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THE EFFECTS OF AFFECT AND ACCOUNTABILITY ON INFORMATION PROCESSING OF LEADER BEHAVIOR

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THE EFFECTS OF AFFECT AND ACCOUNTABILITY
ON INFORMATION PROCESSING OF LEADER BEHAVIOR
DISSERTATION
Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University
By
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1986

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CHAPTER I
Introduction

Asking questions like, "How are you doing?", "How was your weekend?" and "How are things going?" does more than serve to break the ice or to open a conversation. Answers to these questions tell us something about how the other person is feeling. Apparently, we find it quite useful to know something about the current feeling states of people we are interacting with.

It appears to be a commonly held belief that people in good moods are easier to please, less critical, and more likely to respond favorably to our requests. We hope that people who interview us, review an article, or consider a request have had a good day and are feeling positively about things in the world.

The effects of affective states on cognitive processes are receiving growing attention in the literature. Much of the earlier research on cognitive processes ignored the role of feelings and emotions in information processing. Yet, the integral nature of affective states in cognitive processes has long been recognized (James, 1890; Tomkins, 1980; Simon, 1967; Neisser, 1973). In Simon's (1967) view:
Since in actual human behavior motive and emotion are major influences on the course of cognitive behavior, a general theory of thinking and problem solving must incorporate such influences.

The importance of cognitive processes in organizational contexts has been recognized in discussions of performance appraisal (Feldman, 1981) and more specifically in terms of halo effects (Cooper, 1981; Nathan & Lord, 1983), ratings of leader behavior (Rush, Phillips & Lord, 1981), and in perceptions of leaders in problem solving groups (Phillips & Lord, 1982). Yet, the impact of affective states on cognitive processes, person perception and relevant organizational practices (i.e. assessment center evaluations) has received limited attention.

Organizational activities, such as performance appraisals, are likely to be heavily dependent on information that is stored in memory. Memory based person judgments are "based on a sampling of thoughts from a cognitive representation of the person that the perceiver has built up over time (years in most cases) and stored in memory." (Lingle, Geva, Ostrom, Leippe & Baumgardner, 1979). To understand the cognitive processes involved in memory based judgments, knowing how information is stored and retrieved is important. Studies of the effects of affective states on memory based judgments exist in the
There are other organizational judgments, however, that occur soon after the information is perceived. Performance judgments in assessment centers, appraisals made following an interview, and considerations of job applications are examples of stimulus based judgments. These judgments are based on information provided simultaneously or immediately prior to the time the judgment is made.

Understanding biases that affect stimulus based judgments in organizational settings is important not only because of their initial impact, but also because these early judgments are likely to affect later memory based judgments. Stimulus based judgments are likely to affect what information is later recalled, especially the perceiver's inferences about the person. They can result in a biased subset of the original stimulus information being recalled and can serve to facilitate the recall of information originally used in making the judgment (Lingle & Ostrom, 1979). Biases affecting stimulus judgments, then, can be expected to affect performance evaluations made immediately following behavioral observations and to influence subsequent judgments of the person. The biasing effects of affective states on the type or amount of
information attended to, evaluations of performance and predictions of future success in stimulus based judgments of leaders (or other persons) have not been studied.

I have proposed that affective states can influence stimulus based judgments of a leader by affecting what is attended to; specifically, that affective states affect attention by affecting the expectations of the decision maker. The positive affective state will prime the decision maker to think about positive things, making positive leader behaviors more salient in the decision maker's environment. In this introduction I will accomplish several things. First, I will consider the affect-cognition literature beginning with the definition of relevant terms. I will go on to discuss the affect-cognition interface and the debate surrounding affective or cognitive primacy. Following this, I will review some of the effects of affective states on cognition and behavior with some special attention to these effects as they pertain to judgment and attention. I will also discuss some of the work on selective attention and relate this work to stimulus based judgments of leader behavior. I will contend that positive affective states would bias this phase of information search.

After considering the relevant affect literature, I will review some of the literature on accountability in
decision making and suggest that increasing accountability in the decision making process will attenuate the biasing effects of positive feeling states.

What is Affect? Knowing It's Place

One of the problems that has plagued the study of feeling states is definition. When discussing affective states, terms such as emotion, mood, feeling states and affect are often used. Since these are not all interchangeable terms their explication is necessary for a more discriminating treatment of these phenomenon.

The affective states that I am interested in here are feeling states or moods; I will use these terms interchangeably. First, I will define feeling states and then compare them to emotions.

Clark and Isen (1982) discuss feeling states as pervasive, that is, not directed at any particular object or behavior. Which behavior is likely to be affected depends upon what the person's attention is directed to after the affective state has been induced. A variety of judgments and behaviors can be affected by a given feeling state. In addition, affective states are usually not interruptive of behavior but tend to redirect behavior to influence what the person will think or do next within a particular context.
Clark and Isen define feeling states as "general and pervasive, having no inherent targets, and they usually do not interrupt on-going behavior. They are relatively transitory, they can occur frequently, often in the normal course of everyday life...". This definition makes the point that feeling states or moods are not unusual phenomenon. They can be induced easily and can affect a range of behaviors, depending upon what is salient, in the person's environment.

Emotions differ from affective states in a number of ways. Emotions are intense affective states and involve a cognitive component as well as arousal. The cognitive component serves to provide the interpretation for the emotion and to determine its valence. In addition, because emotions are likely to be tied to a specific behavior, they are more likely to disrupt ongoing behavior than to redirect it (Clark & Isen, 1982).

Higgins, Kuiper & Olson (1981) have identified four parameters to define affective states: intensity, causal specificity, valence and duration. Intensity of affective states can range from weak to strong. This is one characteristic that differentiates emotions, which tend to be more intense, from moods which are less intense states. Causal specificity is another parameter that allows us to distinguish between feelings and emotions. This dimension
refers to "the extent to which the cause of the affective
experience can be specified by the individual." This
dimension can range from object-specific to non-specific;
it relates to the cognitive interpretation of the
affective state. Emotions (having a cognitive component)
tend to be tied to a more specific behavior; feeling
states, on the other hand, tend to be non-specific
regarding cause and effect. Both emotions and feeling
states vary in **valence** from negative to positive.
Positive emotions include happiness or joy, negative
emotions include anger or rage. Feeling states range from
positive feelings to negative feelings along a similar
continuum, but are less specific. **Duration** is the final
dimension identified by Higgins et al (1981). Both
affective states and emotions can vary in duration.

We can see that there are both similarities and
distinctions to be recognized in discussing feeling states
and emotions. Although we can make distinctions between
emotions and feelings, Clark and Isen (1982) suggest that
they are probably not completely independent. They note
that feeling states and emotions often co-occur because
the conditions that elicit emotions are also likely to
produce a feeling state.

The interpretation of emotions relies on a cognitive
component; yet, cognitions and behavior are also
influenced by feelings (Isen & Levin, 1972; Schwarz & Clore, 1983; Kraiger, Billings, and Isen, 1983). The question of how feeling states interact with cognitive processes to influence thought and behavior has received a great deal of attention. In the next section of this introduction, I will discuss the interface between affect and cognition.

Affect and Cognition

There is little debate about whether or not feeling states and cognitive processes interact to affect behavior. The issues in this debate surround the primary role of affect versus cognition in directing and influencing behavior.


Izard and Buechler (1980) discuss emotions as motivators and organizers of behavior rather than responses to cognitive appraisals. In their view, these
affective states direct and focus processes of sensation, perception and cognition. Plutchik (1980) shares this view. He sees cognitive activity as closely related to emotion and suggests that cognitive activity evolved in the service of emotions to aid us in predicting the future. Similarly, Neisser (1973) wrote that cognitions operate in the service of needs and emotions. He, too, describes the original purpose of cognitive processes as prediction.

These theorists share an evolutionary perspective in their thinking. They suggest that affect preceded cognition in evolution as a separate system and that the separateness of these systems is apparent in physiology. They recognize that, in evolution, affective reactions preceded more complex information processing. As Zajonc (1980) reasoned:

Before we evolved language and our cognitive capacities, which are so deeply dependent on language, it was the affective system alone which the organism relied on for its adaptation. Thus, if the most recent version of homosapiens specifies that affective reactions are mediated by prior cognitive processes—as contemporary views would have it—then at some point in the course of evolution, affect must have lost its autonomy and acquired an intermediary in the form of cold cognition, this seems most unlikely. When nature has a direct autonomous mechanism that functions efficiently...it does not make it indirect and entirely dependent on a newly evolved function...At most, the formerly sovereign affec-
tive system may have accepted an alliance with the newly evolved system to carry out some adaptive functions jointly. These conjectures make a two-system view more plausible than one that relegates affect to a secondary role mediated and dominated by cognition. (p.170)

Zajonc (1984), citing much of Izard's (1984) work, provides support for the view that affective and cognitive activity are two distinct functions and for the primacy of the affective function. He argues that: 1) affective reactions show phylogenetic and ontogenetic primacy, 2) separate neuro-anatomical structures can be identified for affect and cognition, 3) appraisal and affect are often uncorrelated and disjoint, 4) new affective reactions can be established without apparent appraisal, and 5) that affective states can be induced by non-cognitive and non-perceptual procedures.

Although there is growing support for the position advocating affective primacy, there are those who argue for the primacy of cognitive functioning in the affect-cognition relationship. Lazarus (1982; 1984) contends that cognitive appraisal is critical to interpretation and emotional response and that this cognitive appraisal need not be deliberate, rational or conscious. Such a conceptualization of cognitive appraisal is distinct from the view of Zajonc (1980, 1984), Zajonc, Pietromonaco and Bargh (1982), Izard (1984), Plutchik (1980) and others. Plutchik (1980) discusses cognition as "more or less
synonymous with thinking and will include such functions as perceiving, conceptualizing, and remembering."
Clearly, this is not a description of an unconscious process. This difference in perspective is at the heart of the primacy debate. According to Lazarus' view, by definition, cognition is a necessary precondition for affective arousal.

Both Lazarus (1982,1984) and Zajonc (1980,1984) recognize that affect and cognition interact, it is the primacy of each that is debated. Both also suggest that each can influence the other, Zajonc (1984) recognized that affect need not always precede cognition:

...In my 1980 article I hypothesize the independence of affect of cognition. At the formal level, therefore, affect could be simultaneous or secondary and still independent of cognition. Proving this hypothesis requires no demonstration that affect is primary. Nor must affect be always primary. If evidence can be uncovered about the primacy of affect in only one situation, the independence hypothesis would be confirmed.

Lazarus, Kramer, and Folkman (1980) note that cognition need not always be primary:

To emphasize the causal influence of cognitive processes on emotion - as we do - doesn't mean that emotion, in turn, does not causally affect cognition. (p.190)
The ongoing interplay of cognitive and affective reactions recognized by both of these theorists is consistent with Isen, Shalker, Clark and Karp’s (1978) "cognitive loop" phenomenon. It is reasonable that affect directs cognition, that the affectively valenced cognitions maintain the affective state, that the affective state further directs cognition, and so on. Similarly, cognitive processes may determine one’s feeling state, this feeling state could influence the valence of subsequent cognitive processes, which would further direct cognitive processes, and so on.

The debate between Zajonc (1980,1984) and Lazarus (1982,1984) centers on the definition of cognition (Kleinginna & Kleinginna, 1985). Either perspective is consistent with the hypotheses suggested here; both theorists recognize that under some situations either affect or cognition can direct behavior, both recognize the interdependence of these systems, and both recognize that these issues are relevant to everyday life (Zajonc, 1980; Lazarus, 1982). As Zajonc (1980) put it:

There are probably very few perceptions and cognitions in everyday life that do not have a significant affective component, that aren’t hot, or in the very least tepid. And perhaps all perceptions contain some affect. (pp.153-154)
The pervasiveness of feeling states makes them an important psychological component to explore. In the next part of this chapter, I will discuss some of the effects of feeling states on behavior and cognition.

**Effects of Positive Feelings on Behavior and Cognitive Processes**

*Positive versus Negative Feeling States.* In this research, I studied the effects of positive and neutral affective states. Negative feeling states did not receive treatment in this research, therefore, my review of the literature focused primarily on the effects of positive affective states. There were several reasons for eliminating negative feeling states from this research.

First, the ethical issues involved in altering one's feeling states are more tenuous when negative affective states are induced. The negative feeling state condition, by definition, is not pleasant for participants and is likely to cause them some discomfort.

