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The Effects of Variance and the Expectation of Future Contact upon Personality Impression Formation

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THE EFFECTS OF VARIANCE AND THE EXPECTATION OF FUTURE
CONTACT UPON PERSONALITY IMPRESSION FORMATION

by
Brian Bentley

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of

Master of Arts

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VITA

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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

The analysis of the integration of inconsistencies and variation in everyday life is the starting point for research in widely divergent areas of psychology. Berlyne (1957), Charlesworth (1966), Hunt (1963, 1975) and others have investigated the preferences of human subjects for shapes, words and many other visual stimuli that differed in complexity, consistency, and the degree of inherent predictability. Few, however, have applied the experimental method of an analysis of how the perceiver deals with observed variation in the most complex, unpredictable and varied object of all, man himself.

The Perception Of People

The early investigation of the process of the perception of other people owes much to the theoretical framework of Heider (1944, 1958). Heider makes three assumptions about the perceiver in his analysis of the nature of attributions about others. The first assumption is that in order to understand behavior in its broadest sense, it is necessary to include an analysis of how people perceive and organize their social world. Second, it is assumed that the individual has a desire to predict and control his

environmental inputs and outputs. This involves a categorization and an analysis of the environment. In this way, information can be gained and better predictions can be made, resulting in more positive outcomes for the perceiver's efforts. Third, Heider believes that the process of person perception is similar to the process involved in the perception of objects. The process of person perception is probably more complex in a quantitative way than the process of object perception, but Heider asserts that qualitatively they are much the same process.

While Heider spelled out the working assumptions of the process of person perception, other theorists examined the mechanisms of this process. In particular, the mechanisms that operate in the explanations for (or attributions about) the causes of other people's actions have been singled out by several researchers for investigation. Kelley (1967) used the model of the analysis of variance as an analogy to represent the naive experimentation of the attribution process. He suggests that a perceiver relies upon both differentiation and stability of information in order to make attributions. Differentiation (or the process of making a distinction between an entity and other entities) could be viewed as being synonymous with the between condition term of an F-ratio. The stability of an attribution (or whether the effect occurs consistently across time, in other

situations and/or is reported to be experienced similarly by others) is analogous to the error variation or the within-condition term. For example, if an observer watching a group of children playing perceives one child striking another, this information by itself is ambiguous. First, before an attribution can be made about either the offender or the victim, the observer must consider how distinctive this action is. If all the children are observed striking each other rather frequently, then the observer of the action would probably not attach too much importance to this behavior, or the interaction may not have been noticed in the first place. Given that the behavior is distinctive enough to attract the observer's attention, the observer still has little evidence to use in making an attribution. The observer must also take into account the stability of the observed behavior. Before a stable attribution can be made about the traits of the participants in the interaction, more observations must be made. Observations must be made at other times and at other places before the offender can be classified as being aggressive, or the victim as deserving of abuse. If the offender is observed striking other children repeatedly in many situations, then a distinctive and a stable attribution can be made. Further, if the observer obtains information from other sources of information (such as the playground director) and this information gained is consistent with the observer's own

observations, then the attributor can be even more sure of the implied traits. By putting the distinctiveness of an effect in ratio with the variance encountered in both observation and reports of others, the perceiver can determine a degree of certainty for an attribution. Kelley (1967, p. 198) states that: "An attribution (by a perceiver) made on a given occasion depends upon some sampling of the information available to him, both from his own present and recent experience and from social sources. The more consistent this information is, the more stable will his attribution be."

Informational Dependence and Variation

Kelley (1967) relates the term "information level" to a related analysis of dependence by Thibaut and Kelley (1969). A person is said to be "informationally dependent" upon another if that other can raise his own level of information. Further, this person will actively seek information from the other. Relating this to the ANOVA model, an attributor will actively seek a consensus of opinions if he believes that others possess information that can raise his current level of understanding. It may be noted that this process assumes that the attributor is dissatisfied with the expected level of information, and that it is implicitly assumed that there is some motivating reason for seeking out this information.

The quality or the utility of the information that is obtained from the person or source of information that is being investigated is dependent upon the stability of that source. A more predictable source, because the "error" involved will be smaller, will result in a gain in the information level of the attributor. Because of the reliability of the source, more of the variance of the total problem can be accounted for. The attributor therefore should seek out information from those sources that are the most predictable or stable.

Evidence For The Variation Hypothesis

Irwin, Smith and Mayfield (1956) dealt with a similar relationship between distinctiveness and variation. Subjects were presented with decks of cards with positive and negative numbers stamped upon the back. The mean and the standard deviation of these numbers were systematically varied over decks. Subjects were asked to guess whether the mean of the deck was greater than or less than zero. A small cash prize was offered for a correct guess, but subjects were charged a very small amount for the privilege of looking at each successive card in the decks. The number of cards used and a rating of the subject's confidence in making a decision were used as dependent measures.

The number of cards used increased as the absolute value of the mean of the deck became smaller (or closer to zero) while confidence ratings dropped. In addition, the

number of cards used increased and confidence ratings dropped as the variance of the deck increased. These results indicated that the subjects were affected by both the distinctiveness (magnitude of difference between the mean of the deck and the zero point) and consistency (variation within the decks).

In a subsequent study by Irwin and Smith (1957) using the same paradigm, the value of the prize and the cost of the information was varied. The number of cards requested increased as the value of the prize increased while the number of cards used decreased as the cost of the information increased. The relationship between the distinctiveness of the criterion and the variations within the deck with the number of cards used and the confidence of the subjects was also replicated. In addition to the main effects (prize, cost mean and standard deviation) a significant interaction was found between standard deviation and prize. The nature of this interaction was not reported but an interpretation of the interaction would indicate that variation differentially influences the tendency to seek out new information at different levels of reward.

Naylor (1964) examined subject's preferences for information sources which differed in accuracy and variability. Subjects were asked to guess which of two sources of information was correct. One source was held constant, while the other source was varied around the constant with respect to

the average amount of accuracy and inherent variability. Subjects were rewarded when they guessed the more accurate source. Preference for an information source was shown to be related to both the accuracy of a measure and its variability. The subjects rapidly discriminated between sources of information which were more or less correct, and preferred sources that were less variable in their ability to predict a criterion.

Variation in Person Perception

A study of Levy (1967) using personality traits of hypothetical people instead of cards or numbers also found a relationship between variation in information and subject's perceptions of this information. Levy manipulated sets of personality trait adjectives scaled by Anderson (1968). Twelve sets of five adjectives each were constructed so that there were two sets representing each combination of high and low average favorability, and high, medium, and low variance. Variance in this case consisted of the pooled standard deviations or the between subject differences encountered in the ratings of the adjectives. When the subjects were asked how favorable or unfavorable they felt the set of personality trait words to be, variation was found to have an inverse effect upon judged favorability. This would indicate that the subjects were seeking out consistency. This is consistent with Heider's assumption that the individual has a desire to

predict and control the environment. An inconsistent person is by definition not predictable and therefore, less desirable as a problem to be solved or as a source of information.

In addition, Levy found a significant interaction between mean favorability and the level of variance. Moderate increases in variance increased the attractiveness of an already attractive person while an increase in variance decreases the attractiveness of an already unattractive person. Thus, variation may be interpreted differentially according to the overall attractiveness of the stimulus person.

Early Experimental Studies Of Variation And Stimulus Preference

It would seem that consistency is related to stimulus preference when the perceiver is seeking "utility" or a means to reduce the variance in the environment. But, investigators who have studied how humans and animals react to variation within their environment have not always found variation and stimulus preference (or attention) to be inversely related.

Harlow and Zimmermann (1958) demonstrated the effects of too much variation by introducing a novel stimulus object into the cage of an infant monkey. In this case, the magnitude of the novelty overcame any tendency to explore a novel

environment and the monkeys retreated, avoiding the overwhelming stimulation. Butler (1953), however, demonstrated the positive, interest arousing aspects of environmental variation. Monkeys confined in a box will open a door to view a stimulating outside environment. Further, this privilege could be used as a reinforcer when the monkeys were taught to discriminate among colors.

Berlyne (1957) using human subjects, investigated the process of self stimulation using simple stimuli. Subjects were exposed to a stimulus presented on a tachistoscope for .14 of a second. Figures of similar design, but varying complexity were presented in both an ordered and random manner. The subjects were given free choice as to how many exposures they wished to view. The results indicated that the more complex the figure, the more interesting it was.

These studies all examined the relationship between novelty and preference for a stimulus among higher primates. But the effects of the novelty or complexity of a stimulus upon the organism did not always yield consistent results. An explanation for this inconsistency can be found by hypothesizing a need for a certain level of complexity at a given time. Thus, if a stimulus is too complex or too simple, the result would be the withdrawal of the attention of the organism. This view relies upon the deprivation-satiation model of motivation, specifying an optimum level of arousal associated with environmental variation.

Information Processing And Variation

Munnsinger and Kessen (1964) approach human preference for environmental variation through the use of several assumptions derived from information processing theory. These assumptions are (a) there are limitations on human ability to process environmental variation, (b) coding devices (such as serial memorization and concept formation) can facilitate information processing by means of coding rules derived from past experience, and (c) humans prefer a level of cognitive uncertainty that matches their processing ability.

Garner and Hake (1951) and Miller (1956) have determined that there are limitations upon the amount and rate of information processing in human beings. Only a limited amount of alternatives may be handled at the same time.

Miller (1956) discusses the ability of the human information processing system to code and store vast amounts of information if it is structured or "chunked." In this way, the efficiency of the system can be increased. An analogy in the field of person perception would be the process of stereotyping which can be viewed as a reaction to an overload of the processing system.

The assumption that humans prefer a level of cognitive uncertainty which is near the limit of their processing ability has been widely asserted. Stimulation below the

optimal level produces boredom (Bexton, Heron, & Scott, 1954; Chechulin, 1923) but high levels produce confusion and fear (Bindra & Spinner, 1958; Harlow & Zimmermann, 1958). This assumption also finds support among motivation theorists (McClelland, 1953) and estheticians (Rashvesky, 1938).

These three assumptions derived from information processing theory tend to point to a curvilinear relationship between stimulus complexity and preference for the stimulus rather than a simple linear relationship. As the amount of information contained in a stimulus approaches the limits of processing ability, the preference for the stimulus will also increase. Once the level of complexity goes beyond this level, however, the system will experience "overload" and preference for the stimulus will decline. Thus studies that find simple linear relationships between stimulus complexity and preference may be using levels of stimulus complexity that are too simple or too complex to produce the curvilinear effect.

Variation and Cognitive Structure

Other investigators insist that to study a reaction to the variation in a stimulus alone is not enough. The relationship between stimulus complexity and attention cannot be considered to be a simple function of the stimuli. Attention must be directed to both the variability of the

environment and the cognitive structure of the perceiver (Garner, 1962). Previous information represented in cognitive structures affect the organization of the individual's perceptions. The question of cognitive organization has led to the formation of several explanatory mechanisms that define and explain the problem in different ways.

Piaget (1947, 1952) has formulated a general explanatory system based upon a dialectical structure that blends both the current structure of an individual and the demands of a complex and varied environment. His central constructs are the processes of assimilation (the fitting of an environmental event to an available category or classification scheme) and accommodation (the development of a new category or scheme when an environmental event does not match or fit an existing scheme or category). The interaction of these mechanisms maintains cognitive equilibrium and results in cognitive development.

The child, according to Piaget, actively embraces the environment, attending to the somewhat novel or unfamiliar objects and events (those which have some familiar aspects) rather than attending to those which are completely unfamiliar, or very familiar. The child attends to a discrepancy from previous experience in order to assimilate it. As a result, this discrepant stimulation produces changes in existing schemata.

Kelley (1971) points out that the ANOVA model of causal attribution fits Inhelder and Piaget's (1958) description of the stage of formal operations. Here Piaget's system begins to look very similar to the cognitive network that the attributor uses to separate the causes of an effect. Upon reaching the stage of formal operations the individual is able to think in terms of possible combinations of causal factors that relate to a given event. In addition, Inhelder and Piaget credit the individual with the ability to plan ways of obtaining information necessary to separate the effects. This is done by varying possible causal variables one at a time, or by observing whether the effect covaries with any one or combination of causal variables. In a naive way, the individual knows how to design an experiment and how to interpret the results logically.

