

INFORMATION TO USERS

This reproduction was made from a copy of a document sent to us for microfilming. While the most advanced technology has been used to photograph and reproduce this document, the quality of the reproduction is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help clarify markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure complete continuity.
2. When an image on the film is obliterated with a round black mark, it is an indication of either blurred copy because of movement during exposure, duplicate copy, or copyrighted materials that should not have been filmed. For blurred pages, a good image of the page can be found in the adjacent frame. If copyrighted materials were deleted, a target note will appear listing the pages in the adjacent frame.
3. When a map, drawing or chart, etc., is part of the material being photographed, a definite method of "sectioning" the material has been followed. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
4. For illustrations that cannot be satisfactorily reproduced by xerographic means, photographic prints can be purchased at additional cost and inserted into your xerographic copy. These prints are available upon request from the Dissertations Customer Services Department.
5. Some pages in any document may have indistinct print. In all cases the best available copy has been filmed.

**University
Microfilms
International**

300 N. Zeeb Road
Ann Arbor, MI 48106

8408999

Martin, Leonard Louis

**CATEGORIZATION AND DIFFERENTIATION: A SET, RE-SET, COMPARISON
ANALYSIS OF THE EFFECTS OF CONTEXT ON PERSON PERCEPTION**

The University of North Carolina at Greensboro

PH.D. 1983

**University
Microfilms
International** 300 N. Zeeb Road, Ann Arbor, MI 48106

Copyright 1984

by

Martin, Leonard Louis

All Rights Reserved

CATEGORIZATION AND DIFFERENTIATION:
A SET, RE-SET, COMPARISON ANALYSIS
OF THE EFFECTS OF CONTEXT
ON PERSON PERCEPTION

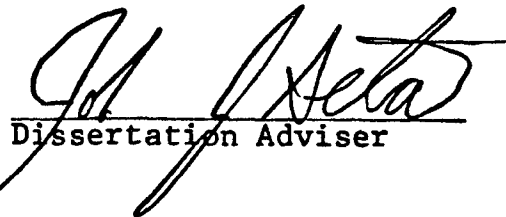
by

Leonard L. Martin

A Dissertation submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
1983

Approved by



Dissertation Adviser

APPROVAL PAGE

This dissertation has been approved by the following committee of the faculty of the Graduate School at the University of North Carolina at Greensboro.

Dissertation
Adviser

J. A. Aeto

Committee Members

D. R. Soderquist
R. Reed M.D.
R. L. Smith
John King

10-27-83
Date of Acceptance by Committee

10-24-83
Date of Final Oral Examination

© 1984

LEONARD LOUIS MARTIN

All Rights Reserved

MARTIN, LEONARD LOUIS, Ph.D. Categorization and Differentiation: A Set, Re-set, Comparison Analysis of the Effects of Context on Person Perception. (1983) Directed by Dr. John J. Seta. 87 pp.

The prevailing conceptualizations of the impression formation process were discussed in terms of their ability to account for a number of judgmental shifts. The paper suggested that these conceptualizations were incomplete regarding their accounts of assimilation and contrast effects. This incompleteness is particularly evident in those cases in which shifts in judgment result from nonsemantic manipulations (e.g., responding technique). A theoretical analysis was proposed which takes into consideration the perseveration/termination of an initial evaluative response, and a perceiver's feature weighting strategies. Two experiments were conducted to test some of the implications of this view. The results of both studies supported the proposed analysis. Specifically, in both studies, impressions of a target shifted toward a prime under conditions in which the primed response was likely to have perseverated, whereas impressions of a target shifted away from the prime under conditions in which the primed response was likely to have been terminated. Further, this pattern of results was observed when the primed response was a broad affective response (Experiment 1) and when it was a more specific descriptive response (Experiment 2). Implications of these results were discussed in terms of a number of social cognition issues.

TABLE OF CONTENTS

	Page
APPROVAL PAGE	ii
LIST OF TABLES	v
CHAPTER	
I. INTRODUCTION	1
II. EXPERIMENT 1	24
Introduction	24
Method	27
Subjects	27
Design	27
Stimulus materials	27
Procedure	28
Dependent measures	30
Results	31
Discussion	34
III. EXPERIMENT 2	39
Method	45
Subjects	45
Design	45
Stimulus materials	45
Procedure	46
Dependent measures	50
Results	51
Discussion	54
IV. GENERAL DISCUSSION	58
BIBLIOGRAPHY	70
APPENDIX 1. PRIMING STIMULI FOR EXPERIMENT 1, POSITIVE CONDITION	79
APPENDIX 2. PRIMING STIMULI FOR EXPERIMENT 1, NEGATIVE CONDITION	80
APPENDIX 3. STIMULUS DESCRIPTION FOR IMPRESSION FORMATION TASK FOR EXPERIMENTS 1 AND 2	81

APPENDIX 4.	INSTRUCTIONS FOR EXPERIMENT 1	82
APPENDIX 5.	PRIMING TASK FOR EXPERIMENT 2, MIXED/INCOMPLETE CONDITION	84
APPENDIX 6.	PRIMING TASK FOR EXPERIMENT 2, MIXED/COMPLETE CONDITION	85
APPENDIX 7.	PRIMING TASK FOR EXPERIMENT 2, NEGATIVE/INCOMPLETE CONDITION	86
APPENDIX 8.	PRIMING TASK FOR EXPERIMENT 2, NEGATIVE/COMPLETE CONDITION	87

LIST OF TABLES

	Page
TABLE 1. Means for the 4 rating scales used in Experiment 1	32
TABLE 2. Means for the 4 rating scales used in Experiment 2	52

Chapter I
INTRODUCTION

In the context of interpersonal interaction, it is possible to characterize human beings as complex sources of information. When interacting with one another, people intentionally, as well as unintentionally, emit cues which other people can use as a basis for generating inferences and forming impressions about them. As a rule, the information that one receives about another person is complex, mutable, and multidimensional. Often, it is contradictory. One of the more enduring lines of investigation in social psychology has been concerned with understanding the processes whereby people mold such diverse information into a single, unified impression.

The linear approach

The most influential approach to this issue in recent years has been Anderson's information integration theory (e.g., Anderson, 1974). The goal of this approach to impression formation is the formulation of an algebraic model which describes the relation between stimulus input characteristics and reported judgments. According to information integration theory, a stimulus is characterized by two

parameters: scale value and weight. The scale value of a stimulus represents the perceiver's subjective response to the information on the dimension of judgment (e.g., good-bad, light-heavy, like-dislike). The weight of a stimulus is its importance or relevance to the judgment. It is perhaps best conceptualized as the proportion that each element of a compound stimulus contributes to the overall evaluation of the compound. Anderson assumes that a stimulus' scale value is invariant across contexts, and that changes in evaluation result from changes in a stimulus' relative weight across contexts.

According to information integration theory, impression formation is a two-component process. One component, valuation, involves the determination of the various weights and scale values assigned to the information. The second component, integration, involves the manner in which these weights and scale values are combined to arrive at a subjective judgment. The research derived from an information integration perspective has been concerned exclusively with the latter component.

This research (e.g., Anderson, 1965) has suggested that evaluations in a social domain are consistent with a weighted averaging model of integration. This model can be described algebraically as follows:

$$J = \frac{\sum_{i=0} w_i s_i}{\sum_{i=0} w_i}$$

That is, any judgment, J , is a weighted (w_i) average of the scale (s_i) value of the single components. Since the weight of the stimuli judged in any context is assumed to be relative, the weighting coefficients are constrained to sum to one. This means that the denominator in the previous equation, which represents the sum of the weighting coefficients, can be disregarded. This leads to the following simplification of the averaging model:

$$J = \sum_{i=0} w_i s_i$$

Anderson's model includes a scale value for initial impression, i_0 , which is the impression before any information is obtained. This initial value is typically assumed to be zero (i.e., neutral), but may take on different values to reflect predispositions, motivational states, or other inner states of the evaluator (see Kaplan, 1970; 1971).

Problems with the linear approach

Although Anderson's approach to impression formation has a certain intuitive appeal, and is consistent with an abundance of data (see Anderson, 1974), there are a number

of problems associated with it. For one, it is not clear whether the model's empirical success indicates whether the model provides a valid description of the impression formation process or whether the model's accuracy is peculiar to the ideosyncratic judgmental situations constructed to test its validity (Wyer & Carlston, 1979). The model, in its general form, makes no testable predictions (Ajzen, 1977). It provides no a priori basis for predicting which integration rule or weighting assumption is correct for any particular response domain (Ostrom & Davis, 1979). In actual practice, the scale value and weighting coefficients are estimated on the basis of the obtained data (Anderson, 1970), and these estimates can be made only by assuming that scale value is invariant across contexts (Anderson, 1974). This assumption, however, can be questioned on both logical and empirical grounds (Ostrom & Davis, 1979).

Finally, Anderson's model has been criticized for its failure to deal adequately with process (e.g., Hamilton, Katz, & Leirer, 1980; Payne, Braunstein, & Carroll, 1978; Simon, 1976; Wyer & Carlston, 1979). Algebraic models depict rules which account for various input-output functions, but are indifferent with respect to the psychological processes which underlie those functions (Anderson, 1974). An understanding of the psychological mediators of impression formation might aid in predicting the conditions under which

various integration rules or weighting rules are called into play. It may also aid in explaining why it is that a weighted average model seems to account so well for so many judgments.

The social cognition approach

Within the last five or so years, a new approach to the study of impression formation has begun to develop. It has been termed the social cognition approach, and is concerned with uncovering the processes whereby the stimulus configuration and the perceiver's knowledge base interact to determine impressions. Within this approach, people are characterized as active processors whose social knowledge, in the form of schemas, prototypes, or categories affect his or her encoding, storage, and retrieval of social information (Cohen, 1981). Although a general theory has yet to be formulated in this area, there is a growing consensus on a number of general points (Srull & Wyer, 1980).

First, it is generally assumed, following Bruner (1957), that person perception can be conceptualized as a categorization process. That is, a person who receives information about a target person and wishes to form an impression of the person may first interpret, or encode, this information in terms of some class of things or events in the person's experience (Higgins & King, 1980; Wyer & Srull, 1980). In

Bruner's words, "All perception is generic in the sense that whatever is perceived is placed in and receives its meaning from a class of percepts with which it is grouped" (p. 124). Assignment of an observation to any given category is assumed to depend, in part, on the degree of match between the features observed in the stimulus and those in the category, although the precise nature of this matching process is still a matter of debate (e.g., Smith & Medin, 1981).

A category can be broadly defined as a set of specifications about what events will be grouped as equivalent (Bruner, 1957). It is assumed to contain information about the essential and characteristic attributes of category members, the range of category attributes, and typical or prototypical exemplars of the category (Higgins & King, 1980). Once a stimulus has been encoded as an instance of a particular category, many of the features associated with the category may be attributed to the stimulus, and it is this elaborated-upon impression, rather than the original stimulus information, that is used by the perceiver to make further judgments and inferences about the stimulus (Carlston, 1977; Lingle, Geva, Ostrom, Leippe, & Baumgardner, 1979; Lingle & Ostrom, 1979).

It should be evident that within the social cognition approach, one's knowledge base is more than a depository of experience; it serves important processing functions. Cohen

and Ebbesen (1979) listed three roles that a perceiver's knowledge base plays in impression formation: 1) it determines the features which will be attended to, 2) it determines the interpretation of any given stimulus, and 3) it affects memory by determining what aspects of the situation are stored and which aspects are elaborated upon.

