/he has a major effect on my life-does not have a major effect (β = -.676).

II. "improves relationships-personally important goal vs. does not improve relationship-not personally important goal"

- I benefit-I do not benefit (β = .629),
- do something for his/her benefit-not do something for his/her benefit (β = -.772),
- involves a favor-involves a right (β = .701),
- short term-long term strategy (β = .831).

III. "easy to persuade-friendly vs. difficult to persuade-unfriendly"

- friendly-unfriendly (β = .890),
- easy to persuade-difficult to persuade (β = .674),
- easy to resolve conflicts-difficult to resolve conflicts (β = -.865),
- comfortable-uncomfortable (β = .878),
- s/he will think less of me-will not think less of me (β = -.820),
- informal-formal (β = .750).

IV. General Benefits

- I benefit-I do not benefit (β = .674).

For Form 2:

I. "easy to persuade-friendly vs. difficult to persuade-unfriendly"

- friendly-unfriendly (β = -.905),
- easy to resolve conflicts-difficult to resolve conflicts (β = -.833),
- comfortable-uncomfortable (β = .808),
- not resistant-resistant (β = -.923),
- s/he will think less of me-will not think less of me (β = -.719),
- easy to persuade-difficult to persuade (β = .957),
- favors-rights (β = .816).

II. Superficial vs. Intimate

- superficial-intimate (β = .845),
- impersonal-personal (β = .787),
- s/he has-does not have a major effect on my life (β = -.643),

- I have-do not have a major effect on his/her life (β = -.810),
- I have relatively high-low status (β = .702).

III. Intense Feelings

- comfortable-uncomfortable (β = .515),
- s/he will-will not think less of me (β = -. 64).

IV. Unlabeled

For Form 3:

I. Superficial vs. Intimate

- superficial-intimate (β = -.941),
- no commitment to future interaction-commitment (β = -.838),
- impersonal-personal (β = -.928),
- s/he has-does not have a major effect (β = .858),
- I do-do not have a major effect on his/her life (β = .919),
- short term strategy-long term strategy (β = .901),
- do something-do not do something for his/her benefit (β = .806),
- I benefit-I do not benefit (β = -.707),
- emotional-unemotional (β = .843).

II. Intense Feelings

- comfortable-uncomfortable (β = -.741),
- s/he will-will not think less of me (β = .779).

III. "easy to persuade vs. difficult to persuade"

- easy to persuade-difficult to persuade (β = .781),
- not resistant-resistant to persuasion (β = .742),
- I know how to behave-I do not know how to behave (β = .600).

IV. Familiarity

- I have-have never been in this situation (β = .665).

For Form 4:

I. Friendly-intimate-easy to persuade vs. unfriendly-superficial-difficult to persuade.

- friendly-unfriendly (β = -.813),
- difficult to resolve conflicts-easy to resolve conflicts (β = .927),
- comfortable-uncomfortable (β = -.843),
- easy to persuade-difficult to persuade (β = -.728),
- not resistant-resistant (β = .789),
- high status-low status (β = .933),
- informal-formal (β = .940),

- treat each other equally-one totally dominates (β = .909),
- intimate-superficial (β = .954),
- commitment-no commitment to future interaction (β = .932),
- impersonal-personal (β = .945),
- s/he has-does not have a major effect on my life (β = -.728),
- I have-do not have a major effect on his/her life (β = -.879),
- I need not be assertive-I must be assertive (β = .891),
- s/he will-will not think less of me (β = .746),
- do something-not do something for his/her benefit (β = -.800).

II. Intense Feelings

- emotional-unemotional (β = .808),
- I know how to behave-I do not know how (β = -.636).

III. Unlabeled

IV. Familiarity

- I have been-I have never been in this situation (β = .638).

While a number of differences can be noted across the various solutions, the occurrence of strong commonalities is very encouraging. First, it is clear that an "easy to persuade vs. difficult to persuade" dimension is replicated and generalizable. Further, a "superficial vs. intimate" dimension is also replicated. (Note, in additional analysis using the GALILEO coordinates, there was some indication that the fifth dimension of the Form 1 solution corresponds moderately well with the superficial-intimate distinction. Therefore, it would not be surprising to find that future research would obtain solutions of higher dimensionality than four. However, the replication of the "superficial vs. intimate" dimension across the other three sets of data and across two sets of situations is sufficient to warrant the conclusion of replication.)

Unfortunately, attributes which can assess the levels of intensity of feelings and emotions were lacking in this study. Because of this failure, few attributes corresponded to the "intense feelings"

dimensions. Further, while I have suggested that the first dimension of the Form 1 solution is a "subordinate relationships vs. social affiliation", there is some indication that this dimension may be best labeled an "intense feelings" dimension. I say this because the several attributes which did correspond with the first dimension of the Form 1 solution also corresponded moderately well with the "intense feelings" dimensions for the Form 2, 3, and 4 solutions. However, this is not sufficient reason to relabel the dimensions. Future research is needed in order to assess levels of emotions and intensity of feelings.

The most important consequence of the exclusion of the attributes which could assess intensity of feelings is concerned with the generality of the factor analytic solution. Although six factors were obtained, none of the factors corresponded with an intensity of feelings distinction while the multidimensional scaling solutions indicate replication of such a factor.

Another important recommendation concerning future research deals with the notion of who benefits. The term "benefits" is too global a term to capture a number of subtle differences among types of benefits. Specifically, some benefits are long-term, some short-term, some only involve the persuader, some involve the persuadee, some involve a third person and some involve a benefit for both individuals (mutual benefit) or an entire group of people. Similarly, a distinction must be made between altruistic and selfish motives. Developing a more differentiated notion of benefits would help to provide a bettern understanding of the second and fourth dimensions of the Form 1 solution.

3.5 The hierarchical structure of situations: Results of Johnson's (1967) hierarchical clustering of situations

In order to make the above discussion concerning the interpretation of the dimensional structure of situations more concrete, some support for the proposed system of interpretations of dimensional arrays of situations can be found in the nature of the clusters of situations. Figure 13 presents the tree diagram for the cluster analysis of the Form 1 data. The entry levels (see columns at left of Figure 13) indicate the distance between situations at the point of merger. Table 21 presents the situations included in each of the clusters (in descending order of strength of entry).

Cluster one consists of two of the three situations which deal with parents — the third parent item (father to find something relaxing to do) is included in cluster four; cluster two consists of situations in which the respondent is interacting with an individual who is involved in a specific role (professor and "bouncer"); cluster three consists of the two boy/girlfriend situations; cluster four consists of those situations in which the respondent is persuading someone else to do something for their (or a third person's) benefit; cluster five consists of situations dealing with friends and roommates.

Clusters one and two include situations in which the persuader attempts to gain some benefit from individuals who are superordinates. These situations are four situations which loaded positive on the first dimension of the Form 1 solution and can be contrasted to the situations in cluster four (loading negative on the first dimension). These situations are social, casual encounters. This distinction supports the labeling of the first dimensional array of situations as a "subordinate relationships vs. social-affiliation relationships" dimension.

FIGURE 13

Tree Diagram of Results of Johnson's (1967) Hierarchical Clustering of Form 1 Data

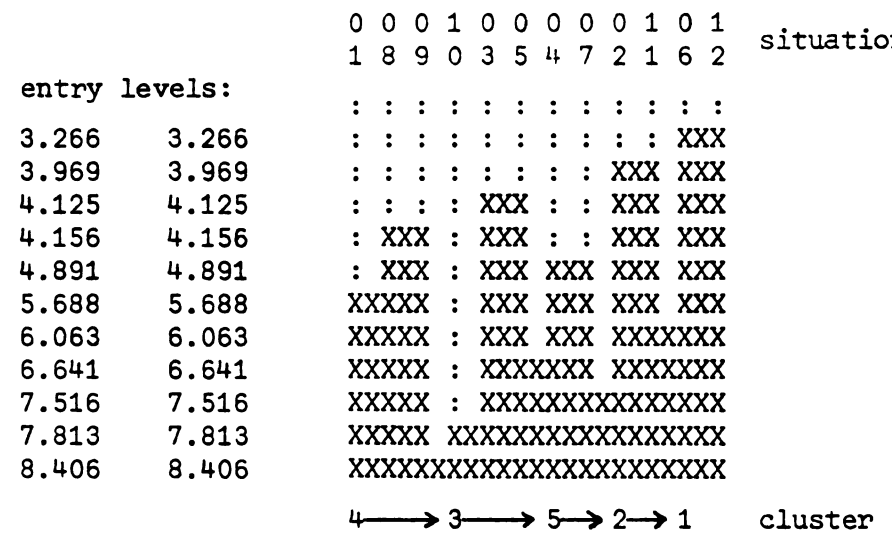


TABLE 21

Situations Included in Clusters Generated from Johnson's (1967) Hierarchical Clustering Program (Form 1 Data)

Cluster 1:	Situations (in order of entry)
	6. Persuade your parents to let you stay out late.
	12. Persuade your parents to give you money.
Cluster 2:	Situations (in order of entry)
	2. Persuade a professor to let you enroll in an already crowded class.
	11. Persuade a bouncer to let you into a bar even though you have forgotten your I.D.
Cluster 3:	Situations (in order of entry)
	3. Persuade a group of people to stop teasing a friend of yours.
	5. Persuade a friend not to swear so much.
	10. Persuade your father to take more time off from work and find something relaxing to do.
Cluster 4:	Situations (in order of entry)
	8. Persuade a group of people to order a pizza because you feel like eating one.
	9. Persuade a friend to take a class with you.
	1. Persuade your roommate(s) to leave phone messages for you while you are out.
Cluster 5:	Situations (in order of entry)
	4. Persuade your boy/girlfriend to meet your relatives.
	7. Persuade your boy/girlfriend not to date another person.

Situations comprising cluster five load positive on the second dimension, followed by situations in cluster three. These situations entail actions which have important consequences for the development of the relationship. Situations inclusive of clusters two, one and four (which load negative on the second dimension) do not entail any actions which entail important consequences concerning the future of the relationship.

It would appear that situations in cluster two are situations which are perceived as unfriendly and where the persuasion is difficult, while situations in clusters one and four are perceived as more friendly and entailing less resistance. This is congruent with the manner in which situations are arrayed on the third dimension and supports the interpretation of that dimension.

Further, situations in cluster three load positive on the fourth dimension and entail a persuasion attempt which provides a benefit for a person other than the persuader, while situations in clusters five and two (as well as situation one) load negative on the fourth dimension and entail a persuasion attempt for the persuader's benefit.

Figure 14 presents the results of the hierarchical clustering of the Form 2 data. There are four clusters. Table 22 presents the situations included in each cluster.

Cluster one includes situations that deal with friends and includes one of the situations that deal with a boy/girlfriend relationship (go to a party). All of the situations included in this cluster entail joint activities (friendly) and short-term persuasion. Cluster two consists of situations that deal with tasks — selecting a University, studying and obtaining participants for a group project. The first two situations

FIGURE 14

Tree Diagram of Results of Johnson's (1967) Hierarchical Clustering of Form 1 Data

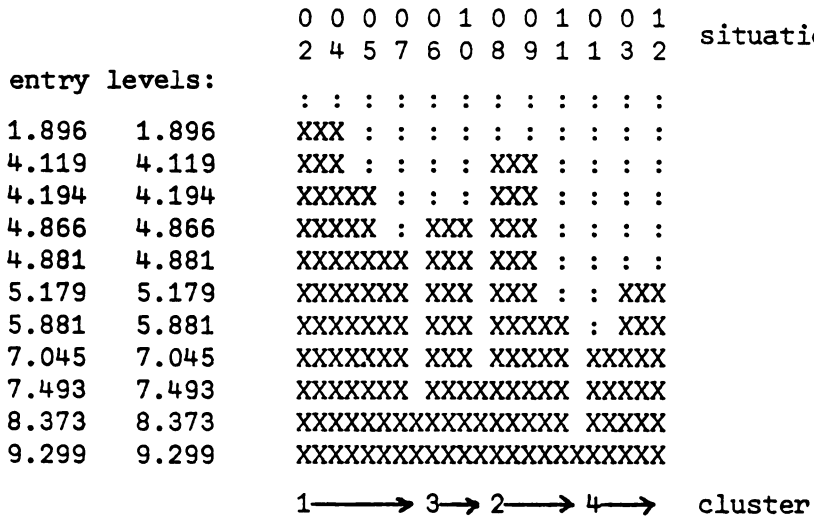


TABLE 22

Situations Included in Clusters Generated from Johnson's (1967) Hierarchical Clustering Program (Form 2 Data)

Cluster 1:	Situations (in order of entry)
	2. Persuade a group of people to go to the bar with you.
	4. Persuade a friend to go shopping with you.
	5. Persuade a boy/girlfriend to go to a party where there is mostly your friends.
	7. Persuade a friend to give you a ride.
Cluster 2:	Situations (in order of entry)
	8. Persuade a sister/brother to go to a four-year university.
	9. Persuade a boy/girlfriend to study more.
	11. Persuade a group of people to participate in an experiment for your group project.
Cluster 3:	Situations (in order of entry)
	6. Persuade your boy/girlfriend not to date another person.
	10. Persuade a person to ask you out.
Cluster 4:	Situations (in order of entry)
	3. Persuade a professor that an answer on a test is incorrect.
	12. Persuade parents that marijuana is not bad.
	1. Persuade your boss to let you leave work early.

deal with another person's benefitting from the persuasion, and the situation dealing with a group project merges later. Thus, this cluster may have something to do with benefits, as well as with tasks.

Cluster three consists of two situations which deal with initial stages of a boy/girlfriend relationship. Cluster four included situations which merged fairly late; situations that deal with professors, parents and a boss. It appears as though the situations dealing with parents sampled in Form 2 do not involve the parent's benefit, and situations which deal with both parent relationships and professionals could involve more emotional interactions; possibly more difficult to persuade situations, than the situations sampled in Form 1.