A Developmental Explanation Of The Process Of Attention

The effect of variation upon the perceiver has been shown to be dependent upon the level of cognitive development of the perceiver. Kagan (1971) focuses on fixation time as an obvious means of measuring attentiveness. Working in a developmental context, Kagan concludes that fixation time has multiple determinants and the power of each changes with age. He focuses on three determinants that appear within the first two years of the infant's life.

These determinants include: changes in the environment (physical contrast or movement), discrepancy from schema, and activation of hypotheses.

The fundamental determinant of attention is rapid change in the environment. Inherent in the infant's nervous system is the tendency to attend to events that are characterized by a "high rate of change in their physical characteristics." Stimuli that move, contain discrete elements or possess contour and contrast arouse an infant's interest (Berlyne, 1958; Carpenter, 1969; Haith, 1968). Thus, at the earliest stages in development, attention is directly related to the amount of variation in the environment.

Between the age of 8 to 10 weeks, a new and more sophisticated determinant of fixation time appears. A discrepancy between an event and acquired schema for that event now elicits attention from the child. A scheme is "a cognitive representation of an event that preserves its spatial and temporal pattern of distinctive elements, and permits the organism to recognize aspects of past experience" (Kagan, 1971, p. 67).

Attention to Kagan is not elicited simply from properties of the stimulus alone. Instead, attention is now a function of the interaction between a generalized schema and the degree of discrepancy of the stimulus from this

schema. The discrepancy between the stimulus and the established schema may include the stimulus properties of color, rate of direction of movement, form, number of elements, arrangement of elements or orientation of elements. The elements of a schema are related to each other in a Gestalt. An object is not adequately described by its color, shape and number of elements. The relationship among these properties also determines the schema as well as the qualities of these properties alone.

The nature of attention to a stimulus changes after the advent of the second determinant. The relation between the degree of discrepancy between the event and the schema, and the duration of attention is now assumed to be curvilinear. Kagan refers to this relationship as the discrepancy principle. The principle states that "an event that is moderately discrepant from the one that generated a schema (e.g., alternations in the temporal and spatial configuration of the original stimulus) will elicit longer fixations than minimally discrepant events or events that bear no relation to the schema" (Kagan, 1971, p. 67).

Kagan suggests that the longer fixation to a moderately discrepant stimulus may be the result of the time that it takes to match the event to an existing schema. The event elicits attention as long as this search continues. "Familiar events find their match quickly and elicit

short fixations. Novel events, with no resemblance to a schema, have a similar result for a different reason" (Kagan, 1971, p. 68).

There is some support for the discrepancy principle in developmental research. Achromatic illustrations of faces elicited longer fixation times than random shapes at four months of age, but not at one month (McCall & Kagan, 1967). Three and four month old infants fixated on a regular schematic face longer than one with the same components disarranged, but studied a partly disarranged scrambled face longer than a completely disarranged one. Prior to two months, however, infants displayed equal fixation times (Haaf & Bell, 1967).

Another source of support for the discrepancy principle cited by Kagan (1971) comes from research where an originally meaningless stimulus is presented repeatedly, followed by a modification of the stimulus. The transformation elicits more attention than the last few presentations of the habituated stimulus (McCall & Kagan, 1967; McCall & Melson, 1969; Weizmann, Cohen & Pratt, 1971).

Kagan draws strong support for the discrepancy principle from a study by Super, Kagan, Morrison, Haith, and Weiffenbach (1972). Infants were shown a novel stimulus consisting of three elements, each of a different shape and hue, for twelve trials of thirty seconds each to obtain a

base rate. The infants were then randomly assigned to seven groups. In six of these groups, the mother exposed the child to a similar stimulus for 30 minutes a day for 21 days. The seventh group (the control group) was not exposed to any additional stimuli. The degree of similarity of the stimulus presented by the mother to the original stimulus constituted the experimental manipulation. The dependent variable was the change in fixation time between the original presentation of the stimuli and a second exposure to the same materials after the manipulation.

Infants who did not view a stimulus at home showed no change in fixation time ruling out maturation as an explanatory factor. Infants exposed by their mothers to minimally discrepant stimuli and infants that were exposed to maximally discrepant stimuli showed the largest decrease in fixation time. Infants exposed to moderately discrepant stimuli showed the smallest drop in fixation time.

When the child approaches the end of the first year, a new type of cognitive structure begins to influence fixation time. Kagan (1971) calls this new structure a hypothesis. A hypothesis is described as an interpretation of a discrepant event accomplished by mentally transforming the unusual event to familiar form, where the familiar form is the schema. The hypothesis is the cognitive structure used in this transformation. The difference between a

schema and a hypothesis is similar to the difference between recognition and interpretation. For example, it is necessary to have a schema for the quality of the human voice in order to understand the difference between a radio and human speech. But, if the speaker was conversing in another language, there would be no comprehension. The hypotheses needed to understand the meaning, the proper linguistic rules in this case, are missing.

Kagan makes the assumption that the activation of hypotheses to explain discrepant events is accompanied by sustained attention. The more hypotheses the child has available to explain a discrepant event, the longer the child will remain oriented to the event. Very familiar objects can be explained very quickly and require the activation of only a few hypotheses. Very unfamiliar objects also activate only a few hypotheses, but for a different reason. In this case, few hypotheses are available, and because of this, the attention span is very short (even an adult is quickly bored while watching a film scored in an unfamiliar language). The attention span is longest when the stimulus is moderately discrepant. In this case, a great many hypotheses are activated in order to explain why and how the partially transformed object is different from the familiar pattern. Kagan (1971, p. 70) quotes from James (1890) who describes the phenomenon as such: "We neither feel curiosity nor wonder concerning things so far beyond us that we

have no concepts to refer them to or standards by which to measure them."

Conclusions And The Statement Of Hypotheses

One common bond shared by studies concerned with levels of variation, predictability, consistency or uncertainty is that of the complexity of the "problem" that is presented to the perceiver. The less consistent or the more variable an entity is, the less certain are the predictions that can be made about the entity. To use Kelley's paradigm again, the more inconsistent (or the less stable) a pattern of information is, the more information is needed to make a stable attribution. For example, the problem of inferring whether or not a child is aggressive is made easier if the child is consistently or predictably observed behaving in an aggressive fashion and other sources of information substantiate this information. When the child's behavior is observed to be more variable, however, then other possible hypotheses must be entertained (e.g. interaction effects, such as the child is only aggressive in the presence of adults, or only exhibits aggression toward a certain person, or a class of persons). This results in a more difficult problem to solve. Because the problem is more difficult, more effort is expended to reduce the data into meaningful patterns.

In addition, subjects have been found to prefer information sources which provide consistent (and therefore more

useful) information (Levy, 1967; Naylor, 1964). These consistent sources should be preferred over inconsistent sources for reasons of utility. A consistent source makes the processor's task of analysis easier. As Kelley might have predicted, Levy (1967) using personality trait words, found that subjects felt more favorable to a more consistent source.

But investigators of the process of the perception of objects have found many conflicting relationships between the degree of complexity or variation inherent in a stimulus and preference for this stimulus. If the process of person perception is similar to the process involved in the perception of objects, then similar conflicts should be found in the study of person perception. Berlyne (1958, 1960) and Butler (1953) have found results that are inconsistent with Kelley's prediction. In these cases more variable stimuli elicited more attention in subjects (either animal or human) than less variable stimuli. Finally, to complicate matters further, several other theoretical systems (Bindra & Spinner, 1958; Kagan, 1971, Munnsinger & Kessen, 1964; Piaget, 1952) predict and find a curvilinear relationship between stimulus discrepancy or complexity and attention. Obviously the relationship of variance in the environment and stimulus preference or attention is not a simple one. Perhaps the proposed

analysis of the relationship between variation in information and attention to a stimulus based on Kelley's model was too naive.

Walker (1973) offers an explanation for the different relationships that have been found between stimulus preference and stimulus complexity. Walker asserts that the primary function is a curvilinear relationship between variability and stimulus preference. The curvilinear relationship is typical whenever a subject is asked for his preference among stimuli that range from a very high amount of inherent variability to a very low amount of variability. Walker assumes that preference functions are derived from an optimal complexity level. In a "free responding situation," the stimuli that are closest in complexity to this optimum level will be the preferred stimuli. For example, if a subject is presented with a series of mathematical problems that vary in complexity, and he is asked to rank his preference for working on any problem (for the sake of intrinsic interest) relative to the others, then a curvilinear relationship should be the result.

But, whenever the choice between stimuli is not based on the intrinsic qualities of the stimuli, but is instead based on "the instrumental role of the stimuli in reducing the complexities of other complex psychological events" (Walker, 1973, p. 69) then a monotonic increasing

function is the result. If, for example, our student is told he is going to be graded on his performance on the problems, his preference distribution is likely to change. Now the easiest problems should be chosen first and the harder problems will be chosen last assuming that high grades constitute a reward. In this case, the student will probably forsake those problems that offer a degree of challenge in order to reduce overall complexity so that the goal (high grades) will be easier to obtain. A similar situation occurs when a stimulus can play a part in reducing the complexity of psychological events. When a reward is associated with a correct solution to a problem, then the reduction of uncertainty becomes instrumental in obtaining that reward. This would result in the subject preferring a stable predictable source of information to a less stable and variable source of information. Thus, if Walker is correct in this analysis, stimulus preference and variation would be inversely related if and only if the stimuli are instrumental in obtaining some sort of goal. Walker's analysis of the relationship between stimulus complexity and preference for this stimulus when presented under different levels of salience for the perceiver can be used to expand upon the earlier speculations based on Kelley's model. From this new perspective, two hypotheses can be formulated. First, it is expected that the

source of information (the stimulus person) will consistently be valued more highly when this source is less variable or more predictable only when this source will be instrumental to obtain a desired end. Thus, it could be hypothesized that if a stimulus person is presented as being instrumental in obtaining a goal, the relationship between the variability or predictability of this person and attention to or preference for this person (stimulus preference) will take the form of an inverse linear function. Secondly, if the stimulus person is not instrumental in procuring a goal and is judged on his intrinsic properties alone, then it is hypothesized that the relationship between the variability of this person and the attention to this stimulus person will be curvilinear.

Finally, Levy (1967) found an interaction between mean favorability of information and consistency. A moderate increase in variance increased the attractiveness of an already attractive person while an increase in variance decreased the attractiveness of an unattractive person. On the basis of these findings, it is expected that the same relationships will be found in this study particularly for the dependent variable of likability which is analogous to Levy's dependent measure.

CHAPTER II

METHOD

Design

A three by two by two design was used. All subjects heard personality descriptions of three fictitious people used as stimuli to represent the three levels of the variance variable. This variable was composed of three lists of information that were highly consistent, somewhat consistent or very inconsistent. This was operationalized by presenting assessments of the stimulus person's personality by fictitious others who were members of a discussion group that the "stimulus people" had participated in. Two sets or replications of this information were included. One-half of the subjects heard one set while the other half were exposed to the other replication.

In addition, half the subjects were told that they would have personal contact with the person they chose and that contact could result in a reward. The possibility of future contact was not mentioned to the other half of the subjects.

Finally, half the participants received descriptions of the three stimulus people that had high mean likability, while the other half were presented with stimulus people that have lower means for likability.

Subjects

Subjects were 48 undergraduate male and female students selected from a subject pool at Loyola University. All students received credit for course requirements in Introductory Psychology. Students were randomly assigned to conditions with an equal number in each condition.

Procedure

The students entered the laboratory in groups of two. The experimenter asked the subjects to be seated and delivered either the future contact or the no contact manipulation. The future contact manipulation was given as follows:

This study is designed as a pilot study in group formation. The results of this study will be used in another experiment we are planning to run in the future. We have collected a number of facts and statements about three people. We are going to ask you to listen to this material and later to answer questions about these three people. We are interested only in your impressions of these people. This is not an intelligence test, so please try to give us the judgement that best represents how you really feel.