Category accessibility

A distinction can be made between category availability and category accessibility (Higgins & King, 1980). Availability refers to whether or not a category exists in the perceiver. Accessibility refers to the readiness with which a stored category is retrieved from memory and/or is utilized in stimulus encoding. Obviously, if a category is unavailable to a perceiver, a stimulus could not be interpreted in terms of that category. On the other hand, two or more categories may be equally available to a perceiver but not be equally accessible. The greater the accessibility of a category, the less the input necessary for categorization to occur in terms of this category, the wider the range of input characteristics that will be accepted as fitting the category in question, and the more likely that categories that provide a better or equally good fit for the input will be masked (Bruner, 1957). One implication of this is that judgments of a person may be affected substantially by

rather fortuitous events that lead one or another category to be more accessible to the judge at the time the information is initially received (Wyer & Srull, 1980).

Category accessibility and impressions

One of the first demonstrations of the effect of category accessibility on impressions was conducted by Higgins, Rholes, and Jones (1977). These investigators primed certain categories in subjects by exposing them to trait words associated with the categories. This was done in a task prior to, and ostensibly unrelated to, an impression formation task. The priming words were either positive or negative and were either applicable or nonapplicable to the subsequent impression formation task. In the latter task, all subjects were given the same behavioral description of a stimulus person, and asked to give their impression of the person. The description contained passages which had been pre-rated to have approximately a fifty percent probability of being interpreted as positive or as negative. The sentence "Donald was thinking of crossing the Atlantic in a sailboat", for example, could be construed as either adventuresome or reckless. Higgins et al. hypothesized that which particular encoding would occur would depend upon whether the adventurous or the reckless category had been primed in the prior task.

Consistent with this hypothesis, Higgins et al. found that subjects in the positive-relevant condition formed more positive impressions of the stimulus person than did the subjects in the negative-relevant conditions. Prior exposure to positive-irrelevant or negative-irrelevant trait terms had no significant effect on the impressions. This pattern of results suggests that the priming task did not have a direct effect on the judgment of the target, but influenced these judgments only indirectly through its mediating effect on how the target's behavior was initially encoded. The same objective stimulus was interpreted differently depending upon which categories had been primed, and upon whether these categories were or were not applicable to the impression.

These results were replicated and extended by Srull and Wyer (1979; 1980) who demonstrated that categories can be primed by exposing subjects to behavioral exemplars of the category. They also demonstrated that differences in impressions due to category accessibility are greater one week after the initial encoding than one day after the initial encoding, supporting a "schema-plus-correction" view (Bartlett, 1932) of categorization in impression formation. In addition, trait categories activated at retrieval had no effect on impressions.

Bargh and Pietromonaco (1982) provided evidence that category accessibility can influence impressions even when the priming words are presented beyond the subject's awareness. This study supports the view that category priming effects do not require a conscious expectancy or set on the part of the perceiver, and that such effects are not artifacts of experimental demand characteristics.

Higgins and Chaires (1980) have shown that category accessibility can have behavioral as well as verbal effects. Subjects were shown slides and told that they would later have to recall the items in the slides. Five of the slides depicted single objects (e.g., comb, eyeglasses), whereas ten of the slides depicted objects designated by a phrase (e.g., bowl containing cereal, carton containing eggs). For half of the subjects, the experimenter described the phrase slides with "of" (e.g., a carton of eggs). For the remaining subjects, the experimenter described the phrase slides with "and" (e.g., carton and eggs). Subsequent to this priming task, all subjects were asked to solve Duncker's (1945) candle problem. In this problem, subjects are given a cardboard wall, a candle, a full box of matches, and a box filled with thumb tacks. They are told that their task is to affix the candle to the cardboard wall so that the candle burns properly and does not drip wax on the table. The solution to the problem involves using the tack box as

a platform affixed to the cardboard wall. Finding the correct solution depends upon the ability to see the tacks and the tack box as separate elements.

Higgins and Chaires hypothesized that priming subjects with "and" slides would increase the probability that subjects would perceive the tacks and the box as separate elements, whereas priming subjects with "of" slides would decrease the probability that they would perceive the tacks and the box as separate elements. As a result, subjects in the "and" condition should be more likely than those in the "of" condition to solve the candle problem in the allotted time. The results were consistent with this hypothesis. Higgins and Chaires concluded that the increased accessibility of the interrelational constructs affected the encoding of the objects, and that this, in turn, influenced their use in solving the problem.

A category accessibility view can also be used to interpret certain order effects in impression formation. If the initial information in a sequence accesses a category, then the subsequent information in the sequence should be encoded in terms of the category. The result would be primacy effects. That is, the initial information in the sequence would have a greater impact on the final evaluation than would the later information. Evidence of primacy effects in impression formation is abundant (e.g., Anderson

& Hubert, 1963; Anderson & Barrios, 1961; Anderson, 1965; Asch, 1946). One example is the study by Jaccard and Fishbein (1975). They asked subjects to indicate their liking for a stimulus person after reading a description of the person. For all subjects, the stimulus person was described with the same traits (e.g., loving, sincere, quiet, ugly, stout, critical). For some subjects, however, the traits were ordered from positive to negative; whereas, for the other subjects, the traits were ordered from negative to positive. Consistent with the notion that the later information in a sequence is interpreted in terms of the categories accessed by the initial information, subjects receiving the positive-to-negative sequence rated the stimulus person as significantly more likeable than did subjects receiving the negative-to-positive sequence.

In sum, the category accessibility view provides an interpretation of a number of context and order effects in impression formation. According to this view, the context within which a stimulus is embedded, or which immediately precedes it, activates a set of cognitions (i.e., associations to events in the organism's experience) which, in turn, make certain interpretations of the incoming information more probable. The interpretations which are most probable are those which are connotatively and/or affectively consistent with the primed category.

Affect and impressions

Results like those discussed above have also been found when the affective state of the perceiver is manipulated (see Clore & Byrne, 1974). Griffitt and Veitch (1975), for example, found that subjects formed more positive impressions of others while in comfortable surroundings than when in hot and crowded surroundings.

Although such results have typically been interpreted in terms of conditioned emotional states (Byrne & Clore, 1970), they are also interpretable in terms of category accessibility (Wyer, 1974). This argument can be made on the basis that affective states influence the accessibility of events in memory. Work on mood and memory (e.g., Bower, 1981; Hale & Strickland, 1976; Isen, Shalke, Clark, & Karp, 1978) has demonstrated that people in positive moods can recall more positive than negative events, and can recall positive events more quickly than negative events. People in negative moods can recall more negative than positive events, and can recall negative events more quickly than positive events. In other words, it appears that one's affective state is highly correlated with one's accessible categories.

Whether affective states have an effect on evaluation which is independent of the effects of category accessibility (Zajonc, 1980) is unclear at this time. For our present

purposes, only two points need to be made: 1) social judgments are multidimensional, and cannot be characterized by a single positive-negative dimension (Bleda, Bell, & Byrne, 1973), 2) both the category accessibility view and the conditioned affect view predict a positive correlation between the valence of a context and the valence of impressions made in that context.

Contrast effects

Although a large literature exists which supports assimilation or positive context effects, an equally large literature supports the prediction that impressions of a target person can be shifted away from the context within which the stimulus is evaluated. In a study by Simpson and Ostrom (1976), subjects were given descriptions of two target persons and asked to infer additional traits that each person might possess. Half of the subjects read a positive description of the initial target person; whereas, half read a negative initial description. Following this, both groups of subjects read about and evaluated a neutral person. Simpson and Ostrom found that the impressions of the neutral person were negative following the positive stranger, but were positive following the negative stranger.

Kenrick and Johnson (1979) induced a negative affective state in some of their subjects by exposing them to loud

bursts of noise. Within this negative context, the subjects were asked to evaluate two strangers. Evaluations of both strangers were based on the subjects' readings of attitudinal statements attributed to the strangers. The subjects were told that one set of statements belonged to a participant in the experiment, whereas the other set belonged to a physically absent stranger. Kenrick and Johnson found that impressions of the stranger described as a participant in the experiment were more positive when rated by subjects in the negative context than when rated by subjects in the neutral context. Conversely, impressions of the physically absent stranger were less positive when given by subjects in the negative context than when given by subjects in the neutral context. In other words, both a positive and a negative context effect was found using the same kind of stimuli in the same context.

Another example comes from the Higgins, Rholes, and Jones (1977) study cited earlier as support for the category accessibility view. Higgins et al. found that impressions of a stimulus person were evaluatively consistent with the traits in the priming task provided the traits were applicable to the description on which the impression was based. In the case where the priming traits were not applicable to the subsequent description, the impressions were shifted away from the priming context. That is,

impressions were more positive following a negative context than following a positive context. Although this effect did not reach a traditionally accepted level of statistical significance, it did indicate a strong trend toward contrast in the non-applicable trait condition.

Sherman, Ahlm, Berman, and Lynn (1978) had subjects judge the importance of a target issue in the context of either important or unimportant issues. They found that the target was rated as significantly less important when imbedded in the context of important issues than when imbedded in the context of unimportant issues. In a different setting, one week subsequent to this rating, a confederate of the experimenter asked subjects for help in a project related to the target issue. Subjects who had rated the issue in the unimportant context offered significantly more help than did subjects who had rated the issue in the context of important issues. These results indicate both that contrast effects in ratings can persist over time, and that contrast effects can serve as a basis for subsequent behavior and attitudes.

Negative context effects have also been found when subjects rated others in the context of aversive odors (Rotton, Barry, Frey, & Soler, 1978), when agreeable strangers were rated in the context of disagreeable strangers, and vice-versa (Griffitt, 1971; Mascaró & Graves,

1973), and when average-looking faces were evaluated in the context of attractive faces (Kenrick & Gutierrez, 1980).

In terms of order effects, the category accessibility perspective has difficulty in accounting for the findings that the later information in a sequence has a larger impact on the final impression of that sequence than does the early information. Within the gain-loss paradigm (Aronson & Linder, 1965), however, subjects have been found to evaluate a person associated with a negative-to-positive sequence of behaviors as more attractive than a person associated with an invariantly positive sequence (e.g., Clore, Wiggins, & Itkin, 1975; Mettee, Taylor, & Friedman, 1973). If the later information in the sequence had been interpreted in terms of a category primed by the initial information, then an opposite pattern of results would be expected.

Recency effects have also been observed when subjects are asked to pronounce each trait in a sequence aloud (Hendrick & Costantini, 1970), when subjects are asked to form impressions throughout the sequence (Stewart, 1965), and when subjects are forewarned that they will have to recall the stimuli in the sequence (Anderson & Hubert, 1963).

In short, it appears that neither positive or negative context effects is the rule, nor is primacy or recency the

rule. It appears, instead, that each effect is more or less probable under various conditions (cf., Jones & Goethals, 1971). One important question that follows from this conclusion is whether there exists a way in which all of these effects can be understood within a single theoretical framework.

The feature overlap analysis

Following in the tradition of the early social judgment work (e.g., Sherif & Hovland, 1961), Herr, Sherman, and Fazio (1983) suggested that assimilation and contrast to an accessed category might be understood in terms of the degree of similarity between the category and the target stimulus. According to their proposal, assimilation of a target to a prime will occur when the target and the prime possess a sufficient amount of features in common; whereas, contrast will occur when the target and the prime possess a less than sufficient amount of features in common. Although it is unclear what degree of feature overlap is to be considered a "sufficient" amount, this analysis can be tested by asking subjects to judge a number of stimuli that vary in their degree of similarity to the primed category.

Herr et al. tested this analysis by priming subjects with different characteristics of animals, and asking them to judge various animals in terms of these characteristics.

The primes varied in their degree of extremity (e.g., very tame to very ferocious), and the animals varied in the degree to which they possessed the various characteristics (e.g., rabbit, dog, lion). When the target was ambiguous with respect to the prime, and the prime was moderately extreme, assimilation occurred. When the target was unambiguous, or when the prime was extreme, contrast occurred.

