

Cognition and Affect in Leader's Managerial Judgment (I)

Oh Soo Park

《Contents》

I. Introduction

1. Preface
2. Purpose of the Study

II. Review of the Literature

1. On Affect
2. Schema, Memory, Attribution, and Affect
3. Performance Appraisal as a Leader's Managerial Judgment

III. Hypotheses and Research Questions

1. Primary Hypotheses: Performance Rating as a Dependent Variable
2. Secondary Hypotheses and Research Questions
3. Tertiary Exploratory Analysis

IV. Method

1. Subjects and Overall Procedures
2. Variables
3. Analysis

V. Results (이하 다음호에 실을 것임)

1. Pilot Study and Preliminary Analysis
2. Results of Primary Hypotheses Testing: Performance Ratings
3. Results of Secondary Hypotheses Testing: Attribution Measures
4. Results of Research Questions
5. Results of Exploratory Analysis

VI. Discussion and Conclusions

1. Pragmatic Issues
2. Implications
3. Summary and Conclusions

I. Introduction

That crucial and perhaps painful question is more likely to be answered by organizational researchers who take emotion seriously than by those who think emotion is important only because it interferes with efficient cognitive performance. (Weick, 1985; 15)

Author: Assistant Professor, School of Management, Seoul National University.

1. Preface

Recently, the role of affect in cognition and cognitive processes has been a compelling issue in the field of organizational behavior as well as in that of cognitive social psychology. While the recent trend of affect-related research in cognitive psychology represents an important new contribution (affect as both a dependent and an independent variable), the fundamental issue of affect has not been totally ignored previously in organizational behavior.

Some research in organizational behavior has been concerned with affective-like variables, such as satisfaction, valence, and preferences. For example, job satisfaction as an emotional response has been a very important and prevailing variable in more than 3000 studies of organizational research (Locke, 1976). In the expectancy model of organizational behavior (Vroom, 1964; Mitchell, 1974), positive or negative valence as an affective reaction to expected outcome has been a powerful component for the understanding of human behavior for over two decades. Even in the bounded rationality model of decision making (Cyert and March, 1963), preference has been considered as an important variable. More recent research in decision making, such as the garbage can model (Cohen, March, and Olsen, 1972), gives serious attention to so-called "non-rational" components in choice processes. In most of these lines of research, preference has been thought of as an important variable in decision making or choice processes (March and Olsen, 1976; March, 1978), and in rationalization of action (Weick, 1979).

Little research, however, has focused on the role of affect and its relationship with cognitive or other variables within a social information processing framework, especially in regard to the major organizational behavior themes, such as motivation, leadership, performance appraisal, and decision making. Thus, the present research focuses on the role of affect and its relationships with cognition and behavior in managerial judgment, particularly in leadership and the performance appraisal situation. Recent research on leadership and

performance appraisal has emphasized and attempted to understand its processes in terms of social information processing. For this line of research, affect and affect-related variables may provide a more comprehensive understanding of leader behavior and the performance appraisal processes. Before further discussion of the role of affect in the leadership and performance appraisal context, meanings of "affect" and related theories will be reviewed to enhance our understanding of affect in that situation.

2. Purpose of the Study

Affect, as a meta variable, has taken new importance in cognitive psychology and, potentially, in the study of organizational behavior. In addition to asking how individuals process information, related investigations have explored the nature of feelings, moods, and emotions, and how these forms of affect, in turn, influence behavior. These recent viewpoints on affect from cognitive psychology provide the challenge to explore the potential of affect in the realm of organization research.

Thus, the overall purpose of this study is to investigate how affect and cognition are related to each other, and how these variables are useful in explaining leader's actions toward a subordinate, especially in regard to performance rating. More practically, this study aims to show how the leader's overall feelings and specific affect toward a subordinate might result in biased, inaccurate ratings. [Note: In this study, affect is generated by manipulations of a subordinate prosocial or citizenship behavior which influences the leader's affect toward the subordinate.]

With this overriding purpose, this study focuses on some major research issues: (1) the effect of subordinate objective performance and prosocial behavior, together, on leader performance ratings, (2) this effect on leader attributions, emotional responses, and managerial decisions, (3) the potential role of mood in these relationships, (4) the relationship between attributions and emotional responses, and (5) the relationships among attributions, emotional responses, performance ratings, and managerial decisions.

In pursuit of this purpose, first, the relevant theories on affect are reviewed. Some might question whether affect should be a part of cognitive psychology, since the term of "cognition" implies thought, while "affect" implies feeling. For this question, the primacy of affect will be discussed. Moreover, the relatedness of affect to some cognitive processes, such as categorization and attributions, will be reviewed to enhance our understanding of the role of affect in the cognitive processes as well as in judgmental processes. This literature review is to explore the interaction and relatedness between affect and cognition.

To focus on the role of affect in cognitive and judgmental processes in organizations, a specific organizational event, performance rating as a leader managerial judgment, is used. The cognitive social information processing approach to leadership and performance appraisal will be discussed to demonstrate how the leader as a rater actively seeks and processes information of a subordinate in a judgmental situation, and to explore the potential of affect in this context.

Next, some hypotheses and research questions that can be derived from this literature review will be suggested to pursue the overall purpose of this study. Also, an experimental method with experienced organizational professionals is applied to test these hypotheses and research questions. Finally, discussion of the results and implications of this study for theory development, future research, and managerial practice will be provided.

II. Review of the Literature

In this chapter, some of the important contributions emerging from affect research in cognitive psychology are reviewed to speculate how affect research might provide important insights into behavior in organizational situations. The first section of this chapter explores distinctions of meanings and nuances among such concepts as affect, emotion, feeling, and mood, and then discusses the primacy issues between affect and cognition,

The next section describes some selected recent theoretical developments that center on affect as an important component of human cognition and behavior. For this, the interrelationship between affect and cognition is discussed in terms of (1) schema-triggered affect as differentiated affective responses toward a subordinate, (2) mood as undifferentiated affect and memory, (3) a specific emotional response as a type of differentiated affect based on causal attribution, and (4) the role of affect in cognition, behavior, and decision making.

The final section suggests how these concepts and theories might be usefully applied to organizational behavior, with a particular emphasis on a leader's managerial judgment and performance rating. For this, a cognitive social information processing approach to leadership and performance evaluation is discussed to explore the potential of affect in this context.

1. On Affect

There have been many confusing and contradictory concepts utilization and theories of affect (emotion). In order to help our understanding of affect in organization, before further review and discussion, it seems to be desirable to introduce two things briefly. One is to clarify the confusing concepts or meanings of affect by recategorizing two types of affect as undifferentiated affect and differentiated affect. Another is to examine the relationship between affect and cognition in order to understand the role of affect within complex cognitive processes. For this, the debate for the precedent between affect and cognition is shortly reviewed (although this issue is not the direct concern of this research).

1.1. Affect as a Meta-Variable

The literature in affect-related research has often used the term "affect" interchangeably with "emotion," "mood," "affective state," "feeling," and "feeling state." Here, it is useful, first, to clarify these concepts and to examine their interchangeability with one another. Of course, this is not for their linguistic or philosophical meaning, but for a more pragmatic definition

of affect and its relationships with other variables within a cognitive social information processing framework, and especially as relevant to the field of organizational behavior.

Arnold (1960) defines affect broadly as a function of perception and appraisal which has numerous qualitatively different emotions. According to him, emotion is "the felt tendency toward anything intuitively appraised as good (beneficial), or away from anything intuitively appraised as bad (harmful)" (1960; 182). Arnold distinguishes emotion from feeling in that emotion is aroused by an object or a situation as a whole rather than by a specific aspect of it as is the case with feeling. He also suggests that feeling is different from mood. Feeling is a positive or negative reaction to some experience, but mood is a feeling response to an extended or continued change in organismic functioning.

Ewert (1970) also suggests that three concepts—mood, feelings, and emotion (affect)—should be distinguished. According to Ewert, mood is "background experience of a diffuse nature" (1970; 233), and it has no differentiation of experienced self and experienced world. Mood does not refer to persons, things, or events, and its processes have no object reference. Ewert defines feeling as "the emotional coloring of conscious contents" (1970; 234), and emotion as "affective experiences" (1970; 235) different from feelings or intensified feelings. Emotion is not ground but figure, and has object references, such as a person or social events. According to him, mood does not have an objective reference, but both emotion and feeling have it even though it is different. While feelings represent an individual's pleasant or unpleasant reaction to sensation and perception, emotion is an individual's attitude toward a person and experienced social environment.

According to Izard (1965), feelings, as the elementary subjective experiences, form the foundation for the more complex processes which are referred to as emotion. Kleinginna and Kleinginna (1981) attempt to solve the resulting terminological confusion in the definition of emotion by complying and cate-

gorizing 92 definitions from a variety of sources in the literature of emotion. In spite of their endeavor, the result seems just to recategorize existing definitions rather than to clarify the confusing and complex concepts of emotion.

More recently, Clark and Isen (1982) distinguish feeling state from emotion. They used feeling state and mood as interchangeable concepts, which are induced by pleasant or unpleasant experience, or by recalling positive or negative experiences from memory. They distinguished emotion from mood or feeling state by suggesting that emotion tied to a specific object and behavior disrupts ongoing behavior, and involves arousal.

All of the above research has attempted to distinguish concepts or meanings among emotion, feeling, and mood. However, this kind of conceptual or nuance distinction among emotion, feeling, and mood is, of course, not the main focus of this study. Rather, this study conceptualizes these into two types of affect, differentiated affect and undifferentiated affect, since it is believed that two kinds of affect are more useful for the study of the role of affect and its relationship with cognition and behavior in an organization.

1.2. Differentiated Affect and Undifferentiated Affect

Affect is a generic term for a whole range of feelings and emotions (Fiske and Taylor, 1984), and it is frequently used as an overriding concept that encompasses more specific terms, such as emotion, mood, and feeling. For the purpose of this study, it is convenient to distinguish between two categories of affect: differentiated affect and undifferentiated affect.

Differentiated affect (emotion) is aroused by a specific target or situation (Arnold, 1960; Ewert, 1970; Clark and Isen, 1982; Roseman, 1980; Fiske, 1981), describes an individual's affective reaction toward a person or stimulus (Fiske, 1982; Zajonc, 1980), and is caused by specific cognitive processes, such as attribution (Weiner and his associates, see 2.3. in this chapter), arousal or attention (Schachter and Singer, 1962; Norman, 1975; Mandler, 1975), and categorization (Isen and Daubman, 1984; Cohen, 1981; Srull, 1984). This differentiated affect is an emotional response to a specific target,

person, and situation, and, in turn, this affective response is thought to cause changes in ongoing behavior.

Since different targets, people, or situations lead to different affective reactions, it is possible to distinguish these affective reactions according to their degree of or strength of simplicity or specificity. Also, even though emotion and feeling may be used interchangeably in certain situations, some definitions (Arnold, 1960; Ewert, 1970; Izard, 1965; Clark and Isen, 1982; Fiske and Taylor, 1984) suggest that feeling is a simple and global evaluative reaction to others or stimuli, such as good or bad, pleasant or unpleasant, liking or disliking and that emotion is a more specific and complex assortment of affect than simple good (positive) or bad (negative) feelings.

In this regard, two kinds of differentiated affect are discussed in this research. One is schema-triggered affect, and the other is attribution-based affect. Schema-triggered affect is similar to the concept of feeling in the sense that it is a simple, automatic, global, configurational, and unconscious evaluative affective reaction. As Fiske and her colleague suggested, this schema-triggered affect is interpersonal affect since it is an affective reaction toward a target person (for more detailed discussion, see section 2.1. in this chapter). Schema-triggered affect is evoked as part of a categorization process. On the other hand, attribution-based affect is similar to the concept of emotion in the sense that it is a complex, slow, specific, controlled, and conscious affective reaction to stimuli, targets, outcomes, or situations. Some examples of differentiated affect are anger, pride, guilt, joy, regret, fear, pity, and sympathy.

In addition, another type of affect, *undifferentiated affect*, is also important for this research. Mood as a feeling state is an "undifferentiated or generalized affective state" that has no specific target (Clark and Isen, 1982; Fiske, 1981), involves no differentiation of experienced self or experienced world (Ewert, 1970), is pervasive and ongoing for some period (Zajonc, 1980; Clark and Isen, 1982; Bower and Cohen, 1982), and pervades all one's

experiences (Fiske, 1981). In most research, mood as an undifferentiated affective state has been studied binarily, such as good or bad, positive or negative (Bower, 1981; Bower and Cohen, 1982; Clark and Isen, 1982; Wright and Mischel, 1982; Isen et al., 1982). Also, the generalized affective states (i.e. mood) are also heterogeneous in determinants with a highly intertwined nature (Plutchick, 1980), and sometimes they have been studied in terms of anxiety, depression, or hostility (see Zuckerman and Lubin, 1965; Arkin, Dechon, and Maruyama, 1982; Gotlib and Robinson, 1982; Polivy, 1981; Pretty and Seligman, 1984; Park, 1984).

Thus, this research focuses on three kinds of affect: (1) schema-triggered affect, (2) attribution-based affect as differentiated affect, and (3) mood (or feeling state) as undifferentiated affect.

1.3 Affect and Cognition

At the subjective-experiential level, affect and cognition are understood as separate but interrelated, interactive, and interdependent systems. However, there has been much debate regarding to the issue of precedent between affect and cognition. One point of view regards affect as a consequence of cognitive processes. Many researchers have suggested that cognition elicits affect or that affect results from the evaluation of a stimulus (Arnold, 1960; Arieti, 1970; Lazarus, Averill, and Optin, 1970). Also, some suggest that emotion (affect) is experienced or elicited through the perception of unique physiological changes (Tomkins, 1970), or through the cognitive interpretation and evaluation of a general arousal state (Mandler, 1975; 1982; Royce and Diamond, 1980; Roseman, 1980). And more recently Lazarus (1982; 1984) argues that cognition is a necessary precondition for affective arousal. Another viewpoint is that emotion precedes cognition, and affective responses can occur without extensive prior cognition or in the absence of thoughts (Zajonc, 1980; 1984; Zajonc and Markus, 1982; 1984).

