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The Ohio State University, Ph.D., 1976
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THE COMMUNICATION OF EVALUATIVE IMPRESSIONS
IN PERSON PERCEPTION

Dissertation

Presented in Partial Fulfillment of the Requirements
for the degree Doctor of Philosophy in the Graduate
School of The Ohio State University

by

Jacqueline Annette Caldwell, B.S., M.A.

The Ohio State University

1976

Reading Committee:

Thomas M. Ostrom
Linda B. James
John H. Harvey

Approved by

[Signature]
Advisor
Department of Psychology
DEDICATION

This book is dedicated to my parents, Mr. and Mrs. Roy L. Caldwell, for their unlimited devotion, understanding and encouragement in my educational pursuits.
ACKNOWLEDGMENTS

I thank Dr. Thomas M. Ostrom for invaluable aid in advising me in all phases of this research and my graduate training. Thanks also to Dr. Bibb Latané, Dr. Anthony Greenwald and Dr. Timothy Brock for their scholarly advice during my graduate career. Special thanks to Dr. Herbert Mirels for continued encouragement and participation on my committees through the years. Also thanks to Dr. John Harvey for his participation on my dissertation committee and moral support. To Dr. William Moore and Dr. Janet Smith for serving on my dissertation committee.

I am indebted to Joyce Decker, Dr. Linda James and Dr. Robert Smith for their comraderie and aid through the years. Also, to Mr. LaMont Turner for patience, encouragement and assistance in preparation of this dissertation.
VITA

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Education

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Ohio State University Columbus, Ohio Ph.D. 1976 Social Psychology

Background: Graduate minor in clinical psychology and statistical methods.
Trained in use of computer analysis and programming. Research methodology
training in laboratory and field research. Trained to review scientific
papers, write and review grant proposals.

References: Will be furnished upon request

Academic Honors

High School Valedictorian
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Bausch Lamb Awards in science - 6 years
History Scholarship for maintaining a 4.0 gpa for 6 years
Crisco Home Economics Trophy
Betty Crocker Award
English Senior Award
Merit Scholarship Finalist
Algebra Senior Award
Nonacademic Honors

Awarded Daughters of American Revolution medal for leadership, citizenship and service.
Music honor for service and participation in Senior High Chorus, and Girls Ensemble as vocalist and pianist.
Finalist in Merit Scholarship Examination.
Chosen as one of two representatives to Girls State, where I was elected to city and county posts and became State Attorney General.

Teaching Interests

Courses in: General Psychology; Introductory Social Psychology; Experimental Social Psychology; Social Psychology and Race; Theories of Attitude Change; Altruism and Helping Behavior; Theories and Research in Anxiety and Fear; Psychology and the Black Experience (taught either as Black Studies or Psychology course); Introductory Statistics in Education and Behavioral Research.

Research Interests

Cultural effects upon conceptual interpretation of verbal stimuli. Psychological and physiological effects of anxiety and fear. The effects of embarrassment and its use in everyday life. Negative and positive stimuli and/or emotions effects upon interpersonal relationships.

Professional Experience

Graduate:
Guest lecturer in General Psychology classes.
Member of American Psychological Association (student status)
Master's Thesis
Member of Black Graduate Caucus
Teaching Associate in Introductory Social Psychology class
Attended course in modern, jazz and African dance

Undergraduate:
Independent studies with Dr. Michael Pallak in dissonance theory and attitude change research.
Lectured to Bell Telephone employees on understanding and interacting with new Black employees.
Guest lecturer in Child Psychology course taught by Dr. Cantor on interpretation of Jensen studies and their social implications.
Special one-hour lectures in Rhetoric class on the psychology of colors and the psychology of sleep.
Student Senate representative for the Black Student Union.
Coordinator of homecoming Black Fashion Show which included original designs and retail clothes.
Elected as one of two representatives to a closed seminar with Dr. Margaret Mead by members of Parent-Child Relationship class. Member of Black Action Theatre and performed on a 5-state tour. Member of the Black Genesis Dance Troupe, a professional modern, jazz and African dance group. Member of University Chorus. Elected dorm floor social activities chairman.

High School: Substitute teacher junior and senior year in math and science courses. Gained extensive experience in preparing and delivering lectures and group leadership of younger and older students. Editor-in-Chief of Senior High Yearbook Conducted practice sessions of Senior High Chorus and pianist at graduation ceremonies. Announcer for high school band at football games.

Research Experience

Publications:

Coauthor of study on contextual effects, set size and order of presentation effects on shifts in meaning, presented at Western Psychological Association convention, 1973. Method of presentation of massive list of personal adjectives effects on free association responses, Social Psychology Bulletin (departmental publication), coauthor. Current slang and evaluative ratings (departmental publication).

Manuscripts under Review:

Effects of negative arousal and presentation of positive, negative or neutral stimuli on stopping a thief; Journal of Social Psychology.

Manuscripts in Preparation:

The effects of prior cheating behavior and labeling on reporting cheating behavior of others.

Changes in evaluative meaning of conventional personal adjectives combined with slang words of the same evaluative rating.

Effects of set size on the number of adjective versus noun responses: A replication.

Research in Progress:

Embarrassment: A social deterrent of deviant behavior. Similarity of responses under single and multiple presentation of personal adjectives.
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CHAPTER I

Individuals often form impressions of others on the basis of very brief observation or upon hearing someone else describe a few of another's characteristics. This impression information is frequently verbalized in terms of traits, such as hostile, friendly, aggressive, or helpful. These impressions are generated spontaneously and we are sometimes unaware of making these inferences. Inferences, as used in this paper, refer to the cognitive evaluation and categorization of stimulus information. Moreover, the inferences made from trait information appear to be meaningful and organized in such a way that we can acknowledge an overall impression of a person from bits of information. Accordingly, we are also prepared to make judgments (certainty ratings, free associations, etc.) of other qualities (e.g., traits or behavioral tendencies) which we have not observed.

Most recent research in impression formation has focused on how information about others is processed: How information is dealt with on a cognitive level, what is its meaning; how bits of personality trait information are integrated to form an impression; at what cognitive level does evaluative meaning, categorization or integration occur? These are just a few of the current areas of interest in information processing. Some of these processes will be studied as they pertain to the effects of evaluative properties on person perception.
In everyday life, people often use words describing persons whom they like or dislike with varied intensity. It is not uncommon to enter into a conversation which involves evaluative judgments or descriptions of a person who is present or absent from the group. For example, a usual question is "Have you met Davey Jones' wife; what is she like?" The person being asked the question then proceeds to answer with physically descriptive information and personality characteristics.

What is of interest is the communication of impressions from one person to another. In order to understand the communication of impressions it is necessary to first understand how such information is transmitted from one person to another and secondly how it is encoded by the receiver to a cognitive level. Using the above example the following questions can explain what this inquiry into the impression communication process entails. The other factors of interest are (a) how will the person receiving this information internalize it, (b) form some type of meaning by coding what he has heard and (c) form an overall opinion about a woman he has never met based on bits and pieces of information relayed by another person.

This type of information is very important in determining how we interact with one another and how much of our interaction time is consumed receiving or relaying information about the evaluative properties (positive, negative, and neutral likeability) of a person.
This paper is an attempt to study the qualities or negative, neutral and positive information and their effects on cognitive representation. Cognitive representation is some form of categorizing or organizing constructs produced by a set of facts or perceptual information about a person who is being described (Ostrom, 1975). It is an intervening process elicited by information a person receives and mediates subsequent responses to that information.

Cognitive representation will be studied by looking at what goes on between its elements. These elements are (a) initial stimulus information (e.g. personality traits, behavior, physical appearance, etc.) and (b) implicational associates and spontaneously generated inferences (e.g., if told a person is reliable we assume he is also honest), are the two of import in this paper.

The proposed way to study the qualitative characteristics of positive, negative, and neutral stimuli is through the use of Ostrom's associative meaning shift model (Ostrom, 1975). It will be used in that it provides a frame of reference and a vocabulary, and can be applied to different conceptual or theoretical inquiries.

There are two phases of the associative model process which are of interest. First, the cognitive representation of persons must be determined. That is, what kinds of cognitions do people use to represent other persons in their world? Operationally, we would be asking how the information under study is generated and how does it acquire its evaluative meaning. Evaluative meaning refers to the
location of the stimulus trait on an evaluative continuum, which usually indicates favorability or likability of impressions toward a stimulus person, of such evaluative information. Once cognitive representation has been studied and evaluative meaning of the stimulus trait has been established, then we can proceed to the second phase of the process, how a judgment is made on the basis of its cognitive representation (likability or general evaluative reaction).

This paper will deal with the role of positive, negative, and neutral information in an individual's description of someone they like, dislike or feel neutral towards. Also, questions concerning the impact of such information on the implicational associates it generates and how this negative, positive or neutral evaluation information affects likability judgments or general evaluative reactions will be addressed.

Simply, the associative model is being used as a frame of reference to study the effects of negative, positive and neutral information. We wish to see if these evaluative qualities of information operate differently throughout the communication process of transmission and reception of impressions.

It is theorized that an individual uses the following process to form an impression from stimulus trait information. First, a person perceives the stimulus (trait, face, etc.). On a cognitive level he then codes the stimulus trait by either organizing the information along some dimension (good-bad), (b) relating the stimulus to some
category of concepts (e.g., like my cousin Sue) or (c) generating implicational associates from these concepts (lawyer or citrus worker) thus giving meaning to the stimulus trait. Next, the person combines the stimulus with other bits of information related to it, which can be any one of the three coding schemes listed above or other given stimulus information. Finally, the person responds to the stimulus trait (scaling it, agreeing-disagreeing, etc.), (Wyer, 1974; Hastof, Schneider & Polefka, 1970). Regardless of the type of stimulus information given (positive, neutral, or negative) these steps should be the same for forming impressions of others.

Although it is assumed that these steps always occur, we wish to analyze the three classes of evaluative properties (positive, neutral and negative) at each of these steps of the impression formation process to see if they differ. To do so, we shall use the vocabulary of the associative model and its frame of reference to test what may be occurring during each of these steps for positive, negative and neutral information.

This paper is organized along the steps of the outlined impression formation process. Contrasts between positive, negative, and neutral information are studied at each step within the process. Chapter II concerns the transmission phase, that is how individuals describe persons they like or dislike. The distributional characteristics of word frequency is compared for negative, neutral and positive scale values. Comparisons are made between studies which required subjects
to generate words freely to evaluative categories or to respond to stimulus words provided. Other comparisons of evaluative properties are made from frequency data of ratings on ease of scaling and ease of generating responses, etc. Normative data regarding differential features of positive, neutral and negative stimulus information can be compared.