Herr et al. concluded that an accesses category acts as a standard to which the subject compares the stimulus input. If the comparison indicates that the stimulus and the category are similar, then assimilation occurs. If the comparison indicates that the stimulus and the category are dissimilar to one another, then contrast occurs.

The case for stimulus coherence

Although the above analysis provides a reasonable account of the results of a number of studies, there is reason to believe that such discrepancy models are incomplete. For one thing, shifts in judgment have been obtained when the degree of feature overlap between stimuli has been held constant (e.g., Byrne, Lamberth, Palmer, & London, 1969; Luchins, 1958; Manis, 1967; Martin & Seta, 1983; Sigall & Landy, 1973).

Martin and Seta (1983), for example, found that assimilation or contrast could be produced by manipulating only the technique by which stimuli were evaluated. In this

study, subjects were asked to indicate their liking for two strangers, based upon a reading of attitudinal statements attributed to the strangers. Half of the subjects read about both strangers, and then evaluated each (final responding). The other half read about and rated the first stranger, and then read about and rated the second stranger (interpolated responding). In both of these conditions, the first stranger agreed with the subject's attitudes at a 50% rate, whereas the second stranger agreed at a 100% rate.

Martin and Seta found less of a difference between the perceived attractiveness of the two strangers when they were rated as a unit (final responding) than when they were rated as distinct from one another (interpolated responding). In addition, the 100% stranger in the final responding condition was rated as significantly less attractive than the control stranger, whereas the 100% stranger in the interpolated responding condition was rated as significantly more attractive than the control stranger. In short, when the 50% and the 100% strangers were evaluated as a unit (i.e., final responding condition), assimilation occurred. When they were rated as distinct from one another (i.e., interpolated responding condition), contrast occurred.

Since the same stimuli were used across the final and the interpolated responding conditions, the shifts in

judgment obtained in this study cannot be attributed to differing degrees of feature overlap across conditions (Herr et al., 1983) or to the accessing of different categories across conditions (Higgins et al., 1977). The results suggest, instead, that there was a differential use of the same information across conditions. Conceptually similar results have been obtained by others (Byrne et al., 1969; Luchins, 1958; Stewart, 1965).

Each of these studies has demonstrated that shifts in judgment can occur even when the degree of feature overlap between stimuli is held constant. In addition, these studies demonstrated that the relationship between the stimuli can be an important determinant of evaluation. The pattern of data generated by these studies suggests that evaluations of stimuli presented as a unit tend to exhibit assimilation, whereas evaluations of stimuli presented as distinct from one another tend to exhibit contrast (Martin & Seta, 1983; Seta, Martin, & Capehart, 1979; Tajfel & Wilkes, 1963; Taylor, Fiske, Etcoff, & Ruderman, 1979).

Task completion and task interruption

One reason that the relationship between stimuli could affect judgments is that a perceiver faces different task demands when evaluating unitized, as compared to distinct, stimuli. When stimuli are evaluated as a unit, evaluation of the unit is not complete until each element in the unit

has been considered. Therefore, in order to complete an evaluation of the unit, the individual's evaluative response to the initial stimuli must be maintained while the individual evaluates the remaining stimuli. Because of its continued activation, the initial evaluative response may get integrated into the individual's evaluation of the remaining stimuli. The result would be assimilation of the later information toward the context of the earlier information.

When stimuli are evaluated as distinct from one another, each evaluation completes a task. Therefore, the individual's evaluative response to the initial stimuli is not likely to remain active when the individual evaluates the remaining stimuli (cf., Lewin, 1951; Mandler, 1975, 1980; Miller, Galanter, & Pribram, 1960). It might still be accessible, however (Higgins & King, 1981; Wyer & Srull, 1980). Under such circumstances, the individual may attempt to differentiate the incoming stimuli from the previous stimuli (Bjork, 1972; Bjork & Geiselman, 1978; Block, 1971; Shebliske, Wilder, & Epstein, 1972) by weighting the features of the input that are distinct from the previous stimuli (Tversky, 1977). Hence, contrast would occur.

In short, it may be that when stimuli are evaluated as a unit, the perceiver searches for features in the incoming stimuli that confirm membership in the initially accessed category. When stimuli are evaluated as distinct from one another, the perceiver searches for features in the incoming

information that allow him or her to categorize this information separately from the initial information. Then, to the extent that the searched-for features are found, assimilation should occur when stimuli are rated as a unit, and contrast should occur when stimuli are rated as distinct from one another.

If this analysis is valid, then it should be possible to produce either assimilation or contrast of the same stimulus to the same accessed category by altering only the completion/incompletion of the perceiver's initial evaluative response. The following study was designed to test this hypothesis.

Chapter II

EXPERIMENT 1

Introduction

Experiment One is based upon the assumption that the perseveration/termination of one evaluative response during the formation of another is an essential ingredient in judgmental shifts. Therefore, an attempt was made in this experiment to manipulate only the perseveration/termination of an initial response while holding all other stimulus characteristics constant. It may be possible to accomplish this by using procedures refined in work on the effects of task interruption (for summaries see Butterfield, 1964; Deutsch, 1954; Weiner, 1966).

In the initial study concerned with task interruption, Zeigarnik (1927) asked subjects to engage in a series of rather simple tasks, such as enumerating cities, solving a riddle, and stringing beads. The subjects were allowed to complete some of these tasks, but were not allowed to complete others. When subjects were asked, at the end of the experiment, to recall the tasks they had done, they recalled approximately twice as many interrupted as completed tasks. In addition, interrupted tasks were recalled first more than three times as frequently as the completed ones, and also appeared more often in the next highest position. This

pattern of results has come to be known as the "Zeigarnik effect".

Marrow (1938) demonstrated that the recall differences could be accentuated by increasing the subject's involvement with the tasks. Marrow closely followed Zeigarnik's procedure, but introduced a set of instructions to heighten the subject's competitive interests. Subjects were told that their performance was to be compared with that of other students. Under these high motivation conditions, the advantage in recall for interrupted tasks over completed tasks was even greater than that found by Zeigarnik. Marrow found that for a number of subjects, the ratio went as high as four-to-one.

Osviankina (1928) demonstrated that response perseveration as a result of task interruption extends to motor behavior as well as to memory. Osviankina essentially replicated Zeigarnik's study, but, unlike Zeigarnik, allowed the subjects access to the task materials at what was, ostensibly, the end of the experiment. So, while the experimenter seemed to be involved in other matters, the subjects were free to engage in any of the tasks that they had previously performed. Osviankina noted that subjects were significantly more likely to engage in previously interrupted tasks than to engage in previously completed tasks.

This work demonstrated that a response is more likely to persevere when the task initiating the response has been interrupted than when the task has been completed. Of course, the Zeigarnik effect, like any effect, has parameters limiting its occurrence (see Butterfield, 1964). When the appropriate conditions are satisfied, however, the Zeigarnik effect is a powerful, replicable phenomenon.

In Experiment One, subjects were given either a positive or a negative priming task, and then asked to form an impression of a person based upon their reading of an ambivalent description. Half of the subjects performed the impression task believing that the initial positive or negative priming task was completed. The other half performed the impression task after having been interrupted before they could complete the priming task.

It was hypothesized that the incompleting-task condition would be analogous to an evaluation of unitized stimuli in which the initial impression must be maintained, whereas the completed-task condition would be analogous to an evaluation of distinct stimuli in which each evaluation completes a task. It was predicted, therefore, that there would be a positive relationship between the valence of the initial priming task and the valence of the impression in the incompleting-task condition (i.e., assimilation), whereas there should be a negative relationship between

the valence of the prime and the valence of the impression in the completed-prime condition (i.e., contrast).

Method

Subjects

Forty-four subjects were obtained from three separate psychology classes at the University of North Carolina at Greensboro. An approximately equal number of students were drawn from each class for each of the four experimental conditions. There was a total of eleven subjects in each experimental condition. All subjects volunteered their participation.

Design

A positive and a negative priming task were crossed with the completion and the incompletion of the priming task to yield four between-group conditions: positive-complete, positive-incomplete, negative-complete, and negative-incomplete.

Stimulus materials

The stimulus materials were presented to the subjects in two packets. The stimuli for the priming task consisted of a small booklet containing either positive or negative statements (e.g., Most mornings I wake up refreshed and

energetic versus Most mornings I just can't seem to get started). These sentences were adapted from those used by Velten (1968) to induce affective states in laboratory subjects (see Appendices 1 and 2). Half of the booklets contained four statements. The remaining half contained eight statements.

The description for the impression task was adapted from that used by Higgins, Rholes, and Jones (1977). It contained sentences having an approximately equal probability of being interpreted as positive or as negative. For example, the sentence "Donald was well aware of his ability to do many things well" could be construed as either self-confident or as conceited. (See Appendix 3.)

Procedure

The experimenter entered the classroom, and was introduced by the instructor as a graduate student in need of subjects for a research project. The experimenter explained that the experiment involved a series of tasks that were to be explained as they were to be done. The experimenter then distributed the stimulus materials to those students who had agreed to participate. He instructed these subjects to keep the stimulus materials face-down on their desks until instructed to do otherwise.

When all of the stimulus materials had been distributed, the experimenter returned to the front of the room, and

described the initial task. Subjects were told that this task was a measure of how well they could discern the emotions of another person. (See Appendix 4 for the precise instructions.) Subjects were told that the small booklet on their desk contained a series of statements that reflected a certain mood. Their task was to read each of the statements, and then write a sentence that reflected the same mood as each printed statement. Half of the subjects had positive statements to reflect, whereas half had negative statements to reflect. Further, half of the subjects in each of these groups received a booklet of four statements to reflect, and half received a booklet of eight statements to reflect. Subjects were informed that different forms of the test were handed-out, and that they should therefore refrain from making comments aloud and from glancing at other subjects' booklets.

Subjects were given 60 seconds to read the first statement and to think of a sentence that reflected the mood of the statement. At the end of this time, subjects were given another 60 seconds to write the sentence they had thought of. When this minute had elapsed, subjects were instructed to turn to the second statement, and think of a sentence that reflected the mood of this statement. They were again given 60 seconds to do this. At the end of this time, they were asked to write the sentence down, and so on. After all subjects had completed their fourth

statement, the experimenter informed them that they were to put their booklets aside, and go on to the second task. He mentioned that those subjects with the "short form of the test" (i.e., four statements) were done, whereas those with the "long form" (i.e., eight statements) were half-done with the initial task. No explicit information was given to indicate whether the subjects in the incompleting condition would or would not be asked to complete the initial task.

For the second task, subjects were told that they were to read a story, and then answer some questions on the story. The story is printed in Appendix 3. Subjects were given three minutes to read the story. At the end of this time, they were asked to turn to the next sheet, and answer the questions on it. Subjects were not allowed to turn back to the story when answering these questions. When all subjects had completed this task, the experimenter collected all of the materials, and then thoroughly de-briefed the participants.

Dependent measures

The measure of prime concern was the subject's responses to the questions about the stimulus person in the impression formation task. These responses were made by placing a mark on a six-point scale bounded by opposing trait adjectives. The adjectives bounding the first four scales were

adventurous--reckless, self-confident--conceited, independent--aloof, and persistent--stubborn. These scales were answered in response to the statement "I think Donald can be characterized as:".