Even though there is no full agreement whether cognition is a necessary precondition for affect, it is generally recognized that, under certain con-

ditions, cognitive factors contribute strongly and sufficiently to the emotional processes, such as emotional expression, symbolization, and labeling of emotion. Actually, parts of the problems of this argument would seem to be semantic differences in the definition of affect(emotion), and perhaps different research methods. Also, Zajonc does not assert that affect always precedes cognition, but he suggests that affect can be generated without a priori cognitive processes "in a certain situation" (1981), and affect precedes cognition "at times" (1984). Royce and Diamond (1980) also suggest that this argument for the precedent between affect and cognition is not a critical issue if we understand each of them in terms of "cognitive basis of emotion" and "affect-laden cognition." Weiner (1982) also suggests that even though affect-cognition order is logically possible, this argument is of secondary importance since this order does not explain why a particular affect is experienced.

Thus, the problem of the relationship between affect and cognition should not be reduced to the issue of its sequential causality, but might be best understood in terms of how they interact with each other. The relationship between affect and cognition should be represented in terms of "the cognitive-emotional fugue" (Lewis, Sullivan, and Michalson, 1984) that each continually and progressively chases the other, weaving separate threads of behavior into a single composition. Also, as suggested recently, "reason is a subtle emotion and every feeling is a bit of knowledge" (Weick, 1985; 13). In any case, these lines of reasoning suggest the interactive and interdependent relationship between affect and cognition. Affect and cognition exist as independent identities, but the processes or activities of each of them include each other's cognitive processes or affective component. Their relationship should be understood as a cognitive basis of affect and an affective basis of cognition rather than as a one-way deterministic relationship as a separate dichotomy. Thus, with regard to the issue of precedent between affect and cognition, their relationship should not be described as a one-way deterministic causal relationship.

Regarding concepts and meanings of affect, if we understand affect in terms of the two kinds of differentiated affect discussed in the previous part of this section, these two arguments seem not to be an issue of primacy of affect or of cognition, but a matter of intensity in their relationship and effects on each other. Affective reactions considered by Zajonc and his colleague, which are similar to feelings or preference, are for the most part unidimensional, binary, and stimulus-related, such as good or bad, liking or disliking, positive or negative, while affect defined by Lazarus requires cognition as a necessary precondition (1982; 1984) and is elicited as a higher cognitive process dependent upon a different level of cognitive dimension (Roseman, 1980). For example, this emotion is an intensively differentiated affect, such as anger, pride, joy, pity, regret, and frustration, which is based on higher cognitive processes or attribution.

2. Schema, Memory, Attribution, and Affect

Recent research has focused on the role of affect or mood and its relationship with cognition in the context of social information processing. Among the more prominent, these lines of research propose (1) differentiated affect toward a target stimulus which is evoked by schema or category prototype matching (Fiske, 1981; 1982; Fiske and Linville, 1980; Fiske, Beattie, and Milberg, 1983; Abelson, Kinder, Perters, and Fiske, 1982), emotion schema and prototype (Leventhal, 1980; Lang, 1984), automatic and controlled processing of emotion (Clark and Isen, 1982; Gilligan and Bower, 1984), affect and categorization (Isen and Daubman, 1984; Cohen, 1981; Srull, 1984), (2) a role of affective state or mood as a retrieval cue for memory and thinking (Bower, 1981; 1983; Bower and Cohen, 1982; Srull, 1983; Gilligan and Bower, 1984), (3) emotional responses as differentiated affect based on causal attribution (Weiner, 1980a; 1980b; 1982; 1983; 1985; Weiner, Russel, and Lehrman, 1978; 1979; Weiner, et al., 1983; Weiner and Graham, 1984; Weiner and Brown, 1984; Weary, 1982), (4) the role of affect in judgment and decision making (Clark, 1982; Isen, et al., 1978; Isen and Shalker, 1982;

Isen, et al., 1982; Isen and Means, 1983; Wright and Mischel, 1982; Isen, 1984a; 1984b; Isen and Daubman, 1984), and the relationship among affect, cognition, intention, and behavior (Bagozzi, 1982; Motowidlo and Lawton, 1984; Reibstein, Lovelock, and Dobson, 1980; Clark, 1982). The following parts of this section discuss each of these aspects.

2.1. Schema-Triggered Affect (Differentiated Affect)

Some concepts, such as schema, category, prototype, and categorization, have recently received considerable attention in social psychology and have been extended to the context of performance evaluation. Thus, before further discussion, some basic concepts of these cognitive terms will be useful to understand the role of affect in the context of cognitive information processing of performance rating.

A *schema* is a generalized cognitive framework or knowledge structure in social information processing. Taylor and Crocker(1981; 3) defined a schema as "a cognitive structure which consists in part of a representation of some defined stimulus domain." A schema can be viewed as a mental organizing system or memory structure that serves as a guideline for the interpretation of information, action, and expectation. This schema can be identified into many different classes, such as person schema, role schema, event schema, etc. (Taylor and Crocker, 1981).

A *category* is a collection of items that the perceiver considers to be equivalent or strongly related on some salient dimensions (Rosch, 1978). A category is "a 'fuzzy set' of objects considered equivalent, in which membership in one set is defined by family resemblance" (Ilgen and Feldman, 1983:152). This family resemblance structure defines the prototype, or best example of the category. A *prototype* is an abstract analog, or image, summarizing resemblance among category members(Ilgen and Feldman, 1983). A prototype serves as a symbol and reference point for the category by capturing the meaning of the category(Cantor, Mischel, and Schwarz, 1982), and it reflects the attribute structure of the category as a whole(Rosch, 1978). The category

prototype is an abstract set of features commonly associated with members of the category.

Categorization is the process of grouping or labelling the external stimulus world according to similarities in order to reduce information from the environment to make it meaningful, structured, and stable (Hastorf, Schneider, and Polefks, 1970; Cantor and Mischel, 1977; Rosch, 1978). Thus, categorization is based on the extent to which features of a given stimulus overlap with those features that comprise the category prototype (Rosch, et al., 1976).

Prototype matching is the process of comparing the degree of similarity between the target stimulus and the category prototype (Feldman, 1981) to make inferences or judgments about the target stimulus.

In the followings parts of this section, affect is discussed in terms of its relatedness with these cognitive concepts, such as schema, category and prototype, categorization, and prototype matching.

2.1.1. Piecemeal-Based and Schema-Based Affect

Fiske and her colleagues (Fiske, 1981; 1982; Fiske and Linville, 1980; Abelson, Kinder, Peters, and Fiske, 1982; Fiske, Beattie, and Milberg, 1983; Fiske and Taylor, 1984) suggest that affect is linked to cognition, such as categorization or schema by proposing two alternate modes of response in perception. One is category-based or schema-triggered affect which results when a target person or stimuli fit an affect-laden category, and the other is piecemeal-based affect which results when a target person or stimuli fail to fit a clear category.

In piecemeal-based affect,¹⁾ affective reactions are based on the information given and bits of information accumulated independently, each with its own valence. This piecemeal-based affect is slow in its processes, consisting of attribute-by-attribute judgment (Fiske, Beattie, and Milberg, 1983). And this posits that the valenced information is retrieved and summarized algebraically

1) Fiske suggests two kinds of piecemeal-based mode: one is a retrieval-based piecemeal model, and the other is an on-line piecemeal model (see Fiske, 1982: 58).

and that affective judgments are based on memory of the relevant data only when demanded (Fiske, 1982). In contrast, a schema-triggered affect results when a target person "matches" with an affect-laden category (i.e. prototype matching). It is a rapid, configural judgment. That is (Fiske, 1982:60):

Implicating schematic processes in interpersonal affective responses is a novel extension of schema concept. Simply put, affect is assumed to be stored with the generic knowledge structure. The affect is available immediately upon categorization, that is by fitting an instance to a schema. In this view, a perceiver first comprehends an input, by assimilating it to an existing knowledge structure, and then evaluates the instance on the basis of the affect linked to the schema.

Thus, according to this schema-triggered model, affect is stored at the top level of the schematic structure and affective response is category-based. Affect is integral to the schema. In the processing of this affective-cognitive structure, first, an individual tries to fit a person to a category prototype. If the categorization is successful (good match), then affect is triggered directly by activating the schema. If the categorization fails, the person accesses each attribute's affective tag and piecemeal affective responses are activated.

According to the empirical findings of Fiske and her colleagues, good matches of stimuli or a person to the schema elicit stronger positive or negative affect than partial or no matches. The partial matches trigger moderated affect or an ambivalent combination of positive or negative affect.

Other empirical research (Fiske, Beattie, and Milberg, 1983) supports the hypothesis of schematic efficiency (e.g. stereotyping efficiency), that schema enables more rapid affective responses than are possible without such social categories. They are efficient because the affective response can be activated "from the top," without having to access each relevant attribute's affective tag and without having to combine them algebraically, attribute by attribute.

Thus, a schema-triggered model of interpersonal affect suggests two interesting propositions. One is that perceptions of other people are represented

as instances of categories, and that affect is embedded within this categorization. This affectively triggered schema explains how people might actually process component evaluations into a summary reaction; for example, the summary reaction might come first (Longenecker, 1984, found executives commonly did this in performance appraisal). The other proposition is that schema-triggered affect is efficient and quick in the sense that the affective reactions do not require complex procedures. As Fiske and her colleague argued, "neither model is exactly wrong or exactly right. It is not a question of which model fits, but of when each fits" (Fiske, Beattie, and Milberg, 1983:3-4). Therefore, when a target person fits an affect-laden category (or schema), schema-triggered affect results, when a target person fails to fit schema, however, piecemeal-based affect results.

This line of schema-triggered affect is somewhat similar to the research of Zajonc's and Weiner's. A schema-triggered affect of Fiske is similar to the "preferenda" of Zajonc (1980) in the sense that affect results rapidly from configurational judgment of an immediate stimulus, and that affective responses are "effortless, inescapable, irrevocable, holistic" (Zajonc, 1980; 169). As Zajonc (1980; 1984) suggests, there must exist a schema that can combine more rapidly with affect and can allow affective reactions quite early after the onset of sensory input. Thus, in both researches of Zajonc and of Fiske, affect is a result of the initial categorization of stimulus without extensive perceptual, cognitive processes, and has influence on later cognition or information processings. In contrast, piecemeal-based affect is similar to Weiner's attribution-based affect since affect results more slowly from attribute-by-attribute judgment.

2.1.2. Emotion Prototype and Automatic Processing of Emotion

Fiske's concept of schema-triggered affect is similar to the concept of the emotion prototype (Lang, 1984) and the concept of schematic processing of emotion (Leventhal, 1980), or automatic processing of affect (Clark and Isen, 1982; Gilligan and Bower, 1984). Lang defines the emotion prototype as "a

conceptual network of propositionally coded information, related by association, which has as functional output a visceral and somatomotor program" (1984; 197). Lang(1984) also regards the emotion information network as a sort of prototype or schema, which is processed as a unit when a critical number of propositions are assessed. According to this concept of the emotion prototype, emotional information is coded in memory in the form of propositions and these propositions are organized and used as emotional schema. His empirical findings suggest that when there is better matching of input stimuli information to the emotional prototype, the emotion response is be more accessed and run. This emotional response is be accessed differently according to a degraded stimulus input situation and the individual's conversion of an input stimulus into the structural code of the emotion prototype. For example, as Lang(1984) suggests, watching a film about a poisonous snake at a safari camp in a jungle is more likely to prompt fear than watching it in a large city.

Thus, Lang's research on the emotion prototype is much the same as Fiske's schema-triggered affect. His research gives us implications that emotion or affect is triggered by the degree of match of an input stimulus to the emotion prototype, and this emotion prototype is importantly accessed or activated by instruction or description of provocative events in an everyday life situation.

Leventhal (1980) suggests two kinds of cognitive processes of emotion based on the perspectives of emotion as a subjective perceptual experience and information processing processes. One is schematic processing of emotion, and the other is conceptual processing of emotion. Schematic processing of emotion, which is similar to Fiske's schema-based affect and to Lang's emotion prototype, integrates specific situational perceptions with an automatic, subjective, expressive, patterned, and image-like memory system. Conceptual processing is more sequential and volitional in nature, corresponding more closely to social labeling processes. According to Leventhal(1980), emotional schema is "a memory of the emotional experience itself" (1980; 171), and represents

a form of automatic recognition. Emotional schema, like other schema or categorization, acts as a selective device, develops new emotions, and organizes emotional experiences. This emotional schema, like the emotion prototype of Lang(1984), has the function of linking feeling to objects and situations and the function of establishing stable object relationships which are important for maintaining or changing positive or negative attitudes.

These two kinds of processing of emotion (i.e. schematic and conceptual) are also supported by Clark and Isen(1982). They have suggested the effects of feeling states on cognition and behavior in terms of such a cognitive information processing mode classified as automatic and controlled processes by Posner and Snyder(1975). Clark and Isen(1982) suggest that a person experiencing a feeling state or cognitive processes leading to that feeling state has automatic or controlled processes, and these two processes may be influenced by a positive or negative feeling state. When a person is experiencing a feeling state, thoughts, items, or events associated with that feeling state, he may automatically (i.e. without intention or without awareness) cue similarly toned materials in memory, or may have controlled processes (i.e. more effortful, conscious, intentional strategies) to maintain or to alleviate that feeling state.²⁾ For the automatic processing of a feeling state, Clark and Isen describe that(1982; 92):

the more positive or negative items that exist in memory regarding an impression or decision, and the greater the number and the strength of interconnections between such items, the greater the impact that positive or negative feelings should have on these impressions and behavior through automatic processing.

Also, the distinction between automatic and controlled processing of emotion is suggested as useful for understanding emotion by Gilligan and Bower (1984). They suggest that control processes are useful for changing an

2) According to Isen and Clark, controlled and automatic processing are expected to lead to the same prediction regarding effects of a positive feeling state, but these processing modes are different in a negative feeling state (see Isen and Clark, 1982; 101-102).

attitude or values as well as for evaluating an emotional event. Thus, automatic processing of a positive or negative feeling state is constrained by the amount of affectively toned material in the memory associated with the item, concept, or decision as well as the number and strength of the interconnection of similarly toned materials.

In sum, this line of research on the emotion prototype (Lang, 1984), on schematic processing of emotion (Leventhal, 1980), and on automatic processing of emotion (Clark and Isen, 1982) is highly similar to the schema-triggered affect of Fiske and her colleagues in the sense that affect or emotion is a result of initial categorization of a target person or stimulus, and its intensity is associated with the categorization or prototypicality of that target person or stimulus. For the most part, affective responses based on schema, categorization, prototype, and automatic processing mode are unidimensional and sometimes binary, such as positive or negative, liking or disliking, good or bad.