In relation to the first dimensional array of situations, the friendly-unfriendly dimension, situations from cluster one load highly negative (friendly), while situations from cluster four have highly positive loadings (unfriendly, resistance to persuasion). The second dimensional array was labeled the superficial vs. intimate dimension and situations from clusters two and three have positive loadings on this dimension (intimate) and situations in clusters four and one have negative loadings (superficial). The last two dimensions of the Form 2 solution did not predict to any of the attributes. However, it was argued that the third dimension may be related to perceived level of intensity of interaction. In general, situations from clusters three and four have positive loadings on this dimension (intense, emotional) and situations in cluster two load negative (non-intense, unemotional).

Figure 15 presents the results of the cluster analysis of Form 3 data. There are four global clusters of situations, with the situations in the fourth cluster merging at fairly high entry levels. Table 23

FIGURE 15

Tree Diagram of Results of Johnson's (1967)
Hierarchical Clustering of Form 3 Data

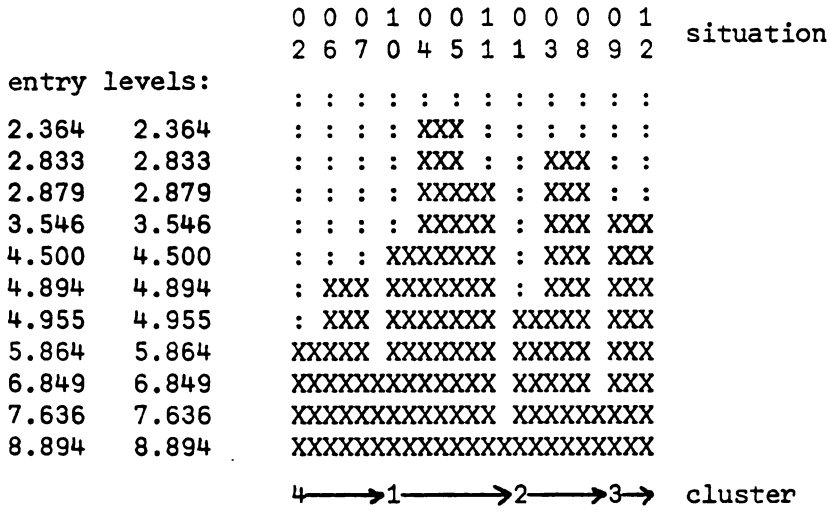


TABLE 23

Situations Included in Clusters Generated from Johnson's (1967) Hierarchical Clustering Program (Form 3 Data)

Cluster 1:	Situations (in order of entry)
4.	Persuade a professor that a test item was ambiguous.
5.	Persuade a professor that his grading scale is too hard.
11.	Persuade a professor to increase your grade.
10.	Persuade a police officer not to give you a ticket.
Cluster 2:	Situations (in order of entry)
3.	Persuade your boy/girlfriend to confide in you more.
8.	Persuade an old boy/girlfriend that the relationship is worth saving.
1.	Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.
Cluster 3:	Situations (in order of entry)
9.	Persuade your father into getting a checkup.
12.	Persuade your mother to go back to college and get a degree.
Cluster 4:	Situations (in order of entry)
6.	Persuade a person you know in class to help you with your homework.
7.	Persuade your landlord to fix the plumbing in your apartment.
2.	Persuade your roommate to keep quiet when you are trying to sleep.

presents the situations included in each cluster. The first dimensional array of situations was labeled a superficial vs. intimate dimension. Situations which load positive, in clusters one and four, are situations involving superficial relationships, while situations with negative coordinate loadings, in clusters two and three, involve more intimate relationships. The second dimensional array of situations obtained for the Form 3 solution was labeled intense feelings. Situations from clusters three and four have positive loadings on this dimension (non-intense interactions). Situations in clusters one and two are perceived as intense interactions.

The third dimensional array of situations was labeled "easy to persuade vs. difficult to persuade". In general, situations in clusters three and one entail persuasion attempts that are perceived as difficult. Situations in clusters two and four are perceived as entailing little resistance. Situations which correspond to the familiarity (fourth) dimension cannot be identified in any combination of the clusters.

Figure 16 presents the results of the cluster analysis of the Form 4 data. There are four clusters. Table 24 presents the situations in each of the four clusters. Since the situations are the same in Forms 3 and 4, and since three of the four dimensions were interpreted as the same across the two four-dimensional configurations, it should be sufficient here to note the commonalities and differences in the two cluster analysis solutions. Aside from a few situations which merge at relatively different entry levels, the obtained four clusters are the same except for situation seven (persuade your landlord to fix the plumbing in your apartment). In the cluster analysis results of the Form 4 data, situations seven merged into cluster one, a set of situations which are

FIGURE 16

Tree Diagram of Results of Johnson's (1967) Hierarchical Clustering of Form 4 Data

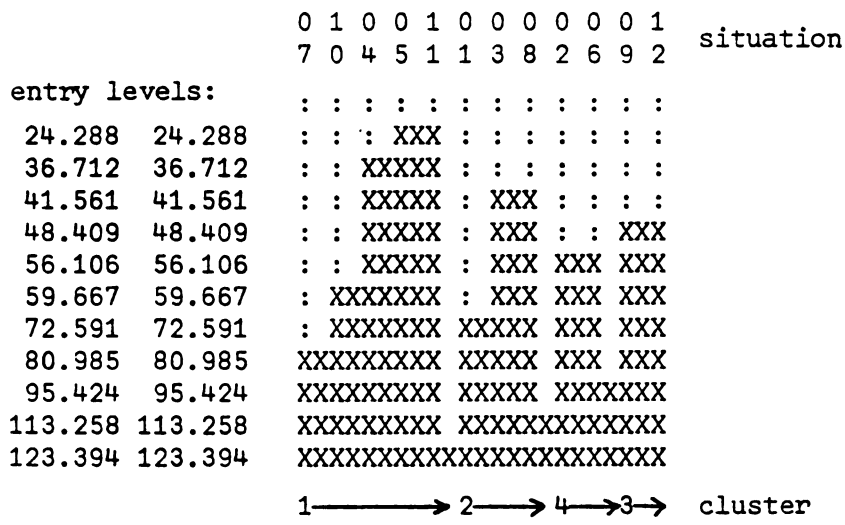


TABLE 24

Situations Included in Clusters Generated from Johnson's (1967) Hierarchical Clustering Program (Form 4 Data)

Cluster 1:	Situations (in order of entry)
5.	Persuade a professor that his grading scale is too hard.
11.	Persuade a professor to increase your grade.
4.	Persuade a professor that a test item was ambiguous.
10.	Persuade a police officer not to give you a ticket.
7.	Persuade your landlord to fix the plumbing in your apartment.
Cluster 2:	Situations (in order of entry)
3.	Persuade your boy/girlfriend to confide in you more.
8.	Persuade an old boy/girlfriend that the relationship is worth saving.
1.	Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.
Cluster 3:	Situations (in order of entry)
9.	Persuade your father into getting a checkup.
12.	Persuade your mother to go back to college and get a degree.
Cluster 4:	Situations (in order of entry)
2.	Persuade your roommate to keep quiet when you are trying to sleep.
6.	Persuade a person you know in class to help you with your homework.

somewhat unfriendly and entail a persuasion attempt that may involve some resistance in a superficial relationship. This situation merged fairly late in the clustering process.

In the Form 3 cluster analysis results, this situation merged into cluster four, a cluster of situations which are neither very friendly or unfriendly, nor superficial or intimate. Situations in this cluster may be characterized as involving simple requests. Given that the situations merged late into the "weakest" cluster of the Form 3 and Form 4 results, it would appear that this difference in the solution is not a major difference. Obviously, some set of individuals may perceive interactions with landlords as unfriendly, while others perceive landlords as friendly and somewhat cooperative.

Note that the situation that exhibited the most change in the dimensional structure comparison (situation eleven, "persuade a professor to increase a grade") only experiences a change in degree of entry levels into the first clusters of both the Form 3 and Form 4 solutions. This suggests that the degree of similarity between situation 11 and situations 4, 5 and 10 are fairly strong across the two data sets, and that the lack of stability of the situation may be due to instability with other situations. However, situation seven was stably located in the dimensional structure comparison, and its lack of stability in the cluster analysis results is probably due to the fact that it only weakly corresponds to each of the respective clusters it merges into (see above).

In hierarchical cluster analysis, it is possible to discuss how clusters continue to merge together until all objects have merged into one cluster. However, by observation, one can note that situations arranged from left to right in Figures 13, 14, 15 and 16 are arranged

more or less in terms of types of relationships. For instance, in Figure 13, situations in clusters one and two merge (situations which involve the respondent in subordinate relationships), situations in clusters three and five merge (involving important relationships), followed by situations in clusters one, two, three and five merging and ultimately situations in cluster four merging last (social/affiliation situations not involving resistance). The results of the exploratory study (see Figure 1) also illustrate this observation. More global clusters identified relationship types, while various types of actions (behaviors, feelings goals) could be identified as subclusters. Nonetheless, the interpretation of the cluster analysis results is, as expected, quite compatible with the results of the interpretation of the dimensional structures.

3.6 Dimensional Structure: Results of INDSCAL analysis

It was noted above that the solutions provided by the INDSCAL model were often substantially different than the ones obtained by using either the KYST (TORSCA) or GALILEO models. I will only briefly discuss the interpretation of the INDSCAL solutions. Since the main reason for employing the INDSCAL model lies in the advantage of obtaining dimensional salience weights for each individual on all dimensions, it will be convenient to discuss points of view that may be operative in each of the four sets of data at the same time the interpretation of dimensions is presented. Therefore, in this section of the paper, I shall present the interpretations of the INDSCAL solutions and the results of hierarchically clustering the respondents based on their salience weights. Further, I shall identify subsets of individuals based on the results of the

cluster analysis to be used in subsequent analysis (see Section 3.7) in order to assess in greater detail the differences in points of view.

Table 25 presents the coordinate loadings of the twelve situations included in Form 1 in the INDSCAL solution. Table 26 presents the standardized regression weights obtained by regressing the coordinate loadings of the situations onto the mean ratings on unidimensional attributes.

The first dimension appears to correspond to the "easy to persuade vs. difficult to persuade" set of attributes, although there is substantial overlap between the first and third dimensions. There is also an indication that this dimension corresponds to levels of perceived emotional involvement (β = .789). The second dimension appears to be an "I benefit-I do not benefit" (β = .694) dimension (also, "s/he benefits-s/he does not benefit", β = -.711). While there is considerable overlap in how the attributes correspond to the first and third dimensions, it appears that the third dimension corresponds to the friendly-unfriendly set of attributes, the status set of attributes and the personal-impersonal set of attributes. None of the attributes correspond to the fourth dimension.

For convenience, I will label the four INDSCAL dimensions as: (1) "easy to persuade-comfortable vs. difficult to persuade-uncomfortable"; (2) "I benefit vs. I do not benefit"; (3) "friendly-personal vs. unfriendly-impersonal"; and, (4) Unlabeled.

Table 27 presents the coordinate loadings of the twelve situations in Form 2 in the four dimensional INDSCAL solution. Table 28 presents the standardized regression weights obtained by regressing the coordinate loadings of the situations onto the mean ratings of the unidimensional attributes.

TABLE 25

INDSCAL Coordinates for Form 1 (Four Dimensions)

Situation	Dimension 1	2	3	4
1. Persuade your roommate(s) to leave phone messages for you while you are out.	.608	-.045	.110	-.080
2. Persuade a professor to let you enroll in an already crowded class.	-.263	-.256	-.416	-.231
3. Persuade a group of people to stop teasing a friend of yours.	-.035	.430	-.330	.532
4. Persuade your boy/girlfriend to meet your relatives.	-.010	.235	.313	-.305
5. Persuade a friend not to swear so much.	.162	.433	-.062	.049
6. Persuade your parents to let you stay out late.	-.238	-.300	.238	-.022
7. Persuade your boy/girlfriend not to date another person.	-.232	.345	.071	-.435
8. Persuade a group of people to order a pizza because you feel like eating one.	.343	-.209	-.137	.479
9. Persuade a friend to take a class with you.	.335	-.013	.039	-.057
10. Persuade your father to take more time off from work and find something relaxing to do.	-.362	.075	.441	.181
11. Persuade a bouncer to let you into a bar even though you have forgotten your I.D.	-.067	-.292	-.515	-.279
12. Persuade your parents to give you money.	-.243	-.402	.248	.168

TABLE 26

Standardized Regression Weights for Four (INDSCAL) Dimensions Used to Predict Mean Ratings on Unidimensional Attributes (Form 1; n=64)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	-.489[b]	.302	-.750[a]	-.157	.787[b]
difficult-easy to resolve conflicts	.392[b]	-.180	.872[a]	.095	.847[a]
short term-long term strategy	-.406[b]	.600[a]	.541[a]	.046	.863[a]
comfortable-uncomfortable	-.598[a]	.232	-.738[a]	-.204	.874[a]
resistant-not resistant to persuasion	.663[a]	-.275	.613[b]	.105	.765[b]
easy to persuade-difficult to persuade	-.690[a]	.334	-.564	-.031	.750[b]
I benefit-I do not benefit	-.266	.694[a]	.112	.479[b]	.747[b]
I have been-I have never been in this situation	-.229	.502[c]	-.289	-.481[c]	.578[c]
involves a favor-involves a right	.112	.577[c]	.365	-.212	.548[c]
do something for his/her benefit-not do something for his/her benefit	-.004	-.711[a]	-.338	-.238	.714[b]
I have relatively low status-high status	.341[b]	.387[b]	.765[a]	.172	.901[a]
formal-informal	.609[a]	.069	.682[a]	.303	.903[a]
one totally dominates-treat each other equally	.586[a]	.463[b]	.526[a]	.045	.861[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 26 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	.256	.195	.515	-.172	.379
no commitment to future interaction-commitment	-.090	.268	.845[a]	-.034	.843[a]
frank and open-reserved and cautious	-.532[a]	-.266[c]	-.692[a]	-.259[c]	.908[a]
impersonal-personal relationship	-.056	.251[c]	.889[a]	.022	.897[a]
emotional-unemotional situation	.789[a]	-.481[a]	-.122	.197	.913[a]
I know-I do not know how to behave	-.651[a]	.587[a]	-.360[b]	-.254	.845[a]
he/she will think less of me-will not think less	.393	-.454[c]	.637[b]	.018	.631[c]
he/she has a major effect-does not have a major effect on my life	.511[a]	-.046	-.759[a]	.020	.936[a]
I have a major effect-do not have a major effect on his/her life	.298[b]	.140	-.859[a]	-.025	.910[a]
I must be assertive-I need not be assertive	.646[a]	-.181	.703[a]	-.145	.793[b]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 27