A second reason for avoiding negative affect inductions in this research was that these states are more difficult to maintain for an extended period of time. Isen, Shalker, Clark, & Karp (1978) hypothesized that unlike maintaining a positive mood, maintaining a negative mood is probably not a common goal for people. People who
are feeling badly are more likely to try to improve their feeling states.

The effects of positive feeling states have been demonstrated in helping behavior, perceptions of well-being, risk taking, judgement and decision making, and selective attention. I will briefly summarize some of those effects in the following section.

Helping Behavior. The effects of positive affective states on helping behavior have been well established in the literature. Isen and Levin (1972), for example, found that persons in positive affective states were more willing to help and less willing to annoy others than persons in control conditions. Isen and Simmonds (1978) found that positive affect participants were less willing to help in situations that threatened their good spirits, but were more willing to help if the situation was likely to support their good feelings. Both of these sets of results suggest that people are unwilling to engage in behaviors that are likely to threaten their good moods.

Isen, Clark, and Schwartz (1976) examined the duration of these effects on helping behavior. Although persons in positive affect conditions were more willing to help than controls, these effects dissipated after about 20 minutes. Isen et al suggest, however, that if the
request had been made earlier, and again 20 minutes after
the affect induction, helping may have been observed. The
earlier act of helping would serve to prime future helping
behavior, similar to the foot-in-the door technique dis-
cussed by Freedman and Fraser (1966). This interpretation
suggests one way in which persons maintain positive
feeling states.

Perceptions of Well-being. Schwarz and Clore (1983)
conducted two studies on perceptions of general well-
being. In one study, they asked people for vivid
descriptions of recent happy or sad events; in the second
study they interviewed people on sunny or rainy days. In
both studies, they found that participants in good mood
conditions were generally more satisfied and happier with
their lives compared to persons in negative affect
conditions. They concluded that temporary affective
states are influential in judgments that people make about
their general well-being. People in good mood conditions
were: 1) less likely to seek external explanations for
their feelings compared to subjects in negative moods, and
2) generally more likely to be influenced by affective
states in their judgments.

suggested that good moods would affect risk taking by: 1)
resulting in more positive thoughts (possibilities) coming to mind, and 2) through the tendency of subjects to protect their good moods. They hypothesized that when the presence of risk was unclear or the level of risk was low that people in positive feeling conditions would be more willing to take a risk compared to people in failure or control conditions. They provided participants with either success (positive affect) or failure (negative affect) feedback on a battery of tests and then observed their willingness to take a social risk by either conforming to the behavior of confederates or by behaving deviantly. Persons in success conditions were more willing to take social risks compared to participants in negative affect conditions. Isen et al suggested that in this situation the social risk may have been ambiguous.

In a second situation, subjects chose one of three starting positions in a turtle race. The farthest distance awarded the best prize if the turtle won, but the odds were worse. Isen and her colleagues considered this a more explicit form of risk than the social risk manipulation. In this situation both positive and negative affect subjects were more conservative compared to participants in neutral affect conditions. They concluded that the difference in perceived risk (clear vs. ambiguous) resulted in differences in risk taking
behavior.

In 1983, Isen and Patrick investigated the influence of positive and neutral affective states on risk taking behavior. Positive affective states were induced by giving participants McDonald's gift certificates at the beginning of the experimental sessions as a token of appreciation for their participation. In one study subjects played roulette; high, medium, or low risk conditions were manipulated by telling participants what their probability of winning was. Participants could bet experimental credits to gain points that could be used to obtain prizes. In a second study, subjects were given hypothetical dilemmas that varied in degree of risk (high, medium, low) and were asked to give their likelihood of taking such chances. Compared to control subjects, positive affect subjects in Experiment I placed larger bets under conditions of low risk and bet less under conditions of high risk. This interaction was not observed in Experiment II; there was a main effect for degree of risk and no effect for affective state. Isen and Patrick concluded from Study I that participants were not willing to endanger their positive affective states by experiencing large losses. They concluded that willingness to take hypothetical risks, such as those used in their second study, are not influenced by affective
These studies on risk taking are consistent with earlier helping behavior research (Isen & Simmonds, 1978) indicating that people are not willing to engage in behaviors that are likely to threaten their good moods. People in high risk conditions were less willing to bet when they were in positive affective states; large losses could eliminate their good feelings. Similarly, Isen and Simmond's participants were not willing to engage in helping behaviors that were likely to make them feel badly.

Judgment and Decision Making. Isen, Means, Patrick and Nowicki (1982) discussed a series of studies on positive affective states and decision making strategies. They hypothesized that subjects in positive feeling states would reduce the complexity of the decision or judgment task and engage in simplified, speedy forms of processing. They suggested two possible reasons this could happen: 1) that positive feelings increase the load on working memory causing people to compensate on other tasks to enable them to maintain their good mood, or 2) that positive feeling states make people more sensitive to cognitive strain and that they will try to avoid this strain. They found that people in positive affective states (induced by providing refreshments at the beginning of the session) used more
intuitive decision making strategies compared to control subjects; these intuitive strategies resulted in a higher error rate in performance compared to subjects who used more cognitively taxing strategies (controls).

In another study, Isen and Means (1983) examined the effects of positive affective states (induced by success feedback) or neutral affective states on decisions of car selection. They found that their positive affect subjects simplified the task by ignoring categories of information they considered unimportant and that they reached a decision more quickly than neutral affect subjects. They also suggested that positive affect subjects processed information more efficiently since they were less likely than neutral affect subjects to re-check information once it had been considered. Isen concluded that happy subjects see and use intuitive hypotheses and that they do so with greater speed and confidence than other subjects.

Kraiger, Billings and Isen (1983) found that participants in positive affective states rated task perceptions more positively than persons in neutral affect conditions. Feeling good was likely to result in greater attention to positive task features, the attribution of positive meaning to neutral cues, and increased recall of positive task features.
Veitch and Griffitt (1976) found that participants who listened to good news broadcasts judged strangers who were present during the broadcast more favorably than did subjects who heard bad news broadcasts.

In a series of studies, Johnson and Tversky (1983) asked people to read stories of undesirable or happy events and then to estimate the frequency of similarly valenced events. For example, after reading a story about a death caused by fire they were asked to estimate the frequency of other various kinds of fatalities. Negative affect induced by knowledge of a tragic event resulted in higher estimates of other undesirable events. This finding was not limited to estimates of similar unfortunate events (i.e. leukemia and stomach cancer) but generalized to unrelated but undesirable events such as war or fire. Their results suggest that mood inductions specific to one particular area directly affect other memory-based judgments regardless of their relation to the affective topic. They found that subjects were likely to evaluate hypothetical events in terms consistent with their mood state. Their results suggest that mood inductions specific to one particular area directly affect other judgments regardless of their relation to the affective topic.
Similar to Johnson and Tversky (1983), Schwarz and Clore (1983) found that judgments by persons in positive moods were directly influenced by other irrelevant judgments that they had made. After recalling recent happy life events, participants reported more positive ratings of their general well-being compared to subjects who had just recalled a sad event. They concluded that people use their feeling states as information in making judgments of how happy and satisfied they are with their lives. This is different than saying the feeling states prime related material, the suggestion here is that the feeling state acts as a specific piece of information in affecting the judgment. It seems that there is more support for the priming position since these effects are not limited to the category of information in which they first were experienced or appeared.

Clark & Isen (1982) and Isen, Shalker, Clark and Karp (1978) suggest that judgments and decisions are influenced by feeling states due to the increased accessibility of mood congruent information in memory at the time of recall. Clark and Isen suggest that good feelings prime positive material in memory just as category names or words may prime associated information in memory. Isen et al (1978), found that people in positive feeling states made more positive memory based judgments compared to per-
sons in neutral affective states. They suggest that a person’s good mood serves as a cue to access positive material in memory, a priming effect. In a second study they found that mood had no effect at the time of learning; however, feeling states did affect the nature of the material recalled. People in positive affective states at the recall phase recalled more mood congruent words than mood incongruent words. Consistent with an accessibility hypothesis, they suggest that mood serves as a cue by which positive material is accessed; this material subsequently plays an important role in memory based judgments and decisions.

Teasdale and Fogarty (1979) examined the accessibility of mood congruent information from memory. They found that subjects in positive feeling states retrieved pleasant experiences from memory more quickly than subjects in negative feeling states. Similarly, participants in negative feeling states had faster reaction times in recalling negative experiences. They suggested that fast retrieval for an experience associated with a stimulus word depends on the similarity of the mood state at retrieval to the mood state of the person at the time of encoding. This suggests that affective tone has a role in the organization of memory.
Similar findings have been found by others. Mischel, Ebbesen, and Zeiss (1976) found that subjects who expected future success experiences recalled more of their personal assets than their liabilities. Boggiano and Hertel (1983) found that subjects who were in good moods recalled a greater number of emotionally positive adjectives compared to participants in the negative mood condition. They concluded that feeling states could automatically activate affect-congruent thoughts thereby increasing the likelihood that people behave in a manner consistent with their feeling state. Laird, Wagener, Halal and Szegda (1982) also found that inducing positive or negative emotional states resulted in facilitated recall of emotionally congruent information.

To summarize, the effects of feeling states on decision making and judgment processes indicate that people who are feeling good will try to conserve their good feeling states, will use intuitive strategies in processing information, will process information more quickly, and will eliminate categories of information that they consider irrelevant to the decision. There is also evidence that when making memory based judgments, mood states serve to prime mood congruent material in memory. Increased accessibility to this material in memory is believed to bias subsequent judgment and decision.
Selective Attention. The effects of feeling states on processing information are not limited to retrieval of information from memory. There is also evidence that feeling states will affect the material that is initially attended to in the person’s environment. Mischel, Ebbesen and Zeiss (1973) found that subjects in positive feeling states spent more time attending to positive information. Subjects in positive affect conditions searched for more information about their positive attributes and less information about their liabilities; they also spent more time focusing on their assets compared to subjects in control or negative affect conditions. In a followup study, using a different affect manipulation, they found similar results: positive affect subjects attended to more positive information. Mischel et al observed that the effects of affect result in positive reactions to others as well as to the self.

Bower (1981) reported that happy subjects selectively learned information that was congruent with their mood. In a reading task, happy subjects were more likely to identify with the happy character, to think the story was about the happy character, and to perceive more statements about the happy character.
Isen and Simmonds (1978) found that subjects in positive affective states were willing to spend more time reading positive mood statements than negative mood statements. Positive feelings influenced subjects to attend more to positive mood statements and to attend less to negative mood statements.

Izard, Wehmer, Livsey, & Jennings (1965) used an interpersonal induction of positive and negative feeling states in a study of stereoscopic selective perception. He found that participants in positive feeling states attended more to positive scenes and faces than to negative displays. In contrast, participants in negative feeling states were more likely to attend to negative scenes and faces than to positive material. In another study, Izard et al (1965) found that the feeling states of participants influenced the perceptions of the experimenter and of the experiment. Positive and negative feeling states were important determinants of interpersonal perceptions; persons in positive feeling states perceived interpersonal interactions more positively. Izard suggests that the affective stimulation that subjects received molded perceptual processes so that individual's expectancies lead to selective attention of certain information.
These studies consistently indicate that a person's feeling state affects the sort of information likely to be attended to. People who are feeling good are more likely to attend to positive information in their environment.

Summary. It is clear that how one feels influences cognitive processes and behavior. The effects of feeling states have been demonstrated in helping behavior, perceptions of well-being, risk-taking, memory-based judgments and decision making and in selective attention. People who are feeling good are interested in maintaining that mood; they help others only in situations that do not threaten their good mood, and are less willing to take risks when potential losses are clearly presented. Positive affective states also affect memory-based judgments: persons who are feeling good use intuitive (heuristic) and simplified (i.e. Elimination-by-Aspects) decision making strategies, they are unlikely to recheck information they have once considered, and they reach decisions quickly and with confidence. People in positive feeling states are likely to prime positive thoughts in memory making these thoughts more accessible. This results in more positive information coming to mind when memory-based judgments are being made resulting in positively biased judgments. This affects perceptions of well-being, estimated likelihood of events, and
evaluations of other aspects of one’s life. Good moods also result in attention to positive information: people in these moods attend to positive (as opposed to negative) self-relevant information, task information, and pictorial representations; they are interested in reading mood congruent statements and are likely to learn mood congruent information.

Expectancy and Selective Perception.