2.1.3. Prosocial Behavior as a Person Schema

One of the challenges of this research was how to manipulate affect. In essence, affect is a response, and cannot be manipulated directly. Something must be done in the external environment that elicits affect. That is, an affect-laden schema must be operationalized. One area of organizational behavior that shows some potential in this regard is "citizenship" or "prosocial" behavior.

Prosocial behavior is conceptualized as employee behaviors that cannot be prescribed or required in advance for a given job and can reflect performance beyond the role requirement (Katz and Kahn, 1978; Bateman and Organ 1983). Katz and Kahn (1978) suggest five examples of this prosocial behavior: cooperative activities, protective action for the organization, creative suggestions for organizational improvement, self-training behaviors, and behavior related to the creation of a favorable climate for the organization in the external environment.

Recently, some research has suggested that positively experienced affect has positive effects intention or behavior (Smith, Organ, and Near, 1983; Bateman and Organ, 1983; Moore, Underwood, and Rosenham, 1984; Motowidlo, 1984). This line of research suggests that the citizenship behavior or prosocial behavior of an employee is strongly and positively related with the affective state of a leader. The prosocial behavior of an individual is a good example of a person schema in organizations where a leader and a subordinate work together on a daily basis. For example, Fiske and her colleagues used a model of a politician as a kind of person schema based on its citizenship behavior or prosocial behavior. Also, prosocial behavior has been used as a person schema in the research of mood and social judgment (Bower, 1983; Gilligan and Bower, 1984).

Thus when we understand leadership as a reciprocal determinism of causality between leader and subordinate in an everyday life situation (Sims and Manz, 1984), subordinate prosocial behavior is a good example of a person schema. Therefore, theories related to schema-triggered affect, emotion prototype, and automatic processing of emotion discussed earlier are relevant to this idea of subordinate prosocial behavior. In other words, subordinate prosocial behavior (as a schema) evokes a leader's affective predisposition or responses toward a subordinate.

2.2. Mood and Memory (Mood as Undifferentiated Affective State)

The role of subjective mood states on the processing of information has been recently researched in the relationship among mood and memory, thinking, social leaning, and social judgment (Bower, 1981; 1983; Bower and Cohen, 1982; Srull, 1983; Gilligan and Bower, 1984; Clark and Isen, 1982; Wright and Mischel, 1982; Blaney, 1986). Bower and his colleagues suggest mood as affective tags to other cognitive elements in the knowledge repertoire. These affective tags are linked to each other in a rich associative network³⁾

3) Bower describes an associative network theory of memory and emotion, by applying a general semantic-network theory of long-term memory in cognitive psychology. He suggests that

of concepts, schema, and events. In this associative network, emotion serves as a memory unit, and activation of this emotion unit retrieves events associated with it.

To explain how an emotional mood state may influence such cognitive processes as learning, memory, perception, and judgment, Bower (1981) describes two basic phenomena for the role of mood in cognitive processes. One is the "mood-congruity effect," which means that materials or events matching the emotional state or tone with the subject's mood are more attentive and learned best—this is the encoding stage. The other is "mood-state-dependent retention," which means that superior memory occurs when the mood state at the time of recalling matches the mood state experienced during learning—this is the retrieval stage.

In addition to these two phenomena, Gilligan and Bower (1984) suggest two more propositions related to mood and cognition: "mood-intensity hypothesis" and "thought-congruity hypothesis." The mood intensity hypothesis means that learning is positively correlated with the intensity of a mood. According to their empirical findings, there is an interaction effect of mood intensity and mood-relevant items on learning (Gilligan and Bower, 1984). For example, intensifying a happy state improved the learning of a happy item but had little influence on the learning of mood-irrelevant items. However, intensifying a sad mood impeded the learning of mood-relevant items. The thought-congruity hypothesis means that subject's thoughts, such as associations, interpretations, and judgments are thematically congruent with his/her mood state. In other words, an individual's mood has a strong influence on how he/she perceives, thinks, and behaves in everyday life situations. As supported by empirical research (Bower and Cohen, 1982; Gilligan and Bower, 1984; Wright and Mischel, 1982), this thought-congruity hypothesis is very relevant

emotion has a specific node or unit in memory. This network theory of emotion is the basis for explaining the role of mood in cognitive information processing and his four propositions: mood-congruity effect, mood-dependent retention, mood-intensity, and thought congruity.

in explaining how people's mood may influence their evaluation and judgment of others or themselves, their experiences, and their social behavior.

The effects of mood on evaluation and judgment with biased encoding, memory, and recall have been empirically examined. Bower and Cohen (1982) found that happy people tend to be positive in their evaluation of others, while depressed people tend to exaggerate the slightest criticism, to overinterpret remarks as personal, or to be pitying. And angry people tend to be negative, such as uncharitable, offensive, and ready to find fault. Wright and Mischel (1982) also support that a positive mood tends to bias recalling more positive events and tends to evaluate them more positively than a negative or neutral mood. Also, Isen, et al. (1978) suggest that an individual in a good mood tends to think about positive events or cognitions and that his/her thoughts and feelings about these cognitions tend to be more positive than they might be at another time. In a study investigating the role of a subjective mood state on the processing of information, Srull (1983) suggests that individual's evaluations are strongly influenced by the subjective mood state at the time of information acquisition and by the interaction between the mood state at the time of retrieval and the type of information provided. Finally, in qualitative research, Longenecker (1984) found anecdotal evidence that executives recognized the potential effects of mood in their own performance appraisal practices. This line of research suggests that mood state and the intensity of mood can bias cognitive processes, such as memory and recall, learning, and evaluation and judgment.

In sum, the roles of mood in cognitive processes, such as memory, learning, perception, and judgment, studied by Bower and his colleague may be summarized as follows: (1) mood biases encoding, memory, and recall of affectively toned events or materials as a selective filter, (2) mood makes events or materials congruent with it become more salient, and enhances attention and the learning of mood-congruent materials, (3) the intensity of mood is related to the memorability and the learning of affectively toned events or

materials, and (4) the mood state and intensity of mood biasing encoding, memory, and recall influence perception, thinking, and judgment when people evaluate themselves or others.

2.3. Attribution and Emotional Responses

One of the more comprehensive theories of affective consequences of achievement-related attribution has been suggested by Weiner and his associates (Weiner, 1980a; 1980b; 1982; 1983; 1985; Weiner, Russel, and Lehrman, 1978; 1979; Weiner, et al., 1982; Weiner and Graham, 1984; Weiner and Brown, 1984; Brown and Weiner, 1984; Russel and McAuley, 1986; Weary, 1982). They suggest that emotion in an achievement-related context is a function of performance outcome and a specific causal ascription for this outcome. With the distinction between cognition about outcomes and about the causes of outcomes, Weiner (1980b; 1982) differentiated two kinds of affect: "outcome-dependent affect" and "attribution-dependent affect." Outcome-dependent or attribution-independent affect represents broad positive or negative affective reactions (e.g. happy or upset) to success and failure regardless of the causes of these performance outcomes. This outcome-dependent affect is an intensively experienced emotion, and is independent from causal attribution, but not free from other cognition.

In contrast, an attribution-dependent affect is discriminably related to particular causal attributions, and it is an intensively differentiated affect, such as anger, pride, pity, guilt, and surprise. This attribution-dependent affect may be of larger duration than an outcome-dependent affect, and it may be a more cognitively mediated reaction to a positive or negative outcome than an outcome-dependent affect (Weiner, et al., 1977; 1978). For the attribution-dependent affect, different causal ascriptions elicit qualitatively distinct affective experiences. And causal dimensions representing the basic properties of cause also play an essential role in affective reactions (Weiner, 1980; 1982; 1983; Brown and Weiner, 1984; Weiner and Graham, 1984).

Some general findings of this line of research suggest emotional responses

as differentiated affect associated with causal factors and dimensions as follows (Weiner, 1980a; 1980b; 1982; 1983; Weiner, Russel, and Lehrman, 1978; 1979; Weiner, et al., 1982; Weiner and Graham, 1984; Weiner and Brown, 1984; Brown and Weiner, 1984; Weary, 1982):

- (1) Attribution of success to internal causes, such as ability or effort, leads to pride, satisfaction, or feelings of competence, while attribution of success to an external causes, such as task or luck, leads to gratitude, thanks, or surprise. But attribution of failure to an internal cause (e.g. lack of ability or lack of effort) leads to guilt, fear, or unhappiness, and a feeling of incompetence, while attribution of failure to external causes (e.g. bad luck or difficult task) leads to anger, surprise, or sadness.
- (2) Attribution of success to both a controllable cause (e.g. effort) and an uncontrollable cause (e.g. ability or luck) leads to positive affect, such as pride, gratitude, or pleasure. But attribution of failure to a controllable cause (e.g. lack of effort) leads to anger, guilt, or shame, and attribution to an uncontrollable cause (e.g. lack of ability or physical handicap) leads to pity or sympathy.
- (3) Attribution of success to a stable cause (e.g. ability or task) leads to pride or gratitude, while attribution of success to an unstable cause (e.g. good luck) leads to relief or satisfaction. But attribution of failure to a stable cause (e.g. lack of ability or difficult task) leads to guilt, unhappiness or anger, while attribution of failure to an unstable cause (e.g. bad luck) leads to fear or surprise.
- (4) Attribution of success to the attributor (self) leads to pride, and attribution to the actor (others) leads to pleasure or gratitude. But attribution of failure to the attributor (self) leads to guilt, and attribution to the actor (others) leads to anger, pity, or sympathy.

Thus, in this line of attribution-affect-related research, the causal attribution and consequent affective response are more salient in the attribution of failure than of success. Also, the major causes focused on in this research are ability

and effort, and some prevalent affective responses to these causes are pride, anger, pity or sympathy, and guilt.

In relating causal attribution to affective experience, Weiner has thought of this kind of differentiated affect as a major dependent variable in his research, and distinguished this affect from preference. By discussing a number of methodological errors in attribution research related to its causal dimension and affect, Weiner (1983) points out that preference cannot be used equally with affect. He regards preference as an indicator of affect, which cannot be a substitute for the distinctive examination of affective reactions. This viewpoint suggests that attribution-dependent affect is a more differentiated affective response than outcome-dependent affect, such as feeling or preference, and this differentiated affect should be used in the study of emotional responses to causal attribution of performance outcome.

In addition to this line of reasoning that affect is elicited as emotional response to the causal attribution, another line of reasoning in Weiner's research is that affect is the cue to infer causal thought of others (Weiner, 1980b; 1982; Weiner, et al., 1982; 1983). Given certain affective reactions by others, some kinds of attribution associated with that affect are inferred. For example, if anger is displayed by someone due to failure outcome, then the displayer of this affect is inferred to believe that the failure of the performer is attributed to lack of effort. If it is pity or sympathy, then the displayer of this affect is inferred to attribute failure of the performer to the lack of ability. This affect-attribution link is specially useful for research on self-perception and self-esteem, even though it is not the focus of this research.

In sum, according to this line of research, the outcome, success or failure in performance, and the nature of the causal attribution influence affect differently. Outcome-dependent emotions are elicited regardless of particular causal attribution. The causal beliefs for the performance or outcome determine the affective reaction to the perceived level of task performance and expectancy of future success. Also, in this line of research, attribution elicits some kinds

of affect concerning the postulated cognition-affect sequences from an attributional framework. But, in certain situations, affect might be a kind of conditioned reaction as a cue of attribution. Thus, affect antecedes causal thoughts. And, the perceived importance of an outcome or events as well as the causal dimension (or causes) in attribution determines the intensity of affect.

2.4. Affect in Judgment, Decision Making, and Behavior

These theories show clearly that affect has taken an importance as a variable in cognitive processes. The role of affect in cognitive processes and its relationship with cognition are now regarded as a very compelling issue. Now, in this section, relationships among affect, cognition, and behavior, and the effects of affect on evaluation, judgment, and decision making are discussed.

Some recent research on affect and cognition has focused on the influence of affect on problem solving or decision making, judgment, and evaluation (Isen, et al., 1978; Isen and Shalcker, 1982; Isen, et al., 1982; Isen and Means, 1983; Isen, 1984a; 1984b; Isen and Patrick, 1983; Isen and Daubman, 1984). Most of the research done by Isen and associates has dealt with the everyday life feeling state rather than intensively differentiated affect, and has focused more on the effects of a positive affect on evaluation, judgment, or decision making than those of a negative feeling state.

By suggesting a "positive cognitive loop" among mood, memory, and behavior, Isen, et al. (1978) explained that good mood influences memory of more positive events or cognition. And this enhances decision making which, in turn, affects the person's mood and cognitive processes. Isen, et al. (1982) suggest that positive affect influences the processes in problem solving and choosing alternatives. According to their research, the subject who feels positive is more likely to be efficient in decision making by reducing the load on the working memory, lowering the complexity and difficulty of decision making, and adopting the simplest strategy. This suggestion is also supported by Isén and Means(1983). They also suggest that an individual in a positive

mood is more likely to be an efficient decision maker through an efficient use of information related to decision making strategy than to be an impulsive or careless one. In general, a person feeling good is better able to come up with solutions to problems requiring creative ingenuity than he/she is at other times (Isen, 1984a).

For the influence of affect on risk taking, recent research (Isen, et al., 1982; Isen and Patrick, 1983) suggests that positive affect increases the tendency to take risk when risk is low, though under high risk its effect is not conclusive. Positive affect, through its influence on memory and judgment, leads to improved expectation about the possible outcome, and this expectation is related to the decision for risk taking (Isen and Shalke, 1982; Isen, et al., 1978). Also, the problem-solving process is not a straightforward and solely cognitive process, and it includes a cyclic rise and fall of enthusiasm and energy varying according to the emotional phase and state (Hill, Lippitt, and Serkownek, 1979). At the group level, Guzzo and Waters (1982) also suggest that the timing of affective expression by a member of a decision-making group influences generating alternatives in decision making and performances of that group.

In terms of the relationship of affective state on memory and related judgment, it is suggested that positive affect or good mood influences cognitive organization (e.g. categorization) and related evaluation or judgment (Isen, et al., 1978; Isen, 1984; Isen and Daubman, 1984; Cohen, 1981; Srull, 1984). According to their findings, it is proposed that there is a relationship between positive affect and more efficient cognitive organization, such as categorization, memory, and word association. For example, for a person feeling positive affect, categorization includes more related materials and the less prototypic exemplars seem to be more a member of that category by that person. Accordingly, memory and word association are more enhanced by positive affect. Thus, this research suggests that affect influences not only memory but also cognitive organization and interpretation of cognitive

materials, and consequences of these cognitive processes.