INDSCAL Coordinates for Form 2 (Four Dimensions)

Situation	Dimension 1	2	3	4
1. Persuade your boss to let you leave work early.	-.451	.192	-.364	.321
2. Persuade a group of people to go to the bar with you.	-.340	-.127	.296	-.337
3. Persuade a professor that an answer on a test is incorrect.	-.046	.434	-.322	.222
4. Persuade a friend to go shopping with you.	-.240	-.152	.318	-.400
5. Persuade your boy/girlfriend to go to a party where there is mostly your friends.	-.018	-.288	.310	-.059
6. Persuade your boy/girlfriend not to date another person.	.371	-.055	.272	.491
7. Persuade a friend to give you a ride.	-.251	-.168	.151	-.300
8. Persuade a sister/brother to go to a four-year University.	.475	.057	-.339	-.333
9. Persuade a boy/girlfriend to study more.	.359	-.240	-.332	-.008
10. Persuade a person to ask you out.	-.012	-.194	.269	.342
11. Persuade a group of people to participate in an experiment for your group project.	-.086	-.162	-.287	-.038
12. Persuade parents that marijuana is not bad.	.240	.704	.028	.099

TABLE 28

Standardized Regression Weights for Four (INDSCAL) Dimensions Used to Predict Mean Ratings on Unidimensional Attributes (Form 2, n=67)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	.286[b]	.535[a]	-.054	.503[a]	.905[a]
difficult-easy to resolve conflicts	-.110	-.316[c]	.296[c]	.633[a]	.877[a]
short term-long term strategy	.508	.361	.326	.361	.523
comfortable-uncomfortable	.083	.383[a]	-.091	.752[a]	.973[a]
resistant-not resistant to persuasion	-.257[c]	-.450[b]	.246	-.473[b]	.881[a]
easy to persuade-difficult to persuade	.358[b]	.485[a]	-.227[c]	.406[a]	.923[a]
I benefit-I do not benefit	.734[a]	.238	-.217	-.427[c]	.773[b]
I have been-I have never been in this situation	.637[b]	.301	-.055	.279	.766[b]
involves a favor-involves a right	.406[c]	.694[a]	.087	.180	.796[b]
do something for his/her benefit-not do something for his/her benefit	-.544	.275	-.188	.241	.428
I have relatively low status-high status	.593[a]	-.562[a]	.230	-.400[b]	.906[a]
formal-informal	.333[b]	-.336[b]	.459[a]	-.588[a]	.915[a]
one totally dominates-treat each other equally	.365[b]	-.521[a]	.457[a]	-.381[a]	.925[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 28 (cont'd)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	.721[a]	-.207	.583[b]	-.172	.820[b]
no commitment to future interaction-commitment	.682[b]	.033	.359	-.001	.500
frank and open-reserved and cautious	-.404[b]	.414[b]	-.284[c]	.595[a]	.867[a]
impersonal-personal relationship	.706[a]	-.095	.591[b]	-.167	.739[b]
emotional-unemotional situation	-.731[a]	-.070	-.379[a]	-.519[a]	.946[a]
I know-I do not know how to behave	.518[a]	.277[c]	.160	.596[a]	.881[a]
he/she will think less of me-will not think less	-.172	-.438[b]	-.188	-.707[a]	.897[a]
he/she has a major effect-does not have a major effect on my life	-.717[b]	-.334	-.307	-.019	.610[c]
I have a major effect-do not have a major effect on his/her life	-.822[a]	-.024	-.402[c]	.156	.704[b]
I must be assertive-I need not be assertive	-.219	-.332	.473[c]	-.270	.728[b]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

It appears that the first dimension corresponds to intimacy (superficial-intimate, β = .721; impersonal-personal, β = .706; no commitment-commitment to future interaction, β = .682; s/he has a major effect on my life-does not, β = -.717; and, I have a major effect-I do not, β = -.822). Thus, this dimensional array of situations can be labeled the "intimate vs. superficial" dimension.

Only one attribute corresponds to the second dimension, and it corresponds only at a moderate level: involves a favor-involves a right, β = .694. Thus, I shall refer to this dimensional array of situations as the "favors vs. rights" dimension.

There are no attributes which even moderately correspond to the third dimension. Several attributes relate to the fourth dimension: comfortable-uncomfortable, β = .752; difficult-easy to resolve conflict, β = -.633; formal-informal, β = -.588; s/he will think less of me-will not think less of me, β = -.707; and, I know-I do not know how to behave, β = .596. I shall refer to this dimensional array of situations as the "comfortable vs. uncomfortable" dimension. The status/formality attributes generally correspond with more than two of the dimensions.

Although the process of labeling these dimensions is extremely tenuous, the following labels will be provided:

I. superficial vs. intimate;
II. favors vs. rights (with overtones of friendly vs. unfriendly);
III. unlabeled;
IV. comfortable vs. uncomfortable (with overtones of friendly-easy to persuade vs. unfriendly-difficult to persuade).

Table 29 presents the coordinate loadings of the twelve situations in Form 3 in the four-dimensional INDSCAL solution. Table 30 presents the standardized regression weights for the four INDSCAL dimensions used to predict to mean ratings on the unidimensional attributes.

TABLE 29

INDSCAL Coordinates for Form 3 (Four Dimensions)

Situation	Dimension 1	2	3	4
1. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.	.250	-.388	.360	.365
2. Persuade your roommate to keep quiet when you are trying to sleep.	-.215	-.205	-.472	-.315
3. Persuade your boy/girlfriend to confide in you more.	.116	-.442	.026	.287
4. Persuade a professor that a test item was ambiguous.	-.130	.209	.304	-.438
5. Persuade a professor that his grading scale is too hard.	-.093	.192	.297	-.413
6. Persuade a person you know in class to help you with your homework.	-.258	-.210	-.276	-.131
7. Persuade your landlord to fix the plumbing in your apartment.	-.379	.262	-.273	.229
8. Persuade an old boy/girlfriend that the relationship is worth saving.	.126	-.392	.196	.397
9. Persuade your father into getting a checkup.	.458	.178	-.317	.122
10. Persuade a police officer not to give you a ticket.	-.256	.384	.172	.155
11. Persuade a professor to increase your grade.	-.182	.230	.261	-.236
12. Persuade your mother to go back to college and get a degree.	.563	.182	-.280	-.022

TABLE 30

Standardized Regression Weights for Four (INDSCAL) Dimensions Used to Predict Mean Ratings on Unidimensional Attributes (Form 3, n=66)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	-.494[b]	.260	.539[b]	-.141	.774[b]
difficult-easy to resolve conflicts	.352	-.589[a]	-.566[a]	-.051	.867[a]
short term-long term strategy	.658[a]	-.255	-.001	.293	.841[a]
comfortable-uncomfortable	-.453[b]	.241	.678[a]	.056	.786[b]
resistant-not resistant to persuasion	-.112	-.653[a]	-.720[a]	.029	.912[a]
easy to persuade-difficult to persuade	.144	.699[a]	.728[a]	.059	.960[a]
I benefit-I do not benefit	.939[a]	.169	-.131	.147	.971[a]
I have been-I have never been in this situation	.046	.747[a]	.032	.602[a]	.879[a]
involves a favor-involves a right	-.233	.039	.133	-.023	.081
do something for his/her benefit-not do something for his/her benefit	-.748[a]	.066	.310[b]	-.282[b]	.934[a]
I have relatively low status-high status	.220	-.647[a]	-.493[b]	.104	.852[a]
formal-informal	.363[a]	-.589[a]	-.610[a]	.033	.985[a]
one totally dominates-treat each other equally	.138	-.792[a]	-.464[b]	.066	.960[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 30 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	.605[a]	-.515[a]	-.247[a]	.168[a]	.997[a]
no commitment to future interaction-commitment	.558[a]	-.320[b]	-.421[a]	.245[c]	.927[a]
frank and open-reserved and cautious	-.408[b]	.558[a]	.572[a]	.052	.893[a]
impersonal-personal relationship	.619[a]	-.506[a]	-.266[a]	.141[b]	.987[a]
emotional-unemotional situation	-.473[b]	.296[c]	-.402[b]	-.378[b]	.878[a]
I know-I do not know how to behave	-.073	.659[a]	.688[a]	.366	.885[a]
he/she will think less of me-will not think less	.502[b]	.017	-.625[a]	-.024	.685[c]
he/she has a major effect-does not have a major effect on my life	-.886[a]	.155	.052	-.092	.973[a]
I have a major effect-do not have a major effect on his/her life	-.734[a]	.255[a]	.216[a]	-.254[a]	.980[a]
I must be assertive-I need not be assertive	.138	-.762[a]	-.486[a]	.017	.883[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

The first dimensional array of situations corresponds to the benefit items: I benefit-I do not benefit (β = .939); do something for his/her benefit-not do something for his/her benefit (β = -.748). This dimension also corresponds to a number of the superficial-intimate and influencability attributes: s/he has a major effect on my life-does not have a major effect (β = -.886); I have a major effect-I do not have a major effect on his/her life (β = -.734); impersonal-personal, β = .619; superficial-intimate, β = .605; no commitment-commitment to future interaction, β = .558; and short term strategy-long term strategy, β = .658. Several of the superficial-intimate attributes also correspond to the second dimension (see Table 31). It is extremely difficult to label any of the remaining dimensional arrays of situations. Many of the friendly-unfriendly attributes correspond moderately with either the first and third dimensions, or the second and third dimensions. The same is true for a number of the "easy to persuade-difficult to persuade" set of attributes. Many of the status/formal set correspond to both the second and third dimensions. The attribute "I know how to behave-I do not know how to behave" also corresponds to two dimensions (two and four) and the attribute "involves a favor-involves a right" does not correspond to any of the four dimensions.

However, for the purpose of labeling the dimensions, the following dimensions will be applied to the four INDSCAL dimensions (see Table 30):

I. I benefit-intimate vs. I do not benefit-superficial;
II. one dominates vs. treat each other as equals;
III. comfortable-easy to persuade vs. uncomfortable-difficult to persuade;
IV. unlabeled.

Table 31 presents the coordinate loadings of the twelve situations in Form 4 in the four INDSCAL dimensions. Table 32 presents the

TABLE 31

INDSCAL Coordinates for Form 4 (Four Dimensions)

Situation	Dimension 1	2	3	4
1. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.	.336	-.511	.207	-.048
2. Persuade your roommate to keep quiet when you are trying to sleep.	-.342	-.111	-.469	-.058
3. Persuade your boy/girlfriend to confide in you more.	.201	-.407	-.109	-.039
4. Persuade a professor that a test item was ambiguous	-.150	.298	.229	-.396
5. Persuade a professor that his grading scale is too hard.	-.174	.268	.332	-.300
6. Persuade a person you know in class to help you with your homework.	-.144	.012	-.452	-.480
7. Persuade your landlord to fix the plumbing in your apartment.	-.457	.071	-.046	.360
8. Persuade an old boy/girlfriend that the relationship is worth saving.	.280	-.441	.029	.183
9. Persuade your father into getting a checkup.	.345	.192	-.272	.433
10. Persuade a police officer not to give you a ticket.	-.238	.065	.336	.275
11. Persuade a professor to increase your grade.	-.086	.285	.366	-.174
12. Persuade your mother to go back to college and get a degree.	.431	.278	-.192	.242

TABLE 32

Standardized Regression Weights for Four (INDSCAL) Dimensions Used to Predict Mean Ratings on Unidimensional Attributes (Form 4, n=66)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	-.545[b]	-.013	.625[b]	.065	.717[b]
difficult-easy to resolve conflicts	.399[b]	-.211[c]	-.792[a]	-.128	.948[a]
short term-long term strategy	.672[b]	-.160	.023	.259	.713[c]
comfortable-uncomfortable	-.430[b]	-.045	.836[a]	.082	.894[a]
resistant-not resistant to persuasion	.149	-.212	-.863[a]	-.215	.890[a]
easy to persuade-difficult to persuade	.064	.278[b]	.903[a]	.146	.942[a]
I benefit-I do not benefit	.847[a]	.335[c]	-.138	.252	.840[a]
I have been-I have never been in this situation	-.011	.288	.314[c]	.819[a]	.785[b]
involves a favor-involves a right	-.574	-.241	.310	.169	.376
do something for his/her benefit-not do something for his/her benefit	-.728[a]	-.014	.307[b]	-.293[c]	.876[a]
I have relatively low status-high status	.392[b]	-.395	-.612[a]	.019	.899[a]
formal-informal	.385[a]	-.168	-.828[a]	-.017	.987[a]
one totally dominates-treat each other equally	.238[c]	-.517[a]	-.648[a]	-.042	.932[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 32 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	.655[a]	-.364[a]	-.397[a]	.038	.974[a]
no commitment to future interaction-commitment	.599[a]	-.297[b]	-.453[a]	.103	.906[a]
frank and open-reserved and cautious	-.279[c]	.261[c]	.764[a]	-.034	.869[a]
impersonal-personal relationship	.676[a]	-.348[a]	-.383[a]	.024	.967[a]
emotional-unemotional situation	-.577[a]	.523[a]	-.392[a]	-.187	.954[a]
I know-I do not know how to behave	-.041	.104	.827[a]	.525[a]	.898[a]
he/she will think less of me-will not think less	.401[b]	.268	-.784[a]	.174	.851[a]
he/she has a major effect-does not have a major effect on my life	-.859[a]	.072	.060	-.194	.927[a]
I have a major effect-do not have a major effect on his/her life	-.677[a]	.232[c]	.291[b]	-.263[b]	.938[a]
I must be assertive-I need not be assertive	.352[b]	-.260[c]	-.759[a]	-.173	.888[a]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

standardized regression weights for the four INDSCAL dimensions used to predict to mean ratings on the unidimensional attributes.