Lord (1985) recently discussed information processing as it relates to social perceptions, particularly to perceptions of leaders in organizational settings. According to his information processing model, selective attention in most organizational settings is determined by automatic rather than controlled cognitive processes. Which environmental features will be attended to may be determined either by physical characteristics of stimuli that make them salient or by pre-existing cognitive structures of the perceiver. He goes on to suggest that priming certain categories that are outside of conscious awareness is likely to affect subsequent perceptions. Differences in selective attention may result in two people seeing very different behaviors while observing objectively the same behavior.

Lord, Foti, & Phillips (1982) argued that implicit leadership theories reflect cognitive categories used to
categorize people as leaders or non-leaders. They suggested that this categorization occurs automatically and is not usually a controlled form of processing.

According to Lord (1985), once the leadership schema is activated that schema will control selective attention and encoding; furthermore, it will result in increased perceptions of leadership. Behavior relevant to the leadership schema is more likely to be used to understand the stimulus person in terms of leadership.

In more general terms, Wyer (1980) suggests that when interpreting new information the schema most accessible in memory is likely to be used to give meaning to the stimulus. In discussing selective attention, he also argues that if a relevant schema has been activated only those stimulus features that are contained in the schema will be encoded.

The work of both Wyer (1980) and Lord (1985) suggests that activating certain schema in memory will increase the likelihood of attention being directed to a specific limited set of stimulus features. If a biased schematic representation of a leader, or other category, was primed this would serve to further limit the type of information likely to be attended to by the perceiver. For example, when a person’s leader schema is activated and the person is in a positive affective state, positive leader
behaviors are likely to receive more attention.

Others have also discussed perceiver expectations and selective attention. Darley and Fazio (1980) discuss perception as a constructive interaction process. In their view actions of the actor do not automatically convey meaning; meaning is given by the perceiver as he or she perceives the behavior. Furthermore, the expectations of the perceiver will affect the nature of those perceptions. They note that perceptual distortions occur so that the perceiver interprets the behavior as confirming their expectations.

In their discussion, Darley and Fazio emphasize the importance of the perceiver’s expectations in determining what is perceived. When a person is interacting with, or observing another person, he or she is likely to form expectations regarding the behavior of the person they will see. They also recognize that there are various possible sources of bias in the formation of expectancies. Expectancies that are formed may be influenced by factors unrelated to the particular person he or she will be observing. At any rate, regardless of the validity of one’s expectations, they are likely to affect the way the perceiver acts. One’s behavior will be biased, or influenced, by the expectancies one has for the subsequent interaction.
McArthur (1981) discusses two general determinants of selective attention; one is the set of stimuli characteristics, the other is the state of the perceiver. She, too, sees the perceiver’s expectations as an important determinant of which stimuli draw attention. In discussing Bruner’s (1957) perceptual readiness work, she suggests that this readiness to see something results in certain things being more easily and more quickly recognized. In addition, a wider range of objects, or behaviors, will be mistaken for the expected object or event. McArthur notes that ambiguous stimuli are especially susceptible to interpretation in terms of the perceiver’s expectancies.

Later in her chapter, McArthur specifically addresses affective responses to persons. Her discussion suggests that affective responses to an actor could result in a tendency to rate the actor more extremely and to weight salient behaviors more heavily in forming an impression. This suggests that altering a perceiver’s affective state would result in selective perception to salient, mood congruent behaviors. In addition, these behaviors would be disproportionately weighted in subsequent judgments of the person.

To summarize, McArthur suggests that people in positive feeling states will interpret ambiguous behaviors
more positively and that perceived positive behaviors will be more important in forming judgments.

Taylor, Crocker, Fiske, Sprinzen and Winkler (1979) note that stimuli that are the focus of attention are likely to have a disproportionately large influence on judgment processes, whether or not the stimuli are logically related. They discuss effects of salient features on perceptions: 1) as resulting in the exaggeration of evaluative qualities of the stimuli, 2) as more being learned about them, 3) as being perceived as more representative of the object, and 4) as more easily available in memory.

If positive affective states make positive features more salient and direct attention toward positive features these states would affect the judgment process similarly. That is, people in good moods would be expected to evaluate a leader more positively, to learn more about the leader's positive characteristics, to perceive these positive qualities as more representative of the leader and to have these positive features more available in memory.

In their discussion, two additional sources of bias are discussed. The representativeness of features and the availability of these features in memory are seen as distorted by saliency (Taylor et al, 1979).
Tversky and Kahneman (1974) discuss problems associated with the representativeness heuristic suggesting that an "illusion of validity" is created. This is an unfounded sense of confidence produced by one's preconception of the goodness of fit of one's observations to one's expectations. The pattern of internal consistency with one's observations determines one's confidence in predictions based on these observations. However, this confidence is falsely based since attention to particular features is likely to be directed toward confirming one's expectations (Swann, Guiliano, and Wegner, 1982).

Tversky and Kahneman (1973;1974) also address the effects of availability of information. They observe that availability can be affected by familiarity, recency and saliency. If people use the availability heuristic, unrelated factors (such as saliency) will affect the perceived frequency and subjective probability of events. Availability based on saliency, rather than actual frequency of occurrences, would result in systematic biases of perceptions.

Taylor (1982) discusses availability and saliency biases. "Salience biases refer to the fact that colorful, dynamic or other distinctive stimuli disproportionately affect judgments." If certain stimuli are more salient to
the person, he or she will expect to see the stimuli and will selectively attend to their presence in the environment. Taylor notes that availability can affect judgments through selective attention and interpretation. She suggests that one's personal constructs may lead one to make inferences that differ from those of someone who does not share the same cognitive structure. Availability biases may lead to excessive availability of misleading information in social judgment tasks.

This suggests that individuals in positive feeling states, while attending to more positive leader characteristics, are simultaneously increasing the availability of that type of information in memory. Subsequent judgments based on this information would be positively biased.3

In a similar vein, Solley and Murphy (1960) suggested that affective stimulation molded the attentional processes in perception so that an individual's expectancies or hypotheses lead to selectivity in reception for similarly valenced material. Snyder (1981) found that the hypotheses that people formed affected their search for additional information. Similarly, it is suggested here that people who are feeling good will be biased in their expectations of others, and, therefore, will be biased in their search for information about
I have discussed the effects of positive feeling states on cognitive processes and have argued that they will result in selective attention to positive schema features. This biased attention is expected to direct stimulus based judgments of the leader's behavior. I have also discussed some of the literature on selective attention.

At this point, I would like to suggest a moderator of the effect of positive affective states on selective attention and stimulus-based judgments: accountability.

The Effects of Accountability

Accountability, or the potential for one's behavior to be evaluated, has been studied in decision making (Mitchell & Beach, 1978; McAllister, Mitchell & Beach, 1979; Gabrenya & Arkin, 1979 and Chaiken, 1980), in negotiations (Klimoski & Ash, 1974; Reis & Gruzen, 1976 and Ben-Yoav & Pruitt, 1984) and in other social settings (Zajonc, 1965; Henchy & Glass, 1968; Ferris, Beehr, & Gilmore, 1978 and Latané', Harkins & Williams, 1979). The effects of accountability in increasing one's willingness to expend effort, to process information more critically, and to process information more carefully have been well
established in the literature. This brief review will summarize these effects and conclude with a discussion of their implications as a potential moderator in attenuating affective biases in information processing.

Zajonc (1965) discussed the facilitating effects of being observed by others when performing well-learned tasks. Although social facilitation was originally discussed as simply an effect of increased levels of drive, additional consideration of the phenomenon has indicated the importance of potential for evaluation (Henchy & Glass, 1968). The term "evaluation apprehension" captures the essence of this concern. The knowledge that one's performance can, or is likely to be, evaluated by another person causes concern about the quality of one's performance.

Klimoski & Ash (1974) studied the effects of accountability on the behavior of people involved in negotiations. They found that representatives who were accountable to their group deliberated longer in reaching an agreement, perceived more difficulty in accomplishing the task, and felt most pressure during negotiations. Consistent with the social facilitation literature, the presence of evaluating others increased arousal in negotiators who were continuously accountable to their groups; the novelty of the task was considered an
additional factor contributing to the difficulty that these negotiators experienced. Negotiators for whom concerns for evaluation were less salient deliberated less, experienced less difficulty and felt less pressure while performing the task.

Reis and Gruzen (1976) also found that accountability affected behavior in negotiations. They found that when persons were accountable for their actions their behavior indicated a concern for self-presentation. These persons reacted more fairly compared to individuals who were not accountable to the experimenter. Their research indicated the importance of gaining social approval; subjects in accountable conditions performed in ways consistent with normative expectations of the experimenter for equitable behavior.

Accountability has also been studied as it affects decision making. Beach and Mitchell (1978) developed a contingency model of decision making behavior. They argued that decision makers do not engage in the same decision making processes for all decisions. The selection of the best decision strategy is determined by the characteristics of the decision environment, the decision maker and characteristics of the decision task.

In choosing a strategy, the decision maker determines a Subjective Expected Utility (SEU) approximation.
Through this process, the decision maker attempts to consider the potential outcomes of the decision, the likelihood of each outcome occurring and then chooses roughly the best alternative to maximize one's outcomes. Systematic consideration of the decision problem is limited by the abilities and desires of the decision maker to process the relevant information. Strategy selection is contingent upon the decision maker's desire to decide correctly, willingness to invest time in attending to the problem and the amount of effort the decision maker is willing to invest in the decision.

McAllister, Mitchell and Beach (1979) tested this model empirically by manipulating the significance of the decision case, the decision maker's accountability for the decision and the irreversibility of the decision. They found that the perceived importance of the task was associated with increased problem significance, increased levels of decision maker accountability, and the lack of potential to reverse a decision. These three factors were all likely to lead to a more analytic approach to decision making behavior. From their studies they concluded that the decision maker's selection of a decision making strategy is influenced by the characteristics of the task and is not a random process.
The effect of decision maker accountability was also examined by Chaiken (1980). She predicted that decision makers would use more systematic strategies when accurate judgments were important; this is likely to be true when the decision maker perceives important personal consequences resulting from the judgment. She suggests that when the outcomes of a judgment are of less consequence, individuals are more likely to use heuristic information processing techniques.

This is consistent with Gabrenya and Arkin (1979). They found that decision makers who were more committed to the task searched for decision relevant information more carefully and considered more decision relevant information in their evaluations.

Given this logic, people in high accountability conditions would be expected to attend to information critically; a more controlled information processing strategy would be used. The interpretation of ambiguous information would not be positively biased. Accountable decision makers would attend to a greater number of incidences of behavior in forming their judgments and avoid short-cut heuristic approaches.

Isen et al (1982) discuss importance of the task as a potential moderator of the effects of positive mood states. They suggest that failure on important tasks may
be seen as threatening to the positive affective state of the performer. Elsewhere (Isen & Means, 1982), she suggests that good moods result in the use of heuristics either because positive feelings require cognitive energy to be maintained or because cognitive strain is aversive to people who are feeling good. It seems unlikely, then, that people who are feeling good could maintain their positive feeling state while simultaneously engaging in a more cognitively taxing form of information processing. That is, careful processing of information is as likely to lessen the good feeling as it is to maintain it by preventing failure on a task.

It is suggested here that under conditions of accountability, task importance increases. When people expect to justify their judgments to the experimenter they will experience evaluation apprehension; this concern will make successful performance on the task more important to them (Brickner, Harkins, & Ostrom, in press).

Under conditions of accountability, positive affect subjects are expected to use controlled, systematic strategies of information processing and to avoid the use of heuristics. More cognitive capacity will be directed toward the task and less toward maintaining the positive feeling state. Expected future evaluation of their judgment will make adequate justification of their
decision more salient than the temporary positive feeling state.

Hypotheses

Predictions for Attention to Positive Leader Behaviors.

Participants in positive feeling states are expected to selectively attend to more positive leader behaviors compared to participants in neutral affect conditions. This effect will manifest itself in a greater frequency of positive leader behaviors being identified by participants in the positive affect conditions compared to neutral affect conditions.

Participants in good moods will be primed to think about mood congruent information. This will make positive leader behaviors more salient and more likely to be attended to by positive than by neutral affect participants.

Participants in high accountability conditions are expected to attend to more of the positive leader behaviors compared to participants in low accountability conditions. This effect is expected since persons in high accountability conditions are expected to attend more carefully to the information presented. People in these conditions are expected to identify more of the positive leader behaviors as they critically attend to the
situation.

An interaction is expected between affective state and accountability. Under conditions of high accountability, participants in neutral affective states are expected to cite as many positive leader behaviors as positive affect subjects. Under conditions of low accountability, however, participants in positive affective conditions are expected to identify more positive leader behaviors than neutral affect subjects; these neutral affect subjects will detect fewer positive leader behaviors since they are neither primed to detect positive behaviors nor are they motivated to process information systematically. This predicted interaction is presented in Figure 1.