In sum, this line of research of Isen and colleagues suggests that affect can influence cognitive processes, such as organization and interpretation of cognitive materials, and influence evaluation, judgment, and decision making. Under positive affect, cognitive organization, judgment, and decision making or problem-solving strategy tend to be more efficient and simplified. Also, positive affect results in more positive expectation, evaluation, and judgment, and these influence decision making or risk-taking behavior.

Another line of research related to affect attempts to explore the relationship among affect, cognition, intention, and behavior. Wright and Mischel (1982) examine the influence of individual immediate affective state on person variables within a cognitive social learning formation of personality. They suggest that individuals who are in a positive feeling state tend to recall more positive past performances and to evaluate more positively themselves and their performances, and their expectancies for future performance than those who are in a negative feeling state. Reibstein, Lovelock, and Dobson (1980) investigate the relationship among perception, affect, and behavior regarding choice of transportation mode. They suggest that perceptions and behavior mutually influence each other when affect is included as an intervening variable between them. Motowidlo and Lawton (1984) also suggest that satisfaction has a causal effect on the expectancy, and that satisfaction influences intention indirectly through expectancy in the turnover situation. Thus, according to their research, affective variables influence the following cognition and intention. Also, Bagozzi (1982) suggests the sequential effects among cognition, affect, intention, and behavior. His empirical research supports the recursive sequence of effects from expectancy-value judgment, to affect, to intention, and finally to behavior in the field investigation to test the causal relationship among them. On the relationship between expectancy and mood, Clark (1982) suggests that an unexpected positive (or negative) event is more likely to produce an ongoing positive (or negative) feeling state than an expected

positive or negative event. Also, in the study of the relationship between mood and behavior, Isen, et al. (1978) proposed that a certain behavior is more likely when one is feeling good, and it, in turn, affects the person's mood state and cognitive state.

Thus, this line of research suggests that there are causal or sequential relationships among affect, cognition, intention, and behavior even though the direction of causality may be different according to different situations.

2.5. Summary

In summary, all of these lines of theories and research related to affect and cognition may be classified largely into two lines. One viewpoint is that affect is automatically triggered by stimulus and schema, such as Zajonc's preferenda, Fiske's schema-triggered affect, Leventhal's emotional schema, Lang's emotional prototype, Clark and Isen's automatic processing of affect, and Weiner's outcome related affect. In this regard, affect is thought of as an independent variable in this research which is conceptualized as "differentiated affect" toward a target person or stimulus and "undifferentiated affect" as mood or a feeling state in everyday life situations. Another viewpoint focuses on affect which results from high cognitive processes, such as Lazarus' the primacy of cognition, Fiske's piecemeal-based affect, Leventhal's conceptual processing of emotion, Lang's control of emotion, Clark and Isen's controlled processing of affect, and Weiner's attribution related affect. In this regard, affect is thought of as a dependent variable in this research which is referred to as differentiated emotional responses.

Therefore, in this study, these two lines of reasonings will be examined in the same situation, a simulated performance appraisal event. All of this research suggests the importance of mood or affect both as dependent and independent variables in understanding and explaining individual behaviors within an organization. Yet, little research has focused on the relationships among affective variables and cognitive variables in organizations. Moreover, there is a large and relatively unexplored territory of affect-cognition relationship

in a leadership and performance appraisal context.

3. Performance Appraisal as a Leader's Managerial Judgment

This literature highlights the importance of affect of mood as a major set of variables in understanding and explaining individual behavior within the organization. Yet, little is known about how affective variables and cognitive variables interact to shape behaviors in an organization setting. Nor is much known about their effects especially on evaluative, judgmental, and decision-making processes in organizations except a few pioneer studies (Park, Sims, and Motowidlo, 1986; Jaccoud, 1984; Longenecker, 1984).

Of the many potential behavioral and judgmental issues in organizational behavior that might be analyzed according to effects of the interplay between affect and cognition, the issue of leadership is of particular interest in the present study. The study of the relationship between affect and cognition in organizations may help us understand the leadership as a reciprocal determinism between leader and subordinate. Moreover, performance evaluation, as one practical example of this reciprocal determinism between leader and subordinate, has substantial potential for considering the role of affect in cognitive information processing processes. In this cognitive information processing context of performance evaluation, the leader as a rater is a cognitive information processor, an active information seeker. Thus, an analytical perspective that draws from the literature on affect and cognition in human behavior has the potential to help illuminate the processes that govern leader performance evaluation in an organization.

In the following section, a cognitive social information processing approach to leadership and performance evaluation is discussed to show how theories of affect can be applied to leader performance evaluation of a subordinate. Next, the relationship between affect and cognition, and their usefulness for understanding the complex process of leader evaluation for subordinate performance is explored.

3.1. Leadership as Reciprocal Determinism

In spite of decades of efforts in the study of leadership, there is still discussion and argument to explain and understand the complex phenomena of leadership. In addition to Stogdill's(1974) summary of seven decades of leadership research, House and Baetz(1979) suggest significant empirical generalization on leadership traits, leadership behavior, and determinants of leader behavior. They suggest that the additional efforts should be made to identify the leader's behavior which would be effective across different situations. More recently, the perspective of management as a symbolic action (Pfeffer, 1981) and leadership as the management of meaning(Smircich and Morgan, 1982) provides insight into leadership as a symbolic interactional process and as a socially constructed reality with shared meaning and values.

Some research on leader attribution has focused on the information processing processes of attribution seeking behavior. An attributional approach suggests that leadership is a process of attributing or inferencing a causal explanation for behavior in the particular interpretation of a situation(Calder, 1977; Pfeffer, 1977; Green and Mitchell, 1979; Mitchell and Wood, 1980; Mitchell, Green, and Wood, 1981). This approach to leadership does not require that actual behavior be observed. The attribution approach to leadership focuses on how a leader influences and selects a causal explanation for behavior. A leader uses an attributional process of information search to explain subordinate performance and to decide on a response to that performance. Also, these studies have focused on the relationship between subordinate performance and leader behavior by using leader attribution as a mediator (Mitchell and Wood, 1980; Mitchell, Green, and Wood, 1981; James and White, 1983; Gioia and Sims, 1986).

Also, recent social information processing approaches to organizational behavior have been applied to understand leadership as perceptual and cognitive processes, and thus, have provided a somewhat more comprehensive view in understanding leadership perception and the measurement of leadership. Lord and Alliger(1984) suggest a different viewpoint on leadership perception

based on an information processing model of social perception. According to them, the simple model of social information processing focuses on the frequency of information based on social interaction. This frequency of information has been studied in traditional leadership research in terms of the frequency of leader behavior (e.g. Ohio State studies of leadership), and has been recently reexamined in leadership activation theory (Sheridan, Kerr, and Abelson, 1982).

A more sophisticated model than this frequency of information is based on the match of a stimulus or behavior to a salient prototype or schema. This model of social information processing has been applied in leadership research in order to understand leadership perception and measurement of leadership, such as attribution theory and implicit theory of leadership. Implicit leadership theories have been used to explain leadership perception and to understand the relationship between leader behavior and outcome, such as subordinate satisfaction and performance (Gioia and Sims, 1981; Weiss and Adler, 1981; Larson, 1984; Lord 1985). This approach to leadership perception emphasizes automatic information processing and explains the formation of leadership perception with implicit theories based on everyday life interaction, such as leadership categorization (Lord, Foti, and Phillips, 1982; Phillips and Lord, 1982; Lord, Foti, and Devader, 1984; Lord, 1985) and leadership labels and prototype (Foti, Fraser, and Lord, 1982; Fraser and Lord, 1983; Phillips, 1984).

Thus, the social information processing approach to leadership attempts to analyze leadership perception according to cognitive information processing stages, such as selective attention, encoding, memory and retention, retrieval and, judgment. This approach has explored the implicit theory of leadership based on the information processing mode, categorization and schema, and the measurement of this perceived leadership. Also, this approach regards leader and subordinate as a social information processor in the complex cognitive processes.

More recently, Davis and Luthans(1984) suggest that leadership exists as a behavioral construct which is conditioned by personal causation, observed relationship between behavior and its effects, and the substantive performance outcome. They also suggest that the effects of a leader are influenced by the organizational environment, the leader's cognitive perception, the performance outcome, and the behavioral alternatives. According to them, leadership exists as a causal variable in subordinate behavior and organizational performance. This research is consistent with the social learning approach to leadership (Weiss, 1977; Manz and Sims, 1980; 1981) which emphasizes the reciprocal determinism and cognitive processes in the mutual influential context among environment, leader, and subordinate.

More recent research on leadership has attempted to meld both the cognitive approach and behavioral approach to leadership by focusing on the leader's cognitive attribution and leader behavior. Sims and Manz(1984) recently have suggested that leadership should be understood in terms of a reciprocal determinism viewpoint of causality, where both leader and subordinate influence each other. In this reciprocal determinism, subordinate performance acts as an influence on subsequent leader behavior. Also, Gioia and Sims(1986) suggest that subordinate performance and work history are important cues for leader cognitive attribution and verbal behavior. Thus, this line of research has attempted to explore the linkage between leader cognition and leader behavior in a reciprocal determinism of causality between leader and subordinate.

All of these lines of research provide the conceptualization of leadership as an interactional and reciprocal process between leader and subordinate, and includes perceptual and cognitive processes. Also, within the context of these perceptual and cognitive processes, leader behavior is regarded as being influenced by subordinate performance and their interrelationship in the behavioral construct. This cognition-behavior linkage also has potential for considering the role of affect. Thus, when we understand leadership as a interactive perceptual and cognitive process and as a behavioral construct between leader

and subordinate, the role of affect or mood and its relationship with other variables in this context is a very compelling issue for the research of leadership.

Therefore, this study explores the issue of affect and cognition in the leadership, and investigates the role of affect(mood) and its relationship with cognition, behavior, and decision making of a leader in the context of performance evaluation.

3.2 Social Information Processing Approach to Performance Appraisal

Some recent research on performance appraisal has focused on the cognitive components of a rater as a rational decision maker (Borman, 1978; Cooper, 1981). Even though this research describes the cognitive components of a rater, such as organizing, storing, and recall of performance related information, they do not discuss in depth cognitive social information processing processes. Landy and Farr(1980) suggest a process model of performance rating which integrates the context components, the cognitive process of a rater, and the administrative rating process of the organization. In this model, they suggest a rater's cognitive processes, such as observation, storage, recall, and judgment, but this is not fully developed to explain the rater as an cognitive information processor. Subsequently, this process model of performance rating has been well developed and extended into a more comprehensive cognitive process model (Feldman, 1981; Landy and Farr, 1983; Ilgen and Feldman, 1983; DeNisi, Cafferty, and Meglino, 1984).

This cognitive view of the performance appraisal process describes the way that raters process performance-related information and make rating decisions about ratees by applying the basic concepts developed in the cognitive human information processing model. They characterize the performance appraisal as a memory-based judgment process(Ilgen and Feldman, 1983) rather than stimulus-based judgment. And they also regard raters as cognitive information processors (Feldman, 1981), or as active seekers of information (DeNisi, Cafferty, and Meglino, 1984) who carry out some cognitive task, such as

attention, categorization, memory, recall, and integration of performance information. According to these cognitive process models of performance appraisal, performance appraisal consists of the four major steps: observation and attention, information organization and storage, information recall and search, and information integration and judgment.

In the first stage of information observation and attention, raters get some relevant input information about ratees. In this step, two attentional mechanisms, automatic and controlled process (Schneider and Shiffrin, 1977; Shiffrin and Schneider, 1977) operate according to the degree of consistency between information about ratees and raters' expectation.

In the stage of information organization and storage, raters organize and store the information according to their interpretation or translation. Categorization is the basic and most efficient manner in the organization of information. Information or observed behavior of a ratee may be assigned automatically to a category when it satisfactorily fits the category prototype (or schema), and memory-based judgment is made for that ratee. However, when this automatic categorization is unavailable, or recategorization is required due to a great discrepancy between a ratee and category prototype, a controlled categorization process requires more information for stimulus-based judgment through attribution processes (Feldman, 1981; Ilgen and Feldman, 1983; Landy and Farr, 1983). This categorization is likely to have a stronger impact on trait rating rather than on behavior rating since traits are more deeply embedded as a part of the category prototype in performance rating (Ilgen and Feldman, 1983).

At the stage of information recall and search, raters recall relevant information in memory for judgment. This recall process is also influenced by categorization (Feldman, 1981). The degree of consistency of input information of ratees to the category prototype enhances differences in recall of information about that ratee. In the information search process, raters tend to seek confirmation of their hypotheses about ratees (Feldman, 1981; Landy

and Farr, 1983).

Finally, in the stage of information integration and judgment, for the final judgment about ratees, raters integrate information retrieved from memory. Cognitive integration occurs when performance rating requires a controlled attribution process or other behavioral prediction, while evaluative integration is concerned with the way of generating overall affective response to ratees from disparate bits of information (Feldman, 1981; Ilgen and Feldman, 1983).

Thus, according to this line of research, the performance evaluation is a complex cognitive information processing process of raters about ratees. The job-related behavior or information of ratees is observed and recognized by either the automatic or controlled attention process. This information is organized and stored through initial categorization, and this categorization, in turn, influences memory, recall, and the information search for a subsequent judgment about ratees' performances. If the information processing about ratees fits the category prototype as in the automatic mode, their judgment is made through a schema-based judgment. If it does not fit the schema, the controlled process enhances an active search for additional information or recategorization until the fit is adequate, and then performance judgment is made. This output of performance evaluation, in turn, is restored and influences the next performance appraisal by influencing later observation and attention, categorization, memory, recall, and integration of information. This cognitive process model of performance appraisal describes how raters use their existing knowledge structure in each cognitive stage as an active information seeker and processor.

3.3. Leader Affect in Performance Evaluation

The cognitive process model of performance appraisal described above enhances our understanding of how the cognitive process of a leader might influence or bias the accuracy of a performance rating. Nevertheless, this focus *only* on the cognitive process is not sufficient to provide a comprehensive explanation of a leader's rating behavior. One improvement might be the consideration

of affective components in this process. In general, when we understand a leader as an active information seeker and an information processor in a complex cognitive information processing process, theories and research of affect described in the previous part suggest strong implications for the process of performance evaluation. In particular, affective processes that influence and, in turn, are influenced by cognitive factors are especially important to consider.