Results

The means for experiment one are listed in Table 1. A multivariate analysis of variance was performed to assess the effects of completion/incompletion and positive/negative prime on the four dependent measures. The analysis revealed a multivariate interaction that was significant according to each of the four tests of significance, i.e., Pillais, Hotellings, Wilks, and Roys ($F = 5.62$, $df = 4.37$, $p < .001$). This interaction indicates that there were significant differences in the effects of the manipulations on the different dependent measures. Some insight into the nature of these differences is provided by the univariate analyses on each of the dependent measures.

There were highly significant interactions between the completion/incompletion manipulation and the positive/negative prime manipulation for each of the dependent measures. Differences between the completed and the incompleting conditions within each priming condition were assessed by means of planned comparisons.

For the adventurous-reckless measure, the interaction ($F = 13.76$, $df = 1.40$, $p < .001$) was due to the fact that the stimulus person was judged to be more adventurous in the

TABLE 1

Means for the 4 rating scales used in Experiment 1

		Valence of primes		
		positive	negative	
complete		3.4	2.4	adventurous/ reckless
incomplete		2.4	4.5	
		positive	negative	
complete		2.7	1.7	self-confident/ conceited
incomplete		1.8	3.3	
		positive	negative	
complete		2.0	1.5	independent/ aloof
incomplete		1.6	3.9	
		positive	negative	
complete		3.1	1.8	persistent/ stubborn
incomplete		1.8	4.5	

NOTE: The lower the number, the more positive the impression.

incompleted-prime condition than in the completed-prime condition following the positive prime ($p < .01$), but was judged to be more adventurous in the completed-prime condition than in the interrupted-prime condition following the negative prime ($p < .005$). For the independent-alooof measure, the interaction ($F = 12.36$, $df = 1,40$, $p < .001$) showed the same pattern of results as the other measures, but the differences between the impressions in the completed-condition and the incompleted-condition following the positive prime were not significant ($F < 1$). The differences following the negative prime were significant, however ($p < .001$).

For the persistent-stubborn measure the interaction ($F = 17.87$, $df = 1,40$, $p < .001$) was due to the fact that the stimulus person was rated as more persistent in the incompleted-condition than in the completed condition following the positive prime ($p < .05$), but was rated as more persistent in the completed-condition than in the incompleted-condition following the negative prime ($p < .001$).

The analysis also revealed a significant main effect for prime for the independent-alooof measure ($F = 5.49$, $df = 1,40$, $p < .024$), and for the persistent-stubborn measure ($F = 4.95$, $df = 1,40$, $p < .032$), and a significant main effect for completion/incompletion for the independent-alooof measure ($F = 6.64$, $df = 1,40$, $p < .014$). But, insofar

as main effects are difficult to interpret once significant interactions have been found, these main effects will receive no further discussion.

Discussion

The results of Experiment One are supportive of the hypothesis that the completion/incompletion of an evaluative response can significantly influence the nature of impressions formed subsequent to that response. The interpretation of an ambivalent stimulus was shifted toward the valence of the prime when the priming task was incomplete, but was shifted away from the valence of the prime when the priming task was completed. More generally, when the target was presented under conditions in which the initial evaluative response was likely to have perseverated (cf., Marrow, 1938; Zeigarnik, 1927), assimilation occurred. When the target was presented under conditions in which the initial evaluative response was not likely to have perseverated, contrast occurred. These findings are consistent with the notion that positive context effects result from the integration of one evaluative response with another, whereas negative context effects result from the differentiation of one response from another.

This pattern of results seems to present some difficulties to the prevailing conceptualizations of category accessibility (e.g., Herr et al., 1983; Higgins & King,

1981; Wyer & Srull, 1980). These conceptualizations have been based on the assumption that assimilation to an accessed category is a function of the applicability of the accessed categories, and how frequently and recently these categories have been primed. In short, assimilation is assumed to increase with the frequency and recency of category activation, and to occur only when the target is within a certain range of similarity to the prime. When the target is beyond that range, contrast is assumed to occur.

Although this conceptualization may be true, in so far as it goes, the results of Experiment One suggest that this conceptualization is incomplete. In Experiment One, the frequency, recency, and applicability of the primes were held constant, yet contrast as well as assimilation was observed. The only difference between the contrast and the assimilation conditions was the completion/incompletion of the priming task. Since the information presented to the subjects across the completed and incompleting-task conditions was the same in all other respects, the differences in impressions obtained across these conditions would appear to be attributable only to the differential use of this information across the completed/incompleting conditions.

One interpretation that is consistent with the present results would ascribe to the subjects different weighting strategies across the completed and incompleting conditions.

More specifically, in Experiment One, the prime was either positive or negative (i.e., univalent), whereas the target was both positive and negative (i.e., ambivalent). So, while the subjects could generate only univalent inferences about the prime, they could generate either positive or negative inferences about the target. When the priming task was interrupted, the impression of the target shifted toward the valence of the prime, suggesting that the subjects weighted the features of the target that were similar to the prime. When the priming task was completed, the impression of the target shifted away from the valence of the prime, suggesting that the subjects weighted the features of the target that were distinct from the prime.

Although this interpretation is more descriptive than explanatory at this point, it is potentially testable, and it does point to a number of interesting connections between the present work and work done in other areas. For one thing, it suggests an addition to the Herr et al. analysis. As noted in the Introduction, Herr et al. suggested that assimilation and contrast to an accessed category were determined by the degree of similarity between the target and the prime. Insofar as the present experiment demonstrated assimilation and contrast with the same prime and the same target, then any analysis which relies solely upon feature overlap cannot account for these data.

If perceived similarity, however, is conceptualized as a function of the number of common and distinctive features in the stimuli and the weight accorded to the features (e.g., Medin & Shaffer, 1978, Tversky, 1977), then a change in either number or weight could affect categorization. So, although Herr et al. stress the amount of feature overlap, and the present analysis stresses the perceiver's weighting strategies, both analyses suggest that similarity and categorization play a major role in determining impressions.

Even though the results of Experiment One are consistent with a differential weighting analysis, one might be tempted to hypothesize that the results were due, not to differences in weighting strategies, but to differences in the relative accessibility of the primed categories across the completed and the incompleting conditions. One might speculate that the prime was still accessible in the former condition but not in the latter. If so, then according to the prevailing conceptualizations of category accessibility, assimilation should have occurred in the incompleting condition but not in the completed condition.

The weakness of this interpretation, though, is that it does not account for the contrast effects obtained in the completed-task conditions. If the completion of the priming task had made the prime unaccessible, or at least relatively unaccessible, then the prime should have had

little or no effect on the impressions in the completed-task conditions. More specifically, the stimulus descriptions should have been rated the same regardless of whether it followed a positive or a negative prime. That the impressions in the completed-task condition were, in fact, shifted away from the valence of the primes indicates that the primes were still accessible, and that subjects used them as reference points from which to differentiate the target.

In sum, Experiment One demonstrated that the perseveration/completion of one evaluative response can significantly alter a subsequent evaluative response. It appears that when an initial evaluation perseverates, the second evaluation is assimilated toward the first. When an initial evaluation is completed, the second evaluation is contrasted with the first. These results cannot be accounted for by the present conceptualizations of category accessibility, but are consistent with a differential weighting analysis. Experiment Two was designed to explore some of the implications of that analysis.

Chapter III

EXPERIMENT 2

In Experiment One, it was demonstrated that the completion/incompletion of an evaluative response can be an important determinant of context effects. Under conditions in which a primed response was likely to have perseverated, assimilation occurred. In situations where a primed response was likely to have been terminated, contrast occurred. It was suggested that these effects might be understood in terms of differences in the perceiver's weighting strategies. Although the results of Experiment One are consistent with this analysis, an alternate explanation of the data exists. Specifically, the results of Experiment One could be accounted for by a modified version of the Byrne and Clore (1970) reinforcement-affect model of evaluation.

According to the Byrne-Clore model, impression formation involves a process analogous to classical conditioning. The model is based on the assumption that people evaluate stimuli in terms of their affective state at the time of evaluation. If a person is in a positive affective state during an evaluation, positive feelings are conditioned to

the target, and the target is evaluated as positive. If a person is in a negative affective state during an evaluation, negative feelings are conditioned to the target, and the target receives a negative evaluation. This relationship should hold regardless of whether the target stimulus was or was not the cause of the affective state.

So, in Experiment One, subjects reading the positive statements should have been in a more positive affective state than subjects reading the negative statements. Therefore, their evaluations should have been more positive than those given by subjects reading negative statements. The results in the interrupted-prime condition were consistent with this interpretation. The reverse pattern of results, however, was found in the completed-prime condition. This finding is inconsistent with the Byrne-Clore formulation.

The full pattern of results may be explicable in terms of conditioned affect, however, if one considers that opponent processes (Schull, 1979; Solomon & Corbit, 1974) may be operative in the experimental setting. According to Solomon and Corbit's (1974) opponent process theory of motivation, every affective reaction is accompanied by a hedonically opposite reaction, such that an organism's affective response at any given moment reflects the interaction of these two opposing states. The A-state, or primary reaction, is assumed to be aroused immediately upon

stimulus presentation and to die away as soon as the stimulus is terminated. The B-state, or slave state, is assumed to take longer to recruit and longer to die away. The B-state reduces the intensity of the primary reaction, and eventually overpowers it.

Applied to the circumstances involved in Experiment One, it might be assumed that the priming task induced in subjects both the A-state and the B-state. The A-state should dominate the subject's reactions while the initiating stimulus (i.e., the prime) is still active. The B-state should dominate when the initiating stimulus is no longer active. So, if prime incompleteness and prime completion correspond to A-state perseveration and termination, respectively, then a conditioned opponent process view would predict a positive relationship between the valence of the prime and the valence of the impression in the interrupted-prime condition, but a negative relationship between the valence of the prime and the valence of the impression in the completed-prime condition. Thus, a conditioned opponent process view and a differential weighting view make the same predictions under the conditions of Experiment One.

There are at least two conditions, however, in which these viewpoints make different predictions regarding impressions. One occurs when a person is asked to make inferences in terms of features that are evaluatively, but

not descriptively, related to the prime. The other occurs when the priming task involves both a positive and a negative valence.

Although the opponent process theorists have not concerned themselves with inferences processes (or impression formation), it seems reasonable to assume that from a conditioned affect perspective inferences would be expected to follow an evaluative rule (cf., Byrne & Clore, 1970). In other words, it seems reasonable to assume that a person in a positive mood would tend to attribute positive characteristics to an object. A person in a negative state would tend to attribute negative characteristics to an object. This assumption is reasonable since the opponent process view, as currently formulated, speaks only of an A-state and its hedonic opposite. No finer gradations of meaning or emotion are made.

The differential weighting analysis, on the other hand, assumes that judgmental shifts result from changes in the weight accorded to the common and distinctive features of the stimuli (cf., Tversky, 1977). So, while inferences may often follow an evaluative rule, they may not always do so (Felipe, 1970; Peabody, 1968; 1970). More specifically, when a stimulus' descriptive content (i.e., its dictionary meaning) is more diagnostic (Tversky, 1977) than its evaluative content (i.e., its positivity/negativity), then shifts

in judgment could occur only on those features of the target that are descriptively related to the prime.

If the priming task involves both a positive and a negative valence, and if neither valence predominates, then a conditioned-opponent process view would predict no difference between impressions formed after a completed prime and those formed after an incompleting prime. This should be the case because there is no dominant A-state, and hence no dominant B-state in the situation. If, on the other hand, one of the valences in a mixed-valence prime were to predominate, then impressions following the completion/incompletion of the prime would be expected to show the kind of overall positive-negative shifts observed in Experiment One. That is, the impression should shift from the valence of the dominant A-state to that of the dominant B-state.