In addition, the students assigned to the future contact condition received the following information:

In addition, I may call you in the future and ask you to work with one of the three people that I just mentioned. I recently obtained a small grant, so funds for payment will be available. To give you an idea of how much you could possibly make, in a similar experiment subjects were able to earn anywhere from two to seven dollars for a half hours work depending upon how well they cooperated with their partner. After you learn something about the three people, you will be given the chance to choose which person you might want to work with. As you might suspect, we are interested in how choice of membership affects group performance.

Students were then asked if they were willing to participate. If the student hesitated, the experimenter asked:

Are you sure you can't find time? This is my thesis and I am desperately in need of subjects as the semester is ending and there isn't much time left.

All students had been screened so that they all needed at least enough credit for an additional experiment to complete their course requirements.

If the students were assigned to the future contact condition, the experimenter asked them to fill out a sheet indicating what hours they would be available at during the next week. In order to strengthen the cover story and to make the future contact manipulation more salient, the students also were asked if they would be available next "Tuesday, Thursday, or Friday afternoon as the three people that you will be hearing about all said that they could be available on these days." If the student objected to these fictitious appointment dates, then the experimenter responded that he would have to check the stimulus person's schedule after the student had made a choice so that a date that was mutually acceptable could be arranged.

The intent of this manipulation was to create two different sets of expectations in the two groups of students. It was expected that the students that were not led to expect any future contact would judge the stimulus person

as a free standing object (i.e. an object that was not a salient force in the students' life space as it lacked the property of utility). The perceiver of such a stimulus would be placed in Walker's (1973) "free responding situation" and should judge the object according to the degree to which it matched the "optimal complexity level" (i.e. its esthetic value as a free standing object).

Students that were led to believe that they would be seeing (and perhaps working with) the stimulus person should have responded in a much different way. The future contact manipulation should have changed the students' perceptions of the nature of the stimulus. The stimulus as an object became instrumental in the solution of the larger problem of forming an impression of the person who might be a future partner in a mutual endeavor.

At this time the following cover story was administered to the students:

Earlier in the semester a small discussion group was formed. At the last session the members were asked in private to answer some questions about their impressions of the other members. One of the tasks that we asked each member to do was to pick one word from a large list of words that would best describe each other member of the group, such as "pleasant, hard-working, nasty, or mediocre". What I am going to ask you to do today is to listen to the impressions that the members of the group formed about the three people that I mentioned before. Please listen carefully as I will only give you a minimal amount of information to base your decision upon.

Operationalization Of The Variance Variable

Variance was operationalized by creating a list of personality trait words that differed either widely or minimally in likability ratings. The intended effect of this manipulation was to create descriptions of people that varied in consistency. It was assumed that lists describing fictitious people who were presented as being both likable and unlikable at the same time would present the subject with a more difficult "problem" to solve than when the lists contained words that had about the same likability ratings. In terms of Kelley's model (1967) the stability of the inconsistent information would be low. In this case there would be too much "error" inherent in the information for the subject to form an accurate impression. But when the words in the list had similar ratings, the subject would be able to form a stable impression based on the information presented. Finally, since Levy (1967) found an interaction between mean favorability of information and consistency, parallel lists were constructed. One set of lists had higher than average likability ratings while the other set had lower than average likability ratings. The mid-point of the list of personality trait words scaled by Anderson (1968) was used as the "average" in this case.

Manipulation Of Stimulus Person Variability

Twelve sets of six adjectives each were constructed using words scaled by Anderson (1968) for likability.

Anderson's list contains 555 personality trait adjectives (such as honest, dull, or quiet). These words are scaled and ranked for likability on a continuum running from about 600 for "good" words to about zero for "bad" words. Of these 12 sets, half had a high mean likability rating (about 400 on Anderson's continuum) and half had a low mean (a score of about 200). Each of these two sets were divided into two replications of three levels of within-set variance of likability ratings.

The three levels of within set variance were operationalized by carefully choosing the six words in each set so that the internal variance of the likability ratings was set at a specified level. The levels chosen were: a standard deviation of 164 for the high variance condition, a standard deviation of 82 for the medium variance condition, and a standard deviation of 13 for the low variance condition.

An additional feature of the construction of each set was that a set contained two groups of three words. The three words in each group all had about the same likability level, but one group had a higher mean likability rating while the other group had a lower mean likability rating. When the groups were combined, the result was a specified level of variance. The magnitude of this variance depended upon the disparity between the two group's ratings (e.g.

554, 549, 545 vs. 254, 249, 246; $\bar{X} = 400$, S.D. = 164).

Finally, two sets of replications of every list at every likability and variance level were included to check for word specificity within a list. By checking for differences in subject's reactions to the parallel lists, it could be determined whether the response to the list was situation or word specific or the result of the inherent variation in the lists.

Each set of six adjectives were read onto an audio recorder by six different models or confederates who represented the "other members of the discussion group". The general format used to present the stimulus material was the experimenter asking each of the discussion group members "If you had to pick one word from the list to describe John (or Bob, or Tom), what would that word be?" After a short pause, each discussion group member replied with the appropriate word from one of the adjective lists. Within each list, the words were pronounced at equally spaced intervals of four seconds each. In order to reduce primacy and recency effects, the sets were organized in three blocks of two words each. Each block contained a word with a high likability rating and a word with a low likability rating. The twelve lists were all constructed in this manner. In addition, each set of six traits were typed on a list along with the name of the stimulus person and the caption; "_____ was described as being _____."

After delivering the cover story, the experimenter presented the students with the tape recording and the lists of words used to describe the stimulus persons. Students were given one minute to study the word lists. Each student was exposed to three different personality descriptions corresponding to each level of consistency in the variance variable. The order of the presentation of levels of stimulus person variation was counterbalanced across subjects within conditions (e.g., High, Medium, Low, Medium, Low, High; Low, High, Medium) to avoid order effects.

Preparation Of Stimulus Preference Material

Fifty six sentences were constructed concerning a fictitious person. In each sentence, the direct object was omitted in order to present as little information as possible about the stimulus person while retaining the interest value of the statement. An example of such a sentence is, "John volunteered to _____." These sentences were rated by 56 judges on a five point scale for "How much information they contain about John." These sentences were then ranked by the standard deviation of their ratings. The 18 sentences with the lowest standard deviations were used in order to reduce ambiguity in the stimulus material.

From the 18 sentences chosen, a sheet containing 54 sentences was constructed. The sentences were blocked in 18 groups of 3. Each group of 3 sentences was identical in

content except that the subject of the sentences was either "John, Bob, or Tom", the names used to represent the stimulus people.

Measure of Stimulus Preference

After administering the cover story and the information tapes, the experimenter presented the students with the lists of sentences. Students were asked to rank order the sentences in terms of how much interest they had in seeing the information contained. It was assumed that the more information that a student requested about a certain stimulus person, the more interested the student was in that person. The instructions that the experimenter gave are as follows:

Please rank order these sentences so that the sentence that you are most interested in seeing the answer to would give a "one" in the blank. The next most interesting would have a "two" and the least interesting would have a "three" in the blank.

The total scores for the stimulus preference task were computed by summing up the rankings over all 18 items for "John, Tom, and Bob" who represented the high, medium and low variance conditions. Thus the scores for each of the stimulus persons could range from a score of 18, which would indicate a high degree of interest, to 54, which would indicate low interest. Since each subject was exposed to all three variance conditions, there were three scores for every student.

Measure Of Passive Interest

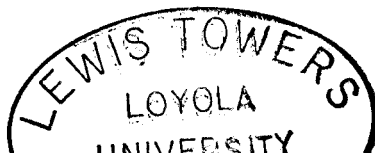
After the students had ranked the sentences, the experimenter removed the card containing the stimulus material and asked the students to recall the words that the other members of the discussion group had used to describe each stimulus person explaining that he wanted to see how closely the student had paid attention to the discussion group's opinions. The students were given the following instructions:

I would like to get an impression of how you view each of the three people. First, I am going to ask you to recall all the words that you can remember about John, Bob, or Tom. I want to see how carefully you paid attention to the discussion group's opinions. Just follow the instructions on the sheet and give it to me when you are finished.

The number of stimulus words that were correctly recalled was used as the dependent measure for passive interest. The assumption was made that the most interesting stimulus person would be the one that the student would remember the most about. This measure represented an attempt to measure "passive" interest as opposed to the more "active" interest that the sentence ordering task was designed to measure.

Measure Of Likability

After the word recall task, the experimenter asked the subjects to rate each stimulus person for likability. In addition, the subject was asked to rate how confident he/she



felt in this decision. Finally, as a manipulation check, the subjects were asked how consistent the information was about each person.

Debriefing

After filling out the scales, the experimenter informed the students that the experiment was over and (for the subjects in the future contact condition) that there was no experimental task to perform. The experimenter also explained that the purpose of the experiment had been to study how the consistency of the information about the stimulus person would affect their attention and impressions of the person. In addition, the students were informed that the three stimulus persons were fictitious and that members of the discussion group were confederates. Finally, subjects were given a brief explanation of what was expected and why. The experimenter thanked the student, asked if there were any questions and invited the student to review the results when the experiment was completed. The student was also asked not to divulge the contents of the experiment until the end of the semester so as not to bias the measurements in future trials.

CHAPTER III

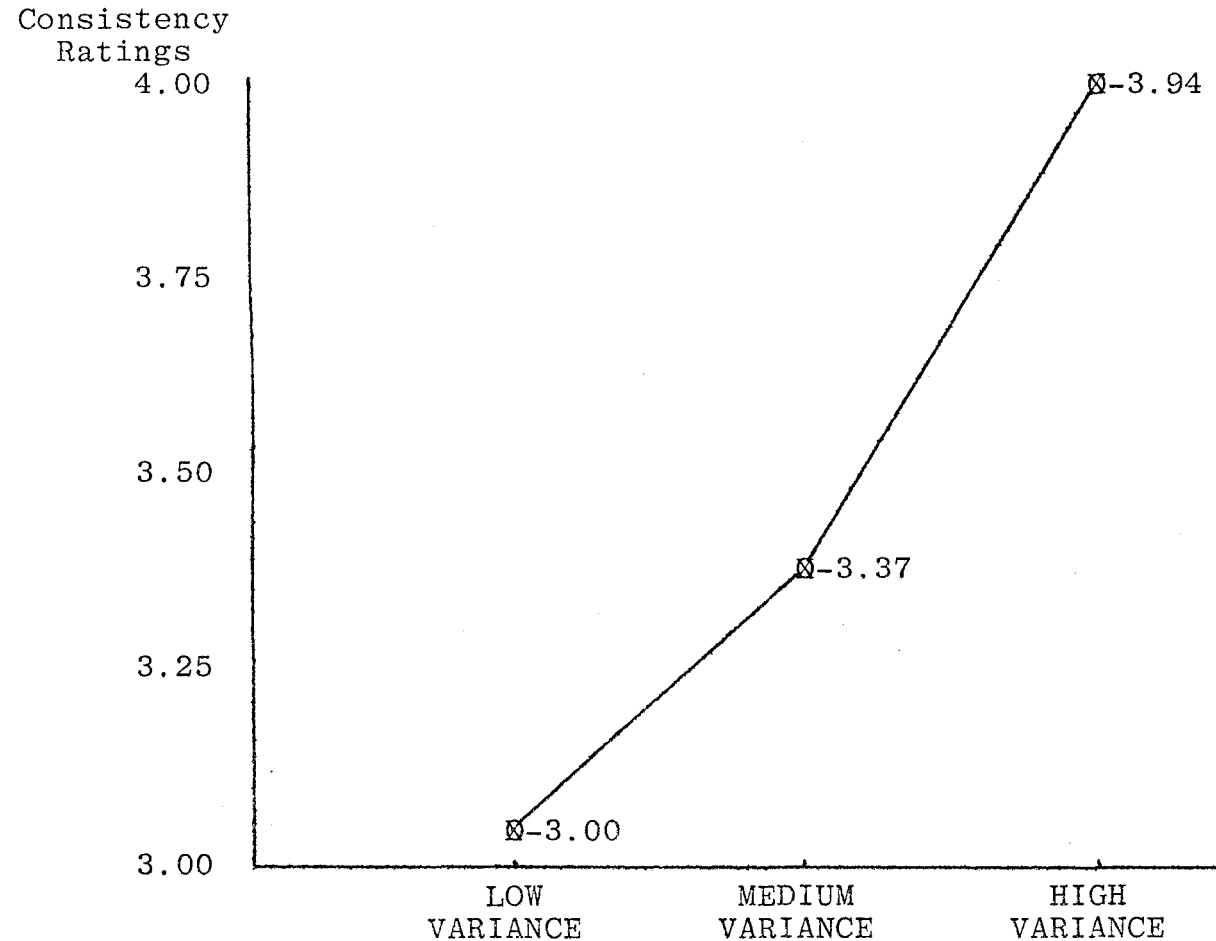
RESULTS

Manipulation Checks

After the debriefing, subjects in the future contact condition were asked whether or not they had believed that there was to be a "future experiment." Only two subjects expressed doubt. When they were asked how sure they were that there was to be no future experiment, both admitted that they were only unsure of the possibility of future contact and during the experiment were not convinced that the manipulation was an experimental ploy.