For example, *undifferentiated affect*, or mood states of leaders, may influence the way they process information about subordinates. As suggested by Bower and his colleagues (Bower, 1981; 1983; Bower and Cohen, 1982; Gilligan and Bower, 1984), mood biases encoding, memory, recall, and judgment of affectively toned events or material. People are more likely to attend to and recall information that is consistent with their mood. This means that a leader in a positive mood would be more likely to first notice and second, recall good things that a subordinate has done. Thus, the leader is likely to rate the subordinate more favorably. This happens because positive mood acts like a filter which selectively reinforces the salience of information connoting high levels of performance effectiveness. Note that mood can act in this manner at *both* the attention and retrieval stages of information processing. Mood can thus be a source of bias. In an unpublished qualitative study, Longenecker (1984) quotes executives who recognize this potential source of bias in themselves, and describes some of their self-developed strategies to control it.

Mood might also influence cognitive processes in a more controlled mode. When searching actively for additional information to enable the performer to fit an available category prototype, leaders are likely to bias their search in favor of information consistent with their mood. As a result, leaders in positive moods operating in a controlled mode are more likely to find evidence of effective performance; leaders in negative moods are more likely to find evidence of ineffective performance.

In regard to *differentiated affect*, we might also expect a causal effect in

the other direction. That is, performance information might have reciprocal effects on leader affective states. As Fiske and her colleagues suggest (Fiske, 1981; 1982; Fiske and Linville, 1980; Fiske, Beattie, and Milberg, 1983), if social information leads to a close match with a category prototype currently in memory, the affective tone associated with that prototype is automatically elicited. For example, if the leader observes information about the subordinate that closely resembles characteristics of a category, such as "effective performer," and if that prototype is associated with a positive affective response, such as liking—that is, the leaders want effective performance from their subordinates and like subordinates who perform effectively—this liking response is evoked and attached to the ratee under consideration. Essentially, the rater comes to like the ratee because the ratee fits the prototype of "effective performer." [Note: Longenecker, Gioia, and Sims (1983) have actually investigated and identified attributes of an "effective performer" category prototype.]

Differentiated affect may also be evoked by factors not directly related to job performance itself (for example, dress, hairstyle, race, gender, courtesy, and so on). As discussed earlier in this chapter, subordinate prosocial or citizenship behavior, which can reflect performance beyond a role requirement, also evokes leader schema-driven affect. If the performance information is sufficiently dramatic and if it leads to a sufficiently strong differentiated affective response, the leader's subsequent mood could also be influenced. Furthermore, this affective response, liking for the ratee, influences subsequent cognitive processes (Zajonc, 1980), and perhaps influences categorization (Isen, 1984a; Srull, 1984), in the direction of more favorable evaluations of subordinate performance. In this way, performance-related information and associated cognitions can influence both differentiated and undifferentiated affective states through a complex reciprocal interaction mode of information processing. These affective states then act to influence subsequent stages of the process leading ultimately to a judgment about performance effectiveness. The major point is that both undifferentiated and differentiated affect can be a source of

unsuspected bias in the final rating.

The leader affective states can also be influenced through controlled modes of information processing. When information does not fit any category prototype in memory, leaders search for additional information so that a category fit can finally be achieved. While searching, they make causal attributions for examples of successful or unsuccessful performance which they observe. These attributions, as mentioned, can elicit differentiated affective responses, such as pride, pity, sympathy, or anger. If sufficiently strong, they may also lead to positive or negative moods.

In sum, the judgment process is likely to involve a complex and dynamic interplay between various forms of affective responses and cognitions related to information about the subordinates and their job performance. Through both automatic and controlled modes of information processing, performance information and associated cognitions can elicit both differentiated and undifferentiated affective responses, which distort subsequent attention, categorization, and retrieval processes. This explains how factors that lead to positive affect in leaders and positive regard for subordinates operate to inflate the favorability of performance evaluations and how negative affect and negative regard for subordinates deflate evaluation favorability. Most of all, does an initial schema evoke a concurrent differentiated affect toward a target person? Will differentiated affect influence subsequent performance ratings or managerial decisions? And, since rating favorability can be increased or decreased by these mechanisms, rating accuracy must be affected as well.

Thus, in the cognitive process of performance appraisal, both undifferentiated affect(mood) and differentiated affect are important independent and dependent variables. Mood of raters as undifferentiated affective states influence the cognitive information processing of raters, such as attention, categorization, memory, recall, attribution, and judgment. Further, a differentiated affective response of a rater may be elicited as a result of a schema matching process or causal attribution about a ratee's performance. More direct application of

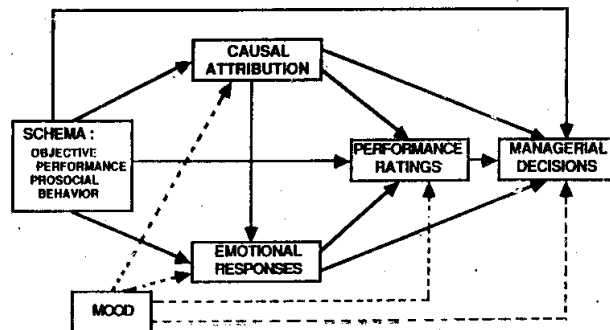
the role of affect in the leader's performance appraisal context is discussed in the next chapter through hypotheses and research questions.

III. HYPOTHESES AND RESEARCH QUESTIONS

The previous chapter has reviewed the current theories and research related to affect and cognition and to leadership. This study has suggested leadership as an interactive cognitive process in the behavioral structure between leader and subordinate. In this context, affect and mood are considered to be potentially important variables in explaining and understanding leadership and leader behavior. Moreover, when we understand a rater as an active information seeker and an information processor in a complex cognitive information processing process of performance rating, theories and research of affect described in the previous part have a strong implication on the process of a leader's performance rating of the subordinate. Thus, the overriding research purpose of this study is to investigate how objective performance, cognition, and affect are related to one another, and how these variables are useful in explaining leader behavior toward the subordinate, especially in regard to performance rating.

With these overriding research questions, the overall research framework in this study is suggested in Figure 1. Figure 1 presents the main flow of rese-

Fig. 1. A Framework for Overall Analysis



arch issues, not the causal relationships among variables. For example, the first part of this research is to examine the effect of independent variables on leader performance ratings. Two kinds of schema are used in this study as independent variables: one is subordinate objective performance as a "role schema," and another is subordinate prosocial behavior as a "person schema." As described in the previous chapter, prosocial behavior as a person schema is regarded to evoke leader schema-driven affect. That is, the main effects of independent variables and their interaction effect are of interest. More straightforwardly, the potential biasing influence of subordinate prosocial behavior, which is assumed to evoke leader schema-driven affect, is of interest, both as a main effect and as an interaction effect.

The second part of this research is to investigate the effects of these independent variables on other dependent variables, such as attributions, emotional responses, and managerial decisions. Also, the effect of mood on these dependent variables (both as a independent variable and as a moderator) is of interest. Finally, other "process" relationships among dependent variables such as attributions, emotional responses, performance ratings, and managerial decisions are explored. Further exploratory analysis examines some possible sequential relationships among the set of independent and dependent variables.

I. Primary Hypotheses: Performance Rating as a Dependent Variable

The first research issue is to examine the effect of the independent variables on leader performance rating. Here, two kinds of main effects of independent variables and their interaction effect on performance rating are of interest. First, subordinate objective performance is thought to be the most salient information for the leader performance rating of the subordinate. The following main effect hypothesis is offered:

Hypothesis 1. *Leader performance rating* will be positively related to the *objective performance* of the subordinate.

The second hypothesis deals with the effect of leader schema-driven affect

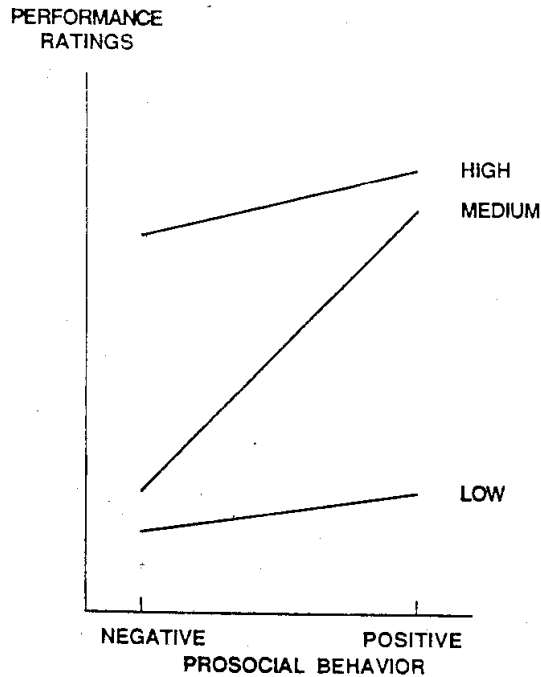
toward the subordinate. Since affect is a response within the leader rather than a direct treatment, some means of evoking affect had to be found. The literature suggested the potential of prosocial behavior as a means to evoke leader affect (see II. 2. 1. 3). Prosocial behavior could be operationalized as an experimental treatment (see Chapter IV).

Thus, prosocial behavior of the subordinate is likely to elicit an affective response, which, in turn, is likely to influence performance rating. As suggested by some empirical research (Cohen, 1981; Wright and Mischel, 1982; Srull, 1983), positive affect leads people to be more positive in their evaluation, and negative affect leads people to be more negative in their evaluation. Thus, we can propose that leader affect toward the subordinate is evoked by prosocial behavior which is independent from actual objective performance of the subordinate. And this evoked affect toward the subordinate influences the subsequent leader performance rating. In this vein, the following hypothesis is generated:

Hypothesis 2. *Leader performance rating will be positively related to subordinate prosocial behavior.*

Objective performance and prosocial behavior are separate and independent treatments, but their role or process in the leader's information processing may interact to influence the dependent variables. Objective performance and prosocial behavior as a schema are believed to influence ratings (Feldman, 1981; Ilgen and Feldman, 1983; Landy and Farr, 1983; Lord and Smith, 1983). While observing the behavior of the subordinate, schema-triggered information processing assimilates such behavior into leader's existing cognitive structure. In other words, schema-triggered affect may strengthen or weaken categorization and rating about subordinate behavior. As hypothesized in the previous part, subordinate objective performance is the most salient information for leader performance rating. It is believed, however, that leader affect based on prosocial behavior of subordinate biases the information processing processes

Fig. 2. Planned Comparison for Performance Ratings



in performance rating by inflating or deflating the objective performance information. This bias may be most pronounced when the objective performance is neither especially high nor low.

In order to investigate this idea, planned comparisons will be conducted as illustrated on Figure 2. Overall, Figure 2 assumes that positive prosocial behavior inflates the performance ratings, and negative prosocial behavior deflates the performance rating. But more specifically, it is proposed that when the objective performance level is medium, the prosocial behavior of subordinate has a more pronounced distorting influence on the leader performance rating. Thus:

Hypothesis 3. The overall biasing effect of the subordinate prosocial behavior on the leader performance rating will be stronger under the medium level of performance than in the high or low level of performance.

Little research, if any, has investigated whether positive or negative affect

leads more biases in the rating. In this study, it is possible that the biasing effects of positive vs. negative prosocial behavior on performance rating may be different from each other within the medium performance condition. Thus:

Hypothesis 4. Under the medium level of performance, there will be differences between the inflating effects of positive prosocial behavior and the deflating effects of negative prosocial behavior on the leader performance rating.

2. Secondary Hypotheses and Research Questions

2.1. Attribution, Emotional Responses, and Managerial Decisions as Dependent Variables

Some empirical research has suggested subordinate performance as a cue for the attribution of a leader toward that subordinate performance (Mitchell and Wood, 1980; Mitchell, Green, and Wood, 1981; James and White, 1983; Gioia and Sims, 1986). This research suggests that leader attribution is different according to subordinate performance, that is, whether performance is success or failure. Leader attribution is more likely to occur under the failure situation than the success situation. As one example, the leader tends to attribute subordinate failure to internal causes such as lack of effort or lack of ability. Thus:

Hypothesis 5.1. Under conditions of high performance, leaders are likely to attribute subordinate success to effort or to ability.

Hypothesis 5.2. Under conditions of low performance, leaders are likely to attribute subordinate failure to lack of effort.

As in the case of performance rating, the leader's schema-driven affect stemming from subordinate prosocial behavior may also influence leader causal attributions. Even though there is no conclusive empirical findings about how schema-driven affect influences controlled information processes, such as causal attribution, it is believed that positive and negative prosocial behavior have different effects on leader causal attribution. For example, with positive subordinate prosocial behavior, a leader tends to make more internal causal

attribution of subordinate high performance. On the other hand, with negative prosocial behavior, success is likely to be attributed to external factors. In this vein:

Hypothesis 6.1. Under positive prosocial behavior, success is likely to be attributed to subordinate effort.

Hypothesis 6.2. Under negative prosocial behavior, success will be likely to be attributed to external factors such as good luck, easy job, or good circumstances.

Moreover, under negative prosocial behavior, subordinate failure will be more likely to be attributed to lack of internal factors such as, lack of ability and lack of effort, than to external factors. Thus:

Hypothesis 7. Under negative prosocial behavior, subordinate failure will be likely to be attributed to lack of ability or lack of effort.

Overall, the analysis will be directed to investigate the notion that causal attribution as a dependent variable is different according to different manipulated situations of objective performance and prosocial behavior.

This line of reasoning will be similarly directed toward the other dependent variables such as, emotional responses and managerial decisions. For example, it is proposed that both objective performance and prosocial behavior influence leader's managerial decisions related to training, promotion, liaison, and salary. In this research, the leader's managerial decisions include different kinds of personnel decisions. Some decisions may be influenced more by subordinate objective performance, and others by subordinate prosocial behavior. For example, a decision for salary or promotion might be more related to subordinate performance, but a decision for liaison might not. In this sense, the following question is of interest:

Research Question 1. Is each type of managerial decision influenced differently by subordinate objective performance and/or prosocial behavior?