From a differential weighting analysis, it is not unreasonable to expect that both valences of a mixed-valence prime could be diagnostic, and that shifts could occur in terms of both. When this occurs, a differential weighting analysis would predict that impressions following the completion/incompletion of a prime would not show the kind of overall positive-negative shifts observed in Experiment One, but would instead show selective shifts in terms of those features of the target that are descriptively related to the prime.

Experiment Two was designed to test these opposing predictions. Subjects were presented with either a mixed-valence (i.e., bold, egotistical) or a negative (e.g., reckless, egotistical) priming task, and either were or were not allowed to complete this task. Subjects were then asked to rate a stimulus person in terms of features that either were or were not descriptively related to the prime (e.g., conceited versus dishonest, respectively).

Under these conditions, the conditioned opponent process view as extended to impression formation, would predict that impressions following the completion/incompletion of a prime would show an overall A-state to B-state shift on both descriptive and evaluative measures, at least following the univalent prime. No effect may occur at all for the completion/incompletion manipulation if the opposing states in the ambivalent prime cancel one another out. The differential weighting analysis would predict that those measures that are descriptively related to the prime would shift toward the prime when the priming task is incompleted, but would shift away from the prime when the priming task is completed. Measures descriptively unrelated to the prime should not be affected by the complete/incomplete manipulation.

Method

Subjects

Forty females from introductory psychology classes at the University of North Carolina at Greensboro served as subjects. All subjects received course credit for their participation. There were ten subjects in each of the experimental conditions.

Design

A connotatively mixed priming task and a connotatively negative priming task were crossed with the completion and the incompletion of the priming task to yield four between-group conditions: mixed-complete, mixed-incomplete, negative-complete, and negative-incomplete.

Stimulus Materials

Subjects were presented with a seven-page stack of papers. This stack of papers contained four pencil-and-paper tests adapted from those used by Marrow (1938), along with a priming task and an impression formation task. The stimuli for the priming task and the impression formation task were imbedded in this stack of papers. The priming

stimuli were lists of phrases that connotated either boldness and egotisticalness (i.e., mixed condition) or foolhardiness and egotisticalness (i.e., negative condition). As an example, the phrase "volunteered for espionage duty while in the army" connotates boldness. The phrase "smokes cigarettes while working near an open can of gasoline" connotates foolhardiness. (A complete listing of the priming phrases are contained in Appendices 5 through 8.) The description for the impression formation task was the same as that used in Experiment One. The pencil-and-paper tasks will be described in the next section of the paper.

Procedure

Subjects were brought into the experimental room one at a time, and asked to sit in a desk. The experimenter then placed the stack of papers face down on the subject's desk. Subjects were then asked to write their name on the back of the top sheet, and to leave the papers face down until instructed to do otherwise. The experimenter then took a seat at another desk across from the subject, and proceeded to play the tape-recorded instructions. It was explained that the instructions were recorded to insure that everyone in the experiment received exactly the same instructions. The instructions were adapted from those used by Marrow (1938) in his investigations of the Zeigarnik effect. The instructions for the present experiment were as follows:

I am going to give you a series of pencil-and paper tests. These tests will be given to you one at a time. At the signal "Begin" start working as rapidly and as accurately as you can. Both of these factors are of equal importance in your final score. The instructions for each test are printed at the top of each test sheet. I would like you to read the instructions, and ask any questions you may have about them before you begin working. There are definite things called for in every test. Be sure to notice exactly what these are, and then try to accomplish them as quickly and as correctly as you can. Also, there is a specific amount of time allotted for each part of the test. When this time period is up, you will be asked to stop what you are doing, and move immediately to the next part of the test, even if you have not completed the part you are working on. Keep in mind that failure to complete any one part of the test does not necessarily mean a low score on the test as a whole. We are interested in your overall performance. You should, however, try your best to complete every part of the test.

This is the first time that this test has been given to UNC-G students. It has been used to a limited extent at another university in the area, where this test originated. It is our purpose in repeating this test to find an answer to two major problems. First, is this test universal in its general applicability? Second, is the average score obtained by our students higher, equal to, or lower than that obtained by the students from the other university? Our results thus far, while not complete, show a definite superiority of our students' scores. This is very encouraging, and I am hoping for even higher scores from the remaining students. The results of this experiment will be published next year, and I am most anxious to report a UNC-G level of achievement that will exceed that of the students from the other university. I hope you will give me your best efforts.

At the conclusion of these taped instructions, the experimenter answered any questions the subject may have had, and then continued, orally, with the following instructions:

When you begin, I would like you to start with the top sheet. When I tell you, I would like you to turn it face-up. When you do so, you will see the instructions for the task printed across the top of the test sheet. I would like you to read through these instructions, and see if you have any questions about them before you begin working on the task. If you have any questions, bring them up, and we will try to clear them out of the way before you actually begin working. If you don't have any questions, tell me "OK". Then, I'll know you are ready to begin, and I can start the time. There is a specific amount of time for each of the tasks. If you should finish the task before I've called time-up, let me know that you are done, and I'll record the time. Then, we can move on to the next task. If, however, the time period expires before you have completed the task you are working on, I'll simply say "Time's up. Would you please move on to the next task?" Then, just move on to the next task. You should try your best, however, to complete each of the tasks in the amount of time you'll be given. Any questions?

After the subject indicated that she was ready to begin, the experimenter instructed her to turn over the first sheet, and begin the first task. The first task involved the unscrambling of the names of seven fruits and vegetables (e.g., neargo, plepa, prages). When the subjects completed this task, the experimenter recorded the amount of time the subject took to complete the task. When this was done, the subject was instructed to proceed to the next task. The second task consisted of locating and circling eight letter T's that were randomly distributed in a block of one hundred and forty-three letters. When subjects had finished this task, the experimenter recorded the subject's time, and said, "So far, so good. Would you go on to the next task?"

The third task was the priming task. Subjects were asked to divide a series of phrases into two categories. Half of the subjects were presented with phrases that were related to either boldness or to egotisticalness (i.e., mixed valence prime). The other half were presented with phrases that were related to either foolhardiness or egotisticalness (i.e., negative prime). Subjects were asked to place the number of the phrase under the column that they felt the phrase belonged in. Half of the subjects in each of these conditions were presented with eight phrases to categorize. Half were presented with twelve phrase to categorize. Subjects in the eight-phrase condition were allowed to categorize all eight phrases, and then move on to the next task. Subjects in the twelve-phrase condition were interrupted after they had categorized the first eight phrases, and were then asked to move on to the next task. Thus, all subjects were exposed to the same primes (within mixed and negative conditions), but for half of the subjects the priming task was complete, and for half it was incomplete.

In the fourth task, subjects were asked to count backwards from thirty to two, alternately skipping three and four numbers (e.g., 30, 27, 23, 20). At the conclusion of this task, the experimenter announced, "You are still

doing well. Go on to the next task." The fifth task involved the generation of five words from a set of seven letters printed on the sheet.

The sixth task was the impression formation task. Subjects were informed that they had as much as a minute and a half to read the story. The story was the same as that used in Experiment One. Subjects were told that once they were finished reading over the story they were to turn it face-down, and go on to the next task which involved answering questions about the story. After subjects had read the story, and had turned to the rating scales, the experimenter announced that the rating scale task was not being timed, and that they could proceed at their own pace.

At the conclusion of this task, subjects were asked to write down as much as they could remember of the description of the stimulus person. They were given two minutes to do this. When subjects had completed this last task, they were debriefed, thanked, and dismissed.

Dependent measures

The measure of prime concern was the subject's responses to the questions about the stimulus person in the impression formation task. These responses were made by placing a mark along a seven-point scale bounded by opposing trait adjectives. The adjectives bounding each of the four

scales were as follows: adventurous--reckless, self-confident--conceited, polite--crude, and honest--dishonest. The serial order of these scales was counterbalanced across subjects. The scales were answered in response to the statement "I think Donald can be characterized as:".

Results

The means for Experiment Two are listed in Table 2. Because one of the major manipulations in the study involved the completion/incompletion of the priming task, an a priori decision had to be made to exclude from consideration the data of any subject who was either unable to complete any of the distractor tasks, or who had a great deal of difficulty on any of the tasks (e.g., took more than three minutes to complete a task that the majority of subjects completed in less than a minute). Also, no data were accepted from subjects who miscategorized two or more of the priming statements.

A multivariate analysis of variance was performed to assess the effects of completion/incompletion and mixed/negative prime on the four dependent measures. This analysis revealed a multivariate interaction that was significant according to each of the four tests of significance, i.e., Pillais, Hotellings, Wilks, and Roys ($F = 5.62$, $df = 4,42$, $p < .001$). This interaction indicates that there were significant differences in the effects of the manipulations on the different dependent measures. Some insight into the

TABLE 2

Means for the 4 rating scales used in Experiment 2

		Valence of primes		
		mixed	negative	
complete		4.0	2.5	adventurous/ reckless
incomplete		2.1	4.2	
		mixed	negative	
complete		2.4	2.6	self-confident/ conceited
incomplete		2.0	3.5	
		mixed	negative	
complete		2.7	2.9	honest/ dishonest
incomplete		2.7	3.2	
		mixed	negative	
complete		4.1	3.2	polite/ crude
incomplete		3.9	4.4	

NOTE: The lower the number, the more positive the impression.

nature of these differences is obtained by looking at the results of the univariate analyses on each of the dependent measures. Specific differences within each priming condition were assessed by planned comparisons.

There was a highly significant interaction between the completion/incompletion manipulation and the mixed/negative primes for the adventurous-reckless measure ($F = 21.12$, $df = 1,36$, $p < .001$). This interaction was due to the fact that the stimulus person in the mixed-prime condition (i.e., bold, egotistical) was rated as more adventurous when the priming task had been interrupted than when it had been completed ($p < .005$). The stimulus person in the negative prime condition (i.e., foolhardy, egotistical) was rated as more adventurous when the prime had been completed than when it had been interrupted ($p < .005$).

For the self-confident--conceited measure, the marginally significant interaction ($F = 2.83$, $df = 1,36$, $p < .10$), and the significant main effect for prime ($F = 4.75$, $df = 1,36$, $p < .036$) appear to have resulted from the fact that the stimulus person was rated as more conceited in the incomplete-negative condition than in any of the other conditions. Also, there was little difference between the ratings of the stimulus person in the other three conditions. None of the planned comparisons was significant.

For the polite-crude measure, there was a significant prime-by-interruption interaction ($F = 21.12$, $df = 1,36$, $p < .001$), and a marginally significant main effect for completion ($F = 3.29$, $df = 1,36$, $p < .08$). For this measure, there was no difference between the ratings of the stimulus person across the complete/incomplete manipulation in the mixed-prime condition. The stimulus person in the negative-prime condition was rated as significantly more polite in the completed-condition than in the incompleting-condition ($p < .01$).

Finally, there were no significant main effects or interactions for the honest-dishonest measure. The stimulus person was rated as having the same degree of honesty regardless of the condition under which the person was evaluated.

Discussion

In Experiment Two, the pattern of judgmental shifts following the completion/incompletion of a mixed prime (i.e., bold, egotistical) was different from that following a negative prime (i.e., foolhardy, egotistical). In the mixed prime condition, the stimulus person was rated as more adventurous following the incompleting-prime than following the completed-prime, but was not rated as differing in self-confidence, honesty, or politeness across the complete/incomplete conditions. In the negative prime condition, on the other hand, the stimulus person was rated as

reckless, conceited, and crude in the incompleting condition, but was rated as adventurous, self-confident, and polite in the completed condition.

