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Affective Predication and the Recall of Personality-Trait Words

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AFFECTIVE PREDICATION AND THE RECALL

OF PERSONALITY-TRAIT WORDS

A THESIS SUBMITTED

TO THE FACULTY

IN CANDIDACY FOR THE DEGREE OF

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BY

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CHAPTER I

INTRODUCTION

The most prevalent way of viewing cognition in psychology is through mediational modeling, which dates back to the thinking of John Locke and other British Empiricists. The current trend in cognitive psychology is to use a computer model to frame cognition and memory. The picture of the person painted by this type of theorizing is one of a passive recipient of external inputs which mold the thinking and behavior (outputs) of the person according to mechanistic, computer-analogical (efficient-cause) processes. In this model, the person has little, if any, influence on the meanings they take on or the creation of new ideas. Meaning is taken in from external inputs.

Rychlak (in press; 1988) has offered an alternative way of viewing human cognition through his Logical Learning Theory (LLT). Logical Learning Theory is based on another fundamental way of viewing cognition through predicational modeling, which follows in the tradition of Immanuel Kant. The view represented by this line of thinking is of the person as an active participant in his or her conception of reality. Logical Learning Theory is founded on the principle that humans are teleological, meaning-processing beings. The individual "brings to bear" a mental pattern or

structure that orders experience from birth.

Over thirty years of research, Rychlak and his colleagues have shown the influence of the fundamental processes of LLT--predication and oppositionality--in many areas, including thinking, learning, memory, and impression formation. The purpose of this thesis is to show the influence of the logical process of predication on memory retrieval. Predication involves cognizing broader patterns of meaning in relation to narrower or targeted patterns of meaning. In this study, we are utilizing affection (the individual's rendering of a positive or negative judgment, i.e., liking or disliking of something) as the broader pattern of meaning in which to frame the targeted items for memory retrieval. It is a tenet of LLT that the individual affectively assesses every aspect of cognition and experience. Affective predication represents the most abstract level of meaning in which particular ideas and other less abstract predications can be targeted.

In this paper a review of Logical Learning Theory will be presented. The tenets of LLT will be contrasted with a mediational theoretical viewpoint. Further, some of the empirical work from LLT and other theories presaging the current study will be reviewed prior to the presentation of the experiments investigating the role of affective predication in memory retrieval.

CHAPTER II

REVIEW OF LITERATURE

Theoretical Factors

Introduction to Logical Learning Theory

Logical Learning Theory (LLT) takes a humanistic,
teleological view of human cognition and learning. The
theory has been developed over the past thirty years by
Joseph F. Rychlak (see Rychlak, in press, for a
comprehensive review), and throughout its development,
Rychlak and his colleagues have sought to establish a solid,
empirical basis for their view of humans as meaning-
processing beings. Logical Learning Theory takes an
introspective viewpoint in its study of the person by trying
to understand people from their individual (personal, first-
person, etc.) perspective rather than from the extraspective
(third-person) perspective of the "observer" looking "at"
the person as is often the case in psychological theories
(Rychlak, 1988).

Logical Learning Theory utilizes the term "logical"
because it bases its explanations on the grounds of the
Logos. Logos refers to the (formal-cause) patterned order
of objects and events, enabling logical descriptions to take
place (Rychlak, in press). The other grounds used to base

explanation in psychology are the _Bios_, _Physikos_, and _Socius_. Most commonly, psychological theories attempt to ground their explanations in the (efficient-cause) energies and the (material-cause) structures of the _Bios_ (Rychlak, in press). When theorizing is grounded in the _Bios_ or the _Physikos_, events are generally explained through the mechanistic process of "mediation." _Logos_ theorizing utilizes such processes as "predication." In the next section, we will define and elaborate on mediation versus predication in psychological explanation, as well as the four causal meanings in order to orient the reader to the LLT point of view.

Predicational versus Mediational Theorizing

Before discussing the process of cognition postulated by LLT, we must first give the reader an understanding of the causal meanings that can frame any particular conception of events. The four causal meanings can be traced back to the thinking of Aristotle (in Hutchins, 1952), and they are metatheoretical assumptions used to account for the existence or occurrence of a thing/event (see Rychlak, in press or 1988 for a thorough discussion of the four causes). One of the ways one can attempt to understand the world is according to the material cause, or the substance of which it consists. The efficient cause is used in trying to account for the motions an object manifests over time or the impetus or thrust that instrumentally affects an object or

event. The analogy often used in this case is that of one billiard ball striking another to cause it to move (Rychlak, in press). A _formal cause_ meaning can be used to explain a thing or event based on its pattern, shape, or ordering of elements. According to Rychlak (in press), this would include "the patterning of a logical analysis, the familiar outline of our friend's physiognomy, or the recognition of a tornado by the threatening funnel cloud in the distant sky" (p. 11).   "That for the sake of which" an action takes place is what is entailed in the _final cause_. Final causes include the meanings of reason, purpose, and intention (Rychlak, in press).

The formal cause is implicitly tied to and, in fact, necessary for the final cause. It is the formal cause pattern or plan which is the "that" in the "that, for the sake of which" definition of final causation (Rychlak, 1991, p. 20). The meaning encompassed in the formal-cause "end" toward which a person is behaving allows us to understand why a person is behaving intentionally in a certain way.

It is the implicit formal-final cause relationship that underlies the process of predication. Predication is a logical process concerned with the ordering of meanings, which (as referred to above) does not occur in biological or physical events (Rychlak, 1991). Rychlak (in press) defines _predication_ as the process involving "_the logical act of affirming, denying, or qualifying broader patterns of_

<u>meaning in sequacious extension to narrower or targeted</u>
<u>patterns of meaning. The target is the point, aim, or end</u>
<u>(telos) of the meaning extension</u>" (italics in the original).
Predication can be traced back to the ancient Greek thinkers
and through the history of thought. It is evidenced in the
way we seek to categorize, classify, and schematize our
world in order to make sense of it, to lend meaning from
what "is known" to what then "can be known" (Rychlak, in
press).

Predication can be seen in the cognitive organization
of a statement, such as "John is reliable" in which we are
targeting "John" within the broader realm of the concept of
"reliability" or "reliable people" (Rychlak, in press). The
predicate meaningfully extends itself to create some of the
meaning of John. This logical relationship could be
diagrammed with the use of Euler circles like those depicted
in Figure 1 (Rychlak, in press). The larger circle, acting
as the wider realm of meaning, is labeled "reliable people."
The smaller circle, acting as the target, is labeled "John."
The Euler circle diagram also presents us with the idea that
the target could be "outside the circle" or "overlapping"
with the broader circle. In these two cases, the meanings
conveyed would be "John is not reliable" and "John is
sometimes reliable," respectively. The "denying" and
"qualifying" aspects of predication are exemplified in these
instances.
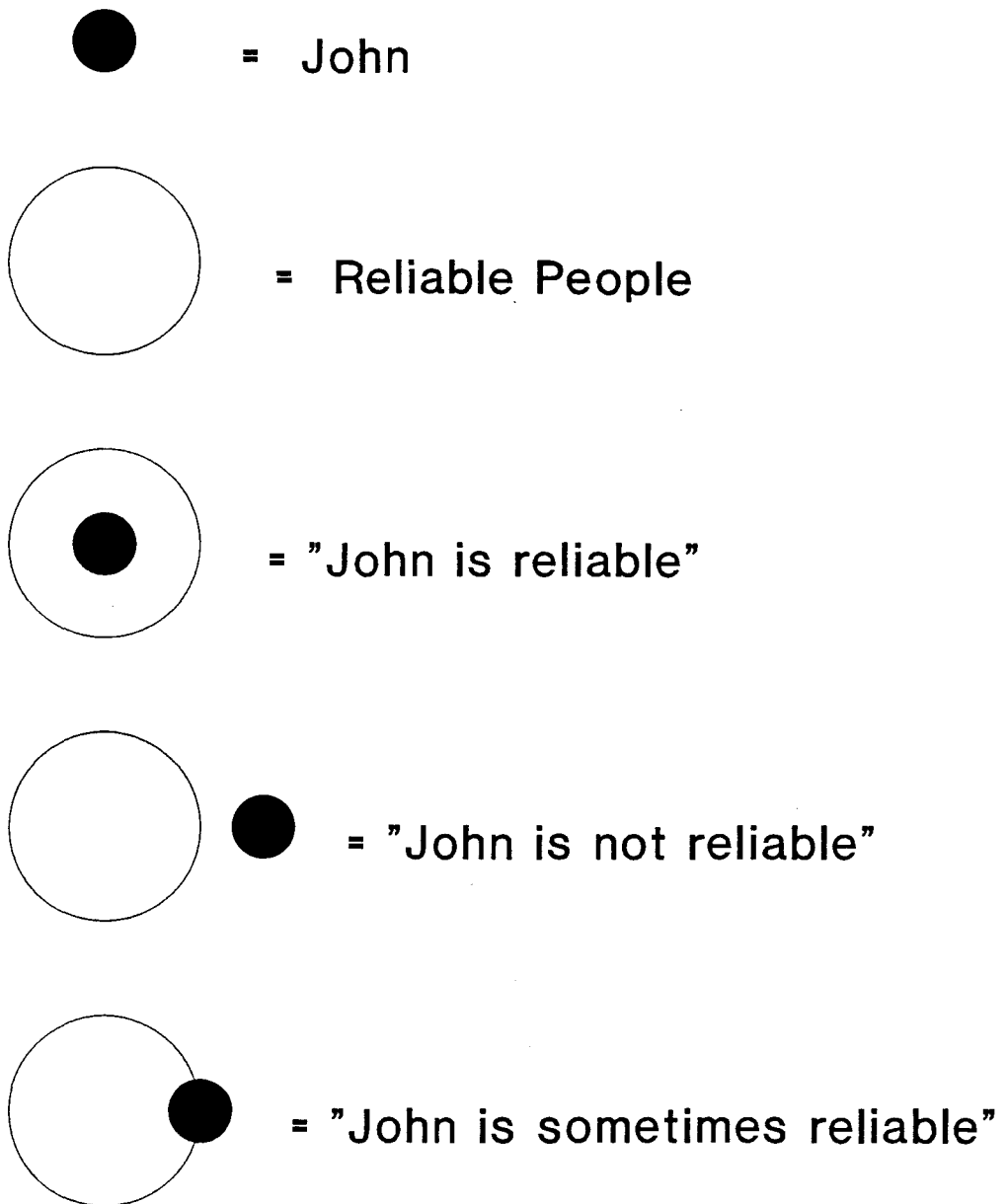
Fig. 1.   Euler Circles as a Model for Predication

Predication is determined only by logical order. The precedent (wider) meanings extend sequaciously to the target in an immediate manner (Rychlak, 1991). "A precedent meaning is one that goes before others in order or arrangement, as the major premise always precedes the minor premise of a syllogism, framing its general meaning so that the minor premise can only extend the meaning which is contained therein. A sequacious meaning is one that follows or flows logically from the meanings of precedents, extending these as intentions in a necessary fashion, once they have been affirmed" (Rychlak, in press). The precedent-sequacious ordering of meanings involved in the predicational process takes place in the Logos. It must be emphasized, at this point, that logical order is not the same as temporal order. Time is irrelevant to the predicational process. According to Rychlak (in press), "[T]ime's passage does not influence, determine, or shape the predicational process. Order is the only factor that determines its course--from broader to narrower extension in meaning expression."

Predication is also not tied to or restricted to the specific "contents" in the linguistic realm but is a "process" dealing with patterns of relationship in the realm of meaning. According to LLT, meaning is the logical relationship organized between an affirmed predicate and its target. The meaning of the former (serving as a precedent)

is extended sequaciously to the latter (Rychlak, in press).

Rychlak (1991) gives the example of two sentences in which

the same words are used to relate two different meanings to

demonstrate the importance of the logical relationship in

the predicational process:

> In the sentence, "A person is like a tree" the meaning
> of "tree" is the predicate, acting as the wider
> referent within which to situate the concept of a
> "person." This sentence conveys a metaphorical
> allusion in which we would be thinking of the person as
> "rooted" in tradition, as possibly having a "hide" as
> thick and wrinkled as bark..., and so forth. But in
> the sentence "A tree is like a person" we would grasp
> quite different understandings, to the effect that the
> limbs of a tree "reach out," [or] that it can "bend"
> under the weight of environmental pressure.... The
> meanings conveyed in such statements are therefore not
> simply "in" the words but primarily "in" the process
> that winds them together in a certain way. (p. 8)

In the realm of LLT, one of the most important aspects

of predication is oppositionality. Within the meaningful

relationship of predication, there is always the "outside of

the circle" of the broader premising meaning to consider

(Rychlak, in press). Logical Learning Theory contends that

"John" is not simply associated to "reliability" without the

person initially rendering an evaluation of "John" within a

context of "reliability versus unreliability" and

meaningfully aligning John with reliability (Bugaj &

Rychlak, 1989, p. 137). Rychlak (in press) defines

oppositionality as a "'double predication' in which one

predicate of a duality intrinsically delimits its target as

being a contrary, contradiction, contrast, or negation of

the meaning under extension, and, pari passu, the target in

question--serving now as a reverse predicate--returns the favor." (italics in the original). Oppositionality is an intrinsic part of meaning such that people are always forced to "take a position" on one side or the other of bipolar meanings as they cognize their experience.

The predicational view of human cognition can be contrasted with the mediational modeling that has generally been espoused in psychological theories. The meaning of "mediation" as it has been used in psychological theories is that of a mechanical process in which human cognition has been considered exclusively in terms of material/efficient causation and an extraspective perspective. In this model, meaning is always external to the person, and it is taken in passively. According to Rychlak (Bugaj & Rychlak, 1989), "The process of mediation involves a reliance on extrinsic factors to carry it forward: something that is taken in or input comes indirectly to direct the mediational process that was not initially a part of this process." (p. 136, italics in the original). In this type of model, "John" is associated to "reliable" in an unidirectional manner through the principles of frequency and contiguity.

The mediational process is epitomized in S-R theorizing where the person is tabula rasa at birth (Locke) and external stimulations imprint themselves on the "blank slate" according to the principles of frequency and contiguity (Rychlak, in press). These stimuli or "inputs"

are taken into the process in the exact form they are "received." They become "mediators" within the process that can be shaped by new input and/or effect the output of subsequent responses. In the mediational model, meaning is shaped externally through efficient causation; the "person" plays no part in the process of meaning-creation or in directing his or her cognition.

Current cognitive theories, such as the associative network model (Srull & Wyer, 1989) or the spreading activation model (Anderson, 1976) continue to be based on a mediational conception. For example, in the associative network model, an idea or concept is represented by a node that is connected to other nodes through "associative linkages" (Srull & Wyer, 1989, p. 59). According to this model, these associative linkages or pathways between concepts are established by "thinking of one concept in relation to another" (Srull & Wyer, 1989, p. 60). Further, the more frequently the concepts are considered together the stronger the association. Because the associative network model maintains an extraspective position in regard to idea formation, two concepts become associated to one another due to their juxtaposition rather than due to their meaningful relation to one another. This model, obviously, continues to use the "laws" of frequency and contiguity as the basis of thinking and idea formation.

Most cognitive models today remain rooted in this

efficient-causal, mediational process. Meaning is
irrelevant to the process of cognition. Some cognitive
theories do seem to be attempting to move into a more
formal-cause view of cognition through the use of such
concepts as "schema." However, schema are usually formed
through a mediational process of association rather than
because the individual ideas within the schema are
meaningfully and logically related by the broader, more
abstract meaning of the particular schematic concept.

Basic Concepts of Logical Learning Theory

With an understanding of how the predicational model of
explanation used in LLT differs from a mediational model of
psychological explanation, some of the basic concepts of LLT
can now be introduced. Logical Learning Theory assumes that
the process of predication is present at birth. It is
contended that through the process of predication, which
encompasses oppositionality, a person is always able to
frame and behave for the sake of alternative meanings
regardless of the particular meaning "dictated" by his or
her input history or genetic endowment. To differentiate
itself from the extraspective, efficient-cause theories of
human behavior, Rychlak (1988) has used the term telosponse,
in order to be able to describe human behavior in formal-
and final-cause terms rather than using the term "response"
which denotes the idea of being "shaped" (efficiently
caused) over time. In order to understand humans as

teleological or _telosponsive_, the reader must be reminded that an introspective perspective is required. "Introspective" suggests that _individually_-determined meaning is fundamental. Rychlak (in press) defines _telosponse_ as the "_affirmation or taking of a position regarding a meaningful content (image[s], word[s], judgmental comparison[s], etc.) relating to a referent acting as a purpose for the sake of which behavior is then intended. Affirmation encompasses predication_" (italics in the original).

In relating to the world telosponsively, the person is always "taking a position" according to the matrix of meaningful patterns relevant to his or her current life situation. The "position" taken by the person telosponding is referred to as the _premise_, which is the "initiating meaning affirmed at the outset of thought" (Rychlak, in press). The affirmed meaning extends "sequaciously" to create the context of thought, or, using the Euler circle example given above, affirmation involves "drawing" the larger circle, figuratively speaking, in which a narrower range of meaning is targeted (Rychlak, in press).

The role of oppositionality is crucial to understanding the telosponder as an agent of his or her actions. Due to oppositionality in cognition (referred to in early LLT as "dialectical reasoning"; see Rychlak, 1988, p. 400), the person is intrinsically cognizant of the opposite meaning of

the premise under affirmation. According to Rychlak (in press), it is always possible for the telosponder to "take a contrary approach, frame a contradiction, express a contrast, or negate the grounds on which understanding- or action-intentions are based."