If the variance manipulation was effective, then the lists of words that represented the stimulus people should be seen as being more or less consistent according to the level of variance intended. In order to assess whether or not this was the case, the subjects were asked to rate the stimulus people for consistency. The results were as expected (see Figure 1). A main effect for the variance manipulation was obtained ($F(2,80) = 5.34, p < .01$). Those stimulus persons in the low variance conditions were seen as being most consistent, while those in the high variance conditions were seen as being the least consistent. In an

FIGURE 1. Ratings of Consistency of Information for the Three Levels of Variation in Word Lists. (1= Very Consistent; 7= Very Inconsistent)



analysis of the data for trend components, the linear trend best predicted variation ($F(1,80) = 10.55, p < .005$). This would indicate that the three levels of the variance manipulation were perceived as being different and equally spaced along a continuum.

In addition to the main effect found for the variance manipulation, the three way interaction between levels of variance, likability, and future contact or no future contact reached significance ($F(2,80) = 3.20, p < .05$). When there was the possibility of future contact, and when the level of the likability variable was low, the low variance condition was seen as being more consistent than the medium variance condition. If there was no possibility of future contact, and the level of likability was low, then the medium variance condition was seen as being the most consistent condition. Perceived consistency generally increased as variation decreased for high likability conditions in both the future contact and the no future contact conditions. When a simple effects analysis was performed across the three levels of the repeated measure (variance), none of the simple main effects (likability or future contact) or simple interaction effects (likability by future contact) reached a significant level. In the medium and high variance conditions,

however, the F ratio for the future contact by likability by variance interaction barely reached significance. The lack of significance for simple effects could be the result of the loss of degrees of freedom which is the result of the simple effects analysis. As this interaction is difficult to interpret, the student's perception of variation must be carefully examined.

Finally, the students were asked how confident they were in their decision concerning the likability of the stimulus person. No significant effects were found.

Information Search Task

The first dependent variable to be examined was that of stimulus preference. The variable was designed to measure the student's desire for additional information concerning the stimulus people. No significant differences were found. Significant main effects were expected for the variables of variance and future contact/no future contact. In addition, a significant interaction was expected between these variables with stimulus people in the future contact condition becoming less interesting as variance increased. In the no future contact condition a curvilinear relationship was expected between the variance in information and measures of stimulus preference with the medium variance condition commanding the most interest. These hypotheses were not supported. A table of means for the

future contact/no future contact by variance interaction is included in Appendix B. Notice that the relationship between the stimulus preference scores and the level of variance is curvilinear with the highest mean score in the medium variance condition. In the future contact condition, however, the predicted linear relationship does not occur. All cell means were very near the expected value of 36 (18 items x 2) indicating that subject preference for the stimuli was random. Again, since none of the experimental treatments seemed to have had an effect, the fault probably lies within the design of the dependent variable.

Measure Of Passive Interest

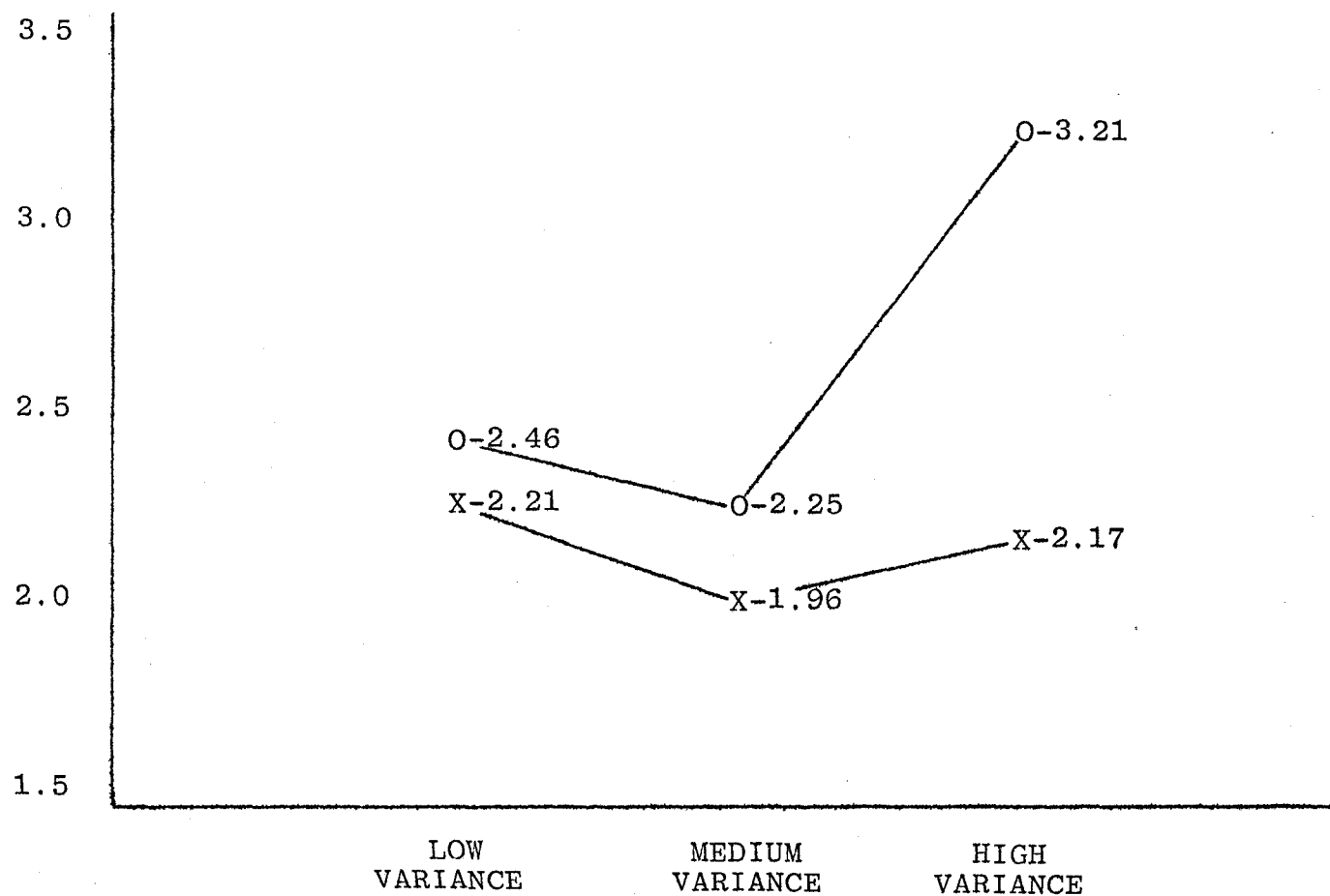
As stated before, a test for memory of the trait words assigned to the stimulus people was included on the assumption that the most interesting stimulus person would be remembered in the recall task. Again, significant main effects for the variables of variance and future contact were expected along with a significant interaction between these variables. The form of this interaction was expected to be of the same form as the stimulus preference variable with memory. A description of the results of the analysis can be found in Appendix B. A significant difference was found between the levels of the variance variable ($F(2,80) = 6.38, p < .01$). Subjects remembered the fewest

words in the case of medium variance ($X_m = 2.10$), slightly more for the low variance condition ($X_l = 2.33$), and the most for the high variance condition ($X_h = 2.69$). When the data were collapsed across the variance variable and a Neuman Keuls analysis was performed, it was found that the low variance and the medium variance conditions did not significantly differ from each other while the high variance condition differed from both at the .05 level. An examination of the significant likability by variance interaction ($F(2,80) = 3.66, p < .05$) indicated that more words were remembered when the stimulus person was presented as being of low likability and when there was high variance in the descriptive trait words. The form of this interaction is depicted in Figure 2.

The interaction between variance and likability was broken down so that differences in the average amount of words remembered could be examined for both high likability and low likability conditions at each level of variance. The simple main effects for the likability factor across levels of the variance factor yielded a significant difference only on the high variance level ($F(1,44) = 4.95, p < .05$). At the high variance level an average of 2.16 words were remembered when the stimulus person was presented as being highly likable. When the stimulus person was presented as being of low likability, however, an average of 3.21 words were remembered.

FIGURE 2. Average Number of Words Recalled by Subjects at Both Levels of Likability and at the Three Levels of Variation in Word Lists. (X= High Likability; O= Low Likability)

Average Number of
Words Recalled



The main effect for the likability variable for the dependent variable of memory approached significance ($\underline{F}(1,40) = 2.43, p < .10$). More words were remembered by subjects in the low likability conditions ($\bar{X} = 2.64$) than in the high likability condition ($\bar{X} = 2.11$).

Finally, the likability by replication by variation interaction for the dependent variable of memory also reached a significant level ($\underline{F}(2,80) = 3.34, p < .05$). A graph of this interaction is included in Figure 3. The simple effects analysis of the likability by replication interaction for the medium variance level approached significance ($\underline{F}(1,44) = 3.33, p < .10$).

Liking For Stimulus Persons

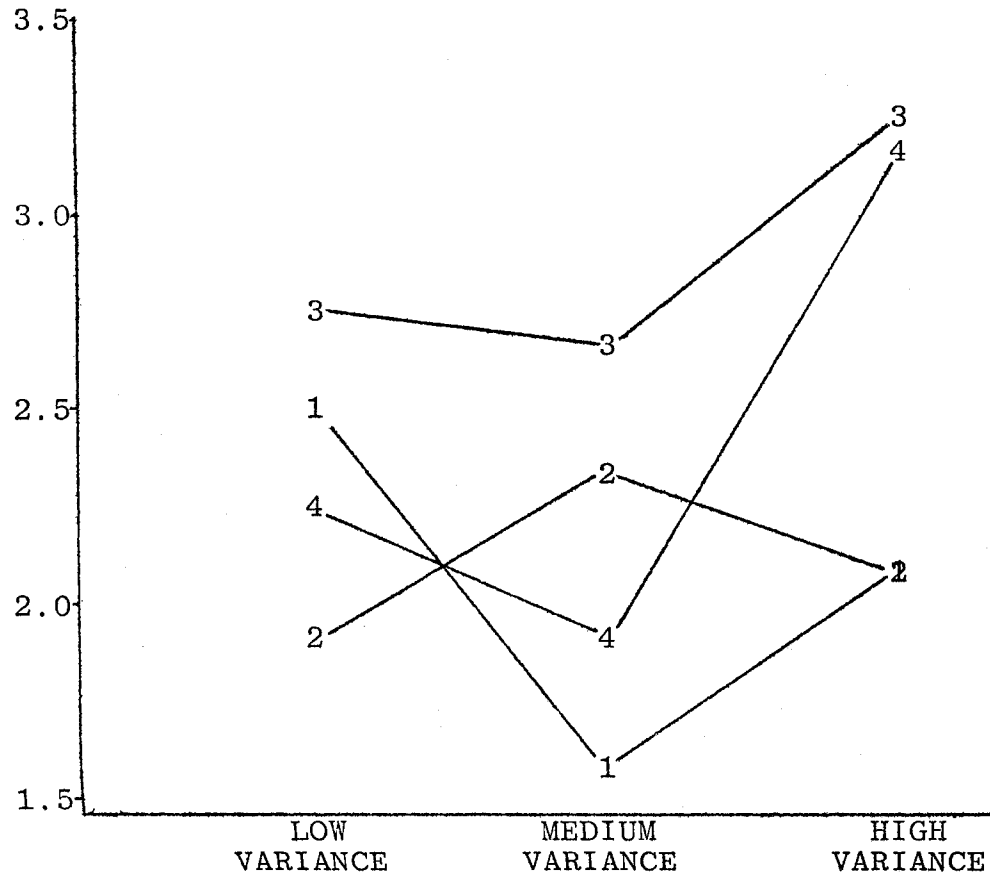
The last dependent variable to be discussed is that of the likability ratings. The results of the analysis of the data is included in Appendix B.