Cognitive representation, given a transmitted impression, is the topic of Chapter III. Here it is assumed that some form of cognitive activity occurs in order for subjects to form implicational associates which allow impressions to be formed about a stimulus person. The effects of positive, negative and neutral information is contrasted among several different studies using a variety of indices to measure their effects (uniqueness of response, certainty ratings, etc.). Within this chapter attribution theory is introduced to explain uniqueness and certainty responses of extreme positive and negative information (Kelley, 1972; Kanouse & Hanson, 1972).

Attribution theory describes how a person infers the characteristics or internal states of others from observable information (traits, behavior), etc.). In Chapter III the theory's construct of correspondent inferences is used to explain certain patterns of results wherein greater certainty of response is given to negative information than positive or neutral information (negativity bias). The theory will be included in discussion of extremity (polarity) effects on responses. The construct of correspondent inferences applies here also.
It implies that stimuli which give information about distinct behaviors or characteristics of a person makes it easier to infer internal causation. Thus, information which conveys such characteristics or behaviors increases the certainty with which a person is willing to rate such a trait or verbalize implicational associates to it. Attribution theory also specifies the type of information which allows such causal inferences and these will be discussed.

The third and final step in this chain is information integration of positive, neutral and negative information in homogeneous groups, which will be discussed in Chapter IV. The focal point is how the evaluative properties of person information influences the integration process. Attribution theory (Kanouse & Hanson, 1972) and integration theory (Anderson, 1968) contain causal explanations of effects of positive, negative, and neutral stimuli.

The correspondent inference construct of attribution theory will be discussed in terms of the integration process. Anderson's integration model will be contrasted with attribution theory in terms of explaining the manner in which we integrate information. Anderson's model predicts that impressions are based upon a weighted average of all the information available about a stimulus person. It provides a mathematical relationship between elements in the model, which attribution theory does not. Using this model we can predict certain results from combining extreme information and homogeneous evaluative information (positive, negative and neutral). Several studies are
reviewed which reveal various effects and will be discussed in terms of attribution and integration theories.

Chapter V will give an overview of the experimental findings of the preceding chapters. Comments concerning evaluative properties and their overall effects in the impression process will be made. Ambiguous results and areas of future study will also be discussed.
CHAPTER II

This chapter is related to the first phase of the communication process, the transmission of impression information. Most information we learn about others is transmitted via verbal communication. Therefore, it is necessary to understand the evaluative properties of transmitted information.

The plan of this chapter is to examine the cognitive repertoire of positive, neutral and negative concepts. Simply, it is an inquiry into whether people have a larger or smaller vocabulary (number of cognitive elements) for positive, negative, or neutral personality trait information.

In terms of the associative meaning shift model employed in the paper, this chapter is linked as an information venture to inquire into the relative frequency of trait information available to persons making descriptive judgments about a stimulus person they like, dislike or feel neutral about.

Although the majority of the data in this chapter are of a normative nature, thus not enabling any causal inferences about cognitive representation, it does allow a pictorial overview of the degree to which general evaluative differences are distinguishable.

In their study in impression formation, Lott, Lott, Reed and Crow (1974) were concerned with how people use adjectives to describe
actual individuals whom they had positive, negative or neutral feelings. Subjects were asked to think of three people of either sex with whom they were very well acquainted but towards whom they had different degrees of attraction. They were told to think of one person whom they liked very much, another whom they disliked very much and a person whom they had neutral feelings toward. Two hundred personality trait words were chosen from Anderson's (1968) 555 adjective list and were representative of the frequency distribution of the total list. The words were put on cards so subjects could put the word which was most like one of the three persons he named into the box signifying that person. A fourth box was available for words which did not describe (fit) any of the three persons. Results of the study (reported as mean number of words used) showed that the most words were used to describe a liked person (64.29), and the least number of words were used to describe a neutral stimulus person (40.64) with the number of words used for disliked persons somewhere in between (58.75), see Figure 1 and Table 1.

As previously noted, Anderson (1968) compiled a list of 555 personality adjectives. The list of adjectives are of interest in that an estimate of the frequency of adjectives available to individuals as a function of scale value can be computed. This analysis is possible (as are others such as meaningfulness and variance) because the criteria for selecting the adjectives was not based on scale value.
Table 1

<table>
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<th>Disliked</th>
<th>Neutral</th>
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<tr>
<td></td>
<td>64.29</td>
<td>58.75</td>
<td>40.64</td>
</tr>
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</table>

Mean number of words used to describe differentially liked persons.

Lott and Lott, 1970
Figure 1

Lott and Lott 1970

Frequency of Words Used to Describe Liking

Mean frequency of response 60

Stimulus person likability
The list also provides a greater detailed picture of the frequency of words along the evaluative continuum in that ratings of several points (7), rather than just 3 as in the Lott et al. (1970) study, are available.

Procedure

In the Anderson (1968) study, a three step procedure was used in word selection. Three thousand, five hundred trait words were selected from a list compiled by Allport and Odbent (1936) and an elimination procedure reduced the list to 2200. Words which were extreme (majestic), denoted temporary emotive states (hurt), denoted physical traits (hairy), had strong sexual connotations (alluring) and unsuitable words (anal) were eliminated from the list. Step 3 had unfamiliar words deleted from the list. This was done by having 20 subjects cross off any words that were not "quite meaningful" and to rate words in terms of appropriateness in describing college students. Words being crossed out by more than one person were eliminated. These procedures reduced the list to 553 trait adjectives.

Ratings tasks. One hundred subjects (college students) rated the 555 adjectives along a 7 point scale, 0 (least favorable to desirable) to 6 (most favorable or desirable). Subjects were instructed to use each scale value about equally often in their ratings, and to rate how well they would like a person with the characteristics of the trait word. The meaningfulness rating was done by 50 college students on a 5-point scale from 0 ("I have almost no idea of the meaning of
the word") to 4 ("I have a very clear understanding of the word"). Variance measures were also computed for each word.

Method

For the present analyses, the 7 categories were computed by dividing Anderson's 0-6 scale in half (3.0) and calculating equal interval size (.75) from the equal number of positive and negative categories (3 each) from the neutral point. This provided the following seven equal-sized intervals for the seven scale value categories of likableness: 1=0.35-1.10; 2=1.11-1.86; 3=1.87-2.62; 4=2.63-3.37; 5=3.38-4.13; 6=4.14-4.89; 7=4.90-5.65.

Results

The number of words per category yielded frequencies of: 1-64; 2-110; 3-94; 4-49; 5-68; 6-118; 7-50 (see Figure II). The most words were in the moderately extreme categories (negative=110 and positive=118) and the least number of words were in the neutral category (49). Combining the positive categories (5+6+7) and negative categories (1+2+3) shows the frequency of positive, negative and neutral words to be 236, 270, 147=(49x3) respectively.

A statistical test of analysis of variance was performed on meaningfulness and variance scores. Meaningfulness scores differed significantly by scale value $\bar{F}(6,548)=6.51, p < .001$. As shown in Table II, the most extreme the scale value of a trait the more meaningfulness associated with it, (1=3.63, 2=3.54, 3=353, 4=3.49, 5=3.48, 6=3.55, 7=3.64), except category 5 shows the least amount of
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<th>Mean variance</th>
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<td>-1</td>
<td>.35-1.10</td>
<td>66</td>
<td>3.63</td>
</tr>
<tr>
<td></td>
<td>2</td>
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<td>Most Positive</td>
<td>+7</td>
<td>4.90-5.65</td>
<td>50</td>
<td>3.64</td>
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Figure II

Frequency of Words per Likableness Value

Likableness Scale Value

Anderson, 1968
meaningfulness, differing from the neutral category (4) by .01 of a point. Variance scores also differed significantly with scale value, $F=33.25$, df$=6,548$, $p < .001$. An inverse relationship was found between extremity of scale value and variance. The more extreme the scale value of a trait the less variance associated with it. As shown in Table II, the greatest amount of variance was found in the neutral category (1.38) and the least amount of variance was found in the extreme categories (positive $7=.75$ and negative $1=.79$).

The pattern of data indicates: (1) varied but full use of the 7-point scale with the moderate categories most used; (2) approximately equal frequency of positive and negative traits with the least number of traits in the neutral category (see Figure II): (3) meaningfulness is inversely related to extremity of scale value such that the most meaningful traits are those at the positive and negative extremes of likableness with the least meaningful words being in category 5 and 4 (see Figure III); (4) variance of likableness is inversely related to extremity of scale value, with extreme positive and negative categories having the least variance, and the neutral category containing the most variance (see Figure IV).

As in the Lott et al. (1970) study, the neutral category has the least number of words but, contrary to the Lott et al. study the negative end of the likableness scale contained more words (270) than the positive end (236). Lott et al. reported that the 200 words they used from the Anderson list were representative of the overall
Figure III

Mean Meaningfulness of Likableness Adjectives

Likableness Scale Value
Figure IV

Mean Variance Scores for Likableness Values
Anderson list distribution; it is evident that the distributions are not the same in terms of the relationship of positive to negative words in the distribution. Also, we find, by increasing the number of points along the likableness scale from 3 (Lott et al. [1970]) to 7 (Anderson [1968]) that the frequency of words in the neutral category remains the least but the most words were found in moderate categories rather than extreme categories. Thus, further investigation is necessary to identify a trend of frequency of usage.

Along this same vein, Ostrom and Upshaw (1968) studied how people generate affective belief statements and the ease with which they did so. This study is reported not only because it gives information about ease of generation of positive, negative and neutral statements but because it also gives frequency information about moderate categories. With the use of a scale containing nine categories of attitudes in this study a complete picture of the entire continuum of positive, negative and neutral stimuli and its effects can be reviewed.

Subjects were asked to write a belief statement for each of the nine categories from very pro-fraternity to very anti-fraternity and to do the same for a second issue—very pro-church to very anti-church. After writing the belief statement for a category, the subject was asked to rate how easy or difficult it was to construct the belief statement for that category. Looking at the easiness ratings (see Figure V) we find that extreme end categories (positive and negative)
Figure V

Ostrom and Upshaw (1968) Easiness Ratings of Belief Statements

Easiness Ratings

Scale Value of Belief Statements
and then neutral category are easiest to write, the hardest categories to write belief statements for were positive and negative moderate categories.