Logical Learning Theory contends that the person can always oppose the "shaping" of biological and social determinants, even when such "opposition" could prove personally detrimental (Rychlak, in press). It is the person's ability to frame oppositional meanings that gives him or her the evaluative capacity to <u>transcend</u> any particular premise and frame the idea from a different point of view. In this way, humans are quite different from computers because they are able to draw implications from meanings that are not affirmed within the premise of a given telosponse. Further, humans are not restricted to one pole or the other of a dimension of meaning but can evaluate the meaning of a target along the entire dimension of the broader context of meaning (Rychlak, in press). This ability to transcend or examine meanings under consideration as well as examine the cognitive evaluative capacities themselves has been termed <u>self-reflexivity</u>, and this transcendental concept can be traced to the thought of Kant (Rychlak, 1988).

Affective Assessment

Following from the transcendental capacity of humans to

evaluate actively the meanings under consideration in telosponsivity, LLT assumes that the person always renders judgment on the contents of cognition. The fundamental evaluating capacity of humans is considered by LLT to be affective assessment or affection. It is assumed that the person always evaluates the meanings within cognition as liked (positive evaluation) or disliked (negative evaluation) in nature. According to Rychlak (in press), "Affective assessment is a transcendental telosponse in which the person predicates meaningful contents of less abstract telosponses according to their positive or negative significance. This is an idiographic evaluation, completely unique to the individual making the judgment, although it is possible for people to predicate affectively in common (i.e., nomothetically)." (italics in the original).

Logical Learning Theory differentiates between an emotion and an affection. An emotion is considered to be a physiological phenomenon that "happens to us" in the Bios realm and to which we must assign a label in the Logos realm. Thus, the meaning of an emotion is always framed telosponsively, such that its meaning is encompassed within the content of particular semantic and affective predications in the mental realm (i.e., the Logos). In other words, an emotion is triggered automatically in the Bios realm by particular life circumstances, and, then, the telosponder endows the emotion with a particular meaning by

conceptualizing and naming it (Rychlak, 1988, p. 319).
Therefore, within LLT, emotions can provide the basis for
affections, but they are far from being considered
synonymous in the way the two terms are often used in
psychological literature. The same emotional response can
be understood positively or negatively depending on the
frame of reference of a particular evaluator.

Affection is considered to be the most abstract
predication in human cognition. The person not only frames
a premise during telosponsivity but also "takes a position"
on the meaning affirmed in the premise within the wider
realm of positive/negative affection (Rychlak, in press).
According to LLT, it would be unlikely for one to avoid
rendering an affective assessment of a particular item of
meaning under consideration. When one cannot state a
particular affective preference, it is generally due to
ambivalence, in which there are both positive and negative
valuations of the item being considered (Rychlak, in press).

A body of research has been undertaken by Rychlak and
his colleagues to investigate the role of affective
assessment on cognition as well as lend support to
predication and oppositionality in human reasoning.
Relevant LLT research will be reviewed in the next section.

Empirical Factors

Research in Logical Learning Theory

As mentioned above, the advocates of LLT have sought to
establish an empirical basis for their theoretical point of
view. In this section an effort will be made to review some
of the research findings in LLT that prepared the way for
the current study in affective predication.

Affective assessment. Since affective assessment was
seen as a fundamental process demonstrating that the person
is able to influence his or her thinking, learning, and
behavior independent of environmental influences, this was
one of the first dimensions of LLT for which Rychlak and his
colleagues sought to establish support (see Rychlak, 1988,
Chapter 9 for a complete review of this research).
Affective assessment is operationalized by taking an
idiographic measurement in which subjects rate any item
(e.g., word, picture, idea) in terms of its likability.
Numerous studies have been done in which subjects were asked
to rate all manner of items, such as consonant-vowel-
consonant (CVC) trigrams, words, paintings, modeled actions,
and so forth, in terms of likability, and the relative
learning of liked versus disliked items was assessed
(Rychlak, 1988). In studies utilizing random selection of
"normal" subjects, it was found that they learned their
liked materials more readily than their disliked materials
across test formats (e.g., recognition, free recall, paired

associates, serial learning formats, etc.). The criticism rendered towards these findings was that liked items were those with which subjects were most familiar. Therefore, critics were trying to subsume affective preference under the traditional Lockean "frequency of exposure" explanation. Thus, more studies were done, and these were able to show that affective assessment and association value (measure of an item's familiarity, frequency of past contact, meaningfulness, etc.) function independently of one another in learning (Rychlak, 1988). For example, Abramson, Tasto, and Rychlak (1969) compared idiographic affective assessment across levels of nomothetic association value using CVC trigrams from the Archer (1960) norms. In this study, the "liked" over "disliked" rate of learning for the trigrams occurred independently of levels of association value. When idiographic affective assessment was compared to idiographic association value, there was again no statistical interaction between the two measures (Abramson, Tasto, & Rychlak, 1969).

Rychlak and his colleagues conducted a series of further studies illustrating the influence of affection on learning as well as its independence from associative frequency in an effort to show that affective preference cannot be explained away by measures of meaningfulness that rely on some type of frequency count (for example, Rychlak, Galster, & McFarland, 1972; Rychlak, Flynn, & Burger,

1979). It is the contention of LLT that affective assessment is an evaluation rendered by the subject. It is a telosponsive action and not an automatic response to numerous past shapings (Rychlak, 1988). According to Rychlak (1988), "The point here is that if human beings do affectively assess even as they cognize experience, then it makes no difference whether their cognitive contents (thoughts, ideas, words, concepts, images, etc.) are familiar, clear, and distinct, or strange, vague, and tentative. People must be thought of as affectively choosing in _every_ instance as they come to frame a premised meaning" (p. 370, italics in the original).

Research in affective assessment became more interesting as LLT researchers began investigating the "oppositional" nature of cognitive evaluation. Earlier studies had been done with well-adjusted individuals who held generally positive attitudes toward the testing situation, and, as mentioned previously, the results showed "liked over disliked" learning. However, it followed from the theoretical position of LLT that the direction of this finding might be eclipsed or even reversed if the subjects who were tested disliked themselves, their life circumstances or the experimental situation. In other words, subjects would extend meaning more easily along the negative rather than the positive, if they were predicating their life or current situation negatively (Rychlak, 1988).

In the studies investigating this hypothesis, "disliked over liked" effects were found when acute and chronic psychotics (Rychlak, McKee, Schneider, & Abramson, 1971), depressed and alcoholic patients (Mosbacher, 1984), and depressed psychotherapy patients (Slife, Miura, Thompson, & Shapiro, 1984) were compared to yoked normal controls. Further, when normal subjects with a negative self-image were compared to those with a positive self-image, it was found that people with negative self-predications were more apt to learn along the negative whereas people with a positive self-predication learned more readily along the positive (August, Rychlak, & Felker, 1975; Rychlak, Carlsen, & Dunning, 1974). A person's affective predication of a particular life area was also found to influence the affective quality of what is learned. For example, it was revealed that the same individual can learn along the positive with words from one realm of meaning and learn along the negative with words from a different realm of meaning (Rychlak, Carlsen, & Dunning, 1974). Further, forcing subjects to perform a disliked task, results in the significant reduction in the "liked over disliked" learning effect (Rychlak & Marceil, 1986).

Affection has also been shown to play a role in many other areas of behavior. For example, Gruba-McCallister and Rychlak (1981) extended affective assessment to personality testing. It was found that if a well-adjusted individual

likes a personality dimension on which he or she has a
certain score, the person will be more likely to portray
this personality-trait in his or her subsequent behaviors
than to portray a trait related to a disliked personality
dimension on which he or she earns the same score.
According to Rychlak (in press), "[n]ormals more readily
enact the personality styles that they have a positive
affection for in precedent-sequacious fashion." In another
study investigating IQ testing, Rumsey and Rychlak (1978)
found that subjects score about 5 IQ points higher when the
estimate is restricted to Weschler IQ subtests that they
like. Further, college students receive significantly
higher grades on study topics that they like compared to
those that they dislike with study time held constant (Slife
& Rychlak, 1981). Another study investigating the modeling
of aggressive behavior by grade school children revealed
that the first and second graders modeled only those
"aggressive" acts which they had rated as liked (Slife &
Rychlak, 1982). Further, the only toys used in these
modeled behaviors were those the children had rated as
liked.

Another area of research that has had significant
relevance for affective predication has been mood induction
research. In these type of studies, the approach has been
to assist subjects into framing a positive or negative mood
in order to investigate its effect on learning, memory, and

other behaviors (Blaney, 1986; Bower, 1981). While much of this research has not been done directly by LLT advocates, most of the findings are consistent with the LLT point of view. Mood induction research has found that positive moods facilitate the recall of positive life situations and positive words as well as foster positive impression formation, and that negative moods engender the opposite effects. To interpret findings such as state-dependent memory facilitation, Bower (1981) has relied on a spreading activation model in which a mood is a node in the semantic network that "excites" memories to which it is linked in material-efficient causal fashion. Logical Learning Theory, on the other hand, would utilize a precedent-sequacious style of explanation based in the formal cause to understand these findings. Mood congruence between initial learning and recall would be seen as a recreation of the original predicational context. "A 'mood' is clearly a context meaning that is predicated by the person involved; and once affirmed, its meaning extends to what is then under continuing cognitive formulation" (Rychlak, in press).

Lewis and Williams' (1989) study investigated the role of mood induction on recall using the affective predicational model of LLT. After having their subjects listen to a list of words (half of the list had been previously rated as positive and half rated as negative by the subjects) while under a positive or negative

hypnotically induced mood, the subjects were asked to recall as many words as possible. Mood was varied during recall in order to examine its effect with regard to the word ratings. The findings revealed that the facilitation in recall provided by a positive mood when trying to remember words which were also learned in a positive mood is due only to additional positive words being recollected and not negative words, and vice versa for the negative-mood recall situation. In other words, "state-dependent" recall facilitation occurred only with words whose affective meaning was also congruent with the affective valence of the mood.

Oppositionality. After establishing that the oppositional construct of "affective assessment" (i.e., like vs. dislike) has a significant influence on human cognition and learning, the next step in the validation of LLT has been to design experiments investigating the two major constructs predication and oppositionality (see Rychlak, 1988, Chapter 9 and Rychlak, in press, Chapters 5 & 6, for a review of this research). This section will provide a selective review of the research in oppositionality and will be followed by a section dealing with experiments exploring predication.

One of the goals of a preliminary investigations into the role of oppositionality in cognition was to demonstrate the implicit oppositional nature of affective assessment. A

study was done in which subjects were requested to rate words in terms of affective assessment (Rychlak & Williams, 1984). After determining the words which were rated as reliably liked or reliably disliked by each subject, the antonyms of these words were administered in a learning task. For example, if _active_ and _realistic_ were reliably rated as liked, then _passive_ and _idealistic_ were used in the learning task. The subjects did not rate or even see the antonyms prior to the learning tasks. A control subject was yoked to each experimental subject, such that he or she received the same antonyms but had not previously rated any of the words in terms of affective assessment. Therefore, it was anticipated that the cognitive organizations of the control subjects would not reflect the same affective patterning as the experimental subjects (Rychlak, 1992). The results confirmed the predictions that the "liked over disliked" learning facilitation would occur in a pattern opposite to the affective preratings for the experimental subjects, and that no such pattern would be found for the control subjects (Rychlak & Williams, 1984). Thus, the experimental subjects learned the initially unseen opposites of their disliked words more readily than the initially unseen opposites of their liked words. These results give evidence for the complex role oppositionality plays in people's cognitive organization.

The next step in the LLT research effort to investigate

oppositionality was to go beyond the realm of affective assessment. To investigate the heuristic properties of oppositionality in memory, Rychlak, Williams, and Bugaj (1986) did a study in which college students were asked to learn a list of predications relating to imaginary people, identified only by name. Subjects were asked to memorize a list of names in terms of certain personality characterizations like the following series of predications: "Charles is quiet; Douglas is outspoken; Michael is outspoken; and Timothy is quiet." or "Valerie is cautious; Melissa is outspoken; Sherrie is outspoken; and Deborah is cautious." The first series sets up an oppositional context of meaning (i.e., quiet-outspoken), which LLT suggests is basic to cognitive organization, whereas the second series sets up a non-oppositional context (i.e., outspoken-cautious).

A set of eight male and eight female target names and four words from Anderson's (1968) norms (i.e., quiet, outspoken, bold, and cautious) were used to create eight different arrays of predications to be learned, half of which were oppositionally arrayed and the other half of which were non-oppositionally arrayed. As predicted, Rychlak et al. (1986) found that the oppositional organization of predications led to significantly faster learning ($p<.001$) than the non-oppositional organization.

To demonstrate further that the facilitation of

learning related to oppositional predication is not restricted to actual words, another experiment was done in which consonant-vowel-consonant (CVC) trigrams were used as the targets and predicates in the predicational relations to be learned (Rychlak et al., 1986). For example, subjects learned the following series of predications: "HIB is always VIC; HIB is never QIN, HIB is sometimes YAT; and HIB is the opposite of JOQ." The target remained the same in each series while being presented in light of the four qualifying predications, so that the heuristic benefit of oppositionality could be examined. The results from two studies showed that opposite rank ordered as being the easiest predication to learn compared to always, never, and sometimes, respectively. In both studies, opposite was significantly different from never and sometimes, and in one of the studies, it was significantly different from all three of the other predications. Thus, Logical Learning Theory's contention that oppositionality is an important heuristic in human learning was supported.

Slife, Stoneman, & Rychlak (1991) conducted another study illustrating the heuristic power of oppositionality in an incidental memory task. Two studies were conducted in which the subjects were asked to focus on a series of target words and evaluate whether they were similar in meaning to a predication word (e.g., friendly). The target words were divided into those that were similar in meaning to the

predicate word (e.g., <u>congenial</u>), those that were opposite
in meaning (e.g., <u>impolite</u>), and those that were irrelevant
in meaning (e.g., <u>abstract</u>). Following this task, the
subjects were unexpectedly asked to recall as many words as
possible that were relevant to the predication. In line
with the experimental instructions, the majority of the
words recalled were relevant (similar) to the predicating
meaning. Immediately following the initial recall task,
subjects were asked to recall "other words" from the list,
and, as predicted, significantly more opposite than
irrelevant words were recalled ($p<.001$) (Slife et al.,
1991). Therefore, the heuristic pull of oppositionality in
learning and memory was, again, demonstrated. Words which
were oppositionally related to the predication were more
easily remembered than those that were not related to it in
a meaningful way.

The final study to be presented in this selective
review of research in oppositionality is considered to be
pivotal to LLT because it establishes a "learning curve" for
oppositionality (Rychlak, Barnard, Williams, & Wollman,
1989). This study employed a recognition task involving 24
brief sentences printed on cards. For instance, some of the
sentences that were used included: "The ant crushed the
rock," "The moon had insomnia," and "The elephant climbed
the ladder" (Rychlak et al., 1989). The subjects were
instructed to read the sentences aloud and were told that

they would have to recognize these sentences later in the experiment. Subjects were assigned to either 1, 3, or 5 exposure trials to the sentences.

After reading through the sentences, the subjects were given a recognition task according to the experimental condition to which they had been randomly assigned. Subjects in the Identical condition were presented with their original 24 sentences mixed in with 24 other sentences which were matched to each of the original ones. For example, "The elephant danced the jig" would be matched with "the elephant climbed the ladder," so that the subjects would not simply have to remember "elephant," but were required to differentiate the actions of the elephant. Other subjects were assigned to the Paraphrase condition and were told they would have to identify a sentence that related the same meaning as their original sentence (e.g., "The elephant went up"). The third group of subjects were placed in the Opposite condition. They were told that they would have to recognize a sentence that was opposite in meaning to their original sentences (e.g., "The elephant went down"). The experimenters predicted that the subjects would be able to recognize the opposite phrasing as well as the paraphrasing and that the facility in recognizing oppositionality would increase with practice over trials. These predictions were confirmed ($p<.05$). Besides showing that people readily learn the opposite of meanings they are

asked to memorize, the researchers also demonstrated in the same series of studies that subjects recognize antonymy as readily as synonymy, that they utilize oppositionality to solve a problem as readily as they rely upon primacy/recency considerations, and that subjects can recognize opposite meanings of a prime sentence as rapidly as they recognize paraphrased meanings (Rychlak et al., 1989).

Predication. To show the effect of predication in cognition, one line of research that has been explored has been the area of cued recall. Several experiments have been done to compare predicate-cueing versus subject-cueing in the recall of sentences (Rychlak, in press). If the sentence to be remembered was "John is reliable," predicate-cueing would involve cueing the memory of the experimental subject for the sentence with the word "reliable." Subject-cueing, on the other hand, would involve cueing the memory of the experimental subject with the word "John." Logical Learning Theory predicts that cueing people with the predicate will facilitate the reconceptualization of more sentences than cueing with the subject because the theory contends that meaning extends from the broader context to the targeted meaning, which, in this case, is the subject of the sentence.

In one of the studies investigating predicate cueing and memory (Rychlak & Rychlak, 1986, cited in Rychlak, in press), the pattern of recall of an experimental group was

compared to a control group. In the experimental group, predicate versus subject-cueing in facilitating recall of sentences was examined, whereas in the control group, recall with word-associate pairings of the same nouns used in the sentences was examined.