Prediction for the Interpretation of Ambiguous Information. Participants in positive feeling states are expected to be positively biased in their interpretation of ambiguous leader behaviors compared to persons in neutral affect conditions. Behaviors previously identified as ambiguous are more likely to be interpreted positively by participants in positive affect conditions than by persons in neutral affect conditions.

Since ambiguous behaviors are more likely to be interpreted in terms consistent with salient aspects of the stimulus environment, they are expected to be
Figure 1

Predicted Affect-Accountability Interaction

Number of Positive Leader Behaviors
interpreted positively by persons in positive mood states. The interpretation of ambiguous behaviors will not be positively biased in neutral affect conditions.

Participants in high accountability conditions will be more likely to process ambiguous leader behaviors critically than will persons in low accountability conditions. That is, persons in high accountability conditions, expecting to justify their judgments, will be unbiased in their interpretation of ambiguous behaviors.

People in high accountability conditions will be more discriminating in processing information about the leader than will persons in low accountability conditions. People who are likely to be held accountable for their decision will be less likely to be biased either positively or negatively in their interpretation of ambiguous behaviors than will low accountability participants. Persons in high accountability conditions will be less likely to make interpretations of ambiguous information than will persons in low accountability conditions.

An interaction between affective state and accountability is expected. Positive affective state will be moderated under conditions of high accountability. Under conditions of high accountability, there will be no difference in the way that positive and neutral affect
subjects interpret ambiguous information. Positive affect-high accountability subjects will not be positively biased in their interpretation of ambiguous information. Positive affect subjects, under conditions of high accountability, will be concerned with making an accurate evaluation of the leader. The potential for evaluation will be more salient than their positive mood state. Only positive affect-low accountability participants are expected to be positively biased in their interpretation of ambiguous behaviors. This predicted interaction is represented in Figure 2.

Predictions for Impressions and Recall. Subjects in positive feeling states are expected to process information less critically. Using simplifying strategies, people in positive affect conditions are expected to cite fewer different dimensions of leader behavior in a stimulus based recall task. They are also expected to cite incidences of leadership in more general, rather than specific, terms.

Subjects in positive affective states are expected to direct more of their cognitive capacity toward maintaining their affective state than toward the critical processing of information. This reduction of task directed cognitive effort will result in attention to fewer different dimensions of leader behavior. In addition, general
Predicted Affect-Accountability Interaction
Interpretation of Ambiguous Behaviors
rather than specific incidences of leader behavior will be recalled.

Persons in high accountability conditions are expected to attend to a greater variety of relevant leader behaviors than persons in low accountability conditions. They are expected to cite a greater number of different dimensions of leader behavior in their evaluations of her performance. They are also expected to cite specific, rather than general, behaviors as relevant to their judgment compared to participants in low accountability conditions.

People in high accountability conditions are expected to process information more carefully and more critically compared to persons in low accountability conditions. This will result in greater attention to different aspects of the leader's behavior by high accountability subjects. These participants are also expected to use more specific information in their impressions and in recall to provide adequate justification for their judgments.

An interaction between affect and accountability is expected for these dependent measures. Under conditions of high accountability, the effects of positive affect will be moderated; there will be no difference between positive and neutral affect subjects in impression and recall measures. Under conditions of high accountability,
both positive and neutral affect subjects will be motivated to have a strong basis for their judgments. This will result in more critical, systematic processing of information. This will manifest itself in greater attention to different dimensions of the leader's behavior and citing specific, rather than general, instances of leader behavior in impression and recall measures. Positive affect participants under conditions of low accountability are expected to cite the fewest dimensions of behavior; they will be more likely to simplify the task in order to maintain their good moods. This will result in citing few dimensions of leader behavior and in discussing performance in general rather than specific terms. Participants in neutral affect conditions, under conditions of low accountability, motivated neither by threats of future evaluation nor by the desire to maintain a good feeling, will cite a moderate number of dimensions of leader behavior. This interaction is presented in Figure 3.

Predictions for Ratings of Leader Success and Effectiveness. Participants in positive affect conditions are expected to indicate higher ratings of predicted leader success and leader effectiveness compared to participants in neutral affect conditions.
Figure 3

Predicted Affect-Accountability Interaction

Number of Specific Behaviors Recalled
Since positive leader behaviors will have been more salient to positive affect subjects, these subjects will be positively biased in making judgments of perceived effectiveness and in ratings of future leader success.

Participants in high accountability conditions are expected to make higher ratings of predicted leader success and leader effectiveness compared to persons in low accountability conditions. Persons in high accountability conditions will process information more critically compared to low accountability participants. Although these subjects are likely to be stringent in their interpretations of ambiguous leader behaviors, they are also likely to attend to more of the clearly positive behaviors compared to low accountability subjects. Since they are expected to attend to more of the positive behaviors than low accountability subjects, their predictions for future success are expected to be higher than low accountability subjects.

An interaction between affect and accountability is predicted for these dependent measures. Under conditions of high accountability, persons in positive and neutral affective states are expected to rate leader effectiveness and likelihood of future success similarly. High accountability will moderate the effects of positive affect; under conditions of high accountability, positive
affect subjects will not be biased in their interpretation of leader behaviors. Positive and neutral affect subjects will be basing their judgments on similar information under conditions of high accountability, therefore, judgments in these conditions are expected to be similar. Persons in positive affect-low accountability conditions are expected to predict highest ratings of success. These subjects will base their ratings on positively biased information. Neutral affect subjects under conditions of low accountability are expected to predict lower success ratings compared to positive affect subjects under this condition; the information that they will be using in making their judgment will not be positively biased. This interaction is presented in Figure 4.

Predictions for Ratings of Confidence in Judgments.
Persons in positive feeling states will be more confident of their judgments compared to participants in neutral feeling states.

Since participants in these conditions have selectively attended to positive leader behaviors, they will perceive their judgments as based on more consistent information than will participants in neutral affect conditions.

Participants in high accountability conditions are expected to be more confident of their ratings compared to
Figure 4

Predicted Affect-Accountability Interaction
Ratings of Success
low accountability subjects.

High accountability subjects will have a greater amount of information to use in forming their judgment, therefore, these persons are expected to be more confident of their ratings.

An interaction between affect and accountability is predicted. Under conditions of high accountability, ratings of confidence are expected to be uniformly high regardless of affect state. Ratings of confidence are also expected to be high for persons in positive affect-low accountability conditions. Only in neutral affect-low accountability conditions are subjects expected to indicate lower ratings of confidence. Persons in this condition are expected to base their judgments on information that is less consistent compared to positive affect subjects. This relationship is presented in Figure 5.
Figure 5

Ratings of Confidence

Low Accountability High

Neutral Affect

Positive Affect

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CHAPTER II

Methods

Subjects

Ninety-six undergraduate students participated in the experiment. Sixty-four of the participants were recruited through an ad in the school newspaper and received $3.00 for their participation. The other 32 subjects earned credit in partial fulfillment of an introductory psychology course. Participants were run in groups of no more than three persons. Each group was randomly assigned to an experimental condition; order of conditions was randomized within each replication of the 2 (positive/neutral affect) x 2 (high/low accountability) design. Sixteen paid subjects and 8 introductory psychology students participated in each cell.

Procedure

All participants reported to the Behavioral Sciences Laboratory and were met by a female experimenter. After being taken to the experimental room, paid participants were advised of their rights as human subjects. All subjects were then seated at a table. Subjects were separated from each other with wooden dividers to prevent participants from observing each other during the experiment.
After being seated, participants were told:

"As you know, I am going to show you a couple of videotapes and ask you to make some ratings. The first tape is one that we are pilot testing for use in another experiment that will begin in a couple of weeks. I would like you to watch the video tape. Then, at the end, I will ask you to complete some ratings. Do you have any questions? OK, then we will begin."

**Manipulation of Feeling States.** Subjects were either shown a cut from "The Little Rascals" (positive affect condition) or one from "The Man Who Knew Too Much" (neutral affect condition). Both videotapes were approximately 7 minutes in length. "The Little Rascals" is a cut from a show in which the little rascals go through various antics to prevent their teacher from getting married and quitting her job. "The Man Who Knew Too Much" is an Alfred Hitchcock movie; the cut used in this research contains dancing and discussion scenes. Both tapes were filmed in black and white, were from approximately the same era, and were originally produced as entertainment films. Manipulations such as these have been used successfully in the past as affect inductions. Similar positive affect inductions have produced positive feeling states enduring about 20 minutes (Isen & Gorgoglione, 1983; Isen, Clark & Schwarz, 1976).

All participants viewed this presentation on a 19" television screen. The room was darkened while
participants watched the film. This was done to make the
tapes easier to see and to increase the effectiveness of
the affect inductions (Gergen, Gergen & Barton, 1973).
The experimenter sat behind a partition, away from
participants, as the films were being shown.

After viewing the videotape, subjects were asked to
complete some ratings of the film. Three items on this
questionnaire were used to assess the effectiveness of the
affect inductions. These rating items have been used
successfully in past research to evaluate feeling states
(Isen & Gorgoglione, 1983). The other items asked
subjects about the visual and auditory qualities of the
tape, whether they had seen the film before, and whether
or not they would like to see the film again. Samples of
these materials are presented in Appendix A.

Approximately one minute later, after completing
these ratings, subjects began "the decision making
experiment".

Attention, Interpretation and Encoding in Decision
Making. All participants were told:

In this experiment I am interested in people's
perceptions of leaders. But before we begin
the leadership study, I would like you to
complete these ratings.

Participants were asked to complete three ratings
indicating their general impressions of the effectiveness
of leaders. These measures are presented in Appendix B.

Less than one minute later, after these ratings were completed, the experimenter collected them, and continued:

In this experiment I am interested in people's perceptions of leaders. I will be showing you a brief videotape of a leader leading a group discussion. The leader is the woman seated at the head of the table wearing a cream colored suit. This is what I want you to do. Everytime she does or says something that you consider an effective leader behavior in this group, indicate it by pushing the button with the red stem. Everytime she does or says something that you consider an ineffective leader behavior in this group, indicate that by pushing the button with the black stem. You can push these buttons now to get the feel of how they work. Do you have any questions?

Newtson (1976), Cohen & Ebbesen (1979) and others have used the button press technique to study the comprehension of videotaped data. This dependent measure has been used by Newtson and by Cohen and Ebbesen to study unitization of behavior. It is a useful technique that allows subjects to indicate whenever a change in behavior is detected.

**Personal Accountability Manipulation.** Personal accountability was manipulated as a potential moderator of the affect manipulation. Following the button press instructions, participants were asked to step behind a partition for a brief demonstration of how the data was to be collected.
Participants in high accountability conditions were told:

As part of your rights as Human Subjects you also have the right to know how your data will be treated. As you are watching the tape, your button presses will be collected on this computer. I will be able to tell whether or not each of you presses the effective or ineffective button, when each of you press the button in the sequence, and how often each of you presses the button. At the end of this session I will be evaluating each of your individual assessments of the leader and asking each of you to justify your assessment of the leader’s behavior. Each of you, then, is individually responsible for your assessment of the leader’s performance. Do you have any questions? OK, then let’s get started.

Participants in the low accountability condition were told:

As part of your rights as Human Subjects you also have the right to know how your data will be treated. As you are watching the tape, your responses will be collected in this computer. What I am really interested in here is the overall evaluation of this leader’s performance. I have created this file to collect everyone’s data into, so your responses will just be added to this file with everyone else’s. I’ll never be looking at your own individual assessment of the leader’s performance, you’ll never be asked to justify your assessment of the leader’s performance and, really, the responsibility for evaluating this leader is shared by several people. Do you have any questions? OK, then let’s get started.

As all subjects were given the accountability manipulation, they were shown the screen of a Commodore computer. The screen presented a file name and stated that the computer was waiting for the beginning of the
All subjects were seated and instructed:

"OK, we're ready to begin. Remember, red indicates effective leader behavior, black indicates ineffective leader behavior. I'll start the tape now."

The experimenter then started the tape, turned out the lights, started the computer and sat behind the partition (out of the sight of the participants) as the tape played. The total time between ending the affect manipulation and beginning the leadership tape was less than 4 minutes.

Subjects were shown an 8 minute videotape of a small group discussion. In the tape one female leader and 2 female subordinates are discussing recommendations for an employee benefits program. This tape was developed to include positive and ambiguous leader behaviors; there were no clearly negative leader behaviors included in the tape.