In a second study, which used the choice of whether to write or not to write on any given category, similar results were found. If ease of constructing a category statement reflects one's repertoire of cognitive elements, these findings would be contrary to the results of the Anderson analysis conducted by this author in that moderate categories had the highest frequencies in the Anderson reanalysis, thus one would rate the moderate categories as having the greatest ease of construction. Moreover, the neutral category does not reflect this reasoning either in that the Anderson analysis found the lowest number of words in this category yet Ostrom and Upshaw found high ease of construction. These differences between the Anderson analysis and the Ostrom and Upshaw (1968) may be due to variation of method of operation—attitude information versus personality-trait information and/or ease of construction versus number of category responses.

Contrary to all trends previously reported Harvey, Reich, and Wyer (1968), found that neutral information differentiated more highly than positive and negative information which did not significantly differ from each other. In the Harvey et al. (1968) study subjects selected eight attributes (moralistic, etc.) they believed to be most important in describing and evaluating social beliefs and interpersonal relations from a list of examples. Afterwards subjects
were asked to write eight positive, neutral and negative statements of social belief and interpersonal relations. These were also chosen from a list of examples provided the subjects. Each set (statements of social beliefs and interpersonal relations) of 24 beliefs were then rated on a 4-point scale of amount of each of the eight attributes a belief or interpersonal relations possessed. The differentiation score (dependent variable) was found by calculating an index of dispersion of ratings (1–4) for each set of stimuli over the 8 attribute dimensions and then averaging these ratings.

As stated earlier, the neutral domains were differentiated \( (\bar{X}=66.10) \) significantly more highly than either the positive \( (51.67, t=6.34, p < .001) \) or the negative \( (\bar{X}=43.97, t=6.64, p < .001) \) domains. The differentiation of positive and negative domains did not differ significantly \( (t=1.65, p < .10) \). Social beliefs and interpersonal relation manipulations did not differ significantly, thus the data were combined for statistical analysis.

If differentiation implies that a person would be able to produce more words, then the neutral category should generate significantly more words than positive or negative categories which should not differ from each other significantly. These results would be similar to the Ostrom and Upshaw (1968) results, if it is assumed that ease of construction and differentiation scores refer to representation of word frequency, in that both studies imply high word frequency should be found in the neutral category which is contrary to Lott et al. (1970), and Anderson (1968).
To negate some confusion surrounding methodology and results of the above studies, the author studied frequency of response data in a task where subjects were asked to generate all the words they could think of under each category (generating task), thereby eliminating restrictions imposed by the other studies such as Anderson's elimination of slang, extreme terms and nouns; (Harvey et al. & Ostrom et al.), response limitations to certain response dimensions. In the present study the requested information was open ended; a subject could respond as much as desired in any category desired along as many dimensions as desired to describe a liked, disliked (extreme, moderate, slight) and/or neutral person they thought of. Subjects received one of three different kinds of instructions: to write either common-conventional formal language, own-any words you use to express yourself or slang words.

In addition to attempting to replicate the Anderson distribution in a generating task, the present study was undertaken to add to the impression formation literature another distribution of categorized words. The type of words desired were those which were rich in evocativeness—having the character of attitude arousal and high emotional content. Slang language was associated with having such qualities. It was felt that a richer domain of trait words would strengthen and expand empirical findings on effects of evaluative properties and related effects, e.g., polarity, valence, etc.
Slang is defined here as any noun, adjective, adverb or phrase not used in formal verbal presentations to describe a liked or disliked person. The experiment does not place restrictions on the distributions generated, like Anderson placed on his list, such as dropping slang, extreme words, nouns, etc. It was emphasized to subjects to generate whether words they used in a particular domain expressed in their instructions (slang; common adjectives; own words). Common adjective instructions were included to see if a similar distribution to that Anderson (1968) reported would be generated. Own instructions were included to give the subject free rein to generate a distribution that a subject actually uses to express himself with no limitation as to type of words desired.

Method

Subjects. Thirty-nine male (23) and female (16) introductory psychology students received one hour of credit for participation in this experiment. There were 13 subjects per instruction condition.

Materials. Subjects were given a sheet of paper with seven category headings listed across the top labeled extremely unfavorable, moderately unfavorable, slightly unfavorable, neutral, slightly favorable, moderately favorable and extremely favorable. Attached to each 7-category sheet was an instruction page. All information was the same on the instruction sheets except the type of words subjects were asked to generate. There were 13 booklets per instruction condition. All subjects were instructed to think of as many words as
possible and to think of at least one word for each of the seven categories. They were also told to feel free to write down all kinds of words they use or have heard to describe favorable, neutral, and unfavorable impressions (see Appendix A).

Procedure. Subjects were run in groups varying in size from 5 to 12. The booklets were ordered such that every fourth booklet was the same. The experimenter passed out the booklets so subjects were not aware that instructions varied as to the type of words solicited. After reading the instructions subjects were told to raise their hands if they had questions, to prevent others from realizing that the instructions differed.

A debriefing sheet (see Appendix A) was given to each subject after they turned in their category sheet. The debriefing sheet explained the conditions of the experiment and the desired data information of interest.

Results

As shown in Table V, there was a significant effect for instructions ($F=7.3$, $df=2,36$ (between subjects), $p < .001$) and scale value (within subjects $F=3.82$, $df=6,216$, $p < .001$) and a significant instruction X scale value interaction $F=1.95$, $df=12,216$, $p < .05$. Scale value effects are greatest for positive and negative scale values and the lowest generation of traits was in the neutral condition (Table IV). For common instructions, positive scale values generated the most traits and the least at neutral with the same
Table III
Mean Number of Words Generated
3 x 7 Slang Study

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Scale Values</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1=extremely negative</td>
<td>7=extremely positive)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Own</td>
<td>5.31</td>
<td>2.69</td>
<td>2.54</td>
<td>2.92</td>
<td>2.23</td>
<td>3.15</td>
<td>4.85</td>
<td>3.38</td>
<td></td>
</tr>
<tr>
<td>Anderson</td>
<td>6.00</td>
<td>4.08</td>
<td>3.31</td>
<td>2.69</td>
<td>3.62</td>
<td>4.77</td>
<td>6.39</td>
<td>4.41</td>
<td></td>
</tr>
<tr>
<td>Slang</td>
<td>4.62</td>
<td>3.85</td>
<td>3.62</td>
<td>3.54</td>
<td>2.54</td>
<td>3.31</td>
<td>4.62</td>
<td>3.73</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>5.31</td>
<td>3.54</td>
<td>3.16</td>
<td>3.05</td>
<td>2.80</td>
<td>3.74</td>
<td>5.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table IV

3 x 7 Slang Study

Combined Scale Values of Mean Number of Generated Words

<table>
<thead>
<tr>
<th></th>
<th>(1-3)</th>
<th>(4)</th>
<th>(5-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own</td>
<td>3.51</td>
<td>2.92</td>
<td>3.41</td>
</tr>
<tr>
<td>Anderson</td>
<td>4.46</td>
<td>2.69</td>
<td>4.92</td>
</tr>
<tr>
<td>Slang</td>
<td>4.03</td>
<td>3.54</td>
<td>3.49</td>
</tr>
<tr>
<td>$\bar{X}$</td>
<td>4.00</td>
<td>3.05</td>
<td>3.94</td>
</tr>
</tbody>
</table>
Table V
ANOVA Table

3 X 7 Slang Study (1976)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructions</td>
<td>2</td>
<td>3412.40</td>
<td>1706.20</td>
<td>7.313a</td>
</tr>
<tr>
<td>(between)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scale Value</td>
<td>6</td>
<td>7999.73</td>
<td>1333.29</td>
<td>3.82 a</td>
</tr>
<tr>
<td>(within)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S(I)</td>
<td>36</td>
<td>8398.77</td>
<td>233.30</td>
<td></td>
</tr>
<tr>
<td>I X SV</td>
<td>12</td>
<td>8286.54</td>
<td>690.55</td>
<td>1.95 b</td>
</tr>
<tr>
<td>SV S(I)</td>
<td>216</td>
<td>75493.75</td>
<td>349.51</td>
<td></td>
</tr>
</tbody>
</table>

a_p < .001
b_p < .05
trend for own instructions but for slang the least number of traits were generated at the positive end. Looking at the mean number of words generated collapsed over instructions we find the extreme categories generated the most responses and this effect occurs in each instruction condition, (see Figure III). Subjects were each asked to think of slang words, common words, such as sincere, cordial, shy, dishonest and unsporty, or your own words you would use to describe a person fitting into one of the seven categories of favorableness.

In the prior Anderson list distribution the greatest number of words were generated in the moderate categories, with the least number of words generated in the negative extreme category, then at neutral. The slang unlike Anderson (1968) study does not find this high frequency of generated trait in moderate categories. One reason for this difference is that Anderson (1968) threw out extreme and unique response words. It should be noted (see Figure VI) that the common instructions condition generated more words than any other condition.

Discussion

In the Lott et al. (1970) study, subjects were given personality trait adjectives to describe persons whom they liked, disliked, and had neutral feelings toward. Results of this study showed that more positive words were used to describe a liked person than negative words used to describe a disliked person and the least number of words
Figure VI

Mean Frequency Responses for 7 Scale Values and

3 Conditions of Instructions

[Graph showing mean frequency responses with data points for Common, Own, and Slang conditions across 7 scale values.]

[Caption: Mean Frequency of Response vs. Scale Values]
were used in the neutral condition. This study gave us some idea of the distribution of usage of personality traits to describe others.

For greater detail of this distribution an analysis of Anderson's (1968) 555 adjective list was performed. In agreement with Lott et al. (1970) the neutral point did contain the least number of words but by spreading the distribution over a 7-point scale rather than 3-points we found that most of the positive and negative words were in moderate categories rather than at the extremes. An explanation as to why this may have occurred was that Anderson placed limitations on his list that restricted polarized traits, any other form of description other than adjectives and unusual words and phrases (slang), thus limiting the number of words available to subjects to place in the extreme categories.