The experimental subjects were asked to read sentences and told they would have to remember them later. Some examples of the type of sentences that were used are "A ladder can be used as a bookshelf," "A rug can be used as a bedspread," and "A balloon can be used as a pillow" (Rychlak, in press). After being given a free recall task for the sentences, the participants were administered a cued recall task and given a list of words, half of which were subjects (e.g, ladder, rug, balloon, etc.) and half of which were predicates (e.g., bookshelf, bedspread, pillow, etc.) of the experimental sentences. They were instructed to see if the words on the list engendered the reconceptualization (additional recall) of any sentences.

The participants in the control group followed the same procedure as in the experimental group with the exception that they were administered only word pairs instead of sentences. For example, instead of the sentence, "A balloon can be used as a pillow," they were given balloon-pillow. The same word arrays for cued recall that were used for the experimental subjects were also used for the control subjects.

The results of this study were in line with the hypotheses. Predicate-cueing of the sentences was superior to subject-cueing, demonstrating the meaning-extension quality of the "predication effect" (Rychlak, in press). Further, predicate cueing of the sentences resulted in significantly higher recall than both predicate- and subject-cueing of the word pairs. Thus, further credence was given to the importance of logical organization to memory, an idea that is neglected by the traditional view of association between words, which has proposed that the frequency of contiguous bondings of one word to another accounts for memory (Rychlak, in press).

In order to demonstrate that predication is not limited to the linguistic conventions of English syntax but rather to the semantics involved in human expression, another type of cued recall study was done using "triplets" (three-word units) (Stilson, 1988, cited in Rychlak, in press). In this study, it was predicted that cueing unrecalled "triplets" with the word having the broadest meaning would result in better recall than a cueing with words having a narrower range of meaning. It is assumed by LLT that the subjects would take the broadest word meaning as the framing predicate, such that in the triplet "nose, face, smile" the word "face" would be the most likely predicate meaning extending to target the other two words of the triplet (Rychlak, in press). Again, the evidence gathered from this

study lent support for the predication effect in memory.
The range of meaning-extension provided by cueing with the
"predicate" word resulted in superior recall as compared to
cueing with the "non-predicate" words.

The final study to be presented in this section
involves the investigation of affective predication at
"encoding," and preceded the present studies exploring
affective predication at "retrieval" (Rychlak, in press).
It was the intent of this experiment to show that subjects
are involved in affective assessment even before semantic
learning occurs. To this end, a series of sentences
describing a person were constructed, such as "When it comes
to dancing, John is (graceful/clumsy)," or "When others are
rude, John is (impolite/polite)" (Ulasevich, 1991). By
completing the first example with "graceful," a positive
predication of John's dancing was created. If "clumsy" was
used to complete the sentence, a negative predication was
created. The subjects were requested to learn a series of
these statements, half of which were negative and half
positive. They were administered the sentence stems in the
manner of a paired-associates task and required to learn the
word that completed the sentence to a learning criterion of
two consecutive recollections of the entire list of
sentences describing John.

It was predicted that subjects would know the affective
quality of the predicating word even before learning the

precise word meaning because affective predication provides

a fundamental meaningful organization within which to target

the semantic predication. Affection was a primary

predication here, targeting the predicate word of the

sentence, which in turn targeted the subject word. The

findings of the experiment revealed that subjects were, in

fact, generally able to grasp the affective quality of the

word completing the sentence before they could state the

actual word. Further, when the subjects completed the

sentence with an incorrect word, it was affectively correct.

Therefore, it seems that in the early stages of

conceptualization (i.e., "encoding"), affection provides an

initial meaningful organization, such that "the subjects

knew affectively what they did not know verbally" (Rychlak,

1992, p. 22).

Affective Predication and Memory Retrieval: Introduction to

the Present Studies

The purpose of this study is to investigate the role of

affective predication in memory. The review of the research

in affective assessment and predication has already shown

that affections have a significant impact on the course of

learning and memory. Furthermore, studies of predication

have demonstrated that the realm of meaning extending from

the predicate "to" a target can provide a fertile

organization from which to recall sentences and triplets

that have been "lost" to short-term memory (Rychlak, in

press). In these experiments, words were used as both the broader predicate (larger Euler circle) and the more focused target. However, LLT would contend that the same "broader to narrower" process of predication also exists when affective assessment serves as the predicate and extends to a target. Therefore, after establishing that affection is significant to the process of conceptualization involved in the learning ("encoding") of word meanings (Ulasevich, 1991), we considered the investigation of the role of affective predication in remembering ("retrieval") to be the next step in our efforts to validate LLT.

Prior to introducing the rationale of the present experimental designs, a study done by Anderson and Pichert (1978) that has relevance to these experiments will be discussed. Their research revealed that previously unrecallable information could be remembered by subjects if they "shifted their perspective" (Anderson & Pichert, 1978). The subjects were asked to read a story describing details of a home from the perspective of either a burglar or a homebuyer. After being asked to recall the story once, the subjects were directed to shift their perspectives and recall the story again. The results from two such studies revealed that on the second recall the subjects remembered a significant amount of additional information related to the second perspective that had been unimportant to the first. These researchers interpreted these findings as evidence for

the operation of "retrieval processes" independent of "encoding processes" (Anderson & Pichert, 1978, p. 10). By having subjects shift their "perspective," they contended that a different schema was invoked, which provided implicit cues for the retrieval of previously unrecalled story information. Of course, no claim is being suggested here that the subjects intentionally shifted their predicating schema in shifting perspectives; presumably, the schema shift was done as a mediational mechanism brought on by the prompting from the experimental instructions.

Logical Learning Theory would interpret these findings with the idea that a shift from the perspective of a burglar to that of a homebuyer (or vice versa) establishes a new predicational realm of meaning (formal-cause pattern) within which the subject targets information that is meaningfully relevant to the new predication. However, we would concur with Anderson and Pichert (1978) in their statement regarding their findings that the "principle of encoding specificity does not extend in a simple way" (p. 10). Following from LLT's tenet that humans are active, meaning-creating beings, it is also our contention that the effectiveness of a cue in the retrieval of information is not solely tied to its state of representation at encoding, contrary to the state-dependent retention model of Tulving & Thomson (1973). The process of oppositionality allows the person to have an active conceptualization of meaningful

information being cognized, such that his or her
"reconceptualization" of it is not restricted to the
specific form to which the meanings are aligned at
"encoding."

   To extend this type of thinking into our investigation
of affective predication, we had our subjects think of a
person whom they like or dislike. Thus, the subjects
"affirmed" affection (liking versus disliking) as the broad
realm of meaning in which to target the person they
selected. We then asked subjects to select adjectives that
were descriptive of their targeted person. By asking the
subjects to consider their chosen person in light of these
personality-trait words, we were essentially asking the
subjects to select adjectival predicates. We thought of
these adjectival descriptors as "secondary predications" of
the target. The secondary predications would, in turn, be
targeted by the more abstract realm of the "primary
predication" of affective assessment (Rychlak, in press).
According to LLT, "any predicate meaning can itself be the
target of an even broader or more abstract predication"
(Rychlak, in press).

   Based on research cited earlier in this paper, we
assumed that when giving the subjects a recall task for
their descriptive adjectives, positive adjectives would be
remembered for liked targets and negative adjectives would
be remembered for disliked targets. This follows from the

assumption that the quality of the primary predication extends into the secondary predications to target the particular person. This finding in itself would not be particularly remarkable. However, in the pivotal part of the experiment, we asked subjects to reverse their primary predications (i.e., from liked to disliked, or vice versa), after giving them the opportunity to recall all of the adjectives serving as secondary predications as well as any other adjectives that they could remember from the task. Once the subjects had targeted another person within their new predication, we asked them to reconsider the list of adjectives and recall any that related to their new target. It is our prediction that this "re-predication" would facilitate the recall of secondary predications targeting the newly framed person that were affectively consistent with the shift in predication. Therefore, after a shift from a liked person to a disliked person, subjects would be considering a new target framed within the realm of a negative predication, which would allow them to "retrieve" previously unrecalled words having negative meaning.

In a second experiment, we sought to cross-validate findings from our first experiment as well as determine the effects on recall of the affectively-valenced adjectives if we also provided the context of an affectively-valenced social situation. We felt that this might provide an additional realm of predication in which to target the

person. Our line of thinking, in this case, was that the addition of a social situation might create a more elaborate meaningful context that could enhance or diminish the positive versus negative word differences in recall. We felt that when the affective valence of the social situation was consistent with the primary predication (liked or disliked) under consideration during a particular recall task, more affectively-consistent adjectives might be recalled compared to when the affective valence of the social situation was inconsistent with the primary predication.

CHAPTER III

EXPERIMENT I

Statement of the Problem

Hypotheses

Hypothesis I: In an incidental memory task following the selection of descriptors, subjects who have targeted a liked person will recall more positive than negative descriptors, and vice versa for subjects who have targeted a disliked person. Recall of ambivalent descriptors should not reflect the predicted pattern of recall for the positive and negative descriptors.

Hypothesis II: In a second recall task for words that were not selected as descriptive of the targeted person, the pattern of recall for positive, negative, and ambivalent unselected words should array as predicted for Hypothesis I.

Hypothesis III: After having the opportunity to recall as many of both selected and unselected descriptors as possible, subjects who are then asked to shift their affective predication and target a person who is opposite to their initial selection will retrieve descriptors that they have not previously recalled which are consistent with the shift in predication. In other words, subjects who are now targeting a disliked (rather than a liked) person will recall negative descriptors not previously remembered. Subjects who have shifted to a liked person will recall positive descriptors that were not previously remembered.

Rationale:

Hypotheses I and II follow from the basic tenets of LLT discussed in the introduction, where previous research has shown that affective predication is the broadest realm of

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meaning through which individuals organize their experience. Thus, it is predicted that descriptive words targeting the person which have an affective valence that is consistent with the valence of the predicational context of liking or disliking will be better remembered than words that are inconsistent with the broader affective context. In a true sense, the descriptive words (the secondary predications) are targeted by the same predicational context of liking or disliking (the primary predication) as the targeted person because LLT holds that broader, more abstract predications subsume other narrower predications framing a target.

If this were to be depicted with Euler circles, the primary predication ("like" or "dislike") would be represented by a large Euler circle. Within this circle there would be a number of secondary predications, featured as overlapping smaller circles labeled by the descriptive adjectives. In the "liked person" condition, we would find such overlappings as the following: generous, wise, responsible, happy, and so forth. In the "disliked person" condition, we might find overlapping circles labeled hostile, cruel, lazy, etc.. Encircled within these overlapping secondary predications would be a very small circle (or a "dot") that would represent the specific person under description (referred to as the "target" in LLT).

Hypothesis III is derived from the LLT line of thinking that information from experience is organized by the person

in an active manner. It suggests that retrieval of information from memory is related to the meaning of a person's framing organization--that is, predication--rather than it being passively restricted to the form in which the information was initially "encoded." Therefore, following the opportunity to recall all of the secondary predications framing the targeted person that can be remembered as well as any other personality descriptors that can be remembered, LLT would predict that having the subjects reverse their primary predications might facilitate the memory of previously unrecalled adjectives that have relevance as secondary predications to the new target.

<div align="center">

Method
</div>

Subjects

Sixty-four introductory psychology students (38 females, 24 males) from Loyola University of Chicago voluntarily participated in the study. Informed consent was obtained from the subjects, and they received course credit for their participation. The subjects were tested in small groups and each was randomly assigned to one of the two between-subjects conditions.

Materials

Each subject received a packet consisting of six sections (eight pages), a three inch by five inch white index card, and a pen. The experimenter used the same

prepared set of instructions for each group tested and timed the 10-second intervals between word-pairs with a stopwatch. The experimenter's instructions to subjects can be found in Appendix A and a sample experimental packet can be found in Appendix B.

The words used as personality descriptors were taken from the Anderson (1968) norms for personality-trait words. The association value of the selected words was controlled for by selecting words of equivalent usage frequency. Twenty personality-trait words were taken from the "high" likability category (e.g., enthusiastic, sincere, happy, etc.) of the Anderson norms, twenty from the midrange (e.g., philosophical, modest, cautious, etc.), and twenty from the "low" likability category (e.g., careless, boring, unethical, etc.).

The twenty words from each of the three word categories that were used in the experiment were taken from a larger group of "high", "medium", and "low" likability words. The larger group of words were judged by 5 independent raters in order to determine those words which were positive, ambivalent, and negative in meaning, respectively. (Ambivalent, in this case, is defined as not clearly positive or negative in meaning.) The judges rated words on a 7-point scale with "1" representing "very positive" and "7" representing "very negative." The "high" likability words that had a mean rating nearest to "1" were used as

positive words, the "medium" likability words that had a mean rating nearest to "4" were used as ambivalent words, and the "low" likability words that had a mean rating nearest to "7" were used as negative words. The average mean ratings (with standard deviations) of each of the three types of words were as follows: positive words $\underline{M}$ = 1.2 ($\underline{SD}$ = 0.18), negative words $\underline{M}$ = 6.6 ($\underline{SD}$ = 0.28), and ambivalent words $\underline{M}$ = 3.8 ($\underline{SD}$ = 0.56). A list of the words used can be found in Appendix C.

In the subjects' packets, the 60 descriptors used for the word selection procedure were arrayed in three random orders of word pairings and sequence and were displayed to the subjects as seen in Section Three of the experimental packet (Appendix A). These differently ordered lists were randomly distributed across the groups tested. The 30 word-pairs in each list consisted of 10 positively-valenced word pairings, 10 negatively-valenced word pairings, and 10 ambivalent pairings. For example, typical word-pairs would be sincere and cheerful (positive), pessimistic and careless (negative), and philosophical and informal (ambivalent). The personality descriptors were placed in pairs, and the subjects were instructed to select one word from each pair as more descriptive of their targeted person in a forced-choice format. This ensured that all subjects selected 10 positive, 10 negative, and 10 ambivalent words as

descriptors, and 10 of each type of the affectively-valenced words remained "unselected" as descriptors.

Procedure

Tested in small groups of three to eight participants, the subjects were asked to read and sign an informed consent form and asked not to put their names on any part of the packet so that their responses would remain anonymous and confidential. Each subject was given an experimental packet of six sections and instructed not to move on to another page of the packet until directed by the experimenter.

Section One. With the first page of the packet labeled "Section One" facing the subjects, they were told that the experimenters were studying the personality characteristics of certain types of people. They were then directed to read and follow the instructions printed on the page. These instructions required the subjects to think of a person whom they affectively predicated in either a strongly positive or negative way (between-groups condition). Subjects in one experimental group were asked to think of someone they liked very much, while subjects in the other experimental group were asked to think of someone whom they disliked very much. This procedure allowed the broader realm of meaning of the primary predication of liking and disliking to target onto the narrower realm of meaning embodied by a specific person, thereby operationalizing affective predication. Subjects recorded the initials of the person whom they had predicated

as liked or disliked on the page. When the subjects completed this task, they were instructed to turn to Section Two of their packet.

Section Two. This section provided a warm-up, practice task for the subjects on the personality-trait selection procedure that was going to occur in Section Three. The subjects were, first of all, asked to place the three inch by five inch index card vertically under the first word-pair (i.e., "efficient" and "good-tempered") in a list of three word-pairs and instructed not to move to the next word-pair until told to do so. The subjects were then asked to decide which of the two words was more descriptive or characteristic of the person whose initials they wrote on the first page and to place a check mark next to that word. This procedure allowed the subjects to select the word in each pair that provided the better "secondary predication" in which to target their person. They were given 10 seconds to make their decision before the experimenter began reading the next word-pair, which signaled the subjects to move their card to it. The experimenter read the word-pairs aloud in order to aid and encourage the subjects to keep their place on the word list.

The experimenter explained to the subjects that Section Three would contain 30 pairs of personality characteristics similar to the pairs on that page. They were asked if they had any questions at this point. The experimenter reminded

them of the selection procedure that was used in the practice task and, again, cautioned them not to move to a new word-pair until directed to do so by the experimenter. After any questions were answered, the subjects were told to turn the page to Section Three and to place their index card under the first word on the list.

Section Three. After the subjects placed their index cards under the first word-pair in Section Three, the experimenter read off the word-pairs at a 10-second rate according to the particular random order used for the group that was being tested. As soon as the 10-second interval had passed for the last word-pair in the list, the experimenter directed the subjects to turn to the next section of their packet.

Section Four. Having made certain that all of the subjects had turned the previous section-pages of their packets over so that they were out of view, the experimenter asked them to record as many of the words which they had selected in the previous section as being descriptive of their person as they could remember on the blank space provided in Section Four. They were given five minutes to write down all the words they could remember. Pretesting had established that five minutes was an adequate time period for free recall, yet prevented subjects from rushing through the experimental tasks without the necessary effort.

At the end of five minutes, subjects were instructed to move to Section Five of their packets.

Section Five. For Section Five of the experimental packet, the subjects were instructed to record any other words that they could remember from Section Three (i.e., any words that they did not check as descriptive of their person) on a blank space provided. This task was given in order to make certain all of the words that a subject might have recalled from the Section Three checking task were in fact recalled. Therefore, it could be surmised that, at this point in the experiment, the subjects had recorded in writing all the words they could remember or "retrieve" for this particular experimental task. Again, five minutes was allowed to complete this task, after which the subjects were instructed to turn to Section Six of their packet.

