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THE INFLUENCE OF AFFECTIVE STATES ON PERCEPTIONS OF TASK CHARACTERISTICS AND TASK SATISFACTION

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THE INFLUENCE OF AFFECTIVE STATES ON PERCEPTIONS OF TASK CHARACTERISTICS AND TASK SATISFACTION

DISSERTATION

Presented in Partial Fulfillment of the Requirement for the Degree of Doctor of Philosophy in the Graduate School of The Ohio State University

By

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The Ohio State University 1983

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ACKNOWLEDGEMENTS

A dissertation may be viewed as either a product or a process. The product is the document, a deceptively brief encapsulation of one's thoughts, one's efforts, one's feelings. The dissertation as process means that it represents not a discrete event, but simply a major step in a lifetime of learning. To paraphrase Winston Churchill, it represents not the end and not the beginning of the end; but perhaps it represents the end of the beginning.

The distinction between product and process is important because a part of me doesn't want to share credit for the document. Writing it has been the most isolating experience in my life. But another part of me sees the dissertation as a process and recognizes the hard work of a number of important individuals to that process.

Thus, I offer my thanks to Alice Isen for her comments on earlier drafts and her enthusiasm for my ideas. Milt Hakel and Rich Klimoski served on my reading committee. They made several important suggestions during the proposal meeting which helped to sharpen my thinking and improve the study. Rob Billings deserves the fullest extent of my gratitude for serving as my advisor. He provided direction by pointing,
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INTRODUCTION

Over the past two decades, two of the most popular research topics in Industrial/Organizational psychology have been job design and job satisfaction. This research project investigates one potential source of variation in both perceived task characteristics and employee job satisfaction—employee affect. This chapter begins by distinguishing affect from emotions. Possible causal relationships between affect and task perceptions are then discussed. The next section discusses potential relationships between general affect and job satisfaction. Also discussed are several important issues related to affect, particularly associated cognitive processes. Finally, the proposed research project is more fully explicated through the formal presentation of the experimental hypotheses.

Distinguishing Affect from Emotion

Because many readers may be unfamiliar with affect, it is important at the outset to define it. As Isen (Note 1) has commented, this is difficult to do, particularly since affect is a relatively new construct. Affect is used synonymously with mood or feelings and is defined here as seemingly mild states such as pleasantness or irritation which
are elicited by situational conditions and which may alter subsequent non-affective thoughts or behaviors. Further, the content or nature of the situational source may be totally unrelated to the nature of the cognitive or behavioral consequences (Johnson & Tversky, 1983). Affect is similar in meaning to emotion, though Isen (Note 1) has attempted to distinguish between the two. The primary distinction is that emotions tend to have a clear referent or target (i.e., I am mad at someone), while affect may lack a clear referent (i.e., I am grouchy but the cause is unclear and so I tend to take out my grouches on everyone). In addition emotions are usually believed to include physiological arousal or depression, while feelings or affect may or may not. Emotions are generally thought to be more intense than feelings, though where to draw the dividing line is not always clear. If there is any value to be gained in distinguishing between affect and emotion it is that while it has been long-accepted that strong emotions can "interrupt" or alter behavior (e.g., Yerkes, 1943; 1961), it has only been recently recognized that milder feeling states, triggered by seemingly mundane events, can also alter behavior though or behavior. Further, because of the unspecific nature of the causes and consequences of affective states, their influence may be more pervasive and subtler:

they gently color and redirect ongoing thoughts and actions, influencing what will happen next but almost without notice and certainly without ostensibly changing the context or basic activity (Isen, Note 1, p. 13).
General Affect and Perceived Task Characteristics

The Job Characteristics Model (Hackman & Lawler, 1971; Hackman & Oldham, 1975; 1976) is the predominant model for understanding relationships between employees' jobs and their job-related attitudes. The model proposes that jobs possess measurable characteristics (e.g., autonomy and task significance) which affect employee job satisfaction, internal work motivation, and work performance. Subsequent research has been generally supportive. A number of studies have found moderate positive correlations between task characteristics and employee satisfaction and/or internal work motivation (Brief, Aldag, & Jacox, 1978; Dunham, 1976; Oldham, Hackman, & Pierce, 1976; and Rousseau, 1977; 1978), though little or no relationship has been found between job characteristics and actual employee performance (Brief et al., 1976; Schuler, 1977, reported in Aldag, Farr, & Brief, 1981; Umstot, Bell, & Mitchell, 1976).