Looking at the Meaningfulness ratings we find that the more extreme the traits the greater meaningfulness associated with them. There is no restriction on subjects on this dimension, thus we find a similar pattern as Lott et al. (1970), of greater meaningfulness with polarity of scale value. Thus, one would assume that if more extreme words were available to subjects or if subjects had provided their own words the extreme categories would have contained the greatest number of words rather than the moderate categories. Variance scores provided by Anderson (1968) also support this contention. Since the number of words did not affect these scores once again we find a relationship (inversely related) between variance and extremity
of scale value. We find that the more extreme a word is rated the less variance associated with it. Neutral category words had the highest mean variance score and extreme categories had the smallest mean variance scores (see Table II). One would assume that with less variance a subject would have less difficulty noting words they considered extreme than those they considered neutral in likableness, which implies that if there are no restrictions placed on the words used in scaling or words one can generate there would be a preponderance of words at the extreme ends of the scale and fewest words at the neutral point.

Ostrom and Upshaw (1968) also used several points along a continuum (9-point scale) in their study of generation of affective belief statements and ease of construction. Harvey et al. (1968) results challenge the Lott et al. (1970) and Anderson analysis results. Similar to Ostrom et al., Harvey et al. did find strong neutral effects, but a reversal of the remainder of the distributed characteristics.

Harvey et al. may have imposed their findings of a high neutral effect. They had subjects rate eight attributes of positive, neutral and negative stimuli on a 1-4 scale of how important the attribute was in evaluating a social belief or interpersonal relation. With such task instructions a person may be capable of fluently describing a negative stimulus person but would have difficulty on a task asking to differentiate one negative person from another and the same may
hold for positive stimuli (Seaman & Koenig, 1974). One explanation for this can be understood in terms of the Anderson analysis variance scores (see Table II). Distinctions would become difficult for both positive and negative information as scale value of the information becomes more extreme but with such high variance at the neutral point distinctions would be more numerous, thus the Harvey et al. results. Another explanation which is more pertinent to the comparison of all the studies is that Harvey et al. were interested in differentiation within sets of positive, neutral or negative stimuli, not between the 3 sets as in Lott et al. (1970) etc. Moreover, this changes the frame of reference from which a subject is responding from comparisons between scale values to comparisons within a particular scale value. Thus, we do not in fact find a contradiction in results but results focusing in on different reference points within, and between scale value comparisons, each of which gives information regarding a subject's repertoire along a continuum or a particular scale value of likableness.

As previously stated, Caldwell's (1976) study did not find this high frequency of generated trait in moderate categories and one reason for this difference was that Anderson (1968) threw out extreme and unique response words. Also, the mean frequency response for the seven scale values collapsed over instructions does not support either the Ostrom and Upshaw data nor the Harvey et al. nor Anderson analyses (see Table III). It shows that when subjects are
allowed to freely generate trait information that the type of information requested affects the type of distribution formed. Each instruction condition distribution varies in the relationship between neutral and moderate categories, e.g., common instructions produce a U-shaped distribution between moderate and neutral values frequency of response; own instructions produces a slight scalloped effect; slang produces more of a linear effect for these scale value categories. But when instructions are collapsed and positive (5-7) and negative (1-3) categories are combined we find the Lott et al. (1970) U-distribution once again (cf. Table IV).
CHAPTER III

The second phase of impression communication will be discussed in this chapter and continued in Chapter IV. We will discuss the reception of information and its encoding into memory.

The kinds of inferences involved in forming an overall impression of a person on the basis of positive, negative and neutral information is of import here. The more general questions is how limited stimulus information (traits) gets coded and organized in such a way to elicit a single response. In this discussion, meaning of a trait refers to cognitive representation it (trait) produces, which is the number of inferences allowed. In other words, when individuals know a person possesses certain traits the presence or absence of certain other traits and their valence (positive or negative) are inferred. For example, if a person is "considerate," she is very likely to be seen as "reliable" also and it would be considered a positive inference. Thus, relationship between stimulus traits and response traits can be assumed to occur, which implies some form of categorization--cognitive representation of meaning.

The following discussion is focused on the evaluative nature of cognitive representation. The inquiry is whether positive, neutral and negative information produces different cognitive representations and what are the cognitive representation effects on evaluative judgments and response traits.
The basic paradigm used in impression formation research and in this chapter and also Chapter IV asks subjects to "form an impression" of a hypothetical person on the basis of verbal or pictorial stimuli and then estimate how well they would like or dislike such a person along a category scale.

Several studies are reported using various dependent measures of evaluative properties effects. Some studies are looking at experimental psychology dependent variables such as reaction time, etc., and the effects of evaluative scale value. Other things are testing certainty ratings relationship with response to positive, negative and neutral stimulus information. In the discussion of the latter stimulus we will look at attribution and integration theory explanations of these results.

Integration theory (Anderson, 1968c, 1970) is concerned with describing, in a quasi-mathematical model, the processes by which stimulus information is averaged and the resulting response of a subject (rating of liking). In the model, each piece of information has a scale value, $s_i$ which represents its position on the judgmental dimension, and a weight, $w_i$, which indicates psychological importance. In addition, there is an initial impression with scale value $s_0$ and weight $w_0$ which is also averaged with the stimulus information. The initial impression may be conceived of as the judge's view of a "generalized other" about whom he has no information. Anderson found that ratings are determined by the averaging of evaluative weight
provided by individual traits. The property of import here is weight, since it is the element of the weighted average formula which is affected by evaluative properties of the stimulus trait, the theory will be explained in detail in Chapter IV.

In general, stimulus information will vary in the amount of uncertainty it reduces about the stimulus person. The ambiguity of stimulus information in making inferences about a person has been a concern of attribution theory. Attribution theory is a process by which people form causal interpretations (causal inferences) of the information (persons, events, etc.) around them. The relevant concept here is causal inferences (Kanouse-Hanson, 1972) or correspondent inferences (Jones & Davis, 1965) in that it is affected by evaluative properties and polarity. Correspondence (the certainty with which an inference is made about intentions and disposition) increases as the social desirability (normal or accepted behavior) decreases and the number of noncommon effects (effect of one and not effect of another) between a chosen and nonchosen action decreases.

Word frequency and rating distributions were reported in Chapter II showing the effects of positive, neutral, and negative information on pattern of response. Two studies are reported here which tested the degree of relationship between stimulus information and response traits. Pollio (1964) tested for a relationship between stimulus traits and response trait evaluation scale values (ESV). Evaluative
scale values are ratings of traits along some continuum of evaluation such as good-bad, favorable-unfavorable, etc. Correlated results showed a $r = .52$ between the ESV of stimulus words and primary responses in a free association task. Using the same ESV method as Pollio (1964), Staats and Staats (1959) found that the correlation of ESV for stimulus traits and the mean ESV for the first response trait (primary response) was $r = .90$. Both studies reported that the ESV of primary responses were scaled on the same end of the continuum but were less polarized than the stimulus ratings (Pollio, 1964; Staats & Staats, 1959).

In the field of verbal learning in experimental psychology some researchers have shown interest in the effects of an affective dimension of meaningfulness on rate of learning personality related material. Rychlak, Tasto, Andrews and Ellis (1973) reported several studies with results supporting an affective dimension of meaningfulness. One such study, Toit (1913), had subjects learn pleasant, unpleasant and indifferent words and found that pleasant words were more readily learned than indifferent or unpleasant words. This effect was found for several other verbal learning studies with varied methodologies (Tolman, 1917; Jones, 1929; Lynch, 1932; Smith, 1921). Rychlak et al. also reported studies originating in the 1930's which used prerated words on a dimension of pleasantness, which subjects were asked to learn or recall. The same trend was found, pleasant words were learned or recalled significantly better.
than unpleasant words, which in some cases were significantly better recalled than indifferent words.

In a more recent article, Pollio and Cerow (1968) found associate response reaction time was affected by polarity of the evaluation and context length such that associates produced in response to pleasant stimuli had shorter reaction time than negative stimuli and that reaction time of associate response to negative stimuli became longer as a function of context length.

Gerald Clore (1976) using the affective processes of the perceiver (subject) as a frame of reference found that extreme terms, positive and negative, derived their extremity of meaning from employing (being interpreted by subjects as having) extreme affective consequences (pleasant) for the perceiver. Subjects were asked to rate 36 adjective from the Anderson, 1968 list as to whether each word had pleasant or unpleasant implications for the subject (perceiver) and for its stimulus person in a social situation. Of the 36 words, 31 differed significantly in implications for perceiver versus other's pleasure. Words at the extreme ends of the positive-negative scale were found to convey much more information about consequences for the perceiver than for the stimulus person. For example, extreme negative words were rated as having 100% implications for the perceiver and 0% for the stimulus person, and positive extreme words were seen as having 89% implications for the perceiver and 11% for the stimulus person, whereas moderate words did not differ in implication for the
perceiver 50% positive, 43% negative on the stimulus person; 50% positive, 47% negative.

Clore explained these results in terms of a functional theory of meaning "words are retained in the language to the extent that they allow one to make useful distinctions. Presumably the sort of interpersonal information that would be useful to encode and store are those that have to do with obtaining pleasure and avoiding pain (p. 22)." Attribution theory discusses distinction of observed information in terms of what types of inferences will be made if the information is indicative of or has varied consequences for the perceiver or a stimulus person. Attribution theory would be in agreement with this explanation, in that a perceiver receiving information about another will ask inferences based on intent (whether accidental or not, or situation-determined behavior such as social norms, etc.) about that person. But making attributions about implications for the perceiver and for the stimulus person would vary with extremity. Since the extreme information is less likely to be attributed to environmental restraints causal inferences are attributed to the person thus implying intent. Once intent is established implications of the information would be dealt with in terms of having consequences for the perceiver. If the whole process of attributions of others is to explain their behavior and predict future interaction by making dispositional inferences from observed high intent information one would assume that given dispositional information which infers high
intent, inferences will be made with regard to implications for the perceiver. Moderate traits are not distinctive (informative) and thus difficult to infer external or internal causation (intent) therefore the information has less or little implication for the perceiver. Integration theory would explain the results in terms of weight (be considered more important to) the subject in terms of making a judgment than moderate traits thus subjects would indicate extreme traits as having greater consequences than moderate traits, and report extreme traits as more meaningful (cf. Chapter II Anderson analysis).