The future contact/no future contact variable approached significance ($\underline{F}(1,40) = 3.34, p < .10$). Subjects who expected to work with a stimulus person in the future liked the stimulus people more so than the subject who did not have this expectation. The variance variable also approached significance ($\underline{F}(2,80) = 2.34, p < .10$). The interaction between the future contact and variation variables also approached significance ($F(1,80) = 2.92, p < .10$).

FIGURE 3. Average Number of Words Recalled by Subjects in Both Replications, at Both Levels of Likability, and at the three levels of Variation in Word Lists.

Average Number of Words Recalled

1= High Likability, Replication 1	3= Low Likability, Replication 1
2= High Likability, Replication 2	4= Low Likability, Replication 2



A graph of this interaction is included in Figure 4. A table of means for the future contact/no future contact interaction by variance interaction is included in Table 1.

It was expected that the amount of variation preferred in the stimulus people would be different when future contact was not anticipated. Those who expected contact should prefer less variation. Those who did not expect future contact should like the moderately variant stimulus as the low variance stimulus should have been too simple to be pleasing. The high variance stimulus should also be less preferable as an impression should be harder to synthesize from widely divergent information. Separate tests for trend were performed across the levels of the variance factor for the future contact/no future contact condition. When subjects were led to believe that they would have future contact with the stimulus person, the stimulus person in the low variance condition was judged the most likable ($X_L = 3.25$, 1 = like very much, 7 = dislike very much). Further, the subjects judged the stimulus person in the high variance condition as being the least likable ($X_H = 4.29$). The linear trend was significant ($F = 4.39$, $p < .05$), while the quadratic trend added no significant predictability.

FIGURE 4. Ratings of Word Lists Representing Fictitious People with the Mention of Future Contact or No Future Contact Implied at all Three Levels of Manipulated List Variance. (X=Future Contact; O=No Future Contact)

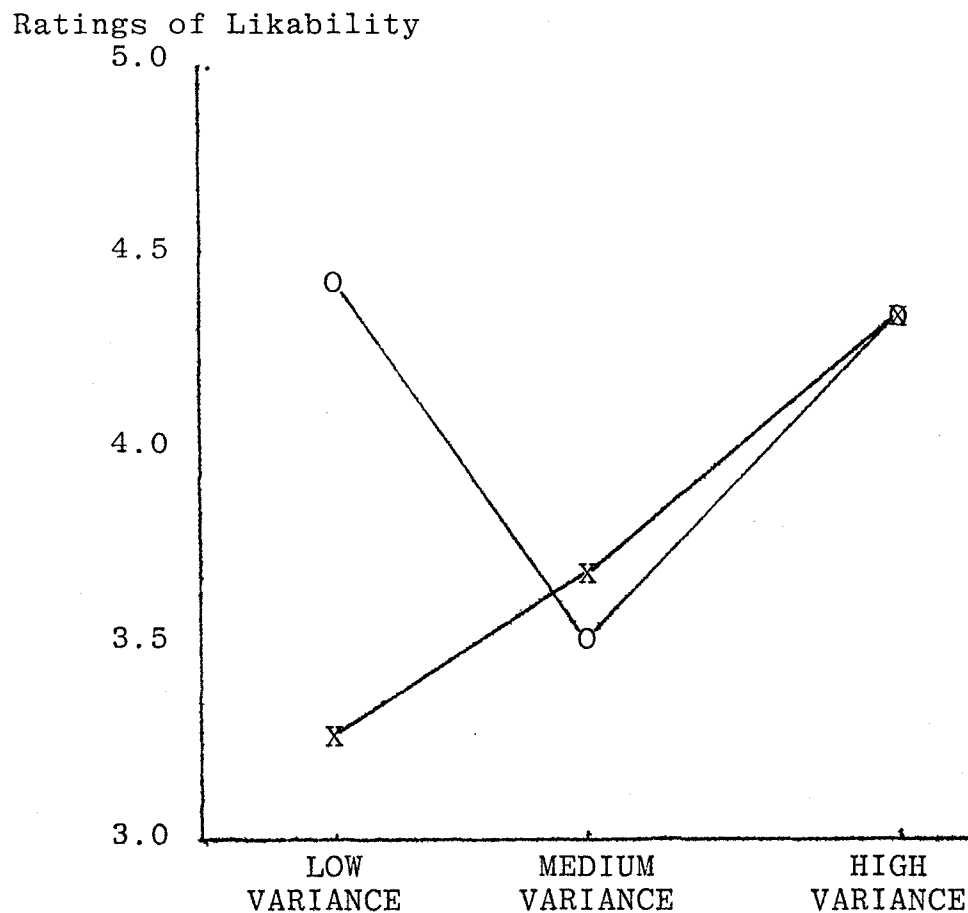


TABLE 1. MEAN LIKABILITY RATINGS FOR THE CELLS IN THE
FUTURE CONTACT/NO FUTURE CONTACT BY VARIANCE INTERACTION

	Low Variance	Medium Variance	High Variance
Future Contact Mentioned	3.25	3.71	4.29
No Future Contact Mentioned	4.45	3.58	4.29

When no future contact was mentioned, however, the best fitting trend was the quadratic polynomial ($F = 4.48, p < .05$). The means for the low variance ($X_L = 4.46$) and the high variance conditions ($X_H = 4.29$) were roughly similar. The highest ratings for likability were found at the medium variance condition ($X_M = 3.58$). These findings support the hypotheses that predicted different preferences for stimuli depending upon whether or not any future contact was mentioned.

As would be expected, when subjects were asked to rate how well they liked each of the stimulus people, the independent variable for likability reached significance ($F(1,40) = 7.91, p < .05$).

It was also expected that increases in variance would increase the likability ratings in the high likability condition while increases in variance would decrease the likability ratings in the low likability conditions. This hypothesis was not supported.

Finally, a significant main effect for the replication factor was found to be significant ($F(1,40) = 7.13, p < .05$). The interaction between the independent variables of likability and replications was also significant ($F(1,40) = 6.40, p < .05$). A simple effects analysis revealed that there was no significant difference between

the two levels of the independent variable likability within the first replication, while a significant difference was found between the two levels of likability on the second level ($F(1,44) = 4.76, p < .05$). This significance was due to an unexpectedly high likability rating for the low likability cell in the first replication ($\bar{X}_{XR1} = 4.72$) the lower the score the more likable was the stimulus person's rating.

CHAPTER IV

DISCUSSION

Summary Of Independent And Dependent Variables

This study attempted to investigate how different levels of variation in information affected preference for stimuli. In contrast to most studies of this type, the stimuli used in this investigation were personal attributes of fictitious people.

Because of inconsistent results in other studies that dealt with the effects of information variability in person perception (Levy, 1964; 1967) two additional variables were included. The average level of likability of the word lists (above and beyond) the variance within the lists had previously been found to affect the judgements of perceivers (Levy, 1967). A likability manipulation was included for this reason.

A third independent variable was included in an attempt to explain why other studies that dealt with variation produced different outcomes. It was expected that the consequences or potential usefulness of the stimuli would affect the subjects' judgments and preferences for stimuli. Two different sets of instructions were used in

the study for this reason. One set implied that there would be future contact with the favored stimulus while the other made no mention of this.

Finally, at each different level of variation and likability, two different lists of personality trait words were constructed. These duplicate lists were included in the analysis as a replication factor in order to check for effects that were word or list specific. It was expected that there would be no interactions between this replication factor and any of the other independent variables.

The dependent variables were chosen to represent different dimensions of preference for the stimulus person. An information search task was included to measure active searching for new information. A test for the amount of information that subjects retained about the stimulus people was used as a measure of selective attention and/or retention. Finally, subjects were asked to rate people who represented the different levels of information variation for likability. This dependent measure was utilized as a criterion for the more subjective or affective aspects of stimulus preference.

Because of the many possible relationships between the independent and dependent variables in this study, the discussion will be organized around the three dependent variables and the interactions between these variables will

be discussed in terms of the results of the information search task, the memory task, and the likability ratings. The dependent variables will then be examined for any common relationships. Finally, a summary of the main findings of the study and the implications for future research will be presented as a conclusion.

The Information Search Task

The first dependent variable to be examined will be the information search task. Since no significant differences were found, this section will concentrate upon possible explanations for the failure of the variable.

There are several possible reasons why no significant differences were found. It is possible that the manipulations did not produce the desired effect (i.e. there was no propensity for any one stimulus person to be of any more interest than the others.) If the fault lies in the conceptualization of the experimental manipulation, then other means of operationalizing the concept of variance salience, and favorability of information of others will have to be developed.

There are indications in the manipulation checks, however, that point to the effectiveness of at least the variance variable. The clear linear relationship between the three levels of the variation variable and the subjects' judgements of list consistency provides strong support for the validity of the variance manipulation.

Given that the manipulations were effective, then it is possible that variance, salience, and favorability do not affect stimulus preference. This would be inconsistent with the research presented by Irwin, Smith and Mayfield (1956), Irwin and Smith (1947), Naylor (1964), and, if stimulus preference can be equated with fixation time, Kagan (1971). These studies have all found relationships between the degree of variance or consistency in a stimulus and information-seeking behavior. Further, the failure of these manipulations to affect stimulus preference would be considered to be contrary to Kelley's model of attribution and in particular his concept of information dependence. If variation in information about another person presents an unclear picture of that person, then Kelley would predict that the more variant the information about the other person of interest, the lower the information level of the perceiver. The lower the information level, the more "informationally dependent" is the perceiver. This should result in a more active search for information.

Finally, there are several plausible explanations for the failure to find the anticipated results in the information search task that could be connected with sensitivity in the dependent variable. It is possible that the instrument used as the criterion (the 18 item list) was too complicated for some subjects to follow. Subjects may have

been unable to keep the names of the stimulus people straight throughout the 18 items.

Another explanation could be a lack of a relationship between the act of asking which of the stimulus people was the most interesting and any real interest in a particular stimulus. In particular, subjects may not have felt that the information that was needed to fill in the blank of the sentence, "John voted for ____." was relevant information for their purposes. In this case, any pattern of answers would probably be random.

Another possibility is that the information contained in each item was connected to each stimulus person in an idiosyncratic manner by each subject. For example, "John" may have been the most interesting person overall. The subject may have thought that knowing who John had voted for would provide no information about John, but knowing who Tom voted for would provide much information about Tom. In this case, it would be better to know something about some uninteresting person as opposed to knowing nothing about an interesting one.

The Memory Task

The results for the memory task indicate that more words were remembered in the high variance, low likability condition. Since the compromising interaction with the replication factor was confined to the medium variance

condition, any reservations regarding the list specificity of the affect are confined to this level of the variance variable. The explanation for this interaction with replications must lie within the construction of the lists themselves. It is possible that the list of adjectives that make up the manipulation at the second replication, high likability, medium variance cell (the only cell that was out of phase with the general trend in the data) contained either a word or set of words that were easier to remember in an idiosyncratic way.

The tendency to remember more words about the stimulus person when that person was presented as being high in variance and low in general likability could be explained in several different ways. A powerful but simplistic explanation is that the person described in the high variance, low likability condition was perceived as being a bad, unpredictable person. If this was the case, the perceiver would do well to pay attention to such people in order to avoid unpleasant surprises.

Another possible explanation is related to the word lists themselves. The high variance lists contained three words that were near the middle of Anderson's word lists and three words that were at the extreme ends. This arrangement raises the possibility that the extreme words may have been uncommon words. This in turn raises the possibility that unusual words in the description may have been more

visible. The result would be that more words were remembered in high variance conditions.