In this research, the leader's emotional responses, such as differentiated

affect, are supposed to be evoked as a result of schema matching as well as causal attributions. Thus, it is of interest to investigate whether leader differentiated emotional response such as pride, anger, pity/sympathy, surprise, guilt, and liking, are related directly to subordinate objective performance. In this vein:

Research Question 2. Is leader emotional response toward the subordinate related to subordinate objective performance and/or prosocial behavior?

2.2. Mood

As suggested by Bower and his colleagues, mood may bias leader cognitive processes such as encoding, memory, recall, and judgment about the information of the subordinate. In a performance appraisal situation, the mood state of a leader might influence the overall cognitive process (especially recall) in processing relevant information about subordinate performance.

One issue is the role of mood in the schema-matching process or categorization (Isen and Daubman, 1984; Srull, 1984). Mood enhances attention and the learning of mood-congruent materials. When the mood state at the time of recalling matches the mood state experienced during learning, superior memory occurs. Bower(1983) suggests that subjects who are in a good mood perceive more positive, prosocial actions than negative actions. Also, the biasing effect of mood on the social perception of others is suggested(Gilligan and Bower, 1984; 575):

The mood biasing of social perception of others or of oneself is predicted by the network theory, since social judgments are so heavily determined by the trait categories and schemata used by the observer. If the observer is happy, he tends to look for evidence of "positive" social behaviors in his target: If he is angry, he is biased to look for "negative" antisocial behaviors.

Thus, it is proposed that the mood state of a leader influences the schema matching process about subordinate prosocial behavior and performance, and the affective response of a leader toward a subordinate based on this prototype matching event.

Another issue is the role of mood in cognitive processes such as, causal attributions, and in decisions. The leader mood state might bias leader cognitive attribution of the subordinate and also influence leader behavior and performance rating for the subordinate. For example, as suggested in mood-state-dependent retention (Bower, 1981), leader rating of subordinate performance is influenced by the leader's mood state at the time of evaluation. Since the mood of the leader is not manipulated in this research and is measured as a naturally occurring emotional state, this mood state may influence cognitive processes and may also have some chronic effect on other affective responses of the leader. Thus, a research question in this regard is:

Research Question 3. What is the effect of leader mood on emotional responses, attributions, performance ratings, and managerial decisions?

3. Tertiary Exploratory Analysis

When schema matching is unsuccessful, the leader tends to search for additional information about the subordinate or to recategorize through the controlled processing mode. In this process, the leader makes causal attribution of the successful or unsuccessful performance of the subordinate. As Weiner and his colleague suggest, this causal attribution, in turn, elicits differentiated emotional responses of the leader such as pride, surprise, pity or sympathy, anger, and guilt. Further, this causal attribution and related emotional responses influence the leader's subsequent cognition or actions such as, expectation for future performance of the subordinate or specific feedback behavior. In turn, this leader behavior (based on attribution and emotional response) toward the subordinate may influence the self-esteem and motivation of the subordinate for future performance. Thus, it is proposed that different types of leader attribution about subordinate performance evoke specific differentiated emotional responses of the leader toward the subordinate. We might think of this as a "process" type of question.

Research Question 4. What kind of leader attributions of subordinate performance are related to leader emotional responses toward the subordinate?

Some recent research has suggested leader attribution as a mediator in the relationship between subordinate performance and leader behavior (Mitchell, Green, and Wood, 1981; James and White, 1983). In more recent research, Gioia and Sims (1986) also suggest that the pattern of leader attribution and verbal behavior may vary according to different conditions of success or failure of subordinate performance. Thus, it is proposed that leader attribution of subordinate performance may be an important mediator between subordinate performance and leader behavior.

As further suggested by Weiner's research, emotional responses based on attribution may influence subsequent cognition and behavior such as, expectancy, self-esteem, and motivation for future performance. Also, some research suggests that emotion influences the next cognitive processes (Zajonc, 1980), such as intention and decision making (Isen, et. al., 1978; 1982; Wright and Mischel, 1982; Motowidlo and Lawton, 1984). An implication of this research is that leader emotional response toward a subordinate may act as a mediator between leader attribution and behavior toward a subordinate. Some recent research has focused on the relationships among subordinate performance, leader attribution, leader behavior, and intention, but the issue of emotion is generally neglected. Thus, with an attempt to explore the potential of affect in these relationship, the research question is:

Research Question 5. What are the relationships among subordinate objective performance, prosocial behavior, leader attributions, emotional responses, performance ratings, and managerial decisions?

IV. METHOD

1. Subjects and Overall Procedures

Subjects for this study were experienced professionals who were recruited

as volunteers from organizations in the northeastern area of the United States. They were asked to participate in an in-basket exercise designed specially for this study and to respond to questionnaires included with an in-basket exercise. The overall design of this field experiment was a 2×3 between-subject factorial design with manipulations of two independent variables: objective performance and prosocial behavior (see IV. 2. 1. for the definition and manipulation). Objective performance was manipulated into three levels: high, medium, and low. Prosocial behavior was manipulated into two conditions: positive vs. negative. The experiment was performed on a small group basis, with 6 to 18 subjects for each group. A total of 137 subjects were utilized, and the number of subjects for each treatment was 21 for high-positive, 20 for high-negative, 28 for medium-positive, 24 for medium-negative, 20 for low-positive, and 24 for low-negative.

An in-basket is a simulation exercise where a subject is requested to take the role of an actual manager with appropriate materials and with the necessary background information. Subjects in the exercise were instructed to respond to the items of an in-basket exercise. Similar in-baskets have been widely used, mainly for managerial assessment, but also occasionally for data collection in a research design related to social cognition (Orpen, 1981; Jaccoud, 1984). In-basket exercises have shown concurrent validity in that a subject's performance on an in-basket exercise corresponds to actual performance in an on-the-job situation when appropriate scoring categories are used (Brass and Oldham, 1976), and also have shown high face validity (Casio, 1982). In-basket exercises seem to be especially useful as a method for data collection in research designed to investigate the sequential processes of information processing without being interrupted, and under somewhat controlled conditions free from unnecessary or confounding information.

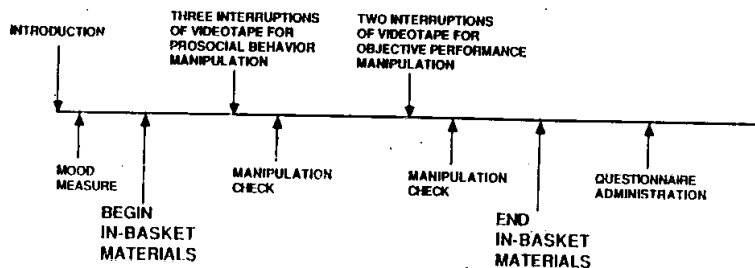
Thus, a modified in-basket exercise was used for this study. In this research, in-basket materials were designed to create the context of leadership and performance appraisal. Each subject in this exercise was required to

respond or to make a decision sequentially as instructed. This in-basket exercise featured manipulation of subordinate performance and leader affect toward a subordinate through the use of videotape stimulus materials (see Fig. 3).

While the subject proceeded through the in-basket materials, a videotape involving two kinds of manipulation sequentially interrupted the subject to show a target person (a subordinate) and to give information related to this target person. The first interruption was to introduce the target person. Then, three interruptions showed prosocial behavior (positive vs. negative) of target person as a manipulation intended to evoke leader affect toward the subordinate (target person). After this, another two interruptions occurred to provide information about the objective performance (high, medium, low) of the subordinate. Thus, the videotape medium manipulated information about the subordinate.

The overall procedure of this in-basket exercise was composed of sequential steps as shown in Fig. 3. Mood was measured before the in-basket exercise began. After the mood measure, a brief introduction of this exercise was presented to the subject. The first step of this in-basket exercise was the introduction of the subordinate to the subject with in-basket materials. During this step a short interruption of a videotape introduced the target person. After a few minutes, the second step was three videotape interruptions according to a preset time to introduce the prosocial behavior of the target person.

Fig. 3. A Procedure for In-Basket Exercise



The next step was two other videotape interruptions to provide information about the objective performance of the target person. Finally, a questionnaire was administered to record the subject's responses at the end of the in-basket exercise. The total required time for this exercise was about an hour. Several trial runs of the experimental protocol were performed in order to fine tune the sequential timing of the various sequential parts.

2. Variables

The overall design for this field experiment was a 2×3 between-subject factorial design with manipulation of two independent variables. Other variables were measured through the questionnaires developed especially for this research. Some of these variables were measured sequentially according to the information processing process of a subject within the in-basket exercises. For example, leader attributions were measured before leader emotional responses, and these emotional responses were measured before measures of performance rating and managerial decisions.

2.1. Main Independent Variables

The first independent variable was a manipulation of subordinate behavior which was intended to trigger the leader's schema-based affect toward the subordinate. This independent variable was called *prosocial behavior*. Through videotape, two levels or kinds of prosocial behavior were utilized: positive and negative. As one example, "citizenship behavior" for voluntary service on the United Way Planning was used. Each of these behaviors was shown as positive or negative in the videotape. Thus, a leader's favorable affect toward a subordinate was elicited from the positive prosocial behavior, and an unfavorable affect of a leader was elicited from negative prosocial behavior. Thus, prosocial behavior is operationalized as a subordinate prosocial or "citizenship" behavior which was totally unrelated to the target person's actual performance.

The second independent variable was called *objective performance*. Since the target subordinate was a salesman, this variable was operationalized as the so-called "objective" sales performance of the subordinate. The performance

of the subordinate was manipulated into three categories: high, medium, and low performance. In order to avoid the confounding effect with preference or affective judgment toward the subordinate, only *objective performance* information was used in these manipulations.

Performance was manipulated in the videotape with two different kinds of information. The first was the actual sales performance of the target person as represented through a quarterly sales report ranking all salesmen. The second was an event where an important sales contract was achieved (or not achieved) through the orders from a specific customer. This performance information was manipulated as high, medium, and low. Thus, a high performance was manipulated by both high sales performance ranked as near-top among salesmen and success in an order from a specific customer. A low performance was manipulated by both a low sales performance ranked as near-bottom among salesmen and failure in an order from a specific customer. A medium performance was manipulated by a sales outcome ranked as average among salesmen and neither an increase nor a decrease in an order from a specific customer.

2.2. Main Dependent Variable

The main dependent variable of interest was *performance rating*, defined as a multi-trait leader rating of subordinate performance. The performance rating designed for this study includes a diversity of items that included both subjective (rating based on traits of the subordinate) and objective (rating of actual subordinate sales performance). The specific rating items were sharpness, work energy, communication ability, initiative, social presence, cooperation, identifying prospects, presenting products, closing sales, keeping records, planning and organizing, and sales revenue. All of these items used the same 7-point rating scale with anchors ranging from "extremely low" through "average" to "extremely high" (see Appendix B for the complete scale). For some analyses, a single overall performance rating dimension was used. However, factor analysis was performed to see if the performance rating ins-

trument decomposes into subjective vs. objective dimensions (see section V.1.2).

2.3. Secondary Dependent Variables

Attributions were operationalized as a leader's conscious and intentional inference about the causes of subordinate performance. In this study, attributions were treated as a group of sub-variables, each according to a specific cause. The attribution measurement questionnaire, although developed especially for this study, was closely based on the earlier work of Weiner (1979), Gioia and Sims (1986), and Jaccoud (1984). The specific attribution items included eight sub-variables: *ability*, *typical effort*, *specific effort*, *luck*, *job difficulty*, *mood*, *co-worker influence*, and *supervision* (Gioia and Sims, 1986). Specifically for this study, four more variables related to personal and social behavior within the organization were included. These were *cooperation*, *personality fit*, *circumstances*, and *experience*.

All of these items use the same 7-point rating scale ranging from -3 through zero to +3. The score of zero means "no influence" of the specific causal attribution in explaining subordinate performance. The extreme points of -3 or +3 represent the maximum influence of the causal attribution in explaining subordinate performance. According to the nature of causes, one extreme represents the strong positive influence of that cause, and the other extreme denotes the strong negative influence of that cause (e.g. lack of effort). A second form of attributions measure was also used, based on the work of Jaccoud (1984). This second attribution questionnaire used the same attribution items as the first one, but the questions were asked in a different way. Subjects were asked to first indicate the direction of attribution and, second, the intensity of the attribution. For example, two opposite directions of attribution (e.g. lack of effort vs. effort) and no attribution (e.g. not relevant) for each item were suggested, and a three-point scale was anchored to measure the intensity of the attribution on each item (e.g. some, a great deal, and completely). Jaccoud (1984) earlier found a strong degree of convergence (i.e. concurrent validity) between the two methods of attributions

measurement. These two rating scores on the different questionnaires with the same items were averaged to enhance the reliability through two-item measures.

Emotional Responses were operationalized as a leader's differentiated affect toward a subordinate. This emotional response includes such differentiated affect as *pride, liking, hope, anger, frustration, disgust, guilt, pity, and surprise*. For the measure of differentiated affect, Izard (1971; 1977) has developed the Differential Emotions Scale (DES). This DES is a self-report scale including three adjectives for each of 10 fundamental emotions. The criterion-related validity and construct validity has been evaluated by Kotsch, Gerbing, and Schwarz (1982).

Thus, to measure leader emotional responses toward a subordinate, a slightly modified version of the DES was utilized for this study. This questionnaire included three adjectives for each differentiated affective response. For each item, the question of "How do you feel right now about your subordinate?" was asked on a 5-point intensity scale from "not at all" to "very strongly" (see Appendix B). This leader emotional response was measured subsequent to the measure of leader attribution toward subordinate performance.

Managerial Decisions were operationalized as a leader's personnel decisions toward a subordinate and included personnel decisions for *salary, promotion, training, and liaison*. Salary and promotion were two decisions of greatest interest. This personnel decision of a leader is measured by asking him/her to report on such questions as "Will you promote...?" or "Will you recommend...?" For the questionnaire of promotion, training, and liaison, a three categorical scale (yes, no decision, and no) was used. The salary decision was asked by a response of a percentage of salary decrease or increase scaled from -6% to 15%.

2.4. Mood

Another variable of interest was leader mood. In this research, *mood* was defined as a leader's undifferentiated everyday life emotion which is not related

to the target stimulus. For this measure, a short form of the Multiple Affect Adjective Check List (MAACL; Zuckerman and Lubin, 1965) was used. This MAACL is designed to especially measure negative or "bad moods," such as anxiety, depression, and hostility. Thus, high scores mean a high negative mood state. This mood measure was administered at the very beginning of the in-basket exercise to measure the subject's initial mood state unrelated to the target person or to specifics of the experimental procedures.