The general approach has been to establish various indices to tap the favorableness of evaluations based on positive, neutral and negative categories of information. For example, Grush (1976) devised a summed evaluation of association index to test, along with other indices, the effects of mere exposure on polarity of stimulus traits. Exposure was manipulated as the number of times a trait was repeated on the screen (2, 4, 8, 16, 32). Subjects were asked to rate positive and negative stimuli, which had low frequency usage (dirigible, gaudy, etc.), on five 7-point scales of good-bad; nice-awful; pleasant-unpleasant; ugly-beautiful; which were summed to give a summed evaluation index of the stimulus words. The second index (a within Ss variable) was mean number of generated associations to test stimuli. The third index was the summed evaluation of association index. This index was based on subject's rating of the
associations they generated, on a good-bad scale. Summation of all the generated association ratings was the index used in analysis. Thus, each subject had three indices of response behavior.

Overall evaluations (positive and negative) of test words and summed evaluations of their associates showed a significant interaction between exposure level and word class. Separate one-way analyses of variance were used for each exposure level to test effects of positive and negative stimuli.

A nonsignificant trend of increase in positivity of positive traits and a significant increase in negativity of negative traits due to exposure were found (see Figure I, Appendix C). Grush offered no explanation for the significant negative effect and nonsignificant positive effect. A possible explanation may be negativity bias -- subjects are more likely to give greater weight or give greater certainty ratings to negative stimuli (Anderson, 1965; Wyer, 1970; etc.). The number of associations generated did not show an evaluation (positive-negative) effect.

Another index used for measuring response to positive, negative, and neutral stimulus traits was an information theory index of uncertainty used by Wyer (1973). Wyer was testing a model of cognitive representation predictions based on uncertainty ratings of a stimulus, which represents a subject's certainty about cognitive categories to which be believes any given stimulus may belong (within $S$s variables). This model predicted that the more extreme
the scale value of the test trait the less uncertainty associated with it, because extreme traits would have less ambiguity associated with it thus leading to a higher certainty rating. Experimental results of the study supported the predicted results \( r = .74, n=58, p < .01 \) (see Figure 2, Appendix B).

Sommers, Caldwell and Ostrom (1972) examined the use of an attitude structure profile of context ratings of stimulus traits. This dependent measure is based on multiple-score measures of response traits on certainty ratings. The profile dependent measure required subjects to respond in terms of how certain they were that a person who was described by the stimulus trait would also have each of the traits in a set of 21 response traits on a 7-point scale. The 21 traits were chosen from Edward's (1967) adjective list. Three traits were chosen from each of the 7 likableness categories. Although this study is reported at this point because of its relevance to the cognitive representation issue, the dependent measure-attitude structure profile which is described here is used in most of the studies in Chapter IV.

Method

Subjects. The Ss (24) were all undergraduate students at Ohio State University except for two graduate students at Ohio State and one dormitory director at Ohio State. About half of the Ss were found on campus, MacDonalds, library, etc., without much to do. The other half were found on the same day sunbathing near a river.
Apparatus. The Ss were randomly given one of eight possible experiment booklets. Each booklet consisted of one instruction page, one practice page, and 21 experiment pages. The practice and experiment pages had one word typed by itself at the top (stimulus word) and 21 words (profile words) formed a column at the left edge of the page, each profile word had a 1 to 7 rating scale (see Appendix B).

Design. Each of the stimulus and profile words was taken from Edward's (1967) list. The scale value range was divided into seven sections and six words with the lowest Q (variance) were chosen in each section. Three words were taken from each section to form two lists of 21 words. Each list of 21 words had two random orders (A₁ and A₂, B₁ and B₂). The design was a 2 x 2 x 7 with 5 Ss per cell. One independent variable was scale value of the stimulus word, and the dependent variable was the probability rating profile given each stimulus word which form the distribution for each stimulus word. The order of presenting the profile lists is varied to see if the order affects the profiles.

The third manipulation is the use of each list both as a response trait and a stimulus trait, e.g. A. list stimuli and B. list-response profile; B. list stimuli A. List profile. This is to provide information on independence of each word's profile.

Procedure. Subjects first read the instructions and filled out the practice page. The experimenter clarified any confusion for the subject, then the subject filled out the booklet.
Results

The analysis of variance results of the interaction between stimulus traits and response trait profile was significant, $F=28.76$, $(36,576) \ p < .01$. This is interpreted in terms of the slopes of the various stimulus-response trait profiles. The positive traits should elicit a response distribution with a positive slope and negative traits should elicit a negative sloped profile, whereas neutral traits should produce no slope (see Figure III). In Figure III mean certainty ratings is a function of scale value for extreme and moderate positive and negative stimuli.

Order was tested to see if the presentation of words affected subject's response which if significant could account for the results. Also, profile analyses of the two response lists was tested for a similar reason. The Stimulus Trait x Response Trait x Order interaction, Stimulus Trait x Response Trait x Profile interaction and the Stimulus Trait x Response Trait x Profile x Order interaction all test these two variables. It was found that the Stimulus Trait x Response Trait x Profile was significant, $F(3.89, 36,576)$, $p < .01$. The graphical picture of these profiles show that these variations are not systematic and are uninterpretable. The combined profile effect ($P_1$ and $P_2$) was not significant and their combined means eliminate the variations across scale value. This can probably be eliminated by increasing the number of traits at each of the seven scale values from 3 to 6 thus getting a more reliable measure.
An effect peculiar to this response technique was that positive stimuli tend to have a steeper slope (i.e. more strongly implies the presence of isovalent traits and the absence of contravalent traits) than negative traits, which appears to contradict negativity bias. This will be discussed in greater detail in Chapter IV.

Discussion

In reviewing the studies presented in this chapter it is evident that the cognitive representation of transmitted information by a receiver is effected by evaluative properties. First we rated that stimulus trait valence (positive - negative) effects the valence of response such that positive stimulus traits elicit positive response traits and negative response traits elicit negative response traits (Pollio, 1964; Staats & Staats, 1959).

Secondly, in the field of experimental psychology, researchers interested in verbal learning found that subjects differentially learned positive and negative stimulus words. The research did not report a polarity effect but did report a positivity bias-learning effect—subjects tended to learn positive stimuli faster and better than negative stimuli. These results are contradictory to the negativity bias which was introduced. This contradiction may not actually exist in that a negativity effect may occur in terms of the importance of information received and using negative information to form impressions. However, in a learning situation the subject may inhibit himself in learning negative words, because their use was
usually associated with punishment (spanked) in an everyday setting. Subjects may also actively avoid the negative stimuli and focus on learning positive words. In either case, whether subjects have learned the words and refuse to use them (recall) or actively avoid learning negative words we cannot say that negative bias does not exist but that the verbal learning studies may inhibit its presence.

Returning to social psychological studies, Clore (1976) did find a trend where negative information had greater implications for the perceiver than for the stimulus person. Moreover, a polarity effect did occur with extreme words having greater implications for the perceiver than for the stimulus person which disappeared in the moderate conditions. Similar results were found by Grush (1976) for evaluations of test words and summed evaluations for their associates but only negative traits reached significance and Wyer (1973) using an information theory index.

The Sommers, Caldwell and Ostrom (1972) study also found the polarity trend but did not find support for the negativity bias effect with the use of certainty ratings.

Attribution theory and integration theory were introduced to explain the bias effect. As for the verbal learning and Sommers, Caldwell and Ostrom results which appear to support a positivity bias, it appears that the negativity concept needs to be more explicitly defined in terms of when it should or should not occur. Ostrom (1976) has posed the answer that weight as defined by
Anderson's integration theory may not apply to the profile. Subjects were given 21 words to rate in terms of certainty: A situation where several responses are possible and given the social norm of not saying bad things about a person (whether good or bad) one may well expect subjects to prefer to lean towards the use of positive words as in the learning situation.
Grush, 1976

Test Word Evaluations
range 4 - 28

# of Test Word Associates
range 0 - 12

Evaluations of Associations
range -18 - +18

Exposure Levels
Figure II
Wyer, 1973

Uncertainty Ratings, Experiment 2

Likableness Ratings, Experiment 2
Figure III

Mean Certainty Ratings for Four Stimulus Traits
CHAPTER IV

In this chapter the last phase of the impression model is discussed. The communicative process is continued in the reception stage as introduced in Chapter III. Once the transmission is complete and the receiver has encoded the information, it must be combined with other pieces of information to form an overall impression of what she has heard. Integration of trait information as a function of scale value and set size (number of words presented together to describe a stimulus person) allows for conclusions to be made about effects of negative, positive and neutral trait stimuli in overall impressions.

Effects found as results of experiments reported in this chapter will be discussed in terms of attribution theory and integration theory. These theories will be discussed at some length because of their relevance in this discussion of how evaluative information is combined to form an overall impression.

Attribution theory is usually described as the process by which people form causal interpretations of the events around them. The theory applies to the manner in which people attribute characteristics, intentions, feelings, and traits. Although attribution can be applied to descriptive or causal contexts of great variation (ability, self-perception, personal biases, etc.), this discussion is concerned
with how people assess different pieces of information about a person and form an overall evaluation of it. A basic task in attribution theory is to make inferences about the determinants of observed behavior on stimulus information. The perceiver wishes to determine if the given information reflects some distinctive characteristics of the stimulus person (internal causation) and thus inferring intent and allowing judgments about his disposition or whether it reflects some external influence (social norms, situational determinant) thus allowing little distinctive information to be obtained and preventing inferences about the person's disposition.

Jones and Davis (1965) introduced the term correspondent inference to describe the extent to which a given intention (external or internal) can describe the stimuli, a given dispositional property can account for the intention (if internal perceived as being caused by the stimulus person) and by implication whether a given dispositional property can describe the stimuli. An inference is correspondent to the extent that the same or similar words describe the stimulus and its underlying cause. In Chapter I correspondent inferences are also referred to as causal inferences. In Chapter III attribution theory is introduced in terms of explaining polarity effects, through correspondent inferences in which unexpected or extreme (out-of-role action) is more informative than socially prescribed (moderate) behavior. As stated earlier, attribution theory can be used in a descriptive or causal context to explain how and why particular
impressions were formed but the relationship between parameters within
the theory can only be described in terms of direction. Quantification
of attribution theory has not occurred as it has in integration theory.

As presented in Chapter II, integration theory contends that the
final impression is a weighted average of the stimulus information and
proposes a mathematical formula which specifies the relative contribu-
tions of elements (scale value, weight, initial impression). The
theoretical model of integration can be algebraically written as:

\[
R = \frac{w_0 s_0 + w_1 s_1 + \ldots + w_n s_n}{w_0 + w_1 + \ldots + w_n}
\]

\[
R = \frac{w_1 s_1}{\sum w_i}
\]

Usually, \( R \) is the overt response or impression. The first term
in the sum, \( w_0 s_0 \), represents the initial opinion prior to receiving the
informational stimuli. Two basic operations, adding and multiplying
are involved in the integration model. The total effect of any informa-
tional stimulus is the product of its weights times its scale values
summed across stimuli and divided by the sum of the weights.

