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THE FORMATION OF FIRST IMPRESSIONS
IN
FIELD-DEPENDENT AND FIELD-INDEPENDENT PERSONS

by

LINDA KLAU

A dissertation submitted to the
Graduate Faculty in Psychology
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy, The City
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This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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I dedicate this book
to the memory of
Lionel Ovid Friedman,
a beautiful man who
helped me to see
what I knew, somewhere,
and who helped me to
be, to be me. Although
I only met this man
once I shall never
forget him. And to
the extent that I, in
my way, can honor him,
I choose this way.

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TABLE OF CONTENTS

Chapter I	Formulation of the Problem	1
	Hypothesis 1	
	Hypothesis 2	
	Hypothesis 3	
	Hypothesis 4	
	Hypothesis 5	
	Hypothesis 6	
Chapter II	Methodology	21
	Subjects	
	Experimental Design	
	Experimental Procedure	
	Measurement Techniques and Procedures	
	Testing the Experimental Manipulation	
Chapter III	Results	
	Efficacy of the Experimental Procedure	50
	Involvement in Impression Forming Behavior	
	Cognitive Complexity	
	Impression Differences as a Function of Cognitive Differences	
	Additional Analyses	
Chapter IV	Discussion	85
	Bibliography	101
	Appendix	A1
	Autobiographical Statement	A36

LIST OF TABLES

TABLE 1.--	Mean responses for experimental manipulation questions for field-dependent, field-independent and all <u>Ss</u> in the high and low-structure conditions.	54
TABLE 2.--	Analysis of variance for responses to experimental manipulation questions.	54
TABLE 3.--	Product-moment correlations for all pairs of <u>Ss</u> ' responses to questions of experimental manipulation.	55
TABLE 4.--	Mean score seek more information as a function of high and low-structure and field-dependent <u>Ss</u> .	59
TABLE 5.--	2X2 Analysis of variance of high vs. low-structure and field-dependent vs. field-independent <u>Ss</u> for seek additional information scores.	59
TABLE 6.--	The number and percentage (as a function of the total number assigned to each condition) of <u>Ss</u> rating at least moderately desirous of more information about <u>S.P.</u> and less than moderately interested for structure and field-dependence comparisons.	62
TABLE 7.--	The number of <u>Ss</u> , for each condition, accepting or rejecting information.	64
TABLE 8.--	Number and respective percentages of <u>Ss</u> in each condition accepting information when offered.	64
TABLE 9.--	Responses of <u>Ss</u> to informational alternatives-- given in number and percentage for each structure group, field-dependence group and the interaction of these groups.	65
TABLE 10.--	Mean responses to question of seek more information about the <u>task</u> .	67
TABLE 11.--	Desire for more information about the task, 2X2 analysis of variance for high and low-structure conditions and field-dependent and field-independent <u>Ss</u> .	67
TABLE 12.--	Mean number of traits for field-dependent and field-independent <u>Ss</u> and high and low-structure conditions.	68
TABLE 13.--	2X2 Analysis of variance, differentiation of the impression as a function of high and low-structure and field-dependent and field-independent <u>Ss</u> .	69

LIST OF TABLES Cont....2

TABLE 14.--	Original and transformed means of unity scores for field-dependent and field-independent <u>Ss</u> for high and low-structure <u>Ss</u> .	70
TABLE 15.--	2X2 Analysis of variance on square root plus .5 transformed unity scores for field-dependent and field-independent and high and low-structure <u>Ss</u> .	70
TABLE 16.--	Product-moment correlation scores for extremity judgments for all <u>Ss</u> .	71
TABLE 17.--	Analysis of variance comparisons for extreme trait judgments for structure and field-dependence variations.	72A
TABLE 18.--	Mean score ratings for field-dependent and field-independent <u>Ss</u> for each trait.	73
TABLE 19.--	2X2 Analysis of variance for average of all trait judgments for field-dependence and structure comparisons.	73
TABLE 20.--	Product-moment correlation scores for substantive judgments for all <u>Ss</u> .	76
TABLE 21.--	Analysis of variance comparisons for directional trait judgments for structure and field-dependence variations.	77
TABLE 22.--	Mean complexity scores for field-dependent and field-independent <u>Ss</u> in high and low-structured groups.	79
TABLE 23.--	2X2 Analysis of variance for RCRT scores for field-dependent and field-independent <u>Ss</u> in the high and low-structure conditions.	80
TABLE 24.--	Mean responses for complexity of impression scores for field-dependent and field-independent <u>Ss</u> and high and low-structure groups.	81
TABLE 25.--	2X2 Analysis of variance for complexity of impression for field-dependent and field-independent <u>Ss</u> and high and low-structure conditions.	81
TABLE 26.--	Percentages of external and internal traits used by field-dependent and field-independent individuals in their impressions.	82

LIST OF TABLES Cont....3

TABLE 27.--	2X2 Analysis of variance testing for percentage of external traits as a function of field-dependence differences and structural differences.	83
TABLE 28.--	Mean scores and t tests for subject complexity comparisons.	84

CHAPTER I

FORMULATION OF THE PROBLEM

Asch's (1946) now classic investigation initiated a new approach to the study of first impressions of others in which verbally presented traits were used to determine how such impressions were formed. More generally, his primary objective was to achieve an understanding of the nature of the underlying cognitive process in the formation of these impressions, particularly in terms of the role of stimulus factors and their organization.

In Asch's study, trait words were read to a group of Ss (the subjects) describing some hypothetical stimulus person (S.P.) and the Ss were then asked to write their impressions of the S.P. It was implicitly assumed that impression formation was a natural response to stimuli; individuals always strive to achieve a unified meaning, and moreover, that one could study the process with any kind of stimuli, eg., traits, people--the principles were always the same. Hence instructing the S to form an impression based on a series of verbally presented trait names was regarded as a reasonable procedure. On the other hand it is meaningful to ask to what extent the nature of the social context in which actual social interaction occurs and the purpose of this interaction determine the degree to which such cognitive responses will occur. Will some individuals form elaborate and extensive impressions where other individuals in the identical settings develop little or no impression of the S.P.?

The present investigation approaches the problem of impression formation with an aim toward answering these questions. More specifically, it attempts to test a number of hypotheses concerning the relationships between selected personality and social context factors and the nature and extent of first impression formation. It is assumed that impression formation is a form of cognitive activity, and like other cognitive reactions, the nature and extent of such activity is tied to significant factors within the individual such as needs, values, as well as to the social setting in which the individual behaves.

Thus, it has been suggested (Proshansky, 1962) that at the root of impression forming behavior in any social context is the individual's need for predictability. The need for predictability is similar to more general formulations, for example, the person's need to know (Katz, 1959) and Kelly's (1955) postulation that man seeks to predict his personal and material environment, and that the cognitive constructs he formulates aid his predictions. It is assumed that in any social interaction context the individual or perceiver can only make appropriate or meaningful responses to the extent that he knows or understands the behavior of the other. It is further assumed that where the perceiver lacks such knowledge or his knowledge about the other seems inadequate, the need for predictability will be aroused or increased and, as a consequence, greater impression forming behavior will occur. The following basic assumption is postulated: The greater the individual's need for

predictability in a first meeting context the greater the extent to which he will be involved in impression forming behavior regarding the other.

To state that the individual forms an impression of the other means that in some sense he is cognitively involved with this other individual. We can only speculate as to what is happening when the perceiver is involved in this way. In a general sense it seems sensible to assume that he attends more to person cues and, in addition, is more likely to engage in making inferences about the stable characteristics of the other. In other words an individual who is cognitively involved or who is forming an impression of another person will seek information about the latter. Such information seeking should reveal itself in part in the observable behavior of the perceiver, as well as in the inference and relevant cognitive processes themselves.

Information seeking embraces a broad spectrum of behaviors. Such behaviors can range from eye glancing to intensive interviewing to reading books and articles about the other, and even to "inner" information seeking in the sense of attempts at recalling experiences with similar people, drawing analogies, etc. In this study we are delimiting information seeking to only those observable behaviors reflecting the pursuit of information about an individual in ways other than direct attending during the interaction situation itself. Specifically our definition of the seeking of information focuses on the extent to which S is motivated to obtain information about S.P. after some initial period of interaction between the two.

In a first meeting situation where information regarding the other is by definition severely limited, it can be safely assumed that S will desire information about this other. Some empirical support for this assumption is revealed in a study by Nidorf and Crockett (1964). They found that Ss given ambivalent information (both positive and negative) about a stimulus person, sought more information about him, i.e., looked at a greater number of traits, than comparable Ss given univalent information. In the context of the present formulation it follows that the presentation of ambivalent information aroused a greater need for predictability in the S which resulted in increased cognitive involvement in the form of information seeking.

Greater cognitive involvement should also reveal itself in the product of the actual impression that S forms. To the extent that the perceiver attends to and seeks and therefore gains more information about S.P. both during and after interaction, to that extent can we expect his impression of the latter to be more differentiated, that is, to employ a greater number of discriminably different attributes in his impression of him. Studies of cognitive complexity (Bieri, 1955, 1962; Crockett, 1965) view differences in the degree of differentiation as a function of differences in the general cognitive system of perceivers. In this approach individuals are categorized in terms of their degree of cognitive complexity, that is, in the extent to which their cognitions of objects and people are more or less differentiated. Complexity here implies more than the sheer number of constructs. On the other hand Zajonc (1960) deals with the concept of differentiation, not as an enduring characteristic of

the person but as a situational variable--as one measure reflecting differences in S's impression of another person when aroused under different "cognitive-tuning" conditions. In an unpublished doctoral thesis, Wolfe (1969) discusses differences in differentiation of first impressions, that is, the number of characteristics involved as a function of such factors in the social context in which the perceiver is interacting. Specifically, one variable was goal dependency, i.e., the extent to which an individual depends on the other in order to achieve his goal, eg., job interview; a second variable was expectancy and expectancy fulfillment, i.e., the extent to which our expectations, about another person, are met or not. The greater the need for predictability the greater the cognitive involvement of the perceiver, which in turn should reveal itself in the greater differentiation of his impression. We would expect to find an increasing number of attributes in first impressions of others, as the individual's need for predictability increases.

Still another structural variable which should reflect the degree to which S is cognitively involved in impression formation is the extent to which his impression is unified. By this we mean a rational consistency or compatibility of the traits S assigns to S.P. Even more precisely, this is defined as the degree to which all attributes in the impression are meaningfully related to each other such that inconsistencies and contradictions among them are not to be found. Much of the earlier work in impression formation dealt exclusively with this property of the impression (Asch 1946;

Gollin, 1954; Cohen, 1961). In relation to the need for predictability, to the extent that Ss impression of S.P. is unified to that extent S should be better able to make predictions regarding the behavior of the other and feel more secure in his predictions. It is also assumed in the present analysis that such unity can be achieved in a number of different ways - all satisfying S's need for predictability. Gollin (1954), for example, discusses two ways in which Ss achieved unity of their impressions when being presented with contradictory information. "Simplified" impressions were unified by selecting one side of the information about S.P. while in contrast "related" impressions resulted from the integration of apparently contradictory information and thus achieved unity.

Extremity of trait judgments may be still another expression of the extent of cognitive involvement in perceiving others. Irrespective of content we can examine the extent to which a given trait is attributed to S.P. Extreme trait judgments, it can be safely assumed, provide the S with a clearer, less ambiguous conception of the S.P. To judge the latter as "very" or "extremely" friendly is a more compelling basis for predicting that he will be friendly than if he is judged as "somewhat" friendly. Thus, more extreme judgments will reflect a greater need for predictability and should be experienced as a "sounder" basis for predicting the behavior of the other. We assume, therefore, that the greater the need for predictability, the greater the extremity of judgments.

Research on social judgments and attitude change (Sherif and Hovland, 1961) indicates that an individual's own attitudinal position affects his perception of the communicator's position as well as the communication itself. Increased involvement with and commitment to one's position leads to a more extreme position. If as we assumed, that a greater need for predictability leads to greater cognitive involvement, then it follows that the latter will be reflected in the use of more extreme trait judgments.

To summarize our discussion above it can now be said that an increase in the need for predictability will result in greater cognitive involvement which will be expressed in or revealed by:

- 1) the extent to which S will seek additional information about S.P. following interaction;
- 2) the degree of differentiation of S's impression of S.P.;
- 3) the degree of unity of S's impression of S.P.;
- and 4) the degree to which S employs extreme trait judgments in his impression of S.P.

What factors influence the extent of arousal of the need for predictability? Looking at the more general dimensions of a social interaction context, it would appear that one important factor bearing upon the Ss need for predictability would be the degree to which an interaction context is structured.

One conception of stimulus structure which has been frequently employed by investigators in a variety of problem areas, is highly relevant for the present analysis. A dimension employed for distinguishing the structure of complex visual stimuli is the degree

to which the configuration of a given stimulus is organized, thereby, producing constraints or limits on its interpretation or meaning (Attneave, 1959; Garner, 1962). Structured stimuli, then, are stimuli which can be easily recognized or clearly identified.

In a social context the degree of structure often determines the quality of interaction among individuals (Jones & Thibaut, 1958; Jones & Davis, 1965). Individuals interact with each other in terms of the respective social roles they occupy. In some instances these roles very clearly define the range of acceptable behaviors for each individual, and hence, their interactions follow smoothly and without difficulty. In unstructured situations just the opposite may be true. The extent to which the individual clearly knows his own role requirements and that of the kind of roles he and the other are expected to play in the social context, reflects the degree to which this context is structured. Given a highly structured context defined in this way, the meaning of an S.P.'s behavior for the perceiver and indeed even an observer, should be relatively clear and relatively unambiguous.

It appears, therefore, that regardless of the specific area of application a generally acceptable conception of the variable of structure is discernable. A stimulus situation--whether an object or social setting--can be considered structured if it is organized in a manner that relates the elements (persons, things) in a more or less definitive fashion. This definition of structure guided the formulation and design of the present investigation. With respect to an interaction context, structure refers to the extent to which this context is defined sufficiently and accurately so that the

individuals in it can behave appropriately toward each other. Thus in role terms when S's role is not clarified the situation will be more unstructured.

What is the nature of the relationship between the degree of structure of an interaction context and the need for predictability? It seems reasonable to assume that the extent to which a social context is structured is inversely related to the degree to which the need for predictability is aroused. From a somewhat different vantage point, the theory of correspondence (Jones & Davis, 1965) in dealing with the attribution of characteristics to others, supports this assumption. They state that when a situation defines the reasons for S.P.'s behavior in it, then the perceiver or S makes few inferences regarding the personality dispositions of S.P. That is, if the causes of S.P.'s behavior are revealed by and in the situation, eg., S.P.'s required role, then few inferences concerning S.P. are made; if, however, they are not revealed by the situation, then the causes of behavior are sought in the individual. Translating these findings into our framework, a situation which defines how people are to behave and what is expected of them is a highly structured situation, whereas a situation in which such definition does not occur is low or lacking in structure. It follows that in a high structure situation the individual's need for predictability would be minimally aroused. In a low structure situation, on the other hand, where S.P.'s behavior occurs in an undefined social context and therefore S may not adequately understand the behavior of the other, we would expect S's need for predictability expressed in high cognitive

involvement to be more strongly aroused.

Hypothesis 1: A first meeting interaction context which is low in structure (role and task relationships are relatively undefined), will arouse a greater need for predictability in S than a highly structured context.

A test of this hypothesis is made by testing the following associated empirical predictions.

Empirical Predictions

1a. Ss in the low structure situation will seek more additional information about S.P. following interaction than Ss in the highly structured situation.

1b. Ss in the low structure situation will form more differentiated (i.e., a greater number of attributes) first impressions of S.P. than Ss in the highly structured situation.

1c. Ss in the low structure situation will form more unified first impressions of S.P. than Ss in the highly structured situation.

1d. Ss in the low structure situation will make more extreme judgments of S.P. than Ss in the highly structured situation.

Personality differences among Ss have been shown to influence their impressions formed of others (Altrocchi, 1961; Jones, 1955; deCharms & Wilkins, 1956, etc.) Such differences have often been expressed as "cognitive styles" in which individuals perceive and

organize their stimulus worlds in unique and characteristic ways assumed to express even more fundamental personality dispositions. In recent years a variety of conceptual schemes for characterizing basic cognitive styles have been presented, eg., levelers and sharpeners (Klein, Gardner, Holzman, 1959); focusing or scanning (Schlesinger, 1954; Gardner, 1959) and field dependence—field independence (Witkin, 1954, 1962).

In the present discussion, primary consideration is given to Witkin's formulation of field dependence-independence. We have selected this construct because there is a broad base of data, resulting from studies in several areas, eg., personality, cognition, etc. which strongly suggest a direct relationship between field dependence and the need for predictability.

Studies distinguishing these two extremes in perception (Rod and Frame Test, Tilting Room Tilting Chair Test, Constancy, Embedded Figures Test) give evidence that the field-dependent individual has difficulty in separating an embedded object from an environment or in attending to relevant and not attending to irrelevant cues.

Personality analyses (Witkin, 1962, etc.) indicate that field-independent individuals tend to have a highly developed defensive structure and relatively specialized defenses, eg., intellectualization, isolation. In contrast the field-dependent individual's tendency is to employ more global defenses; namely, massive denial and repression. The evidence appears to indicate that while the field independent individual can control and channel his impulses in a fairly specific way, the field-dependent person has great difficulty in doing this so

that in a situation arousing conflict he responds by denying the conflict. Where the field-dependent person prefers to be and work with other people, the field-independent individual has been considered at times an isolate who is capable of being autonomous and independent of other human beings.

Research on social behavior in field dependent-independent persons suggests the following characteristics of the field-dependent individual; first, the field-dependent person is more attentive to social objects in his environment than the field-independent individual. Thus, Messick and Damarin (1964) found that the field-dependent individual is better at recognizing faces (seen one time before) than the field-independent individual; De Vries (Witkin, 1962) found that field-dependent boys were significantly more accurate in selecting cutouts of their own noses, ears and eyes from photographs than field-independent boys. Second, the field-dependent individual's behavior is more affected by the social environment in which he moves, that is, he molds his behavior in response to the reinforcement he receives for it. Konstadt (1965) found that field-dependent children are more influenced by environmental approval or disapproval in the performance of tasks than field-independent children. Finally, the person who is field-dependent is less reliant on his own judgments. Witkin (1962) reports that such individuals were more likely to change their stated views on a particular social issue in the direction of authority than field-independent individuals.

What conclusions can be drawn from this research relevant to the need for predictability? Given the revealed characteristics

of the field-dependent individual, it should be evident that among other things he has a need for control in the form of being able to predict this environment and the behavior of those in it.

Hypothesis 2: Field-dependent individuals have a greater need for predictability in social interaction situations than field-independent individuals.

Given our original assumption, this means that field-dependent individuals in social contexts would be more cognitively involved than field-independent individuals as revealed by the following empirical predictions.

2a. Field-dependent Ss will reveal a greater tendency to seek information following interaction with the S.P. than field-independent Ss.

2b. Field-dependent Ss will form more differentiated first impressions of the S.P. than field-independent Ss.

2c. Field-dependent Ss will form more unified first impressions of the S.P. than field-independent Ss.

2d. Field-dependent Ss will make more extreme judgments of the S.P. than field-independent Ss.

Witkin's research on field-dependent and field-independent individuals reveals differences in cognitive style under stress conditions, eg., unstructured and anxiety arousing situations. The conditions of the original studies employing the Rod and Frame and the Tilting Room Tilting Chair can be considered unstructured, threatening in that many of the usual consistent cues (kinesthetic and visual cues) necessary for judgments were either removed or were ambiguously presented. Similarly, the Embedded Figures Test is one in which structure

is not immediately apparent and it is a speed test and being so it may be perceived as a test of intelligence, hence, arousing S's anxiety.

In an unstructured task where there is no environmental support, eg., the Rorschach, the field-dependent individual has difficulty in responding (Witkin, 1962); and this is not true for the field-independent individual. Furthermore, when the typical conditions for the Rod and Frame test are made even more stressful, that is, are made more ambiguous, the field-dependent individual is affected to a greater extent than the field-independent individual. Gross (1959) inserted a bogus distorting lens between S and the apparatus, thereby, setting the Ss for increased ambiguity. The results of this experiment demonstrated that the field-dependent individual behaves in ways which are characterized by even greater field-dependence; that is, he employed the environmental frame as a major source of information as compared to the field-independent individual. Several investigators, Gross (1959), Linton (1957), and Block (1957), interpreted this finding as evidence that the field-dependent person has a considerably greater need for support and definition and also more intense feelings of uncertainty than the field-independent person. On the other hand the field-independent individual, even in minimally structured situations is relatively undisturbed by the lack of definition of the social context. Therefore, we are proposing that field dependence - field independence interacts with the degree of structure of a social interaction context in determining the extent to which S will experience the

need for predictability. Thus we are hypothesizing the following interaction hypothesis.

Hypothesis 3: The difference in the need for predictability between field-dependent and field-independent individuals in a relatively unstructured interaction context will be greater than the difference in a highly structured context.