After viewing the tape, subjects were given a short questionnaire to complete. The first page asked them to write a paragraph indicating their impression of the leader. After completing their impression, the second page asked them to indicate all of the specific effective and ineffective leader behaviors that they could remember. Samples of these forms are presented in Appendix C.
As these forms were distributed, subjects in high accountability conditions were instructed to write their names on the top of the form. Participants in low accountability conditions were given an envelope and told to place the questionnaire in the envelope when they had completed it.

When subjects completed these tasks they were asked to make ratings of the leader's effectiveness and to predict her future effectiveness as a leader. They were also asked to complete checks on the accountability manipulations. Samples of these materials are provided in Appendix D.

Specific instructions were: "Now I would like you to complete these ratings." Participants in high accountability conditions were told, "After completing these ratings, I will ask for your justifications." Persons in low accountability conditions were told, "When you've completed these ratings, you can put them in the envelope with the other questionnaire. Then, we'll be finished."

After all participants completed the rating form, they were asked to return to the second page of the first questionnaire. For each specific behavior they listed, subjects were instructed to place a "plus" sign in front of the behavior if they considered it effective, and to
place a "minus" sign in front of it if they considered it an ineffective leader behavior.

After completing the ratings and checks on the manipulations, all participants were debriefed and thanked. Subjects recruited for payment were paid; experiment cards were signed for introductory psychology students. Then, they were dismissed.

The total time involved in this experiment, from taking participants to the lab to dismissing them was no more than 25 minutes.

**Apparatus and Materials**

The leadership tape used in this experiment was scripted and carefully developed to contain primarily positive and ambiguous leader behaviors. No clearly negative leader behaviors were imbedded in the tape. A copy of the script is contained in Appendix E.

Clearly positive and ambiguous leader behaviors were identified in the tape during pilot testing. Thirty subjects participated in this pilot work. This testing was conducted prior to experimental use of the tape. In pilot testing, no affective states were induced. Subjects were instructed to press one button whenever the leader said or did anything they considered an effective leader behavior and to press the other button whenever she said or did something that they considered a negative leader
Appendix F contains a list of the positive leader behaviors in the tape. Behaviors that were identified as ambiguous leader behaviors are presented in Appendix G. These lists indicate the sequence and duration of each behavior, the total number of participants that identified the behavior and the number that indicated it as positive or negative.

Seven leader behaviors were identified as clearly positive. The criterion for inclusion as a 'positive' behavior was identification of the behavior as positive by at least 50% of all of the pilot subjects. That is, at least 15 of the 30 pilot subjects had to indicate that they thought a behavior was a positive leader behavior.

Sixteen leader behaviors were considered ambiguous. An ambiguous behavior was one that was identified as either positive or negative by 25-50% of the pilot subjects. That is 7 - 15 of the 30 pilot subjects had to identify the behavior on the tape, interpretation of the behavior, however, could be either positive or negative.

Four raters viewed the tape to label the behaviors occurring during the time periods identified by subjects. The lists of behaviors in Appendices F and G were named in this way. For example, the first behavior in Appendix F is 'greeting'. To label this behavior the raters
determined was behavior was salient during that time (0:00-0:07).

All tapes ("The Little Rascals", "The Man Who Knew Too Much", and "The Leadership Tape") were recorded on a 1/2" videotape. Only "The Experimental Tape" was recorded in color. These videotapes were played back on a 1/2" videotape recorder through a 19" television screen.

Participants each had 2 hand-held button presses. These buttons were connected to a Commodore computer that tabulated occurrences of the good and bad behaviors indicated by each subject. Criteria for considering the button press data were developed. If an individual pressed a button of the same valence (positive/negative) more than once within a time period previously designated as positive or ambiguous, only one button press was counted. If an individual pressed a button of opposite valences (positive/negative) within a time period previously indicated as a positive or an ambiguous behavior, each was counted once. These presses were both counted since dual presses may have been an indication of ambiguity about how to interpret the behavior.

Other button presses were also counted for some analyses. In considering button presses that occurred outside of the time periods for positive and ambiguous behaviors, as given in Appendices F and G, additional
criteria were developed. Same valenced button presses that occurred within 2 seconds of each other were not counted. Button presses that occurred so closely together were considered mistakes. The short 2 second interval was considered reasonable, however, because of the variety of behaviors that could be considered (i.e. hand gestures, comments, eye contact). Button presses of opposite valence that occurred within 2 seconds, however, were each counted. This, again, was done since it may have indicated ambiguity about how to interpret a behavior.
CHAPTER III

Results

Checks on Manipulations. Participants in this study were asked three questions, subsequent to viewing the affect induction film, as checks on the manipulations. This data was collected using 7-point rating scales. These data were analyzed using a 2 (affect) × 2 (accountability) between subjects analysis of variance.

Subjects were asked, "How did this film make you feel?" with three different sets of anchors reflecting three different judgments. Responses to the question could range from -3 (negative) to +3 (positive). Analysis of these data indicated a strong main effect for affect F = 129.65, df (1, 92), p<.00001. Subjects in positive affect conditions felt more positively (X=2.00) compared to neutral affect subjects (X=-.229). There was also a significant affect × accountability interaction, F = 4.99, df (1, 92), p<.03. Neuman-Keuls analysis of the means indicated that participants in positive affect-low accountability conditions felt more positively (X=2.33) compared to positive affect-high accountability subjects (X=1.67), p<.05. No other differences among the means were significant.
The second affect manipulation check asked participants if the film made them feel sober (-3) or amused (+3). Again, there was a highly significant main effect for affect $F = 152.27$, $df (1, 92)$, $p < .00001$. Positive affect subjects felt more amused ($X = 2.39$) than neutral affect subjects ($X = -0.230$). There was also a significant main effect for accountability, $F = 5.52$, $df (1, 92)$, $p < .03$. Subjects in low accountability conditions felt less sober ($X = 0.04$) compared to high accountability subjects ($X = -0.50$).

The final affect manipulation check asked participants if the film made them feel sad (-3) or happy (+3). There was a significant main effect for affect, $F = 202.05$, $df (1, 92)$, $p < .00001$. Subjects in positive affective states reported feeling happier ($X = 2.00$) than neutral affect subjects ($X = -0.187$).

These three questions were highly correlated with each other. Correlations ranged from 0.73 to 0.83; these were all significant $p < .0001$ (See Table 1). The mean of these three ratings was computed and analyzed in a $2 \times 2$ (affect x accountability) analysis of variance as an overall test of significance. A strong main effect for affect was found, $F = 268.51$, $df (1, 92)$, $p < .00001$. Participants in positive affect conditions indicated more positive feeling states ($X = 2.13$) compared to neutral
Table 1

Correlation Matrix and Probabilities for Affect Manipulation Checks

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
</tr>
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<tbody>
<tr>
<td>Q1</td>
<td></td>
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<tr>
<td>Q2</td>
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<td>.75</td>
</tr>
<tr>
<td></td>
<td>.001</td>
<td></td>
<td>.0001</td>
</tr>
<tr>
<td>Q3</td>
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<td>.75</td>
<td>.0001</td>
</tr>
<tr>
<td></td>
<td>.0001</td>
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<td>.001</td>
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</table>
affect subjects (X=-.213). There was also a main effect for accountability, F = 4.97, df (1,92), p<.03. Low accountability subjects felt more positively (X=1.11) compared to high accountability subjects (X=.8).

Four questions were also asked to assess the effectiveness of the accountability manipulation. These responses were collected using 11-point rating scales (-5 = strongly disagree; +5 = strongly agree). Subjects were asked to respond to the statement, "My own assessment of the leader will not be considered separately from the assessments made by others". Responses to this question indicated a significant main effect for accountability, F = 79.20, df (1,92), p<.00001. Participants in low accountability conditions agreed more with this statement (X=2.93) than high accountability subjects (X=-1.45).

Subjects were also asked to agree or disagree with the statement, "I will have to justify my judgments to the experimenter at the end of this session". Subjects in high accountability conditions were more likely to agree with this statement (X=3.21) compared to people in low accountability conditions (X=-3.37), F = 199.47, df (1,92), p<.00001.

The third accountability manipulation check stated: "Responsibility for assessing the leader's behavior is shared by several people." There was a significant main
effect for accountability, $F = 4.29$, df (1,92), $p<.05$.
Participants in low accountability conditions agreed with this statement more ($X=3.69$) than high accountability subjects ($X=2.00$). All subjects indicated feeling responsible for the judgment as indicated by the overall mean ($X=2.84$).

Finally, subjects were asked to agree or disagree with the statement, "My own individual assessments of the leader will be evaluated by the experimenter". Those participants in high accountability conditions indicated more agreement with this statement ($X=3.04$) than people in low accountability conditions ($X=-2.44$). This was a significant difference, $F = 107.59$, df (1,92), $p<.00001$.

Participants were also asked to rate how important it was to make a correct decision. All subjects considered a correct decision important ($X=2.91$). There was, however, a main effect for accountability, $F=6.84$, df (1,92), $p<.02$. Low accountability subjects considered a correct decision more important ($X=3.42$) than did high accountability subjects ($X=2.39$). This result was not in the expected direction.

All manipulation checks were also analyzed to see if paid participants differed from volunteers in their responses to the manipulations. No significant differences were found in any of these analyses. Cell
means for the affect manipulation checks are presented in Appendix H. As a result of these null results, data from paid and volunteer subjects were combined for all subsequent analyses.

**Predictions for Attention to Positive Leader Behaviors.** This was measured by counting the number of specific positive leader behaviors subjects indicated by the button press dependent measure. Subjects in positive affect conditions were expected to attend to a greater number of positive leader behaviors in the stimulus tape compared to participants in neutral affect conditions. Participants in high accountability conditions were expected to attend to a greater number of these behaviors compared to low accountability subjects. An interaction was also expected. Subjects in the neutral affect-low accountability condition were expected to attend to fewer of these behaviors compared to all other conditions.

These data were analyzed in a 2 (Affect) x 2 (Accountability) ANOVA. The results of this analysis did not indicate a main effect for affective state, \( F=1.75, \) df = (1,92), n.s. Participants in positive feeling states identified only slightly more (\( X=3.86 \)) of the positive behaviors than did participants in neutral affect conditions (\( X=3.43 \)). This analysis also indicated no main effect for accountability, \( F=1.24, \) df (1,92), n.s.
Subjects in high accountability conditions (X=3.48) did not differ from those in low accountability conditions (X=3.91) in the number of clearly positive behaviors that they identified. Finally, there was no interaction between affect and accountability on the number of positive leader behaviors attended, F=.34, df (1,92), n.s. These means are presented in Appendix I.

Predictions for Interpretation of Ambiguous Information. The dependent measures considered for this prediction were the number of ambiguous behaviors interpreted positively and the number of behaviors interpreted negatively as indicated by the button press measure. Participants in positive feeling states were expected to make positive interpretations of ambiguous behaviors more frequently than neutral affect subjects. These subjects were expected to be less likely to interpret ambiguous behaviors negatively. Subjects in high accountability conditions were expected to be more discriminating in their interpretation of ambiguous behaviors (that is, less likely to make either positive or negative interpretations) compared to subjects in low accountability conditions. An interaction between affect and accountability was also predicted for the interpretation of ambiguous behavior. Subjects in positive affect-low accountability conditions were
expected to make more positive evaluations of ambiguous behavior compared to the other three conditions.

These data were analyzed in a 2 (Affect) x 2 (Accountability) ANOVA. The prediction for affective state was not supported by the analysis, F=.01, df (1,92), n.s. Participants in positive affect conditions were no more likely to interpret ambiguous behaviors positively (X=4.42) than were neutral affect subjects (X=4.35).

There was marginal support for the prediction that high accountability subjects would be less likely to interpret ambiguous positively, F=3.09, df (1,92), p<.09. Persons in high accountability conditions indicated fewer positive interpretations (X=3.86) of ambiguous behavior compared to participants in low accountability conditions (X=4.91). High accountability subjects were also less likely to make negative interpretations of ambiguous behaviors compared to low accountability subjects, F=3.93, df (1,92), p<.051. Participants in high accountability conditions were less likely to interpret ambiguous behaviors negatively (X=.67) compared to persons in low accountability conditions (X=1.23).

The predicted affect-accountability interaction was not observed, F=.20, df (1,92), n.s. Similarly, there was no significant interaction effect on the number of ambiguous behaviors interpreted negatively, F=1.50, df
(1,92), n.s. Cell means for these data are presented in Appendix J.