The data analysis indicates that more words were remembered in the high variance condition only at the low likability level. The assumption that would have to be made is that extreme low likability words (such as obnoxious or deceitful) are more unusual than extreme high likability words (such as intelligent or sincere). A study by Weist (1965) supports this additional assumption. The results of this study indicate that people are more hesitant about making unfavorable as opposed to favorable evaluations. The information about the stimulus people described in the lists is supposedly obtained from evaluations from a discussion group members. Unfavorable evaluations should therefore have been perceived as being more unusual than favorable evaluations by the subjects. These "unusual" words could have been easier to remember.

One way to evaluate this hypothesis is to examine the actual words that the subjects remembered as opposed to just the number of words remembered. All of the sets of words were constructed so that within each set the trait words could be divided into two groups of three words each. The words in each sub-set of three words would have roughly the same likability rating, one sub-set always had a higher likability rating than the other. The average likability

of the overall set would be the average of the two sub-sets. The difference between the average likability ratings of these sub-sets represented the variance within the overall set of words. Thus, all the sets could be divided into a low likability half and a high likability half.

The "extreme" words or the words that were at the lower end of Anderson's list are represented by the low likability half of the high variation, low likability condition. If these extreme words are perceived as being unusual and unusual words are recalled more frequently, then more words from the low likability half of the high variation, low likability condition should have been recalled when compared to the other variation levels (low and medium) in the low likability condition.

The number of high likability words and the number of low likability words that were remembered in the word lists representing the three levels of variance at the low likability level were examined. A chi-square analysis revealed that subjects did not remember any more low or high likability words than would be expected by chance alone for any of the levels of variation. This would indicate that subjects' responses in the high variance condition were not the result of remembering unusual unfavorable words.

Finally, a third possible explanation would attribute the interaction between likability and variation construction to Anderson's list of trait words. The assumption made

when constructing the word lists was that Anderson's list was scaled at the interval level. In this case, a word with a likability rating of 400 would be twice as favorable as a word with a likability rating of 200. If the scale could be interpreted only at the ordinal level, however, then any arithmetic operations (such as taking an average) would result in distortion. It is very likely that the "distance" between the words at the extreme ends of the continuum (and particularly those words at the unfavorable end) would seem greater to the subject than the distances between the words in the middle of the scale. This would result in a difference in the variation manipulation as the subject perceived it and as the experimenter intended it. If the assumption can again be made that extremely unfavorable words are rarely used and that there was a larger gap between these words, then the condition with the most variation would be the low likability high variation condition. This would at first seem unlikely because of the subjects prior ability to rate the lists for consistency. But, while the subjects may have been able to accurately perceive the measures used, differences in consistency as manipulation checks may not have been responsive to the large gaps found at the extreme lower end of the trait word continuum. Thus the tendency to remember more words only at the low likability, high variance condition may be due to

the unintended higher degree of variation in these lists. This variation may have affected the subjects' perceptions of and interest in the stimuli resulting in more words being recalled.

Ratings Of Likability

The likability ratings obtained from the subjects comprise the last dependent measure to be discussed. In order to avoid confusion, the dependent variable of liking will heretofore be referred to as the likability ratings while the independent variable of likability will be referred to as the likability manipulation.

The relationship between the likability ratings and the likability manipulation can be viewed as a manipulation check. The ratings of the stimulus people were significantly more likable when they were presented as being highly likable. But the replication by likability interaction was also significant. This was unexpected as the words that were used to construct these lists had been independently rated by Anderson (1968). The deviation from the expected results can be attributed to the low likability cell in the first replication. The three lists of trait words that were used in this cell were perceived by the subjects as being approximately as likable as the lists of trait words used in the high likability cells in both replications. The likability by replication by variance interaction did not

even approach a significant level. The interaction, therefore, was not due to a particular list, but was the result of all three lists representing all three levels of variation at the low likability level of the first replication.

There should have been a substantial difference between the likability ratings in the low likability first replication cell and the high likability cells. The three lists in the low likability first replication all had a mean of about 200 (the range of ratings in Anderson's list ran from 0 to about 600). The six lists representing both replications of the high likability manipulations had means of 400. It is difficult to determine why the lists in the first replication of the low likability condition were rated so favorably. Again, the only explanation lies within the words used to construct these lists.

Of particular interest is the form of the future contact by variation interaction. The interaction took the predicted shape, an inverse relationship between likability and variation was obtained when the subjects were led to believe that they were going to interact with one of the stimulus people in the future. When no possibility of future contact was mentioned, however, the predicted curvilinear relationship was obtained. (The medium variance condition was judged to be more likable than either the high or low variance conditions).

Walker's (1973) explanation of different relationships that have been found between stimulus preference and stimulus variation was supported by these results. Walker states that if the stimulus is of relatively low importance or has no utility value for the perceiver, then the perceiver will generally prefer an object that is near his or her optimal complexity level. This optimal complexity level is determined by the processing ability of the perceiver (Munnsinger and Kessen, 1964). If the stimulation that is offered is below this optimal level, boredom is the result. But if the stimulus offers too much stimulation, confusion, or, in extreme cases, fear results.

In the case of the stimulus people who were not led to believe that they were to have future contact, the relationship between the likability ratings and the independent variable of variation was curvilinear. The medium variance condition produced the highest likability ratings when there was no mention of future contact. Subjects may have felt uncomfortable when they processed the information in the high variation condition. The information that they received was probably too inconsistent for the subjects to form an impression. Confusion would result.

The stimulus people in the low variance condition were also rated as being less likable than the stimulus people in the medium variance condition. These people may

have been too consistent. The amount of variation inherent in the information about a low variance person may have led the perceivers to form a quick and stable impression. Once this impression was formed, and because this person was of no real consequence to the perceiver, the subjects may have become disenchanted with the stimulus as an object of interest. The result would be a decrease in preference for this person when compared to the more stimulating moderately variable stimulus person.

A different relationship was predicted when the subjects were told that they were to have future contact with the stimulus person. The modification in the instructions was intended to change the qualities of the stimulus so that the stimulus would be instrumental in obtaining a higher goal (in this case, the stimulus person was to be a "partner" in a future attempt to obtain a reward). The subjects' ratings of the stimuli were not based on more than just the intrinsic qualities of the stimuli. For this reason, the stimulus's role in reducing the uncertainty of picking a partner resulted in the inverse relationship between variation and judgements of liking for the stimulus person. The low variance condition replaced the medium variance condition as the most likable condition because the pleasurable qualities of the stimulus (or its ability to bring a subject to the optimum arousal level) were displaced as

motivators by the new utilitarian qualities of the stimulus. The stimulus was no longer "free standing" but had acquired the additional property of being a tool to reach yet another goal.

The implications of this finding can best be illustrated through the use of an example. A fictitious character in a novel is seldom connected with any real life outcomes for the reader. It is perhaps for this reason that a successful protagonist is generally not entirely perfect nor is the antagonist entirely evil. Good characterization demands some variation in the information that the reader receives. A constant reiteration of the goodness of the hero/heroine or the badness of the villain would be most boring. It is also generally the case that the characters maintain some consistency. If the protagonist was "good" on one page but "bad" on the next, the result would be a rather confused reader. Too much inconsistency can overwhelm the capacity of the reader to integrate the divergent information.

If this situation is changed, a different process may take place. If, for example, our reader is an employer interested in hiring a prospective employee, the way in which the information is processed should change. The employer's decision about the candidate is important as the acceptance of an unqualified candidate will cause repercussions in the

future. The object of scrutiny has changed in nature from a simple character whose presence can be terminated by simply closing the book to a piece of a problem that demands careful deliberation.

This change in the processor's "set" should result in different priorities and preferences. For example, variation in information about the candidate can be disconcerting to the employer. The task at hand is to form an accurate impression or assessment of the potential employee. If one recommendation describes the employee as "honest, sincere, intelligent, and hard-working", while another describes the employee as being "dependent, self-conscious and anxious" the employer is unlikely to form a favorable impression. The employer wants to be sure that the candidate will perform well enough to do the job. The information about the prospective employee would indicate that the employee performs exceptionally well in one situation and very poorly in another. If there is no information about the similarity of the employer's situation to the other two sets of circumstances, then the employer must gamble.

A more favorable impression should be formed if variation in the information is low. For example, if one information source describes the candidate as being "outgoing, obliging and self sufficient", while the other source describes the prospect as being "self critical, self-assured

and soft-hearted", then the employer is less likely to form an unfavorable impression. Although the prospective employee was not described in superlative terms, as in the first example, neither was the employee given a "bad" recommendation by the other source. The employer has consistent information indicating that the employee is not exceptional, but is at least consistently well thought of. In this way, the employer can be assured of a consistent performance. The end result is that the employer's larger problem (i.e. running the business) will not be as complex when the variance in the information about the employee is low.

Relationships Among The Dependent Variables

The three dependent variables (the information search task, the memory task, and the likability ratings) were chosen to represent three different aspects of stimulus preference. If these three variables were measuring the same effect, only in different ways, then it would be expected that the correlations between these dependent variables should be both high and positive.

The pattern of correlations between the dependent variables did not, however, turn out as expected. (See Table 2). Correlations significant with $p < .001$ included the low variance likability measurements by the medium variance likability measures, the low variance attention measures by the medium variance attention measures, and the high

TABLE 2. INTERCORRELATIONS BETWEEN THE DEPENDENT
VARIABLES OF RATED LIKABILITY, NUMBER OF WORDS
RECALLED, AND MEASURES OF CURIOSITY ABOUT THE
STIMULUS AT THE THREE LEVELS OF STIMULUS VARIABILITY

Low Variance		
Word Recall	.32	
Likability Ratings	.24	.22
	Stimulus Preference	Word Recall

Medium Variance		
Word Recall	.18	
Likability Ratings	.14	.45**
	Stimulus Preference	Word Recall

High Variance		
Word Recall	.37*	
Likability Ratings	.33	-.09
	Stimulus Preference	Word Recall

* $P > .01$

** $P > .001$

variance attention measures by the low variance attention measures. These correlations all represent relationships between different variance levels of each dependent variable. This should be expected as each subject probably had a tendency to respond to an item in a biased way. This response bias could be the result of a tendency to use only one end of a scale for example. The only pair of dependent variables that correlated with a $p < .001$ were the word recall task and the likability ratings at the medium variance level. The higher the likability rating at the medium variance level, the more words the subjects remembered. But this relationship was not found at the other levels of the variation variable.

This lack of correlation between the dependent variables would indicate that these variables did not measure the same phenomena. One explanation for the independence of these dependent variables can be found in a study by Anderson and Hubert (1963). Subjects were asked to read sets of personality adjectives and were then asked to rate their liking of a person so described. In addition, in some conditions subjects were also requested to recall the adjectives that they had read. Anderson and Hubert reasoned that if recall reduced the primary effect normally found in such paradigms, then this would indicate that the primacy effect was caused by decreased attention to the later adjectives. The recall task would force the subject to attend to all the adjectives reducing this attention effect. This was found to be the case.

One conclusion drawn from the results was that impression memory is different from the type of memory needed to verbally recall the adjectives. This conclusion was based on the different results obtained when the subjects were asked to both form an impression and recall the words. Impression memory did not seem to be dependent upon verbal memory.

In view of the results of Anderson and Hubert's study, the lack of correlation between the dependent variables would be expected. The information search task did not produce significant effects. The unsystematic results would probably preclude any meaningful correlations between this variable and the other dependent measures. The likability ratings and the memory task were very similar to the impression formation and recall tasks used by Anderson and Hubert. The issue of primacy effects is not of interest in the present study (there was an attempt to balance out this effect by ordering the adjectives in a high-low, high-low format). But the lack of relationship between the likability ratings and the memory task could result from the use of two storage systems, one for impression formation and one for verbal recall. A subject may be able to accurately list words even if they are an inconsistent set. But when asked to form a subjective impression based upon this information, the subject may not make use of this information using other processes for integration of the information.

Criticism Of The Operational Definitions Of The Independent Variables

The attempts to operationalize the variance variable, the likability variable and the salience variable (future contact/no future contact) can all be criticized on several accounts. The procedures used to represent these variables were not unanimously successful. With the benefits of hind-sight, each of these variables could be improved.