Thus, based on our initial assumption that differences in the need for predictability are revealed by various cognitive activities we are predicting that the interaction difference will be reflected in: information seeking, differentiation (number of traits), unity and extremity of trait judgments.

Witkin (1962) interprets similarity in performance on relevant perceptual tasks, behavior in social situations and personality characteristics as all being manifestations of a higher order factor in cognitive style. Field-dependent individuals are characterized as having a global style while field-independent individuals have an articulated style. And these higher order cognitive styles are themselves the result of an even higher order distinction, that is, the consequences of differences in personal differentiation. Greater differentiation is expressed in increased articulation, i.e., analysis and structuring of experience of the world and of the self. This means in effect that in Witkin's approach, differences between the field-dependent individual and the field-independent individual can be conceptualized in terms of differences in differentiation.

Although the "differentiation" that Witkin employs in his formulation is conceptually different from the idea of differentiation employed in defining cognitive complexity, it appears to us that

Witkin's general description of the functioning of the field-dependent individual and the field-independent individual can be interpreted in terms of a difference in the degree of cognitive complexity between them.

Beginning with Kelly's (1955) initial conception, Bieri (1955, 1962) and others (eg., Crockett, 1965) have carried out research on the construct of cognitive complexity. An individual, according to Kelly, deals with events by making judgments based on the constructs he has available to him for defining these events. Bieri's research (1962; 1966) indicates that some individuals are cognitively-complex, that is, they differentiate to a greater degree by using discriminably different attributes in their perception of others; while other individuals are cognitively-simple, they have fewer concepts with which to define situations or events. Perception from this viewpoint is a function of the categories or constructs that a given individual has available to him.

Insofar as the field-dependent individual is less differentiated and more global in his approach to situations, he is less able to make discriminating refined judgments in these situations. And although Kelly and Bieri are referring specifically to person perception judgments and Witkin's research has not as yet touched on these percepts, it is hypothesized here that:

Hypothesis 4: Field-independent individuals are characterized by greater cognitive-complexity in their perception of others than field-dependent individuals.

If, as we have hypothesized, field-dependent individuals tend to be less cognitively complex in their perceptions of others than field-independent individuals, then according to Bieri's and Kelly's view we would expect the former to exhibit less differentiated impressions of stimulus persons than the latter. On the other hand, we have also predicted that the field-dependent person will show greater need for predictability, and therefore, will show greater differentiation (as one operational measure of predictability) in his impressions of others than the field-independent individual. While there appears to be a contradiction in our conception of the field-dependent person in this respect, a more detailed analysis of the problem tends to resolve this difficulty.

The assumed lack of construct differentiation in field-dependent persons (Bieri 1958, 1961) reflects, in terms of this formulation, their lack of concepts and terms for describing others. How well an object or a person is distinguished is correlated with the sheer number of constructs used. Yet it also seems reasonable to assume that construct differentiation or complexity involves more than the sheer number of constructs available to the individuals, that in fact, greater or less differentiation in the perception of others would also reveal itself in the type of constructs available to the perceiver.

Our initial definition of differentiation described at the beginning is simply the number of characteristics used in an impression of the other. The more characteristics, the more differentiated the impression. It says nothing with respect to the kind

of characteristic, the number of different categories of characteristics, the inferential level of the characteristic used, etc. It is possible that a large number of characteristics in one's impression of another, may result from the use of attributes that are very similar to each other or that focus on highly specific details of the person. While on the other hand one abstract or basic characteristic might be more informational than a large number of the more specific attributes. We contend, in effect, that our measure of differentiation is not necessarily correlated with greater cognitive complexity.

However, if indeed, as we have hypothesized, field-dependent individuals are less cognitively complex as compared with field-independent individuals it seems reasonable to assume that this cognitive difference would reveal itself in other aspects of S's impression. Cognitive-complexity consists not only of relatively greater differentiation of a system but also of a relatively greater hierarchic integration of this system. Hierarchic integration consists of several things, for one, the groupings and subdivisions into which constructs fall. Zajonc's measure of complexity is relevant here (Zajonc, 1960). Regardless of the number of characteristics, the characteristics constituting a given cognitive structure (impression) may come from a single category or may represent many categories. Complexity in this view, then, is a measure of the extent of subdivisions employed in one's impression of the other.

Insofar as field-dependent individuals are cognitively-simple relative to field-independent individuals we would expect

differences between them in terms of the complexity of the impression they form of the other.

Hypothesis 5: In a social interaction context the impression that a field-independent person forms of the S.P. is more complex (as measured by the number of sub-groupings) than the impression formed by a field-dependent person.

Still another consequence of differences in cognitive complexity ought to be reflected in the type of constructs available to the perceiver. Various investigators have distinguished between external-physical traits and internal-psychological ones. Since the former are readily or more directly available through what the perceiver can observe, whereas the latter depend on inferences from behavior, it is not unlikely that the difference between the field-dependent and the field-independent individual lies in the difference in the number of internal-psychological traits available or used by each. Bieri (1958) reports that field-dependent persons tend to describe others in external-physical terms in contrast to internal-psychological terms, whereas the reverse is true for field-independent persons. In contrast to Bieri's study where Ss were asked to describe persons they chose who best fit the social roles called for in the Role Construct Repertory Test, that is, persons well known to S, our situation deals with judgments about a person met for the first time. Thus, in Hypothesis 6 we are extending Bieri's findings to apply to impressions arising out of first meeting interactions. In light of the previous discussion it seems reasonable to expect that:

Hypothesis 6: In his impression of others in a social interaction context the field-dependent person employs a positive ratio of external-physical traits to internal-psychological ones whereas for the field-independent individual the ratio of these types of traits will be reversed.

CHAPTER II

METHODOLOGY

Subjects

The Ss employed in the main investigation of this research were 52 male students in the Special Freshman Program at the Graduate Center of the City University of New York. Preliminary testing and pilot testing, preparatory for the research, required the use of 650 other subjects.

Only male Ss were used in this study since, first: males respond more consistently on the various measures of field-dependence (Witkin, 1962; Jackson, 1964) and second, the contrived task employed was more appropriate for males than for females.

Experimental Design

The experiment was a laboratory study in which each S was tested individually. Students having extreme scores on the field-dependence continuum, classified as either field-dependent or field-independent, were randomly assigned to either a high or low-structured interaction context. Thus, the study involved manipulating field-dependence and situational structure in a 2X2 experimental design. Thirteen subjects were run in each of the four experimental conditions.

Experimental Procedure

Subjects were recruited from the two English lecture classes in the Freshman Program in the Fall of 1968. These included all the

students in the Freshman Program. In brief, E telephoned selected male Ss from these classes and identified herself as a faculty member of the Psychology Department at Hunter College carrying out research at the Graduate Center. E told the students something about the research, namely, that it "involved people working in pairs on very simple tasks which do not require any special experience." She also told them that the research required each S to come for four sessions of no more than one hour each and for which S would be paid \$2.50 an hour. S was assured that an appointment for each of these sessions would be arranged which would be at his convenience.

Those students asked to be Ss were led to believe that they were randomly chosen. Previous use of this technique in the pilot study and in studies by other graduate students at the City University revealed a very low refusal rate. In reality the subjects were selected if they were either very high or very low on field-dependence. The specific procedure in making the selection is described below.

Prior to and quite independent of the experiment proper, a test for determining the degree of field-dependence was administered to all students in the classes from which Ss were later recruited. The Group Embedded Figures Test (Form V) was employed for this purpose. To insure that no connection was made between the pretest and the main experiment, the test was not administered by E; and the explanation of the purpose of the test in no way related it to the latter laboratory experience that the subject would have (see Appendix pp. A1-7 for script for administering this test along with a copy of the test itself).

A student's performance on the EFT enabled us to place him into an appropriate category, indicating either extreme field-dependence or field-independence. These groups were obtained by dividing the entire distribution of scores into thirds. Hence, students with scores in the upper third of the distribution constituted our field-independent Ss, while students with scores falling in the lower third were defined as field-dependent Ss. This procedure for obtaining extreme groups is commonly used by researchers doing work in this area (Witkin, 1962; Bieri, 1958; Witkin, personal communication).

In order to insure filling each cell of the fourfold matrix with at least 10 Ss we originally planned to pretest 150 male students. We felt certain that a sample of this size would be sufficiently large to meet our cell requirements as well as insure a greater probability of getting sufficiently extreme scores. However, the freshman program consisted of a disproportionate number of females as compared to males, such that testing of all males provided us with an initial sample of 105 Ss. While we were initially uncertain that a sample of this size was sufficiently large to yield our extreme groups, it turned out to be quite adequate. Out of a possible range of scores from 0 to 16 correct, the mean score obtained for the field-dependent group was 3.69 and 14.62 for the field-independent group. Normative data for the Form V of the EFT are not readily available (Derman, personal communication). However, the difference between the mean scores was sufficient to assume we had sampled from the extremes of the field-dependence continuum.

Three weeks after the EFT was administered each S was telephoned and if he agreed to participate in the study an appointment was arranged for him. Of the possible maximum of 70 Ss (35 Ss in each extreme group of the field-dependence continuum of 105 Ss) an unusually high number of Ss were successfully run through the experiment. Only 13 Ss could not or would not participate in the experiment. Two Ss were run through the experiment but their data were not analyzed (for reasons to be discussed) thus reducing the number of Ss to 55 and the three remaining subjects were not called in order to avoid unequal numbers in the analyses. Although Ss were given the impression that there would be several sessions the entire experiment was carried out in one session and took no more than one hour from start to completion. The study was run at the Graduate Center in the fall term of 1968. It took approximately one month to run and an average of three subjects a day were tested.

An overview of the procedure for the experiment proper follows. For purposes of discussion we can divide the experiment into three sections: 1. Orientation, 2. The Interaction Setting and 3. Assessment.

1. Orientation

When an S arrived for an appointment, E responded with the following introductory statement based upon a standard script written for this purpose:

E. (seated behind desk in a typical office--hears knock on the door).

Come in. Hi, I'm Mrs. Klau, one of the researchers on this project. And your name is (looking at appointment book) _____?

S. I'm Mr. X

E. OK, fine-- please sit down.

I want to tell you about the research. Let me tell you what we are doing here. Do you remember--when I spoke to you on the phone--I told you that the research is concerned with studying how 2 people work together as a team on certain tasks.

Well that's exactly what we want you to do today.

What we are trying to find out is how different ways of organizing a two-man job affects how quickly and efficiently a task gets done. Studies of this kind are commonly referred to as "Time and Motion" studies in which what is important is not who does the job but how it is divided between the two people. For example, if you and I were working together as a team on a task and you did 75% of the work and I did 25% of the work then it would probably take longer to finish the task and we would probably do it less efficiently.

What we are particularly interested in in the present research is how an unfamiliar task can be organized or divided so that a new person working for the first time with a partner can do so quickly, efficiently and without any difficulty. In other words we would like to set up 2 man tasks so that a novice can step into it and do it with a minimum of adjustment, learning and so on. You will be the inexperienced member of the work team. And you will work on the task with another student whom we have hired to serve as the more experienced member of the team. We have approximately five persons whom we have hired to work as the more experienced partners for the project. Of course your partner has worked on several tasks with several inexperienced partners like yourself who have agreed to participate in the research.

Today is your first session so you will meet and work with your partner for the first time for about one hour. After this session we will ask you to return at another time and work with him on a similar task and then do this until you've had a total of four sessions working with him on these various tasks. Before I tell you any more about the tasks do you have any questions?

OK good, let's continue.

Now let me clear up one other thing. No person can step into an unfamiliar task--except for something very trivial--without being given some idea as to what it is all about. So before you start your partner will give you some idea about what the task is like and what you will have to do. Since he works with about 6 to 8 new partners like you a day, and since he works on many tasks (some new to him and some not), it became too tedious for him to repeat his information over and over again. So for the sake of efficiency and to make it easier for your partner we recorded this information about the first task on tape. As a matter of fact your partner is working with another person right now--in this way we are able to speed things up.

OK we are ready to begin. Before you meet your partner I'm going to play the tape of this information about the task for you. Listen carefully--and if you have any questions hold them until you meet with your partner.

In order to prevent experimenter bias (Rosenthal, 1964) several precautionary measures were taken. First, E had no knowledge regarding the extent of field-dependence or field-independence of any subject. Once the composition of field-dependent and field-independent groups was determined and the minimum number of most extreme scores selected, E randomly called Ss asking them to participate in the experiment. It was not until Ss were run through the entire experiment that E learned whether S was field-dependent or not.

Second, E did not know the experimental condition to which each S had been assigned until well after the S had become involved in the experiment proper. Ss were assigned to the experimental conditions by an associate. This was done by means of a table of random numbers which was used to establish a randomized set of high and low structure conditions, for the two field dependence groups. As each S agreed to partici-

pate in the experiment E's associate first ascertained if this subject was field-dependent or not, and then according to S's position in this particular subject categorization he was assigned to a particular condition. For example, if S was the fifth field-dependent subject to be tested and the fifth position for field-dependent Ss had been pre-determined to be low structure then that was the condition to which S was assigned. S's name and assigned condition was written in the back of E's appointment book--one name to a page, for example, Brown-High Structure. At the necessary time in the experiment E unobtrusively turned to this page and looked up the experimental condition for this specific S. The tapes for both the high and low structure conditions were on one reel which was already on the tape recorder and all E had to do at that time was to turn to the appropriate location.

The third step taken to minimize experimenter effects was to have S seated across from E next to a small table on which the tape recorder was located. While the tape recording was being played E did not look at the S or the tape but appeared to be immersed in work. And lastly, although this is jumping ahead for a moment, S was asked to do all tasks at his small table which was placed in such a way that it was necessary for his back to be turned toward E. We believe that these arrangements minimized the probability of E giving any non-verbal, unconscious cues which could have contaminated the data.

2. The Interaction Setting

At this point each subject listened to one of two tapes, depending on whether the S was assigned to the high structured or low structured interaction context. Structure, as discussed previously, was

defined as the extent to which S has information concerning the nature and purpose of the interaction context including the behavior expected of him and the other. Operationally, it referred to the extent of information that S is given about his own job, the job of the other and the task itself. Thus, in the high structure condition the partner was given information which very clearly communicated what the task was about, how the work would be divided between the two partners, and what each partner would do specifically. In contrast, in the low structure condition vague and little real information was given to S about the task and jobs of each partner.

The text of the script for the Highly Structured condition was as follows:

Hello, my name is George Gordon. As Mrs. Klau told you we will work together as partners on several tasks. Since I worked on these tasks many times I have been instructed to tell you what the first one is all about and just exactly what the experimenters want each of us to do on the task.

In general, our tasks, deal with computers. What we have to do, specifically, is get a computer set up to do a particular mathematical operation; for example, get the computer ready to do Multiplication. Therefore, we are not going to be actually running a computer but rather we will get it ready to run. Our specific work is very easy, much easier than actually running a computer.

Our first task consists specifically of getting a computer set-up to do multiplying. In order to accomplish this (that is, get the computer ready to multiply) we have to wire a wiring board on the computer in a certain way. Once the wires on the wiring board are properly arranged the computer will be mechanically ready to multiply.

Now listen to me--I want to tell you exactly what you will have to do and exactly what I will have to do on our first task. As you will soon see it isn't hard to do and by the time I'm finished I'm pretty sure that you'll know just what the task consists of and just how the work will be divided between us.

Now to our first task--the wiring board (of the computer) has many wires on it. Each wire is directly numbered on the board. From a standard manual for the computer, I will read to you the wiring instructions, that is, what number wire should be connected with what other number wire, in order to get the computer properly wired to do multiplication. I will try to read as clearly as possible and will repeat anything that you want me to. You then, will connect the wires that I tell you to. You do this by twisting together--the numbered wires called for. We will proceed in this fashion, with me reading the wiring instructions from the manual and you connecting the wires until we have completed the job.

So now you know exactly what our first task is and my job and yours. If you have any questions--things perhaps that I have not covered or something else you may be uncertain about--well we'll make sure to clarify everything before we begin the actual work.

Oh, there are just one or two other things I want to tell you now. First, our work doesn't require any specific experience, for example, with computers or wires. And, second, there is no danger from working with the wires--nothing on the computer works until everything is plugged in.

We are allowed to practice as much as we feel is necessary before we actually start.

But--once we decide to start the actual task we will be scored by the Experimenters so we should try to do the very best that we can.

In the next three sessions that we meet we will work on three more similar tasks. In the second session, we again will set the computer up for multiplication but this time we will switch jobs. In the third and fourth sessions we will work in a similar way on setting up the computer to be able to divide. This is slightly harder.

After we finish this first task today we will have to get together and decide on a date for the second session and so on. Hopefully within one month from today we should have finished all four tasks.

The text of the script for the Low Structured condition was as follows:

Hello, my name is George Gordon. As Mrs. Klau told you we will work together on several two man tasks. I've worked on the general kind of task that we will have to do but as yet not on the specific tasks that we will work on together--today and in the future sessions. Let me give you some notions about our tasks and our jobs.

In general, the tasks deal with working with computers. Computers are high speed calculators that perform the basic mathematical operations. Computers are being used very frequently in all kinds of businesses nowadays and their primary advantage consists of the fact that it is easier and requires less time to handle any large quantities of any sort of information in addition to the fact that they have a large memory capacity for the storage of information.

Some of the tasks that I have worked on before--but as I said--this is NOT what we will do--consisted of things like using a computer as a teaching machine, seeing how long a person could work a computer without making too many mistakes from fatigue or boredom, finding out how much the man in the street knows about computers and so on. So you see many different kinds of tasks are being done on this project.

So as I said our specific tasks are as new to me as they are to you. What I do know is that they involve computers not so much in their actual use but rather, on how they are set-up if one wants the computer to do a particular operation.

We will have to wire a computer wiring board. Our work on the board relates to enabling the computer to perform one operation or another. All the computer can do is what it is instructed to do and the wiring is part of the instruction process. Let me tell you everything I've been told about our first task now.

It's not supposed to be very difficult. And in this task, as in others I participated in, the procedure is that rather than telling each partner before hand who does what, it is best for both of us to get involved and actually start doing the task. And the way we will do it is to play it by ear regarding who should do what and how the work should be divided. In other words, it is considered best to hold off on assigning specific jobs to each of the partners in a pair but better to wait until we are along into the work and divide it up as we go along.

I suppose you have some questions. The best thing to do is hold them until we are in the actual situation and then see what happens.

Oh, there are one or two other things I think you should know. First, most people who aren't familiar with wiring equipment in general or computers in specific haven't been hindered, to my knowledge, in performing well on the tasks. The other thing--you may have worked with computers before so you might know about this kind of thing--well on second thought I don't think it's necessary to worry about that right now.

On the first task we are scheduled to start out with a fairly simple wiring job. How the first session goes determines what we will do in the next session and so on. The tasks will probably become increasingly complex--since they depend on earlier experience.

Once we begin the actual task we will be scored by the experimenters. So we should try to do the best that we can.

After we finish today--at some time in the future we should meet again for the second session and so on.

We tested the validity of the high vs. low-structure distinction by having the two versions of the tapes played to different classes at Brooklyn College. Each class listened to only one version of the tape and the students were instructed to listen as if each of them were

actually going to have a partner and work with him on the task. Students then answered questions regarding their perception of structure as we defined it here, and other relevant aspects of the tapes to insure that they differed solely in terms of degree of structure. These analyses are discussed in the Results Chapter of this paper suffice it to say here that we were clearly able to create two tapes, very similar to each other in several respects but different in the essential way that one was perceived as highly structured and the other was seen as low in structure.

3. Assessment.

The last part of the experiment can be described as preparation for and the attainment of the various measures of impression formation. In order to elicit S's impression of his partner, E discussed a problem in the "research" in that way leading up to a request for S to give his impression of S.P. E explained the following to S:

As I said before if you have any questions, hold them until you meet with your partner.

He is working with someone else now and he should be finished in about 15-20 minutes. I would like to spend this time with you regarding something quite important.

As I told you at the beginning, the purpose of all our research is to find out how two-man tasks or work situations should be organized so that the tasks are performed quickly and efficiently, regardless of who the two partners are. However, in previous research we have found that sometimes, on occasion, not frequently the two partners don't seem to relate to each other well or relate to each other very well, so that in either case we are unable to get a true picture of how efficient a particular work organization plan is. I'm sure you realize that in any cooperative task it has always been true that some people fit together well and others just don't.

To give us some idea about this, we have decided to ask each inexperienced partner to give us his impression of what the partner he will work with is like as a person, based on your listening to your partner on the tape. Let me indicate to you that your partner wrote the information about the task that he presented on the tape.

So what we would like you to do is to give us just such an impression of your partner. Now what we would like you to do specifically is think back to the tape and your own reactions and impressions. Let your imagination wander in regard to what kind of a person your partner is like. There is no such thing as a right or wrong answer, so just be as frank and honest as you can.

I want to assure you that your partner will never see any of this information--it is strictly confidential between you and me.

(Following Zajonc's (1960) card technique for obtaining S's impression,

E then instructed S to do the following:)

OK, here is an envelope with a pack of halved 3 x 5 cards inside. Remove the cards from the envelope and take off the rubber band from around the cards.