Psychologically, the weight given the initial impression stems
from uncertainty about the stimulus person due to a lack of information.
As information accumulates, the effects of the initial impression
decrease and more relative weight is given to the stimulus information.
Stimulus information will vary in the amount of uncertainty it can
reduce. Redundant information (Wyer, 1968, 1970), less valid or
descriptive information (Himmelfarb, 1970, 1971) and information which
stems from less reliable sources (Anderson & Jacobson, 1965) have been shown to influence the weighting of information. One effect found in the process of combining traits was negativity bias—negative stimulus information appears more powerful than positive adjectives in affecting the overall evaluation. The bias effect was reported in Anderson (1965) study distinguishing between additive (summing traits and form an overall impression) and averaging (average individual trait information to form an impression) models of impression formation. Anderson combined four adjectives of different scale values (H+M+ M-L-) into sets of size 2 and 4. Homogeneous sets resulted in greater weighting of negative trait information.

Hamilton and Zanna (1972) in an experiment on negativity bias, paired opposite and equally polarized positive and negative traits (trustworthy-untrustworthy) with 2 neutral traits (set size 3). Results supported a negativity bias hypothesis and also subjects were more confident of their likableness ratings of negative stimuli. An attribution theory interpretation of the results was given. Using a similar explanation as that in Chapter III, information which is high in distinctiveness is useful in making inferences about a person's disposition. It is assumed that neutral and positive information do not have as much distinctiveness because most people (because of social norms) can be described by neutral and moderately positive information. Negative information is low in social desirability and the number of unshared effects are also low.
Because of the concept distinctiveness, integration could support such results in that highly distinctive information would be interpreted as having greater importance than low distinctive information (positive and neutral traits) would be higher therefore decreasing the overall impression value through an increase in weight of the negative trait.

The effects of highly polarized traits was tested by Osgood, Suci, and Tannenbaum (1957). Highly polarized traits had greater influence than moderate traits in trait combinations, thus supporting extremity effects, also found in Anderson (1968b), Feldman (1966), Wyer and Watson (1969).

Wyer (1973) hypothesized that the negativity bias and polarity effect were a result of less ambiguity—when a subject is uncertain about a word's evaluative implications, or it is not specific to any category concept of polarized information and negative trait. Moreover, he suggests that the less ambiguity associated with a word the more it stands out—has more weight (as defined in integration theory) and is less likely to be discounted because of lack of confusion surrounding it. This hypothesis is derived and tested from a concept identification model which uses an information theory index of uncertainty (see Chapter III).

As previously reported, Wyer's (1973) results supported his prediction of lower uncertainty ratings associated with highly polarized traits. Also, in that study negativity bias was also found to occur.
Greater uncertainty was associated with favorable traits (1.62) than with unfavorable traits (1.48) with t=3.22 (1,14), p < .02. The favorable and unfavorable traits were of equal polarization: favorable trait mean favorableness=2.55 and unfavorable trait mean favorableness=2.57. There appears to be strong support for negativity bias and polarity effects. Although several theories can account for the effects it is still associated with several concepts (distinctiveness, uncertainty, importance, etc.) any and all of which may account for the effects.

Himmelfarb (1972) combined concepts from integration theory and attribution theory to test the effects of differential weighting of combined trait information. Using the weighted average model it was predicted that response polarity is a negatively accelerated function of set size, because the weight of the initial impression will decrease with the increase in amount of information provided, limiting the rate of response polarity. Since weight is determined by the importance of the stimulus traits and attribution theory has specified concepts which can effect the importance of stimulus information, the two theories are combined. Using the idea of causal inferences as the desired process a person wishes to accomplish, importance of information is put into an attribution framework. By varying the source (one person or group of people) of the information and the situation in which the information was observed (one versus across several) ambiguity of information could be varied. Subjects were told
that the traits were attributed to a person after being observed by
one or several judges across one or several situations, which were
described as being highly similar situations or very dissimilar situa-
tions. Sets consisted of 1, 3 or 6 all highly positive or all highly
negative traits. In the several judges condition it was stated that
all judges supplied only one trait. Ratings were made on a likable-
ness scale from 20 to +20. Statistical results supported the
attribution explanation that information received from dissimilar
situations would be more distinctive (reduce ambiguity thus increasing
the importance of the information), thus subjects ratings of likable-
ness should be more polarized than similar situation and a single
situation condition, \( F=10.89, (2,96), p < .001 \). Source information
from several people is more informative (consistency) than the same
information from one person \( F(2,96) = 4.08, p < .05 \). For both source
and situation variables polarity of response ratings increased with
set size as predicted (negatively accelerating) by the integration
model, no interactions were observed between the two variables.

Davis, Caldwell and Ostrom (1973) also tested effects of set
size. The mean scale value of the varied set sizes (1, 2 & 4) was
kept constant. Profile certainty ratings were used to measure
subjects' responses (see Sommers & Caldwell, Chapter III). These
ratings supported the hypothesis that traits of similar valence are
seen as more likely and traits of opposite valence are seen as less
likely.
Sloan and Ostrom (1974, unpublished data) reported data on the relationship of scale value and set size to the number of implicational associates subjects gave. Results showed an interaction between scale value and set size. A significant linear set size effect was reported, $F(1,29) = 4.52, p < .04$ and a significant interaction between set size and a quadratic valence effect $F(1,29) = 8.65, p < .005$. A quadratic trend for the larger set sizes (8 & 4) disappears as set size diminishes (2 & 1) (see Figure I).

In a study by Davis and Ostrom (1974) on evaluative structure of trait meaning, using profile certainty ratings, information was obtained on positive, neutral, and negative stimuli and set size effects. The previously discussed negativity bias was not supported in this study nor in any of the studies using the profile certainty rating task (Sommers & Caldwell, 1972; Davis, Caldwell & Ostrom, 1973). In fact, positive traits received significantly greater certainty ratings $F(1,59) = 19.81, p < .001$ (see Figure II). They reported results consistent with the polarity effect. As scale value of the stimulus traits increased, greater certainty ratings were obtained $F(1,59) = 410.16, p < .001$ (see Figure III). Set size also significantly affected certainty ratings $F(1,59) = 26.47, p < .001$. As set size increased consistent response traits were rated with greater certainty (see Figure IV).
Figure I

Sloan and Ostrom

Number of Generated Five Responses to Describe People

Stimulus Values

Set Size

\( \bar{X} \) Number of Adjectives Generated
Figure II

Mean certainty ratings as a function of valence of stimulus traits
Figure III

Mean certainty ratings as a function of scale value of stimulus traits and scale value of response traits.
Figure IV

Mean certainty ratings as a function of set size.
It has been assumed that the reasons for the negativity bias and polarity effects had to do with the amount of distinctive information—extreme and negative traits had greater distinctiveness than neutral or positive traits. Moreover, if this distinctive quality of negative information in fact does exist one would assume that words generated to such data would be more unique than words generated to neutral and positive information.

The author conducted a study testing the relationship of scale value to the generation of unique responses to single and triadic (combination of three adjectives) presentations. The task involved subjects responding to highly favorable (H+), moderately favorable (M+), moderately unfavorable (M−), and highly unfavorable (L) traits presented individually (72) then presented in homogeneous groups of threes (24). The dependent variable unique responses were responses where the triad elicited a response different from any of the three single responses. This replicated the procedure of Johnson (1970) but the response variable was interpreted differently.

Method

Subjects. Twenty-two female and forty-two male undergraduates in introductory psychology participated as part of the psychology course requirement. Subjects were run in groups varying in size from three to sixteen.

Materials. Seventy-two adjectives were taken from Anderson's (1968) list of 555 adjectives. Adjectives were taken from four scale
intervals of likableness with eighteen adjectives in each—highly favorable 550-540; moderately favorable 425-325; moderately unfavorable 275-175; highly unfavorable 150-50 (see copy of the list in Appendix B). Only adjectives rated by both the two independent judges as ambiguous were chosen. Ambiguous is defined here as a trait's ability to infer a description of a person or inanimate object. This distinction is insignificant for this discussion; it is only to explain the criteria for choosing the stimulus terms.

The seventy-two single traits were also combined to form twenty-four homogeneous triads by grouping adjectives of the same scale value interval into groups of threes. There were eighteen adjectives per category in which they were randomly combined to form six triads. The only restriction was that words described by the same concept, i.e., redundant words (e.g., physical beauty) were not combined to make a triad such as beautiful - handsome - gorgeous. Each of the seventy-two adjectives were seen by subjects twice, once as a single and once as a member of a triad.

Each booklet contained, in sequence, an instruction page, examples of single and triad presentations, four pages of single traits (eighteen words per page) and two pages of triads (twelve sets per page). Half of the booklets had the four pages of single before the two pages of triads and the other half had the reversed order. Moreover half of the students received instructions to think of an object with the stimulus characteristics. The other half were told
to think of a **person**. In this report only the data from the person instructions will be considered. (See Appendix B for a list of the stimulus traits and instructions.) Two sets of random orders of words on a page were used for the six (single and triple pages) pages. The design was a $2 \times 2 \times 2$ with Set Size (within Ss) (single, triple), Ordering of Pages (between Ss) (four single pages first - two triple Pages first) and Random orders of stimuli a page all six pages (between Ss).

**Procedure.** Subjects were given the booklets by the experimenter and told to read the instructions which were as follows:

This is a free association task. You are to look at each adjective or group of adjectives listed on each page. Each adjective or group of adjectives describe a different person. After reading the description of each person, your task is to write down the first single word that the adjective description made you think of. **Do not** go on to the next adjective or group adjectives until you have written your response on a blank line.

There are no correct answers. We are interested in what each adjective or group of adjectives make you think about the person described. Please work quickly and try to make your associations directly to the person being described and independent of your reactions to the other persons in the booklet.
Once you have finished a page go on to the next page until you have finished the task. Do not return to any pages you have completed. Remember, you should not go on to the next adjective or group of adjectives until you have written an answer to the adjective above.