Section Six. For the final section of the packet, the subjects were asked to read the instructions at the top of the page and to follow them accordingly. These instructions directed them to shift their primary predication by selecting another person. The subjects who had originally thought of a person whom they liked very much were now asked to think of a person they disliked very much, and vice versa for the subjects who initially targeted a person they disliked. They were asked to concentrate on this new person for a few moments and to reconsider the list of descriptive adjectives in light of this new person. The subjects were

then asked to record any words they remembered that
described this new person. This was done in order to
determine if the shift in affective predication would
engender the retrieval of new descriptors that meaningfully
related to this new target (i.e., words with a valence which
was affectively consistent with the affective assessment of
the new person). After the subjects were allowed five
minutes to complete the last task, they were given a
debriefing statement explaining the nature of the experiment
(see Appendix D). When they had finished reading the
debriefing statement, the subjects were free to leave.

Results

To examine the effect of affectively framing a
particular targeted person on the recall of affectively-
valenced personality-trait words, the dependent variables in
this experiment were the number of words recalled in each of
three categories: (1) positive words, (2) negative words,
and (3) ambivalent words. The number of words recalled from
the three wordtype categories was tabulated for each of the
three recall tasks in the experiment. The data were
analyzed by a 2 X 3 factorial analysis of variance (ANOVA).
The first variable was between-subjects with two conditions,
"Liked Target" and "Disliked Target," and the within-
subjects variable was the three affective types of
adjectives. The three wordlist conditions (the three random
orderings and random pairings of the words) were combined

across the independent variable of Liked/Disliked target because no significant effects were found for list.

When tabulating the words according to the three categories of affective wordtype, misspellings of the experimental words were allowed provided that the words were recognizable. Intrusions (words that were not on the list and that should not have been recalled) were tabulated, but were excluded from the analyses. The mean number of intrusions calculated for each of the three recall tasks were as follows: first recall task $M = 0.67$ ($SD = 0.99$), second recall task $M = 0.66$ ($SD = 0.96$), and third recall task $M = 0.69$ ($SD = 0.87$).

Hypothesis I predicted that in the incidental recall task following the selection of adjectival descriptors, the subjects who had targeted a liked person would remember more positive than negative words, and vice versa for the subjects who had targeted a disliked person (i.e., Target X Wordtype interaction). This hypothesis was tested further with the simple effects comparisons of the mean number of words recalled according to affective valence (positive, negative, and ambivalent) for the "Liked" and "Disliked Target" conditions. The omnibus F-test from the 2 (Liked/Disliked target) X 3 (affective wordtype) factorial analysis of variance revealed a significant interaction for affective wordtype by Liked/Disliked target condition,

$F(2,124) = 19.56$, $p < .0001$, in support of the hypothesis.

The simple effects test of affective wordtype for the "Liked Target" condition was significant, $F(2,124) = 11.29$, $p < .001$, with the recall data arraying as follows: positive words $M = 3.10$ ($SD = 1.58$), negative words $M = 1.55$ ($SD = 1.41$), ambivalent words $M = 2.29$ ($SD = 1.62$) (refer to Table 1). Scheffe's test for comparing means was performed to evaluate the differences between the affective wordtype means for this condition. These comparisons revealed that positive words ($M = 3.10$) were recalled more often than negative words ($M = 1.55$), $F(2,124) = 22.57$, $p < .001$, that there was a trend towards positive words ($M = 3.10$) being recalled more often than ambivalent words ($M = 2.29$), $F(2,124) = 6.12$, $p < .10$, and that there was no significant difference in recall between negative and ambivalent words, $F(2,124) = 5.18$, n.s..

TABLE 1

EXPERIMENT I:
RECALL TASK FOR WORDS DESCRIPTIVE OF THE TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF
LIKED/DISLIKED TARGET AND AFFECTIVE WORDTYPE

EXPERIMENTAL CONDITION	AFFECTIVE WORDTYPE		
	Positive Words	Negative Words	Ambivalent Words
Liked Target	3.10 (1.58)	1.55 (1.41)	2.29 (1.62)
Disliked Target	1.21 (1.05)	2.48 (1.50)	2.09 (1.25)

The simple effects test of affective wordtype for the "Disliked Target" condition was significant, $F(2,124)$ = 8.51, p < .001, with the recall data arraying as follows: positive words M = 1.21 (SD = 1.05), negative words M = 2.48 (SD = 1.50), and ambivalent words M = 2.09 (SD = 1.25) (refer to Table 1). Scheffe's test for comparing means was performed to evaluate the differences between the affective wordtype means for this condition. These comparisons revealed that negative words (M =2.48) were recalled more often than positive words (M = 1.21), $F(2,124)$ = 16.24, p < .001, that ambivalent words (M = 2.09) were recalled more often than positive words (M = 1.21), $F(2,124)$ = 7.74, p < .05, and that there was no significant difference in recall between negative and ambivalent words, $F(2,124)$ = 1.56, n.s.. Thus, the results for the "Liked" and "Disliked Target" conditions support Hypothesis I.

Hypothesis II predicted that, in a recall task for words not selected as descriptive of the target, the pattern of recall for positive, negative, and ambivalent words should array as it did for Hypothesis I, with an interaction between Target and Wordtype. The second hypothesis was also tested with the simple effects comparisons of the mean number of words recalled according to affective valence for the "Liked" and "Disliked Target" conditions. The omnibus F-test from the 2 X 3 factorial analysis of variance revealed a significant interaction for affective wordtype by Liked/Disliked target condition, $F(2,124) = 10.74$, $p < .0001$.

The simple effects test of affective wordtype for the "Liked Target" condition was significant, $F(2,124) = 3.24$, $p < .05$, with the recall data arraying as follows: positive words $M = 1.19$ ($SD = 1.08$), negative words $M = 1.84$ ($SD = 1.42$), and ambivalent words $M = 1.19$ ($SD = 0.87$) (refer to Table 2). Scheffe's test for comparing means was performed to evaluate the differences between the affective wordtype means for the this condition. Scheffe's tests indicated that no significant differences were observed between any of the pairs of means ($p > .05$).

TABLE 2

EXPERIMENT I:
RECALL TASK FOR WORDS <u>NOT</u> DESCRIPTIVE OF THE TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF
LIKED/DISLIKED TARGET AND AFFECTIVE WORDTYPE

EXPERIMENTAL CONDITION	AFFECTIVE WORDTYPE		
	Positive Words	Negative Words	Ambivalent Words
Liked Target	1.19 (1.08)	1.84 (1.42)	1.19 (0.87)
Disliked Target	1.94 (1.41)	0.70 (0.88)	1.00 (1.12)

The simple effects test of affective wordtype for the "Disliked Target" condition was significant, $F(2,124) = 10.45$. $p < .001$, with the recall data arraying as follows: positive words $M = 1.94$ ($SD = 1.41$), negative words $M = 0.70$ ($SD = 0.88$), and ambivalent words $M = 1.00$ ($SD = 1.12$) (refer to Table 2). Scheffe's test for comparing means was performed to evaluate the differences between the affective wordtype means for this condition. These comparisons revealed that positive words ($M = 1.94$) were recalled more frequently than negative words ($M = 0.70$), $F(2,124) = 19.21$, $p < .001$, that positive words ($M = 1.94$) were also recalled more frequently than ambivalent words ($M = 1.00$), $F(2,124) = 10.98$, $p < .01$, and that there was no significant difference in recall between negative and ambivalent words, $F(2,124) = 1.14$, n.s.. Thus, these results for the "Liked" and "Disliked Target" conditions did not not support Hypothesis II.

Hypothesis III predicted that, after subjects had shifted their affective predication to the opposite and targeted a new person, they would recall words affectively consistent with the new predication that were not previously recalled on the first two recall tasks, as indicated by a Target by Wordtype interaction. This hypothesis was tested with the simple effects comparisons of the mean number of previously unremembered words recalled according to the shift in affective valence for the "Liked" and "Disliked Target" conditions. The omnibus F-test from the 2 X 3 factorial analysis of variance revealed a significant interaction for affective wordtype by Liked/Disliked target condition, $F(2,124) = 50.76$, $p < .0001$.

There was also an unpredicted main effect for affective wordtype, $F(2,124) = 6.60$, $p < .01$. In order to investigate the means of the number of words recalled according to the three categories of affective wordtype collapsed across Liked/Disliked target, Scheffe's test of comparing means was performed and revealed that positive words ($M = 0.81$) were recalled more frequently than ambivalent words ($M = 0.36$), $F(2,124) = 10.73$ $p < .01$, that negative words ($M = 0.77$) were also recalled more frequently than ambivalent words ($M = 0.36$), $F(2,124) = 8.63$, $p < .05$, and that there was no significant difference in recall between positive and negative words, $F(2,124) = 0.11$, n.s..

Following up on the significant target X affective wordtype interaction to lend support for Hypothesis III, the simple effects test of affective wordtype for the "Liked Target" condition (after a shift to a disliked target) was significant, $F(2,124) = 30.41$, $p < .0001$, with the recall data arraying as follows: positive words $M = 0.03$ ($SD = 0.18$), negative words $M = 1.52$ ($SD = 1.29$), and ambivalent words $M = 0.39$ ($SD = 0.62$) (refer to Table 3). Scheffe's test for comparing means was performed to evaluate the differences between the affective wordtype means for this condition. These comparisons revealed that negative words ($M = 1.52$) were newly recalled more than both positive words ($M = 0.03$), $F(2,124) = 55.75$, $p < .001$, as well as ambivalent words ($M = 0.39$), $F(2,124) = 32.28$, $p < .001$, and that there was no significant difference in recall between previously unrecalled positive and ambivalent words, $F(2,125) = 3.19$, n.s..

TABLE 3

EXPERIMENT I:
PREVIOUSLY UNRECALLED WORDS DESCRIPTIVE OF THE NEW TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF THE
SHIFT IN LIKED/DISLIKED TARGET AND AFFECTIVE WORDTYPE

SHIFT IN TARGET CONDITIONS	AFFECTIVE WORDTYPE		
	Positive Words	Negative Words	Ambivalent Words
Liked to Disliked	0.03 (0.18)	1.52 (1.29)	0.39 (0.62)
Disliked to Liked	1.45 (1.20)	0.15 (0.36)	0.33 (0.54)

The simple effects test of affective wordtype for the "Disliked Target" condition (after a shift to a liked target) was significant, $F(2,124) = 26.85$, $p < .0001$, with the recall data arraying as follows: positive words $M = 1.45$ ($SD = 1.20$), negative words $M = 0.15$ ($SD = 0.36$), and ambivalent words $M = 0.33$ ($SD = 0.54$). Scheffe's test for comparing means was performed to evaluate the differences between the affective wordtype means for this condition. These comparisons revealed that positive words ($M = 1.45$) were newly recalled more than both negative words ($M = 0.15$), $F(2,124) = 45.77$, $p < .001$, as well as ambivalent words ($M = 0.33$), $F(2,124) = 33.89$, $p < .001$, and that there was no significant difference in recall between previously unrecalled negative and ambivalent words, $F(2,124) = 0.89$, n.s..

The findings related to Hypothesis III can also be considered in terms of the percentage of subjects who retrieved adjectives that they had not previously recalled. When the new target was liked, 79% of the subjects recalled between one and six additional positive adjectives (Mode = 2). Fifteen percent of the subjects recalled one negative adjective when the new target was liked, and 26% of the sample recalled one or two ambivalent adjectives (Mode = 1). When the shift in affective predication was to disliked, 71% of the subjects recalled between one and five additional negative adjectives (Mode = 2). Only one subject (3%)

recalled a single positive adjective when the the new target was disliked. Thirty-two percent of the subjects recalled either one or two additional ambivalent adjectives which could predicate the new target (Mode = 1).

Conclusion

Both Hypotheses I and III were confirmed. In the recall task for words descriptive of the target, subjects who targeted a liked person recalled more positive than negative descriptors, and those who targeted a disliked person recalled more negative than positive descriptors. Further, after targeting a new person and shifting the affective predication to the opposite, the subjects remembered previously unrecalled descriptors that were affectively consistent with the new predication. Those subjects shifting from a liked person to a disliked person recalled more negative words that had not been previously remembered and vice versa for those shifting from a disliked to a liked person.

Hypothesis II was not confirmed. For both the "Liked" and the "Disliked Target" condition, the means for the affectively-valenced descriptors arrayed in the opposite direction to the predicted effect. When remembering words from the selection task that were not descriptive of the target, more positive than negative unselected words were recalled by the subjects in the "Disliked Target" condition. Even though the differences between means from this recall

task were not significant for the "Liked Target" condition, the pattern of recall for affectively-valenced words also reflected the same ordering of means found for the "Disliked Target" condition, which is, again, opposite to the predicted effect.

CHAPTER IV

EXPERIMENT II

<u>Statement of the Problem</u>

<u>Hypotheses</u>

      <u>Hypothesis I:</u> The experimental hypotheses from
Experiment I will be enhanced if the liked or disliked
person targeted is thought of in a (positive or
negative) social situation. In the first two recall
tasks in which the subjects were asked to remember
descriptive adjectives, it is predicted that when the
affective assessment of the targeted person is
consistent with the affective quality of a scene
described to the subjects, the recall for affectively
consistent descriptors should be greater than if the
affective quality of the scene is inconsistent with the
broader affective predication.

      <u>Hypothesis II:</u> After the subjects have reversed
their affective predication and have targeted a new
person, it is predicted that consistency between the
affective assessment of the new person and the
affective quality of the setting will facilitate the
recall of previously unrecalled descriptors compared to
when they are affectively inconsistent.

      <u>Hypothesis III:</u> Experiment II should replicate
the three hypotheses from Experiment I (refer above).

<u>Rationale:</u>

Hypotheses I and II were developed from the premises of

LLT. They follow from the idea that with the affective

assessment of the person serving as the primary predication

targeting the person, a social situation which is

affectively consistent would also be subsumed under the

primary predication and, therefore, would provide a more meaningfully-related pattern from which to influence the recall of affectively-consistent descriptors serving as secondary predications.

As was already mentioned above, affective assessment targets both the secondary adjectival predications and the person, but people also are generally encountered in social situations. Therefore, it is possible that by adding an additional secondary predication, such as the social situation in which the liked or disliked person is encountered, the memory for the descriptors might be enhanced. In the study to follow, subjects thought of a liked person as encountered in the positive social setting of an award dinner compared to subjects who thought of the liked person as encountered in the negative social setting of a hospital waiting room or the ambivalent social setting of a classroom.

In terms of Hypothesis I, for example, subjects who targeted a liked person and were asked to think of this person in a positive social situation were predicted to recall the most positive words compared to the subjects whose targeted liked person is thought of in a negative or ambivalent social situation. Subjects who targeted a disliked person should recall more negative descriptors if the target is pictured in a negative rather than positive or ambivalent social situation. Furthermore, for Hypothesis

II, when the primary predication shifts from liked to disliked, more new words should be recalled with a negative setting than a positive or ambivalent setting, whereas when the shift is from disliked to liked, the positive setting might be more facilitative of recall.

Hypothesis III follows from the rationale provided in Experiment I.

Method

Subjects

One hundred and three introductory psychology students (79 females, 24 males) from Loyola University of Chicago voluntarily participated in the study. Informed consent was obtained from the subjects, and they received course credit for their participation. The subjects were tested in small groups and were randomly assigned to the conditions representing two between-subjects variables. The subject groups were randomly assigned to one of the "positive setting," "negative setting," and "ambivalent setting" conditions, as well as to one of the "Liked Target" and "Disliked Target conditions in a factorial design.

Materials

As in the first experiment, each subject received a packet consisting of six sections, a three inch by five inch white index card, and a writing instrument. The experimenter used the same prepared set of instructions for each group tested and timed the 10-second intervals between

word-pairs with a stopwatch. For the experimenter's instructions to subjects and a sample experimental packet, refer to Appendices A and B, respectively.

The words used as personality descriptors in Experiment I were also used in Experiment II. These words were taken from Anderson (1968) norms for personality-trait words. The association value of the selected words was controlled by selecting words of equivalent usage frequency. The reader may refer to Experiment I for the method to select the list of 60 personality descriptors that were used in the experiment. The reader will be reminded, however, that the 60 words used were rated nomothetically, so that there were 20 that were considered positive in meaning, 20 that were negative, and 20 that were ambivalent. A list of the words used can be found in Appendix C.

The positive, ambivalent, and negative settings consisted of short paragraphs describing the scene of a social situation. The positive setting described an award dinner, in which the subject was instructed to imagine that he or she is being given an award. It contains such phrases as "you are being honored by your peers," "you are filled with personal pride...," and "The conversation is flowing, the food is delicious, and everyone is enjoying themselves...." A hospital waiting room was described in the negative setting. Some of the statements included in this scene were "Someone you care about deeply is very ill,"

"You are extremely worried and concerned," and "Consumed with worry and fatigue, you slump down in a chair." For the ambivalent setting, a classroom situation was described. In this description, positive and negative statements were juxtaposed to create the feeling of ambivalence. For example, "Even though you are tired, you are ready for class to start because today's topic is of particular interest to you."

The positive setting consisted of an equivalent number of positive words or statements as the negative setting had negatives words or statements. The ambivalent setting consisted of an equivalent number of both positive and negative statements, which were balanced. The ambivalent setting had the same number of statements as in the positive and negative settings. For the complete descriptions used to create the social situations, refer to Appendix E.

Procedure

Tested in small groups of three to eight people, the subjects were asked to read and sign an informed consent form and asked not to put their names on any part of the packet so that their responses would remain anonymous and confidential. Each subject was given an experimental packet of six sections (the same experimental packet as was used in Experiment I) and instructed not to move on to another page of the packet until directed by the experimenter.