On each card separately write one and only one characteristic or quality or trait that comes to mind about your partner. For example, if you were describing this piece of paper you might say it was white, put down this word--do not write sentences or even phrases. As I said you can put down whatever comes to your mind, since there is no list of characteristics that can be considered correct or incorrect. Everyone of us sees things in a slightly different way.

You may have many or few cards but this shouldn't bother you. Put down as many or as few characteristics that you can. If you need more cards just ask for them. Work rapidly.

After S wrote his impression, in order to get other measures of his impression E told him:

Good, now we would like you to do a couple of things with the traits that you have written. This helps us

to know and understand your impression.

At this point E instructed S according to the technique used by Zajonc (1960) for obtaining a measure of unity. E's instructions for a measure of unity were as follows:

It is possible that some of the characteristics are related to one another. They may depend on one another in such a way that if one changes the other ones would change too. Suppose a child of three were a certain height and weight. Then this same child at four--if he were taller would also become heavier. This means that the weight of the child depends on his height. The relationships between the characteristics you put down may not be so obvious and so simple, but try to describe whether such relationships exist nevertheless.

To do this take the first characteristic you have written. Write it down in the column we are calling "Standard Characteristic." Then look at all the other characteristics you have written and list all those characteristics which would change if this first characteristic were changed, absent or untrue of your partner. List these in the column we have named "Characteristics that Change." For example, let's say you put down intelligent and shrewd. Now if the person were more or less intelligent, if intelligent were not listed or if he were unintelligent ask yourself if you think it would change a person's shrewdness. It may or may not. It depends on your point of view. But if you think shrewdness changes then it should be written down in the space provided. All you have to do is list what characteristics change--not how they change.

When you have done this for the first characteristic then go on to the second characteristic you have written. Again say to yourself if this characteristic were changed, absent or untrue what other characteristics would change.

Do this for all the characteristics you have written.

After being presented with these instructions S was given a form called the Subject Questionnaire, (see Appendix pp. A13-16 for copy of this questionnaire) on which to complete the task. In addition, the questionnaire

contained other questions which S was instructed to answer after he had finished the unity task. He was told to turn to these pages and follow the written instructions. Page two contained an adjective checklist consisting of ten traits that required S to rate his partner on a nine-point scale on each trait. On page three S was requested to answer questions about structure, that is, the degree to which he desired more information about his partner's job, his own job and the task.

After S completed this written questionnaire he returned it to E who then looked over S's responses to the structure questions and questioned S further if his response to more than one question was contrary to the predicted direction of response. By "counter prediction" we mean if S had marked somewhere on the well-informed half of the scale (a scale score between 1 and 4) when we had given him the low-structured tape and expected his response to be somewhere on the poorly-informed half of the scale (score of 6-9). The kinds of questions that E asked were things like: why have you responded in such and such a way?, are you answering for yourself or your partner?, what is your job?, etc. These questions were asked in order to make sure the S understood the question.

Following that, our behavioral measure of information seeking was obtained. This measure was a preliminary attempt at assessing more information about another, given that he had already indicated that he is interested in getting information to some degree. In other words we wanted to see what individuals would, in fact, do when information was actually available in the situation. We investigated "behavioral

information seeking" only where some interest was expressed in order to insure: a) the greatest possible credibility of the experimental situation and b) the best conditions for testing this technique. Our thinking was that the best chance for results with this technique would be with the strongest motivational conditions, i.e., with Ss who had indicated that indeed they wanted more information about their partner. We assumed that if the technique indicated any relationship in this case then it would be worth pursuing in future research under conditions which had no independent assessment of the S's motivation for more information or even under conditions where an independent indicator yielded information that S indeed did not want any information or desired information to a very small degree. Thus, in this research the informational choices were given only to those subjects who indicated they were at least moderately desirous of additional information about S.P. We used responses to the rating scale question of information seeking as an approximation of a moderate desire for more information. The rating scale went from desire more information about your partner a "very great degree" (1) to desire more information a "very small degree" (9). We assumed that the midpoint of the scale was a fairly good estimate of a moderate desire for more information. Thus the informational choices were presented to a given S when he had marked the rating scale anywhere between 1 and 5. At this point E said to S:

I see here that you circled that you want more information about your partner. Well we do have some information that you may see if you so desire. And since there is still some time before you meet your partner you might wish to look at it. For our analyses we have different kinds of information available. We have a brief paragraph describing each of the experienced partners in general

terms. We also are in the midst of tabulating the impressions that other Ss have written for each of the partners so we have some frequency data on what traits are used and how frequently these traits occur. We have tabulated this for about one-half of the subjects that we have run through the experiment. And of course we have all of the raw data, all of the cards that other Ss like yourself filled out in giving their impressions.

If you like you may see any or all of this information. Would you be interested? If yes-- which one(s) would you like me to get for you?

With S's response to this question the experiment was formally completed. At this time E introduced the fact that there was no real partner by saying to S: "OK, now I would like to tell you a little more about the research. This is private, I would like it to be just between the two of us."

E then indicated that the experiment was over at that point, that S would not work with a partner and that there were no more sessions. E continued and told S about the real purpose of the experiment explaining why it had been necessary to deceive S. S was requested not to reveal the real purpose of the experiment to fellow classmates. S was asked to give his word and was even told what to say if some classmates--other subjects--were persistent and wanted to know about the experiment. S was requested to say: "I worked with a partner and the experimenters asked me not to talk about the tasks that we worked on." E always asked S if he had any questions, comments, etc. and dealt with such as they occurred. Finally, S was paid and again thanked for his cooperation.

Pilot testing of the actual experiment was carried out with students in the Freshman Program of the City University of New York. Ten subjects were run, of these five were field-dependent and five were field-independent. In general, we found that our measures provided the necessary information. The experiment ran smoothly and the entire procedure proved credible. However, some Ss were suspicious when they realized the amount of time they were spending on the different tasks since they also expected to work with another partner within the one hour they had agreed to commit to the experiment. In order to reduce this basis for suspicion we eliminated one task from S's repertoire. We also found that the four structure questions could be further clarified by emphasizing that we wanted S's opinion of the extent to which he felt informed. A last thing we did to increase clarity was to slightly modify one or two of the bipolar adjectives used in testing the extremity hypothesis.

Measurement Techniques and Procedures

1. Field-Dependence and Field-Independence

As indicated in an earlier part of this paper the Group Embedded Figures Test (EFT, Form V) was used as a measure of field-dependence in this study. Field-dependence, in earlier studies, was defined by performance on three individually-administered laboratory spatial orientation procedures, each requiring S to adjust an object (which was sometimes his own body) to an upright position in the face of conflicting visual and proprioceptive cues. It was later discovered that performance on the individually administered EFT correlated

highly enough with these laboratory orientation measures to suggest its use as a measure of field-dependence (Witkin, 1950). Thus, the individual EFT yields an easier measure of this construct and hence has been widely used by several investigators (Jackson, 1956; Jackson, et al, 1964).

However, the individually administered test is uneconomical to use in the long run. In order to accumulate enough subjects who are clearly field-dependent and field-independent respectively, large number of Ss must be tested, thus, making the individual testing method very time consuming. Therefore, investigators have sought to devise group forms of the EFT.

The decision to employ the Group Form V of the EFT in the present study was based on the conclusions and recommendations made in an investigation by Jackson, Messick and Myers (Jackson, et al, 1964). In addition, this is the only group form of the EFT which Witkin (personal communication) feels is an adequate substitute for the individual EFT.

The Group EFT (Form V) is very similar to the individual EFT (see Appendix pp. A4-6 for copy of this test). The score is the number right in a 10 minute time period. As expected, correlational analyses between the Group EFT (Form V) and the individual EFT yielded a high positive correlation of .84 for males and .75 for females (N=52 males; 60 females).

The procedure used here for obtaining extreme groups in field-dependence and field-independence respectively duplicates what is customarily done in other studies (Witkin, 1954, 1962; Bieri, 1958). A large distribution of scores is obtained and then the population of scores is divided into thirds. Those individuals in the upper third of the distribution composed the field-independent group and those individuals with scores in the lowest third of the sample constituted the field-dependent group. Pilot testing of this form of the EFT produced a range of scores from 0 to 16 correct with a median score of 7.

2. Cognitive Complexity

The modified Role Construct Repertory Test used by Mayo and Crockett (1964) was employed to yield a measure of cognitive complexity for each subject. As with the EFT it was administered to Ss in the large lecture classes. (For instructions for the test and a copy of the test, see Appendix pp. A3, A7-12).¹

Let us briefly describe the test. Eight different role titles, eg. a girl friend, etc. are combined in all possible triadic combinations to yield five different sorts of three role titles each. A triad, then, consists of three individuals that S has filled in to the role title requirements, person one, person two and person three. For each triad S is asked to say how persons one and two are similar and different from

1. In one of the lecture classes the RCRT was administered on the same day as the EFT. In the second class, this procedure was unacceptable to the professor thus the RCRT was given out in this class after the entire experiment had been carried out. This explains why we don't have test scores for all Ss for this test. Several students who had served as subjects in the experiment were absent from class when we returned to administer the RCRT.

person three; how persons one and three are similar and different from person two and lastly, how the second and third persons are similar and different from the first person. Thus, S has to make three comparisons for each triad and since there are five triads this results in a total of fifteen comparisons. Following Crockett (personal communication) we adopted a strict definition of "similar" in scoring the test; a construct was not counted as a separate construct but was considered similar to another, only when it was identical to one previously given.

3. Measures of Involvement in Impression Forming Behavior

a) Observable Behavior relevant to Cognitive Processes

(1) Information Seeking--Each S was asked to indicate, on a nine-point scale, the degree to which he would like more information about his partner (S.P.). The defining endpoints of the response scale were a "very great degree" (1) and a "very small degree" (9) (Question 5 in the Subject Questionnaire, see Appendix pp.A15). We omitted the endpoint "seek no additional information" based on the finding from previous research by the author (Klau & Wolfe, 1966) that subjects do not choose this alternative and thus it is not a meaningful endpoint. Therefore, the question we were investigating in this study was the extent or degree to which information is sought and not whether information is sought or not.

As a further indication of the degree of information seeking we used a behavioral measure. Let us indicate here that we viewed this as a primitive, initial attempt in learning about the extent to which an individual will actually seek information after he has just indicated

that he is interested in knowing more about another when now provided with the opportunities for so doing. In order to avoid arousing suspicion in the S, i.e., asking him if he wants more information about his partner after he marked he was interested in more information to a very small degree and as well to test out this technique under optimal conditions we decided that a condition of moderate motivation was at least a necessary, if not a sufficient condition for behavioral information seeking. Thus, informational choices were given to Ss who indicated at least a moderate desire for more information and we used the midpoint of the rating scale as an estimate of some moderate desire for information, and therefore, as a cutoff point for determining who would receive the behavioral alternatives.

Therefore, Ss indicating at least a moderate desire for more information (scale score between 1 and 5) were offered three informational choices about S.P. These alternatives varied concomitantly in the degree of effort required to obtain information and the amount of information available. The informational alternatives were: the simplest and least informational choice--a brief summary paragraph written about S.P. (see Appendix pp.A18); the choice requiring the most effort and containing the greatest amount of information was the raw data impressions that all previous Ss had written about S.P. An intermediary choice was also provided, that being a frequency distribution of traits

used by other Ss in their impressions which was only half complete (see Appendix pp. A18).

b) Cognitive Product Measures

S's impression of S.P. was obtained by means of the card technique used by Zajonc (1960). Here S was required to write down any trait or characteristic or quality that he felt described S.P. the only limitation being one characteristic to a card. Any subject in the actual experiment who felt he had not formed an impression was given the opportunity to say so at this point.¹

(1) Differentiation--Differentiation of the impression was measured by the number of different traits or attributes listed by S (Zajonc, 1960). Pretesting this measure in two preliminary studies indicated that a wide range of scores can be obtained from this technique. In one study where S was asked to describe a person recently met the range of scores went from 3 to 23. In a pilot study duplicating the experiment proper we obtained a range of 5 to 12 characteristics.

1. One subject felt he was unable to restrict himself to one characteristic to a card in giving his impression. Since he had an impression which couldn't be assessed by our methods he was excluded from further analyses.

Another subject said he formed no impression. After questioning him we decided that this was not a defensive response but a possible response to our situation and since he felt he was able to complete the rest of the tasks we decided it was meaningful to include this subject in the remaining analyses.

(2) Unity of Impression--In order to ascertain how unified a given S's impression of S.P. was, that is, how consistent the impression was, S was asked to perform the same task that Zajonc (1960) had used with his subjects (For instructions given by E, see pp. 34). This procedure requires S to consider each characteristic and indicate all other characteristics that result in a change corresponding to a change in the focal characteristic. Unity was computed as follows: dependence between two traits received a score of "1" while non-dependence was assigned a score of "0." Unity was then defined as the sum total dependency for all traits divided by the maximum dependency of traits. The range of possible unity scores goes from 0 (least unified) to 1 (most unified). To facilitate use of the data all scores were multiplied by 100 thereby spreading the scale from 0 to 100. Pilot testing of this technique produced a range of scores from 5.30 to 66.67.

(3) Extremity of Trait Judgments--S was asked to rate S.P. on a number of nine-point bipolar adjective scales. Each scale ran from 4 to 0 to 4 with only the endpoints defined, for example, the scale for friendly-unfriendly appeared as follows:

4	3	2	1	0	1	2	3	4
Friendly								Unfriendly

(See Appendix pp.A14 for complete set of scales). In the main the list of bipolar traits consisted of characteristics that we found relevant to the S.P. when we first validated our tapes. We had the several classes of students at Brooklyn College listen to them and answer questions on the basis of what they heard. At the same time we also requested each

student to write his impression of S.P. A free response technique was employed so that they would spontaneously provide various trait names. A frequency tabulation of these data supplied us with a number of traits and their frequency of usage. The most commonly used characteristic to describe S.P. was "friendly," the second, "intelligent" and the third "orderly" (see Appendix pp. A20 for these tabulations). Our ten bipolar traits consist then of these three characteristics in addition to seven others which we selected from this tabulation to comprise a broad range of traits touching several different dimensions for viewing others.

In addition to Friendly-Unfriendly; Orderly-Sloppy; and Intelligent-Unintelligent the following trait pairs were selected: Undemocratic-Democratic; Follower-Leader; Tall-Short; Relaxed-Tense; Considerate-Inconsiderate; Good Speaker-Poor Speaker; and Competitive-Cooperative. It should be noted that in order to prevent any biases in responding we randomly varied the position of the positive endpoint for each trait pair.

We tested for differences in extremity of ratings in the following way. Since we were not interested in the content but rather in how extreme the ratings are, the direction of ratings was not considered in these analyses. Thus, going back to the example above this means that a rating of "4" indicating friendly and "4" indicating unfriendly were viewed as equivalent. Thus, analyses were carried out on half of the scale, i.e., a five point scale. In order to eliminate the zero category in the analyses (which would be implicitly defined here as the neutral or average point) we added a constant of one to

each point on the rating scale. Hence, the scale runs from 1 to 5 where 5 is the most extreme rating and 1 is the least extreme rating. Pilot testing of this measure revealed no problems; as noted, for greater clarity we did change one or two of the trait names. (The final list is given on pp. A14 in Appendix).

(4) Complexity of Impression--We had independent raters make judgments of the complexity of each subject's impression. They rated all impressions for complexity following the instructions below (Zajonc, 1960).

E instructed the two judges in the following way:

Lay out all the cards, from one subject, in front of you. Look them over carefully and notice whether they fall into some broad natural groupings. If they do, arrange them into such groups.

After you have done that--Now look at the groups one by one and see whether these can't be broken down into subgroups. It is also possible that these subgroups can be broken down, and so on.

When all of the cards are arranged into groups and subgroups, list your groupings on a sheet of paper as if they were points and subpoints of an outline. First give the names and titles to your groups and subgroups. Then in the right hand column list the letters of all characteristics that belong to the respective groups and subgroups.

The groups and subgroups were used to determine the levels of inclusion of attributes; they were the basis for computation of the complexity scores. Complexity was computed as follows: R stands for the level of inclusion of a given class, R=1 when a grouping doesn't contain a subclass, R=2 when a grouping includes some subgroupings but which in turn do not include other subdivisions, etc. The level of complexity is

gotten by weighing each attribute by the level of inclusion and summing all weighted attributes. The range of pilot scores obtained on this measure went from 3 to 15.

In order to determine the extent of inter-rater reliability we calculated a product moment correlation between the complexity scores of both judges. This resulted in a correlation of $r=.86$ which was judged to be a satisfactory degree of agreement. Looking at the data in another way on 13 out of 52 or 25% of the scores there was exact agreement between judges, for 5 out of 52 cases or 10% of the scores agreement was off by one, in 11 out of 52 cases or 21% agreement differed by two and taking into consideration the range of scores (from 0 to 43) it is impressive that more than half (56%) of the judgments were off only by differences of 1 or 2 points (see Appendix pp. A22, for complexity scores and correlational analyses). Given such high inter-rater reliability we concluded that we had obtained meaningful complexity scores. Thus, we had a measure of complexity of impression for each subject. In those cases where judgments of complexity differed between judges we asked the judges to go back over all data and mutually resolve their differences.

(5) Internal vs. External Traits--The ratio of External to Internal traits was obtained by having two independent observers categorize each trait in S's impression as either External or Internal. The criteria for determining whether a trait is External or Internal is the same as that used by Bieri (1958). A characteristic is external if it is either one of the following: a. physical characteristics (dark

hair), b. relationships (married), c. interests (interested in the ballet), d. similarities (similar tastes), e. activities (drives a car), f. liking (likes science) or is a characteristic which is more apparent, superficial or surface quality. A characteristic is classified as Internal if it expresses 1. underlying motivation, 2. emotional expression or 3. qualitative aspects of one's interpersonal relationship with another.

As with judgments of complexity prior to any hypothesis testing it was necessary to assess the extent of agreement between the judges' ratings. We did this by means of correlations between the ratings for the number of external traits and the number of internal traits. The obtained product moment correlations were $r=.83$ and $r=.90$ respectively which was judged to be a satisfactory degree of agreement. Or another way of realizing how good these correlations are is by noting that on 23 out of 52 cases or approximately 44% of the time the judges had complete agreement on both the number of external and internal traits. In those cases where discrepancies had occurred the judges were able to mutually resolve their differences (see Appendix pp. **A23-24** for coding of traits).

4. Testing the Experimental Manipulation

In order to determine if Ss did, in fact, experience the experimental manipulation, that is, the degree of structure of the social interaction context, Ss were asked to answer a set of relevant questions. They were requested to locate their position by circling the appropriate number, on a nine-point rating scale. The four

questions were as follows: 1. In general how well informed do you feel you are as a result of the information that your partner just gave you?, 2. How well informed do you feel you are about exactly what your partner's job on the task will be?, 3. How well informed do you feel you are about exactly what your job on the actual task will be?, 4. How well informed do you feel you are about exactly what the first task is all about? In addition, in those cases where there was misperception of the manipulation as indicated by responses to these questions E asked some probe questions to determine the cause of it. The kinds of questions that E asked were things like: Why have you responded in such a way?, Are you answering for yourself or your partner? What do you think you have to do?, etc.

Perception of the experimental manipulations in our pilot study revealed that the experimental manipulation was effective for all subjects except one. The latter misperceived because of certain idiosyncratic expectations.

CHAPTER III

RESULTS

A. Efficacy of the Experimental Procedure

The experimental design in the present study requires that we demonstrate first, that our subjects were sampled from the extremes of the field-dependence continuum; and second, that they perceived the interaction situation to which they were assigned as intended by the experimental manipulation. That is, subjects in the high structure condition perceive the role and task requirements as well defined as compared to subjects perception in the low structure condition where role and task requirements are poorly defined.

1. Selection of Field-Dependent and Field-Independent Ss

In order to answer questions regarding the ease of administering the Group Form V of the EFT and to gather some information about the range of scores possible, as well as to provide us with Ss for a pilot experiment, we gave the EFT to 46 students in the Special Freshman Program at the Graduate Center of the City University of New York in the Spring of 1968. The results of this testing revealed that: 1). that the instructions could be easily followed; 2). that the tests could be scored without difficulty; and 3). most importantly, that the scores were distributed over the entire range of all possible scores. A score on the EFT may vary from 0 to 16 correct (0=extreme field-dependence; 16=extreme field-independence). By definition the extreme

groups are the upper and lower thirds of the distribution. Thus, for this sample a mean score of 2.73 for the field-dependent Ss was obtained and 12.80 was the corresponding score for the field-independent Ss. (For the exact distribution of these test scores, see Appendix pp. A25).