**Predictions for Impressions and Recall.** Impression and recall data were rated by two independent raters, blind to conditions, to determine the number of different dimensions in impressions and in recall. These data were also rated for specificity. These ratings were completed by 2 raters, blind to conditions, on 7-point scales (1=not specific, 7=very specific). These data were correlated to measure agreement. See Table 2 for a presentation of the correlations for ratings on dimensions and for specificity. This table indicates a high level of agreement between raters, correlation values ranged from .59 to .87 for these ratings. Subsequent tests of significance were performed on the mean number of different dimensions determined by the raters for analysis of the dimension data. Tests of significance for the specificity data were performed on the mean of the specificity ratings.

**Differentiation Among Behaviors.** It was predicted that participants in positive affect conditions would make fewer differentiations among relevant leader behaviors compared to neutral affect subjects. Participants in high accountability conditions were expected to make more differentiations among behaviors compared to low
Table 2

Inter-rater Correlations of Retrieval Measure Ratings

<table>
<thead>
<tr>
<th>Measure</th>
<th>Correlation</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impression-specificity</td>
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<td>.0001</td>
</tr>
<tr>
<td>Recall-specificity</td>
<td>.75</td>
<td>.0001</td>
</tr>
<tr>
<td>Impression-Dimensions</td>
<td>.86</td>
<td>.0001</td>
</tr>
<tr>
<td>Recall-Dimensions</td>
<td>.87</td>
<td>.0001</td>
</tr>
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</table>
accountability subjects. An affect-accountability interaction was also predicted. Participants in both high accountability conditions were expected to differentiate most in impression and recall measures. Moderate differentiation was expected from neutral affect-low accountability subjects; positive affect-low accountability subjects were expected to differentiate least.

The means were analyzed in a 2 (Affect) X 2 (Accountability) ANOVA. The predictions for positive affect subjects were marginally supported. When writing impressions, positive affect subjects listed slightly fewer different dimensions (X=3.72) of the leader's behavior compared to neutral affect subjects (X=4.35), F=3.10, df (1,92), p<.082. The inferences made by subjects in positive affect conditions were affected by the manipulation as hypothesized. Recall data indicated no support for the prediction, F=.09, df (1,92), n.s. Positive affect subjects did not indicate more differentiation in recall of specific leader behaviors compared to neutral affect subjects.

Persons in high accountability conditions did not specify a greater number of different dimensions of leader behavior (X=3.99) in their impressions of the leader compared to low accountability subjects (X=4.07), F=.06,
Analysis of the recall data, similarly, did not support the prediction, $F = 0.15$, $df (1, 92)$, n.s. Participants in high accountability conditions ($X = 6.19$) did not differ from low accountability subjects ($X = 6.02$).

No interaction between affect and accountability was observed for the number of dimensions in impressions, $F = 0.42$, $df (1, 92)$, n.s., or in recall data, $F = 0.63$, $df (1, 92)$, n.s. Cell means for these data are presented in Appendix K.

**Specificity of Behaviors.** Positive affect subjects were expected to describe behavior in less specific terms compared to subjects in neutral affect states. High accountability subjects were expected to describe behavior in more specific terms compared to low accountability conditions. An interaction between affect and accountability was expected. Subjects in both high accountability conditions were expected to be more specific, rather than general, in descriptions of behavior compared to low accountability conditions. Subjects in neutral affect-low accountability conditions were expected to be moderately specific in impressions and recall. Subjects in positive affect-low accountability conditions were expected to be more general than specific in impressions and in recall measures.
Analyses were performed on the means of ratings in a 2 (Affect) x 2 (Accountability) ANOVA. There was a marginally significant difference in specificity for impression data, F = 3.71, df (1,92), p < .058. Subjects in positive affect conditions were less specific (3.72) than neutral affect subjects (4.35). This prediction was not supported in a recall task when subjects were asked to list specific behaviors, F = .68, df (1,92), n.s. Positive affect subjects were equally specific (X=5.85) as neutral affect subjects (X=6.05) in recalling behaviors.

Persons in high accountability conditions (X=4.53) did not differ from persons in low accountability conditions (X=4.82) in specificity of behavior indicated in impression paragraphs, F = .99, df (1,92), n.s. Similarly, high accountability subjects (X=6.01) did not differ from low accountability subjects (X=5.89) in the specificity of recall measures.

No affect-accountability interaction was observed for specificity of impressions, F = 1.42, df (1,92), n.s. Similarly, no interaction for specificity of recall was observed, F = .32, df (1,92), n.s. These means are presented in Appendix K.

Predictions of Ratings of Leader Success and Effectiveness. Participants' ratings of leader effectiveness and predictions of future success were
analyzed to determine support for this prediction. Participants in positive affect conditions were expected to evaluate the leader more positively than persons in neutral affect conditions. Participants in high accountability conditions were expected to evaluate the leader less favorably compared to subjects in low accountability conditions. An interaction between affect and accountability was predicted. Positive affect-low accountability subjects were expected to give higher ratings of success compared to all other conditions.

Ratings of success and effectiveness were analyzed in two separate 2 (Affect) X 2 (Accountability) ANOVAS. Neither dependent measure indicated support for the prediction. Ratings of leader effectiveness indicated no significant difference between positive (X=3.14) and neutral (X=3.29) affect conditions, F=.14, df (1,92), n.s. Similarly, predictions of future leader effectiveness indicated no differences between positive (X=2.45) and neutral affect conditions (X=2.89), F=1.06, df (1,92), n.s.

Ratings of future success did not differ between accountability conditions, F=1.06, df (1,92), n.s. Participants in high accountability conditions (X=2.39) were no less favorable in their evaluations of the leader than participants in low accountability conditions.
Evaluations of leader effectiveness did not differ for participants in high (X=2.45) or low (X=2.89) accountability conditions, F=2.82, df (1,92), n.s.

There was no interaction between affect and accountability in evaluations of effectiveness, F=.36, df (1,92), n.s., or in ratings of success, F=.02, df (1,92), n.s.

Predictions for Ratings of Confidence Judgments. This prediction was evaluated by subjects' ratings of agreement to 2 questions. The first question asked subjects how confident they were of their evaluation of the leader; the second question asked how confident the participant was that he/she attended to all positive and negative leader behaviors.

Positive affect subjects were expected to be more confident in their judgments compared to neutral affect subjects. High accountability participants were expected to be more confident in their judgments compared to low accountability subjects. An affect-accountability interaction was also expected. Neutral affect-low accountability subjects were expected to make lower ratings of confidence compared to all other conditions.

These ratings were analyzed in separate 2 (Affect) x 2 (Accountability) ANOVAS. Neither question indicated support for the prediction. Participants in positive
affect conditions (X=3.2) were not more confident in their evaluations than neutral affect subjects (X=3.29), F=.05, df (1,92), n.s. Positive affect subjects (X=1.9) were no more confident in their attention to positive and negative leader behaviors than neutral affect participants (X=2.21), F=.44, df (1,92), n.s.

In ratings of accuracy, there was no difference between high and low accountability conditions, F=1.98, df (1,92), n.s. Participants in high accountability conditions did not differ from low accountability subjects (X=3.51) in their ratings of confidence. Ratings indicating confidence in attention to all behaviors did differ between high and low accountability conditions, F=9.35, df (1,92), p<.003. The data were in the opposite direction hypothesized, however, high accountability subjects were less confident (X=1.34) than low accountability subjects (X=2.78) that they attended to all positive and negative leader behaviors.

There was no support for the predicted interaction between affect and accountability. Confidence ratings in evaluation of the leader indicated no interaction between affect and accountability, F=.11, df (1,92), n.s. Similarly, confidence in attention to all positive and negative leader behavior indicated no significant affect-accountability interaction, F=1.65, df (1,92), n.s. Cell
means are presented in Appendix M.

Additional Analyses

The lack of effects for affect in encoding suggested that the task may have dissipated the effects of affect on selective attention. To evaluate this possibility, additional analyses were done to determine if positive affect subjects differed from neutral affect subjects in the valence of leader behaviors attended to earlier in the experiment.

Data from the tape were broken into 4 temporal sequences. Separate analyses were conducted for 'positive' and 'ambiguous' behaviors in separate 2 (Affect) x 2 (Accountability) x 4 (Time) ANOVAS. The analysis of positive behaviors indicated only a marginal accountability-time interaction, $F=2.52$, df (3,276), $p<.08$. Means for the accountability-time interaction are presented in Appendix N. It appears that low accountability subjects identified slightly more of the positive behaviors in the fourth time period. This finding is uninterpretable.

An analysis of the interpretation of ambiguous behaviors was also performed. This analysis indicated a marginal accountability-time interaction, $F=2.71$, df (3,276), $p<.07$. Means for the accountability-time interaction are presented in Appendix O. It appears that
low accountability subjects, again, identified slightly more of the ambiguous behaviors as positive behaviors in the second and fourth time periods. This is consistent with the earlier marginal finding that high accountability subjects were less willing than low accountability subjects to interpret ambiguous behaviors. The interaction with time is uninterpretable and does not correspond with differences in frequency of ambiguous behaviors during those periods (See Appendix F).

An additional analysis was also done on the total number of positive button presses to see if there were any effects for affect or accountability. This dependent measure was the sum of clearly positive, ambiguous and all other behaviors indicated as positive by subjects. Criteria for these measures were described in the Methods Section.

This data was analyzed in a 2 (Affect) X 2 (Accountability) ANOVA. There was no main effect for affect. There was, however, a main effect for accountability, $F=5.15$, df (1,92), $p<.03$. Subjects in high accountability conditions indicated fewer positive behaviors overall (10.19) compared to low accountability subjects (13.23). It appears that subjects who were not held accountable for their judgments were more willing to interpret behaviors positively.
CHAPTER IV
Discussion

In this research the effects of affective state and accountability on information processing were explored. In particular, this research studied the effects of these influences on stimulus based judgments of leader behavior. While the biasing effects of affective states on memory based judgments have frequently been studied, stimulus based judgments have received less attention in the affect literature. This issue is important. Biases in stimulus based judgments have been shown to influence further information processes, including attention to information, interpretation of information and retrieval (Lingle et al, 1979). This research issue is important given the potential influence of such biases in affecting people’s assessments of leaders in organizational settings.

It was predicted that people in positive feeling states would be positively biased in their attention to leader behaviors and in their subsequent evaluations of the leader compared to people in neutral feeling states. Accountability, or the potential for one’s assessments of the leader to be evaluated, was hypothesized to attenuate this effect. It was predicted that the potential for
evaluation would increase the importance of accurate leader evaluations, resulting in increased cognitive capacity being devoted to the task and less to maintaining one's positive mood state.

Affective states were effectively manipulated by showing people excerpts from films. One film (Little Rascals) was successfully used to induce positive affect; the other film (The Man Who Knew Too Much) was used to induce a neutral affective state. This manipulation was introduced prior to the accountability manipulation. Affect manipulation checks were given immediately following the affect induction.

Manipulation checks on this variable indicated that both manipulations successfully induced the desired affective state. An accountability main effect was also observed for this manipulation check. Participants in low accountability conditions were more positive compared to high accountability subjects. Affect x accountability interactions were also observed in checks on the positive affect manipulation. Positive affect-low accountability subjects felt more positively compared to subjects in positive affect-high accountability conditions. Since the accountability manipulation had not yet been induced at the time these measures were taken, this was not expected. Apparently, the experimenter unconsciously treated
participants in high and low accountability conditions differently in positive than in neutral affective states.

High accountability was manipulated by telling people that their individual responses would be evaluated at the end of the session. Low accountability was induced by telling participants that only the overall assessment of the leader was of interest and that their individual assessment of the leader would never be evaluated.

Responses to manipulation check items for accountability indicated that participants in high accountability conditions thought that their judgments were more likely to be considered separately, that they were more likely to have to justify their responses, that responsibility for the judgment was less likely to be shared, and that their own individual assessments of the leader would be evaluated compared to low accountability subjects.

Effects of Affective State on Stimulus Based Judgments

It was predicted that participants in positive affective states would be positively biased in stimulus based judgments of the leader. Previous research has demonstrated the effects of affective state in biasing memory based judgments. This biasing effect was not observed in the stimulus based judgments made in this research. It may be that mood states are only effective
in biasing memory based judgments. Perhaps the biasing effects of mood state are most influential at the time of retrieval rather than when information is initially encoded.