The results in the mixed-prime condition are clearly inconsistent with the hypothesis that inferences followed an evaluative rule. Had inferences followed such a rule, the stimulus person rated as adventurous would also have been ascribed the other positive traits, whereas the stimulus person rated as reckless would also have been ascribed the other negative traits. Although the obtained results are consistent with a descriptive-shift interpretation, they do indicate that a perceiver presented with a mixed-valence prime may not use both valences in making judgments. When exposed to two inconsistent primes, the subjects seemed to base their impressions on one prime, and discount the other. This discounting cannot be attributed to the specific prime used, since the one that was discounted (i.e., egotistical) was identical in every way to the one that yielded a marginally significant effect in the negative-prime condition. It appears that when more than one category is primed, the relationship between the two is important in determining the nature of judgments made subsequent to the prime.

In the negative-prime condition, three out of four measures showed significant differences across complete/incomplete conditions. The stimulus person was rated as more reckless, conceited, and crude following the incompleting-

prime than following the completed-prime. It is important to note that a significant difference was obtained for the polite-crude measure across the completion/incompletion conditions following the negative prime. Since no effect was obtained for this measure in the mixed prime condition, it appears that subjects in the negative prime condition based their inferences on an evaluative rule. According to this rule, a stimulus person with one (or more) positive traits would be attributed other positive traits, whereas a stimulus person with one (or more) negative traits would be attributed other negative traits.

Although the difference between the degree of honesty accorded the stimulus person did not differ following the completion/incompletion of the negative prime, the differences were in the direction predicted by an evaluative inference process. Admittedly, this shift is weak. The lack of effect on the honest-dishonest measure in the negative prime condition may have been due to the fact that the traits honest and dishonest have a greater hedonic value than any of the other traits used as dependent measures (Anderson, 1968). It may be that an increase in the intensity of the prime would have resulted in a shift on the honest-dishonest measure similar to that found for the other measures. More generally, the hedonic value of a prime may have to be more extreme in order to change a moralistic judgment, like honesty, than to change a social desirability judgment, like politeness.

In sum, the results of Experiment Two support the notion that different features of a stimulus are differentially sensitive to judgmental shifts following incompleted and completed tasks.

Chapter IV

GENERAL DISCUSSION

Taken together, the results of Experiments One and Two support the notion that the perseveration/termination of one evaluative response can have a significant effect upon another, and that this effect can occur regardless of whether the perseverated/terminated response is a broad affective response (Experiment One) or a more specific descriptive one (Experiment Two). In both studies, impressions of a target stimulus were shifted toward the prime under conditions in which the primed response is likely to have perseverated, whereas impressions of a target stimulus shifted away from the prime under conditions in which the primed response is likely to have been terminated.

This pattern of results leads us to conclude with Herr et al. (1983) that category priming is not a simple operation with single effects. Rather, it appears that a perceiver's weighting strategies can affect his or her use of an accessed category. The results of Experiments One and Two are consistent with the notion that when the primed response is perseverated (as when stimuli are evaluated as a unit), then the perceiver searches for features in the incoming

stimuli that allow him or her to categorize this information with the initially accessed information, whereas when the primed response is terminated (as in the evaluation of distinct stimuli), the perceiver searches for features in the incoming information that allow him or her to categorize this information separately from the initially received information. Then, to the extent that the searched-for features are found, assimilation should occur when the priming response is perseverated, whereas contrast should occur when the priming response is completed.

Theories of assimilation and contrast

Although the present analysis has assumed that response perseveration/termination affects a perceiver's use of information, other formulations have been forwarded to account for assimilation and contrast effects. Some investigators have suggested, for example, that shifts in reported judgments result, not from changed attitudes or perceptions, but from changes in the anchoring of the response scale. According to these formulations (e.g., Parducci, 1976; Upshaw, 1979), individuals use what they perceive to be the extremes of the stimulus range to define the endpoints of a psychological response scale. Intermediate stimuli are subsequently judged in terms of their relationship to these endpoints. If the endpoints change, then the relationship

between the individual's perceptions and reported judgments may change. Hence, the individual's judgments may shift. So, for example, if a person were asked to judge a series of weights ranging from 1 gram to 10 grams, and a series of weights ranging from 10 grams to 20 grams, the 10 gram stimulus would be termed heavy in the former condition and light in the latter condition, even if the person perceived the weight of the stimulus to be the same in both series of weights.

It is unclear, however, how this kind of analysis might account for the present pair of experiments. In both experiments, all subjects received the same primes, the same target stimuli, and the same response scales across the complete/incomplete conditions. Therefore, all subjects should have had the same range and the same endpoints across these conditions. If so, then there should have been no shifts in response language, and, hence, no shifts in judgment as a result of the completion/incompletion of the priming task. The significant prime-by-completion/incompletion interactions obtained in both studies suggest that response scale theories, as they are currently formulated, do not account for the shifts in judgment observed in the present pair of studies.

Problems in interpreting these data are not limited to response scale theories, however. Perceptual theories that

rely upon the psychological distance between stimuli to account for shifts in judgment (e.g., Helson, 1964) also have difficulty in accounting for the present results. These theories hold, in brief, that the closer a stimulus is to another along the dimension of judgment, the more likely it is that assimilation will occur. When the distance between two stimuli is beyond some critical range, contrast occurs. As mentioned earlier, though, the same stimuli were used across the complete/incomplete conditions. So, the psychological distance should have been the same across these conditions, according to the present formulations of distance models (i.e., Helson, 1964). As a result, there should have been no differences between the impressions across the complete and the incomplete conditions.

Although the present results seem to be inconsistent with specific formulations of the distance model, the results are not necessarily inconsistent with the broader conceptualizations of such models. It may be the case, for example, that a perceiver's weighting strategies alter the psychological distance between a stimulus and a prime. More specifically, it may be the case that when the common features are weighted, the stimulus and the prime are psychologically close, whereas when the distinct features are weighted, the stimulus and the prime are psychologically distant. To make this integration, though, the existing

models would have to incorporate all of the basic assumptions of this paper, as well as significantly alter a few of their current assumptions.

Set, re-set, comparison

Perhaps the most parsimonious account of the present data is in terms of what can be called the set, re-set, comparison analysis. The basic assumptions of the analysis are as follows:

1. Social judgment is a categorization process involving a comparison of the features of the input with those of the perceiver's knowledge base.
2. Social stimuli are multifeatured, and the context in which a stimulus is embedded determines which subset of its features is most weighted.
3. The subset of a stimulus' features that are most weighted on any given occasion determines the categorization of the stimulus.
4. Once a stimulus has been categorized in terms of certain features, other features associated with the category, but not apparent in the stimulus, may be attributed to the stimulus.
5. When a number of stimuli are evaluated as a unit, the perceiver searches for features in the incoming information that allow him or her to categorize this information with

the initially received information. Then, to the extent that the searched-for features are found, assimilation should occur, whereas to the extent that the searched-for features are not found, contrast should occur.

6. When a number of stimuli are evaluated as distinct from one another, the perceiver searches for features in the incoming stimuli that allow him or her to categorize this information differently from the initially received information. Then, to the extent that the searched-for features are found, contrast should occur, whereas to the extent that the searched-for features are not found, assimilation should occur.

This view suggests that impression formation involves an interaction between a perceiver's knowledge base and the context-induced weighting of features. When different features of a stimulus are weighted, the stimulus may get mapped onto different aspects of the knowledge base. Further, these differences in mapping may most often represent changes in a stimulus' intensions rather than its extensions.

Intensions and extensions

Intension refers to the meaning or implications of a term, whereas extension refers to the object in the real world that is singled out by the term. The classic example of this distinction involves what astronomers had referred

to as the "morning star" and the "evening star". The term morning star was used to refer to the object that was to be seen above the horizon only in the morning hours, whereas the term evening star was used to refer to that object that was to be seen above the horizon only in the evening hours. Subsequent observation indicated that the same object was being referred to in each case, namely, the planet Venus. So, although the terms morning star and evening star had different implications, they referred to the same concrete object. That is, the terms had different intensions, but the same extensions.

Applied to the present pair of studies, this distinction would correspond to a case in which two subjects read, for example, that the stimulus person drove in a demolition derby, and one interprets this action as adventurous and the other interprets the action as reckless. For both subjects, the action "driving in a demolition derby" may refer to the same real-world event, but the action differs in the implications it carries for the two subjects. That is, the action has the same extension, but different intensions.

If intensions can be thought of as a set of features associated with a stimulus, then it follows that the context within which a stimulus is embedded could alter the weight assigned to the various intensions. This, in turn, could alter further categorization of the stimulus.

A number of studies in sentence comprehension and person perception have obtained results which support this analysis. Barclay, Bransford, Franks, McCarrel, and Nitsch (1974) hypothesized that the sentential context within which a word is embedded determines which of its many meanings would be encoded. The term "piano", for instance, variously refers to a heavy piece of furniture or a musical instrument. In a sentence like "The man lifted the piano", the implication that the piano is heavy is emphasized, while the implication that it is a musical instrument is less important. Conversely, in the sentence "The man tuned the piano", the implication that a piano makes nice sounds is important, whereas the piano's weight is not. So, if the sentence context within which the term is embedded alters the encoding of that term, then the phrase "something heavy" should serve as an effective recall cue for the term piano in the former sentence but not in the latter sentence, whereas the phrase "something that makes nice sounds" would be an effective retrieval cue in the latter condition but not in the former. Barclay et al. presented the results of several studies that supported this hypothesis.

Similar results were obtained by Woll, Weeks, Fraps, Pendergras, & Vanderplas (1980) in the impression formation paradigm. These investigators found that subjects who read the sentence pair "Sam is influential. When he presents his

ideas, even his supervisors pay attention" were much more likely to view Sam as an authority than were subjects who read either the sentence pair "Sam is influential. He has friends who are willing to do him favors" or the sentence pair "Sam is entertaining. When he presents his ideas, even his supervisors pay attention." These results are consistent with the notion that impressions of a stimulus person are determined by the context-induced interpretations of stimuli associated with the person. These results also are compatible with those found in the present experiments. One difference is that Woll et al. manipulated the semantic context, whereas the present two studies manipulated the non-semantic context. In both cases, though, semantic effects were observed.

Confirming and disconfirming features

Numerous studies have supported the notion that a person's initial beliefs about an object or event guides the strategies that a person uses to test these beliefs. This work has demonstrated that people tend to seek information that confirms, rather than disconfirms, their initial beliefs (e.g., Rothbart, Evans, & Fulero, 1979; Snyder & Cantor, 1979; Snyder & Swann, 1978).

Snyder and Cantor (1979) had individuals read of events in the life of a stimulus person. The story contained equal

amounts of introverted and extraverted characteristics. Two days after reading the story, subjects were asked to determine the degree to which the stimulus person was suited for a job that required the characteristics of either an introvert or an extravert. Before reporting their judgments, subjects were asked to report all of the previously learned facts that they regarded as relevant to their decision.

Subjects judging the person's suitability for the extravert job reported more extravert than introvert characteristics as relevant to their decision, whereas subjects judging the person's suitability for the introvert job reported more introvert than extravert characteristics as relevant to their decision. In other words, the subjects appeared to give little consideration to those features of the target that could disconfirm the hypothesis that the person would be suited for the job.

The tendency to weight confirmatory evidence more heavily than disconfirmatory evidence appeared to be so dominant that Snyder and White (1981) conducted a study to see if individuals were "unable" to solicit hypothesis-disconfirming evidence or simply "unwilling" to do so. Subjects were asked to determine the extent to which a stimulus person either "was" or "was not" of a specific personality type. When subjects were asked to verify a hypothesis (i.e., the person is an extravert), they sought evidence confirming

their initial impression. When subjects were asked to falsify a hypothesis (i.e., the person is not an extravert), they sought evidence that could disconfirm their initial impression.