For the main investigation, the extreme groups of field-dependent and field-independent Ss were obtained from pretesting all male students in the Freshman Program and dividing the obtained distribution of scores into thirds. This yielded 35 field-dependent and 35 field-independent Ss with means of 3.69 and 14.62 respectively. Because of the size of the mean score difference between our groups we concluded that we had sampled from the extremes of this distribution.¹

Of the seventy potential Ss we were able to successfully test twenty-six Ss from each end of the field-dependence continuum, 13 for each cell of the 2X2 design. We were unable to test thirteen Ss, eight field-dependent Ss and five field-independent ones, inasmuch as they refused to participate in the study for various reasons, eg. sickness, jobs, no desire to be a subject, etc. Two Ss were tested but their data could not be used for reasons to be discussed at appropriate points later on in this chapter. The remaining three

1. In comparison with our pilot data the mean scores for both extreme groups are somewhat higher although the difference between the means are approximately the same. This difference is probably due to the fact that our pilot data were based on males and females whereas our main investigation data result exclusively from male responses. Research has shown that females are characterized by greater field-dependence than males (Witkin, 1954; Witkin, 1962) and thus the lower mean scores.

field-independent Ss were not run because we wanted to avoid unequal numbers of subjects in each cell (See Appendix pp. A26 for complete breakdown of subject refusals). The Ss that were not used in the study appeared to be no different than the subjects that were included in the study, namely, with respect to their EFT mean scores (3.46 and 13.75 respectively).

2. Establishing the High and Low Structure Task Situation

To test the validity of the high vs. low-structure distinction we played the two versions of the tape to different classes at Brooklyn College. Each class listened to only one version of the tape. The students were instructed to listen to the tape as if they were actually going to participate in the task. The students then made many judgments about the tape. Since the findings for the pilot data repeat the main findings we have only given the main findings in the body of the paper (See Appendix pp. A28 for pilot findings).

Since our experimental variation consists of comparisons between subjects exposed to high and low-structured situations, it was essential to demonstrate that the experimental subjects in each group correctly perceived or experienced the interaction situation as intended. For this reason, analyses were performed on Ss' responses to four questions, which served as our primary measures of structure. It will be recalled that Ss were asked to rate how well informed they felt they were as a result of what their task partners told them via the tape presentation. They made this judgment generally, and then more particularly with respect to information given as to their partner's job, their own job, and finally, the task itself.

The students rated the tape they heard on nine-point scales, with the endpoints defined as "very well informed" and "very poorly informed" with zero being the midpoint of the scale. For the purpose of analysis the scales were renumbered from 1 to 9 so that a score of "1" meant "very well informed" and "9" "very poorly informed."

If a given S's responses to more than one question were beyond the midpoint of the scale in the direction opposite to the expected direction, S was questioned in order to determine whether he correctly perceived the presented description of the task situation given by his partner. For example, a given S was asked, "are you answering for yourself or for your partner?" Responses to these questions indicated that, rather than having misperceived the task situation sometimes S did not properly interpret our structure questions. Five subjects, who seemed to have perceived the structure situation in a way contrary to what we intended, were involved in the analysis because their responses to the special questions revealed it was a misinterpretation of the questions and not the experimental situation.

On the basis of the measure of structure-perception we found that all Ss except one perceived the high and low-structure situations as intended. The one subject that did not was excluded from further analyses. Thus the data for the experimental manipulations included the responses of 52 Ss.

According to Wantman (personal communication), Hays (1963) and MacNemar (1962) the statistical test which is most appropriate for analyses of our data is the 2X2 fixed effects analysis of variance. It is appropriate not only as a test of the experimental manipulations but

also for the other hypotheses being tested.

Table 1 shows the mean responses for field-dependent Ss and field-independent Ss and all Ss for all four questions. In all cases the means for the high-structure and low-structure conditions were in the intended directions respectively with differences between them highly reliable statistically as shown in Table 2. Some small differences between field-independent and field-dependent Ss were also found but these could be attributed to random variation as shown in Table 2.

Table 1.-- Mean responses for experimental manipulation questions for field-dependent, field-independent and all Ss in the high and low-structure conditions.

Ques. No.	High Structure			Low Structure		
	fd* n=13	fi n=13	all <u>Ss</u> n=26	fd n=13	fi n=13	all <u>Ss</u> n=26
1.	2.9	2.1	2.5	5.6	5.8	5.7
2.	3.5	2.6	3.1	6.3	6.5	6.4
3.	2.6	2.2	2.4	6.8	7.3	7.1
4.	2.3	1.5	1.9	6.5	6.5	6.5

* fd=field-dependent Ss; fi=field-independent Ss

Table 2.-- Analysis of variance for responses to experimental manipulation questions.¹

	Source of Variation	F	p
Q1 n=52	fdep vs. find (C) ²	< 1.00	n.s.
	Hi St. vs. Lo St. (R) ³	49.98	< .001
	interaction (RXC)	1.38	n.s.
Q2 n=52	fdep vs. find (C)	< 1.00	n.s.
	Hi St. vs. Lo St. (R)	48.87	< .001
	interaction (RXC)	< 1.00	n.s.
Q3 n=52	fdep vs. find (C)	< 1.00	n.s.
	Hi St. vs. Lo St. (R)	118.71	< .001
	interaction (RXC)	1.37	n.s.
Q4 n=52	fdep vs. find (C)	< 1.00	n.s.
	Hi St. vs. Lo St. (R)	102.51	< .001
	interaction (RXC)	< 1.00	n.s.

Key to Table 2 on pg. 55.

Key to Table 2

1. For complete analyses see Appendix pp.
2. fdep=field-dependent Ss; find=field-independent Ss
3. Hi St.=high structure condition; Lo St.=low structure condition.

Product-moment correlations were also calculated on the responses of these subjects to the four questions to determine whether the varying informational aspects of the partner's description evoked similar or differential reactions. It is possible, for example, that subjects might have perceived that they were well informed about the task and their partner's job but not their own job. It can be seen in Table 3 that generally speaking this was not the case. All correlations were highly positive and statistically significant with the average equal to .76.

TABLE 3.-- Product-moment correlations for all pairs of Ss' responses to questions of experimental manipulation.

Quest. No.	Quest. No.			
	overall	partner	self	task
1	1	2	3	4
overall		.61**	.76**	.73**
2				
partner			.81**	.80**
3				
self				.87**

**p < .01
n=52 for each correlation

The findings in Tables 1, 2, and 3 clearly permit us to conclude that the subjects in the high and low structure groups respectively did in fact perceive the task situation differently with respect to how much they knew about the task, their own role, their partner's role. Since

task structure was defined in these terms we could conclude that our situational structure manipulations were effective.

We constructed the tapes to be the same as possible in every way except in perceived structure. We used the same voice for both and the mode and length of the presentation was the same for the two tapes. Furthermore, from analyses of various pilot questions, we were also able to establish the fact that they were also the same in terms of their perceived difficulty, authenticity, and generality. In addition there was no difference between the tapes in terms of the amount of information they presented, and more importantly, in the amount of information recalled by subjects in the two structure groups (See Appendix pp. A29). Finally, there were no differences in the personality of the S.P. as a function of the differences in informational structure in presentations of the two tapes. Specifically, there weren't any differences between the tapes on several relevant S.P. traits, e.g., friendly, intelligent, informed, considerate, condescending-bossy, etc. as well as no difference between the groups on the total number of positive, negative and mixed or neutral traits assigned to the S.P. Thus, we were able to conclude that no gross personality differences were perceived between the high and low-structure tapes and that we were successful in creating two relatively neutral personalities (See Appendix pp. A30-31). It can be pointed out, however, that even if differences in personality were found, the research predictions in this study are structural and not substantive, hence, we would expect the effect of content of the impressions to be negligible for our structural hypotheses.

As a result of the information presented up to this point we can conclude that the experimental requirements of design were successfully met. In other words, our subjects were sampled from the extremes of the field-dependence continuum and they correctly perceived high vs. low-structure manipulations in the intended ways with no other essential differences in their perceptions of these manipulations.

As a last point fulfilling the requirements of the experiment, it must be mentioned that all Ss went through the entire experiment thereby giving credance to the general acceptability of the procedure and the actual effectiveness of the manipulations. When the majority of Ss were told about the real purpose of the experiment, after having participated in it, they reacted with shock and amazement. It was only after E had told Ss that they had been deceived, did any Ss voice suspicion and of the few that did, their suspicion was not based on anything they could point to in the experiment but rather on some general knowledge of experiments in psychology.

B. Involvement in Impression Forming Behavior

The reader will recall that it was assumed that differences in the arousal of the need for predictability would be reflected in impression forming behavior defined as information seeking, more differentiated and unified impressions, and greater use of extreme trait judgments. In Hypothesis 1 we considered the effect of situational differences predicting that Ss in the low structure condition would experience a greater arousal of the need for predictability than Ss in the high-structured group.

Hypothesis 2 focused on person factors and the prediction made that field-dependent individuals would have a greater need for predictability than field-independent individuals in a social interaction situation. And in Hypothesis 3 our predictions were derived from a consideration of the effects produced by the interaction of the variables of field dependence and structure. It was assumed that the effects of low structure would disproportionately effect field-dependent Ss and as a consequence we predicted that the difference between field-dependent and field-independent Ss under low structure would be greater than under high structure. Thus, on the basis of our basic assumption as stated above all three hypotheses were empirically tested in terms of the effect that each condition had on the specified cognitive activities and will be discussed below as a function of each cognitive dimension.

1. Information Seeking

Information seeking was first measured by having an S rate the degree to which more information about the S.P. was desired. Information seeking was further measured in those subjects who indicated in the initial rating they made that they were at least moderately interested in getting more information. These subjects were given the opportunity to get more information about S.P. by presenting them with a choice of three types of "additional information." They were free to choose one or more of these additional sources or even none at all. The results for information seeking will be discussed first for the rating scale data for all three hypotheses, i.e., high structure vs. low structure,

field-dependence vs. field-independence and the interaction of these variables and then for the more specific measure of information seeking.

a) The Rating Scale Measure of Information Seeking

(1) Structure Comparisons.-- Table 4, below, presents the mean scores for Ss in conditions of high-structure and low-structure when asked about the degree to which they desired to have more information about the S.P. It can be seen from this table that the variation between these means is slight. And it is also evident from Table 5 which shows the results of the 2X2 analysis of variance performed on these data, that the differences for the high vs. low-structure comparison are not statistically reliable.

TABLE 4.--Mean score seek more information as a function of high and low structure and field-dependent and field-independent Ss.

	fdep	find	D Score	all <u>Ss</u>
high structure	4.85	4.62	0.23	4.73
low structure	3.85	5.00	1.15	4.42
	4.35	4.81		n=52

TABLE 5.--2X2 Analysis of variance of high vs. low-structure and field-dependent vs. field-independent Ss for seek additional information scores.

Source of Variation	SS	df	MS	F	P
fdep vs. find (C)	2.769	1	2.769	1.00	n.s.
Hi Str. Vs. Lo Str. (R)	1.231	1	1.231	1.00	n.s.
interaction (CXR)	6.231	1	6.231	1.85	.12
error (within)	160.462	48	3.343		
total	190.693	51			n=52

Thus, structure comparisons in no way provided support for the hypothesis that more information will be sought in the low-structure interaction condition than the high one.

(2) Field-Dependence Comparisons. -- Responses to the rating scale question regarding the extent to which S desired more information about S.P. showed little variation between the means for field-dependent and field-independent individuals. It can be seen in Table 4 that the mean for the field-dependent group is 4.35, and a corresponding value of 4.85 for the field-independent group. The results of the analysis of variance for the main effects of field-dependence as shown in Table 5, above, indicate that no significant differences exist between field-dependent and field-independent individuals on this measure.

(3) Interaction of Field-Dependence and Structure Variations. -- The rating scale data for the interaction of field-dependence and structure indicate no significant relationship between variations of these variables as information seeking is indicated by this measure. As seen in Table 5, above, the interaction F is not significant.

Summing up the results of the data analyses for seek more information it can be concluded that there is an absence of any relationship between the rating scale measure of information seeking and the variable of structure, field-dependence and their interaction.

b) Behavioral Information Seeking

The data for behavioral information seeking can best be presented in three separate parts: first in terms of the selection procedure used to determine which Ss received behavioral choices since not all Ss were given such choices; second, of those Ss offered addi-

tional information how many accepted and how many rejected this informational opportunity; and finally, given the desire for information, how much information and what kind of information was chosen by those who finally chose.

The reader will recall the behavioral measure of information seeking was administered only to those Ss who indicated at least a moderate preference for more information about S.P. S's response to the rating scale question of information seeking was the basis on which we determined whether a subject would be offered additional informational alternatives. Moderate desire of interest was operationally defined as a scale score of 5 or less, hence, this was the cut-off point we employed and informational alternatives were given to Ss marking 1-5 that is "extremely interested in more information" to "moderately interested in more information" and only to those subjects. Table 6, below, presents the comparative number of subjects (and respective percentages as a function of the total number assigned to each condition, that is 26) for high-structure and low-structure who were "at least moderately desirous" and "less than moderately desirous" of more information about S.P.

As can be seen in Table 6, below, the majority of subjects in both conditions were at least moderately interested in more information, and moreover, this was true for a larger percentage of subjects in the low-structure condition (84.6%) in comparison to the respective percentage of Ss in the high-structure condition (69.2%). However, the chi-square analysis performed on the number of Ss rating the scale as

at least moderately vs. less than moderately interested in more information was found to be insignificant.

Similarly for the field-dependence comparison the majority of Ss in both groups were at least moderately desirous of more information and again analysis of the data, chi-square testing, resulted in insignificant differences although these differences were in the predicted direction.

In terms of the interaction effect of structure and field-dependence the data show no significant differences. Looking at Table 6, however, it can be seen that the data show no differences for the field-dependence groups for the high-structure condition but do indicate that these groups behaved differently, in the predicted direction, under low-structure.

TABLE 6.-- The number and percentage (as a function of the total number assigned to each condition) of Ss rating at least moderately desirous of more information about S.P. and less than moderately interested for structure and field-dependence comparisons.

	at least moderately interested				less than moderately interested			
	fdep	find	n	%	fdep	find	n	%
HiStr.	9	9	18	69.2	4	4	8	30.8
LoStr.	13	9	22	84.6	0	4	4	15.4
n	22	18	40		4	8	12	
%	84.6	69.2			15.4	30.8		

χ^2 Str. Comp. = 1.64 (with Yates' correction), df=1, p n.s.

χ^2 Fdep. Comp. = <1.00, df=1, p n.s.

As indicated we then considered what these "at least moderately interested" Ss did when given the opportunity for more information. Several alternatives were possible. The first choice a subject had was to

either accept some form of information or reject the information completely and take none of the alternatives. Of those who chose to get information they then had to decide how much or what kind of information they wanted. The data for acceptance vs. rejection of the information is given in Table 7, below.

Looking first at the data for high vs. low-structure, a greater number of low-structure Ss (15, Table 7) accepted some form of information relative to the number of high-structure Ss that did so (8, Table 7). An insignificant chi-square prevents us from concluding that structure is a statistically significant determinant of acceptance or rejection of more information.

16 Field-dependent Ss accepted some form of information and 6 rejected information while almost the reverse is true for the field-independent group (Table 7). Here only 7 Ss accepted information and 11 rejected information. The results of the chi-square performed on these data (see Table 7) revealed that this difference was significant and as such the obtained responses supported the hypothesis proposed in this research, namely, that field-dependent individuals seek more information relative to field-independent individuals.

TABLE 7.-- The number of Ss, for each condition, accepting or rejecting information.

	<u>accepted information</u>			<u>rejected information</u>			
	fdep	find	n	fdep	find	n	
HiStr.	5	3	8	4	6	10	
LoStr.	11	4	15	2	5	7	
<u>n</u>	<u>16</u>	<u>7</u>	<u>23</u>	<u>6</u>	<u>11</u>	<u>17</u>	TOT N=40

Str. Comp. = 1.00 (with Yates' correction), df=1, p n.s.
 Fdep Comp. = 4.14 (with Yates' correction), df=1, p < .01

In Table 8, below, we have given the data relevant for an interaction comparison. Since the numbers are so small this data allow us to conclude nothing more than that a slight tendency, in the predicted direction, was obtained.

TABLE 8.-- Number and respective percentages of Ss in each condition accepting information when offered.

	<u>field-dependent Ss</u>		<u>field-independent Ss</u>		<u>difference</u>	
	<u>n</u>	<u>%A¹</u>	<u>n</u>	<u>%B²</u>	<u>n</u>	<u>%A-B</u>
HiStr.	5/9	55	3/9	33	2	22
LoStr.	11/13	84	4/9	44	7	40

¹ = percentage calculated for fdep Ss under HiStr. and LoStr.
² = percentage calculated for findep Ss under HiStr. and LoStr.

The category of "accept more information" can be broken down into its component parts indicating the amount of information sought. The results of such a data breakdown can be seen in Table 9, below. Since the absolute number of cases within each cell was small, the expected frequency of several cells was less than 5, and therefore, statistical analyses were not possible. The Table, however, can be viewed in terms of possible trends for further investigation. It can be seen in Table 9 that if we combine percentages, that approximately

72% of the high-structure Ss either desired no information or chose the paragraph which was the least informational alternative, compared to 55% for the low-structure group. Combining the more informational choices, the corresponding figures for the two groups are approximately 28% and 46% respectively.

TABLE 9.-- Responses of Ss to informational alternatives--given in number and percentage for each structure group, field-dependence group and the interaction of these groups.

a) high-structure vs. low-structure

	<u>TOT</u>	<u>0</u>	<u>%0</u>	<u>P</u>	<u>%P</u>	<u>TL</u>	<u>%TL</u>	<u>RD</u>	<u>%RD</u>	<u>C</u>	<u>%C</u>
HiStr.	18	10	55	3	17	3	17	0	0	2	11
LoStr.	22	7	32	5	23	7	32	0	0	3	14

b) field-dependence comparisons

Fdep.	22	6	27	6	27	7	32	0	0	3	14
Findep.	18	11	61	2	11	3	17	0	0	2	11

c) interaction of a) and b)

HiStr.											
Fdep.	9	4	44	1	11	2	22	0	0	2	22
Findep.	9	6	66	2	22	1	11	0	0	0	00
LoStr.											
Fdep.	13	2	15	5	38	5	38	0	0	1	8
Findep.	9	5	55	0	0	2	22	0	0	2	22

Key

0=desired no information
P=desired paragraph only
TL=desired trait list only

RD=desired raw data only
C=desired any combination of P, TL & RD

Even more definitive than the results for structure were the results for the field-dependence comparison. As can be seen from Table 9, 54% of the field-dependent Ss either desired no information or chose

the paragraph but for the field-independent Ss the percentage was 72 %. For the more informative alternatives the combined percentage for field-dependent Ss was 46 % and only 28 % for the field-independent Ss (approximately).

When the subjects are separated into their respective field-dependence groups for each structural condition an interaction trend is not discernable. Here the percentage figures are based on such a small number of cases that it would be unwise to generalize to any populations beyond them.

Putting together all of the trends culled from the information seeking data, it can be seen first, that the rating scale measure by itself offers virtually no evidence to support a relationship between structural differences, field-dependence differences or interactional differences and the extent to which additional information is sought about the other. Thus, mere ratings of how much they desired more information produced no differences. With regard to the behavioral data the results are negligible. Although there was a repeated suggestion of supportive tendencies the magnitude of these does not warrant any definitive conclusions. Only one comparison was strong enough to glean statistical support and, thus, noteworthy. That is, the data indicate that field-dependent Ss as compared to field-independent sought more information as evidenced by the acceptance of information comparison.

An additional analysis was conducted which was unrelated to any specific hypotheses. Subjects were asked to rate, on a nine-point scale, the extent to which they desired more information about the task. The mean ratings are shown in Table 10. Analysis of the data for these responses, Table 11, reveals a significant difference between the high-structure and low-structure groups but no difference between the field-dependence groups or the interaction of these variables. Ss in the low-structure condition desired more task information than Ss in the high-structure condition. At one level this difference was expected and can be viewed as a further indication of the validity of the experimental manipulation but this finding may be more significant than that. It may be helpful in interpreting the overall findings for structure comparisons, something we will consider in our discussion.

TABLE 10.-- Mean responses to question of seek more information about the task. (The lower the scale score the more desirous of information).

	fdep.	findep.	diff.	all <u>Ss</u>
HiStr.	4.7	5.2	0.5	4.9
LoStr.	2.9	3.2	0.3	3.0
	3.8	4.2		n=52

TABLE 11.-- Desire for more information about the task, 2X2 analysis of variance for high and low-structure conditions and field-dependent and field-independent Ss.

Source of Variation	SS	df	MS	F	p
fdep vs. findep (C)	2.327	1	2.327	<1.00	n.s.
HiStr. vs. LoStr. (R)	46.173	1	46.173	10.84	<.005
interaction (CXR)	0.019	1	0.019	<1.00	n.s.
error (within)	204.462	48			
total	252.981	51			

2. Differentiation

Differentiation was measured by the number of different attributes employed by S in his impression of S.P. As shown in Table 12, below, the mean number of traits employed by Ss in the high-structure condition was 7.39 and the mean number of traits used by Ss in the low-structure condition was 6.92, the direction of the difference contradicting what was actually predicted. It is evident, however, in Table 13 that this difference is not statistically reliable; nor are any of the other mean differences shown in Table 12. Thus, our analysis shown in Table 13 indicates the absence of a relationship between the number of attributes used to describe S.P., i.e., differentiation, and structure of the situation, field-dependence vs. field-independence and the interaction between degree of structure and field-dependency.