All of these variables and their operational definitions used in this study are summarized in Table 1.

3. Analysis

Prior to the main analysis for hypotheses testing and research questions, a preliminary data analysis was performed to examine the factor structure of performance ratings and attribution measures. Also, reliabilities were estimated for each measure of mood, attribution, emotional responses, and performance ratings. The experiment in this study was basically treated as a 2×3 between-subject factorial design with the crossed treatments of *objective performance* and *prosocial behavior*.

To test the primary hypotheses, which were generated to examine the effects of independent variables on performance ratings, an analysis of variance (ANOVA) was the primary technique. With this ANOVA, the main effects of objective performance and prosocial behavior as well as their interaction effect on performance ratings were examined. Especially, to test the magnitude of a biasing effect of prosocial behavior, an a priori contrast was used. A T-test was also used to test the direction of a biasing effect under the medium performance condition.

For the test of the secondary hypotheses which were related to the effect of independent variables on attribution, a T-test was performed to examine the significance of each attribution within a certain conditions as well as to compare the difference of attribution across different condition. To examine the main effects and the interaction effect of manipulated treatments, ANOVA

Table 1. List of Variables

Variable Name	Operational Definition
Independent Variables:	
Prosocial Behavior	subordinate prosocial or "citizenship" behavior which is not prescribed or required in advance for a given job(positive vs. negative)
Objective Performance	subordinate's actual sales achievement (high, medium, and low)
Dependent Variables:	
Performance Rating	leader's rating of subordinate performance
Attributions	leader's conscious and intentional inferences for the causes of subordinate performance: specifically includes <i>specific effort, typical effort, ability, personality fit, cooperation, mood, co-worker influence, experience, luck, job difficulty, circumstances, and supervision.</i>
Emotional Responses	leader's differentiated affect toward the subordinate: includes <i>pride, hope, liking, anger, frustration, disgust, guilt, pity, and surprise.</i>
Managerial Decisions	leader's personnel decision toward the subordinate, such as decision for <i>salary, promotion, training, and liaison.</i>
Mood	leader's undifferentiated everyday life emotion which is not related to the target stimulus

was also applied.

To investigate the relatedness of independent variables to the multiple dependent variables such as emotional responses, multivariate analysis of variance (MANOVA) as well as ANOVA was performed. For the managerial decisions, such as promotion, training, and liaison, which were anchored with a category scale, a contingency table was used with a Chi-square test. A correlation analysis and a hierarchical (moderator) regression analysis were used to examine the effect of mood on other variables.

To explore the tertiary research issues which were directed at the possible relationships among dependent variables, correlation analysis was the primary technique. The relationship between attribution and emotional responses was examined through correlation analysis. In this correlation analysis, the meaning of "correlation coefficient" should be interpreted differently according to the condition of success and failure, since attribution of success was measured in the opposite direction to attribution of failure (this is explained

more in detail in the next chapter). Also, some relationships of attribution and of emotional responses with performance ratings and managerial decisions were investigated with correlation analysis. Moreover, to explore the possible sequential relationship among variables, including independent and dependent variables, some preliminary exploratory path analysis was performed.

BIBLIOGRAPHY

- Abelson, R.P., Kinder, D.P., Peters, M.D., and Fiske, S.T. (1982). Affective and semantic components in political person perception. *Journal of Personality and Social Psychology*, 42, 619-630.
- Arieti, S.I. (1970). Cognition and feeling. In M.B. Arnold (Ed.), *Feeling and emotion: The Loyola symposium*. New York: Academic Press, Inc.
- Arnold, M.B. (1960). *Emotion and personality*. New York: Columbia University Press.
- Arkin, R.M., Detchon, C.S. and Maruyama, G.M. (1982). Roles of attribution, affect, and cognitive inference in test anxiety. *Journal of Personality and Social Psychology*, 43, 1111-1124.
- Bagozzi, R.P. (1982). A field investigation of causal relations among cognition, affect, intention, and behavior. *Journal of Marketing Research*, 19, 562-584.
- Bateman, T.S. and Organ, D.W. (1983). Job satisfaction and the good soldier: The relationship between affect and employee "citizenship". *Academy of Management Journal*, 26, 587-593.
- Blaney, P.H. (1986). Affect and memory: A review. *Psychological Bulletin*, 99, 229-246.
- Borman, W.C. (1978). Exploring upper limits of reliability and validity in job performance ratings. *Journal of Applied Psychology*, 63, 135-144.
- Bower, G.H. (1981). Mood and memory. *American Psychologist*, 36, 120-148.
- Bower, G.H. (1983). Affect and cognition. Unpublished manuscript, Department of Psychology, Stanford University.
- Bower, G.H., and Cohen, P.R. (1982). Emotional influences in memory and thinking: Data and theory. In M.S. Clark and S.T. Fiske (Eds.), *Affect and cognition*. Hillsdale,

N.J.: Erlbaum.

- Brass, D. J., and Oldham, G. R. (1976). Validating an in-basket test using alternative set of leadership scoring dimensions. *Journal of Applied Psychology*, 61, 652-657.
- Brown, J. and Weiner, B. (1984). Affective consequences of ability versus effort ascriptions: Controversies, resolutions, and quandaries. *Journal of Educational Psychology*, 76, 146-158.
- Calder, B.J. (1977). An attribution theory of leadership. In B.M. Staw and G.R. Salancik (Eds.), *New directions in organizational behavior*. Chicago: St. Clair Press.
- Cantor, N., and Mischel, M. (1977). Traits as prototypes: Effects on recognition memory. *Journal of Personality and Social Psychology*, 35, 38-48.
- Cantor, N., Mischel, W. and Schwartz, J. (1982). Social knowledge: Structure, content, use and abuse. In A.H. Hastorf and A.M. Isen (Eds.), *Cognitive social psychology*. New York: Elsevier North-Holland.
- Cascio, W.F. (1982). *Applied psychology in personnel management*. 2nd ed., Reston, Virginia: Reston Publishing.
- Clark, M.S. (1982). A role for arousal in the link between feeling state, judgement, and behavior. In M.S. Clark and S.T. Fiske (Eds.), *Affect and cognition*. Hillsdale, N.J.: Erlbaum.
- Clark, M.S., and Isen, A.M. (1982). Toward understanding the relationship between feeling states and social behavior. In A.H. Hastorf and A.M. Isen (Eds.), *Cognitive social psychology*. New York: Elsevier North-Holland.
- Cohen, J.B. (1981). The role of affect in categorization: Toward a reconsideration of the concept of attitude. In A. Mitchel (Ed.), *Advances in consumer research* (vol. 9). Association for Consumer Research.
- Cohen, M.D., March, J.C., and Olsen, J.P. (1972). A garbage can model of organizational choice. *Administrative Science Quarterly*, 17, 1-25.
- Cooper, W.H. (1981). Ubiquitous halo. *Psychological Bulletin*, 90, 218-244.
- Cyert, R.M., and March, J.G. (1963). *A behavioral theory of the firm*. Englewood Cliffs, N.J.: Prentice-Hall.
- Davis, Tim, R.V., and Luthans, F. (1984). Defining and researching leadership as a

- behavioral construct: An ideographic approach. *The Journal of Applied Behavioral Science*, 20, 237-251.
- Decker, P.J. (1980). Effects of symbolic coding and rehearsal in behavior modeling training. *Journal of Applied Psychology*, 65, 627-634.
- DeNisi, A.S., Cafferty, T.P., and Meglino, B.M. (1984). A cognitive view of the performance appraisal process: A model and research propositions. *Organizational Behavior and Human Performance*, 33, 360-396.
- Ewert, O. (1970). The attitudinal character of emotion. In M.B. Arnold (Ed.), *Feeling and emotion; The Loyola symposium*. New York: Academic Press, Inc.
- Feldman, J.M. (1981). Beyond attribution theory: Cognitive processes in performance appraisal. *Journal of Applied Psychology*, 66, 127-148.
- Fiske, S.T. (1981). Social cognition and affect. In J. Harvey (Ed.), *Cognition, social behavior, and the environment*. Hillsdale, N.J.: Erlbaum.
- Fiske, S.T. (1982). Schema-triggered affect: Applications to social perception. In M.S. Clark and S.T. Fiske (Eds.), *Affect and cognition*, Hillsdale, N.J.: Erlbaum.
- Fiske, S.T., and Linville, P.W. (1980). What does the schema concept buy us? *Personality and Social Psychology Bulletin*, 6, 543-557.
- Fiske, S.T., and Taylor, S.E. (1984). *Social cognition*. Reading, Mass.: Addison Wesley.
- Fiske, S.T., Beattie, A.E., and Milberg, S.S. (1983). Category-based affect: Stereotype versus piecemeal process in impression formation. Unpublished manuscript, Department of Psychology, Carnegie-Mellon University.
- Foti, R.J., Fraser, S.L., and Lord, R.G. (1982). Effects of leadership labels and prototypes on perceptions of political leaders. *Journal of Applied Psychology*, 67, 326-333.
- Fraser, S.L., and Lord, R.G. (1983). The effect of stimulus prototypicality on leadership perceptions and behavioral ratings. Unpublished manuscript, Department of Psychology, University of Akron.
- Gilligan, S.G., and Bower, G.H. (1984). Cognitive consequences of emotional arousal. In C.E. Izard, J. Kagan, and R.B. Zajonc (Eds.), *Emotions, cognition, and behavior*. New York: Cambridge University Press.

- Gioia, D.A., and Sims, H.P. (1981). An empirical reexamination of implicit leadership theory. Unpublished manuscript, Department of Organizational Behavior, The Pennsylvania State University.
- Gioia, D.A., and Sims, H.P. (1986). Cognition-behavior connections: Attribution and verbal behavior in leader-subordinate interaction. *Organizational Behavior and Human Decision Processes*, 37, 197-229.
- Gotlib, I.H., and Robinson, L.A. (1982). Responses to depressed individuals: Discrepancies between self-report and observer-rated behavior. *Journal of Abnormal Psychology*, 91, 231-240.
- Green, S.G., and Mitchell, T.R. (1979). Attributional process of leader-member interaction. *Organizational Behavior and Human Performance*, 23, 429-458.
- Guzzo, R.A., and Walters, J.A. (1982). The expression of affect and the performance of decision-making groups. *Journal of Applied Psychology*, 67, 67-74.
- Hastorf, A.H., Schneider, D.J. and Polefka, J. (1970). *Person perception*. Reading, Mass.: Addison-Wesley.
- Hill, B., Lippitt, L., and Serkowneck, K. (1979). The emotional dimension of the problem-solving process. *Group & Organization Studies*, 4, 93-102.
- House, R.J., and Baetz, M.L. (1979). Leadership: Some empirical generalizations and new research directions. In B.M. Staw (Ed.), *Research in organizational behavior* (vol. 1). 341-423.
- Ilgen, D.R., and Feldman, J.M. (1983). Performance appraisal: A process focus. In L.L. Cummings and B.M. Staw (Eds.), *Research in organizational behavior* (vol. 5). Greenwich, Ct.: JAI Press.
- Isen, A.M. (1984a). The influence of positive affect on decision making and cognitive organization. In T.C. Kinnear (Ed.), *Advances in consumer behavior* (vol. 11), 534-537.
- Isen, A.M. (1984b). Toward understanding the role of affect in cognition. In R.S. Wyer and T.K. Srull (Eds.), *Handbook of social cognition* (vol. 3). Hillsdale, N.J.: Erlbaum.
- Isen, A.M., and Daubman, K.A. (1984). The influence of affect on categorization. *Journal*

of Personality and Social Psychology, 47, 1206-1217.

- Isen, A.M., and Means, B. (1983). The influence of positive affect on decisionmaking strategy. *Social Cognition*, 2, 18-31.
- Isen, A. M., and Patrick, R. (1983). The influence of positive about affect on risk taking: When the chips are down. *Organizational Behavior and Human Performance*, 31, 194-202.
- Isen, A.M., and Shalcker, T.E. (1982). The influence of mood state on evaluation of positive, neutral, and negative stimuli. *Social Psychology Quarterly*, 45, 58-63.
- Isen, A.M., Means, B., Patrick, R. and Nowick, G. (1982). Some factors influencing decision making strategy and risk taking. In M.S. Clark and S.T. Fiske (Eds.), *Affect and cognition*. Hillsdale N.J.: Erlbaum.
- Isen, A.M., Shalcker, T.E., Clark, M.S., and Karp, L. (1978). Affect, accessibility of material in memory, and behavior: A cognitive loop? *Journal of Personality and Social Psychology*, 36, 1-12.
- Izard, C.E. (1965). Affect, awareness, and performance. In S.S. Tomkins and C.E. Izard (Eds.), *Cognition and personality*. New York: Springer Publishing Co., Inc.
- Izard, C.E. (1971). *The face of emotion*. New York: Appleton-Century-Crofts.
- Izard, C.E. (1977). *Human Emotions*. New York: Plenum Press.
- Jaccoud, A.J. (1984). Categorization, information processing and interpersonal affect in selection, promotion, and appraisal of employees. Unpublished doctoral dissertation. Department of Organizational Behavior, The Pennsylvania State University.
- Jaccoud, A.J., Gioia, D.A., and Sims, H.P. (1984, August). Schema-based categorization in personnel decisions. Paper presented at the Annual Meeting of the Academy of Management, Boston.
- James, R.J., and White, J.F. (1983). Cross-situational specificity in managers' perceptions of subordinate performance, attributions, and leader behaviors. *Personnel Psychology*, 36, 809-855.
- Katz, D., and Kahn, R.L. (1978). *The social psychology of organizations*. New York: John Wiley and Sons.
- Kleinginna, P.R., and Kleinginna, A.M. (1981). A categorical list of emotion definitions,