Snyder and White concluded that the reluctance of individuals to seek disconfirming information results, not from an inability to use such information, but from the tendency to define hypothesis-testing tasks as one of preferentially building a case in support of the hypothesis. This conclusion is consistent with the suggestion that individuals encode events and situations as "instances of" a category, rather than as "non-instances" of a category (Rothbart et al., 1979; Wason & Johnson-Laird, 1972).

Since the initial flurry of studies indicating that individuals seek confirming evidence, a number of other studies have been published which indicated that individuals search for disconfirming information (e.g., Fiske, Kinder, & Larter, 1983; Lingle, Dukerich, & Ostrom, 1983). Although the conditions that determine an individual's hypothesis-testing strategies are not yet fully understood (Lingle et al., 1983), the set, re-set, comparison analysis points to some factors that may influence these strategies. If a primed category can be thought of as an initial hypothesis, then in the present pair of experiments, individuals appeared to seek confirming evidence in the incompleting conditions,

but to seek disconfirming evidence in the completed conditions. Put another way, subjects in the incompleting-prime condition encoded the target as an "instance of" the initially accessed category, whereas subjects in the completed-prime condition encoded the target person as a "non-instance" of the initially accessed category. Thus, the termination of one task and the beginning of another may signal a search for features in the environment that distinguish one task from another.

BIBLIOGRAPHY

- Ajzen, I. Information processing approaches to interpersonal attraction. In S. Duck (Ed.), Theory and practice in interpersonal attraction. New York: Academic Press, 1977.
- Anderson, N. H. Primacy effects in personality impression formation using a generalized order effect paradigm. Journal of Personality and Social Psychology, 1965, 2, 1-9.
- Anderson, N. H. Likableness ratings of 555 personality-trait words. Journal of Personality and Social Psychology, 1968, 9, 272-279.
- Anderson, N. H. Functional measurement and psycho-physical judgment. Psychological Review, 1970, 77, 153-170.
- Anderson, N. H. Cognitive algebra: Integration theory applied to social attribution. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 7). New York: Academic Press, 1974.
- Anderson, N. H., & Barrios, A. A. Primacy effects in personality impression formation. Journal of Abnormal and Social Psychology, 1961, 63, 346-350.
- Anderson, N. H., & Hubert, S. Effects of concomitant verbal recall on order effects in personality impression formation. Journal of Verbal Learning and Verbal Behavior, 1963, 2, 379-391.
- Aronson, E., & Linder, D. Gain and loss of esteem as determinants of interpersonal attractiveness. Journal of Experimental Social Psychology, 1965, 1, 156-171.
- Asch, S. E. Forming impressions of personality. Journal of Abnormal and Social Psychology, 1946, 41, 258-290.
- Barclay, J. R., Bransford, J. D., Franks, J. J., McCarrell, N. S., & Nitsch, K. Comprehension and semantic flexibility. Journal of Verbal Learning and Verbal Behavior, 1974, 13, 471-481.

- Bargh, J. A., & Pietromonaco, P. Automatic information processing and social perception: The influence of trait information presented outside of conscious awareness on impression formation. Journal of Personality and Social Psychology, 1982, 43, 437-449.
- Bartlett, F. C. Remembering: A study in experimental and social psychology. Cambridge (England): Cambridge University Press, 1932.
- Bleda, P. R., Bell, P. A., & Byrne, D. Prior induced affect and sex differences in attraction. Memory and Cognition, 1973, 1, 435-438.
- Bjork, R. A. Theoretical implications of directed forgetting. In A. W. Melton, & E. Martin (Eds.), Coding processes in human memory. Washington, D. C.: Winston, 1972.
- Bjork, R. A., & Geiselman, R. E. Constituent processes in the differentiation of items in memory. Journal of Experimental Psychology: Human Learning and Memory, 1978, 4, 347-361.
- Block, R. A. Effects of instructions to forget in short-term memory. Journal of Experimental Psychology, 1971, 89, 1-9.
- Bower, G. H. Mood and memory. American Psychologist, 1981, 36, 129-148.
- Bruner, J. S. On perceptual readiness. Psychological Review, 1957, 64, 123-152.
- Butterfield, E. C. The interruption of tasks: Methodological, factual, and theoretical issues. Psychological Bulletin, 1954, 62, 309-322.
- Byrne, D., & Clore, G. L. A reinforcement model of evaluative judgments. Personality: An international journal, 1970, 1, 103-128.
- Byrne, D., Lamberth, J., Palmer, J., & London, O. Sequential effects as a function of explicit and implicit interpolated attraction responses. Journal of Personality and Social Psychology, 1969, 13, 79-78.

- Carlston, D. E. Events, inferences, and impression formation. In R. Hastie, T. M. Ostrom, E. B. Ebbesen, R. S. Wyer, D. L. Hamilton, & D. E. Carlston (Eds.), Person memory: The cognitive basis of social perception. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1980.
- Clore, G. L., & Byrne, D. A reinforcement-affect model of attraction. In T. L. Huston (Ed.), Foundations of interpersonal attraction. New York: Academic press, 1974.
- Clore, G. L., Wiggins, N. H., & Itkin, S. Gain and loss in attraction: Attributions from nonverbal behavior. Journal of Personality and Social Psychology, 1975, 31, 706-712.
- Cohen, C. E. Personal categories and social perception: Testing the boundaries of the processing effects of prior knowledge. Journal of Personality and Social Psychology, 1981, 40, 441-452.
- Cohen, C. E., & Ebbesen, E. B. Observational goals and schema activation: A theoretical framework for behavior perception. Journal of Experimental Social Psychology, 1979, 15, 305-329.
- Deutsch, M. Field theory in social psychology. In G. Lindzey & E. Aronson (Eds.), Handbook of social psychology (Vol. 1). Cambridge: Addison-Wesley, 1968.
- Duncker, K. On problem solving. Psychological Monographs, 1945, 58, (5, Whole No. 270).
- Felipe, A. I. Evaluative versus descriptive consistency in trait inferences. Journal of Personality and Social Psychology, 1970, 16, 627-638.
- Fiske, S. T., Kinder, D. R., & Larter, W. M. The novice and the expert: Knowledge-based strategies and political cognition. Journal of Experimental Social Psychology, 1983, 19, 381-400.
- Griffitt, W., & Veitch, R. Hot and crowded: Influences of population density and temperature on interpersonal affective behavior. Journal of Personality and Social Psychology, 1971, 17, 92-98.
- Griffitt, W. Context effects in response to affective stimuli. Personality: An International Journal, 1971, 2, 23-33.

- Hale, W. D., & Strickland, B. R. Induction of mood state and their effect on cognitive and social behaviors. Journal of Consulting and Clinical Psychology, 1976, 44, 155.
- Hamilton, D. L., Katz, L. B., & Leirer, V. O. Organizational processes in impression formation. In R. Hastie, T. M. Ostrom, E. B. Ebbesen, R. S. Wyer, D. L. Hamilton, & D. E. Carlston (Eds.), Person memory: The cognitive basis of social perception. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1980.
- Helson, H. Adaptation-level theory. New York: Harper & Row, 1964.
- Hendrick, C., & Costantini, A. F. Effects of varying trait inconsistency and response requirements in the primacy effect in impression formation. Journal of Personality and Social Psychology, 1970, 15, 158-167.
- Herr, P. M., Sherman, S. J., & Fazio, R. H. On the consequences of priming: Assimilation and contrast effects. Journal of Experimental Social Psychology, 1983, 19, 323-340.
- Higgins, E. T., & Chaires, W. M. Accessibility of interrelational constructs: Implications for stimulus encoding and creativity. Journal of Experimental Social Psychology, 1980, 16, 348-361.
- Higgins, E. T., & King, G. Accessibility of social constructs: Information processing consequences of individual and contextual variability. In N. Cantor & J. F. Kihlstrom (Eds.), Personality, cognition, and social interaction. Hillsdale, N.J.: Erlbaum, 1981.
- Higgins, E. T., Rholes, W. S., & Jones, C. R. Category accessibility and impression formation. Journal of Experimental Social Psychology, 1977, 13, 141-154.
- Isen, A. M., Shalke, T. E., Clark, M., & Karp, L. Affect, accessibility of material in memory, and behavior: A cognitive loop? Journal of Personality and Social Psychology, 1978, 36, 1-12.
- Jaccard, J. J., & Fishbein, M. Inferential beliefs and order effects in personality impression formation. Journal of Personality and Social Psychology, 1975, 23, 275-293.

- Jones, E. E., & Goethals, G. R. Order effects in impression formation: Attribution context and the nature of the entity. Morristown, N.J.: General Learning Press, 1971.
- Kaplan, M. Forming impressions of personality: The effects of initial impression. Psychonomic Science, 1970, 18, 255-256.
- Kaplan, M. F. Dispositional effects and weight of information in impression formation. Journal of Personality and Social Psychology, 1971, 279-284.
- Kenrick, D. T., & Gutierrez, S. E. Contrast effects and judgments of physical attractiveness: When beauty becomes a social problem. Journal of Personality and Social Psychology, 1980, 38, 131-140.
- Kenrick, D. T., & Johnson, G. A. Interpersonal attraction in aversive environments: A problem for the classical conditioning paradigm? Journal of Personality and Social Psychology, 1979, 37, 572-579.
- Lewin, K. Field theory in social science: Selected theoretical papers. New York: Harper & Row, 1951.
- Lingle, J. H., Dukerich, J. M., & Ostrom, T. M. Accessing information in memory-based impression judgments: Incongruity versus negativity in retrieval selectivity. Journal of Personality and Social Psychology, 1983, 44, 262-272.
- Lingle, J. H., Geva, H., Ostrom, T. M., Leippe, M. R., & Baumgardner, M. H. Thematic effects of person judgments on impression organization. Journal of Personality and Social Psychology, 1979, 37, 674-687.
- Lingle, J. H., & Ostrom, T. M. Retrieval selectivity in memory-based impression judgments. Journal of Personality and Social Psychology, 1979, 37, 180-194.
- Luchins, A. S. Definitiveness of impression and primacy-recency in communications. Journal of Social Psychology, 1958, 48, 275-290.
- Mandler, G. Mind and emotion. New York: John Wiley & Sons, Inc., 1975.

- Mandler, G. The generation of emotion: A psychological theory. In R. Plutchik, & H. Kellerman (Eds.), Theories of emotion. New York: Academic Press, 1980.
- Manis, M. Context effects in communication. Journal of Personality and Social Psychology, 1967, 5, 326-334.
- Marrow, A. J. Goal tension and recall. Journal of General Psychology, 1938, 19, 3-64.
- Martin, L. L., & Seta, J. J. Perceptions of unity and distinctiveness as determinants of attraction. Journal of Personality and Social Psychology, 1983, 44, 755-764.
- Mascaro, G. F., & Graves, W. Contrast effects of background factors on the similarity-attraction relationship. Journal of Personality and Social Psychology, 1973, 25, 346-351.
- Mettee, D. R., Taylor, S. E., & Friedman, H. Affect conversion and the gain-loss like effect. Sociometry, 1973, 36, 505-519.
- Ostrom, T. M., & Davis, D. Idiosyncratic weighting of trait information in impression formation. Journal of Personality and Social Psychology, 1979, 37, 2025-2043.
- Ovsiankina, M. Die wiederaufnahme unterbrochener handlungen. Psychologie Forshung, 1928, 11, 302-379. (Cited in J. W. Atkinson, An introduction to motivation. Princeton, N.J.: D. Van Nostrand, 1964.)
- Parducci, A. Context effects: A range-frequency analysis. In E. C. Carterette & M. P. Friedman (Eds.), Handbook of Perception (Vol. 2). New York: Academic Press, 1974.
- Payne, J. W., Braunstein, M. L., & Carroll, J. S. Exploring pre-decision behavior: An alternative approach to decision behavior. Organization Behavior and Human Performance, 1978, 22, 17-44.
- Peabody, D. Trait inferences: Evaluative and descriptive aspects. Journal of Personality and Social Psychology Monograph, 1967, 7, Whole No. 644.
- Peabody, D. Evaluative and descriptive aspects in personality perception: A reappraisal. Journal of Personality and Social Psychology, 1970, 16, 639-646.