TABLE 12.-- Mean number of traits for field-dependent and field-independent Ss and high and low-structure conditions.

	HiStr.	LoStr.	
fdep.	6.77	7.15	6.96
findep.	7.92	6.85	7.35
difference	1.15	0.30	
all <u>Ss</u>	7.39	6.92	n=52

TABLE 13.-- 2X2 analysis of variance, differentiation of the impression as a function of high and low-structure and field-dependent and field-independent Ss.

Source of Variation	SS	df	MS	F	p
fdep. vs. findep. (C)	2.372	1	2.372	<1.00	n.s.
HiStr. vs. LoStr. (R)	1.588	1	1.588	<1.00	n.s.
interaction (RXC)	7.079	1	7.079	<1.00	n.s.
error (within)	737.941	48	15.701		
total	748.980	51			

3. Unity

Unity, as defined operationally in this research, is the number of possible dependency pairs (a score of "1" was assigned to each dependency set, "0" if no dependency exists, therefore, unity=sum of dependencies/n (n-1). The range of possible unity scores goes from 0 (least unified) to 1 (most unified) but to facilitate handling of the data all scores were multiplied by 100 thereby spreading the scale from 0 to 100.

In Table 14 we have presented the means for each group in our 2X2 design. Inspection of these data, however, and the variances for the four groups clearly revealed that measures of unity were not normally distributed and revealed considerable heterogeneity of variance. Thus, we transformed these data using the square root plus .5 transformation as suggested by Johnson (1947). The means of the transformed data and the analysis of variance performed on the new scores are shown in Table 14 and 15 respectively. It can be seen from Table 15, however, that none of the comparisons are statistically reliable. There was a slight indication that low-structure Ss have less unified impressions than high-structure Ss which is contrary to our prediction.

TABLE 14.-- Original and transformed means of unity scores for field-dependent and field-independent Ss for high and low-structure Ss.

	HiStr.	LoStr.	
Original M			
fdep.	28.02	14.49	21.26
findep.	27.76	24.22	25.99
	27.89	19.35	
Transformed M			
fdep.	5.80	3.10	4.45
findep.	2.87	6.08	4.48
	4.33	4.59	

TABLE 15.-- 2X2 analysis of variance on square root plus .5 transformed unity scores for field-dependent and field-independent and high and low-structure Ss.

Source of Variation	SS	df	MS	F	p
fdep. vs. findep. (C)	4.23	1	4.23	<1.00	n.s.
HiStr. vs. LoStr. (R)	13.52	1	13.52	2.79	>.10 <.15
interaction (CXR)	1.17	1	1.17	<1.00	n.s.
within (error)	232.15	48	4.84		
total	251.07	51			

4. Extremity of Trait Judgments

In hypotheses 1d and 2d it was predicted that Ss high in field-dependence and those exposed to a low-structure task situation would make more extreme judgments of selected traits of the S.P. than Ss respectively low in field-dependence and those exposed to the high-structure task situation. It was also predicted (hypothesis 3d) that the difference in extremity of trait judgment between the field-dependent groups would be greater in the low-structure condition than the high-structure condition.

The test of the correctness of the extremity hypothesis was made for responses to each trait but prior to looking at these data a consideration of the total response repertoire is meaningful for several

reasons. First, such analyses provide information that increases the probability of greater accuracy of interpretation of the findings. For example, we could investigate the extent to which a pattern of responses was operative, i.e., was S's response to the ten traits the functional equivalent of two or three supraordinate categories. Second, and not at all unimportant, is that information about the total response repertoire provides us with information relevant to whether it is legitimate or not to combine the data for all ten traits or some of the traits. Thus, preliminary to hypothesis testing an overall analysis of the data was performed. A correlation matrix was constructed--the product-moment correlation was computed for all pairs of responses for all Ss.

TABLE 16.-- Product-moment correlation scores for extremity judgments for all Ss.

<u>Traits</u>	2. ¹	3.	4.	5.	6.	7.	8.	9.	10.
1. Intelligence	.33*	.33*	.17	.40**	.45**	.49**	.56**	.55**	.49**
2. Democratic		.26	.02	.46**	.40**	.04	.21	.43**	.49**
3. Leader			.26	.33*	.29*	.41**	.52**	.62**	.38**
4. Relaxed				.18	.30*	.13	.31*	.16	.31*
5. Tall					.39**	.17	.33*	.52**	.43**
6. Considerate						.41**	.57**	.44**	.41**
7. Good-Speaker							.59**	.48**	.31**
8. Friendly								.47**	.39**
9. Cooperative									.54**
10. Orderly									

¹ horizontal numbers defined as vertical numbers at left margin

* p < .05 (value to be significant r=.27), 2-tailed

**p < .01 (value to be significant r=.35), 2-tailed

n=52, for each correlation

Looking at the matrix of correlations given in Table 16 we can first point out that all traits were positively correlated with

each other with the majority of the magnitude of these correlations falling within the .30 to .60 range. Out of a total of 45 correlations thirty-five or approximately 78% of them were shown to be significant at less than the .05 or .01 level. Looking at the pattern of correlations it can be seen from the table that each trait had a total of nine possible comparisons and for all traits except one, five or more of these comparisons were significantly correlated. The one exception was "Relaxed" which correlated significantly with only three other traits.

Going directly to a test of our extremity hypothesis, as indicated, separate analyses were carried out for each trait as well as for the average of all traits.

(1.) Structure Comparisons.-- It can be seen in Table 17 that the obtained differences for structure comparisons were all statistically unstable with the exception of the trait-pair Good Speaker-Poor Speaker.

(2.) Field-dependence Comparisons.-- The relevant hypothesis regarding extremity and field-dependence was the prediction that field-dependent Ss would make more extreme judgments than field-independent Ss. In Table 18, below, the mean score ratings for each trait for our two field-dependent groups is given (note a rating of 5 is most extreme) and in Table 17 the results of analysis of variance testing for each trait is shown. Table 19 contains the analysis for the average ratings of traits for each subject for all traits.

TABLE 17.--Analysis of variance comparisons¹ for extreme trait judgments for structure and field-dependence variations.

Source of Variation	Intelligent Unintelligent		Democratic Undemocratic		Follower Leader	
	F	p	F	p	F	p
fdep. vs. findep. (C)	4.01	<.10>.05	<1.00	n.s.	2.08	<.25+>.1
HiStr. vs. LoStr. (R)	<1.00	n.s.	1.72	n.s.	<1.00	n.s.
interaction (CXR)	<1.00	n.s.	2.41	n.s.	<1.00	n.s.

Source of Variation	Relaxed Tense		Tall Short		Considerate Inconsiderate	
	F	p	F	p	F	p
fdep. vs. findep. (C)	<1.00	n.s.	6.73	.025	<1.00	n.s.
HiStr. vs. LoStr. (R)	<1.00	n.s.	<1.00	n.s.	1.04	n.s.
interaction (CXR)	<1.00	n.s.	3.44	<.10>.05	<1.00	n.s.

Source of Variation	Good Speaker Poor Speaker		Friendly Unfriendly		Competitive Cooperative	
	F	p	F	p	F	p
fdep. vs. findep. (C)	4.18	<.05	3.53	>.01<.05	5.96	<.025
HiStr. vs. LoStr. (R)	8.19	<.01	<1.00	n.s.	<1.00	n.s.
interaction (CXR)	5.37	<.05	<1.00	n.s.	<1.00	n.s.

Source of Variation	Orderly Sloppy	
	F	p
fdep. vs. findep. (C)	<1.00	n.s.
HiStr. vs. LoStr. (R)	<1.00	n.s.
interaction (CXR)	<1.00	n.s.

¹ For complete analyses, see Appendix pp. A32-33.

TABLE 18.-- Mean score ratings for field-dependent and field-independent Ss for each trait.

	fdep. <u>Ss</u>	findep. <u>Ss</u>
average	3.76	3.31
intelligent	4.17	3.69
tall	3.23	2.46
good speaker	3.92	3.35
friendly	4.02	3.42
competitive	4.14	3.54
follower	3.46	2.96
relaxed	3.96	3.73
considerate	3.73	3.54
orderly	3.77	3.65
democratic	3.15	2.96

TABLE 19.-- 2X2 analysis of variance for average of all trait judgments for field-dependence and structure comparisons.

Source of Variation	SS	df	MS	F	p
fdep. vs. findep. (C)	2.588	1	2.588	4.804	<.05
HiStr. vs. LoStr. (R)	0.339	1	0.339	<1.00	n.s.
interaction (CXR)	0.012	1	0.012	<1.00	n.s.
error (within)	25.859	48			
total	28.788	51			

What can be said about these data? First, for each and every trait field-dependent Ss rated it more extremely than field-independent Ss. Second, in five out of the 10 trait comparisons the extreme rating differences between field-dependent and field-independent Ss reached statistical significance. Further, looking at the average rating of all traits for each subject, by groups, it can be concluded that these averages are more extremely rated for field-dependent Ss as compared to field-independent Ss. Obviously this average is primarily contributed to by the specific traits which were differentially rated to a significant

degree. However, in those cases where the differences in ratings did not reach statistical significance the mean scores were in the predicted direction. Thus, our hypothesis that field-dependent Ss make more extreme judgments relative to field-independent Ss was borne out.

Why the ratings between field-dependent and field-independent individuals are statistically different for some traits while only directionally supportive for others is puzzling. One interesting notion or hypothesis suggests itself as an explanation of such a differentiation of the data. The nature of this breakdown and the hypothesized explanation will be discussed, in detail, in the discussion chapter of this paper. Suffice it to say here that those traits that did statistically differentiate were: intelligent, good-speaker, friendly, competitive and tall, while those that were supportive of directional differences were: democratic, a follower, relaxed, considerate and orderly.

(3.) Interaction Comparisons.--The relevant question here is do our field-dependence groups behave differently as a function of the condition of structure to which they were assigned? All except three interaction Fs were found to be insignificant, the exceptions being: good-speaker-poor-speaker, tall-short, and democratic-un-democratic and the differences for those three comparisons were not theoretically meaningful.

5. Substantive Trait Judgments

Although the predictions of the extremity hypothesis are non-directional, i.e., "extreme friendly" is viewed as equivalent to "extreme unfriendly" the data used to test this hypothesis can also be analyzed taking directionality into account. Reanalyzing the data in this way gives us information about the substantive impressions of S.P. and considering our discussion of the relationship between the structural and substantive impressions of S.P. we considered this a worthwhile if not necessary analysis to perform on the data. Thus, the ratings for the ten trait judgments were reanalyzed, this time taking direction into account and the results of these analyses are presented in the following section.

Re-analysis for direction means that our original nine-point scale 'friendly' (4)----(0)----(4) 'unfriendly' was re-numbered so that friendly was now assigned a scale score of "1" and unfriendly a value of "9". We have presented these results in Table 21.

However, here again a correlation matrix was first calculated for the data. The results of these computations can be seen in Table 20, below. Out of a total of 45 correlations only 18 or 40% of them were significantly different from zero. In comparison to the correlation matrix resulting from the extremity data far fewer correlations were significant and as such this suggests less of an interrelationship among the traits regarding the substantive impressions formed of S.P. Only two traits were significantly correlated to a number of other traits (more than five out of the total ten) and these traits were "Friendly" and "Intelligent". Perhaps these function as central traits (Asch, 1946).

TABLE 20.-- Product-moment correlation scores for substantive judgments for all Ss.

Traits

	2. ¹	3.	4.	5.	6.	7.	8.	9.	10.
1. Intelligence	.19	.33*	.17	.13	.35**	.55**	.57**	.16	.51**
2. Democratic		.15	.17	.13	.44**	.19	.24	.28*	.07
3. Leader			-.02	-.07	.07	.34*	.33*	0	.01
4. Relaxed				.28*	.22	.07	.34*	.07	.28*
5. Tall					.03	-.16	-.16	-.09	.39**
6. Considerate						.35**	.48**	.36*	.22
7. Good Speaker							.53**	.21	.18
8. Friendly								.09	.34*
9. Cooperative									1.08
10. Orderly									

¹ horizontal numbers defined as vertical numbers at left margin

* p .05 (value to be significant r=27),
2 tailed

** p .01 (value to be significant r=35),
2 tailed

(1) Structural Comparisons.-- As can be seen from Table 21 eight out of the ten analyses for the structure comparisons were found to be insignificant. What this means is that S.P. in the highly-structured condition was seen as equally: 1) intelligent, 2) democratic, 3) a follower, 4) relaxed, 5) considerate, 6) friendly, 7) orderly and 8) competitive as S.P. in the low-structure condition. For the remaining two analyses significant differences were obtained. In other words S.P. was rated more often as a good-speaker and taller in the high-structure group relative to the low-structure ratings.

TABLE 21.-- Analysis of variance comparisons¹ for directional trait judgments for structure and field-dependence variations.

Source of Variation	Intelligent		Democratic		Follower	
	Unintelligent		Undemocratic		Leader	
	F	p	F	p	F	p
fdep. vs. findep. (C)	3.39	<.10>.05	3.79	<.10>.05	1.79	n.s.
HiStr. vs. LoStr. (R)	<1.00	n.s.	1.82	n.s.	<1.00	n.s.
interaction (CXR)	<1.00	n.s.	<1.00	n.s.	1.45	n.s.

Source of Variation	Relaxed		Tall		Considerate	
	Tense		Short		Inconsiderate	
	F	p	F	p	F	p
fdep. vs. findep. (C)	1.86	n.s.	1.21	n.s.	<1.00	n.s.
HiStr. vs. LoStr. (R)	<1.00	n.s.	5.89	<.025	<1.00	n.s.
interaction (CXR)	<1.00	n.s.	<1.00	n.s.	<1.00	n.s.

Source of Variation	Good Speaker		Friendly		Competitive	
	Poor Speaker		Unfriendly		Cooperative	
	F	p	F	p	F	p
fdep. vs. findep. (C)	7.70	<.01	1.33	n.s.	<1.00	n.s.
HiStr. vs. LoStr. (R)	5.79	<.025	<1.00	n.s.	3.29	<.10>.05
interaction (CXR)	4.44	<.10>.05	<1.00	n.s.	<1.00	n.s.

Source of Variation	Orderly	
	Sloppy	
	F	p
fdep. vs. findep. (C)	<1.00	n.s.
HiStr. vs. LoStr. (R)	<1.00	n.s.
interaction (CXR)	<1.00	n.s.

1 For complete analyses, see Appendix pp. A34-35.

(2) Field-dependence Comparisons.-- Nine of the ten trait comparisons were not significantly different. The significant trait pair was: good speaker-poor speaker. More specifically field-dependent Ss perceived S.P. as a relatively better speaker than field-independent Ss.

(3) Interaction of Field-Dependence and Structure Variations.-- The only significant interaction trait comparisons was good speaker-poor speaker.

Summary of Results: Involvement in Impression Forming Behavior

In sum, the following results were obtained:

1. with regard to seek additional information only one comparison supported our hypothesis, namely, that field-dependent Ss seek more information (as measured by acceptance of some information) relative to field-independent Ss.

2. for unity and differentiation there is no evidence in support of any relationship between the effect of structure and extent of field-dependence on these variables of impression formation in a first meeting context.

3. concerning extremity of judgments--the data reveal strong support of our hypothesis that field-dependent Ss make more extreme judgments than field-independent Ss and is nonsupportive regarding the structure and interaction variables.

C. Cognitive Differences: Field-Dependent vs. Field-Independent Individuals

1. Cognitive Complexity

Our measure of cognitive complexity was the number of different attributes or constructs provided by S in response to a modified version of the Role Construct Repertory Test (Mayo & Crockett, 1964). The maximum score (greatest complexity) on this test was 15-- one construct for each comparison--and the lowest score was 0 or no constructs provided. The mean score for each group are given in Table 22. As can be seen the mean number of constructs employed by field-dependent Ss was 9.39 while the corresponding mean for field-independent Ss was 10.90.

TABLE 22.-- Mean complexity scores for field-dependent and field-independent Ss in high and low-structured groups.

	HiStr.	LoStr.	
fdep. <u>Ss</u>	8.44	10.33	9.39
findep. <u>Ss</u>	11.09	10.56	10.90

diff.	2.65	0.23	

	9.77	10.45	

We had hypothesized (Hypothesis 4) that field-independent individuals would be characterized by greater cognitive complexity than field-dependent individuals. Thus, the obtained mean difference was in the predicted direction and as the results of the analysis of variance testing show (presented in Table 23) the difference borders on being statistically significant.

TABLE 23.-- 2X2 analysis of variance for RCRT scores for field-dependent and field-independent Ss in the high and low structure conditions.¹

Source of Variation	SS	df	MS	F	p
fdep. vs. findep. (C)	36.00	1	36.00	4.09	< .10 & > .05
HiStr. vs. LoStr. (R)	0.11	1	0.11	< 1.00	n.s.
interaction (CXR)	28.45	1	28.45	3.23	n.s.
error (within)	282.00	48	8.81		
total	346.56	51			

1 Analysis of variance based on 9Ss within each cell.

Looking at the absolute scores themselves if we consider all possible scores (0-15) as a scale and then divide this scale at the midpoint a score of 0 to 7 would indicate relative simplicity while a score of 8 to 15, relative complexity. In fact 14 out of 18 or 75% of our field-dependent Ss had scores above 7 and 17 out of 20 of the field-independent Ss or 85% had scores above the midpoint of the scale. The differences we obtained were differences within a fairly narrow range of relative complexity.

2. Impression Differences as a Function of Cognitive Differences

a. Complexity of Impression

In Hypothesis 5 we predicted that field-independent individuals would form impressions of S.P. that would be more complex than the impressions formed by field-dependent Ss. Complexity it will be remembered was defined by the level of inclusiveness of the attributes of an impression. Thus each attribute of an impression was weighed by an appropriate factor and the sum of the weighted attributes was taken as a measure of how complex the impression was. The higher the score the more complex the impression. Mean scores for this measure are shown in Table 24, below.

Field-dependent Ss had a mean complexity score of 12.85 while field-independent Ss had a mean complexity score of 13.73. Although these mean scores are in the predicted direction the F score for field-dependence differences resulting from analysis of variance testing was not significant (See Table 25). Thus, there is no basis for accepting Hypothesis 5.

TABLE 24.-- Mean responses for complexity of impression scores for field-dependent and field-independent Ss for high and low-structure groups.

	HiStr.	LoStr.	
fdep. <u>Ss</u>	12.54	13.15	12.85
findep. <u>Ss</u>	16.92	10.54	13.73

diff.	4.38	2.61	

	14.73	11.81	

TABLE 25.-- 2X2 analysis of variance for complexity of impression for field-dependent and field-independent Ss and high and low-structure conditions.

Source of Variation	SS	df	MS	F	p
fdep. vs. findep. (C)	10.17	1	10.17	<1.00	n.s.
HiStr. vs. LoStr. (R)	108.17	1	108.17	1.30	n.s.
interaction (CXR)	159.25	1	159.25	1.92	n.s.
error (within)	3985.07	48	83.02		
total	4262.67	51			

b. Internal vs. External Traits

As stated in Hypothesis 6 we expected the ratio of external to internal traits to be positive for field-dependent Ss and negative for field-independent subjects. In order to perform analyses on data for the number of external vs. internal traits without a biasing effect from variations in the total number of traits used by each subject, percentage

scores for each category of trait were computed on the basis of the total number of traits used by each subject. Table 26 presents the respective percentages used by field-dependent and field-independent subjects in their impressions of S.P.

TABLE 26.-- Percentages of external and internal traits used by field-dependent and field-independent individuals in their impressions.

	% external	% internal
fdep. <u>Ss</u>	37.09	62.91
findep. <u>Ss</u>	31.78	68.22

While our research hypothesis predicted that the ratio of external to internal traits would be positive for field-dependent subjects and the opposite for field-independent Ss by simple inspection of Table 26 it is apparent that this hypothesis was not supported. Given the nature of our testing situation (e.g., listen to S.P. over tape-- not visually present) we decided that the form of the hypothesis was too extreme and perhaps a more moderate hypothesis would be appropriate. Thus, we ventured to predict that field-dependent Ss would use a greater percentage of external traits relative to field-independent Ss. The data do suggest that there may be differences in the extent to which external traits are employed by these groups. However, the analysis of variance, see Table 27, showed that the main effects of field-dependence were insignificant.

TABLE 27.-- 2X2 Analysis of variance testing for percentage of external traits as a function of field-dependence differences and structural differences.

Source of Variation	SS	df	MS	F	p
fdep. vs. findep. (C)	366.76	1	366.76	<1.00	n.s.
HiStr. vs. LoStr. (R)	63.18	1	63.18	<1.00	n.s.
interaction (CXR)	107.65	1	107.65	<1.00	n.s.
error (within)	27311.25	48	568.98		
total	28318.84	51			

D. Additional Analyses - Cognitive Complexity Comparisons

An additional set of analyses, unrelated to any specific hypothesis, was computed. S's score on the Role Construct Repertory Test gave us a measure of subject cognitive complexity. Comparisons were made between high and low cognitive complexity groups for variables of impression formation.