Section One. With the first page of the packet labeled
"Section One" facing the subjects, they were taken through
the initial procedure as used in the first experiment to
select a particular person whom they framed in either a
strongly positive or a strongly negative way depending on
which between-subjects condition they were randomly
assigned. (Please refer to Experiment I, Section One
procedure above.) However, in Experiment II the subjects
were asked to sit back, relax a few moments, and close their
eyes before turning to Section Two of their packets. At
this time, the experimenter told them to concentrate
carefully on the scene that she was about to read aloud.
When the subjects seemed comfortable, the experimenter read
either the positive, negative, or ambivalent setting
description depending on the particular between-groups
condition to which they were randomly assigned. After the
social scene was read to the subjects, the experimenter
asked the subjects to remain relaxed with their eyes closed
while they imagined their targeted person sitting next to
them in the scene described. It was hoped that the setting
would give another meaningful secondary predication in which
to target their selected person. After the subjects had
focused on the scene, the experimenter directed them to
Section Two of their packets.

Section Two. This section again provided a practice
task for the word selection procedure that was to follow in

Section Three. The reader is referred to Section Two above for a full description of the procedure.

Section Three. Again, the same procedure was followed as in Section Three of Experiment I. A word from each of 30 affectively-valenced word-pairs was selected by the subjects, allowing them to select the more descriptive adjectives (secondary predications) with which to frame their targeted persons.

Section Four. The fourth section provided the incidental free recall for words that had been selected by the subjects as descriptive of their targeted persons. As in Experiment I, the subjects were given five minutes to complete this task before they were instructed to go on to Section Five of their packets.

Section Five. The fifth section, again, provided a task to allow the subjects to record any other words they remembered from the word selection procedure in Section Three. The reader will recall that this was done in order to ensure that the subjects had an opportunity to record all of the words they might have remembered from the word list.

Section Six. For the final part of the experiment, the subjects followed the same instructions as those that were given in the first experiment for shifting their predication by selecting a new person, except that for this experiment they were asked to think of their new person in the scene described earlier as they tried to remember descriptors that

had relevance to the new predication. The subjects were given a debriefing statement to read at the completion of this task and, then, were free to leave the experiment (see Appendix D).

Results

The effects of affectively framing a particular target person in the context of a social situation on the recall of affectively-valenced personality-trait words were examined. The dependent variables in this experiment were the number of words recalled in each of three affective categories: (1) positive words, (2) negative words, and (3) ambivalent words. The number of words recalled from the three affective wordtype categories was tabulated for each of the three recall tasks in the experiment, and the data were analyzed in a 2 X 4 X 3 factorial analysis of variance. The first variable was the between-subjects affective target variable with two conditions, "Liked" and "Disliked Target." The second between-subjects variable consisted of the four social setting conditions: (1) positive setting, (2) negative setting, (3) ambivalent setting, and (4) "no" setting. For the "no" setting condition, 34 subjects were randomly selected from the first experiment (half were in the "Liked" condition and half were in the "Disliked" condition), in which no social setting information was provided. The third variable in the analysis was within-

subjects and consisted of the three affective categories of adjectives.

As in the first experiment, misspellings of the experimental words were allowed provided that the words were recognizable. Intrusions (words that were not on the list and that should not have been recalled) were tabulated, but were excluded from the analyses. The mean number of intrusions calculated for each of the three recall tasks in the second experiment were as follows: first recall task M = 0.38 ($\underline{SD}$ = 0.73), second recall task M = 0.54 ($\underline{SD}$ = 0.74), and third recall task M = 0.66 ($\underline{SD}$ = 0.98).

Hypothesis I stated that in the first two recall tasks in which the subjects were asked to remember descriptive adjectives, the recall for adjectives that were affectively consistent with the affective quality of the target would be greater when the affective quality of the setting was consistent than when it was inconsistent with the broader affective predication. This hypothesis would be supported by a three-way interaction between Liked/Disliked target, affective setting, and affective wordtype, and can be further tested for each of the two recall tasks with the simple effects comparisons of the mean number of positive words recalled in the "Liked Target" condition and of the mean number of negative words recalled in the "Disliked Target" condition for each type of affective setting.

The omnibus $\underline{F}$-test from the 2(Liked/Disliked target) X 4(affective setting) X 3(affective wordtype) factorial analysis of variance for the first recall task (words descriptive of the target) did not reveal a significant three-way interaction, $\underline{F}(6, 258) = 1.18$, n.s., and simple effects tests were not performed. There was an unpredicted main effect for affective setting, $\underline{F}(3,129) = 7.39$, $\underline{p} < .05$, with the means arraying as follows: positive setting $\underline{M} = 1.92$, negative setting $\underline{M} = 2.39$, ambivalent setting $\underline{M} = 1.77$, and "no" setting $\underline{M} = 2.10$. However, post-hoc comparisons of the affective setting means for the number words recalled collapsed across type of target and the three categories of affective wordtype revealed no significant differences. There was also a significant interaction between Liked/Disliked target and affective wordtype as in Experiment I, which will be discussed below as providing support for Hypothesis III. The means and standard deviations of the number of words recalled for this recall task are presented in Table 4.

TABLE 4

EXPERIMENT II:
RECALL TASK FOR WORDS DESCRIPTIVE OF THE TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF
LIKED/DISLIKED TARGET, AFFECTIVE SETTING, AND
AFFECTIVE WORDTYPE

EXPERIMENTAL CONDITIONS		AFFECTIVE WORDTYPE		
		Positive Words	Negative Words	Ambivalent Words
LIKED TARGET:	Positive Setting	2.56 (1.63)	1.25 (1.13)	2.19 (1.56)
	Negative Setting	3.22 (1.00)	1.78 (1.40)	1.72 (1.23)
	Ambivalent Setting	2.38 (0.96)	1.31 (1.20)	1.94 (1.06)
	"No" Setting	3.00 (1.54)	1.41 (1.42)	2.00 (1.77)
DISLIKED TARGET:	Positive Setting	1.42 (1.22)	2.47 (1.07)	1.63 (0.90)
	Negative Setting	1.94 (1.82)	3.53 (1.87)	2.18 (1.38)
	Ambivalent Setting	1.41 (1.12)	2.12 (1.27)	1.47 (1.28)
	"No" Setting	1.18 (1.01)	2.88 (1.36)	2.12 (0.93)

The omnibus F-test from the 2 X 4 X 3 factorial analysis of variance for the second recall task (words that were not descriptive of the target) also did not reveal a significant three-way interaction between Liked/Disliked target, affective setting and affective wordtype, $F(6,258) = 2.02$, n.s., and, again, simple effects test were not performed. An unpredicted main effect for affective setting was also found for this recall task, $F(3,129) = 4.65$, $p <$

.05, with the means arraying as follows: positive setting $\underline{M}$
= 1.09, negative setting $\underline{M}$ = 1.43, ambivalent setting $\underline{M}$ =
0.96, and "no" setting $\underline{M}$ = 1.31. However, post-hoc
comparisons of the affective setting means of the number
words recalled collapsed across type of target and the three
categories of affective wordtype revealed no significant
differences. Results also indicated a significant
interaction between Liked/Disliked target and affective
wordtype, as was observed in Experiment I. This will be
discussed below under Hypothesis III. The means and
standard deviations of the number of words recalled for this
second recall task are presented in Table 5.

TABLE 5

EXPERIMENT II:
RECALL TASK FOR WORDS <u>NOT</u> DESCRIPTIVE OF THE TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF
LIKED/DISLIKED TARGET, AFFECTIVE SETTING, AND
AFFECTIVE WORDTYPE

EXPERIMENTAL CONDITIONS		AFFECTIVE WORDTYPE		
		Positive Words	Negative Words	Ambivalent Words
LIKED TARGET:	Positive Setting	0.75 (0.86)	1.00 (1.03)	0.94 (0.93)
	Negative Setting	1.28 (1.53)	1.56 (1.15)	1.50 (1.10)
	Ambivalent Setting	0.75 (0.77)	0.81 (0.98)	1.00 (0.89)
	"No" Setting	1.35 (1.00)	2.12 (1.36)	1.06 (0.90)
DISLIKED TARGET:	Positive Setting	1.68 (1.63)	0.84 (0.83)	1.32 (1.45)
	Negative Setting	2.06 (1.30)	1.29 (1.53)	0.88 (1.32)
	Ambivalent Setting	1.12 (0.93)	1.06 (1.09)	1.00 (1.32)
	"No" Setting	2.12 (1.69)	0.47 (0.72)	0.76 (0.90)

Hypothesis II predicted that, after the subjects have
reversed their affective predication and have targeted a new
person, the consistency between the affective assessment of
the new person and the affective quality of the setting
would facilitate the recall of more previously unrecalled
adjectives compared to when the target and the setting are
affectively inconsistent. This hypothesis can be tested
with the simple main effects comparisons of the mean number

of negative words newly recalled after the shift to a disliked target in the "Liked Target" condition and of the mean number of positive words newly recalled after the shift to a liked target in the "Disliked Target" condition for each of the four types of affective social setting, if a significant three-way interaction is found between affective wordtype, Liked/Disliked target, and affective setting.

The omnibus F-test from the 2 X 4 X 3 factorial analysis of variance did not reveal a significant three-way interaction between Liked/Disliked target, affective setting and affective wordtype, $F(6,258) = 0.71$, n.s., and simple effects tests were not performed. There was an unpredicted main effect for Liked/Disliked target, $F(1,129) = 5.62$, $p <$ .01, with the mean number of words newly recalled (collapsed across affective setting and affective wordtype) for the shift to a liked target in "Disliked Target condition ($M =$ 0.67) being significantly greater than the mean number of words newly recalled for the shift to a disliked target in the "Liked Target" condition ($M = 0.44$).

There was also an unpredicted main effect for affective wordtype, $F(2,258) = 24.94$, $p < .001$. In order to investigate the means of the number of words recalled according to the three categories of affective wordtype collapsed across Liked/Disliked target and affective setting, Scheffe's test of comparing means was performed and revealed that positive words ($M = 0.85$) were recalled more

than negative words ($\underline{M}$ = 0.56), $\underline{F}$(2,258) = 12.63, $\underline{p}$ < .01,

that positive words ($\underline{M}$ = 0.85) were also recalled more than

ambivalent words ($\underline{M}$ = 0.26), $\underline{F}$(2,258) = 51.80, $\underline{p}$ < .001, and

that negative words ($\underline{M}$ = 0.56) were recalled more than

ambivalent words ($\underline{M}$ = 0.26), $\underline{F}$(2,258) = 13.27, $\underline{p}$ < .01. The

predicted target X affective wordtype interaction was

observed and will be discussed below as provding support for

Hypothesis III. The means and standard deviations of the

number of words newly recalled after a shift in affective

predication are presented in Table 6.

TABLE 6

EXPERIMENT II:
PREVIOUSLY UNRECALLED WORDS DESCRIPTIVE OF THE NEW TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF THE
SHIFT IN LIKED/DISLIKED TARGET, AFFECTIVE SETTING,
AND AFFECTIVE WORDTYPE

EXPERIMENTAL CONDITIONS		AFFECTIVE WORDTYPE		
		Positive Words	Negative Words	Ambivalent Words
LIKED TO DISLIKED:	Positive Setting	0.00 (0.00)	1.31 (1.14)	0.06 (0.25)
	Negative Setting	0.11 (0.32)	0.83 (0.92)	0.33 (0.77)
	Ambivalent Setting	0.06 (0.25)	0.69 (0.70)	0.00 (0.00)
	"No" Setting	0.06 (0.24)	1.35 (1.11)	0.47 (0.72)
DISLIKED TO LIKED:	Positive Setting	1.42 (1.30)	0.00 (0.00)	0.26 (0.56)
	Negative Setting	1.59 (1.12)	0.06 (0.24)	0.29 (0.59)
	Ambivalent Setting	1.88 (0.99)	0.18 (0.39)	0.24 (0.56)
	"No" Setting	1.59 (1.37)	0.18 (0.39)	0.41 (0.51)

Hypothesis III stated that the overall pattern of recall across the three recall tasks for this second experiment would cross-validate the hypotheses set forth in Experiment I. As in the first experiment, Liked/Disliked target X affective wordtype interactions were obtained, and simple effects comparisons of the mean number of words recalled according to affective wordtype for the "Liked" and

"Disliked Target" conditions were performed for each of the three recall tasks in this experiment.

For the incidental recall task for words selected as descriptive of the target (first recall task), the 2 X 4 X 3 factorial analysis of variance revealed a significant interaction for affective wordtype by Liked/Disliked target condition, $F(2,258) = 44.76$, $p < .0001$. The simple effects test of affective wordtype for the "Liked Target" condition was significant, $F(2,258) = 24.13$, $p < .001$, with the recall data arraying as follows: positive words $M = 2.81$ ($SD = 1.33$), negative words $M = 1.45$ ($SD = 1.28$), and ambivalent words $M = 1.96$ ($SD = 1.41$) (refer to Table 7). Scheffe's test for comparing means was performed to evaluate the differences between the affective wordtype means for this condition. These comparisons revealed that positive words ($M = 2.81$) were recalled more often than negative words ($M = 1.45$), $F(2,258) = 47.24$, $p < .001$, that positive words ($M = 2.81$) were also recalled more frequently than ambivalent words ($M = 1.96$), $F(2,258) = 18.54$, $p < .001$, and that negative words ($M = 1.45$) were recalled more often than ambivalent words ($M = 1.96$), $F(2,258) = 6.60$, $p < .05$.

TABLE 7

EXPERIMENT II:
RECALL TASK FOR WORDS DESCRIPTIVE OF THE TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF
LIKED/DISLIKED TARGET AND AFFECTIVE WORDTYPE
(COLLAPSED ACROSS AFFECTIVE SETTING)

EXPERIMENTAL CONDITION	AFFECTIVE WORDTYPE		
	Positive Words	Negative Words	Ambivalent Words
Liked Target	2.81 (1.33)	1.45 (1.28)	1.96 (1.41)
Disliked Target	1.49 (1.33)	2.74 (1.48)	1.84 (1.15)

The simple effects test of affective wordtype for the "Disliked Target condition on the first recall task was significant, $F(2,258) = 22.46$, $p < .001$, with the recall data arraying as follows: positive words $M = 1.49$ ($SD = 1.33$), negative words $M = 2.74$ ($SD = 1.48$), and ambivalent words $M = 1.84$ ($SD = 1.15$) (refer to Table 7). Scheffe's tests for comparing means·revealed that negative words ($M = 2.74$) were recalled more often than both positive words ($M = 1.49$), $F(2,258) = 42.29$, $p < .001$, as well as ambivalent words ($M = 1.84$), $F(2,258) = 21.67$, $p < .001$, and that there was no significant difference in recall between positive words and ambivalent words, $F(2,258) = 3.41$, n.s..

For the recall tasks of words that were not selected as descriptive of the target (second recall task), the 2 X 4 X 3 factorial analysis of variance revealed a significant interaction for affective wordtype X Liked/Disliked target condition, $F(2,258) = 10.24$, $p < .001$. The simple effects

test of affective wordtype for the "Liked Target" condition

was not significant, $F(2,258) = 1.75$, n.s., indicating no

differences in the number of words recalled across affective

wordtype for this condition. These data are presented in

Table 8.

TABLE 8

EXPERIMENT II:
RECALL TASK FOR WORDS <u>NOT</u> DESCRIPTIVE OF THE TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF
LIKED/DISLIKED TARGET AND AFFECTIVE WORDTYPE
(COLLAPSED ACROSS AFFECTIVE SETTING)

EXPERIMENTAL CONDITION	AFFECTIVE WORDTYPE		
	Positive Words	Negative Words	Ambivalent Words
Liked Target	1.04 (1.11)	1.39 (1.23)	1.13 (0.98)
Disliked Target	1.74 (1.45)	0.91 (1.10)	1.00 (1.26)

The simple effects test of affective wordtype for the

"Disliked Target" condition on the second recall task was

significant, $F(2,258) = 11.99$, $p < .001$, with the recall

data arraying as follows: positive words $M = 1.74$ ($SD =$

1.45), negative words $M = 0.91$ ($SD = 1.10$), and ambivalent

words $M = 1.00$ ($SD = 1.26$) (refer to Table 8). Scheffe's

test for comparing means revealed that positive words ($M =$

1.74) were recalled more than both negative words ($M =$

0.91), $F(2,258) = 19.82$, $p < .001$, as well as ambivalent

words ($M = 1.00$), $F(2,258) = 15.93$, $p < .001$, and that there

was no significant difference in recall between negative words and ambivalent words, $F(2,258) = 0.21$, n.s..

The 2 X 4 X 3 factorial analysis of variance investigating the previously unrecalled words descriptive of a new person targeted by a shift in affective predication to the opposite (third recall task) revealed a significant interaction for affective wordtype by Liked/Disliked target condition, $F(2,258) = 117.19$, $p < .0001$. The simple effects test of affective wordtype for the "Liked Target" condition (after a shift to a disliked target) was significant, $F(2,258) = 40.37$, $p < .0001$, with the recall data arraying as follows: positive words $M = 0.06$ ($SD = 0.24$), negative words $M = 1.04$ ($SD = 1.01$), and ambivalent words $M = 0.22$ ($SD = 0.57$). These data are presented in Table 9. Scheffe's tests for comparing means revealed that more negative words ($M = 1.04$) were newly recalled than both positive words ($M = 0.06$), $F(2,258) = 70.32$, $p < .0001$, as well as ambivalent words ($M = 0.22$), $F(2,258) = 48.43$, $p < .0001$, and that there was no significant difference in recall between previously unrecalled positive words ($M = 0.06$) and ambivalent words ($M = 0.22$), $F(2,258) = 1.95$, n.s.).