The lack of effects for affective state was unexpected given the strong manipulation checks for affective state. There may be other explanations for this lack of effect than differences between memory and stimulus based judgments. Since manipulation checks for affect were administered only once, and immediately after induction, it is possible that the positive mood of positive affect subjects dissipated as they became involved with the task.

It may be that the button press procedure interfered with participants' positive affective states by increasing their self awareness of their performance. Increased self awareness may have resulted in more attention being directed toward the task and less attention being directed toward the mood state. Also, the button press measure, while not appearing unpleasant, may have itself interfered with positive affective state. The task may have been considered cumbersome. Another possibility is that to do the button press task at all required cognitive effort. Since this task was probably considered novel, it may have required more cognitive effort to perform. Increasing the
cognitive capacity required to accomplish the task would limit the cognitive capacity available to maintain the positive mood state. While these explanations are plausible, it is not possible to separate the button press measure for other potential sources of bias in this research.

It may also be that the tendency for people to engage in confirmatory information searches already biases assessments in ways that are consistent with the hypothesized effects of positive affective states. Although participants in this study were instructed to attend to both positive and negative leader behaviors, the tendency to look for confirmatory information may have been stronger than expected. Adopting a confirmatory approach to evaluating the leader’s performance would result in increased attention to positive leader behaviors. This approach is consistent with the positive affect prediction. Finally, such an approach may have unknowingly been encouraged since the tape included only positive and ambiguous behaviors; clearly negative leader behaviors were omitted from the tape.

Effects of Accountability on Stimulus Based Judgments

Participants in high accountability conditions were expected to attend to a greater number of positive leader behavior, to be more discriminating in their
interpretation of ambiguous behaviors, to elaborate and differentiate among behaviors more in impression and recall measures, and to be more confident of their assessments compared to low accountability subjects.

Only marginal effects for accountability were observed. Interestingly, participants in high accountability conditions were somewhat less willing to interpret ambiguous information. High accountability subjects were less willing to interpret ambiguous information as either a positive or a negative instance of leader behavior. This is consistent with the notion that high accountability subjects, expecting to justify their opinions later, would be more discriminating in their interpretation of ambiguous information. It was also observed that participants in low accountability conditions were also more confident that they had attended to all positive and negative leader behaviors. This finding was not expected. It may be, however, that low accountability participants were less critical in evaluating their own performances. This would explain their greater confidence in their accuracy.

No effect for accountability were observed in attention to positive leader behavior, or in the elaboration and differentiation of impression and recall measures.
Moderating Effects of Accountability on Affect

It was predicted that the effects of positive affective states would be moderated by importance of the task, in this case accountability. None of the expected results were obtained. There are a number of potential explanations for the lack of an interaction between these conditions.

One possibility is that our subjects considered this task important for other reasons. Participants in this study were certainly familiar with the role of leaders and with the importance of leaders in successfully achieving group goals. Past recollections of experiences with effective and ineffective leaders, knowledge about the impact that an effective or ineffective leader can have on one's life, and a formalized situation in which to make one's assessments may have instilled a sense of responsibility in participants.

Although there were no differences in attention to leader behaviors or in the assessments made of leaders, other measures indicated that in some ways people in low accountability conditions considered their efforts more important compared to high accountability subjects. When asked to indicate how important it was for them to make a correct decision, low accountability subjects indicated that it was more important for them to make a correct
decision compared to high accountability subjects. Participants were also asked how confident they were that they had attended to all relevant leader behaviors. Low accountability subjects were more confident that they attended to all behaviors than were participants in high accountability conditions.

Such involvement with the task may have resulted in increased task importance by subjects in low accountability conditions. Harkins and Petty (1982), Brickner, Harkins, and Ostrom (in press) and Greenwald and Breckler (1984) suggest that providing people with tasks that are unique or challenging will increase task involvement. This increased involvement will result in increased effort being directed toward task performance.

This intrinsic motivation to perform well would only have improved performance in low accountability conditions. For high accountability subjects, internal sources of motivation would have been less influential in their performance. External sources of evaluation were likely to have been more salient for high accountability subjects and to interfere with possible internal sources of motivation. To summarize, it is likely that both high and low accountability subjects considered the task important. It is the nature of task importance (external vs internal) that differed for these subjects.
Future Directions for This Research

Future research on this problem should explore a number of alternative approaches to this problem and should expand the focus of the studies. One alternative to the approach used in this research would be to use a repeated measures design. The use of repeated measures would address many of the problems encountered in the present study.

Repeated measures would correct some of the problems with the current study by allowing practice on the task. Practice trials would increase the participants' familiarity with the task. This would result in decreased task novelty and increased task experience.

Decreasing task novelty and increasing task experience would also decrease the self awareness participants would be likely to experience when performing an unfamiliar task. Reducing self awareness while performing the task would make successful task performance less salient. This is one way of controlling task importance.

Increasing task experience could decrease the intrusiveness of the task. This would decrease the cognitive capacity required to perform the task, making the procedure something that could be done more automatically. This would make the task itself less
likely to interrupt the affective states of participants.

Increasing the number of judgments made would also decrease the importance of any single judgment (Latane' and Nida, 1979). This advantage of the repeated measures design would also eliminate an alternative source of task importance. Making several judgments would limit the perceived importance of any single assessment of performance.

The importance of the position being assessed should be varied. It may be that assessments of people in less influential positions would have been more affected by affective states. Such assessments may have less inherent importance.

The importance of the task should also be varied in other ways. Varying the purpose for which the judgment is being made, payoffs for correct decisions, and sources of evaluation (i.e., experimenter, co-worker) are a some ways in which task importance could be manipulated in future research.

People making the assessments should have past experience in making such judgments. It may be that routine decisions are more subject to biasing influences. People may become more careless in the way that they process information in routine circumstances.
Future studies should also give additional attention to affect induction techniques. Multiple checks on the manipulation, at different points in the experiment, should be used to ensure that the affective state is being maintained throughout the task. Less obtrusive checks on the affect manipulation should also be considered. It is possible that demand characteristics could account for the strong differences observed in the manipulation checks used in this research.

Other manipulations of affective state should also be considered. It may be that the affect inductions used in this research were not strong enough to last the duration of the task. Finally, negative affective states should also be considered as they affect judgments. These effects would also be important to understanding decisions made in organizational contexts.

Another issue to consider in designing future research on information processing of 'ambiguous' items is the definition of those items. Attention to Appendices G and H will indicate that the difference between 'clearly positive' and 'ambiguous' behaviors was determined more by the number of pilot subjects that indicated the behavior than by their interpretation of the behavior as positive or negative. Future research on interpretation of 'ambiguous' behaviors should also focus on the nature of
those behaviors in terms of likelihood of being interpreted as either positive or negative rather than simply focusing on the likelihood of the behavior being interpreted as relevant to the judgment.

The effects of affect and accountability on memory based judgments of leader effectiveness should also be explored. The frequency of these judgments in organizational settings, and the known influence of affective biases on memory based judgments, suggest that memory based judgments of leaders could also be influenced by the assessor’s mood state.

The effects of accountability on judgments of leader behavior and on interpretation of leader behavior is something that also deserves further attention. The effects of accountability on judgments in organizational settings is well established in the literature. The effects observed here on interpretation of ambiguous leader behaviors suggests interesting implications for leadership judgments.

Accountability should also be considered as a moderator in future affect research. Importance of the task is considered an important potential moderator of affective state. Accountability is a reasonable manipulation of task importance and as demonstrated here can be induced in a laboratory setting.
Although the predictions made in this research were not supported, further research on the effects of mood states and accountability on decision making and judgment is warranted. Improved understanding of the sorts of situations likely to be influenced by these factors, and the extent to which bias might be induced, could improve accuracy in decision making and judgment tasks.
Footnotes

1 It is not clear from Study I if performance in importance conditions was due to an increased willingness to work in order to maintain the positive affective state or if performance improved because the positive affective state was mediated by importance. It may be that positive affect subjects in high importance conditions performed more carefully than positive affect subjects in low accountability conditions because they were no longer in a positive affect state, not because they wanted to maintain the state by performing successfully or preventing losses.

2 This sort of effect might not always be considered positively. For example, one factor contributing to faulty group decision making (i.e. groupthink) is the failure to reconsider information that was dismissed earlier in the decision making process.

3 Some support for this is found in the performance results of Kraiger (1984). He found that while positive and negative affect subjects rank-ordered persons similarly, positive affect subjects were more accepting (would hire more) of the applicants. This suggests that more positive qualities of the applicants were available for positive affect subjects in making these judgments.
Appendix A

Please indicate your rating by circling the one number that best indicates your opinion.

I think leaders are generally very effective.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

Most of the leaders I have ever interacted with have been effective leaders.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

Most of the leaders that I am likely to interact with will be effective leaders.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree
Appendix B

Please circle one number on each scale to indicate your ratings on the film.

How did this film make you feel?
Negative: -3  -2  -1  0  1  2  3 :Positive

How was the sound quality of this film?
Noisy: -3  -2  -1  0  1  2  3 :Clear

How was the visual quality of this film?
Noisy: -3  -2  -1  0  1  2  3 :Clear

How was the volume of this film?
Too loud: -3  -2  -1  0  1  2  3 :Too quiet

How did this film make you feel?
Sober: -3  -2  -1  0  1  2  3 :Amused

How did this film make you feel?
Sad: -3  -2  -1  0  1  2  3 :Happy

Have you ever seen this exact film before? (Circle one)
Yes  No

Would you like to see this film again? (Circle one)
Yes  No

98
Appendix C

Please write your impression of this leader.

Please write down all of the specific instances of effective or ineffective leader behaviors that you saw.
Appendix D

By our individual assessments of the leader will be evaluated by the experimenter.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

I feel a lot of pressure to make an accurate judgment of the leader.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

I am confident that I evaluated the leader accurately.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

I am confident that I attended to all positive and negative leader behaviors.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

I am confident that I made a correct judgment of the leader's effectiveness.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

This experiment was easy to do.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

Accurate assessment of this leader is not especially dependent on my responses in this experiment.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree
Indicate your rating by circling the one number that best indicates your opinion.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Strongly</th>
<th>Strongly</th>
<th>Strongly</th>
<th>Strongly</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

I would enjoy working with this leader.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

This leader is likely to be effective in the future.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

This leader was effective in this group.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

It is important to be to evaluate this leader accurately.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

My own assessment of the leader will not be considered separately from the assessments made by others.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

I will have to justify my judgments to the experimenter at the end of this session.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

Responsibility for assessing the leader's behavior is shared by several people.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree

It is important to be able to make a correct decision about the effectiveness of this leader.

Strongly Disagree: -5 -4 -3 -2 -1 0 1 2 3 4 5: Agree
Appendix E

Good morning Trish. How was your weekend?

As you know, I called this meeting to discuss the current status of the employee benefits program and to discuss the next steps in this project. I received the reports that you prepared, they were very useful in clarifying the current status of this project. Based on my review of your needs analysis and the current market data, I've developed this status report of the employee benefits project. Today I'll give you my opinion on the direction we should move, and discuss the next steps in the project. HAND OUT COPIES OF THE REPORT.

According to the needs analysis people are generally satisfied with our benefits, however, there are two areas that our employees would like to see improved: recreational facilities and the creation of a new day care facility.

The status report that I handed out details the current recreational facilities that we provide and the cost of those facilities. One of the additional benefits that our employees would like to see in this area is the employment of a full time physical fitness professional on staff to develop individual fitness programs, monitor programs and to ensure that people are exercising at a beneficial, but safe, level. I agree that this would be useful and consistent with our concern for the welfare of our employees. They would also like an aerobics class to be taught in the morning before work, over the noon hour and after the work day - three times each day.

A new service is also being requested. Employees would like to see an in-house day care facility for pre-school children.
between the ages of 18 months and 5 years. This facility should be supervised by a certified child care specialist and one adult supervisor should be responsible for no more than 5 children at any one time. According to the request, cost of this program should be subsidized at the rate of 50%.

Based on our resources, we will not be able to meet both of these requests fully. The allotted funds for this project are indicated in your copies of the status report. If you turn to page 4, you can see that the estimated costs of a full time physical fitness professional is $20,000.00; an additional $18,000.00 is estimated for a full time aerobics instructor to hold three sessions per day.

In thinking about this, it seems to me that the ideal would be to combine the positions with a cutback on the number of aerobics sessions offered. This program should be monitored to see if interest remains stable and the program could be expanded in six months. Another possibility is to hire part time people to conduct the aerobics sessions. What are your thoughts on this?