The experimenter then asked if there were any questions and instructed subjects to raise their hand. This was done to prevent subjects from discovering the different instructions (object-person). Subjects were told to do the example on the next page, which consisted of one single and one triple (triad presentation). Again, the experimenter asked subjects to raise their hands if there were any questions. Then the experimenter instructed the students to start the task. After completing the task subjects were asked to quickly check through the booklet to see if they overlooked a blank response. Upon receipt of the experiment booklet, the experimenter gave each subject a written debriefing sheet. This sheet explained that the experiment was interested in response to ambiguous personality trait adjectives and set size effects. The instruction and set size conditions were both explained and possible predictions about set size effects given.

Results

Dependent measure. The dependent measure was subjects single response to single and triple stimuli. For the purposes of this paper the dependent measure became a ratio of the three single
responses and the triple response for each triad, forming a uniqueness index. The single response could be coded as 1, 2, or 3 where 1=all single responses were the same response; 2=two of the three responses were the same response whether AB, BC, or AC combinations; 3=all single responses were different from each other. The single response number appears before the colon. The triple response could be represented as 1=triple response is the same as one or more of the single responses or 0=the triple response differs from all three of the single responses. The triple response number appears after the colon. Thus, all possible combinations could be recorded.

Normative data. Eighty point three percent of the words generated to the triad stimuli were unique, in that the triad response differed from the three single responses (3:0+2:0+1:0). Seventeen point eight percent of the redundant responses were given in the 3:1 ratio where all the single responses differed from each other but one of the three matched the triple response. Overall, unique triple response conditions (3:0+2:0+1:0) the highly positive condition generated the most unique responses $H^*=.849$ and $M_+=.800$ (moderately positive) generated the second most unique responses (see Table II). Thus, we do not find support for either the negativity bias effect nor the polarity effect. The above information was of a descriptive nature and computed for that purpose. In order to perform statistical analyses of the data a different coding method was necessary. Subjects received a score from 0-6 designating the number of triads that received unique responses
### Table 1

**Analysis of Variance**

**Effects of Order, Instruction, Scale Value on Unique Response Generation**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Ss</th>
<th>Ms</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order (A)</td>
<td>1</td>
<td>.141</td>
<td>.141</td>
<td>1</td>
</tr>
<tr>
<td>Instructions(B)</td>
<td>1</td>
<td>5.06</td>
<td>5.063</td>
<td>3.25</td>
</tr>
<tr>
<td>Scale Value (C)</td>
<td>3</td>
<td>20.88</td>
<td>6.958</td>
<td>4.98*</td>
</tr>
<tr>
<td>AB</td>
<td>1</td>
<td>2.64</td>
<td>2.641</td>
<td></td>
</tr>
<tr>
<td>AC</td>
<td>3</td>
<td>1.17</td>
<td>.391</td>
<td>.265</td>
</tr>
<tr>
<td>BC</td>
<td>3</td>
<td>2.81</td>
<td>.938</td>
<td>.656</td>
</tr>
<tr>
<td>S(AB)</td>
<td>60</td>
<td>93.41</td>
<td>1.557</td>
<td>1.116</td>
</tr>
<tr>
<td>ABC</td>
<td>3</td>
<td>4.42</td>
<td>1.474</td>
<td>1.056</td>
</tr>
<tr>
<td>CS(AB)</td>
<td>180</td>
<td>251.19</td>
<td>1.396</td>
<td></td>
</tr>
</tbody>
</table>

*p < .001*
### Table II

Percent of Ss Response Ratio x Scale Value

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>M</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:0</td>
<td>.844</td>
<td>.773</td>
<td>.766</td>
</tr>
<tr>
<td>3:1</td>
<td>.138</td>
<td>.177</td>
<td>.201</td>
</tr>
<tr>
<td>2:0</td>
<td>.005</td>
<td>.023</td>
<td>.016</td>
</tr>
<tr>
<td>2:1</td>
<td>.013</td>
<td>.023</td>
<td>.013</td>
</tr>
<tr>
<td>1:1</td>
<td>0</td>
<td>.005</td>
<td>0</td>
</tr>
<tr>
<td>1:0</td>
<td>0</td>
<td>0</td>
<td>.005</td>
</tr>
</tbody>
</table>

3:0 = .849 .800 .782 .784

Σ 2:0 unique

1:0
out of the six triads at each stimulus scale value (H, M+, M L). The evaluative scale value comparisons (H+, M+, M-, L_) of the six responses which were unique responses changed from percentages to mean scores when recoded H+ = 5.10, M+ = 4.80, M = 4.69; and L = 4.70 which corresponds to the total of values for scale values in Table II.

Analysis of variance. Of the three main effects only Scale Value was significant, F(3,180) = 4.98, p < .001. Order of single versus triple pages first and object-person instructions were not significant F < 1(1,3), and F(1,3) = 3.25, p < .05. No significant interactions were found (see Table I).

It appears that, overall, positive information tends to produce more unique responses than negative information, a finding which contradicts the negativity bias hypothesis, nor was there support of the polarity effect. However, we find that subjects tend to generate unique responses to combined data (80.3%) rather than rely on single responses (19.7%) when each of the individuals responses differ from the likelihood of such behavior does increase with an increase in the number of single responses which were redundant.

Discussion

In the beginning portion of this chapter we found support of the negativity bias effect of combined information and results were interpretable in terms of attribution and integration theory, (Hamilton & Zanna, 1972; Anderson, 1965; Osgood et al., 1957; Wyer, 1973, etc.). Moreover support was found for the polarity effect of
combined information, Wyer (1973); Osgood et al. (1957); Davis, Caldwell, and Ostrom (1973) etc. Himmelfarb (1972) had also tested an integration attribution explanation of the polarity effect based characteristics of distinctive information (source and situation) and its relationship to the integration process via altering the weight of stimulus information.

In the latter half of the chapter, a close look at the relationship between stimulus scale value and set size was presented. Results of presented studies concurred that set size did have an effect and that this effect could be found across all scale values (Davis & Ostrom, 1974; Wyer, 1974; Posavac & Pasko, 1971).

It should be noted that in the studies which used the profile certainty rating, negativity bias was not found. In fact, positive stimulus traits received greater certainty ratings. Davis and Ostrom (1974) give a possible explanation that negative information may carry more weight but individuals may find it difficult to perceive others as all bad but have little difficulty in perceiving a person as all good.

An alternative explanation for this may be that cultural norms inhibit expression of such unfavorableness; therefore, when negative trait information is received it is weighted heavily but if expression of such information is necessary subjects are inhibited in making an overall negative judgment. Heslin's (1972) study tends to support such an explanation. He found that subjects in an impression task
sought more information before making a decision if the initial information was negative. If a decision has to be made, subjects require more information before making that decision then if the information is neutral or positive, therefore, we may assume reluctance on the part of subjects to make such judgments.
CHAPTER V

The communication of evaluative impressions in person perception has been the focal point of this discussion: throughout the transmission phase (Chapter II) and the reception phase (Chapters III & IV). We have seen that persons do have a wealth of evaluative traits with which to relay person perception information and we find that individuals receiving such information do differentially deal with such information in order to acquire meaning to it (along a dimension of affect) and to combine it to form an impression.

It should be noted that studies by the author do not provide evidence to suggest or reject any of the concepts proposed, but they do provide a closer examination of them. Let us review the concluding studies of each of these chapters and their role in the communication of evaluative information. The transmission phase inquired into the cognitive repertoire available to persons which allows them to impart person perception information. The slang, own, common study provided information about three possible distributions persons may use. By having subjects generate words of a slang nature it also provided a unique distribution which could be scaled and used as a comparison in research which uses personality trait adjectives. Results of the study showed that extreme categories do generate more words than moderate or neutral categories. This
would raise doubts as to the argument that extreme traits have strong effects because of their novelty (surprisingness). It may well be that subjects may not use these terms frequently but they are aware of their existence. It was also mentioned that the type of instructions subjects were given had an effect as to the frequency of words among categories, particularly in the neutral categories and in the moderate categories. In terms of the widespread use of the Anderson (1968) list, this brings about a question of its representativeness. Remember, subjects did not generate the words in his list but scaled them.

In the chapter on integration of stimulus information, we again concern ourselves with the polarity concept and negativity bias. The author's study on uniqueness of responses to multiple stimuli did not find this bias effect and only found a polarity effect on the positive end of the scale. Because the effect appeared to be very strong in other studies we cannot say that it possibly is an artifact but will say that the evidence for the negativity bias effect is not equivocable. As reported in the studies using the attitude structure profile, it is possible that subjects are reluctantly responding or that the weight definition (in integration theory) does not apply in this case, as suggested by Ostrom (1976). Whatever the case it is obvious from the author's results that further study into the effect is necessary and into explanations
which account for it. In the following discussion five explanations, some of which just specify conditions necessary for the effect, of negativity bias are reported from Kanouse and Hanson's (1972) review of the effect in relationship of the studies reported in this paper.

In this chapter a discussion of the effect of evaluative properties on the stage of the impression formation process will be reviewed. In the introduction, the process of forming an impression was said to contain four steps: (1) perceiving information, (2) cognitive representation of the perceived information to give it meaning, (3) integration (combining) of the information (perceived and implied) and (4) overt response. These steps were used as a format to study the effects of evaluative properties, with aid of an associative meaning shift model to provide a frame of reference and a vocabulary.

Chapter II presented background information about the cognitive repertoire persons have to draw upon in order to describe others they like, dislike, or about whom they feel indifferent. This was accomplished by comparing distributions from studies which looked at word frequency (Caldwell, 1976; Anderson, 1976; Lott & Lott, 1970), generation of affective belief statements (Ostrom & Upshaw, 1968), word differentiation (Harvey, et al., 1968). Overall, a U-shaped distribution appeared to describe the distribution of words individuals use in describing evaluative characteristics of others.
Extreme traits (positive and negative) were the most abundant and
distinctive with neutral traits being least abundant. Variations
in distributions were discussed in terms of methodological differences
in operationalization of concepts changing the frame of reference which
subjects used in order to respond.