The first dimension is the "I benefit vs. I do not benefit" (I benefit-I do not benefit, β = .847; do something for his/her benefit-not do something for his/her benefit, β = -.728). I shall leave the second dimensional array of situations unlabeled (no attributes correspond to this dimension and it does not appear to relate to the intense feelings distinction). The third dimension corresponds to the "easy to persuade-difficult to persuade" (easy to persuade-difficult to persuade, β = .903; resistant-not resistant, β = -.863; comfortable-uncomfortable, β = .836). Several other attributes also correspond to this dimension: formal-informal, β = -.828; and, I know how to behave-I do not know how to behave, β = .827. The fourth dimension corresponds with familiarity (I have been-I have never been in this situation, β = .819). The friendly-unfriendly set of attributes and status set of attributes correspond to dimensions one and three or to dimensions two and three, respectively.

Thus, the four dimensional INDSCAL solution for the Form 4 data can be labeled as follows:

I. I benefit vs. I do not benefit;
II. unlabeled;
III. easy to persuade-comfortable vs. difficult to persuade-uncomfortable; and
IV. familiarity.

Obviously, the process of labeling the INDSCAL dimensions has not been a rigorous one. Technically, the INDSCAL solutions should be rotated to congruence with the KYST solutions. However, this rotation was not performed for the purpose of the present study because the model purports to provide dimensional solutions which need no rotation for interpretation (Carroll, 1972; Carroll and Chang, 1970). The fact that many

of the factors of attributes corresponded highly to respective orthogonal dimensions in the interpretation of the KYST solutions while the orthogonal factors obtained by the factor analysis usually corresponded only moderately with several of the INDSCAL solutions suggests that the INDSCAL solutions must be rotated in order to enhance interpretability. Undoubtedly, by employing only the INDSCAL model to the type of data collected for the purpose of this study, one would eventually label dimensions which would have little correspondence to the results of the factor analysis or to the KYST or GALILEO solutions.

One reason for this potential problem of a lack of dimensional "generality" is the operation of diverse points of views (individual differences). As Woelfel and Danes (1977) have noted, individuals who perceive three objects in a different order (even in a different rank order, I might add) could not have their exact point of view represented in an aggregated solution; i.e., no degree of shrinking or stretching of axes will represent both individual's initial matrix. Thus an assessment of points of view becomes a central methodological question. Not only is it of critical importance to demonstrate the ways in which individuals vary in their perceptions of situations, but now a critical methodological question arises concerning one of the basic assumptions of the INDSCAL model: Is there a common aggregated multidimensional configuration which can subsume the initial configuration of each respondent? Stated another way, the question becomes, do the same dimensions of perception exist for all respondents, such that individual differences merely take the form of stretching or shrinking of some set of dimensional axes?

In order to address the question of individual differences, correlations were computed between respondents in each of the four groups on the basis of dimensional salience weights. These correlations were utilized as input into Johnson's (1967) hierarchical clustering program. The results of this analysis revealed that there are diverse points of view: eight global clusters were obtained for the Form 1 data, nine for the Form 2 data, eight for the Form 3 data and ten for the Form 4 data. By "global cluster" I mean that the cluster did not merge with another cluster until the correlation was (approximately) equal to zero. The clusters varied in size (from five to twelve individuals) and in the level of strength of clustering (in "weak" clusters, individuals merged at a low correlation; in "strong" clusters, individuals merged at correlations of about .65 or better — often a correlation of about .8).

It should also be noted that a number of dimensional weights were zero, and some were negative, across the four data sets. This observation, along with the facts that (a) the INDSCAL solutions accounted for so little of the variance and (b) a large number of clusters of individuals were obtained, strongly suggests that each of the aggregated INDSCAL solutions do not represent a common configuration for all individuals, and that individual differences are not likely to be represented by the expansion or contraction of some set of dimensional axes.

To provide some exposition of individual differences, I shall select two clusters of individuals from the Form 3 data and illustrate how diverse several of the points of view are. Cluster 4 (Form 3) is a fairly strong cluster (the last individual merged at $r = .673$). This cluster consists of ten individuals — three males and seven females. Cluster six (Form 3) is another strong cluster of individuals (last

individual merging at r = .764), and consists of nine individuals (three males and six females).

3.7 Investigation of Individual Differences

In order to assess the difference between the clusters of individuals, each set of paired comparison data was analyzed using the KYST/TORSCA program. Dimensional solutions for dimensions one through five were obtained and the stress values for these solutions indicated four dimensional solutions (stress values of 1.93% and 2.78%).

Table 33 presents the coordinates of twelve situations of Form 3 in the four dimensional KYST solution for cluster four individuals. Table 34 presents the standardized regression weights obtained from regressing the coordinate loadings of the situations onto the median ratings on the unidimensional attributes. The median ratings were used because the sample sizes are so small that the mean ratings may not be very robust. Table 35 presents the coordinates of twelve situations of Form 3 in the four dimensional KYST solution for cluster six individuals. Table 36 presents the results of the regression analysis. When rotated, the row and column correlations for these two configurations never exceeded .7. These configurations are extremely different. In the following discussion, the unrotated KYST solutions will be employed.

For cluster four individuals, the first dimensional array of situations corresponds to the superficial-intimate set of attributes (superficial-intimate, β = -.883; no commitment to future interaction-commitment, β = -.690; impersonal-personal, β = -.876; also, frank and open-reserved and cautious, β = .743), the influence set of attributes (I have-I do not have a major effect on his/her life, β = .905; s/he

TABLE 33

Coordinates of 12 Situations for the Fourth Cluster of Respondents (Form 3) in Four Dimensional KYST Solution

	Dimensions: 1	2	3	4
1. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.	-.904	.819	.038	.441
2. Persuade your roommate to keep quiet when you are trying to sleep.	.599	-.769	-.207	-.406
3. Persuade your boy/girlfriend to confide in you more.	-.420	.163	-.719	-.430
4. Persuade a professor that a test item was ambiguous.	.511	.394	.437	-.181
5. Persuade a professor that his grading scale is too hard.	.479	.538	.284	-.094
6. Persuade a person you know in class to help you with your homework.	.223	-.289	-.479	.692
7. Persuade your landlord to fix the plumbing in your apartment.	.624	-.810	-.019	.407
8. Persuade an old boy/girlfriend that the relationship is worth saving.	-.464	.269	-.747	-.161
9. Persuade your father into getting a checkup.	-.829	-.633	.441	-.128
10. Persuade a police officer not to give you a ticket.	.668	.355	.207	-.106
11. Persuade a professor to increase your grade.	.502	.474	.233	.031
12. Persuade your mother to go back to college and get a degree.	-.989	-.511	.592	-.066

TABLE 34

Standardized Regression Weights for Four (KYST) Dimensions Used to Predict Median Ratings on Unidimensional Attributes (Form 3, Cluster 4)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	.712[a]	.504[a]	.310[c]	.107	.869[a]
difficult-easy to resolve conflicts	-.462	-.453	-.382	.064	.568
short term-long term strategy	-.858[a]	-.123	-.222	-.220	.848[a]
comfortable-uncomfortable	.573[b]	.607[b]	.229	-.026	.750[b]
resistant-not resistant to persuasion	-.170	-.531[b]	-.698[a]	.096	.808[b]
easy to persuade-difficult to persuade	.084	.625[a]	.650[b]	-.113	.833[a]
I benefit-I do not benefit	-.774[a]	-.174	.088	-.167	.665[c]
I have been-I have never been in this situation	.069	-.221	.430	-.072	.244
involves a favor-involves a right	.360	.093	.158	.032	.164
do something for his/her benefit-not do something for his/her benefit	.948[a]	.112	-.008	.238	.969[a]
I have relatively low status-high status	-.527[c]	-.411	-.337	.086	.569
formal-informal	-.730[a]	-.390[b]	-.433[a]	-.011	.872[a]
one totally dominates-treat each other equally	-.438[c]	-.430[c]	-.544[b]	.061	.676[c]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 34 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	-.883[a]	-.145	-.369[a]	-.064	.942[a]
no commitment to future interaction-commitment	-.690[a]	-.429[b]	-.414[b]	.077	.838[a]
frank and open-reserved and cautious	.743[a]	.372[b]	.429[b]	-.098	.884[a]
impersonal-personal relationship	-.876[a]	-.191[b]	-.388[a]	-.077	.961[a]
emotional-unemotional situation	.750[a]	-.261	.229	.401[b]	.845[a]
I know-I do not know how to behave	.251	.357	.035	-.154	.215
he/she will think less of me-will not think less	-.272	-.517	-.186	-.034	.376
he/she has a major effect-does not have a major effect on my life	.928[a]	.088	-.056	.212[c]	.917[a]
I have a major effect-do not have a major effect on his/her life	.905[a]	.290[a]	.118	.203[c]	.959[a]
I must be assertive-I need not be assertive	-.302	-.159	-.753[a]	-.154	.707[b]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 35

Coordinates of 12 Situations for the Sixth Cluster of Respondents (Form 3) in Four Dimensional KYST Solution

	Dimensions: 1	2	3	4
1. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.	-1.088	-.367	-.350	-.357
2. Persuade your roommate to keep quiet when you are trying to sleep.	-.039	-.240	1.085	.041
3. Persuade your boy/girlfriend to confide in you more.	-1.128	-.265	.035	.169
4. Persuade a professor that a test item was ambiguous.	.782	-.345	.093	-.126
5. Persuade a professor that his grading scale is too hard.	.711	-.085	.235	-.123
6. Persuade a person you know in class to help you with your homework.	-.059	-.279	-.189	.822
7. Persuade your landlord to fix the plumbing in your apartment.	.631	-.252	-.378	.295
8. Persuade an old boy/girlfriend that the relationship is worth saving.	-1.110	-.055	-.041	-.239
9. Persuade your father into getting a checkup.	-.029	.953	.217	-.028
10. Persuade a police officer not to give you a ticket.	.719	-.128	-.274	-.421
11. Persuade a professor to increase your grade.	.715	-.078	-.243	-.140
12. Persuade your mother to go back to college and get a degree.	-.106	1.142	-.191	.107

TABLE 36

Standardized Regression Weights for Four (KYST) Dimensions Used to Predict Median Ratings on Unidimensional Attributes (Form 3, Cluster 6)

Attributes	Dimensions: 1	2	3	4	R^2
friendly-unfriendly	.618[a]	-.558[a]	-.022	-.333[c]	.805[a]
difficult-easy to resolve conflicts	-.692[a]	.338[b]	-.185	.466[a]	.881[a]
short term-long term strategy	-.780[a]	.407[b]	-.192	-.044	.813[b]
comfortable-uncomfortable	.533[a]	-.529[a]	-.009	-.601[a]	.926[a]
resistant-not resistant to persuasion	-.848[a]	-.141	.261[b]	.369[a]	.944[a]
easy to persuade-difficult to persuade	.821[a]	-.044	-.354	-.373	.942[a]
I benefit-I do not benefit	-.047	.934[a]	-.021	.248[b]	.938[b]
I have been-I have never been in this situation	.527[c]	.280	-.349	-.156	.503
involves a favor-involves a right	.223	-.239	.389	-.198	.297
do something for his/her benefit-not do something for his/her benefit	.680[a]	-.488[b]	.016	-.153	.724[b]
I have relatively low status-high status	-.452	.116	.081	.534[c]	.510
formal-informal	-.795[a]	.372[a]	.206[b]	.372[a]	.950[a]
one totally dominates-treat each other equally	-.886[a]	-.034	.136	.354[a]	.930

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

TABLE 36 (cont'd.)

Attributes	Dimensions: 1	2	3	4	R^2
superficial-intimate relationship	-.895[a]	.403[a]	.099	-.022	.973[a]
no commitment to future interaction-commitment	-.734[a]	.389[c]	.045	.310	.789[b]
frank and open-reserved and cautious	.810[a]	-.172	-.115	-.225	.753[b]
impersonal-personal relationship	-.853[a]	.442[a]	.186[b]	.097	.968[a]
emotional-unemotional situation	.888[a]	-.030	.052	.331[b]	.902[a]
I know-I do not know how to behave	.661[b]	.096	-.057	-.247	.510
he/she will think less of me-will not think less	-.324	.488[c]	.108	.482[c]	.538
he/she has a major effect-does not have a major effect on my life	.660[a]	-.627[a]	.018	.314	.928[a]
I have a major effect-do not have a major effect on his/her life	.810[a]	-.529[a]	.084	.122	.959[a]
I must be assertive-I need not be assertive	-.813[a]	.166	-.194	.074	.732[b]

[a] $p < .01$

[b] $p < .05$

[c] $p < .10$

has a major effect-does not have a major effect on my life, β = .928), the benefit set of attributes (I benefit-I do not benefit, β = -.774; do something-not do something for their benefit, β = .948) and the strategy preference attribute (short term-long term strategy, β = -.858).

For cluster six individuals, the first dimensional array of situations also corresponded to the superficial-intimate set of attributes (superficial-intimate, β = -.895; impersonal-personal, β = -.853; no commitment to future interaction-commitment, β = -.734; also frank and open-reserved and cautious, β = .810), several of the easy to persuade-difficult to persuade set of attributes (easy to persuade-difficult to persuade, β = .821; resistant-not resistant to persuasion, β = -.848; I know how to behave-I do not know how to behave, β = .661; also, emotional-unemotional, β = .888), strategy preference (short term-long term strategy, β = -.780), assertiveness (β = .810), and the two influence attributes (I have a major effect-I do not have a major effect on his/her life, β = .810; s/he does not have a major effect-does have a major effect on my life, β = .660). Also, two status attributes correspond to this dimension: formal-informal, β = -.795, and one totally dominates-treat each other as equals, β = -.886.