TABLE 9

EXPERIMENT II:
PREVIOUSLY UNRECALLED WORDS DESCRIPTIVE OF THE NEW TARGET,
MEANS (AND STANDARD DEVIATIONS)
OF NUMBER OF WORDS RECALLED AS A FUNCTION OF THE
SHIFT IN LIKED/DISLIKED TARGET AND AFFECTIVE WORDTYPE
(COLLAPSED ACROSS AFFECTIVE SETTING)

SHIFT IN TARGET CONDITIONS	AFFECTIVE WORDTYPE		
	Positive Words	Negative Words	Ambivalent Words
Liked to Disliked	0.06 (0.24)	1.04 (1.01)	0.22 (0.57)
Disliked to Liked	1.61 (1.20)	0.10 (0.30)	0.30 (0.55)

The simple effects test of affective wordtype for the "Disliked Target" condition (after a shift to a liked target) was also significant, $F(2,258) = 102.48$, $p < .0001$, with the recall data arraying as follows: positive words $M = 1.61$ ($SD = 1.20$), negative words $M = 0.10$ ($SD = 0.30$), and ambivalent words $M = 0.30$ ($SD = 0.55$) (refer to Table 9). Scheffe's tests for comparing means revealed that more new positive words ($M = 1.61$) were recalled compared to new negative words ($M = 0.10$), $F(2,258) = 173.62$, $p < .0001$, and compared to new ambivalent words ($M = 0.30$), $F(2,258) = 130.78$, $p < .0001$, and that no significant difference was found when comparing the recall between new negative words and new ambivalent words, $F(2,258) = 3.03$, n.s.. These findings replicate the results of the first experiment, as predicted in Hypothesis III.

The findings related to the third recall task can again be considered in terms of the percentage of subjects in the

second experiment who retrieved adjectives that they had not previously recalled. When the new target was liked, 86% of the subjects recalled between one and five additional positive adjectives (Mode = 2). Nine percent of the subjects recalled one or two negative adjectives when the new target was liked (Mode = 1), and 26% of the sample recalled one or two ambivalent adjectives (Mode = 1). When the shift in affective predication was to disliked, 64% of the subjects recalled between one and four additional negative adjectives (Mode = 1). Six percent of the subjects recalled a single positive adjective when the the new target was disliked, and 15% of the subjects recalled either one to three additional ambivalent adjectives which could predicate the new target (Mode = 1).

In order to illustrate Hypothesis III more clearly and show the significant cross-validation between Experments I and II, the two experiments are compared graphically. Figure 2 depicts the comparison for the first recall task in which subjects were asked to recall words that were descriptive of their target. In order to make the graph more readable, the results have been collapsed across the "Liked" and "Disliked Target" conditions (and across the affective setting conditions for Experiment II). For the graph in Figure 2, "consistent words" represent the number of words recalled that were affectively consistent with the broader affective predication. In other words, positive

words would be consistent with the "liked" predication and negative words would be consistent with the "disliked" predication. "Inconsistent words" represent the number of words recalled that were affectively inconsistent with the primary predication (i.e., negative words for the "liked" predication and positive words for the "disliked" predication). "Ambivalent words" represent the number or words recalled that had been previously rated as not consistently positive or negative in meaning.

The reader is referred to Figure 3 for the comparison between the two experiments on the second recall task in which subjects were asked to recall words that were not descriptive of their target. "Consistent," "inconsistent," and "ambivalent" words are represented on this graph in they same manner as they were on Figure 2.
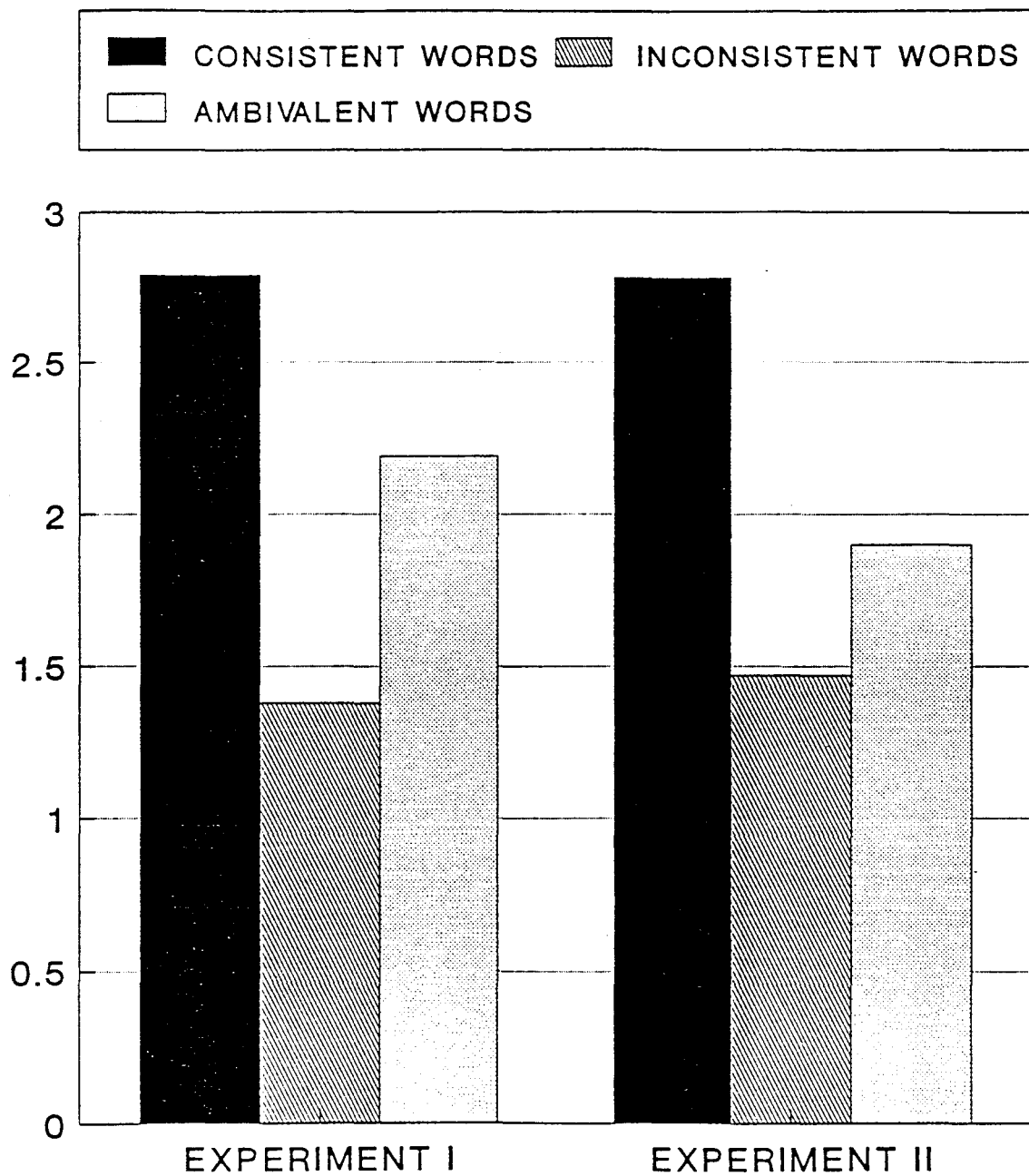
Fig. 2.   Mean Recall for Words Descriptive of the
          Target for Experiment I and II
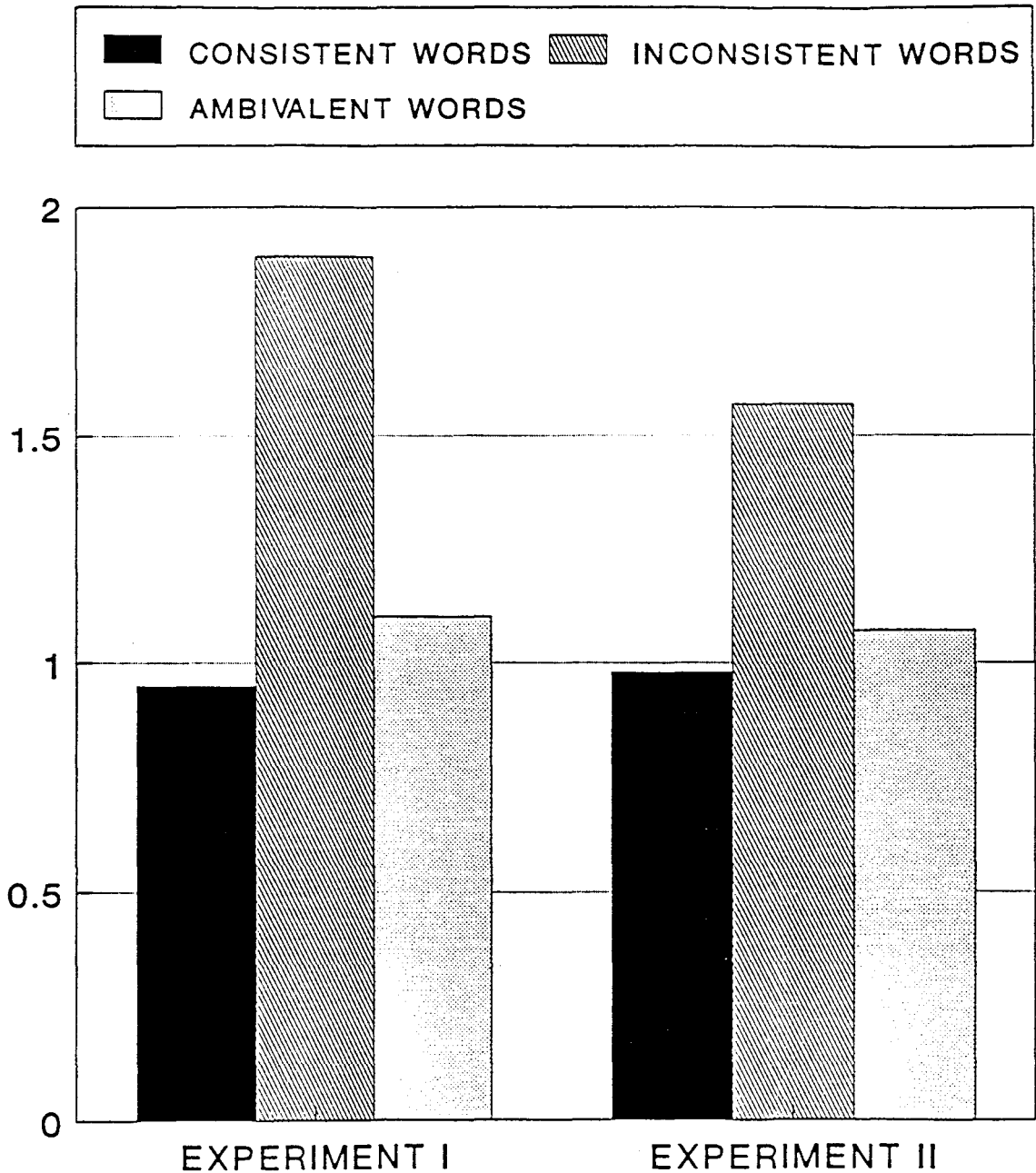
Fig. 3. Mean Recall for Words <u>Not</u> Descriptive of the
Target for Experiment I and II

Figure 4 depicts the comparison of the third recall task in which subjects were asked to shift their affective predication and target a new person. The graph portrays the number of words recalled that had been previously unremembered on the first two recall tasks. On this graph, "consistent words" represent negative words for the shift from a liked target to a disliked target and positive words for the shift from a disliked target to a liked target. "Inconsistent words" reflect the opposite pattern, and "ambivalent words," again, reflect those words which had been previously rated as not consistently positive or negative in meaning.
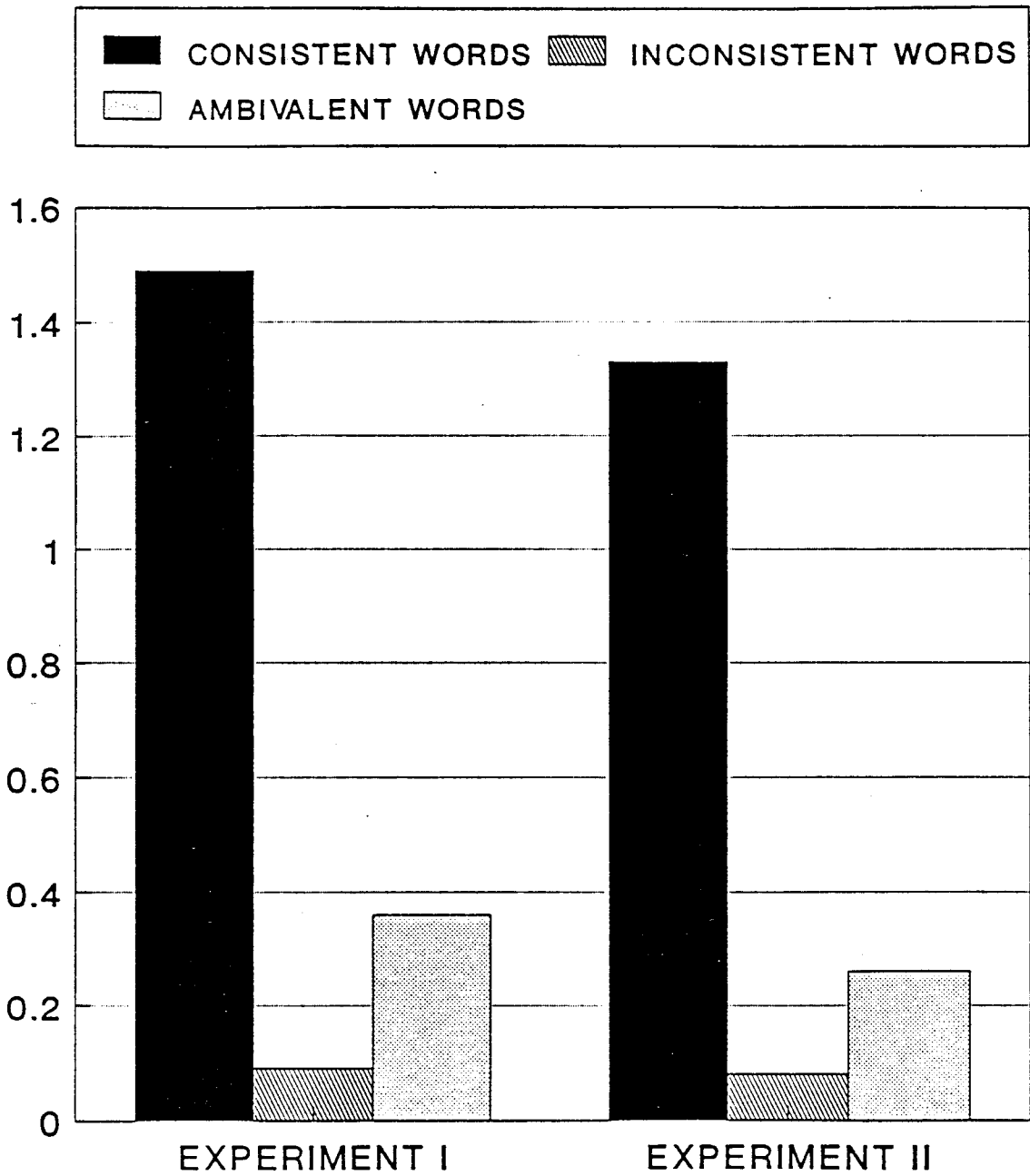
Fig. 4.   Mean Recall for Previously Unrecalled Words
          Descriptive of the New Target (after a Shift
          in Affective Predication)

<u>Conclusion</u>

Neither Hypothesis I nor Hypothesis II were confirmed. Contrary to our predictions, the addition of an affectively-valenced social situation did not significantly enhance or diminish the recall of affectively-valenced words in terms of the relationship of the affective quality of the setting to the broader affective predication.

The only significant difference between the "Liked" and "Disliked Target" conditions for this entire study was found in the third part of this experiment. It seems that, in this case, the shift from a disliked to a liked target favored the overall recall of previously unremembered adjectives compared to the shift from a liked to a disliked target.

Hypothesis III was confirmed. The pattern of recall for Experiment II cross-validated the findings of Experiment I.

CHAPTER V

DISCUSSION

The results of both experiments offer support for the
role of affective predication in memory retrieval. In the
first experiment, as we predicted, the affective meaning
quality of the "primary predication" extending to a target
person facilitated the recall of adjectives ("secondary
predications") that were affectively consistent with the
primary predication compared to the recall of adjectives
that were not consistent. Those subjects who thought of a
person whom they liked recalled more positive than negative
adjectives. Whereas subjects who thought of a person whom
they disliked recalled more negative than positive words.

For the second recall task in which we asked subjects
to remember other words from the selection task, we had also
assumed that the originally considered affective predication
(i.e., either liked or disliked) would continue to act as
the "primary predication" under which subjects would be
trying to retrieve other adjectival words. Therefore, we
had predicted that subjects in the "Liked Person" condition
would remember more positive words that were not selected as
descriptive of their target than negative words, and vice
versa for the "Disliked Person" condition. However, there

was a significant trend toward the reverse finding

occurring. Subjects in the "Disliked Target" condition

actually remembered more positive than negative words. The

recall of words for the "Liked Target" condition was the

opposite of this pattern, although the differences were not

significant.