- with suggestions for a consensual definition. *Motivation and Emotion*, 5, 345-379.
- Kotsch, W.E., Gerbing, D.W., and Schwarz, L.E. (1982). The construct validity of the Differential Emotional Scale as adapted for children and adolescents. In C.E. Izard (Ed.), *Measuring emotion in infants and children*. New York: Cambridge University Press.
- Landy, F.J., and Farr, J.L. (1980). Performance rating. *Psychological Bulletin*, 87, 72-107.
- Landy, F.J., and Farr, J.L. (1983). *The measurement of work performance*. New York: Academic Press.
- Lang, P.L., (1984). Cognition in emotion: Concept and action. In C.E. Izard, J. Kagan, and R.B. Zajonc (Eds.), *Emotions, cognition, and behavior*. New York: Cambridge University Press.
- Larson, J.R. (1984). The performance feedback process: A preliminary model. *Organizational Behavior and Human Performance*, 33, 42-76.
- Latham, G.P., and Saari, L.M. (1979). Application of social-learning theory to training supervisors through behavioral modeling. *Journal of Applied Psychology*, 64, 239-246.
- Lazarus, R.S. (1982). Thoughts on the relations between emotion and cognition. *American Psychologist*, 37, 1019-1024.
- Lazarus, R.S. (1984). On the primacy of cognition. *American Psychologist*, 39, 124-129.
- Lazarus, R.S., Averill, J.R., and Opton, E.M., Jr. (1970). Toward a cognitive theory of emotion. In M.B. Arnold (Ed.), *Feelings and emotions: The Loyola symposium*. New York: Academic Press.
- Leventhal, H. (1980). Toward a comprehensive theory of emotion. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (vol. 13), 139-207.
- Lewis, M., Sullivan, M.W. and Michalson, L. (1984). The cognitive-emotional fugue. In C.E. Izard, J. Kagan, and R.B. Zajonc (Eds.), *Emotions, cognition, and behavior*. New York: Cambridge University Press.
- Locke, E.A. (1976). The nature and cause of job satisfaction. In M. Dunnette (Ed.), *Handbook of industrial and organizational psychology*. Chicago: Rand-McNally.
- Longenecker, C.O. (1984). Executive cognition and affect in performance appraisal: A

- qualitative study. Unpublished doctoral dissertation, Department of Organizational Behavior, The Pennsylvania State University.
- Longenecker, C.O., Gioia, D.A. and Sims, H.P. (1984 May). Consensual managerial prototypes of excellent and poor performing managers. Proceedings of the Eastern Academy of Management Meetings, Toronto, Canada.
- Lord, R.G. (1985). Information processing approach to social perception, leadership and behavioral measurement in organizations In B.W. Staw and L.L. Cummings (Eds.), *Research in organizational behavior* (vol. 7). Greenwich, Ct.: JAI Press.
- Lord, R.G., and Alliger, G.M. (1984). A comparison of four information processing models of leadership and social perceptions. *Human Relations*, 38, 47-65.
- Lord, R.G., and Smith, J.E. (1983). Theoretical, information processing, and situational factors affecting attribution theory model of organizational behavior. *Academy of Management Review*, 7, 413-417.
- Lord, R.G., Foti, R.J., and De Vader, C.L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational Behavior and Human Performance*, 34, 343-378.
- Lord, R.G., Foti, R.J. and Phillips, J.S. (1982). A theory of leadership categorization. In J.G. Hunt, U. Sekaran, and C. Schriesheim (Eds.), *Leadership: Beyond establishment views*. Carbondale: Southern Illinois University Press.
- Mandler, G. (1975). *Mind and emotion*. New York: John Wiley and Sons, Inc.
- Mandler, G. (1982). The structure of value: Accounting for taste. In M.S. Clark and S.T. Fiske (Eds.), *Affect and cognition*. Hillsdale, N.J.: Erlbaum.
- Manz, C.C. and Sims, H.P. (1980). Self-management as a substitute for leadership: A social learning theory perspective. *Academy of Management Review*, 5, 361-367.
- Manz, C.C., and Sims, H.P. (1981). Vicarious learning: The influence of modeling on organizational behavior. *Academy of Management Review*, 6, 105-113.
- March, J.G. (1978). Bounded rationality, ambiguity, and the engineering of choice. *The Bell Journal of Economics*, Autumn, 587-608.
- March, J.G., and Olsen, J.P. (1976). *Ambiguity and choice in organizations*. Bergen, Norway: Universitets Forlaget.

- Mitchell, T.R.(1974). Expectancy models of job satisfaction, occupational preference and effort: A theoretical, methodological, and empirical approach. *Psychological Bulletin*, 81, 1053-1077.
- Mitchell, T.R., and Wood, R.W.(1980). Supervisor's response to subordinate poor performance: A test for an attributional model. *Organizational Behavior and Human Performance*, 25, 123-138.
- Mitchell, T.R., Green, S.G., and Wood, R.W.(1981). An attributional model of leadership and the poor performing subordinate: Development and validation. In B.M. Staw and L.L. Cummings (Eds.), *Research in organizational behavior* (Vol. 3), Greenwich, Ct.: JAI Press.
- Moore, B., Underwood, B., and Rosenhan, D.L.(1984). Emotion, self, and others. In C.E. Izard, J. Kagan and R.B. Zajonc (Eds.), *Emotions, cognition and behavior*. New York: Cambridge University Press.
- Motowidlo, S.J.(1984). Does job satisfaction lead to consideration and personal sensitivity? *Academy of Management Journal*, 27, 910-915.
- Motowidlo, S.J., and Lawton, G.W.(1984). Affective and cognitive factors in soldiers' reenlistment decisions. *Journal of Applied Psychology*, 69, 157-166.
- Mowday, R.T., and Steers, R.M. (Eds.). (1979). *Research in organizations: Issues and controversies*. Santa Monica, Calif.: Goodyear Publishing Co.
- Norman, R.(1975). Affective-cognitive consistency, attitudes, conformity, and behavior. *Journal of Personality and Social Psychology*, 32, 83-91.
- Orpen, C.(1981). Causal attributions for the success and failure of black and white managers. *Journal of Occupational Behavior*, 2, 81-87.
- Park, O.S.(1984). A study of mood and its variation in an examination achievement context. Unpublished manuscript, Department of Organizational Behavior, The Pennsylvania State University.
- Park, O.S., Sims, H.P., and Motowidlo, S.J.(1986). Affect in organizations: How feelings and emotions influence managerial judgment. In H.P. Sims and D.A. Gioia (Eds.), *The thinking organization: Dynamics of organizational social cognition*. San Francisco: Jossey-Bass.

- Phillips, J.S.(1984). The accuracy of leadership ratings: A cognitive categorization perspective. *Organizational Behavior and Human Performance*, 33, 125-138.
- Phillips, J.S., and Lord, R.G.(1982). Schematic information processing and perception of leadership in problem-solving groups. *Journal of Applied Psychology*, 67, 486-492.
- Pfeffer, J., (1977). The ambiguity of leadership. *Academy of Management Review*, 2, 104-112.
- Pfeffer, J.(1981). Management as symbolic action: The creation and maintenance of organizational paradigm. In L.L. Cummings and B.M. Staw (Eds.), *Research in organizational behavior* (Vol. 3), Greenwich, Ct.: JAI Press.
- Plutchik, R.(1980, Feb.). A language for the emotions. *Psychology Today*, 68-78.
- Polivy, J.(1981). On the induction of emotion in the laboratory: Discrete moods or multiple affect state? *Journal of Personality and Social Psychology*, 41, 803-817.
- Posner, M.I., and Snyder, C.R.(1975). Attention and cognitive control. In R.L. Solso (Ed.), *Information processing and cognition: The loyalty symposium*. Hillsdale, N.J.: Erlbaum.
- Pretty, G.H., and Seligman, C.(1984). Affect and the overjustification effect. *Journal of Personality and Social Psychology*, 46, 1241-1253.
- Reibstein, D.J., Lovelock, C.H., and Dobson, R.D.(1980). The direction of causality between perception, affect, and behavior: An applications to travel behavior. *Journal of Consumer Research*, 6, 370-376.
- Rosch, E.(1978). Principles of categorization. In E. Rosch and B.B. Lloyd(Eds.), *Cognition and categorization*. Hillsdale, N.J.: Erlbaum.
- Rosch, E., Mervis, C.B., Gray, W.D., Johnson, D.M., and Boyes-Braem, P. Basic objects in natural categories. *Cognitive Psychology*, 8, 382-439.
- Roseman, I.(1980). Cognitive aspect of emotion and emotional behavior. Unpublished manuscript, Yale University.
- Royce, J.R., and Diamond, S.R.(1980). A multifactor-system dynamics theory of emotion: Cognitive-affective interaction. *Motivation and Emotion*, 4, 263-299.
- Russel, D., and McAuley, E.(1986). Causal attributions, causal dimensions, and affective reactions to success and failure. *Journal of Personality and Social Psychology*, 50,

1174-1185.

- Schachter, S., and Singer, J.E. (1962). Cognitive, social, and physiological determinants of emotional state. *Psychological Review*, 65, 121-128.
- Schneider, W., and Shiffrin, R.M. (1977). Controlled and automatic human information processing. I. Detection, search and attention. *Psychological Review*, 84, 1-66.
- Sheridan, J.E., Kerr, J.L., and Abelson, M.A. (1982). Leadership activation theory: An opponent process model of subordinate responses to leadership behavior. In J.G. Hunt, U. Sekaran, and C. Schriesheim (Eds.), *Leadership: Beyond establishment views*. Carbondale: Southern Illinois University Press.
- Shiffrin, R.M., and Schneider, W. (1977). Controlled and automatic human information processing. II. Perceptual learning, automatic attending, and a general theory. *Psychological Review*, 84, 127-189.
- Sims, H.P., and Manz, C.C. (1984). Observing leader verbal behavior: Toward reciprocal determinism in leadership theory. *Journal of Applied Psychology*, 69, 222-232.
- Smith, C.A., Organ, D.W., and Near, P.J. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68, 653-663.
- Smircich, L., and Morgan, G. (1982). Leadership: The management of meaning. *Journal of Applied Behavioral Science*, 18, 257-273.
- Srull, T.K. (1983). Affect and memory: The impact of affective reactions in advertising on the representation of product information in memory. In R.P. Bagozzi and M.T. Alice (Eds.), *Consumer research* (Vol. 10). Ann Arbor: Association for Consumer Research.
- Srull, T.K. (1984). The effects of subjective affective states on memory and judgement. In T.C. Kinnear (Ed.), *Consumer research* (Vol. 11). Ann Arbor: Association for Consumer Research.
- Stogdill, R.M. (1974). *Handbook of leadership: A survey of theory and research*. New York: MacMillan, Free Press.
- Taylor, S.E., and Crocker, J. (1981). Schematic bases of social information processing. In E.T. Higgins, C.P. Herman, and M.P. Zanna (Eds.), *Social cognition: The Ontario psychology* (Vol. 1), Hillsdale, N.J.: Erlbaum.

- Tomkins, S.(1970). Affect as the primary motivational system. In M.B. Arnold (Ed.), *Feelings and emotion*. New York: Academic Press.
- Vroom, V.H. (1964). *Work and motivation*. New York: John Wiley and Sons, Co.
- Weary, G. (1982). The role of cognitive, affective, and social factors in attributional biases. In J.H. Harvey (Ed.), *Cognition, social behavior, and the environment*. Hillsdale, N.J.: Erlbaum.
- Weick, K.E.(1979). *The social psychology of organizing*. 2nd. ed. Reading, M.A.: Addison-Wesley.
- Weick, K.E.(1985, August). The emotion of organizing. Paper presented at the Annual Meeting of Academy of Management, San Diego, California.
- Weiner, B.(1979). A theory of motivation for some classroom experience. *Journal of Educational Psychology*, 71, 3-25.
- Weiner, B. (1980a). A cognitive(attribution)-emotion-action model of motivated behavior: An analysis of judgments of help-giving. *Journal of Personality and Social Psychology*, 39, 186-200.
- Weiner, B.(1980b). The role of affect in rational (attributional) approaches to human motivation. *Educational Researcher*, July/August, 4-11.
- Weiner, B.(1982). The emotional consequences of causal attributions. In M.S. Clark and S.T. Fiske (Eds.), *Affect and cognition*. Hillsdale, N.J.: Erlbaum.
- Weiner, B.(1983). Some methodological pitfalls in attributional research. *Journal of Educational Psychology*, 75, 530-543.
- Weiner, B.(1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92, 548-573.
- Weiner, B. and Brown, J.(1984). All's well that ends. *Journal of Educational Psychology*, 76, 169-171.
- Weiner, B. and Graham, S.(1984). An attributional approach to emotional development. In C.E. Izard, J. Kagan and R.B. Zajonc (Eds.), *Emotions, Cognition and behavior*. New York: Cambridge University Press.
- Weiner, B., Russell, D., and Lerman, D.(1978). Affective consequences of causal ascriptions. In J.H. Harvey, W.J. Ickes and R.F. Kidd (Eds.), *New directions in attribution*

- research* (Vol. 2), Hillsdale, N.J.: Erlbaum.
- Weiner, B., Russell, D., and Lerman, D.(1979). The cogniton-emotion process in achievement-related contexts. *Journal of Personality and Social Psychology*, 37, 1211-1220.
- Weiner, B., Graham, S., Stern, P., and Lawson, M.E.(1982). Using affective cues to infer causal thoughts. *Developmental Psychology*, 18, 278-286.
- Weiner, B., Graham, S., Taylor, S.E., and Meyer, W.(1983). Social cognition in classroom. *Educational Psychology*, 18, 109-124.
- Weiss, H.M., and Alder, S.(1981). Cognitive complexity and the structure of implicit leadership theories. *Journal of Applied Psychology*, 66, 69-78.
- Weiss, H.M.(1977). Subordinate imitation of supervisor behavior: The role of modeling in organizational socialization. *Organizational Behavior and Human Performance*, 19, 89-105.
- Wright, J., and Mischel, W.(1982). Influence of affect on cognitive social learning variables. *Journal of Personality and Social Psychology*, 43, 901-914.
- Zajonc, R.B.(1980). Feeling and thinking: Preferences need no inferences. *American Psychologist*, 35, 151-175.
- Zajonc, R.B.(1984). On the primacy of affect. *American Psychologist*, 39, 117-123.
- Zajonc, R.B. and Markus, H.(1982). Affective and cognitive factors in preferences. *Journal of Consumer Research*, 9, 123-131.
- Zajonc, R.B. and Markus, H.(1984). Affect and cognition: The hard interface. In C.E. Izard, J. Kagan and R.B. Zajonc (Eds.), *Emotions, cognition, and behavior*. New York: Cambridge University Press.
- Zuckerman, M., and Lubin, B.(1965). *Manual for the multiple affect adjective check list*. San Diego, Calif.: Educational and Industrial Testing Service.