TRISH: There may be employees here that would be capable of leading aerobics sessions. If we could identify some of these employees, they could work with the physical fitness pro initially, and then take responsibility for a session of their own. This would allow us to expand the number of sessions offered sooner than six months.

LISA: That's a good idea Trish. I think you should put out a memo to the supervisors asking them to discuss the issue with their employees. If they identify any interested people, they
should contact you. Tell them that these employees could be trained and certified as aerobics specialists at no cost to them; after their certification they will be compensated for sessions that they lead before or after work. Specific arrangements for these sessions will be arranged later.

MANUELA: How many people would we train? I think we should train several people, put them on alternating schedules and have standby instructors available.

LISA: These are some good possibilities. Manuela, why don’t you put together a questionnaire asking the opinions of those who demonstrate interest. See how they feel about these issues. You can get with Trish on this, the two of you work well together on projects. I think that about covers this for now. Can either of you think of any other issues that we should explore in hiring the aerobics instructor?

NO

LISA: I have identified some names of physical fitness professionals to consider. My secretary has sent letters asking for resumes. A copy of that list is in your summary report, if there are any names that you would like to see added, let me know after the meeting.

The other issue to be discussed is the development of a day care facility. Currently, no space is available for an inhouse facility. Since this is a new project, it would require a long delay if we tried to do it inhouse immediately, but we may be able to contract local day care facilities to handle this issue. I have an appointment set up to meet with several of the managers
of these facilities to present our situation to them as a group. I'm opening up the situation for contract bids. After receiving these bids we can reevaluate the situation.

In the meantime there are probably other options that we can consider. Perhaps the facility could be company run but be housed outside of the home office building. What do you think?

MANUELA: I could check out the rental properties in the area to see what is available and what the current market values are for day care professionals. Current interest in the program indicates that we would need about 25 of these professionals to handle our needs.

LISA: That's a good start, Manuela. While you're doing those things, also check with our legal department on the licensing requirements that we would have to deal with. I don't want any surprises later.

TRISH: Another possibility we can consider in the interim is to reimburse people for 25% of their current child care expenses. Maybe some sort of reimbursement procedure could be developed.

LISA: That might even be a long term solution to this problem. Based on our needs analysis, see what the expenses would be to reimburse these people at 25% and at 50%. Limit the cases to those dealing with certified child care professionals.

Do either of you have any other suggestions? PAUSE I want to thank you for your feedback and interest in this project. Your work has been very good and the project is moving along nicely. I would like the follow-up work back from you a week from today, after I look over those reports, we can schedule the next
meeting.
Appendix F

Clearly Positive Behaviors

<table>
<thead>
<tr>
<th>Time</th>
<th>Behavior</th>
<th>Negative</th>
<th>Positive</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0:00-0:07</td>
<td>Greeting</td>
<td>1</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>0:15-0:24</td>
<td>Compliments on report</td>
<td>3</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>2:09-2:13</td>
<td>Wouldn't you agree?</td>
<td>9</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>3:14-3:18</td>
<td>What do you think?</td>
<td>5</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>3:40-3:44</td>
<td>Great-good idea</td>
<td>2</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>7:45-7:50</td>
<td>Thanks for your work,</td>
<td>1</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>good progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:56-8:06</td>
<td>Arrangements for followup</td>
<td>2</td>
<td>26</td>
<td>28</td>
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Appendix G

### Ambiguous Behaviors

<table>
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<tr>
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<td>Sets direction for meeting</td>
<td>4</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>0:43-0:48</td>
<td>Hands out reports</td>
<td>0</td>
<td>8</td>
<td>8</td>
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<tr>
<td>1:32-1:40</td>
<td>Agrees with concerns</td>
<td>3</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>2:00-2:06</td>
<td>Checks figures</td>
<td>4</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>2:16-2:23</td>
<td>Asks opinion on children</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>3:07-3:23</td>
<td>Shows uncertainty</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>3:26-3:31</td>
<td>Leader takes notes</td>
<td>1</td>
<td>9</td>
<td>10</td>
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<tr>
<td>4:15-4:21</td>
<td>Asks for opinion</td>
<td>4</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>4:31-4:40</td>
<td>Gives direction</td>
<td>4</td>
<td>13</td>
<td>17</td>
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<td>4:57-5:02</td>
<td>Asks for input</td>
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<td>12</td>
<td>13</td>
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<tr>
<td>5:54-5:59</td>
<td>Sets up next meeting</td>
<td>1</td>
<td>10</td>
<td>11</td>
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<tr>
<td>6:05-6:14</td>
<td>Discusses options</td>
<td>1</td>
<td>9</td>
<td>10</td>
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<td>6:19-6:23</td>
<td>Asks opinions</td>
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<td>11</td>
<td>12</td>
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<td>6:38-6:44</td>
<td>Compliments workers</td>
<td>2</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>7:30-7:35</td>
<td>Asks for suggestions</td>
<td>1</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>7:51-7:55</td>
<td>Gives compliments</td>
<td>0</td>
<td>11</td>
<td>11</td>
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Appendix H

Cell Means for Manipulation Checks Comparing Paid and Unpaid Subjects

Affect manipulation check: How did this film make you feel? (-3=Negative: +3=Positive)

Paid Subjects' Means and Standard Deviations

<table>
<thead>
<tr>
<th>Affect</th>
<th>Positive</th>
<th>Negative</th>
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<tr>
<td>High</td>
<td>X=1.63</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SD=1.02</td>
<td>1.09</td>
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</table>

Accountability

| Low    | X=2.25   | -.31     |
|        | SD=.68   | .94      |

Unpaid Subjects' Means and Standard Deviations

<table>
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<th>Affect</th>
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<tr>
<td>High</td>
<td>X=1.80</td>
<td>-.38</td>
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<tr>
<td></td>
<td>SD=1.36</td>
<td>.74</td>
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</table>

Accountability

| Low    | X=2.50   | -.38     |
|        | SD=.76   | 1.19     |
Affect Manipulation Check: How did this film make you feel? (-3=Sober; +3=Amused)

<table>
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<th></th>
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<tbody>
<tr>
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<td>X=2.18</td>
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<td></td>
<td>SD=.83</td>
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**Accountability**

<table>
<thead>
<tr>
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<td></td>
<td>SD=.62</td>
<td>1.12</td>
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Unpaid Subjects’ Means and Standard Deviations

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<tr>
<td>High</td>
<td>X=2.13</td>
<td>-.38</td>
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<tr>
<td></td>
<td>SD=.99</td>
<td>1.69</td>
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**Accountability**

<table>
<thead>
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<tr>
<td></td>
<td>SD=.74</td>
<td>1.04</td>
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**Affect Manipulation Check:** How did this film make you feel? (-3=Sad; +3=Happy)

### Paid Subjects' Means and Standard Deviations

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<th>Affect</th>
<th>Positive</th>
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<tr>
<td>High</td>
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<td></td>
<td>$SD=.98$</td>
<td>$.62$</td>
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</table>

**Accountability**

| Low    | $X=2.25$ | $-.19$ |
|        | $SD=.77$ | $.66$  |

### Unpaid Subjects' Means and Standard Deviations

<table>
<thead>
<tr>
<th>Affect</th>
<th>Positive</th>
<th>Negative</th>
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<tbody>
<tr>
<td>High</td>
<td>$X=1.62$</td>
<td>$-.25$</td>
</tr>
<tr>
<td></td>
<td>$SD=1.06$</td>
<td>$.46$</td>
</tr>
</tbody>
</table>

**Accountability**

| Low    | $X=2.25$ | $-.25$ |
|        | $SD=.89$ | $.46$  |
Appendix I

Button Press Measures for Positive Behaviors
Means and Standard Deviations

<table>
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<tr>
<th></th>
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</thead>
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<td>Negative</td>
</tr>
<tr>
<td>High</td>
<td>X=3.63</td>
<td>3.33</td>
</tr>
<tr>
<td></td>
<td>SD=1.61</td>
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</tr>
<tr>
<td>Accountability</td>
<td>Low</td>
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</tr>
<tr>
<td></td>
<td>X=4.29</td>
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<td></td>
<td>SD=1.60</td>
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Appendix J

Button Press Measures for Ambiguous Behaviors Interpreted Positively: Means and Standard Deviations

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<th>Affect</th>
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<tr>
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Accountability

<table>
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<tbody>
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Button Press Measures for Ambiguous Behaviors Interpreted Negatively: Means and Standard Deviations

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<tr>
<td>High</td>
<td>X= .42</td>
<td>.92</td>
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<tr>
<td></td>
<td>SD= .71</td>
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Accountability

<table>
<thead>
<tr>
<th>Low</th>
<th>X=1.33</th>
<th>1.13</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>SD=1.46</td>
<td>1.59</td>
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Appendix K

Number of Dimensions in Recall Task
Means and Standard Deviations

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<th>Affect</th>
<th>Positive</th>
<th>Negative</th>
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<tr>
<td>High</td>
<td>$X=6.08$</td>
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</tr>
<tr>
<td></td>
<td>$SD=1.92$</td>
<td>$2.14$</td>
</tr>
<tr>
<td>Low</td>
<td>$X=6.27$</td>
<td>$5.77$</td>
</tr>
<tr>
<td></td>
<td>$SD=2.31$</td>
<td>$2.56$</td>
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Accountability

<table>
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<th>Affect</th>
<th>Positive</th>
<th>Negative</th>
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</thead>
<tbody>
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<td>$SD=1.81$</td>
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Specificity Ratings in Recall Task:  
Means and Standard Deviations

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<td></td>
<td>SD=.95</td>
<td>.96</td>
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</table>

| Accountability | Low   | X=5.27 | 6.02 |
|                |       | SD=1.24| 1.00 |

Specificity Ratings for Impression Task:  
Means and Standard Deviations

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<thead>
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<tr>
<td>High</td>
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<td>4.99</td>
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<td>SD=1.63</td>
<td>1.29</td>
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| Accountability | Low   | X=4.71 | 4.93 |
|                |       | SD=1.55| 1.27 |
Appendix L

Ratings of Leader Success and Effectiveness: Means and Standard Deviations

Ratings of Future Success

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<tr>
<td></td>
<td>SD=2.59</td>
<td>1.83</td>
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</tbody>
</table>

Accountability

| Low    | X=2.71   | 3.08     |
|        | SD=1.90  | 1.93     |

Ratings of Leader Effectiveness

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<thead>
<tr>
<th>Affect</th>
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<th>Negative</th>
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</thead>
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<td>High</td>
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<td>3.08</td>
</tr>
<tr>
<td></td>
<td>SD=2.39</td>
<td>2.08</td>
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</tbody>
</table>

Accountability

| Low    | X=3.58   | 3.50     |
|        | SD=1.34  | 1.53     |
Appendix M

Ratings of Confidence in Judgments:
Means and Standard Deviations

Confidence in Accurate Leader Evaluations

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<th>Negative</th>
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<tbody>
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<tr>
<td></td>
<td>SD: 1.67</td>
<td>1.65</td>
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<tr>
<td><strong>Accountability</strong></td>
<td>Mean: 3.42</td>
<td>3.63</td>
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<tr>
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<td>SD: 2.50</td>
<td>1.55</td>
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Confidence in Attention to All Positive and Negative Leader Behaviors

<table>
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<tr>
<th>Affect</th>
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<th>Negative</th>
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<tr>
<td><strong>High</strong></td>
<td>Mean: .88</td>
<td>1.79</td>
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<tr>
<td></td>
<td>SD: 2.71</td>
<td>2.34</td>
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<tr>
<td><strong>Accountability</strong></td>
<td>Mean: 2.92</td>
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<td>SD: 1.82</td>
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Appendix N

Button Presses for Positive Behaviors
Cell Means for Accountability x Time Interaction

<table>
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<th>Accountability</th>
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<th>Low</th>
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<tr>
<td>Time1</td>
<td>1.04</td>
<td>1.04</td>
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<td>Time2</td>
<td>1.79</td>
<td>1.65</td>
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<tr>
<td>Time3</td>
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<td>.02</td>
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<tr>
<td>Time4</td>
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<td>1.41</td>
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</tbody>
</table>
Appendix C

Button Presses for Ambiguous Behaviors
Cell Means for Accountability X Time Interaction

| Accountability | Time1 | High | .63 | .79 |
|                |       |      |     |     |
| Time2          |       | .60  |     | 1.23|
| Time3          |       | 1.33 |     | 1.37|
| Time4          |       | 2.04 |     | 2.48|
References


Ostrom, T.M. (1981). Converging Validity versus Multiple Operationism. Colloquium presented at The Ohio State University, Columbus, Ohio.