When looking at the instructions for the second recall

task, we had asked the subjects to write down any other

words they remembered from the selection task, and we

clarified this by saying "any words not descriptive of the

person" they had selected. In considering these

instructions, it seems that we may have been implicitly

asking the subjects to go "outside the circle" of their

original affective predication. Since LLT contends that

oppositionality is implicitly tied to predication, it seems

that when trying to think of other words from the adjective

selection task that were not descriptive of the target, the

subjects may have had a tendency to "move to the opposite"

on their own.

The fact that subjects may have already shifted to the

opposite affective predication and that they recalled a

significant number of words that were opposite in affective

meaning to the original affective predication actually

serves to make our findings for the third recall task more

interesting. When we <u>explicitly</u> requested that subjects

shift their affective predication to the opposite (i.e.,

from liked to disliked or vice versa) and had them target a specific, new person, they were able to recall previously unremembered adjectives targeting the new person that were consistent with the shift in affective predication.

By providing the first two recall tasks, we thought that we had given the subjects the opportunity to exhaust their memory for words from the experimental selection task. However, the new context provided by the change in the affective quality of the realm of meaning being considered by the subjects allowed them to reconceptualize the situation. By affirming this new organization, the subjects were able to target new adjectives that were relevant to the new affective context and, in turn, these adjectives served as secondary predications of the newly targeted person. Thus, this demonstration of the role that affective assessment plays in memory "retrieval" epitomizes the precedent-sequacious process of predication.

The one unpredicted finding from experiment I which revealed that more positive and negative words were recalled compared to ambivalent words in the third recall task for previously unremembered words (after a shift in affective predication) is not unexpected considering the results. Since we had predicted that most of the newly remembered words would be affectively consistent with the shift in affective predication, and since this finding for affective wordtype is collapsed across the Liked/Disliked conditions,

it seems fairly obvious that the recall for positive and
negative words that have a direct meaningful alignment with
one of the broader realms of affection would be greater than
for the ambivalent words, which do not necessarily relate
directly to the affective predication of either experimental
condition.

In the second experiment, we did not find that the
addition of an affectively-valenced social situation
influenced the pattern of recall for the affectively-
valenced adjectives in the manner we had predicted. In
fact, it seems that our affective settings, overall, were
not meaningful enough to have a significant effect over and
above the meaningful context provided by the direct
predicational organization between affection and the
targeted liked or disliked person.

Our results did indicate that the negative social
situation did seem to enhance the overall recall of all of
the affective adjectives compared to the recall for the
positive and ambivalent social situations, although these
differences did not prove to be significant with follow-up
analyses. This slight benefit in recall for the negative
setting may indicate that this scene provided a more
meaningful context for the subjects in which to ground their
memories than the other scenes. The research in mood
intensity has shown evidence that affectively intense events
or thoughts enhance recall (Singer & Salovey, 1988), so this

may have played a role in the pattern of results for the
negative setting compared to the other settings.

In hypothesizing why our affective social settings did
not influence recall, one possibility is that we did not
utilize the introspective perspective of LLT in creating the
setting manipulation. A possibility for future research
might be to have subjects phenomenally frame their own
social situations. We might have a subject think of a
situation he or she considers very negative, encourage him
or her to really visualize it, and then indicate to us when
he or she is truly "in" the situation. This manipulation,
using "personal predication," could then be compared to a
condition utilizing experimentally-prepared settings (as in
the current study), that had been more rigorously pretested
for affective valence and intensity for the population being
tested.

Despite the lack of significant findings for our
affective social situation, our second experiment did
provide an excellent replication of the findings from our
first experiment. In fact, the pattern of recall for the
second experiment was virtually identical to the first
experiment with the exception that we had a difference in
recall between the shift from a disliked to a liked person
compared to the shift from a liked to a disliked person in
the second experiment. This difference in recall for
Liked/Disliked Target after the shift in affective

predication actually mirrors the findings of earlier LLT research showing that when subjects move from a task in which they have to remember disliked items to one in which they have to remember liked materials, the number of items recalled is greater compared to when the subjects move from liked to disliked materials (Rychlak & Tobin, 1971).

Other directions for future study that might serve to solidify as well as expand on our findings dealing with the role of affective predication in memory retrieval might include an experiment that is very similar to Experiment I in this study, in which we have half the subjects target a "new person" in the third recall task while maintaining the same affective predication as in the first two recall tasks and have the other half of the subjects target a "new person" after a shift in affective predication (as in the current study). In a study like this, we could then investigate whether it was actually the shift in "predication" or the "new target" that facilitated the recall of new words. This would provide a more direct test of the "predicational effect" within in the context of this type of experimental design investigating affective predication.

Another area that would provide fertile ground for further inquiry would be to expand upon the research based on Anderson and Pichert's (1978) study investigating the recall of new items about a home following shift from the

perspective of a homebuyer to a burglar, or vice versa. To do a study such as this within the framework of Logical Learning Theory would serve the function of exploring whether a shift in other types of semantic predication will enhance "retrieval" in the same fashion as a shift in affective predication did.

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APPENDICES

APPENDIX A

Instructions to Subjects

<u>Section One</u>

Each of you has been given a packet with six sections.
Please do not move on to a new page until instructed to do
so.

We are studying the personality traits of certain types of
people. Please read the instructions on the first page of
your packet and follow them accordingly.

(When the subjects are finished writing down the initials of
the person they like or dislike) Now, turn to Section Two of
your packet.

[<u>Experiment II</u>: Before we turn to Section Two of your
packet, please sit back and relax for a moment. Close your
eyes and try to visualize yourself in the scene that I am
going to describe to you. Please concentrate carefully.
(Experimenter reads the setting description) Please focus
on the scene for a few seconds. (after 10 seconds) Now turn
to Section Two of your packet.]

<u>Section Two</u>

This section will provide an example of the task you will be
instructed to carry out in Section Three. Take the 3x5 inch
card you have been give and place it vertically under the
first pair of personality-trait words on this list, the
words, efficient and good-tempered. Do not move on the next
word-pair until you are instructed to do so.

Concentrating on the person you selected on the first page
[<u>Experiment II</u>: as if they were sitting next to you in the
scene described], decide which of the two words best
describes this person and place a check mark next to this
word. You may feel that both words are characteristic of
your person or that neither word is very characteristic, but
please check the word that is the more applicable of the
two. Again, please do not move on to the next pair of words
until I instruct you to do so. Also, please think very

carefully about the person you chose as you are carrying out this task.

(The experimenter will read each word-pair aloud. The subjects will be given 10 seconds to concentrate on each word-pair and to decide which word is more characteristic of the person they have indicated on page one. All subjects will go through the words together.)
(After going through the three word-pairs) Good. Now, the next section contains 30 pairs of personality characteristics just like the words listed on this page. The words are listed on three separate pages. We will go through this list just as we did for the word-pairs in this section. Use your index card to keep your place on the sheet. For these words, again, check the word in each pair you feel is most characteristic of the person whose initials you wrote on the first page. As you make your decisions, please think carefully about your person, and do not move on to the next word-pair until you are instructed to do so.

Any questions? Now, turn to the next section.

Section Three

Place your index card vertically under the first word-pair in the column. (The experimenter will read off a word-pair every 10 seconds according to the particular random order of the list used for the group being tested. The subjects will be instructed to turn the page for the next column of words when appropriate.)

(As soon as the 10 seconds has passed for the last word-pair) Please turn to next section.

Section Four

Please make sure that the previous pages of your packet are folded over so that they are completely out of view.

On this page, taking you time, please record as many of the words that checked on the previous pages in Section Three as possible. Write down only those words which you judged to be most characteristic of the person on the first page. Please do not look back to see which words you checked. You will have about five minutes for this task. This will be plenty of time, so please take you time and think carefully about the person you selected as you are trying to remember the words. If you finish before time is called, please wait quietly and do not turn the page until you instructed to do so.

(After 5 minutes have passed) Does anyone need any more time? Please turn to Section Five of your packet.

Section Five

On this page, please record any other words you remember from Section Three (any words which you did not check as descriptive of the person). You will also have five minutes for this task, so please take you time and wait quietly if you finish early.

(After 5 minutes have passed) Does anyone need any more time? Please turn to Section Six of your packet.

Section Six

Please read the instruction at the top of the page in Section Six and follow them accordingly. You will also have five minutes to complete this task.

(After 5 minutes have passed) Does anyone need any more time? As I come around and collect your packets, I will be handing out a debriefing statement. After you have finished reading this, turn it in, and you will be free to go. If anyone has any questions, I will be happy to answer them.

APPENDIX B

Sample Experimental Packet

SECTION ONE

Please do not put your name anywhere on this packet, so that
we may assure your anonymity and confidentiality in this
study.

Male _____   Female _____

Age _____

We are studying the personality characteristics of people we
(like/dislike). Please think of a person whom you
(like/dislike) very much. Write this person's initials on
the line below.

_____

SECTION TWO

You will be presented with pairs of personality-trait words.
Please put your index card under the first pair of words.
Concentrating on the person you selected on the first page,
decide which of the two words best describes this person and
place a check mark next to this word. You may feel that
both words are characteristic of your person or that neither
word is very characteristic, but please check the word that
is the more applicable of the two. Please do not move on to
the next pair of words until you are instructed to do so by
the experimenter. Also, please think carefully about the
person you chose as you are carrying out this task.

1. efficient _____
    good-tempered _____

2. prideful _____
    theatrical _____

3. spiteful _____
    annoying _____

(Please do not turn the page until instructed to do so.)

SECTION THREE

Now, put your card under the first word-pair in the column.
Do not move on to another word-pair or the next page until
you are instructed to do so. As you look at these words,
mark as you did before the word in the pair which is more
descriptive of the person whose initials you wrote on the
first page. There will be thirty word-pairs in all on the
next three pages. Please concentrate on this person you
selected as you carry out this task.

1. pessimistic _____
   careless _____

2. enthusiastic _____
   honest _____

3. considerate _____
   sincere _____

4. grouchy _____
   unsympathetic _____

5. cautious _____
   shrewd

6. meticulous _____
   emotional _____

7. lazy _____
   ill-mannered _____

8. wise _____
   courteous _____

9. conservative _____
   mathematical _____

10. boring _____
    incompetent _____

11. radical _____
    modest _____

12. pushy _____
    philosophical _____

13. hostile _____
    unethical _____

14. cheerful _____
    honorable _____

15. cold _____
    foolish _____

16. skillful _____
    interesting _____

17. changeable _____
    blunt _____

18. understanding _____
    productive _____

19. optimistic _____
    friendly _____

20. uncongenial _____
    thoughtless _____

21. crafty _____
    tough _____

22. phony _____
    deceitful _____

23. warm _____
    generous _____

24. cruel _____
    lifeless _____

25. scientific _____
    informal _____

26. headstrong _____
    normal _____

27. nonchalant _____
    perfectionistic _____

28. depressed _____
    selfish _____

29. amiable _____
    responsible _____

30. happy _____
    kind-hearted _____

SECTION FOUR

On this page, taking you time, please record as many of the
words that you checked on the previous pages (Section Three)
as possible. Write down only those words which you judged
to be most characteristic of the person on the first page.
Please do not look back to see which words you checked. You
will have about five minutes for this task. This will be
plenty of time, so please take you time and think carefully
about the person you selected as you try to remember the
words. If you finish before time is called, please wait
quietly and do not turn the page until instructed to do so.

When you have written down all the checked words which you
are able to remember, please wait for the experimenter to
tell you to turn to Section Five.

SECTION FIVE

On this page, please record any other words you remember
from Section Three (any words which did not check as
descriptive of the person). You will also have five minutes
for this task, so please take your time and wait quietly if
you finish early.

When you have written down all of the unchecked words that
you are able to remember, please wait for the experimenter
to direct you to turn the page to the sixth and final
section.

SECTION SIX

Now, I would like you to "change persons." Think of a
person <u>whom you (dislike/like)</u> very much rather than
(<u>like/dislike</u>). Please focus on this person for a few
moments and write their initials below.

<center>_____</center>

Concentrating on this new person carefully, try to think of
any words from Section Three you can remember that describe
the person and write them below. Again, you will have at
least five minutes to complete this task, so take your time
and do not look back at the other pages of the packet.

When you have recorded all of the words you are able to
remember and the 5-minute time limit is up, please turn in
your packet to the experimenter.

APPENDIX C

Experimental Adjectives
(taken from the Anderson (1968) Norms)

The adjectival words used in the experiment are listed
here according their affective valence. The words were
rated by five independent raters on a 7-point scale and are
listed with their mean ratings. The following scale was
used by the independent judges to make their ratings:

"1" = Positive
"2" = Somewhat positive
"3" = Slightly positive
"4" = Could be either positive or negative
"5" = Slightly negative
"6" = Somewhat negative
"7" = Negative

Positive Words	Mean Rating
1. honest	1.0
2. cheerful	1.2
3. happy	1.0
4. considerate	1.2
5. sincere	1.0
6. enthusiastic	1.2
7. understanding	1.0
8. amiable	1.2
9. friendly	1.2
10. productive	1.4
11. kind-hearted	1.6
12. courteous	1.6
13. honorable	1.2
14. skillful	1.2
15. warm	1.4
16. interesting	1.2
17. responsible	1.2
18. optimistic	1.2
19. wise	1.0
20. generous	1.4

(Total Mean Rating - 1.2)

Negative Words   Mean Rating

1.	deceitful	6.8
2.	grouchy	7.0
3.	depressed	6.6
4.	thoughtless	6.8
5.	phony	6.8
6.	lifeless	6.4
7.	unsympathetic	6.4
8.	uncongenial	6.4
9.	hostile	6.8
10.	lazy	6.6
11.	cruel	7.0
12.	ill-mannered	6.6
13.	unethical	7.0
14.	incompetent	6.8
15.	cold	6.4
16.	boring	6.2
17.	careless	6.4
18.	pessimistic	6.4
19.	foolish	6.0
20.	selfish	6.6

(Total Mean Rating - 6.6)

Ambivalent Words   Mean Rating

1.	emotional	3.6
2.	informal	3.6
3.	normal	3.4
4.	cautious	3.6
5.	nonchalant	4.0
6.	mathematical	3.6
7.	changeable	3.6
8.	radical	4.0
9.	tough	4.0
10.	crafty	3.8
11.	conservative	3.8
12.	perfectionistic	3.8
13.	meticulous	4.2
14.	headstrong	5.2
15.	modest	3.4
16.	blunt	3.8
17.	philosophical	3.0
18.	scientific	3.2
19.	pushy	4.8
20.	shrewd	3.2

(Total Mean Rating - 3.8)

APPENDIX D

Debriefing Statement

INVESTIGATOR: Donna G. Hughes
FACULTY SPONSOR: Joseph F. Rychlak, Ph.D.

The purpose of this study is to give support for a predicational view of cognition. Unlike the mediational view of cognition, in which our thinking is shaped by associations formed by inputs based entirely on the frequency and contiguity of past experiences, the predication view of cognition depicts thinking with "the thinker" taking a position on something through the logical process of framing broader patterns of meaning in relation to narrower patterns of meaning. That is to say, our thinking is framed by the particular patterns of meaning we affirm or deny.

In the present study, we had the subjects predicate in a certain way by having them select a person they like or dislike. This created the predicational context for the subject. The subjects were then asked to check words, which were controlled for in terms of frequency and normed for likability, if they described the person they selected. These words were also rated independently to be either positive or negative in nature.

Based on the predicational model of cognition, the subject predicating on a "liked" person will select more positive than negative words to describe their person, remember more positive selected words, and remember more positive unselected words. For the subject predication on a "disliked" person, the opposite should be the case.

This research is based on the theory of Dr. Joseph Rychlak of our Department of Psychology. The book in which this kind of theory is presented is listed below, but if you would like to discuss any of this with him, he would be happy to arrange an appointment with you.

Rychlak, J.F. (1988). The psychology of rigorous humanism (2nd ed.). New York: New York University Press.

APPENDIX E

Experiment II: Social Situations

<u>Positive Social Situation</u>

    <u>Award Dinner</u>. Imagine you are being given an award for something you really value. You have made some truly great achievements. Your time and effort have really paid off, and you are being honored by your peers. Your are filled with personal pride and a sense of well-being. The award banquet is a beautiful occasion and all you friends and family are with you to help you celebrate. You can't remember the last time you had so many of the people you cared about together, and all having such a lovely time. The conversation is flowing, the food is delicious, and everyone is enjoying themselves, including you. When it comes to the time to accept your award, you do so with poise and grace giving a few words of acceptance. You have never had such a feeling success. Full of pride, you walk back to the table to rejoin the jovial group. As you sit back down at the table with your friends, you are showered with congratulations by them. Looking around, you see the person whose initials you have written sit down next to your place at the table.

Negative Social Situation

<u>Hospital Waiting Room</u>. Imagine you are in a hospital waiting room. Someone you care about deeply is very ill. You are extremely worried and concerned about you loved one. You have been waiting there for hours today and also spent all of yesterday at the hospital. You are unable to visit your loved one very much as doctors and nurses are often in the room. Very few of your friends or family members have come to visit and most do not stay very long. You are emotionally and physically exhausted and you have not felt like eating. The many cups of coffee that you have been drinking are making you feel even more edgy and nervous. You get up and go to the hospital room. Unfortunately, when you walk in you see you loved one is asleep, so you decide you had better not stay. As you grudgingly walk back to the waiting room, you beginning to feel like you cannot wait anymore. Consumed with worry and personal fatigue, you slump down in a chair. Glancing up, you see the person whose initials you have written come in the room and sit down next to you.