Objective vs. Perceived Task Characteristics

Recent interest has centered on the measurement of task characteristics, particularly on whether the proposed task characteristics of the model refer to objective or perceptual phenomena. Defining them as objective attributes implies researchers can and should describe the environment "as it is," independent of the interpretations of the workers in it. Reference to perceived attributes implies a concern for
the psychological significance of the environment to the worker (Endler & Magnusson, 1976).

If two workers describe their jobs differently, either their jobs are in fact dissimilar or they simply perceive them to be so. Two jobs may be dissimilar because they were designed as such; job A is highly structured and dependent upon the input of others while job B is designed with few rules and little input from others. Even two jobs which were designed to be similar may in reality be quite distinct from one another if one or both incumbents change the essence of their roles within those jobs. A "loner" may build isolation into the job and a "fast riser" may take on any additional functions possible to expand the scope of the job. Similarly, group norms may restrict, reward, or redirect members' work habits (and hence change the job). The point is that in each case, the fundamental similarity or dissimilarity of the jobs should be apparent to an outside observer. However, many times researchers have found large variations in incumbents' descriptions of their jobs, even when they appear to hold identical jobs (e.g., Caldwell & O'Reilly, 1982). Indeed, O'Connor, Rudolph, and Peters (1980) have estimated that as much as 50% of the variation in task perception ratings are attributable to individual difference factors. This realization has prompted many organizational psychologists to clarify the distinction between workers' perceptions of their environment and objective reality.
The original models of Hackman and Lawler (1971) and Hackman and Oldham (1975; 1976) distinguished between objective and perceived characteristics but suggested workers' perceptions were of greater theoretical importance for understanding their reactions to their jobs. Confusion arose, however, when the authors' subsequent field tests of their models found moderately high correlations between incumbent ratings of task characteristics (perceptual phenomena) and supervisor or neutral observer ratings of the same features (objective phenomena; Hackman & Lawler, 1971; Hackman & Oldham, 1975). This led Hackman and Oldham (1975) to conclude that perceived and objective task characteristics are essentially isomorphic: "It is important to know those scores (perceived task characteristics) are reasonably congruent with objective reality ..." (p. 169, emphasis added). Hackman, Oldham, Jansen, and Purdy (1975) also suggested employee ratings measured "objective characteristics of the job" (p. 69, emphasis added). In several later studies however, researchers have failed to find agreement in task perceptions either between incumbents and supervisors (Brief & Aldag, 1978) or between observer and employee perceptions (Baird, 1976).

Whether employee ratings of job characteristics are synonymous with objective reality is not merely an academic issue since ratings of task characteristics are an important diagnostic tool for job redesign (Aldag & Brief, 1979; Hack-
man & Oldham, 1980) and job incumbents are are by far the most popular source of ratings (Aldag et al., 1981; Roberts & Glick, 1981). Current consensus holds that employee ratings of task characteristics represent perceptions or psychological interpretations of their environment, as evidenced by the title of a recent review article - "Measurement of perceived task characteristics," (Aldag et al., 1981; emphasis added).

Though current, this perspective is not new; it dates back at least to the Hawthorne studies, whose researcher recognized the need to examine "The meanings ... (a worker) assigns to the events and objects in his environment (Roethlisberger & Dickson, 1939; p. 557)" rather than the job per se. What is new is that organizational researchers have begun to theoretically and empirically identify important sources of variations in those perceptions. Specifically, recent research has shown that task perceptions may vary as a function of social cues from relevant co-workers, organizational characteristics, individual difference variables, and employee attitudes. The present study examines another potential determinant, employee affect.

Social Determinants

Salaacik and Pfeffer (1978) have argued persuasively for the need to consider social cues of co-workers as one source of information about the job. Drawing from self-per-
ception theory (Bem, 1972) and social comparison theory (Festinger, 1954), Salancik and Pfeffer suggested that when individuals are asked to make public judgments about fairly ambiguous stimuli (e.g., ratings of "task significance"), they often look to or are susceptible to comments or behaviors of their co-workers. Subsequent research has supported the hypothesis that job perceptions are at least partially determined by input from the social context (Griffin, 1983; Pfeffer, 1980; O'Reilly & Caldwell, 1979; Weiss & Nachwik, 1981; Weiss & Shaw, 1979; White & Mitchell, 1979).

Organizational Determinants

In their later work, Hackman and Oldham (1980) noted the utility of understanding situational constraints such as organizational technology and control systems before applying a job redesign program. Rousseau (1977; 1978) has reported evidence that organizational characteristics (technology and structure) and positional characteristics (shift, job title, tenure) are significantly related to perceptions of task characteristics. Vance (1981) also found differences in job perceptions as a function of occupational or job groupings.
Individual Determinants

While Hackman and Oldham (1976) hypothesized that individual difference variables (i.e., Growth Need Strength) moderated the relationship between job perceptions and work outcomes, individual factors may directly influence the perceptions themselves. Several researchers have suggested that job perceptions may vary across different traditional worker subgroup such as age, race, sex, or tenure (e.g., James & Jones, 1980; King, Murray, & Atkinson, 1983; Rousseau, 1980). However, they offer no compelling theoretical reasons why this should be so. Any increments in understanding worker responses to their environment through the consideration of these variables is likely to be slight.