In Chapters III and IV we were interested in, first, cognitive
representation and secondly, combining of information. These chapters
will be reviewed with the explanation of negativity bias effects
presented in Kanouse and Hanson (1972). Although these explanations
vary in orientation they are not mutually exclusive; thus a study may
be discussed in conjunction with more than one explanation. The
figure-ground explanation can be described as a form of the contrast
effect. As stated, the figure-ground explanation makes the
assumption that most events which occur are of a positive nature—
thus, generally speaking, usually events and words have a positive
connotation. When something occurs that has negative characteristics
it is assumed that it is occurring in a context of positive events,
therefore contrasting from the norm. When negative information is
presented among a group of positive information a subject should
focus on the negative information as a point of distinction in
'making' a judgment. Attribution theory is subsumed under this
approach (see Chapter III).

The second explanation is the range-frequency explanation which
is based on studies of distribution produced by judgments of physical
objects and social concepts. It was found that the psychological
distribution of judgments appear to have a neutral point equidistant
from the mean and median. Psychological distribution refers to the
distinction of points along a subjects' cognitive scale along some
dimension (physical weights, likableness, etc.) which differs from
a real distribution in anchors where the exact weights may be known
and with a calculated neutral point located at the mean of the dis-
tribution. If it is assumed that most events which occur are positive
(inherit a million dollars) and extremely negative events (death,
taxes) occur more frequently than extremely positive events we would
obtain a skewed distribution, with most events occurring at the mod-
erately positive end of the scale, the least events occurring at the
extreme positive point, low frequency of events at the negative
point end and a moderate number of events occurring at the neutral
point. Assuming such a distribution in personality trait informa-
tion, negative information would have little effect in changing the
distribution but extreme positive information would increase the
scale value of the neutral point thereby bringing negative connota-
tions to previously low positive information; thus a person would
prefer to "key in" on negative events rather than extremely positive
information because it has a less disruptive effect.

The results of most studies in Chapter II do not support such a
distribution of trait information. Most of the studies cited (Lott
80

& Lott, 1968; Caldwell category task, 1976; Wyer, 1970) did not find
a moderate presentation of neutral traits nor the skewed distribution.
The Anderson reanalysis study (1976) did find a high frequency of
moderate positive traits but also found a high frequency of moderately
negative traits. Lott and Lott (1970) did find more positive than
negative traits but the fewest number of traits were found at the
neutral point which conflicts with the range-frequency explanation
distribution. Only the Harvey et al. (1968) study found high neutral
effects but this was in conjunction with highly negative and positive
extreme effects, which were less than the neutral point but did not
differ significantly between themselves. If may be that the dis-
tribution of what is available to a person to use in describing
others (words in the English language) follow the range-frequency
distribution but what subjects appear to use to describe others
does not adhere to a skewed distribution but rather a U-shaped
distribution.

A combination of independent and interference effects can also
explain negativity bias. In this explanation independence of
traits in forming an impression refers to whether all traits refer
to a single object (interdependent) or each refers to a different
object (independent). If the traits are interdependent then a
negative trait can interfere with the likability of the object
described by the negative and positive traits. If there is high
independence of traits and if a judgment is being made about an
object based on individual trait judgments, a negativity bias would not occur because it does not effect the overall qualities of the object.

This concept may explain the results of Chapter IV where the studies cited in the beginning of the chapter found a negativity bias effect (Anderson, 1965; Osgood et al., 1957; Hamilton & Zanna, 1972) and the studies cited in the latter portion of the chapter did not (Davis, et al., 1973; Davis & Ostrom, 1974). The task definition of the initial studies made the words highly interdependent therefore subjects perceived interference by the negative traits in judgment the overall likability of the stimulus person. In the studies using profile rating as a form of response the subjects weighted each response trait individually in relationship to the stimulus traits causing high independence of responses which were later combined by the experimenter to provide a judgment of the stimulus person leading to no negativity bias but a slight positive effect (see Davis & Ostrom, 1974).

The fourth explanation of negativity bias is situational determinant of the salience of rewards and costs. Obviously, a person reinforced for attending to a cost orientation would tend to emphasize such stimulus information whereas a person who is focusing on reward would emphasize rewarding information. In a situation that meets the assumption that most events are positive, one would expect little reinforcement from focusing on positive stimuli and
could expect high costs in ignoring negative stimuli (unpleasant interactions). It would then be advantageous (rewarding) to a person in such a situation to pay attention to the negative stimuli (preventing unpleasant interaction). This explanation refers also to the same studies as the figure-ground studies and negativity bias. One study in particular looks at cost-reward (Clore, 1976) in terms of the acquisition of their extremity of meaning. Also, this study refers to the last explanation of negativity bias also— Approach-avoidance. In the approach-avoidance explanation emphasis is not placed upon their effects but whether they should be considered as end anchors along one dimension or as independent scores. If the latter situation exists one would not expect equal weighting of positive and negative information. Whether one gradient supersedes the other then would be dependent on whether emphasis is placed in terms of reinforcement.

The evaluative properties of stimulus information have been shown to effect impression formation and appears to do so in all steps of the process. We have seen how particular effects, such as negativity bias and polarity, affect cognitive representation level in the integration process and the distributional trends.
INSTRUCTIONS

This is a study on how people describe each other. On the attached sheet there are seven categories (from extremely unfavorable to extremely favorable) of impressions you may hold toward other people. What you are to do is think of terms you would use to describe people who are in each of these impression categories.

You are to place the word in the seven impression categories according to how positive or negative you consider the word to be. Please think of at least one word for each of the seven categories. There is no limit as to the number of words you can put in any category. Think of as many words as possible for each category. Don't worry about spelling and use words that you know.
INSTRUCTIONS

This is a study on how people describe each other. On the attached sheet there are seven categories (from extremely unfavorable to extremely favorable) of impressions you may hold toward other people. What you are to do is think of terms you would use to describe people who are in each of these impression categories.

We are particularly interested in the way you use slang terms to describe others. Think of the slang terms that you use or have heard others use. Feel free to write down all forms of slang, including, any swear words, sexual terms, or scatological terms that are used to describe favorable and unfavorable impressions.

You are to place the word in the seven impression categories according to how positive or negative you consider the word to be. Please think of at least one word for each of the seven categories. There is no limit as to the number of words you can put in any category. Think of as many words as possible for each category. Don't worry about spelling and use words that you know.
INSTRUCTIONS

This is a study on how people describe each other. On the attached sheet there are seven categories (from extremely unfavorable to extremely favorable) of impressions you may hold toward other people. What you are to do is think of terms you would use to describe people who are in each of these impression categories.

We are particularly interested in the traits you use to describe others. Think of the traits (such as sincere, cordial, shy, unsporting, and dishonest) you use or have heard others use. Feel free to write down all kinds of traits that are used to describe favorable and unfavorable impressions.

You are to place the word in the seven impression categories according to how positive or negative you consider the word to be. Please think of at least one word for each of the seven categories. There is no limit as to the number of words you can put in any category. Think of as many words as possible for each category. Don't worry about spelling and use words that you know.
<table>
<thead>
<tr>
<th>EXTREMELY UNFAVORABLE</th>
<th>MODERATELY UNFAVORABLE</th>
<th>SLIGHTLY UNFAVORABLE</th>
<th>NEUTRAL</th>
<th>SLIGHTLY FAVORABLE</th>
<th>MODERATELY FAVORABLE</th>
<th>EXTREMELY FAVORABLE</th>
</tr>
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</tbody>
</table>
DEBRIEFING

This experiment is concerned with how people describe others. In order to get a complete sampling of all types of descriptive words, we asked for three types of information. Some of you were asked to generate slang words that you would use to describe others, others were asked to use descriptive trait adjectives such as conceited, dishonest, sincere, etc., and some of you were asked to use any words you would normally use to describe others. The purpose of this task was to get an overall sampling of current descriptive traits and scale them in terms of favorability. With this information we want to find out if these words are generated and scaled separately and then are scaled again intermingled, there should be a change in scale value for the descriptive trait adjectives and normal descriptive words you generated. The slang words should cause the other groups of words to be rated less extreme, that is, the normal descriptive words should become more neutral.
INSTRUCTIONS

This is a free association task. You are to look at each adjective or group of adjectives listed on each page. Each adjective or group of adjectives describes a different person. After reading the description of each person, your task is to write down the first single word that the adjective description made you think of. Do not go on to the next adjective or group of adjectives until you have written your response on the blank line.

There are no correct answers. We are interested in what each adjective or group of adjectives make you think about the person described. Please work quickly and try to make your associations directly to the person being described and independent of your reactions to the other persons in the booklet.

Once you have finished a page go on to the next page until you have finished the task. Do not return to any pages you have completed. Remember, you should not go on to the next adjective or group of adjectives until you have written an answer to the adjective above.
Stimulus Adjectives for Uniqueness Study

GLOOMY
UNINTERESTING
VULGAR

LIVELY
OUTSTANDING
CREATIVE

UNIMAGINATIVE
ORDINARY
UNROMANTIC

LITERARY
QUICK
COMICAL

WARM
CHEERFUL
VERSATILE

ANNOYING
UNPLEASING
IRRITATING

PRACTICAL
ORDERLY
CONSISTENT

IMPrACTICAL
EXTRAVAGANT
SILLY

MATHMATICAl
PRECISE
SCIENTIFIC

CLEAN
PLEASANT
BRIGHT

RADICAL
UNHEALTHY
IMMODEST

SPITEFUL
UNRELIABLE
TROUBLESOME
WHOLESALE
ADHARABLE
IMAGINARY

BORING
LIFELESS
SNOBBISH

UNGRACEFUL
INACCURATE
UNORIGINAL

RELIABLE
HELPFUL
INGENIOUS

RELIGIOUS
DIGNIFIED
SENTIMENTAL

UNPOPULAR
TEMPERMENTAL
TOUGH

MESSY
CRUDE
OFFENSIVE

FASHIONABLE
MIDDLECLASS
NORMAL

DEPENDABLE
NEAT
ORIGINAL

MELANCHOLY
OLD-FASHIONED
CONVENTIONAL

COLD
SHALLOW
DISLIKABLE

UNCONVENTIONAL
INOFFENSIVE
BOLD
DEBRIEFING SHEET

The experiment which you have just completed was concerned with the use of ambiguous personality trait adjectives and set size effects. You may have noticed that the adjectives you were given could either describe a person or a nonanimate object. Yet, you were asked to think of only one or the other. We are interested in whether your response to descriptive adjective would differ depending on whether you were thinking in terms of a person or an object.

The other variable of interest was set size effect. You responded to both single adjectives and sets of adjective (in groups of three). We wanted to replicate the findings of a prior study which found that single adjectives produced more adjective responses than three adjective sets (more noun responses).
BIBLIOGRAPHY