Ambivalent Social Situation

Classroom. Imagine you in a classroom waiting for
class to begin. It is a warm day, but it is about to rain.
Contemplating the course, you realize it is a difficult one,
but you are really enjoying the subject matter. The
professor has a way of making the topics of discussion come
alive, so that learning is interesting, even though he is
demanding of his students, requiring a lot of time and
effort on their part. Although the professor can be
intimidating in the classroom, he is very easy to get along
with one-on-one. As you wait for class to start, you think
about how you have had a good day so far, but it has been
long and tiring. Even though you are tired, you are ready
for class to start because today's topic is of particular
interest to you. The class is going to begin with a quiz,
but you have studied hard and are well-prepared for it. The
professor comes in and announces that there will be a quiz
as scheduled, but that there will be an interesting film
presented afterwards. Looking around as the professor is
passing out papers, you see the person whose initials you
have written come in and sit down next to you.

APPENDIX F

Experiment I: Raw Data

Key

L/D Target = Liked/Disliked Target Condition
1st recall task = recall task for words descriptive of the
                  target
2nd recall task = recall task for words not descriptive of
                  the target
3rd recall task = recall of previously unrecalled words
                  after a shift in affective predication
Pos = number of positive adjectival words recalled
Neg = number of negative adjectival words recalled
Amb = number of ambivalent adjectival words recalled

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
01	M	20	LIKED	5	3	0	2	3	1	0	2	1
02	F	20	LIKED	1	2	4	1	0	0	0	0	1
03	M	19	LIKED	2	3	2	0	0	3	0	2	0
04	F	18	LIKED	2	0	5	0	5	1	0	1	1
05	F	20	LIKED	2	1	1	0	1	1	0	0	0
06	F	18	LIKED	4	1	1	2	2	1	1	3	2
07	F	19	LIKED	4	2	2	3	3	2	0	3	2
08	F	18	LIKED	4	2	4	1	3	2	0	2	1
09	M	24	LIKED	1	0	2	1	2	1	0	0	0
10	F	17	LIKED	3	4	3	3	0	2	0	3	0
11	F	19	LIKED	5	4	5	3	3	2	0	1	0
12	M	18	LIKED	1	0	0	0	2	0	0	0	0
13	M	21	LIKED	3	3	6	1	2	0	0	2	0
14	F	20	LIKED	2	0	2	1	4	0	0	3	0
15	M	20	LIKED	4	1	5	0	1	1	0	3	0
16	F	24	LIKED	4	2	3	1	0	2	0	0	0
17	F	21	LIKED	2	3	1	1	5	2	0	1	1
18	F	18	LIKED	2	1	1	1	1	1	0	3	1
19	M	21	LIKED	1	0	1	0	0	0	0	1	0
20	M	19	LIKED	6	5	2	3	2	1	0	1	0
21	M	18	LIKED	6	2	2	0	2	2	0	0	0
22	M	18	LIKED	2	2	1	3	1	1	0	2	0
23	M	22	LIKED	4	1	1	0	1	0	0	0	0

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
24	M	18	LIKED	3	1	1	0	0	2	0	2	0
25	F	19	LIKED	6	0	1	2	3	0	0	2	0
26	F	–	LIKED	2	1	2	3	1	1	0	2	0
27	M	20	LIKED	3	0	2	1	1	1	0	0	1
28	F	19	LIKED	4	3	5	1	2	3	0	1	1
29	M	22	LIKED	1	0	1	1	1	1	0	0	0
30	F	18	LIKED	5	1	3	1	3	2	0	5	0
31	F	18	LIKED	2	0	2	1	3	1	0	2	0
32	M	18	DISLIKED	1	1	1	1	1	0	0	0	0
33	F	18	DISLIKED	0	1	2	2	0	1	3	0	0
34	F	19	DISLIKED	2	5	2	1	2	1	2	0	0
35	M	18	DISLIKED	3	0	0	1	1	2	3	0	1
36	M	20	DISLIKED	3	3	1	1	1	1	1	1	2
37	M	21	DISLIKED	2	4	2	1	0	0	2	0	1
38	F	19	DISLIKED	2	2	1	4	2	1	2	0	1
39	F	19	DISLIKED	3	3	3	3	2	0	0	0	1
40	F	18	DISLIKED	1	2	1	1	0	1	0	1	0
41	M	20	DISLIKED	2	2	2	3	1	1	1	0	0
42	F	19	DISLIKED	1	1	1	1	0	3	0	0	0
43	F	18	DISLIKED	1	2	2	3	0	1	0	0	0
44	F	–	DISLIKED	0	3	1	1	0	1	1	0	0
45	F	19	DISLIKED	0	6	2	3	0	1	6	0	0
46	F	19	DISLIKED	0	4	3	3	1	1	1	0	0
47	F	18	DISLIKED	1	1	2	1	1	0	1	0	0
48	F	20	DISLIKED	0	1	4	2	2	0	1	0	0
49	F	18	DISLIKED	0	4	4	6	0	3	1	0	0
50	F	20	DISLIKED	1	1	1	1	0	2	2	0	1
51	M	19	DISLIKED	1	2	2	1	0	2	2	1	1
52	F	18	DISLIKED	2	1	0	0	2	3	0	1	0
53	F	19	DISLIKED	1	4	4	1	0	2	2	0	0
54	F	19	DISLIKED	3	4	4	5	0	0	1	1	1
55	M	20	DISLIKED	3	3	3	2	0	0	2	0	0
56	M	19	DISLIKED	2	2	2	0	0	0	2	0	1
57	F	19	DISLIKED	2	3	2	3	0	0	2	0	0
58	M	18	DISLIKED	1	2	1	3	0	0	0	0	0
59	M	19	DISLIKED	1	3	1	1	2	0	1	0	0
60	M	19	DISLIKED	0	6	4	1	0	4	1	0	0
61	F	21	DISLIKED	0	3	3	3	1	0	2	0	1
62	F	18	DISLIKED	0	3	1	0	0	0	2	0	0
63	F	19	DISLIKED	1	2	2	3	1	0	2	0	0
64	M	18	DISLIKED	0	2	5	2	3	2	2	0	0

APPENDIX G

Experiment II: Raw Data

<u>Key</u>

L/D Target = Liked/Disliked Target Condition
1st recall task = recall task for words descriptive of the
                  target
2nd recall task = recall task for words <u>not</u> descriptive of
                  the target
3rd recall task = recall of previously unrecalled words
                  after a shift in affective predication
Pos = number of positive adjectival words recalled
Neg = number of negative adjectival words recalled
Amb = number of ambivalent adjectival words recalled

<u>POSITIVE SETTING</u>

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
023	F	17	LIKED	6	0	2	1	3	1	0	0	0
025	F	19	LIKED	1	3	0	0	1	1	0	1	0
026	F	19	LIKED	3	1	3	2	2	1	0	2	0
029	F	19	LIKED	1	1	1	0	0	0	0	1	0
032	F	19	LIKED	3	2	3	0	2	1	0	0	0
059	F	18	LIKED	4	3	2	2	0	1	0	3	0
061	F	18	LIKED	3	0	4	0	0	3	0	1	1
063	F	17	LIKED	0	1	5	0	0	0	0	2	0
064	F	18	LIKED	1	1	3	0	2	0	0	1	0
067	F	18	LIKED	2	0	3	1	2	1	0	2	0
068	F	21	LIKED	2	0	0	2	1	0	0	0	0
093	F	18	LIKED	5	3	4	1	2	3	0	2	0
096	F	18	LIKED	4	2	3	1	1	0	0	1	0
097	M	17	LIKED	2	0	1	0	0	1	0	1	0
100	M	20	LIKED	3	2	1	0	0	1	0	4	0
103	F	18	LIKED	1	1	0	2	0	1	0	0	0
022	F	18	DISLIKED	2	2	2	0	2	2	3	0	0
024	F	18	DISLIKED	2	4	1	4	2	2	3	0	1
027	F	18	DISLIKED	0	3	2	1	1	2	5	0	0
028	F	18	DISLIKED	2	1	3	3	1	5	0	0	0
030	F	19	DISLIKED	0	2	1	2	0	0	1	0	0

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
031	F	18	DISLIKED	1	3	1	1	0	1	2	0	0
033	F	19	DISLIKED	1	4	0	1	0	1	0	0	0
058	F	18	DISLIKED	0	1	1	1	0	0	2	0	1
060	F	19	DISLIKED	4	4	2	0	1	4	2	0	0
062	F	18	DISLIKED	1	3	2	0	1	0	2	0	0
065	F	18	DISLIKED	2	3	2	1	1	2	0	0	0
066	F	18	DISLIKED	3	2	0	1	1	0	1	0	0
069	M	19	DISLIKED	1	3	1	2	1	0	0	0	0
094	F	19	DISLIKED	1	3	2	0	0	0	1	0	0
095	F	17	DISLIKED	1	2	2	0	0	0	1	0	0
098	F	22	DISLIKED	1	2	3	2	0	3	0	0	0
099	F	18	DISLIKED	4	3	3	5	1	1	1	0	2
101	M	19	DISLIKED	1	0	1	5	3	1	2	0	0
102	M	18	DISLIKED	0	2	2	3	1	1	1	0	1

NEGATIVE SETTING

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
012	F	17	LIKED	3	3	1	0	3	1	0	0	0
013	M	19	LIKED	2	0	1	0	4	0	0	1	0
017	F	18	LIKED	4	1	0	5	1	0	0	1	0
018	F	18	LIKED	3	0	1	2	2	1	0	3	0
021	F	19	LIKED	2	1	2	0	0	0	0	2	1
047	F	18	LIKED	4	2	4	3	1	1	1	2	3
048	F	18	LIKED	4	1	1	2	1	2	0	1	0
051	M	19	LIKED	2	3	1	0	0	0	0	0	0
052	F	18	LIKED	4	2	3	0	3	2	0	0	0
054	M	18	LIKED	1	2	1	0	1	1	0	0	0
056	F	18	LIKED	3	2	1	0	2	2	0	0	0
080	F	18	LIKED	4	5	2	3	2	3	0	1	0
082	F	20	LIKED	3	4	1	2	2	3	0	1	0
083	F	18	LIKED	3	1	4	0	1	3	1	2	1
085	F	19	LIKED	5	1	4	0	1	2	0	0	1
087	F	20	LIKED	4	1	2	3	3	1	0	0	0
090	F	18	LIKED	4	0	1	1	0	2	0	1	0
092	F	18	LIKED	3	3	1	2	1	3	0	0	0
014	F	18	DISLIKED	1	1	3	2	0	2	3	1	2
015	F	18	DISLIKED	3	5	3	1	4	1	3	0	0
016	M	–	DISLIKED	6	6	3	3	5	0	1	0	0
019	F	20	DISLIKED	3	3	1	3	1	2	2	0	0
020	F	17	DISLIKED	0	2	2	1	3	0	1	0	0
046	M	18	DISLIKED	1	2	1	2	0	0	1	0	0
049	F	18	DISLIKED	3	2	2	2	0	0	1	0	0
050	F	19	DISLIKED	2	6	2	1	0	0	4	0	0

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
053	M	17	DISLIKED	0	2	4	1	1	1	1	0	0
055	M	20	DISLIKED	2	4	3	1	2	2	2	0	1
057	F	20	DISLIKED	5	7	4	5	1	5	1	0	1
081	F	18	DISLIKED	0	5	0	4	0	1	1	0	1
084	F	18	DISLIKED	3	4	4	3	2	0	3	0	0
086	M	19	DISLIKED	0	1	0	1	0	0	1	0	0
088	F	18	DISLIKED	3	5	1	0	2	0	0	0	0
089	F	25	DISLIKED	1	3	1	2	0	0	0	0	0
091	F	21	DISLIKED	0	2	2	3	1	1	2	0	0

AMBIVALENT SETTING

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
002	F	19	LIKED	2	2	2	0	0	0	0	1	0
004	F	22	LIKED	2	1	2	0	2	0	0	0	0
005	F	18	LIKED	2	0	4	1	3	2	0	1	0
008	M	17	LIKED	2	1	3	0	1	0	0	0	0
009	M	19	LIKED	3	2	1	0	1	1	0	0	0
036	F	18	LIKED	3	0	2	0	0	0	0	2	0
037	M	18	LIKED	4	4	3	2	0	3	0	1	0
038	M	—	LIKED	3	0	1	0	0	1	0	2	0
040	F	27	LIKED	2	4	4	2	2	2	0	1	0
042	M	18	LIKED	2	1	1	0	2	0	0	1	0
045	M	18	LIKED	0	1	1	1	0	1	0	0	0
074	F	20	LIKED	2	1	3	2	0	2	1	0	0
075	F	18	LIKED	2	1	1	1	1	1	0	1	0
076	F	18	LIKED	4	1	1	1	0	1	0	0	0
077	F	18	LIKED	3	1	2	1	1	0	0	1	0
079	F	17	LIKED	2	1	1	1	1	1	0	0	0
001	M	18	DISLIKED	1	5	1	2	0	0	1	0	0
003	F	18	DISLIKED	1	1	1	2	2	0	1	0	0
006	F	18	DISLIKED	3	2	5	0	0	0	2	1	1
007	F	19	DISLIKED	0	2	1	2	0	3	1	0	0
010	F	18	DISLIKED	3	2	2	0	2	1	2	0	1
011	F	18	DISLIKED	1	1	1	2	0	2	1	0	0
034	M	18	DISLIKED	1	3	2	2	1	2	2	0	0
035	F	18	DISLIKED	2	3	0	0	0	1	3	0	0
039	F	18	DISLIKED	1	4	1	1	3	3	3	0	2
041	F	18	DISLIKED	0	1	0	1	0	0	2	0	0
043	F	18	DISLIKED	4	2	3	1	2	4	0	0	0
044	F	20	DISLIKED	2	1	3	0	3	0	2	0	0
070	M	18	DISLIKED	1	3	1	0	1	0	4	1	0
071	M	18	DISLIKED	0	1	1	1	0	0	2	0	0
072	F	18	DISLIKED	1	2	1	3	2	0	1	0	0

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
073	M	24	DISLIKED	2	3	0	1	1	0	3	0	0
078	F	18	DISLIKED	1	0	2	1	1	1	2	1	0

"NO" SETTING

Subj No.	Sex	Age	L/D Target	1st Recall Task			2nd Recall Task			3rd Recall Task		
				Pos	Neg	Amb	Pos	Neg	Amb	Pos	Neg	Amb
104	M	22	LIKED	1	0	1	1	1	1	0	0	0
105	F	19	LIKED	6	0	1	2	3	0	0	2	0
106	F	18	LIKED	4	1	1	2	2	1	1	3	2
107	F	19	LIKED	4	3	5	1	2	3	0	1	1
108	F	20	LIKED	2	0	2	1	4	0	0	3	0
109	F	20	LIKED	2	1	1	0	1	1	0	0	0
110	F	18	LIKED	2	0	2	1	3	1	0	2	0
111	M	18	LIKED	1	0	0	0	2	0	0	0	0
112	M	18	LIKED	2	2	1	3	1	1	0	2	0
113	M	20	LIKED	5	3	0	2	3	1	0	2	1
114	F	21	LIKED	2	3	1	1	5	2	0	1	1
115	F	24	LIKED	4	2	3	1	0	2	0	0	0
116	M	21	LIKED	1	0	1	0	0	0	0	1	0
117	M	21	LIKED	3	3	6	1	2	0	0	2	0
118	F	19	LIKED	4	2	2	3	3	2	0	3	2
119	F	19	LIKED	5	4	5	3	3	2	0	1	0
120	M	20	LIKED	3	0	2	1	1	1	0	0	1
121	M	19	DISLIKED	2	2	2	0	0	0	1	0	2
122	F	21	DISLIKED	0	3	3	3	1	0	2	0	1
123	F	19	DISLIKED	1	2	2	1	0	2	2	1	1
124	F	20	DISLIKED	1	1	1	1	0	2	2	0	1
125	F	18	DISLIKED	1	2	2	1	0	2	2	0	1
126	F	18	DISLIKED	0	3	1	0	0	0	2	0	0
127	M	20	DISLIKED	2	2	2	3	1	1	1	0	0
128	F	18	DISLIKED	1	1	2	1	1	0	1	0	0
129	F	18	DISLIKED	0	4	4	6	0	3	1	0	0
130	F	-	DISLIKED	0	3	1	1	0	1	1	0	0
131	F	19	DISLIKED	2	5	2	1	2	1	2	0	0
132	F	19	DISLIKED	0	6	2	3	0	1	6	0	0
133	F	19	DISLIKED	3	3	3	3	2	0	0	0	1
134	F	19	DISLIKED	3	4	4	5	0	0	1	1	1
135	M	21	DISLIKED	2	4	2	1	0	0	2	0	0
136	F	19	DISLIKED	1	2	2	3	1	0	2	0	0
137	F	18	DISLIKED	1	2	1	1	0	1	0	1	0

VITA

The author, Donna Gail Hughes, was born in Tulsa, Oklahoma on July 16, 1967.

Ms. Hughes entered Baylor University in August, 1985 as a National Merit Scholar and a Baylor Presidential Scholar. She received a degree of Bachelor of Arts in psychology in May, 1989. While attending Baylor, she served as both president and treasurer of the Baylor chapter of Psi Chi, the national honor society in psychology. She was also selected as a member of Gamma Beta Phi honor society and the Golden Key honor society.

In August, 1989, Ms. Hughes entered the doctoral program in clinical psychology at Loyola University of Chicago with a research assistantship in psychology. She will complete her Masters of Arts degree in January, 1993.

<u>APPROVAL SHEET</u>

The thesis submitted by Donna G. Hughes has been read and approved by the following committee:

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

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

12/8/92
Date

Joseph F. Rychlak
Director's Signature