The variance variable was represented by constructing lists consisting of very good and very bad words (high variance) or fairly good and fairly bad words (lower variance). In constructing these lists, words were used from the list compiled by Anderson (1968). When constructing these lists, problems arose when two replications or equivalent lists had to be formed in the high variance conditions. These conditions contained words selected from the extreme ends of Anderson's list. At the ends of the list, particularly at the lower end, there were fewer words to choose from. This forced the experimenter to use the same word on duplicate lists on one occasion and to include words with similar likability ratings that were logically inconsistent (i.e. inquisitive with easy going and comical with fashionable). This system may have been too rigid for its purposes.

This rigidity was necessitated by restrictions placed upon the form of the data if an analysis of variance design was to be used. But if the data could be analyzed using a multiple regression approach, the presentation of the stimulus material could be altered.

One advantage of using a multiple regression analysis is that the independent variables need not be in "block" form. In the present study, two equivalent lists were needed for two likability levels of the three levels of variance. This meant that twelve lists had to be constructed at specified levels of likability and variance. This caused the problems that were mentioned previously.

Further, because of these limitations, only two replications could be used. If more equivalent lists had been available, some of the troublesome replication effects may not have been found. The effects of those lists that were found to be idiosyncratic could have been balanced out if more replications had been available at those levels.

By using a multiple regression approach, these problems could be alleviated. Since the amount of likability or variance in a list could be "continuous", lists of words could be constructed almost at random. A score for the level of likability and variance could be computed for each list. This would eliminate the restrictions upon list construction necessitated by the analysis of variance design.

In addition, since a different list could be constructed for each subject, the need for replications of word lists would also be eliminated. The replications were originally used to reduce the validity of the charge that any effects of the variance manipulation could also be explained as being effects due to the idiosyncracies of the list used to operationalize that variable. If many lists were used, the grounds for this criticism can be eliminated as the concepts of "variance" or "likability" would be represented in part by all the lists as opposed to only the twelve specific lists used.

The operationalization of the salience variable (the future contact/no future contact manipulation) could also be improved upon. The chief criticism that can be made is the inexactness of a manipulation check for this variable. It was, however, difficult to devise a better method for assessing the believability of this manipulation. To ask the subject during debriefing whether he/she believe that another experimental situation was forthcoming would invite distortion. Even if the subject was convinced by the cover story he/she may not admit that they had been fooled. Asking the subject before the dependent measures were taken could have compromised the results. The method used to evaluate the effects of the salience manipulation was simply to verbally question the subject during the debriefing.

This method also invited falsification of results, and being very subjective, could not be quantified.

This difficulty in assessing the impact of the salience manipulation also creates problems in interpreting the results. In cases where the manipulation failed, such as in the recall task, it is almost impossible to determine whether the manipulation was too weak or whether the manipulation was successful but had no effect upon that particular dependent measure. In general, the impact of the salience manipulation seems to have been weaker than expected. There were no significant main effects or interactions with the other independent variables when the information search task and the memory task were examined. Further, the salience manipulation produced only marginal significance in the analysis of the data obtained from the likability ratings.

A main effect for the salience manipulation was expected, but only marginal significance was found. This expectation was based upon a study by Darley and Bersheid (1967). When future contact with others was mentioned, the likability ratings of these people were higher than the ratings of people whom the subjects did not expect to meet. This difference was interpreted as being the result of subject's anticipating future contact and trying to make the best of this future relationship.

The salience measure could be improved by using the same procedures (i.e. implying that there will be future contact). But instead of stating that the contact will take place "in the future," the subjects could be led to believe that the contact will be more immediate. This should increase the impact of the manipulation.

Implications For Future Research

While the current study of the effects of consistency upon attention and impression formation used words scaled for likability, this is not the only dimension found in trait relationships. The words that were used probably could be scaled on dimensions other than this single underlying factor. To the extent that these other dimensions contribute to the make-up of the meanings of the words used in a study, then some of the unexplained variance in the interpretations of the meanings of the trait words can be explained. Thus a word such as "warm" can be a good word on the likability list but may be a neutral or an antithetical word upon some other scale such as intellectuality. The critical variable is the consistency or internal variance of a list of words and not the specific dimension of likability. If the effects of variance in information about others has the same effects upon other dimensions, and these effects register upon dependent variables that match these dimensions, then a stronger statement can be made about the mechanisms for dealing with inconsistency.

It is perhaps no surprise that the most successful dependent variable in this study was that of likability. In this case, the stimulus material used was scaled on the same dimension of meaning (likability) as the dependent variable was designed to measure.

Clues in the search for these other underlying dimensions can be found in the literature surrounding implicit personality theory. Researchers in this area have investigated more precise ways of measuring trait relationships (Hays, 1958, Bruner, Shapiro and Tagiuri, 1958; Wishner, 1960, Rosenberg, Nelson, and Vivekananthan, 1968). These researchers found that the impressions a person forms of other people are far more predictable than other researchers had supposed.

In Wishner's study, undergraduates were asked to rate teachers on personality traits. The correlations between those traits were then computed. As predicted, when traits that were highly correlated were manipulated in descriptions of others, they affected each other while uncorrelated traits had little effect on each other.

This strategy led to a search for underlying dimensions in trait relationships. In a study by Rosenberg, Nelson, and Vivekananthan (1968) a multi-dimensional approach to the structure of personality impressions was used. Two dimensions were found, a social desirability

factor and an intellectual desirability factor. The robustness of these factors was tested in a study by Zanna and Hamilton (1972) who manipulated trait words loading on one factor, both factors, or neither factor. As predicted, traits related to the social desirability factor were affected most when traits high or low in social desirability were used in the manipulation. The same results were found for the intellectual desirability factor.

Another body of literature relevant to underlying dimensions in impression formation is represented by the work done with the semantic differential technique (Lay and Jackson, 1969; Osgood, Suci and Tannenbaum, 1957). This technique is widely used in the field of social psychology to measure connotative meaning.

Osgood and his associates have found three persisting dimensions when trait dimensions are analyzed. These three dimensions include an evaluative factor, a potency factor, and an activity factor. The evaluative factor usually accounts for the largest amount of variance when trait words are submitted to factor analysis. Typical loadings on these three dimensions include the adjective pairs good-bad (evaluative), strong-weak (potency) and active-passive (activity).

These alternative dimensions could be used to replicate and test the effects of consistent or inconsistent

information upon attention to other people and the resulting impressions that are formed. Words describing a "stimulus person" could be combined into lists that systematically vary in the amount of consistency or inconsistency contained within these lists for several factors. For example, words describing a person who is presented as being highly variant on the evaluative, potency and activity factors should be easier to remember than words describing a person who is more consistent on one or more of these factors. The degree of internal consistency on all these factors should also influence liking and, if more sensitive measures can be developed, attention to this person as an object. Further, words loading at different ends of these scales (as represented by the likability variable in the present study) could differentially contribute to any impression that is formed. A study such as this might help explain the process of impression formation in general and, in particular, the integration of conflicting information.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study has been to investigate the effects of consistent or inconsistent information and the salience or importance of this information upon several dependent variables. The dependent variables represent several ways of operationalizing the concept of "stimulus preference" in person perception. These dependent variables include: attention to the person as an object, memory of information about the stimulus person, and a rating of likability for this person.

Forty-eight college students were given information about fictitious people in the form of lists of personality trait words. The consistency and the mean likability of these lists were systematically varied. In addition, half of the students were told they were to interact with these fictitious people while the other half were not. After these manipulations were administered, the students were asked to select which "people" they would want to know more about, to recall the information given and to rate the people for likability.

An analysis of the data revealed that the students remembered significantly more trait words when variation was high and the mean likability of the list was low.

Three possible explanations for this effect were given. First, it is logical to assume that people who are both unpredictable and bad are people to remember (and possibly to avoid). Secondly, the trait words in the lists in the high variance, low likability condition were chosen from the extreme low end of Anderson's (1968) word list. These words may be adjectives that are seldom used and therefore may have been unusual enough to remember. A post-hoc analysis of the recall rate of words from this extreme end of the list indicated that these extreme words were not recalled more often than the other words. Finally, it was suggested that the words in Anderson's list were not equally spaced along a continuum. Distances between words at the lower extreme of the list may not have been equivalent to distances between words at other points in the list. The inclusion of extreme low likability words may have resulted in the perception of high variance only in the low likability, high variance condition resulting in more interest in these people.

Differences in likability ratings were also found depending upon whether or not the students had been led to expect future contact with the stimulus person. When the students expected to meet and work with the fictitious people, an inverse linear relationship was found between the likability ratings and the amount of variation in the

trait word lists (the higher the variation of the list, the lower the likability rating). When the students were not told that they were to meet with the stimulus people, a curvilinear relationship was found with a moderate amount of variance resulting in higher likability ratings. These two different response patterns were explained as being either the result of demands for information causing a preference for a consistent source or as an example of preference for a level of complexity that matches the subject's information processing ability.

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APPENDIX A

HIGH LIKABILITY WORD LISTS

(Scores are from Anderson's list)

	<u>REPLICATION 1</u>		<u>REPLICATION 2</u>	
LOW VARIANCE	INQUISITIVE	413	OUTGOING	412
	EASYGOING	412	SELF-SUFFICIENT	412
	CASUAL	411	SELF-ASSURED	411
	CANDID	389	OBLIGING	389
	COMICAL	389	SELF-CRITICAL	389
	FASHIONABLE	387	SOFT-HEARTED	387
	Mean = 400 S.D.=12.9		Mean = 400 S.D. = 12.8	
- - - - -				
MEDIUM VARIANCE	COOPERATIVE	476	PERCEPTIVE	477
	ETHICAL	476	INTELLECTUAL	476
	VERSATILE	474	CAPABLE	471
	SHREWD	328	INOFFENSIVE	332
	NONCHALANT	324	FORWARD	318
	SELF-CONTENTED	324	METHODICAL	325
	Mean = 400 S.D. = 82		Mean = 400 S.D. = 82	
- - - - -				
HIGH VARIANCE	SINCERE	573	HONEST	555
	TRUSTWORTHY	539	UNDERSTANDING	549
	INTELLIGENT	537	TRUTHFUL	545
	UNSYSTEMATIC	253	DEPENDENT	254
	RESIGNED	249	SELF-CONSCIOUS	249
	UNDECIDED	248	ANXIOUS	246
	Mean = 400 S.D. = 164		Mean = 400 S.D. = 164	

LOW LIKABILITY WORD LIST

(Scores are from Anderson's list)

	<u>REPLICATION 1</u>		<u>REPLICATION 2</u>	
LOW VARIANCE	SAD	209	IMPRACTICAL	213
	WITHDRAWN	213	SARCASTIC	210
	FEARFUL	214	ABSENT MINDED	213
	FRUSTRATED	188	INCONSISTENT	193
	ILLOGICAL	186	UNAGREEABLE	186
	<u>UNINDUSTRIOUS</u>	<u>191</u>	<u>RASH</u>	<u>184</u>
	Mean = 200 S.D. = 13		Mean = 200 S.D. = 13	
- - - - -				
MEDIUM VARIANCE	BASHFUL	279	SELF-CONCERNED	279
	LONESOME	274	AUTHORITATIVE	274
	RESTLESS	274	CHOOSY	272
	MALADJUSTED	123	AIMLESS	122
	LAZY	126	LIFELESS	127
	<u>VAIN</u>	<u>127</u>	<u>COMPLAINING</u>	<u>127</u>
	Mean = 200 S.D. = 82		Mean = 200 S.D. = 82	
- - - - -				
HIGH VARIANCE	TALKATIVE	352	MORALISTIC	357
	PERSISTANT	347	PRUDENT	348
	EXCITED	351	RESERVED	348
	DECEITFUL	62	OBNOXIOUS	52
	DISHONEST	41	MALICIOUS	48
	<u>OBNOXIOUS</u>	<u>48</u>	<u>UNTRUTHFUL</u>	<u>43</u>
	Mean = 200 S.D. = 164		Mean = 200 S.D. = 166	

SCORING SHEET FOR DEPENDENT VARIABLES
OF MEMORY, LIKABILITY, CONFIDENCE, AND CONSISTENCY

1. Please write all the descriptive words that you can remember about John here. _____
2. Please write all the descriptive words that you can remember about Tom here. _____
3. Please write all the descriptive words that you can remember about Bob here. _____

How much do you like John?