In order to obtain high and low complexity groups we split the distribution at the median (score of 11) and this resulted in a high complexity group, consisting of all scores falling at the median and above, and a low complexity group defined as all scores below the median. The data were analyzed by means of t test analyses. The results of these analyses are presented in Table 28. Looking at this table, we can evidence that subject complexity makes a difference in the differentiation of the impression and has no effect on any of the other variables. Specifically, high complexity Ss form more differentiated impressions than low complexity Ss.

TABLE 28.-- Mean scores and t tests for subject complexity comparisons.

	high complexity	low complexity	t	p
seek more information	4.59	3.88	1.40	n.s.
differentiation	8.41	5.13	2.31	<.05
unity	27.20	24.31	<1.00	n.s.
extremity	3.55	3.50	<1.00	n.s.
complexity	16.00	12.19	1.30	n.s.
% internal traits	63.07	61.90	<1.00	n.s.

CHAPTER IV

DISCUSSION

This research addressed itself toward testing several hypotheses concerning the relationship between selected personality factors and social context factors on the nature and extent of impression formation. It was hypothesized that impression formation, a cognitive activity, is tied to the personality variable of field-dependence and the situational variable of the structure of an interaction context. As will be recalled, it was assumed that at the root of impression forming behavior is an individual's need for predictability and it was further assumed that the greater an individual's need for predictability the greater the extent to which an individual will be involved in impression forming behaviors or in other words the greater the cognitive involvement. Thus our major hypotheses were that subjects high in field-dependence or in a minimally structured interaction situation would show greater cognitive involvement than subjects low in field-dependence or in a relatively more structured situation and that the interaction of these variables would result in greater differences between the field-dependence groups in the low-structured situation than in the high-structured situation. Greater cognitive involvement was hypothesized to be revealed by: greater information seeking behavior, differentiation, unity and extremity of the impression.

Generally, it is true that most of our hypotheses were not

supported by the obtained data. More specifically, the data revealed that variations in structure were unrelated, in any statistically significant way, to any of the hypothesized dependent variables.¹ The findings for field-dependence yielded some support. Field-dependent Ss: 1.) sought more information about the S.P. following interaction (on one comparison) and 2.) made more extreme judgments of the S.P., than field-independent Ss. Regarding the effects of the interaction of the independent variables suffice it to say that an absence of main effects implicates an absence of interaction effects. In summary, then, field-dependence related to the variables of information seeking and extremity, as indicated above, and had no effect on the extent to which impressions were unified or differentiated while structure was virtually unrelated to any of these variables.

The secondary focus of this research addressed itself to cognitive style differences between field-dependent and field-independent individuals and the resulting consequences that such differences have on impressions of others. We had hypothesized, in Hypothesis 4, that field-independent individuals were characterized by greater cognitive complexity than field-dependent individuals. The data indicate some support of this hypothesis; the analysis of

1. The data did indicate that structural variations were related to the extent of additional information seeking about the task. Subjects in the interaction context which was low in structure sought significantly more information about the task than subjects in the highly structured setting. No hypothesis was made predicting this relationship.

variance bordered on significance. As for the effect that cognitive style differences had on the actual impression, the data indicate no supportive evidence. That is, there was no difference in the complexity of impressions (Hypothesis 5) and in the level of attribute (Hypothesis 6), between field-dependence and field-independence Ss.

Our data afforded us the opportunity of making another set of comparisons (no hypotheses) which were considered potentially interesting. We reanalyzed all the impression formation data using the Ss cognitive complexity score (obtained from the RCRT) as an independent variable to see if variations in subject cognitive complexity were systematically related to any of the dependent cognitive variables. The data here indicate that cognitively simple Ss form less differentiated impressions relative to cognitively complex Ss. While cognitive complexity was found to be related to differentiation it was found to have no relationship to the variables of seek more information, unity, extremity, level of attribute and complexity of impression. The results of this research will be discussed in detail below.

This discussion will first examine the procedures used in measuring the dependent variables as they relate to an understanding of the data. Secondly, it will deal with the implications of the obtained data with respect to the original theoretical formulation. Lastly, suggestions regarding the directions for future research will be proposed.

As will be recalled, structural variations had no effect on information seeking while there was some nominal behavioral support for information seeking for the field-dependence comparison. A closer

look at the measures used in investigation of this variable indicated that the measurement procedure although reasonable and acceptable, was limited.

Information seeking was assessed, in this study, in two ways. Both measures tapped information seeking following some initial period of interaction, as hypothesized. Information seeking was first assessed by asking Ss to respond to a written question regarding the extent to which they were interested in more information about S.P. Our second measure of information seeking was behavioral (it offered some attempt to go beyond a paper and pencil response) but was admittedly primitive. The behavioral choices were given only to those subjects who indicated that they had at least some interest or desire in obtaining more information about S.P. (75% of our Ss were tested behaviorally). Although this procedure was based on a logical rationale our findings were difficult to interpret in part due to the behavioral measure employed.

Some discussion of the rationale for employing a behavioral cut-off procedure is warranted. We decided on the use of a cut-off point because we felt it would be foolish to ask Ss if they wanted more information when they had just previously indicated a very slight desire for more information. Thus, we were implicitly assuming that, at minimum, a moderate desire for more information (as marked on a rating scale) was a necessary but not sufficient condition for behavioral information seeking. In other words behavioral information seeking required a "motivated" S. Secondly, we were implicitly assuming some consistency of responses between

cognitive preference and related behaviors. Analysis of the obtained data brings these assumptions into question. Namely, the data indicate a substantial percentage of "motivated" subjects, when given the option for more information, turned it down. Thus, the obtained inconsistency, warrants that any future testing of behavioral information seeking be administered to all subjects.

Comments accompanying Ss responses to the behavioral measure offer some notions for understanding the data and also suggest the possibility of another limitation of the behavioral as well as the rating scale assessment of information seeking. Subjects expressed the following kinds of comments: "I want to judge for myself," "I'm not interested in what other people say." These comments in combination with the nature of the experimental situation in which this measure was tapped (female E explicitly asks male Ss to indicate and demonstrate the extent to which they seek more information in her presence) lead us to speculate about the difficulties of assessing information seeking when it is overt or public and subsequent to the interaction context. It seems reasonable to suggest that factors like social desirability, self-esteem, etc. may have suppressed Ss responses. Information seeking may not be readily admitted; it might even be censored and a further question to be investigated would be the extent to which it is conscious behavior. Thus, a more fruitful measure of information seeking might be covert, anonymous, or private and perhaps the optimal assessment would consist of recording relevant non-verbal behaviors, eg., eye-contact, body position, etc. during the interaction proper.

As will be recalled we found no evidence that variations in structure and field-dependence resulted in varying degrees of differentiation as one measure of cognitive involvement. The lack of any relationship between either variable raises some pertinent questions: to what extent is this cognitive variable solely a function of the characteristics of a subject as opposed to transient situational factors? If this is relevant to subject variables can we specify the nature of this subject variable? And lastly, what are the limitations inherent in our measure of differentiation?

Looking not only at our data on differentiation but that of Wolfe (1969), Bieri (1962), Crockett (1965) and Leventhal and Singer (1964), we can conclude that much of the literature seems to indicate that the concept of differentiation is related to a specific subject variable. These studies have shown that individuals who are cognitively complex structure the world in a more differentiated and complex fashion than cognitively simple individuals. This has been demonstrated not only for persons whom are well known to the subject but also with persons who the S is perceiving in a first meeting situation. Thus, our data (we compared groups differing in subject cognitive complexity), in conjunction with past research, indicate that differentiation, as one measure of cognitive involvement, must be viewed in terms of the individual's initial cognitive structure, i.e., the extent of cognitive complexity-simplicity. The effect that situational variations or other person factors have on the cognitively complex or simple individual is a question that should be studied

in future research.

Although our measure of differentiation was a reasonable one it still remains limited in various ways. Possibly, a simple number-notion of differentiation conceals important complexities of this concept. A given characteristic may differ not only in phenomenological meaning, among perceivers, but it may also differ in the range and relationship of associative connections that use of such a characteristic implies. Such associations may be of a cognitive or affective nature and may be of varying awareness to the individual. Such differences may result in one person listing one characteristic (which has a number of dependent associations which he has not made explicit) and another person listing every characteristic that comes to his mind. Who has the more differentiated impression? It would appear from our definition that the latter does. But that decision is moot. Further, we can ask to what extent are "different" characteristics redundant? Since our subjects wrote their own impressions we simply counted the number of characteristics, disregarding the content. If one hypothetical impression consisted of five redundant or extremely similar characteristics while a second hypothetical impression employs two non-redundant or very dissimilar characteristics which impression is more differentiated? This possibility might be especially applicable for our field-dependent comparisons. These examples point out possible complexities of the concept and lead us to suggest that future research involving differentiation employ a more sophisticated form of concept measurement.

As indicated our data also revealed an absence of any relationship between unity--our second hypothesized measure of cognitive product involvement--and our independent variables. While the literature evidences that differentiation is significantly related to subject variable differences this is not the case for unity.² Thus, it would seem reasonable, as Wolfe (1969) suggests, that unity might be one measure reflecting the effects of situational or other motivational states. Perhaps our lack of findings has to do with the nature of the stimulus employed in this study. The bulk of the work done on unity was with a stimulus which was contradictory or inconsistent in some way, and hence, relatively compelling. For reasons to be discussed later, the stimulus employed in this study was not contradictory or especially compelling, rather it was relatively neutral.

The findings for extremity--our third measure of cognitive product involvement--were shown to be significantly related to variations in field-dependence. While all comparisons were in the predicted direction, as many as five out of ten were statistically stable. Statistically significant rating differences occurred for the following traits: good speaker, intelligence, tall, friendly, and competitive while only directional differences were found for follower, relaxed, considerate, orderly, and democratic. Looking at the two groups we notice that those that statistically differentiated appear to be more characteristic of

2. Our data for the subject complexity analyses is additional confirming evidence that unity is not a manifestation of some subject-variable. We found no difference between cognitively simple or complex Ss on the measure of unity.

a leader or someone in a position of authority while those that do not seem to characterize someone with less power or a follower. That field-dependent individuals would place the other in a super-ordinate position, relative to themselves, is understandable. Since they are dependent on others, it is certainly reasonable that they attribute greater power to others. Thus, the need for predictability is met not only by greater use of extreme traits but, more specifically, by greater use of those traits attributing greater power, stature or leadership qualities to the other. To the extent that "extremity" is a meaningful dimension of cognitive involvement with field-dependence Ss our data suggest that extremity differences will more readily occur with S.P. traits attributing greater power or authority.

Our measures of complexity of impression (Hypothesis 5) and type of trait (Hypothesis 6) relate only to field-dependence comparisons and are derived from our fourth hypothesis which predicted that field-independent Ss are characterized by greater cognitive complexity relative to field-dependent Ss. Thus, theoretically support for our measure of type of trait and complexity of impressions can be no greater than the extent to which our initial hypothesis was supported. As stated, we found that the data for this hypothesis bordered on significance thereby leading us to the expectation that, at most, a minimal relationship may exist between type of attribute employed and how complex the impressions are. Our obtained lack of relationship between field-dependence and cognitive complexity appears to further

evidence the specificity involved in various cognitive styles. While the implications for articulations between these two dimensions were there (as specified in the rationale for Hypothesis 4) perhaps some additional points of clarification are relevant here. First, basic measures of field-dependence are not person perception measures, they relate to differences in object perception while cognitive complexity is a direct person perception construct. Thus, the results for field-dependence from non-person measurements, might not be applicable for person measurements. One plausible explanation why person perception might be different is the field-dependent individual's relatively greater interest in the social world, and hence, a corresponding set of constructs for judging others that relates to this interest in some way. That the inverse of our hypothesis was not found was interesting also. At any rate, at most our data indicate there is slight evidence to support the notion that field-independent Ss are more cognitively complex than field-dependent persons but the relationship is far from strong or definitive.

In sum, the main points to be gleaned from the preceding discussion are as follows: 1. recognition of the difficulties of operational definitions of cognitive involvement, in general and in the specific measures employed in this study; modifications for future measures were suggested, 2. that the source or nature of motivation (eg., perceiver variables, situational or transitory variables) may be reflected in differential cognitive factors or in other words, the same cognitive variables may not reveal all motivational variations and 3. that, perhaps, certain cognitive variables have to be

more precisely delineated in terms of their bounds of applicability, eg., unity, extremity.

At this point we will address ourselves to the question of what meaning the findings obtained in this study have in terms of the original formulation. In other words, what revisions in theory are indicated as a result of the data of this research.

As we indicated in the introduction, the conception of cognitive involvement is extremely complex. The sparcity of positive results makes it difficult to delineate a detailed, comprehensive revision of the theory. However, some general directions do suggest themselves.

As a first point, our data seem to indicate that there are no general, across the board, indicators of cognitive involvement. Rather, cognitive involvement seems to be tied to more specific factors. It is suggested here that at least some cognitive variables reflecting cognitive involvement are uniquely tied to various perceiver factors. The significant findings for extremity (and to a slight extent, seek more information) suggest the possibility that this variable in some way uniquely relates to the dimension of field-dependence and is thus relevant for a manifestation of cognitive involvement in this research when we, in fact, compared Ss varying in field-dependence. We are speculating that extremity (and seek more information) was reflective of cognitive involvement with Ss varying in field-dependence because some "frame of reference" was available to be used by the subject as needed. Either S sought out this frame of reference (seek more information) or facilitatively

manipulated it (extremity). In this line of thought we hypothesize that seek more information would have been a more potent variable if the nature of the informational source had been more clearly informed, credible or authoritative. Besides extremity and seek additional information no other cognitive variable employed in this study had such a unique connection which jibed so nicely with the conception of field-dependence. In terms of what we know about the field-dependence dimension some other predictions germane to cognitive involvement present themselves. We are suggesting that future research investigate field-dependent and field-independent cognitive involvement with measures of cognitive involvement that are specific to that dimension. From the literature (Messick and Damarin, 1964; Witkin, 1962) we would speculate that differences between field-dependent and field-independent Ss in first impressions would occur in the following dimensions: 1. degree of visual cues recalled, 2. degree of conformity of impression, and 3. degree of interest in the other. (Another demonstration of the specificity of perceiver variables and cognitive dependent variables was obtained with the subject complexity data. Subjects differing in personal cognitive complexity produced first impressions of varying differentiation. Here again differentiation is directly relevant to the conception of subject complexity. These data are consistent with the literature indicating the importance of perceiver factors on first impressions.)

In terms of our formulation what is implied is a revision in our theoretical formulation. We had proposed the same cognitive variables to reveal differences as a function of varying motivational

sources. The data seem to suggest that the extent of cognitive involvement be investigated as a function of the particular source of motivation.

Our data concerning the situational variable of structure suggests it does not have any effect on cognitive involvement. This seems to support Wolfe's lack of findings regarding situational variations as they effect certain impression forming behaviors. Several possibilities suggest themselves. First, variables other than those investigated in this research and Wolfe's study may be pertinent to situational variations. Some variables that come to mind that might meaningfully reflect the effects of situational motivations are the following: a) the extent to which the impression is "focused" or "general," b) the "transience" or "permanence" of the impression, etc. Second, situational factors may reveal themselves in other aspects of first impression, e.g., content, affective component or related behaviors. Or thirdly, the effect of the situation may come into play on top of perceiver variable differences. Future research is necessary to decide on the correctness of these suggestions.

Another question that can be considered is whether variations in the need for predictability are most profitably revealed in the structural dimensions of an impression. Future research should explore the possible relationship between the need for predictability and the nature of the substantive impression. Such variables that we might speculate to be related to an increased need for predictability are: 1) extent of projection, 2) redundancy of impression.

A last point that can be raised is the nature of the particular experimental situation employed in this study. Since Wolfe (1969) employed a strong positive and negative S.P. and found that the properties of S.P. appeared to overwhelm any effect of the experimental manipulations, it seemed indicated that a more efficacious test of the independent manipulations would be fulfilled when the nature of the S.P. was relatively neutral and the S.P. of this research was designed to be relatively neutral. Thus, we would expect S.P. intrinsically not to compel the individual to be especially interested in him. It might be interesting in future research to get some measure of the impression formed based on the nature of S.P. only. Such a baseline impression may be useful in then assessing effects of other sources of motivation on the impression. Next, we might ask what does knowing about S.P. do for the S in our particular experimental design. In general, as our design indicates, knowledge of the other is sought when there is minimal information about how to proceed in the interaction situation. Although, in the abstract, this still sounds plausible, perhaps our experimental design did not optimize these effects. For purposes of experimental control we had Ss listen to a tape of S.P. rather than actually interact in a real situation with a real S.P. Thus, it is conceivable that the listening to the tape allowed S to focus less on his feelings and thoughts about S.P. but put in the actual situation he may have responded differently. And finally it may be suggested that this situation was less likely to maximize impression formation. Other situations appear more potent in the arousal of impression forming behaviors.

For example, we are speculating that there is a greater probability that knowledge about the person would be sought and an impression formed when the nature of the situational ambiguity is directly person-relevant. Examples that come to mind are: a blind date, a job interview, some unusual or unexpected behavior of a person performing a defined role. A second class of situations which could be more or less structured and meaningful for a study of the arousal of the need for predictability are emergencies or crises (e.g., stuck in an elevator, etc.) where dealing with the crisis would clearly be facilitated by interacting with others. While our particular experimental design was certainly appropriate and reasonable for fulfilling our conditions of high and low-structure, it is possible that it was less likely, both intrinsically and methodologically, to evoke the need for predictability, and hence, cognitive involvement.

As is apparent from the body of this chapter, our research raises several questions of both a theoretical and methodological nature. A paramount first step in future research requires an attempt to ascertain meaningful dimensions of cognitive involvement and to develop methods of measuring these dimensions. Creative methodology is indicated. Perhaps one area that might be explored is the usefulness of hypnosis as a technique for assessing first impressions. Second, it would appear that the relative contributions of perceiver variables, situational variables and their effect in combination, be experimentally investigated using the findings of this study as a starting point. One potentially interesting category of social interaction setting, in order to investigate the effects of situational

variables on impression formation, is various work relationship and job related roles. In the present study the interaction setting was experimentally created; however, we maintain that it may be more valuable to study social contexts that have greater stability, familiarity, etc. Work interactions that might be fruitful to study in terms of first impression formation are: the legal context (lawyers, jurors, clients), the selling context (salesmen, customers) and the therapeutic relationship (therapist, patient).

Finally, it can be noted that the present investigation was significant in that it explored impression formation in the context of a social interaction which was virtually a "real life" setting with laboratory controls. Secondly, it was an attempt to begin to explore the relative contribution of individual difference factors and situational factors on first impressions. While the data were non-supportive of the hypotheses in general, several questions were raised and directions indicated which future investigations can explore.

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APPENDIX

1. Instructions for administering the Embedded Figures Test (Form V)
and the Role Construct Repertory Test.

This is Dr. X's class isn't it? Dr. X has given me permission to ask you for your help today.

My name is Mr. King, and I would like to have your cooperation for the next 20 minutes or so. After that Dr. X has informed me to tell you that you may have the rest of the period to yourself. He is unable to come to class today.

I represent a Psychological Testing Company--a large part of the work of this company consists of standardizing new tests that come out in the field of psychology. Presently we are standardizing 2 tests. And that's why I am here today.

Part of the process of standardizing a test is giving it out to different people to see how they do on it. I have been giving them to several high school and college groups and have been getting information on how these different groups do on the test. Today I would like all of you to help me by taking these two short tests. I want to assure you that this has nothing to do with your English class or the school. We are an independent organization and are basically interested in how different groups of people perform on these tasks.

The first test I would like you to take is the Hidden Figures Test. Females will receive a slightly different version of this test than males.

(Hand out the tests, pencils)

POSSIBLE QUESTIONS & ANSWERS:

1. Why is this test being given out in English class?
Ans. We wanted to obtain a large number of students for the sample.
2. Are our names required?
Ans. Yes, we would like to have some information about the people taking the test.
3. If the year on the test said 1962, why are you calling this a new test?
Ans. This is considered to be a relatively new test in psychology.
4. Can we flip back and forth between the simple figures and the complex figures in performing the test?
Ans. Yes.
5. Should we use pencil to do the test?
Ans. Yes, pencil is the best thing.
6. How long do we have to perform the test?
Ans. This is a timed test. You will have ten minutes in which to complete it.
7. What is the purpose of this test?
Ans. The test measures how quickly a person can pick out a simple figure from an embedded background.
8. Why are males getting a different form of the test than females?
Ans. We were interested in obtaining test data on both versions of the test.
9. What is the difference between the test given to males and to females?
Ans. The difference is equivalent to the differences between a multiple choice and a fill-in test.

Okay--you have ten minutes to do the test--
(looking down at watch)--Ready, begin.

(After ten minutes)--Okay, time is up--
everyone should stop now.

That completes the first task and there is just one more thing I would like you to do to help us know who comprises each group that we test. We would like you to answer a few simple questions.

I will now hand out this very short question sheet.

When you are finished look up. Now put this inside the test booklet.