While some similarities between the first dimensions for both clusters of individuals can be noted, there are several major differences between these two dimensions. For both dimensions, the situations dealing with police, landlords and professors load positive, but are ordered differently. The main differences, however, appear to be related to the relative levels of perceived intimacy of the relationships. For individuals in cluster four, the situations dealing with one's father (situation nine) and one's mother (situation twelve) have much higher loadings

on this dimension than do the situations dealing with boy/girlfriend relationships. The opposite is true for individuals in cluster six; situations dealing with boy/girlfriends are perceived as more intimate and personal than the situations dealing with parents, particularly the situations dealing with one's father (see Table 35).

A second major difference between the two configurations deals with perceived levels of assertiveness. For the cluster four individuals, the third dimension corresponds to the attribute "I must be assertive-I need not be assertive" (β = -.753). But the first dimension of the cluster six individuals corresponds to the assertiveness attribute. Again, this difference appears to be related to differences in the perceptions of the father and mother situations. For cluster four individuals, situations which deal with parents, professors and police are perceived as entailing assertiveness (situations that load positive on the third dimension — see Table 33). For cluster six individuals, situations dealing with police, professors and landlords entail some degree of assertiveness (situations which load positive on the first dimension — see Table 35), but situations which deal with parents, particularly one's mother, are situations that do not appear as though they entail a need to be assertive.

Apparently, cluster four individuals perceive situations dealing with parents as more intimate and personal and feel that they can (or should) be assertive in making these types of requests. Individuals in cluster six perceive the two situations dealing with parents as less intimate and personal than situations dealing with boy/girlfriends, and perceive that they cannot (or do not need to) be assertive when attempting to gain compliance from parents. It may be the case that for individuals whose parents are more distant, past persuasion tactics entailing

assertiveness have been counter-productive. These individuals, them, would learn to avoid being assertive in trying to get their parents to do something for their own good. Further, individuals who are engaged in a more personal and intimate relationship with their parents feel that they can be assertive (or need to be assertive) in order to gain the compliance of their parents in a task that entails a benefit for their parents.

A third difference between these two points of view deals with the question of who benefits from the persuasion. The "I benefit-I do not benefit" attribute corresponds to the first dimension of the cluster four solution (β = -.774), also the do "something for his/her benefit-not do something for his/her benefit" attribute (β = -.948). Situations with positive loadings on this dimension are situatins in which the respondent benefits from compliance; situations with negative loadings are situations in which the other individual benefits. The situations involving police, professors, landlords and situations such as roommate(s) to keep quiet and a person to help you with your homework are situations in which the respondent benefits from the persuasion. Further, it is not surprising that the situations which deal with one's father and mother entail a persuasion attempt for the other person's benefit. Individuals in cluster four also perceive the situations dealing with boy/girlfriends as an action from which the boy/girlfriend will benefit.

For the cluster six individuals, the situations with negative loadings on the second dimension are situations in which the respondents is perceived as obtaining benefits. Individuals in cluster six and cluster four generally agree as to who benefits from compliance for all situations except the situations dealing with boy/girlfriend relationships.

Specifically, a major difference exists between the two points of view in that individuals in cluster six perceive situation eight (persuade an old boy/girlfriend that the relationship is worth saving) and situation one (persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person) as having more to do with their person benefits than cluster four individuals.

The second dimensional array of situations for the cluster four individuals appears as though it is an "intense feelings" dimension. I conclude this because the situation "persuade your boy/girlfriend that there is nothing wrong in occasionally dating another person" is a fairly intense interaction, as well as the situations dealing with professors and police. The other two boy/girlfriend situations are also sometwhat intense (they have small positive loadings on this dimension). The situations dealing with parents, roommates and the landlord are not intense interactions.

Further, it may be the case that the fourth dimensional array of situations for cluster six individuals is also an "intense feelings" dimension. If this is true, then the situation "persuade a person you know in class to help you with your homework" entails the least intense interaction in the perceptions of this cluster of individuals, followed by the landlord situation, "persuade a boy/girlfriend to confide in you more", the two parent situations and the roommate situation. Situations involving intense feelings include situations dealing with professors, "persuade an old boy/girlfriend that there is nothing wrong in occasionally dating another person" and, particularly, "persuade a police officer not to give you a ticket".

Despite the fact that some dimensions are not interpretable, I shall label the dimensions as follows, for cluster four individuals:

I. Superficial-(I benefit-short term strategy) vs. intimate-(I do not benefit-long term strategy);
II. Intense Feelings;
III. Assertive vs. no need to be assertive (with overtones of "easy to persuade-difficult to persuade"); and
IV. Unlabeled.

And, for cluster six individuals:

I. Superficial-(difficult to persuade-short term strategy-assertive) vs. intimate-(easy to persuade-long term strategy-no need to be assertive);
II. I benefit vs. I do not benefit;
III. Unlabeled; and
IV. Intense feelings.

With as many different clusters of individuals as obtained in this study, it is possible to provide an endless list of comparisons among individuals. Obviously, there is a critical need to provide a parsimonious procedure for accounting for individual differences in the perceptions of situations. As noted ealrier, one variable that may prove useful is the individual's level of autonomy or dependence. The autonomous individual ought to shy away from situations in which s/he would be expressing a dependence upon others and ought to be assertive in situations which require self-reliance.

The comparison of several clusters of individuals noted above suggests that the quality of one's relationships with parents will infouence the relative location of parent situations on the "superficial-intimate" dimension. Other differences obtained above support the notion of a useful differentiation of respondents on an autonomy type of measure; if one can assume that an autonomy measure relates to avoidance of subordinate relationships, the desire to date others (which they perceive as a personal benefit) and higher levels of assertiveness in dealing with

others who may have higher relative status. Aside from differences in perceptions due to relative levels of intimacy of parental situations, differences between individuals in situation familiarity and individual differences due to autonomy (possibly dominance), it is difficult to suggest person variables that would be centrally related to individual differences in the perception of situations. As Block (1968) noted, there is a critical need to integrate environmental factors with personality factors and there is considerable additional research needed in order to provide an understanding of how individuals perceive the behavioral requirements of situations, and what accounts for individual differences in such perceptions.

SUMMARY

As noted, several dimensions of persuasion situations were obtained. Of these, three dimensions were found to be replicated: "superficial vs. intimate", "easy to persuade vs. difficult to persuade" and "intense feelings". Future research ought to differentiate the concept of "benefits" in a more articulate manner and employ attributes that better assess intensity of feelings.

I strongly recommend that one should resist the temptation of claiming any sort of superiority for either the overall factor analytic approach or the multidimensional scaling approach. The overall factor analytic solution indicated the degree to which attributes form into factors across all three sets of situations. The multidimensional scaling solutions indicate the degree of correspondence among the attributes within each of the four sets of individuals and three sets of situations. Further, only by employing the multidimensional scaling analysis would

"intensity of feelings" factor have been uncovered. Thus, when both techniques are used jointly, any factors which may be missed by the factor analytic approach can be identified by the multidimensional scaling approach, while at the same time one can obtain an indication of the attribute factors across the various sets of situations. Obviously, future research in this area could certainly benefit from the use of both techniques jointly.

It should be noted that the process of randomly sampling situations from a population of situations does not exactly follow Stewart's (1974) recommendation for comparing factor analytic and multidimensional scaling solutions in order to assess the "generality" of factors. As noted, the overall factor analysis solution is based on the degree to which attributes are correlated across all three sets of situations and four sets of individuals, and it is of no surprise that correlations among attributes would be somewhat different within each of the sets of situations. Nonetheless, the fact that the KYST (TORSCA) and GALILEO solutions are so highly similar, plus the fact that the several orthogonal factors of attributes obtained via factor analysis clearly correspond with orthogonal dimensional arrays of situations, supports the claim that the dimensions are not artifacts. Further, the interpretation of the KYST dimensions and the interpretation of the clusters of situations were very compatible.

In contrast, it was concluded that the dimensional solutions obtained by the INDSCAL model are not "general" because (a) innumerable clusters of individuals were obtained, (b) a number of individuals had zero (or even negative) dimensional weights, (c) the INDSCAL solutions accounted for less than half of the variance and the solutions of higher

dimensionality did not indicate any major gain in the amount of variance accounted for, and (d) the INDSCAL solutions were different than the solutions provided by GALILEO or KYST. While the INDSCAL purports to provide dimensions that need no rotation to enhance interpretability, the results of this study suggest that the INDSCAL solutions do not provide "general" factors without rotation.

Admittedly, the number of diverse points of view obtained in this study was quite surprising. The INDSCAL model was found by Wish, Deutsch and Kaplan (1976) to be able to account for individual differences by an expansion and contraction of the various dimensional axes. Further, Magnusson and Ekehammar (1975) found only three homogeneous subgroups of individuals on the basis of anxiety responses. Thus, it was initially assumed at the start of this study that either the INDSCAL model could account for the individual differences or that some small number of clusters of individuals could be identified. Clearly, a more parsimonious way of assessing individual differences is needed. Differentiation of individuals on the basis of the quality of interpersonal relationships or on the basis of autonomy or dominance may prove useful.

The need to find a more parsimonious way of differentiating individuals on the basis of perceptions of situations becomes critical if one considers that the procedure employed in this study to differentiate individuals (the cluster analysis of individuals on the basis of dimensional salience weights) is not only post hoc but prone to error in classifying individuals. That is, with diverse points of view operating, the INDSCAL solutions may provide dimensions that are artifactual and the dimensional salience weights are not likely to be reliable. Thus, there may be fewer homogeneous clusters of individuals than eight (as obtained

here) and the individuals comprising clusters four and six may be less representative of homogeneous points of view than other sets of individuals. Other points of view, however, could only hazardously be presented here — nearly all individuals were of the same age, nearly all were Caucasian and academic majors are too diverse to encourage a clustering of individuals on the basis of interests. Further, while the male-female comparisons indicated that the locations of some situations could be attributed to sex, the obtained differences in male-female configurations do not represent major differences in perspective (not as major as that obtained in the comparison of the two clusters of individuals presented above). Also, it was suggested that the "sex differences" obtained may not exist if some other variable were to be partialed out (i.e., autonomy or dependence-independence).

Fortunately, some limit can be given concerning the diversity of individual preferences. By summing across situations, a factor analysis of persons was performed for each of the four data sets. For each solution, only one factor had an eigenvalue greater than one; though the percent of variance accounted for by the four one-factor solutions was only between forty-two percent and forty-eight percent of the variance. While it may be possible to accept factors with eigenvalues less than unity in order to obtain factors of persons, this observation suggests that the individual differences in multidimensional scaling solutions probably reflect (a) different patterns in the way situations are arrayed on dimensions and/or (b) a difference along some dimension(s) not represented in the attributes employed in this study. Some support for (a) can be noted in the comparison made above for cluster four and six individuals; where the superficial relationship situations were ordered

somewhat differently along the "superficial vs. intimate" dimension; while the intimate relationship situations were ordered much differently. It would appear that the respondents do not vary so much in terms of the attributes provided them as they do in terms of relative location of situations in the configurations.

NOTES

1. The GALILEO program was used in order to assess reliability because the program automatically provides stability information. Further, although many dimensions are used in this procedure, providing reliability for all real dimensions in this text enables other researchers using the metric multidimensional scaling program to compare their estimates of reliability to those presented here. Finally, it is quite safe to assume that reliability of the KYST solutions will be similar to those provided in the text.

CHAPTER 4

DISCUSSION

Admittedly, the study reported here is primarily exploratory in nature, though it is not without relevant methodological importance and not without theoretical significance. Further, because the process of constructing and assigning meanings to situations and events is (a) a process that unquestionably occurs with considerable frequency, (b) represents a process not well understood, and (c) determines limits on the prediction of behavior, the suggestions concerning future research are quite innumerable. Thus, in this final section of the paper I shall discuss (1) the methodological importance and implications of the results, (2) theoretical significance, (3) summary, and (4) future research.

4.1 Methodological Importance

A number of conclusions concerning the utility of methodologies employed in this study for future research have already been noted in the previous chapter. These will be summarized here. First, as noted above, the utility of both the multidimensional scaling approach and the factor analytic approach is strongly encouraged. Second, when diverse points of view are operative, the utility of the INDSCAL model is severely lacking because of possible artifactual dimensions. This occurrence makes the dimensional salience weights suspect. Ironically, the sole advantage of the INDSCAL model is the ability to analyze individual differences, yet I concluded that a more parsimonious procedure is necessary when individuals order stimuli differently along the dimensional axes (also, see Woelfel and Danes, 1977).

While individual differences in the perceptions of situations are considerable, the aggregate solutions provided by KYST (and GALILEO) were found to be general, non-artifactual, and compatible with the factor analysis solutions and the interpretations of the cluster analysis results. The operation of diverse points of views, however, suggests that the aggregate solutions may not be generalizable across respondents. If it is true, however, that the respondents vary primarily in terms of ordering situations differently along dimensions, then this lack of generalizability across respondents is only a question of degree of intimacy, friendliness, etc., and not necessarily involving major differences such as the employment of totally different dimensions of perceptions.

Some comparisons concerning similarities between subsets of the aggregate solutions for the Form 3 data and the solutions obtained for two clusters of Form 3 individuals were discussed above. For both clusters of individuals, the "superficial vs. intimate" dimensions and the "intense feelings" dimension are replicated and, as in the solution for cluster four individuals, the third dimension corresponds with both the assertiveness attribute and the "easy to persuade vs. difficult to persuade" factor of attributes. Thus, three of the four dimensions are replicated in one subcluster and two in another subcluster of individuals. However, the cluster four individuals perceive the need to be assertive somewhat differently than the aggregate, and the cluster six individuals apparently perceive the benefits attribute much differently than the aggregate (it is the only attribute that corresponds to the second dimension for the cluster 6 individuals). Nonetheless, these observations suggest, at the least, that those dimensions found replicated across the four data sets appear to have some generalizability across persons.