- Rothbart, M., Evans, M., & Fulero, S. Recall for confirming events: Memory processes and the maintaining of social stereotypes. Journal of Experimental Social Psychology, 1979, 15, 343-355.
- Rotten, J., Barry, T., Frey, J., & Soler, E. Air pollution and interpersonal attraction. Journal of Applied Social Psychology, 1978, 8, 475-492.
- Schull, J. A conditioned opponent theory of Pavlovian conditioning and habituation. In G. H. Bower (Ed.), The psychology of learning and motivation, 1979, 13, 57-90.
- Seta, J. J., Martin, L., & Capehart, G. The effects of contrast and generalization on the attitude similarity-attraction relationship. Journal of Personality and Social Psychology, 1979, 37, 462-467.
- Shebilske, W., Wilder, L., & Epstein, W. Forget instructions: The effects of selective rehearsal and categorical distinctiveness. Journal of Experimental Psychology, 1971, 89, 372-378.
- Sherif, M., & Hovland, C. J. Social judgment: Assimilation and contrast effects in communication and attitude change. New Haven: Yale University Press, 1961.
- Sherman, S. J., Ahlm, K., Berman, L., & Lynn, S. Contrast effects and their relationship to subsequent behavior. Journal of Experimental Social Psychology, 1978, 14, 340-350.
- Sigall, H., & Landy, D. Radiating beauty: Effects of having a physically attractive partner on person perception. Journal of Personality and Social Psychology, 1973, 28, 379-399.
- Simpson, D. D., & Ostrom, T. M. Contrast effects in impression formation. Journal of Personality and Social Psychology, 1976, 34, 379-399.
- Simon, H. A. Discussion: Cognition and social behavior. In J. S. Carroll & J. W. Payne (Eds.), Cognition and social behavior. Hillsdale, N.J.: Lawrence Erlbaum, 1976.
- Smith, E. E., & Medin, D. L. Categories and concepts. Cambridge: Harvard University Press, 1981.

- Snyder, M., & Cantor, N. Testing hypotheses about other people: The use of historical knowledge. Journal of Experimental Social Psychology, 1979, 15, 330-342.
- Snyder, M., & Swann, W. B., Jr. Hypothesis-testing processes in social interaction. Journal of Personality and Social Psychology, 1978, 36, 1202-1212.
- Snyder, M., & White, P. Testing hypotheses about other people: Strategies of verification and falsification. Personality and Social Psychology Bulletin, 1981, 7, 39-43.
- Solomon, R. L., & Corbit, J. D. An opponent-process theory of motivation. Psychological Review, 1974, 81, 119-133.
- Stewart, R. H. Effect of continuous responding on the order effect in personality impression formation. Journal of Personality and Social Psychology, 1965, 1, 161-165.
- Srull, T. K., & Wyer, R. S. The role of category accessibility in the interpretation of information about persons: Some determinants and implications. Journal of Personality and Social Psychology, 1979, 37, 1660-1662.
- Srull, T. K., & Wyer, R. S. Category accessibility and social perception: Some implications for the study of person memory and interpersonal judgments. Journal of Personality and Social Psychology, 1980, 38, 341-356.
- Tajfel, H., & Wilkes, A. L. Classification and quantitative judgment. British Journal of Psychology, 1963, 54, 101-114.
- Taylor, S. E., Fiske, S. T., Etcoff, N., & Ruderman, A. Categorical and contextual bases of person memory and stereotyping. Journal of Personality and Social Psychology, 1978, 36, 778-793.
- Tversky, A. Features of similarity. Psychological Review, 1977, 84, 327-352.
- Upshaw, H. S. The personal reference scale: An approach to social judgment. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 4). New York: Academic Press, 1969.

- Wason, P. C., & Johnson-Laird, P. N. Psychology of reasoning: Structure and content. Cambridge: Harvard University Press, 1972.
- Weiner, B. Theories of motivation: From mechanism to cognition. Chicago: Rand McNally, 1972.
- Woll, S. B., Weeks, D. G., Fraps, C. L., Pendergras, J., & Vanderplas, M. A. Role of sentence context in the encoding of trait descriptors. Journal of Personality and Social Psychology, 1980, 39, 59-68.
- Wyer, R. S. Cognitive organization and change: An information-processing approach. Potomac, Md.: Lawrence Erlbaum Associates, 1974.
- Wyer, R. S., & Carlston, D. E. Social cognition, inference, and attribution. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1979.
- Wyer, R. S., & Srull, T. K. The processing of social stimulus information: A conceptual integration. In R. Hastie, T. M. Ostrom, E. B. Ebbesen, R. S. Wyer, D. L. Hamilton, & D. E. Carlston (Eds.), Person memory: The cognitive basis of social perception. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1980.
- Velten, E. A laboratory task for induction of mood states. Behavior Research, 1968, 6, 473-482.
- Zajonc, R. B. Feeling and thinking: Preferences need no inferences. American Psychologist, 1980, 35, 151-175.
- Zeigarnik, B. Das Behalten erledigter und unerledigter Handlungen. Psychologie Forshung, 1927, 9, 1-85. Translated and condensed as "On finished and unfinished tasks" in W. D. Ellis, A source book of gestalt psychology. New York: Harcourt, Brace, & World, 1938.

Appendix 1PRIMING STIMULI FOR EXPERIMENT 1POSITIVE CONDITION

I have very little to worry about.

Most mornings I wake up refreshed and energetic.

When I'm feeling this good, even the least little things in life are a great pleasure.

God, it's great to be alive!

Appendix 2PRIMING STIMULI FOR EXPERIMENT 1NEGATIVE CONDITION

I often worry about things a lot.

Most mornings I just can't seem to get started.

When I'm feeling this bad, even the least little things in life are a great effort.

God, what a pain it is to be alive.

Appendix 3STIMULUS DESCRIPTION FOR IMPRESSION FORMATION TASKFOR EXPERIMENTS 1 AND 2

Donald spent a great amount of his time in search of what he liked to call excitement. He had already climbed Mt. McKinley, shot the Colorado rapids in a kyack, driven in a demolition derby, and piloted a jet powered boat--without knowing very much about boats. He had risked injury, and even death a number of times. Now he was in search of new excitement. He was thinking, perhaps, he would do some sky-diving or maybe cross the Atlantic in a sailboat. By the way he acted one could readily guess that Donald was well aware of his ability to do many things well. Other than business engagements, Donald's contacts with other people were rather limited. He felt he didn't need to rely on anyone. Once Donald made up his mind to do something it was as good as done no matter how long it might take or how difficult the going might be. Only rarely did he change his mind even when it might well have been better if he had.

Appendix 4INSTRUCTIONS FOR EXPERIMENT 1

You will be given part of a social empathy inventory. The purpose of the inventory is to see how well you can match your feelings with those of another person. On your desk, you will see a small booklet. On each sheet of the booklet is a statement that a person in a certain mood might make. Your task will be to read each of these statements, and then decide what mood is being expressed in each. Once you have decided, you are to write a sentence that expresses the same mood as the statement. We don't want you to just re-word the printed statement. What we want you to do, instead, is to capture, in your own words, the mood of each statement. You will be given one minute to read the first statement, and to think of a sentence that reflects the same mood as the printed statement. At the end of this time you will be given one minute to write the sentence down. When this second minute is up, you will be asked to turn to the next statement, and think of a sentence that reflects the mood of that statement, and so on. I will tell you when to move from one statement to the next. High social empathy scores have been associated with leadership skills, and with

one's ability to get along well with others. Keep in mind that there are no right or wrong answers in the absolute sense. What we are looking for is how well you can match your feelings with those of the printed statements.

Appendix 5PRIMING TASK FOR EXPERIMENT 2MIXED/INCOMPLETE CONDITION

Read each of the phrases below, and decide whether it refers to someone who is "bold" or who is "egotistical". If you feel that the phrase describes someone who is "bold", write the number of that phrase under the column marked "bold". If you feel that the phrase describes someone who is "egotistical", write the number of that phrase under the column marked "egotistical". There are twelve phrases in all, and six belong in each column.

BOLDEGOTISTICAL

1. brags about how well he does things
2. volunteered for espionage duty while in the army
3. feels that no one but him can do things well
4. considers himself superior to others
5. entered an amateur rodeo just for the fun of it
6. tries to make himself the center of attention
7. was a photographer at the eruption of Mount St. Helens
8. worked one summer as a trapeze artist in the circus
9. his favorite topic of conversation is himself
10. likes trying new things
11. climbed Mt. Everest
12. never passes a mirror without looking at himself in it

Appendix 6PRIMING TASK FOR EXPERIMENT 2MIXED/COMPLETE CONDITION

Read each of the phrases below, and decide whether it refers to someone who is "bold" or who is "egotistical". If you feel that the phrase describes someone who is "bold", write the number of that phrase under the column marked "bold". If you feel that the phrase describes someone who is "egotistical", write the number of that phrase under the column marked "egotistical". There are eight phrases in all, and four belong in each column.

BOLD

EGOTISTICAL

1. brags about how well he does things
2. volunteered for espionage duty while in the army
3. feels that no one but him can do things well
4. considers himself superior to others
5. entered an amateur rodeo just for the fun of it
6. tries to make himself the center of attention
7. was a photographer at the eruption of Mount St. Helens
8. worked one summer as a trapeze artist in the circus

Appendix 7PRIMING TASK FOR EXPERIMENT 2NEGATIVE/INCOMPLETE CONDITION

Read each of the phrases below, and decide whether it refers to a person who is "foolhardy" or who is "egotistical". If you feel that the sentence describes someone who is "foolhardy", place the number of that sentence under the column marked "foolhardy". If you feel that the sentence describes someone who is "egotistical", place the number of that sentence under the column marked "egotistical". There are twelve sentences in all, and six sentences belong in each column.

FOOLHARDYEGOTISTICAL

1. brags about how well he does things
2. endangered the lives of others while driving under the influence of alcohol
3. feels that no one but him can do things well
4. considers himself superior to others
5. smokes cigarettes while working near an open can of gasoline
6. tries to make himself the center of attention
7. shoots a rifle in his apartment for fun
8. went hiking unprepared, and got lost in the woods for a week
9. drove his car down a residential street at 70 miles per hour to impress his girlfriend
10. his favorite topic of conversation is himself
11. set off a small forest fire by leaving his campfire unattended
12. never passes a mirror without looking at himself in it

Appendix 8PRIMING TASK FOR EXPERIMENT 2NEGATIVE/COMPLETE CONDITION

Read each of the phrases below, and describe whether it refers to a person who is "foolhardy" or who is "egotistical". If you feel that the sentence describes someone who is "foolhardy", place the number of that sentence under the column marked "foolhardy". If you feel that the sentence describes someone who is "egotistical", place the number of that sentence under the column marked "egotistical". There are eight sentences in all, and four sentences belong in each column.

FOOLHARDYEGOTISTICAL

1. brags about how well he does things
2. endangered the lives of others while driving under the influence of alcohol
3. feels that no one but him can do things well
4. considers himself superior to others
5. smokes cigarettes while working near an open can of gasoline
6. tries to make himself the center of attention
7. shoots a rifle in his apartment for fun
8. went hiking unprepared, and got lost in the woods for a week