Fine--Now I would like to hand out the second task we would like you to do. This is a different kind of test and you are not timed on it. But the whole thing shouldn't take more than ten to fifteen minutes to complete.

The name of the test is the Role Construct Repertory Test. The instructions are printed on the test itself. First read the TOP SHEET and see that you understand what is required. You may keep the top sheet for yourself when the entire task is finished. Therefore, don't worry about identifying individuals by name. If you desire, you may just use initials or any other notation. Be sure that you know who you mean. Okay, what I'd like you to do now is fill in the information that is asked for on the top sheet. When you are finished, then turn the page and read the rest of the instructions. If you have no questions, proceed to do the test--work rapidly. Why don't you do this now? Okay--are there any questions?

Okay, then you may begin to work now-- Remember, work rapidly. You may leave as soon as you finish this. Just be sure to hand everything in to me. I want to thank all of you for your cooperation.¹

POSSIBLE QUESTIONS & ANSWERS:

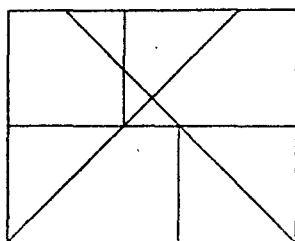
1. What is the purpose of the test?
Ans. This test is investigating how you feel about different people that you know.
 2. Is there any relationship between this test and the first test that we took?
Ans. No, there is an absence of any relationship.
 3. Could you give us an example of the kind of answer that is required?
Ans. Certainly, for example, if we were comparing mother, girlfriend, and father, we might be able to say that your mother and girlfriend are similar in that they are short or pleasant and different from your father in that respect.
 4. Is it necessary that we put down our names?
Ans. Yes, it is not that we are particularly interested in who specifically is taking the test, but it is important that we can verify that particular individuals have taken the test.
-
1. In one class the EFT and RCRT were administered on the same day. In another class the RCRT was administered on a day some weeks after the EFT. The script for the individual presentation was modified to adjust for this difference.

2. The EFT (Form V) Test

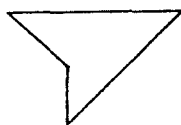
HIDDEN FIGURES TEST—V

Each problem in this test is made up of two designs, a complicated figure on the first page and a simple figure on the next. In each problem the simple design is contained in the complicated design. You are to find where the simple design is contained in the larger design and sketch it in over the lines of the figure.

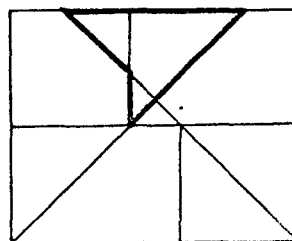
Here is an example of a complicated figure, a simple figure, and the complicated figure shown again with the simple figure sketched in.



Complicated figure



Simple figure



Simple figure sketched in

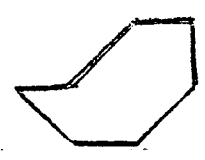
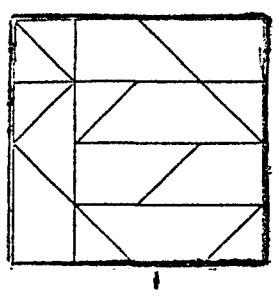
The smaller figure is always present in the larger figure and always in the upright position. Be sure the figure you find is exactly the same as the simple figure, both in size and proportions. Work carefully and as systematically as you can. If you feel that you cannot solve one of the figures, you may skip it and come back to it later if you have time, but you will waste time if you keep skipping from figure to figure. Do not worry about erasing completely if you have one or two incorrect lines, but be sure that you have all the correct ones clearly indicated.

Complex Figure

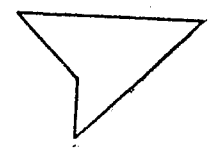
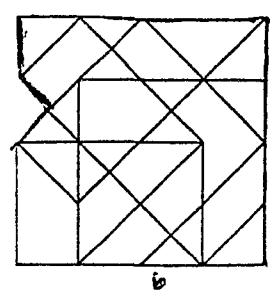
Simple Figure

Complex Figure

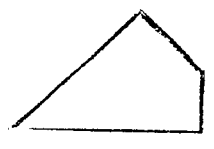
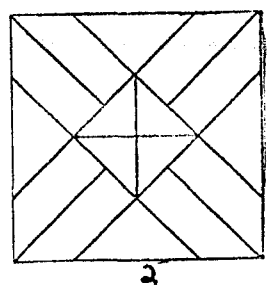
Simple Figure



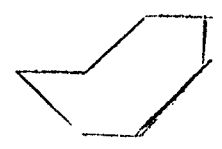
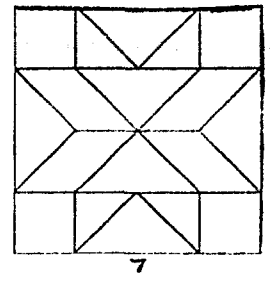
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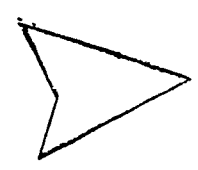
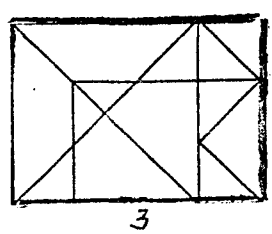
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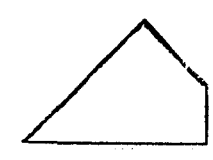
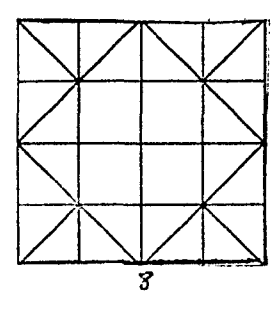
2



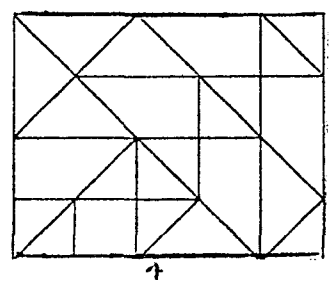
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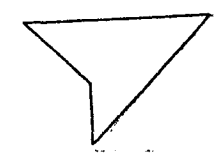
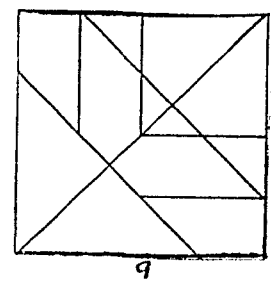
3



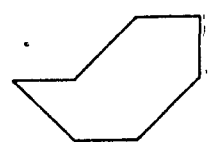
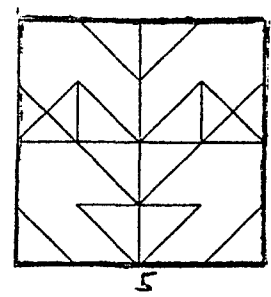
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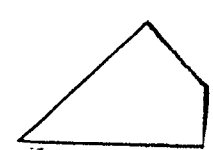
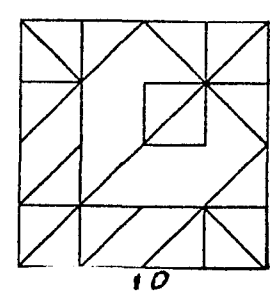
4



9



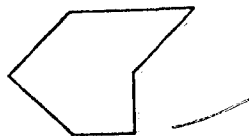
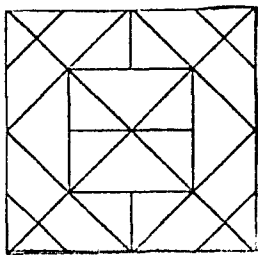
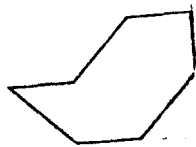
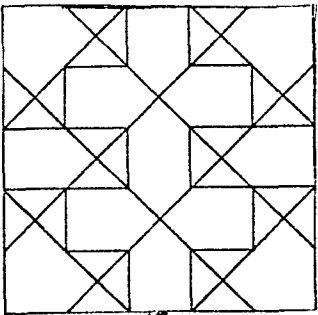
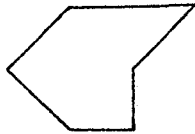
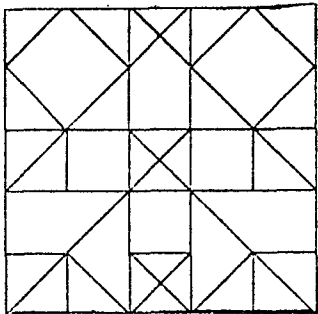
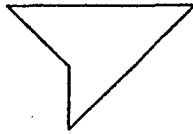
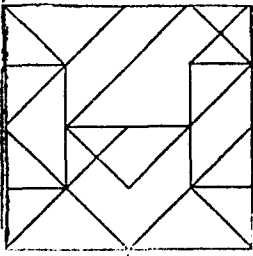
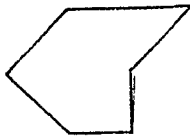
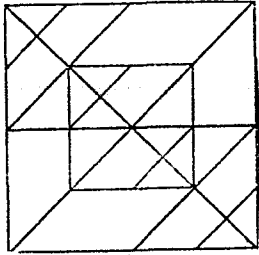
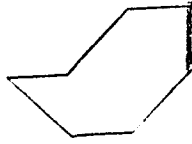
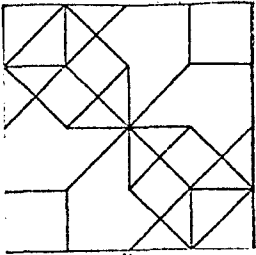
5



10

Complex
Figure

Simple
Figure



3. The Role Construct Repertory Test

Role Construct Repertory Test (RCRT)

Instructions: Below are eight (8) role titles (eg. your mother, etc.)

Next to each one fill in the name of an individual that you know who fulfills this role. Don't use the same person more than once.

1. a teacher who is well liked 1. _____
2. a teacher who is generally disliked 2. _____
3. a girl friend 3. _____
4. a boy friend 4. _____
5. a person who appears to meet the highest ethical standards 5. _____
6. a person who has acted dishonestly toward others 6. _____
7. a person who you have recently met and who you would like to know better 7. _____
8. a person with whom most people feel uncomfortable 8. _____

-1-

On this and the following pages you will find 3 numbers with a blank next to each number. These numbers refer to the number of the role title listed on the preceding page. Next to each number fill-in, in the blank space, the name you have already supplied for this number role title on the previous page. Please refer back to the top sheet. You may tear off this page for your convenience. Be sure to avoid making mistakes.

(1) _____ (2) _____ (3) _____

Now do the following:

Think of one characteristic for which you would say that persons (1) and (2) are similar to each other but different in this respect from person (3). List that characteristic in the blank space provided.

Do the same thing--only this time compare how persons (1) and (3) are similar and different from person (2).

And, again, do the same thing--comparing this time how persons (2) and (3) are similar and different from person (1).

TURN THE PAGE

-2-

Now do the same thing for these role titles. First fill in the appropriate names:

(2) _____ (3) _____ (4) _____

Then:

Think of one characteristic for which you would say that persons (2) and (3) are similar to each other but different in this respect from person (4). List that characteristic in the blank space provided.

Do the same thing--only this time compare how persons (2) and (4) are similar and different from person (3).

And, again, do the same thing--comparing this time how persons (3) and (4) are similar and different from person (2).

TURN THE PAGE

-3-

Now do the same thing for these role titles. First fill in the appropriate names:

(6) _____ (7) _____ (8) _____

Then:

Think of one characteristic for which you would say that persons (6) and (7) are similar to each other but different in this respect from person (8). List that characteristic in the blank space provided.

Do the same thing--only this time compare how persons (6) and (8) are similar and different from person (7).

And, again, do the same thing--comparing this time how persons (7) and (8) are similar and different from person (6).

TURN THE PAGE

-4-

Now do the same thing for these role titles. First fill in the appropriate names:

(1) _____ (4) _____ (5) _____

Then:

Think of one characteristic for which you would say that persons (1) and (4) are similar to each other but different in this respect from person (5). List that characteristic in the blank space provided.

Do the same thing--only this time compare how persons (1) and (5) are similar and different from person (4).

And, again, do the same thing--comparing this time how persons (4) and (5) are similar and different from person (1).

TURN THE PAGE

-5-

Now do the same thing for these role titles. First fill in the appropriate names:

(5) _____ (7) _____ (8) _____

Then:

Think of one characteristic for which you would say that persons (5) and (7) are similar to each other but different in this respect from person (8). List that characteristic in the blank space provided.

Do the same thing--only this time compare how persons (5) and (8) are similar and different from person (7).

And, again, do the same thing--comparing this time how persons (7) and (8) are similar and different from person (5).

Some Information About Yourself

Your Name _____

Your Age _____

Your Sex: M _____, F _____

4. Subject Questionnaire Form

Subject Questionnaire

Subject's Name _____

Date _____

Comparisons Between characteristics:

Standard Characteristic

Characteristics that Would Change

1. _____

1. _____

2. _____

2. _____

3. _____

3. _____

4. _____

4. _____

5. _____

5. _____

6. _____

6. _____

7. _____

7. _____

8. _____

8. _____

9. _____

9. _____

10.* _____

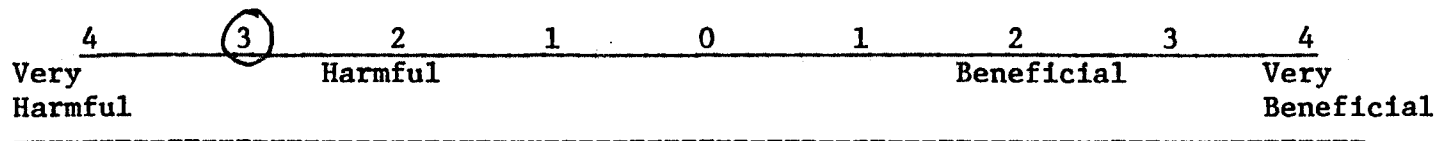
10. _____

*The original form provided spaces for 15 standard characteristics.

Now, please answer the following questions on the basis of your understanding of what you have heard on the tape.

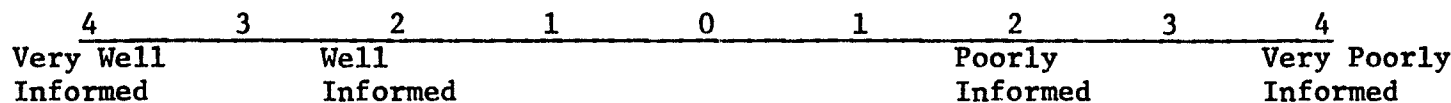
The following instructions apply for the questions on this page. Each scale is numbered from 4 to 0 to 4. For each question circle the number which most accurately reflects your answer.

Sample Question: How harmful is cigarette smoking for your health?
Sample Answer:

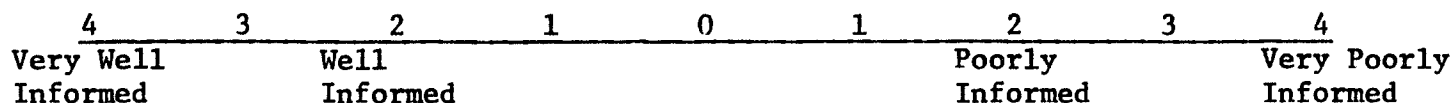


Imagine that right now you had to work with your partner on the first task.

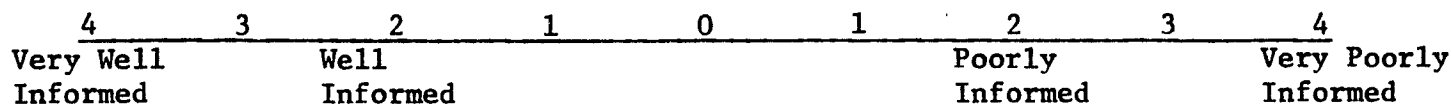
1. In general, how well informed do you feel you are as a result of the information that your partner just gave you?



2. How well informed do you feel you are about exactly what your partner's job on the task will be?



3. How well informed do you feel you are about exactly what your job on the actual task will be?



CONT.

4. How well informed do you feel you are about exactly what the first task is all about?

4	3	2	1	0	1	2	3	4
Very Well Informed		Well Informed				Poorly Informed		Very Poorly Informed

5. To what degree would you like to get more information about your partner?

4	3	2	1	0	1	2	3	4
Very Great Degree		Great Degree				Small Degree		Very Small Degree

6. To what degree would you like to get more information about the task and what you and your partner will be doing on it?

4	3	2	1	0	1	2	3	4
Very Great Degree		Great Degree				Small Degree		Very Small Degree

5. Informational Alternatives Offered to Ss

a. Descriptive Paragraph

SUMMARY STATEMENT RE: PARTNER #3

Partner #3 is generally described as pleasant, friendly and nice. He is judged to be knowledgeable and intelligent in a general way.

Furthermore, he is seen as informal yet is a leader type rather than a follower. He is cooperative and also wants to do well on the tasks. He will probably be a good partner to work with.

b. Tabulation of Attributed Traits*

FREQUENCY DISTRIBUTION OF TRAITS ATTRIBUTED TO PARTNER #3

TRAITS

Leader	5
Warm	2
Intelligent	22
Understanding	20
Good Worker	18
Knowledgeable	14
Honest	1
Disorganized	3
Condescending	14
Helpful	11
Formal	3
Nervous	4
Confident	18
Experienced	12
Boring	6
Good Speaker	8
Poor Speaker	4
Young	11
Organization Man	2
Emotionless	3
Domineering	5
Responsible	14
Friendly	35
Nice	15
Pleasant	20

*Original on standard data paper; content reproduced here.

c. Raw Data

Fictitious packets of halved 3" x 5" cards with one word characteristics written on each card presumably from other subjects' responses.

6. Pilot Data on Impression of S.P.

In the pilot study we asked Ss to respond to two questions which were aimed at assessing S's impression of S.P. The questions and relevant data are presented below.

In most situations when we meet a new person for the first time, we form some kind of impression of him. What we would like you to do here is give us your impression of your partner. Just write, in the space provided below, those characteristics, qualities or traits that come to mind about your partner. Put down whatever you think of. There are no right or wrong answers.

Table i contains the data relevant in response to the question above.

CONT.

To what degree do you think the experienced partner is:

1. CONFIDENT

1	2	3	4	5	6	7	8	9
Not At				Moderately				Very Much
All				So				So

2. SELF-ASSURED

1	2	3	4	5	6	7	8	9
Not At				Moderately				Very Much
All				So				So

3. WARM

1	2	3	4	5	6	7	8	9
Not At				Moderately				Very Much
All				So				So

4. KIND

1	2	3	4	5	6	7	8	9
Not At				Moderately				Very Much
All				So				So

5. COMPULSIVE

1	2	3	4	5	6	7	8	9
Not At				Moderately				Very Much
All				So				So

The data for responses to the question, above, are shown in Table ii.

TABLE ii.--Comparitive Mean Scores for ratings of S.P. on given traits for high and lo structure.