Perhaps the most important aspect of the approach undertaken in this study is the utilization of random sampling of stimuli from a (pretested) population. Employing this tactic made it possible to replicate factors, uncover generalizable factors and claim, with a good deal of certainty, that a dimension (intense feelings) is not an artifact (which may be the case if only one set of situations were employed), even when it was not obtained in the factor analysis solution or in the Form 1 solution. Thus, a major distinction in the perception of situation missed by employing factor analysis was uncovered.

Finally, a comment is in order concerning the utility of the assumed ratio and assumed interval scales. In the dimensional structure comparison, one situation was found to be located differently in the eight GALILEO dimensions, yet the first four dimensions corresponded fairly well and three of the four (KYST) dimensions were interpreted as the same dimensions. In the cluster analysis (of situations), only one situation clustered into a different cluster of situations, and it was either the last situation to merge into a strong (first) cluster (Form 4) or in the last cluster to merge (Form 3). Note that both of these differences in solutions are equally likely to occur because of a true difference in perspective across the two samples of respondents, as opposed to any superiority of the assumed ratio scale (i.e., precision), or any liability of the assumed ratio scale (i.e., increased unreliability).

The third observed difference between the Form 3 and Form 4 data is that the clustering of individuals on the basis of dimensional salience weights resulted in eight clusters of individuals for Form 3 data and ten clusters of individuals for the Form 4 data. None of these three differences between dimensions, clusters of situations or clusters of

individuals can be construed as representative of major differences that result from the type of scale employed. Both types of scales are equally likely to provide reliable dimensions of situations.

4.2 Theoretical Significance

I concluded Chapter 1 by noting that there are valid reasons for why individuals should not be "consistent" across situations, even situations that an experimenter may perceive as very similar in nature, and that the categorization of the individual as "inconsistent" is warranted only under those instances in which the individual perceives situations as functionally equivalent and yet behaves differently. In essence, while the interactionists argue that behavior is a function of the person and the situation, my contention is simply that behavior is a function of the person and the person's construction of the situation.

First, and most obviously, the results of this study suggest that it is quite impossible to assume that any set of situations is functionally equivalent for a set of respondents. Situations within a general category of intimate relationships-commitment to future interaction vary considerably in terms of levels of friendliness, resistance to persuasion, who benefits (and types of benefits), levels of assertiveness, etc. Further, individuals vary in terms of relative levels of these variables. It is quite apparent that future research needs to integrate personality factors and environmental factors.

I must concede the argument that the results of this study do not shed any light on what personality or disposition types of measures can be used to parsimoniously account for individual differences in the perceptions of these situations. During the initial stages of the study, it was implicitly assumed that differences among the respondents could be

identified on the basis of dimensional salience weights (i.e., the "friendly" individuals would have higher weights on the "friendly vs. unfriendly" dimension, etc.) or that a small number of clusters of individuals would be uncovered. Obviously, alternative strategies must be found.

First, it is likely that disposition measures would relate to major differences in the content of the individual's social environment and different frequencies of occurrence of some situations as well as different behavior responses in many situations. Therefore, one can first differentiate individuals on a disposition measure (friendly, anxiety), pretest situations and uncover the differences in both the content of situations inclusive of social environments as well as the difference in dimensional structures. This approach is similar to Forgas (1976), but differentiates individuals on the basis of dispositions and not in terms of occupations.

I have already noted that an autonomy (or dependence-independence) measure may prove quite useful in differentiating individuals in a study using the approach employed in this paper. Alternatively, it seems that the claim that some individuals who are "situationally bound" (Mischel, 1968) or high in "role variability" (Block, 1961) are likely to have diverse social environments and also differentiate between situations more than consistent individuals. These variables are only suggested here, though the work on integrating personality factors with relevant aspects of the individual's environment is only beginning.

A considerable amount of attention has been given to the question of whether trait measures have predictive utility. Endler and his colleagues (see Chapter 1) argue that the interactions of persons and

situations spell doom for the omnibus inventories. While such a conclusion seems unwarranted, especially given the review in Chapter 1, it should be noted that trait measures are possibly much more useful than assumed (and tested) by Endler. Given that trait measures can predict the occurrence of behavior in some instance at a correlational level of .33 is quite encouraging in the face of possible individual differences in the perceptions of situations (and differential behavior-outcome expectancies). Further, if the effects of idiosyncratic differences in situation perception are attenuated by averaging across observations, then the trait measure is likely to be very useful (c.f., McGowan and Gormly, 1976). Further, across the same type of situation over time, instructors' ratings of verbal performance and ratings of predisposition toward verbal behavior are quite high (Mortenson and Arnston, 1974). Finally, if dispositions are related to differences in the content, scope and dimensional structure (as noted in the above paragraph) of social environments, then a full exposition of the importance of the disposition and the global tendency to behave in certain ways in relation to the individual's daily functioning can be actualized.

In terms of the ultimate question of the prediction of behavior, then, it seems intuitively obvious that trait measures alone cannot predict behavior in some instance. This point is readily conceded (also, see McGowan and Gormly, 1976). However, the analysis of person, mode of response and situational requirements (let alone the individual's perception of situational requirements) have not been fully provided in any research program in such a way as to lead to improvements of prediction. Further, the prediction of behavior is only one type of prediction that involves the trait measure. Trait measures may be useful in predicting

whether or not the individual engages in an activity, the perceptions of the activity and, finally, the mode of response exhibited in the activity.

Of course, the reciprocal nature of engaging in some activities with the consequences on personality (such as self concept; see Miller and Steinberg, 1975) poses substantive problems for arguing any casual priority. That is, the friendly individual has engaged in more friendly interactions and will undoubtedly engage in the same in the future. To the extent that future potentially hostile events are avoidable, the friendly individual's tendency to avoid the event should be predictable The "situational constraints" noted by Goldberg (1972a) in this regard to the perceived level of profit involved as a consequence of such engagement. Thus, the apparent limited utility of trait measures to predict behavior is in relation to only one of the various ways in which trait measures have utility.

4.3 Summary and implications of the dimensions of situations

A number of dimensions obtained in the KYST analyses can be unquestionably judged as replicated and generalizable dimensions: intense feelings, superficial vs. intimate relationship, and friendly-easy to persuade vs. unfriendly-difficult to persuade. The fact that the above three dimensions were replicated across several sets of randomly sampled sets of situations means that these three characteristics of situations are generally regarded as critically important criteria in the perceptions of situations. Of course, less important criteria may also be used to conveniently differentiate these situations, but it may prove useful first to assess how situations precalibrated on these dimensions variably influence message strategies and modes of responses. Further, for other sets of randomly sampled situations, other criteria may be perceived

as critical. This occurred in the Form 1 solution, where the subordinate vs. social affiliation characteristic of the relationship and the perceived importance of the goal were apparently judged as important criteria.

It should go without saying that the results of this study should not be generalized to a wide range of persons. Indeed, generalizability to a wide range of situations is the key focus of the present paper, and to accomplish such a task some limitation of the generalizability to persons was inevitable. With this in mind, and in conjunction with the above observation that for different sets of randomly sampled situations different characteristics vary in importance (or, in applicability to a set of situations) it must be strongly and unequivocally stated that any research seeking to analyze modes of responses across situations must provide an assessment of the perceptions of situations for the particular set of sampled situations for the particular set of sampled respondents. Hopefully, the present study will be informative of how this can most productively be accomplished.

4.4 Future Research

The directions of future research are quite numerous, and only a few general directions will be noted here. In terms of the specific domain of persuasion situations, replications of this study ought to investigate more fully aspects of situations which have bearing on the intensity of feelings and to differentiate the type of benefits operative in the various types of persuasion attempts. Across the four sets of data, dimensions of relationship and feelings/behaviors were replicated. The absence of goal or work related types of dimensions, however, is not surprising given that so many of the situations obtained in the pretests

dealt with social encounters. However, the "personally important goal vs. not personally important goal" dimension obtained for the Form 1 solution indicates that considerations of the consequence of the interaction may indeed result in a separate dimension, though this dimension was apparently not replicated across the sets of situations. Nonetheless, several attributes which deal with the importance of the goals, etc., could lend support to the labeling of this dimension and possibly prove useful if solutions of higher dimensionality were obtained.

In comparing the replicated dimensions in this study with other solutions obtained by the perception approach, the "intimate vs. superficial" dimension obtained here replicated the "intimacy" dimension obtained by Forgas (1976), the "social interaction-close friends" dimension obtained by Magnusson (1971), and the "formal and open vs. reserved and cautious" dimension obtained by Wish (1975). Further, the "easy to persuade vs. difficult to persuade" dimension obtained here, and often corresponding to a "friendly vs. unfriendly" distinction, roughly corresponds to the "friendly vs. unfriendly" dimension obtained by Wish (1975) and Wish, Deutsch, and Kaplan (1976). Similarly, the "intense feelings" dimension also replicated a distinction obtained by Wish (1975) and Wish et al. Thus, some commonalities appear to exist between the domain of persuasion situations and the more general category of social behavior situations. While several distinctions are specific to the domain of persuasion (i.e., favors vs. rights and benefits), at least these three general dimensions of situations can serve as a starting basis for future research concerned with other types of situations.

The relationship between situations as they are precalibrated on the various dimensions and behaviors (i.e., compliance gaining strategies)

is another main avenue for further research. However, it should be noted that the difference in moving from one situation located at one location in the dimensional structure to another situation may lead to no change in strategy selection or lead to a large number of diverse strategies. For instance, it may be the case that only a few types of strategies are employed when engaged in superficial relationships while diverse types of strategies are obtained when ehgaged in intimate relationships with (a) strategies involving boy/girlfriend and parent relationships overlapping, and (b) strategy selection dealing with intimate relationships being strongly influenced by other features of the situations (resistance, benefits, to mention two). Thus, situations which represent extremes on some dimensions may result in different strategy selection, while different strategies may be selected within some categories of situations.

Further, the most useful extension of this research would be to investigate how disposition measures correspond to the individual's social environment and to strategy selection. A content analysis of strategies employed for both the dependent and autonomous individuals (to use autonomy as a measure) according to respective features of social environments would indicate how the types of individuals both structure their social environments as well as indicate the relevant strategies used to influence others in their immediate social worlds.

4.4 Summary

Three sets of situations randomly sampled from a pretested set of situations comprising a population of persuasion situations were analyzed by three multidimensional scaling programs, and four dimensional solutions were obtained. Attributes used to interpret the dimensional

solutions were factor analyzed. While six factors were obtained in the factor analysis solution, the degree of correspondence between orthogonal classes of attributes for the various four dimensional solutions with orthogonal factors provided by the factor analysis, the high degree of correspondence between the dimensional solutions for two of the multidimensional scaling analyses and the compatibility of interpretation of the dimensional solutions with cluster analysis solutions suggests that the various four dimensional solutions obtained are not artifacts. Further, the replication of the "intense feelings" dimension suggests that a major distinction was not obtained in the factor analysis solution. Finally, the INDSCAL model was not found to be a convenient way of uncovering individual differences.

Replications of this work should (a) investigate the notion of intensity of feelings more fully, and (b) differentiate the global notion of benefits. Extensions of this work include (a) investigating a wider domain of situations--in which case several of the replicated dimensions in this study will prove useful--and, (b) investigate the correspondence of behavior or strategy selection along precalibrated dimensions. Further, a more parsiminious means of accounting for individual differences is needed. Thus, it was suggested that the global dispositions, on which omnibus inventories purport to reliably differentiate individuals may be useful in not only predicting the average of preformance across situations but also may relate to differences in the content of social environments as well as in the structures used to categorize social environments.

APPENDICES

APPENDIX A

INITIAL LIST OF SITUATIONS

APPENDIX A

INITIAL LIST OF SITUATIONS

1. Persuade your parents to let you stay out late.
2. Persuade your parents to let you get your own phone and car at 16.
3. Persuade your parents to let you bring a car to campus for awhile.
4. Persuade your parents to send you to Florida for the break.
5. Persuade your brother/sister to attend a state university rather than a community college.
6. Persuade your father into believing that someone hit his car when it was parked when actually you sideswiped another car while drunk.
7. Persuade your brother/sister to drive you home for the weekend.
8. Persuade your brother to mow the lawn.
9. Persuade your parents not to punish you.
10. Persuade your parents to give you money.
11. Persuade your parents to visit you for a weekend.
12. Persuade your sister to stop seeing a divorced man you don't like.
13. Persuade your parents to take a vacation someplace that you would love to go.
14. Persuade your family not to go someplace for vacationing that you do not want to go.
15. Persuade your brother/sister to go to a high school dance because you want him/her to have fun.
16. Persuade your parents to let you go to a college in a warmer climate.
17. Persuade your parents to build a darkroom for you, when they are sure you will never use it.
18. Persuade your parents to buy you clothes.
19. Persuade one of your parents to stop drinking.
20. Persuade one of your parents to stop smoking.
21. Persuade your parents to sign a lease for you.