1---2---3---4---5---6---7

very	very
much	little

How confident are you in this decision?

1---2---3---4---5---6---7

very	not very
confident	confident

How much do you like Tom?

1---2---3---4---5---6---7

very	very
much	little

How confident are you in this decision?

1---2---3---4---5---6---7

very	not very
confident	confident

How much do you like Bob?

1---2---3---4---5---6---7

very	very
much	little

How confident are you in this decision?

1---2---3---4---5---6---7

very	not very
confident	confident

SCORING SHEET FOR DEPENDENT VARIABLES
OF MEMORY, LIKABILITY, CONFIDENCE, AND CONSISTENCY
(CONTINUED)

How consistent was the information about John?

1---2---3---4---5---6---7

very

very

consistent

inconsistent

How consistent was the information about Tom?

1---2---3---4---5---6---7

very

very

consistent

inconsistent

How consistent was the information about Bob?

1---2---3---4---5---6---7

very consistent

very inconsistent

SCORING SHEET FOR INFORMATION SEARCH TASK

- 1). John voted for _____.
Tom voted for _____.
Bob voted for _____.
- 2). Bob volunteered to _____.
John volunteered to _____.
Tom volunteered to _____.
- 3). Tom has been suggested for _____.
Bob has been suggested for _____.
John has been suggested for _____.
- 4). John has been included in _____.
Bob has been included in _____.
Tom has been included in _____.
- 5). Bob has joined _____.
Tom has joined _____.
John has joined _____.
- 6). Tom is usually seen at _____.
John is usually seen at _____.
Bob is usually seen at _____.
- 7). John is fast becoming _____.
Tom is fast becoming _____.
Bob is fast becoming _____.
- 8). Bob is often referred to as _____.
John is often referred to as _____.
Tom is often referred to as _____.
- 9). Tom has constantly exhibited _____.
Bob has constantly exhibited _____.
John has constantly exhibited _____.
- 10). John is aware of _____.
Bob is aware of _____.
Tom is aware of _____.
- 11). Bob is highly regarded as _____.
Tom is highly regarded as _____.
John is highly regarded as _____.

SCORING SHEET FOR INFORMATION SEARCH TASK

(CONTINUED)

- 12). Tom is not known for _____.
Bob is not known for _____.
John is not known for _____.
- 13). John often says _____.
Tom often says _____.
Bob often says _____.
- 14). Bob has always been able to _____.
John has always been able to _____.
Tom has always been able to _____.
- 15). Tom expects to be _____.
Bob expects to be _____.
John expects to be _____.
- 16). John is determined to _____.
Bob is determined to _____.
Tom is determined to _____.
- 17). Bob often wishes that he was _____.
Tom often wishes that he was _____.
John often wishes that he was _____.
- 18). Tom tends to be _____.
John tends to be _____.
Bob tends to be _____.

DUMMY SCHEDULING SHEET
USED IN FUTURE CONTACT MANIPULATION

Please indicate which times you will be available during
the next week.

Monday _____

Tuesday _____

Wednesday _____

Thursday _____

Friday _____

PRELIMINARY LIST OF ITEMS USED
FOR INFORMATION SEARCH TASK

I am interested in how people integrate information. For a study I am preparing I need estimates of how much information is contained within the stimulus material. Each of these sentences contains some information about John even though the last word, or the object of the sentence is missing. Please rate each sentence for how much information it contains about John.

1	2	3	4	5
Sentence contains much information about John.			Sentence contains little information about John.	

Please mark your rating in the appropriate circle on the optiscan sheet.

- 1). John owns a _____.
- 2). John voted for _____.
- 3). John worked as a _____.
- 4). John believes in _____.
- 5). John volunteered to _____.
- 6). John's favorite hobby is _____.
- 7). John's favorite topic is _____.
- 8). John wishes to be _____.

PRELIMINARY LIST OF ITEMS USED
FOR INFORMATION SEARCH TASK
(CONTINUED)

- 9). John has been suggested for _____.
- 10). John has been included in _____.
- 11). John has joined _____.
- 12). John is moving towards _____.
- 13). John usually enjoys _____.
- 14). John has been known to _____.
- 15). John usually goes to _____.
- 16). John avoids _____.
- 17). John is usually seen at _____.
- 18). John is fast becoming _____.
- 19). John is often referred to as _____.
- 20). John has constantly exhibited _____.
- 21). John has the ability to _____.
- 22). John will soon be _____.
- 23). John usually is best at _____.
- 24). John almost always uses _____.
- 25). John frequents _____ often.
- 26). John desires to know _____.
- 27). John is never without _____.
- 28). John feels that he needs _____.

PRELIMINARY LIST OF ITEMS USED
FOR INFORMATION SEARCH TASK
(CONTINUED)

- 29). John has a high regard for _____.
- 30). John often feels that he is _____.
- 31). John is inclined to _____.
- 32). John is very often _____.
- 33). John is going _____.
- 34). John has a lot of _____.
- 35). John is aware of _____.
- 36). John is best at _____.
- 37). John is highly regarded as _____.
- 38). John is afraid of _____.
- 39). John is in favor of _____.
- 40). John is not known for _____.
- 41). John enjoys _____.
- 42). John is unable to _____.
- 43). John is thought to be _____.
- 44). John is interested in _____.
- 45). John is unusually _____.
- 46). John often says _____.
- 47). John has always been able to _____.
- 48). John thinks that _____ is good.
- 49). John expects to be _____.

PRELIMINARY LIST OF ITEMS USED
FOR INFORMATION SEARCH TASK
(CONTINUED)

- 50). John is concerned about _____.
- 51). John is determined to _____.
- 52). John often wishes that he was _____.
- 53). John tends to be _____.
- 54). John asserts that he is _____.
- 55). John is critical of _____.
- 56). John prefers to be _____.

DATA SUMMARY SHEET

Condition: FC NFC

Subject # _____

HL LL

Sex _____

R1 R2

Tape # _____

Low Variance

Words Recalled _____ # _____

Like _____

Consistency _____

Confidence _____

Medium Variance

Words Recalled _____ # _____

Like _____

Consistency _____

Confidence _____

High Variance

Words Recalled _____ # _____

Like _____

Consistency _____

Confidence _____

Items

High _____ Medium _____ Low _____

APPENDIX B

MEANS FOR THE FUTURE CONTACT/NO FUTURE CONTACT
 BY VARIANCE INTERACTION FOR THE DEPENDENT
 VARIABLE OF STIMULUS PREFERENCE

	Low Variance	Medium Variance	High Variance
Future Contact Mentioned	35.95	36.87	35.58
No Future Contact Mentioned	35.71	35.12	37.54

ANALYSIS OF VARIANCE SUMMARY TABLE FOR THE
DEPENDENT VARIABLE OF CONFIDENCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F
FUTURE CONTACT/ NO FUTURE CONTACT(F)	1	.027	.027	.006
LIKABILITY(L)	1	.111	.111	.025
REPLICATION(R)	1	1.000	1.000	.224
VARIANCE(V)	2	3.166	1.583	1.268
FL	1	.111	.111	.025
FR	1	5.444	5.444	1.219
LR	1	14.694	14.694	3.288
FV	2	1.055	.528	.422
LV	2	.388	.194	.156
RV	2	4.666	2.333	1.869
FLR	1	2.250	2.250	.503
FLV	2	1.055	.528	.423
FRV	2	.722	.361	.289
LRV	2	2.889	1.444	1.569
S(FLR) ERROR	40	178.776	4.469	---
FLRV	2	3.500	1.750	1.402
SV(FLR) ERROR	80	99.882	1.248	---

ANALYSIS OF VARIANCE SUMMARY TABLE FOR THE DEPENDENT VARIABLE OF CONSISTENCY

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F
FUTURE CONTACT/ NO FUTURE CONTACT(F)	1	1.174	1.174	.296
LIKABILITY(L)	1	1.562	1.562	.394
REPLICATION(R)	1	3.673	3.673	.926
VARIANCE(V)	2	21.375	10.687	5.336
FL	1	.007	.007	.002
FR	1	.840	.840	.212
LR	1	.062	.062	.016
FV	2	2.764	1.382	.690
LV	2	.792	.395	.198
RV	2	7.597	3.798	1.897
FLR	1	.840	.840	.212
FLV	2	12.847	6.423	3.207
FRV	2	1.263	.632	.315
LRV	2	3.292	1.646	.821
S(FLR) ERROR	40	158.609	3.965	---
FLRV	2	8.514	4.257	2.125
SV(FLR) ERROR	80	160.212	2.003	---

ANALYSIS OF VARIANCE SUMMARY TABLE FOR THE DEPENDENT VARIABLE OF STIMULUS PREFERENCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F
FUTURE CONTACT/ NO FUTURE CONTACT(F)	1	.007	.007	.006
LIKABILITY(L)	1	.062	.062	.054
REPLICATION(R)	1	2.007	2.007	1.751
VARIANCE(V)	2	14.014	7.007	.127
FL	1	2.007	2.007	1.751
FR	1	.062	.062	.054
LR	1	.007	.007	.006
FV	2	83.514	41.757	.756
LV	2	52.792	26.396	.478
RV	2	9.430	4.715	.085
FLR	1	2.507	2.507	2.188
FLV	2	25.180	12.590	.228
FRV	2	47.542	23.771	.430
LRV	2	229.430	114.715	2.076
S(FLR) ERROR	40	45.833	1.146	---
FLRV	2	27.763	13.881	.251
SV(FLR) ERROR	80	4,420.152	55.252	---

ANALYSIS OF VARIANCE SUMMARY TABLE FOR THE
DEPENDENT VARIABLE OF MEMORY FOR TRAIT WORDS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F
FUTURE CONTACT/ NO FUTURE CONTACT(F)	1	.027	.027	.007
LIST LIKABILITY(L)	1	10.027	10.027	2.431
REPLICATION(R)	1	1.000	1.000	.242
VARIANCE(V)	2	8.292	4.149	6.378
FL	1	.027	.027	.007
FR	1	1.777	1.777	.431
LR	1	1.777	1.777	.431
FV	2	.847	.424	.652
LV	2	4.764	2.382	3.664
RV	2	2.042	1.021	1.570
FLR	1	.111	.111	.027
FLV	2	.597	.299	.459
FRV	2	.597	.299	.459
LRV	2	4.347	2.174	3.344
S(FLR) ERROR	40	164.998	4.125	---
FLRV	2	2.514	1.257	1.934
SV(FLR) ERROR	80	52.000	.650	---

ANALYSIS OF VARIANCE SUMMARY TABLE FOR THE DEPENDENT VARIABLE OF LIKABILITY

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F
FUTURE CONTACT/ NO FUTURE CONTACT(F)	1	4.694	4.694	3.39
LIST LIKABILITY(L)	1	11.111	11.111	7.91
REPLICATION(R)	1	10.028	10.028	7.13
VARIANCE(V)	2	10.431	5.215	2.34
FL	1	.111	.111	.08
FR	1	.694	.694	.49
LR	1	8.999	8.999	6.40
FV	2	13.014	6.507	2.92
LV	2	6.764	3.382	1.52
RV	2	3.014	1.507	.68
FLR	1	5.444	5.444	3.87
FLV	2	1.847	.924	.41
FRV	2	.597	.299	.13
LRV	2	1.792	.896	.40
S(FLR) ERROR	40	56.222	1.406	---
FLRV	2	.431	.215	.09
SV(FLR) ERROR	80	178.105	2.226	---

APPROVAL SHEET

The thesis submitted by Brian Lee Bentley has been read and approved by the following committee:

Dr. John Edwards, Director
Associate Professor, Psychology, Loyola

Dr. Richard Maier
Associate Professor, Psychology, Loyola

Dr. Emil Posavac
Associate Professor, Psychology, Loyola

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

October 26, 1977

Date

John O. Edwards

Director's Signature