	<u>HiStr.</u>	<u>LoStr.</u>
<u>TRAITS</u>		
Confident	7.40	6.64
Self-Assured	7.12	6.90
Warm	5.44	5.48
Kind	5.92	5.55
Compulsive	3.16	4.09

7. Product-Moment Correlation performed on complexity scores of two independent raters.

Raw Scores	R ₁	R ₂	R ₁	R ₂
	0	0	12 ¹	10
	1	1	13	14
	2	4	13	19
	2	4	13	19
	2	2	13	15
	2	2	13	17
	2	2	13	13
	2	2	14	15
	3	3	14	18
	4	7	14	16
	4	6	14	10
	4	13	14	16
	5	6	14	20
	6	8	14	16
	6	11	14	8
	7	4	15	20
	7	10	15	22
	7	7	16	27
	8	12	20	17
	8	10	21	21
	9	15	22	27
	9	10	25	31
	10	11	25	15
	10	10	27	27
	11	9	33	22
	11	11	39	39
			43	26

n = 52
 MR₁ = 12.37
 MR₂ = 13.42
 r = 0.86

8. Product-Moment Correlation Performed on Internal-External Trait Judgments of Two Independent Raters.

a). Correlation for Internal Traits

Raw Data	R ₁	R ₂	R ₁	R ₂
	7 ¹	6 ²	3 ¹	3 ²
	5	6	4	4
	11	7	7	5
	7	5	3	4
	6	4	2	2
	5	6	3	3
	4	3	2	2
	7	7	3	3
	3	1	1	1
	2	2	7	5
	0	0	13	6
	6	5	4	3
	1	2	4	3
	7	7	3	3
	8	5	11	8
	11	11	5	6
	6	4	7	5
	15	15	5	3
	5	4	2	2
	1	1	2	2
	3	3	0	0
	5	4	6	5
	6	4		
	4	2		
	6	6		
	3	3		
	3	3		
	5	3		
	4	4		
	10	10		
	10	10		
	11	10		

$$\begin{aligned}
 n &= 52 \\
 MR_1 &= 5.08 \\
 MR_2 &= 4.25 \\
 r &= 0.90
 \end{aligned}$$

b). Correlation of Number of External Traits

Raw Data

of Ext. Scores

R ₁	R ₂	R ₁	R ₂
0 ¹	1 ²	4 ¹	4 ²
3	2	2	4
1	5	4	4
0	2	0	1
1	3	3	3
5	4	3	3
0	1	2	4
0	0	8	7
4	6	0	0
0	0	3	3
2	2	2	2
0	1	1	1
1	0	0	0
0	0	1	3
1	4	5	12
4	4	4	5
2	4	2	3
0	0	1	1
0	1	4	7
1	1	6	5
2	2	3	5
10	11	0	2
3	5	1	1
2	4	2	2
3	3	0	0
0	0	2	3

n = 52

MR₁ = 2.08MR₂ = 2.90

r = .83

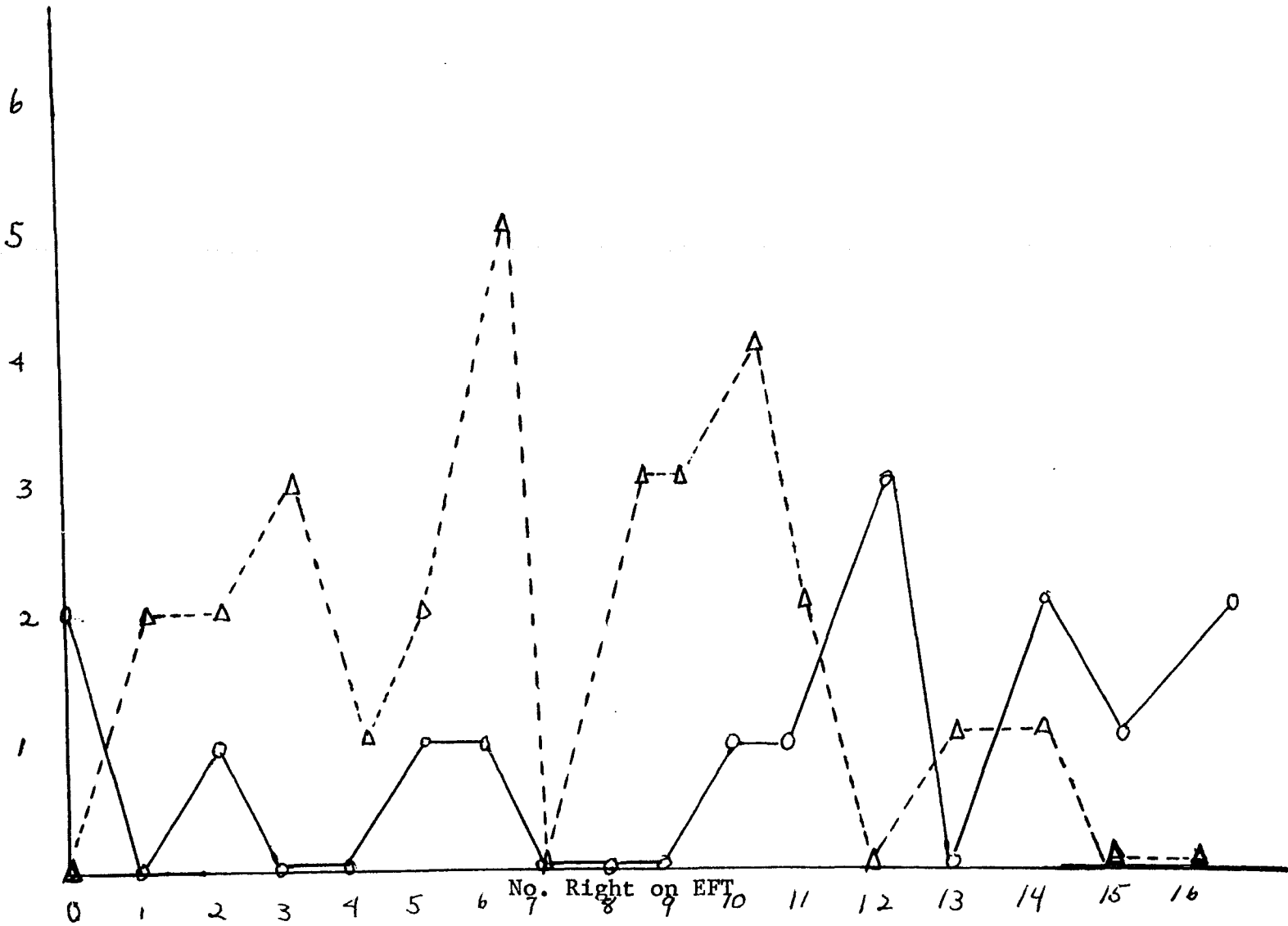
9. Pilot Data - Distribution of EFT Form (V) Scores

Figure 1.--Distribution of EFT scores for males and females.

Key: O = males
 Δ = females

Males
 n = 15
 M = 9.67
 S.D. = 5.45

Females
 n = 29
 M = 6.86
 S.D. = 3.78

10. Subject Refusals

Although we were able to run as many subjects as we did, thereby substantiating our expectation of a low refusal rate and minimizing the possibility of selection biases, it still remained possible that such were operative. Biases may result, for example, if a disproportionate number of field-dependent relative to field-independent subjects could not be run. Or if the mean EFT scores of those Ss not used was not representative of the larger group mean. To answer these questions we tabulated the number and type of subject that could not be run with accompanying reasons in Table iii, below.

TABLE iii.-- Subject breakdown of lost subjects.

<u>Reason Not Run</u>	<u># FD Ss</u>	<u># FI Ss</u>
no name or accompanying RCRT	4	2
refused participate no explanation	2	2
refused-reason eg. job	1	1
<u>sick</u>	<u>1</u>	<u>0</u>
total	8	5

(1 Field-dependent and 1 field-independent subject were run through the study but were not usable--the reasons were discussed in the body of the paper--this raises the totals to 9 field-dependent and 6 field-independent subjects not used.)

As can be seen from this table, a greater number of field-dependent subjects could not be used in comparison to field-independent subjects but the difference is not large enough in and of itself to be a biasing factor. The mean EFT score for the non used field-dependent subjects was 3.455 and 13.750 for the field-independent Ss. Comparing the mean scores for these subjects with the means of their respective larger groups for field-dependent Ss the difference in means is negligible and for the field-independent Ss although the difference is slightly larger if anything our sample used in the study was more extreme than those not used.

11. Analysis of Experimental Manipulation of Hi & Lo Structure Tapes

- a. Complete analyses of experimental manipulation for an actual experiment.

TABLE iv.--Analysis of variance for responses to experimental manipulation questions.

Question #1.

Source of Variation	SS	df	MS	F	p
fd vs. fi (C)	1.923	1	1.923	<1	n.s.
his vs. los (R)	135.692	1	135.692	49.984	<.001
interaction (CXR)	3.769	1	3.769	1.388	n.s.
error (within)	130.308	48	2.715		
total	271.692	51			

Question #2.

Source of Variation	SS	df	MS	F	p
fd vs. fi (C)	1.558	1	1.558	<1	n.s.
his vs. los (R)	145.558	1	145.558	48.874	<.001
interaction (CXR)	3.250	1	3.250	<1	n.s.
error (within)	152.308	48	3.173		
total		51			

Question #3.

Source of Variation	SS	df	MS	F	p
fd vs. fi (C)	0.019	1	0.019	<1	n.s.
his vs. los (R)	281.558	1	281.558	118.716	<.001
interaction (CXR)	3.250	1	3.250	1.370	n.s.
error (within)	113.846	48	2.372		
total		51			

Question #4.

Source of Variation	SS	df	MS	F	p
fd vs. fi (C)	0.692	1	0.692	<1	n.s.
his vs. los (R)	267.769	1	267.769	102.511	<.001
interaction (CXR)	1.231	1	1.231	<1	n.s.
error (within)	125.385	48	2.612		
total		51			

b. Pilot data results for experimental manipulation of structure

TABLE v.--t Test comparisons for perception of structure of tapes.

	Mean Score High Structure	Mean Score Low Structure	Diff.	t
Ques. 1	3.14	6.22	3.08	5.83**
Ques. 2	3.19	7.27	4.08	6.46**
Ques. 3	3.19	7.00	3.81	6.40**
Ques. 4	2.86	5.73	2.87	5.00**

**p<.001, one or two tailed test, n=21 high-structure, n=22 low-structure

TABLE vi.--Product-moment correlations for all pairs of correlations to questions of experimental manipulations, for all Ss.

Ques. No.	overall	partner	self	task
No.	1	2	3	4
1				
overall		.71**	.77**	.71**
2				
partner			.89**	.72**
3				
self				.69**

**p<.01

n=43 for each correlation

c. Comparison of tapes on variables other structure

As can be seen from Table vi the t test comparisons between the mean ratings for the high-structure vs. low-structure group revealed no significant differences in the ratings of the tapes in terms of their perceived difficulty, authenticity and generality.

TABLE vi.--t Test comparisons of highly structured and low-structured tapes for factors of difficulty, authenticity and generality.

Question	Mean Score High-Structure	Mean Score Low-Structure	t	p
difficulty	7.38	6.64	1.38	n.s.
authenticity	5.00	4.77	<1	n.s.
generality	6.00	7.14	1.82	n.s.

n=43

A second way in which the tapes were compared was in terms of the amount of information they initially contained and the amount of information that could be recalled by Ss upon listening to the tape. The amount of information contained in each tape was gotten by simply counting up the bits of information, i.e., a bit of information being defined as one complete thought. Thus, the amount of information equalled the total number of bits of information. Following this procedure the high-structure tape was found to contain 34 bits of information and the low-structure tape, 33 bits of information. Thus, virtually no difference existed between the tapes regarding the initial amount of information they contained. In order to find out how much information was recalled by Ss listening to the tape we asked "..... write down everything the young man on the tape said to his perspective partner. Write down all the information that you are able to remember." It can be seen in Table vii below, that there were no significant differences in the number of bits of information recalled for both groups. The mean number of bits of information for the group hearing the highly structured tape was eight and the mean number of bits recalled by the low-structured group was 7 (This specific finding, 7-8 bits, is especially interesting in light of George Miller's article, "The Magic Number Seven, Plus or Minus Two (1955)."

TABLE vii.--Amount of information recalled on highly structured and low-structured tapes.

	Above M	Below M	
highly-structured	14	7	21
low-structured	9	12	21
	23	19	42

$\chi^2 = 1.53, p \text{ n.s.}, 1df$

The tapes were compared in still another way, i.e., the "projected personality" of S.P. By this we mean the personality that exists, or is projected, apart from the task instructions--the structural differences. However, such a distinction is tenuous to say the least in that it is limited in several ways, both conceptual and empirical, as will be pointed out below. To begin with the major content of each tape is in fact just the task instructions--the difference in structure. Secondly, and even more important, even if we could be assured that the "transcendent personalities" of the S.P.s on each tape are similar or constant the personality relevant in the study proper is not this transcendent personality or independent variable but rather the personality to which S will be exposed is a dependent variable which to some unknown degree is a function of just these structural variations that the transcendent personality goes beyond. And carrying this point even further the possibility that differences in the extent to which the tapes are structured result in differences in the perceived impression of the S.P. is in fact just what is being hypothesized in this study. The important difference is this, we have hypothesized that structural differences have an effect, not on the content of the resulting impression but rather, on the structure of this impression. Yet there is nothing in our hypothesizing that excludes the possibility of substantive differences resulting from structural differences. Thus, the separation of structure from content is meaningful to the extent that the differences in structure between the tapes could have been created in ways which were a direct result of the substantive personality of S.P. rather than the task instructions. For example, high structure could have been created by having S.P. come off as very definitive, a very precise perhaps compulsive person, etc. whereas in the low-structure tape S.P. could have been very wishy-washy, a veritable hamlet, etc. The creation of structural differences by qualitative personality differences is precisely what we tried to avoid and to this degree, given all of the above limitations, do we address ourselves to a comparison of the personality data of the "projected or transcendent S.P."

To the degree that our pilot subjects did not hear the tape with the same expectation as our main experimental Ss we would expect the structural differences between the tapes to have been less important and less potent and to that extent their impressions provide us with some picture, beyond our own subjective impressions, of the "transcendent personality of the S.P." for each tape. The students were asked to write their impressions of S.P. because we were interested in setting up bipolar scales with which to test our extremity hypothesis. We asked the students to ". . . just write . . . those characteristics, qualities or traits that come to mind about your partner (the S.P.)."
We used such a free response method because we wanted to have the student provide the traits so that we could assess not only their impressions of S.P. but also the language in terms of which they saw him. This yielded data about the S.P.'s personality for each tape which we were able to compare in many ways.

When we compared specific traits or trait clusters, those that might be relevant to distinguishing two different personalities, all comparisons were found to be insignificant. More specifically, the data show that S.P. on the highly-structured tape was not perceived as significantly more or less friendly, intelligent, informed, considerate or condescending-bossy than S.P. on the low-structured tape. Another way of looking at the personality data is in terms of the number of positive and negative traits used by the students in describing S.P. We categorized all traits or characteristics into one of three categories: positive, negative or mixed-neutral. The results of this categorization are presented in Table viii, below. It can be seen that no significant differences occurred between the groups in terms of the total number of positive, negative, or mixed-neutral traits used by each group of students. In the process of tabulating the data we noticed that the proportion of positive, negative and mixed-neutral traits for all students combined was an approximately accurate reflection of individual data. Also, while we were able to categorize characteristics as positive, negative or mixed they were moderate and not extreme.

TABLE viii.--Total number of positive, negative and mixed-neutral traits used to describe S.P. in the high and low-structured groups.

	Positive	Negative	Mixed	
high-structure	53	30	4	87
low-structure	62	33	7	102
	115	63	11	189

$\chi^2 = <1, 2df, p \text{ n.s.}$

In light of these data recognizing the limitations of interpretation, as stated above, we maintain that no gross personality differences exist between the high-structured and low-structured tapes and as well that we were successful in creating two relatively neutral personalities.

12. Complete Analysis for Extremity of Trait Judgments.

TABLE 17.--Analysis of variance comparisons for extreme trait judgments for structure and field-dependence variations.

Intelligent-Unintelligent (#1)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	2.327	1	2.327	4.011	<.05
his vs. los (R)	0.173	1	0.173	<1	n.s.
interaction (CXR)	0.173	1	0.173	<1	n.s.
error (within)	27.846	48	0.580		
total	30.519	51			

Democratic-Undemocratic (#2)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	0.481	1	0.481	<1	n.s.
his vs. los (R)	2.327	1	2.327	1.725	n.s.
interaction (CXR)	3.250	1	3.250	2.409	<.05
error (within)	64.769	48	1.349		
total	70.827	51			

Follower-Leader (#3)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	3.250	1	3.250	2.078	n.s.
his vs. los (R)	0.173	1	0.173	<1	n.s.
interaction (CXR)	0.173	1	0.173	<1	n.s.
error (within)	75.077	48	1.564		
total	78.673	51			

Relaxed-Tense (#4)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	0.692	1	0.692	<1	n.s.
his vs. los (R)	0.077	1	0.077	<1	n.s.
interaction (CXR)	0.308	1	0.308	<1	n.s.
error (within)	43.692	48	0.912		
total	44.769	51			

Tall-Short (#5)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	8.481	1	8.481	6.733	<.025
his vs. los (R)	0.173	1	0.173	<1	n.s.
interaction (CXR)	4.327	1	4.327	3.435	<.10
error (within)	60.462	48	1.260		
total	64.962	51			

Considerate-Inconsiderate (#6)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	0.481	1	0.481	<1	n.s.
his vs. los (R)	1.558	1	1.558	1.038	n.s.
interaction (CXR)	0.019	1	0.019	<1	n.s.
error (within)	72.000	48	1.500		
total	74.058	51			

Good Speaker-Poor Speaker (#7)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	4.327	1	4.327	4.180	<.05
his vs. los (R)	8.481	1	8.481	8.192	<.01
interaction (CXR)	5.558	1	5.558	5.369	<.05
error (within)	49.692	48	1.035		
total	68.058	51			

Friendly-Unfriendly (#8)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	5.558	1	5.558	3.532	<.10
his vs. los (R)	0.481	1	0.481	<1	n.s.
interaction (CXR)	0.173	1	0.173	<1	n.s.
error (within)	75.539	48	1.574		
total	81.751	51			

Competitive-Cooperative (#9)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	7.692	1	7.692	5.956	.025
his vs. los (R)	1.231	1	1.231	<1	n.s.
interaction (CXR)	0.308	1	0.308	<1	n.s.
error (within)	62.000	48			
total	71.231	51			

Orderly-Sloppy (#10)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	0.173	1	0.173	<1	n.s.
his vs. los (R)	0.173	1	0.173	<1	n.s.
interaction (CXR)	0.173	1	0.173	<1	n.s.
error (within)	64.154	48	1.337		
total	64.673	51			

13. Complete Analysis for Substantive Trait Judgments.

TABLE 21.--Analysis of variance comparisons for directional trait judgments for structure and field-dependence variations.

Intelligent-Unintelligent (#1)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	1.923	1	1.923	3.389	<.10>.05
his vs. los (R)	0.077	1	0.077	<1.00	n.s.
interaction (CXR)	0.077	1	0.077	<1.00	n.s.
error (within)	27.231	48	0.5673		
total	29.308	51			

Democratic-Undemocratic (#2)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	12.999	1	12.999	3.794	<.10>.05
his vs. los (R)	6.231	1	6.231	1.818	n.s.
interaction (CXR)	1.231	1	1.231	<1.00	n.s.
error (within)	164.462	48	3.426		
total	184.923	51			

Follower-Leader (#3)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	7.692	1	7.692	1.794	n.s.
his vs. los (R)	1.231	1	1.231	<1.00	n.s.
interaction (CXR)	6.231	1	6.231	1.453	n.s.
error (within)	205.846	48	4.288		
total	221.000	51			

Relaxed-Tense (#4)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	8.481	1	8.481	1.861	n.s.
his vs. los (R)	0.019	1	0.019	<1.00	n.s.
interaction (CXR)	0.173	1	0.173	<1.00	n.s.
error (within)	218.769	48	4.558		
total	227.442	51			

Tall-Short (#5)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	3.786	1	3.786	<1.00	n.s.
his vs. los (R)	18.481	1	18.481	5.889	<.025
interaction (CXR)	-2.209	1	-2.209	<1.00	n.s.
error (within)	150.615	48	3.138		
total	170.673	51			

Considerate-Inconsiderate (#6)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	0.308	1	0.308	<1.00	n.s.
his vs. los (R)	0.077	1	0.077	<1.00	n.s.
interaction (CXR)	1.231	1	1.231	<1.00	n.s.
error (within)	168.615	48	3.513		
total	170.231	51			

Good Speaker-Poor Speaker (#7)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	18.634	1	18.634	7.700	<.01
his vs. los (R)	14.019	1	14.019	5.794	<.025
interaction (CXR)	-10.749	1	-10.749	-4.442	<.107.05
error (within)	116.154	48	2.420		
total	138.058	51			

Friendly-Unfriendly (#8)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	2.769	1	2.769	1.325	n.s.
his vs. los (R)	0.000	1	0.000	<1.00	n.s.
interaction (CXR)	0.000	1	0.000	<1.00	n.s.
error (within)	100.308	48	2.090		
total	103.077	51			

Competitive-Cooperative (#9)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	6.546	1	6.546	<1.00	n.s.
his vs. los (R)	26.327	1	26.327	3.290	<.107.05
interaction (CXR)	-0.507	1	-0.507	<1.00	n.s.
error (within)	384.154	48	8.003		
total	416.519	51			

Orderly-Sloppy (#10)

Source of Variation	SS	df	MS	F	p
fd. vs. fi. (C)	0.077	1	0.77	<1.00	n.s.
his vs. los (R)	0.077	1	0.077	<1.00	n.s.
interaction (CXR)	0.692	1	0.692	<1.00	n.s.
error (within)	80.923	48	1.686		
total	81.769	51			

AUTOBIOGRAPHICAL STATEMENT

As indicated in this statement, I have the opportunity of sharing some of myself with you. What I'd like to share are not the concrete data about myself; rather, some of my present beliefs, attitudes and feelings. As I write this, I am thirty-one years old and feel nice about that and my future. My present and recent past (and hopefully future) are much more positive and hopeful than my previous existence. Today as I write this I feel very good about myself as a person, a woman, a psychologist, a wife and a friend. I feel that I have been coming together. Yet, I have not always felt that way. Throughout my earlier life I have painfully grappled with a number of issues and because of this I had trouble just being and enjoying. Perhaps, the way I'd best like to communicate some of these struggles is in letting you know my place with them now. First and possibly most important I accept myself--my "me" is adequate. Second, and not unrelated to the first, is my acceptance of my various selves. I realize that it is not necessary to choose one role or another--that I can be all the "me"s that I have the courage to allow. (In psychological terms one could say that my identity crisis is over and that my present identity is an integration of several selves). Third, I see my basic life processes as the resultant or balance between two thrusts--my need to grow and my need to protect myself. There are other things but these are most important for me today.

As a last point, I wish to share some of my future hopes. I look forward to: raising a child or two, satisfying relationships, the reality of living, lots of fun and joy and love, and growing old with a wisdom about my ignorance.