22. Persuade your boy/girlfriend to tell you "frat" (sorority) secrets.

23. Persuade your boy/girlfriend to quit smoking.

24. Persuade your boyfriend to shave or cut his hair.

25. Persuade your boyfriend to grow a beard.

26. Persuade your boy/girlfriend to go somewhere with you when he/she has something important to do.

27. Persuade your boy/girlfriend to go to the store for you.

28. Persuade your fiancee to meet your ex-boy/girlfriend.

29. Persuade your fiancee to go on a trip with you.

30. Persuade an old boy/girlfriend that the relationship is worth saving.

31. Persuade your boy/girlfriend to live with you.

32. Persuade your boy/girlfriend of 2 years to stop seeing another boy/girl.

33. Persuade your boy/girlfriend that your relationship should end.

34. Persuade your boy/girlfriend to stay in school.

35. Persuade a friend to let you use their car so that you can go on a date.

36. Persuade a friend to go shopping with you.

37. Persuade a friend to switch presents with you.

38. Persuade a friend to approve of your buying an item that they are buying (the same dress or shirt).

39. Persuade a friend to give you a ride.

40. Persuade a friend to buy you something.

41. Persuade a friend to take a class with you.

42. Persuade a friend to drive more carefully.

43. Persuade a friend to come over and visit.

44. Persuade a friend not to go to a party because you don't want to drive the twenty miles to get there.

45. Persuade your friends not to study because you feel like partying.

46. Persuade a friend not to commit suicide.

47. Persuade a friend not to criticize and make fun of another person.

48. Persuade a friend to lend you a large sum of money.

49. Persuade your friends to use some kind of birth control.

50. Persuade a date to make sexual advances.

51. Persuade a date not to make sexual advances.

52. Persuade your friend to have a fight with someone else.

53. Persuade a friend to go swimming with you.

54. Persuade your roommates to go somewhere so that you can be alone.

55. Persuade your roommate to go to Florida during the break with you.

56. Persuade your roommate not to have his/her boy/girlfriend and all of her/his friends over every weekend.

57. Persuade your roommate to move to a nicer apartment.

58. Persuade your roommate, who is constantly depressed and having problems, to seek professional help.

59. Persuade your roommate, who owes you 80 dollars, to pay you.

60. Persuade your roommates to do their share of the housework.

61. Persuade your roommate, who you car pool with, to be on time more often.

62. Persuade your roommate to keep quiet when you're trying to sleep.

63. Persuade your neighbors to keep their stereo turned down.

64. Persuade your boss to let you leave work early.

65. Persuade a cop not to give you a ticket.

66. Persuade a store manager to sell you something for less than the regular price.

67. Persuade a professor to give you an extension on a project.

68. Persuade a boss to let you take a leave of absence to attend school so that you would have employment next summer.

69. Persuade a boss to give you a raise.

70. Persuade a professor that an answer on a test is incorrect.

71. Persuade your landlord to fix the plumbing in your apartment.

72. Persuade a professor to let you enroll in an already crowded class.

73. Persuade a doctor to let you go home from the hospital.

74. Persuade the manager of a clothing store to hire you.

75. Persuade a judge not to suspend your drivers license.

76. Persuade a group of people to participate in an experiment for your group project.

77. Persuade a person to ask you out.

78. Persuade a person to sell you a car for less than they are asking, when you know you can sell for more than they are asking.

79. Persuade a group of people to go to the bar with you.

80. Persuade a group of people to drive someplace, instead of flying, so that you can afford to go with them.

81. Persuade a group of people to order a pizza because you feel like eating one.

82. Persuade a person you know in your class to help you with your homework.

83. Persuade a person you don't know well in your class to study with you for the final.

84. Persuade a girl/boy not to go to the movies, but to go drinking and to bed.

85. Persuade an "I.D. checker" to let you into the I.M. when you forgot your I.D.

86. Persuade someone who has consumed too much alcohol to get someone else to drive them home.

87. Persuade someone to marry you.

88. Persuade someone to sign a petition.

89. Persuade someone not to rob you.

90. Persuade someone to be a reference for you.

91. Persuade a group of people to stop teasing you.

92. Persuade a group of people to stop teasing a friend of yours.

93. Persuade a customer to buy a certain item.

94. Persuade your husband to take you to Hawaii.

95. Persuade your child to get "A"s in school.

96. Persuade your parents to lave your brother in jail for awhile instead of bailing him out immediately.

97. Persuade your fiance to cut his hair in order to make a good impression on your parents.

98. Persuade your roommate to go to New England (rather than Florida) over the Spring break.

99. Persuade a friend to believe something that is not true.

100. Persuade a friend to wear something because you think they look good in it.

101. Persuade a friend to let you buy an item that you both want (same dress or shirt).

102. Persuade a friend not to wear something because you want to wear it.

103. Persuade a photographer to compile a portfolio of you in return for modeling at your convenience.

104. Persuade a principle not to expel you from school.

105. Persuade someone that your solution to a problem is better than theirs.

106. Persuade a professor to excuse you from class.

APPENDIX B

INSTRUCTIONS FOR SORTING TASK PRETEST

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INSTRUCTIONS FOR SORTING TASK PRETEST

Before you there is a deck of cards. On each card you will find a description of a situation. There are forty situations described on forty cards. Your task is to sort them into categories.

First, read through the cards in order to obtain an idea as to the kind of situations you will be sorting today. Place those situations which are <u>similar</u> to each other in the same pile (or category). Place those situations which are NOT SIMILAR in different piles.

After you have sorted all the situations into various piles, read through the situations you have sorted into each pile to check if the situations in each pile are all similar to each other and different from the situations in other piles.

FEEL FREE TO MOVE SITUATIONS FROM ONE PILE TO ANOTHER UNTIL ALL SITUATIONS IN EACH PILE ARE <u>SIMILAR</u> TO EACH OTHER.

You are free to determine what constitutes "similarity" between the situations on your own.

When you feel confident that the situations in each pile are similar to each other and different from those in other piles, you are finished. Tell the researcher that you are finished. I wish to ask you a few questions about how you sorted the situations.

If you have any questions, do not hesitate to ask them.

Please begin.

APPENDIX C

LIST OF NOMINATED SITUATIONS

APPENDIX C

LIST OF NOMINATED SITUATIONS

1. Persuade your parents to let you stay out late. (does not apply, 32.5%)
2. Persuade your parents into giving you money. (does not apply, 10%)
3. Persuade your parents to visit you for a weekend. (does not apply, 25%)
4. Persuade your parents to take a vacation someplace that you would like to go. (does not apply, 15%)
5. Persuade your parents into buying clothes for you. (does not apply, 20%)
6. Persuade your parents not to punish you. (does not apply, 25%)
7. Persuade your boy/girlfriend to go somewhere with you when he/she has something important to do. (does not apply, 15%)
8. Persuade your boy/girlfriend to go to the store with you. (does not apply, 15%)
9. Persuade an old boy/girlfriend that the relationship is worth saving. (does not apply, 25%)
10. Persuade your boy/girlfriend to stay in school. (does not apply, 32.5%)
11. Persuade your boy/girlfriend to quit smoking. (does not apply, 40%)
12. Persuade a friend to go shopping with you. (does not apply, 2.5%)
13. Persuade a friend to give you a ride. (does not apply, 10%)
14. Persuade a friend to take a class with you. (does not apply, 15%)
15. Persuade a friend to drive more carefully. (does not apply, 7.5%)
16. Persuade a friend to come over and visit. (does not apply, 10%)
17. Persuade your friends not to study because you feel like partying. (does not apply, 37.5%)
18. Persuade a friend not to criticize and make fun of another person. (does not apply, 5%)
19. Persuade your friends to use some kind of birth control. (does not apply, 25%)

20. Persuade a date to make sexual advances. (does not apply, 30%)

21. Persuade a date not to make sexual advances. (does not apply, 30%)

22. Persuade a friend to go swimming with you. (does not apply, 10%)

23. Persuade your roommate(s) to go somewhere so that you can be alone. (does not apply, 28.95%)

24. Persuade your roommate, who is constantly depressed and having problems, to seek professional help. (does not apply, 28.95%)

25. Persuade your roommate to move to a nicer apartment. (does not apply, 44.74%)

26. Persuade your roommate(s) to do their share of the housework. (does not apply, 13.51%)

27. Persuade your roommate to keep quiet when you are trying to sleep. (does not apply, 21.62%)

28. Persuade your neighbors to keep their stereo turned down. (does not apply, 25%)

29. Persuade a group of people to go to the bar with you. (does not apply, 15%)

30. Persuade a group of people to participate in an experiment for your group project. (does not apply, 15%)

31. Persuade a person to ask you out. (does not apply, 30%)

32. Persuade a group of people to order a pizza because you feel like eating one. (does not apply, 2.5%)

33. Persuade a person you know in your class to help you with your homework. (does not apply, 15%)

34. Persuade a person you don't know well in your class to study with you for the final. (does not apply, 27.5%)

35. Persuade an "I.D. checker" to let you in the I.M. when you have forgotten your I.D. (does not apply, 20%)

36. Persuade someone who has consumed too much alcohol to get someone else to drive them home. (does not apply, 15%)

37. Persuade someone to sign a petition. (does not apply, 17.5%)

38. Persuade a professor to be a reference for you. (highest nominated for this item on pretest)

39. Persuade an employer to be a reference for you. (second highest nominated for this item on pretest)

40. Persuade a group of people to stop teasing you. (does not apply, 30%)

41. Persuade a group of people to stop teasing a friend of yours. (does not apply, 5%)

42. Persuade a customer to buy a certain item. (does not apply, 12.5%)

43. Persuade your boss to let you leave work early. (does not apply, 5%)

44. Persuade a cop not to give you a ticket. (does not apply, 12.5%)

45. Persuade a store manager to sell you something for less than the regular price. (does not apply, 15%)

46. Persuade a professor to give you an extension on a project. (does not apply, 2.5%)

47. Persuade a boss to let you take a leave of absence to attend school so that you would have employment next summer. (does not apply, 22.5%)

48. Persuade your boss to give you a raise. (does not apply, 17.5%)

49. Persuade a professor to let you enroll in an already crowded class. (does not apply, 15%)

50. Persuade a doctor to let you go home from the hospital. (does not apply, 20%)

51. Persuade a landlord to repair the plumbing in your apartment. (does not apply, 35%)

52. Persuade a professor that an answer on a test is incorrect. (does not apply, 10%)

NOMINATED SITUATIONS ADDED AFTER THE NOMINATING SITUATIONS PRETEST

A. Parents and Family (in order of frequency of nomination)

1. Persuade your parents to approve of your moving off campus.

2. Persuade your mother into finding some way to spend her time (volunteer work, a job, etc.).

3. Persuade your brother/sister to go to a four-year University.

4. Persuade your father into getting a checkup.

5. Persuade your parents to take a real vacation by themselves (a second honeymoon).

6. Persuade your mother into going back to college and getting a degree.

7. Persuade your parents to financially support your education.

8. Persuade your father into taking more time off from work and find something relaxing to do.

9. Persuade your parents that marijuana is not bad.

B. Boyfriends and Girlfriends (in order of frequency of nomination)

1. Persuade your boy/girlfriend that the relationship should end.

2. Persuade your boy/girlfriend to confide in you more.

3. Persuade your boy/girlfriend to have sex.

4. Persuade your boy/girlfriend that there is nothing wrong in occasionally dating another person.

5. Persuade your boy/girlfriend to go to a party where there is mostly your friends.

6. Persuade your boy/girlfriend into meeting your relatives.

7. Persuade your boy/girlfriend to study more.

8. Persuade your boy/girlfriend to lend you money.

9. Persuade your boy/girlfriend not to date another person.

10. Persuade your boy/girlfriend that you only want to date.

C. Friends (in order of frequency of nomination)

1. Persuade a friend to study more.

2. Persuade a friend to pay money back.

3. Persuade a friend to diet.

4. Persuade a friend not to swear so much.

5. Persuade a friend to stop smoking.

D. Roommates (in order of frequency of nomination)

1. Persuade your roommate to leave phone messages while you are out.
2. Persuade your roommate to leave for the night.
3. Persuade your ex-roommate to forward your mail.

E. People (in order of frequency of nomination)

1. Persuade someone in class to lend you notes.
2. Persuade a bouncer to let you into a bar even though you have forgotten your I.D.

F. Professionals and Others (in order of frequency of nomination)

1. Persuade a professor to increase your grade.
2. Persuade a professor that a test item was ambiguous.
3. Persuade a professor that his grading scale is too hard.
4. Persuade a landlord to pay for paint, or some repairs, for your apartment (or house).

APPENDIX D

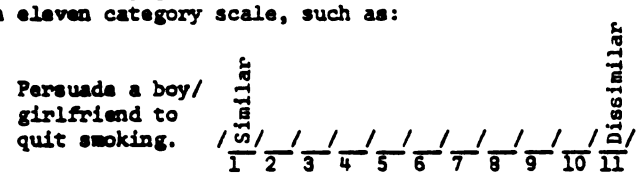
INSTRUCTIONS FOR ASSUMED INTERVAL SCALE

PERCEPTIONS OF SITUATIONS. PART I.

INSTRUCTIONS.

One of the major ways of making comparisons between situations is to simply state whether two situations are similar to each other or different from each other. It is possible, then, to cluster together a set of situations which are similar to each other, and different from other sets of situations.

How do you report situations as being similar or dissimilar? On the next several pages, you will find one situation presented on the left of the page and one on the right. Between the two you will find an eleven category scale, such as:



If you perceive these two situations as exactly alike, check the category marked 1. If you perceive the two situations as somewhat similar, check one of the categories marked 2, 3, 4 or 5. If you perceive the two situations as neither similar nor dissimilar, check the category marked 6. If you perceive them as somewhat dissimilar, check one of the categories marked 7, 8, 9 or 10. If you perceive the two situations to be totally different, check the category marked 11.

Please be sure to answer every comparison.

In order to use the scale effectively, it would be helpful for you to know the situations I am providing you. Carefully read the following situations; they are the ones you will be comparing today.

1. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.

2. Persuade your roommate to keep quiet when you are trying to sleep.

3. Persuade your boy/girlfriend to confide in you more.

4. Persuade a professor that a test item was ambiguous.

5. Persuade a professor that his grading scale is too hard.

6. Persuade a person you know in class to help you with your homework.

7. Persuade your landlord to fix the plumbing in your apartment.

8. Persuade an old boy/girlfriend that the relationship is worth saving.

9. Persuade your father into getting a check-up.

10. Persuade a police officer not to give you a ticket.

11. Persuade a professor to increase your grade.

12. Persuade your mother to go back to college and get a degree.

Remember, you can take as much time as you want. If you have questions, do not hesitate to ask them.

Again, thank you.

Michael Cody

I.D. Col. 1-6
SEX Col. 7
FORM Col. 8-10
Form 300

APPENDIX E

INSTRUCTIONS FOR ASSUMED RATIO SCALE

PLEASE READ THESE INSTRUCTIONS CAREFULLY

INSTRUCTIONS

In this questionnaire, I would like you to tell me how different (or, in other words, "how far apart") certain situations are from each other. All of the situations in this questionnaire deal with persuading (or influencing) someone else to do something. Differences between these concepts can be measured in Social Units.

"Social Units" refer to the psychological distance or dissimilarity between situations. You may perceive the underlying characteristics of some situations to be extremely different, in which case they are "far apart." You may perceive the underlying characteristics of some situations to be exactly alike or very similar, in which case they are "very close" to each other. To aid in understanding what I mean by "distance," please use the following rule:

The distance between

PERSUADE YOUR BOY/GIRLFRIEND TO MEET YOUR RELATIVES **and** PERSUADE A GROUP OF PEOPLE TO GO THE BAR WITH YOU **is** 100 **units.**

I would like you to tell me how many Social Units apart situations are from each other. Remember, the more different two situations are from each other, the bigger the number of Social Units. The less different they are, the smaller the number of Social Units.

The following can serve as an example. First, you are given the rule and then you are asked to report the distances between pairs of situations. For example:

IF THE DISTANCE BETWEEN PERSUADE YOUR BOY/GIRLFRIEND TO MEET YOUR RELATIVES AND PERSUADE A GROUP OF PEOPLE TO GO TO THE BAR WITH YOU IS 100 UNITS, HOW FAR APART ARE:

PERSUADE YOUR BOY/GIRLFRIEND TO MEET YOUR RELATIVES	and	PERSUADE A PROFESSOR THAT AN ANSWER ON A TEST IS INCORRECT	_____ units.
PERSUADE YOUR BOY/GIRLFRIEND TO MEET YOUR RELATIVES	and	PERSUADE A FRIEND TO GO SHOPPING WITH YOU	_____ units.
PERSUADE A PROFESSOR THAT AN ANSWER ON A TEST IS INCORRECT	and	PERSUADE A FRIEND TO GO SHOPPING WITH YOU	_____ units.

If you perceive "Persuade your boy/girlfriend to meet your relatives" as being very close to the meaning and to your perceptions of the situation "Persuade a professor that an answer on a test is incorrect," then you would write, in the space provided, a small number of Social Units. If you perceive the two situations as very distant from each other (that they involve different feelings, expectations, behaviors, etc.), then write a number that is very large.

INSTRUCTIONS, cont'd

Similarly, if you perceive the two situations, "Persuade your boy/girlfriend to meet your relatives" and "Persuade a friend to go shopping with you," as very similar situations, then report a small number in the space provided. If the two situations are extremely different from each other, report a large number.

FEEL FREE TO USE ANY NUMBER TO REPORT AS ACCURATELY AS POSSIBLE THE DISTANCE THAT YOU SEE BETWEEN THE TWO SITUATIONS.

You may use a number over 100 if the distance between any two situations is greater than the distance between the situations of "Persuade your boy/girlfriend to meet your relatives" and "Persuade a group of people to go to the bar with you." If you perceive two situations as extremely similar report a number that is very small. If you think that there is no difference in the meaning of two situations, then you may write zero (0) to represent no distance between them.

On the following pages, you will find lists of pairs of situations similar to those shown above. Please write a number in the blank space after each pair of situations. Ignore the column of numbers next to the blanks; they are for clerical use only.

Please try not to skip any item. Try to report some distance between each pair of situations. Keep in mind that there is no one correct answer; all that I ask is that you give an honest and careful response to each pair.

It would be helpful to you to know what situations you will find in the questionnaire. The situations included in this questionnaire include:

1. Persuade your parents to approve of your moving off campus.
2. Persuade your parents to financially support your education.
3. Persuade a boy/girlfriend that there is nothing wrong in occasionally dating another person.
4. Persuade your roommate to keep quiet when you are trying to sleep.
5. Persuade your boy/girlfriend to confide in you more.
6. Persuade a professor that a test item was ambiguous.
7. Persuade a professor that his grading scale is too hard.
8. Persuade a person you know in class to help you with your homework.
9. Persuade your landlord to fix the plumbing in your apartment.
10. Persuade an old boy/girlfriend that the relationship is worth saving.
11. Persuade your father into getting a check-up.
12. Persuade a police officer not to give you a ticket.
13. Persuade a professor to increase your grade.
14. Persuade your mother to go back to college and get a degree.

If you have any questions, please do not hesitate to ask me or one of my assistants. Thank you.

Michael Cody

Form 400

PERCEPTIONS OF SITUATIONS. PART II. (cont'd)

Note that the person checked the category marked 4 on the second scale, indicating he perceived that it is somewhat difficult to resolve conflicts with his/her roommate. Obviously, this is how this person perceives his/her roommate, and your responses may be very different.

Note that when you persuade a person to do something, you can use a short term strategy or a long term strategy. For example, if you wanted to persuade a group of people to go to the movies tonight, you would probably use a "short term" strategy. The strategy you employ would take place at one point in time--you do not "campaign" over time to get your way. However, if you wanted to persuade your parents to take a vacation somewhere you wanted to go, you may use a long term strategy in order to influence their decision. That is, you bring up the topic several times over several weeks (or months). In the example given above, the person checked the category marked 2, indicating that s/he is inclined to use a short term strategy.

Another distinction between situations is whether or not you have status over the other individual(s). In the example given above, the person checked the category marked 6, indicating that neither s/he nor his/her roommate have higher status.

Finally, you may be persuading a person to do you a favor, as in persuading a roommate to give you a ride or to pick up some food from the grill. Some situations deal with your rights, or infringements of your rights--as in persuading a friend to pay you back money they borrowed or in persuading a record company to stop sending you bills for records you never ordered or received. In the example given above, the person checked the category marked 11, indicating that s/he perceived the situation as one involving his/her rights.

There are a large number of other scales provided in this questionnaire. Please read all of these scales carefully. Note that there is no correct answer to any of the responses on these scales--all I am asking for is your most honest and frank evaluation of each situation on all scales. Please, do not skip any items--try to give some answer for each scale.

If you have any questions now, or during the completion of this questionnaire, do not hesitate to ask them.

Thank you.

Michael Cody

APPENDIX F

ORDER BY WHICH ATTRIBUTES WERE PRESENTED

PERCEPTIONS OF SITUATIONS. PART II. FORM 32

(In order to match your second questionnaire with your first questionnaire, please write your I.D. number here: _____. Remember, all answers are kept confidential.)

INSTRUCTIONS

Another way of making comparisons between situations is indirectly, through the use of rating scales. In this questionnaire, you will be asked to rate each situation on a number of rating scales. For example, a situation will be given, followed by a number of scales:

PLEASE READ ALL SCALES CAREFULLY. ON THE SCALES PROVIDED BELOW, PLEASE RATE YOUR FEELINGS TOWARD THE FOLLOWING SITUATION:

PERSUADE YOUR ROOMMATE NOT TO EAT YOUR FOOD.

Very friendly situation	/									X		/ situation
		1	2	3	4	5	6	7	8	9	10	11
Difficult to resolve conflicts with this person	/			X								/ Easy to resolve conflicts with this person
		1	2	3	4	5	6	7	8	9	10	11
I would use a short term strategy	/		X									/ I would use a long term strategy
		1	2	3	4	5	6	7	8	9	10	11
I have relatively high status	/					X						/ I have relatively low status
		1	2	3	4	5	6	7	8	9	10	11
This situation involves a favor	/										X	/ This situation involves one of my rights
		1	2	3	4	5	6	7	8	9	10	11

In this (hypothetical) example, the person marked the space indicating that the situation was very close to being "very unfriendly." If s/he perceived the situation as "very friendly," s/he would have checked the category marked 1 (or 2). If s/he had perceived the situation as less friendly, s/he would have checked either category 3, 4, or 5. If s/he had perceived the situation as somewhat unfriendly, s/he would have checked either category 7, 8, or 9.

If s/he perceived the situation as neither friendly nor unfriendly, s/he could have checked the category marked 6. Category 6 (six) can be used if the situation is neutral on the rating scale, or if the rating scale does not apply to the situation.

PERCEPTIONS OF SITUATIONS. PART II. (cont'd)

Note that the person checked the category marked 4 on the second scale, indicating he perceived that it is somewhat difficult to resolve conflicts with his/her roommate. Obviously, this is how this person perceives his/her roommate, and your responses may be very different.

Note that when you persuade a person to do something, you can use a short term strategy or a long term strategy. For example, if you wanted to persuade a group of people to go to the movies tonight, you would probably use a "short term" strategy. The strategy you employ would take place at one point in time--you do not "campaign" over time to get your way. However, if you wanted to persuade your parents to take a vacation somewhere you wanted to go, you may use a long term strategy in order to influence their decision. That is, you bring up the topic several times over several weeks (or months). In the example given above, the person checked the category marked 2, indicating that s/he is inclined to use a short term strategy.

Another distinction between situations is whether or not you have status over the other individual(s). In the example given above, the person checked the category marked 6, indicating that neither s/he nor his/her roommate have higher status.

Finally, you may be persuading a person to do you a favor, as in persuading a roommate to give you a ride or to pick up some food from the grill. Some situations deal with your rights, or infringements of your rights--as in persuading a friend to pay you back money they borrowed or in persuading a record company to stop sending you bills for records you never ordered or received. In the example given above, the person checked the category marked 11, indicating that s/he perceived the situation as one involving his/her rights.

There are a large number of other scales provided in this questionnaire. Please read all of these scales carefully. Note that there is no correct answer to any of the responses on these scales--all I am asking for is your most honest and frank evaluation of each situation on all scales. Please, do not skip any items--try to give some answer for each scale.

If you have any questions now, or during the completion of this questionnaire, do not hesitate to ask them.

Thank you.

Michael Cody

PLEASE READ ALL SCALES CAREFULLY. ON THE SCALES PROVIDED BELOW, PLEASE RATE YOUR FEELINGS TOWARD THE FOLLOWING SITUATION:

PERSUADE A BOY/GIRLFRIEND THAT THERE IS NOTHING WRONG IN OCCASIONALLY DATING ANOTHER PERSON.

		of numbers is for clerical purposes only
Very friendly/	1 2 3 4 5 6 7 8 9 10 11 /Very unfriendly	13,14
Difficult to resolve conflicts with this person/	1 2 3 4 5 6 7 8 9 10 11 /Easy to resolve conflicts with this person	15,16
I would use a short term strategy/	1 2 3 4 5 6 7 8 9 10 11 /I would use a long term strategy	17,18
Very comfortable/	1 2 3 4 5 6 7 8 9 10 11 /Very uncomfortable	19,20
He/she will be very resistant to my persuasion/	1 2 3 4 5 6 7 8 9 10 11 /He/she will not be very resistant to my persuasion	21,22
It would be very easy to persuade him/her/	1 2 3 4 5 6 7 8 9 10 11 /It would be very difficult to persuade him/her	23,24
I benefit from this persuasion/	1 2 3 4 5 6 7 8 9 10 11 /I do not benefit from this persuasion	25,26
I have been in this type of situation many times before/	1 2 3 4 5 6 7 8 9 10 11 /I have never been in this type of situation before	27,28
This situation involves a favor/	1 2 3 4 5 6 7 8 9 10 11 /This situation involves one of my rights.	29,30
I am persuading her/him to do something for her/his own benefit/	1 2 3 4 5 6 7 8 9 10 11 /I am not persuading her/him to do something for her/his own benefit	31,32
I have relatively low status/	1 2 3 4 5 6 7 8 9 10 11 /I have relatively high status	33,34
Very formal situation/	1 2 3 4 5 6 7 8 9 10 11 /Very informal situation	35,36

PLEASE MAKE SURE THAT YOU HAVE ANSWERED EVERY ITEM. THANK YOU.

PLEASE READ ALL SCALES CAREFULLY. ON THE SCALES PROVIDED BELOW, PLEASE RATE YOUR FEELINGS TOWARD THE FOLLOWING SITUATION:

PERSUADE A BOY/GIRLFRIEND THAT THERE IS NOTHING WRONG IN OCCASIONALLY DATING ANOTHER PERSON.

This section of numbers is for clerical purposes only

One totally dominates the other	1 2 3 4 5 6 7 8 9 10 11	Treat each other as equal	37,38
Very superficial relationship	1 2 3 4 5 6 7 8 9 10 11	Very intimate relationship	39,40
No commitment to future interaction	1 2 3 4 5 6 7 8 9 10 11	Commitment to future interaction	41,42
Frank and open	1 2 3 4 5 6 7 8 9 10 11	Reserved and cautious	43,44
Very impersonal relationship	1 2 3 4 5 6 7 8 9 10 11	Very personal relationship	45,46
Very emotional situation	1 2 3 4 5 6 7 8 9 10 11	Very unemotional situation	47,48
I know how to behave in this situation	1 2 3 4 5 6 7 8 9 10 11	I do not know how to behave in this situation	49,50
There is a good chance that he/she will think less of me because of my request	1 2 3 4 5 6 7 8 9 10 11	There is a good chance that he/she will not think less of me because of my request	51,52
She/he has a major effect on my life	1 2 3 4 5 6 7 8 9 10 11	She/he does not have a major effect on my life	53,54
I have a major effect on his/her life	1 2 3 4 5 6 7 8 9 10 11	I do not have a major effect on his/her life	55,56
I must be assertive in order to persuade this person	1 2 3 4 5 6 7 8 9 10 11	I need not be assertive in order to persuade this person	57,58

PLEASE MAKE SURE THAT YOU HAVE ANSWERED EVERY ITEM. THANK YOU.

Finally, I would like to ask three additional questions.

1. Today, you compared a set of situations and have rated those situations on a number of scales. Considering the scales that I have given you, are there any salient or important distinctions between these situations that I have not asked questions about?

2. What do you think of this project? Was this interesting, or dull? Was this laborious or easy to do? In general, do you have any helpful criticisms to make about this project?

3. Are there some situations (in this questionnaire) in which you would <u>not</u> try to persuade (or influence) the other person? If yes, which ones?

Don't forget to pick up a handout explaining the goals of this project!!!

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