A stronger argument may be made for consideration of individuals' past experience or background as a meaningful source of variation in job perceptions. Schmitt and Schneider (1983) have noted the success researchers have had predicting job performance from worker background data and have questioned why no one has attempted to predict other employee responses such as job satisfaction or job perceptions. Perceptions of current job attributes may be made relative to past jobs (Griffin, 1983). Running a peanut farm may seem significant to someone who has only previously worked as a farmhand, but it should seem less significant to someone who has previously led a nation. Another view is offered by Pulakos and Schnitt (1983) who suggest workers
derive expectations of work environments from past employment histories, experiences of friends or family members, or popularly held stereotypes. Their actual job experience becomes a self-fulfilling prophecy in which the job environment actually meets the workers’ expectations because of the way they have behaved on the job.

**Individual Attitudinal Determinants**

An even more promising approach would be to consider individual attitudes or dispositions as a filter through which job information is processed. For example, Fousseau (1978) has found a significant relationship between perceived task characteristics and incumbents’ need for role clarity, while Stone (1979) found a significant effect on task perceptions by incumbents’ field dependence (Wiitkin & Goodenough, 1977).

In social-psychological literature, it is generally accepted that there is a tendency of individuals to prefer and to seek to maintain consistency between their attitudes, beliefs, and behavior (Heider, 1958; Osgood & Tannenbaum, 1955). Consequently, workers may alter perceptions (beliefs) of their surrounding environment to be aligned with their prevalent attitude (James et al., 1978). Thus, it has been hypothesized by several researchers that one particular attitude, job satisfaction, may be a determinant of beliefs or perceptions of important job characteristics. This hy-
A hypothesis has been supported in five studies employing either regression analyses with objective task differences controlled (Blau & Katerberg, Note 2; Caldwell & O'Reilly, 1982, study 2; O'Reilly, Farlette, & Bloom, 1980), causal modeling strategies (James & Jones, 1980), or an experimental manipulation in which subjects role-played being satisfied or dissatisfied (Caldwell & O'Reilly, 1982, study 1).

**Affective Determinants**

Yet another possible influence on task perceptions is employees' dominant affective state. This determinant has not been explicitly studied to date, but is one of the central tenets of this thesis.

Distinguishing affect from job satisfaction is important and may also be helpful in further defining the affect construct. Affect is becoming a "hot" topic in the social psychological and cognitive literature. Possibly as a result of this trend, a growing number of I/C psychologists have begun referring to job satisfaction as "a" or "the" affective response to one's job. However, job satisfaction is an attitude, not an affective response; to use the two terms interchangeably is inappropriate.

Affect differs from job satisfaction in at least three ways. First, it is more global than job satisfaction and lacks a specific referent or object. The object of satisfaction is the job or job facet. Some condition must be met
minimum salary) for us to feel satisfaction. This condition is then considered a known cause or source of our satisfaction. If we are in a generally positive affective state, we feel good about or towards everything (or nearly so). More importantly, we may be unable to cite the cause of our good disposition. Secondly, satisfaction, by definition, implies gratification of a pre-existing need, desire, or value. Affect presupposes no such state and may be triggered by events internal or external to the job or incumbent. Thirdly, affect should temporally precede job satisfaction. Job satisfaction is best thought of as an evaluative judgment of one's job, based on beliefs about one's current state on the job (Fishbein & Ajzen, 1975) and some comparison of that state with either a desired state (Locke, 1976) or the perceived state of others (Lawler, 1971). Some passage of time from initial exposure to a stimulus is necessary to process sufficient job-relevant information (e.g., beliefs or perceptions) to allow a judgment. In contrast, affective reactions are immediate and may exist prior to or at initial exposure to the job stimulus (Zajonc, 1980). While certain cognitive beliefs may be associated with one's general affect state, these cognitions are theorized to be post-evaluative beliefs generated to support the existing feeling (Zajonc, 1980; Zajonc & Markus, 1981).
The theoretical link between affect and satisfaction is examined more closely below. Prior to that, more careful consideration is given to the suggested influence of affect on task perceptions. As stated earlier, this relationship has not yet been tested in the organizational literature. However, there is considerable research in other areas of psychology which have demonstrated that general affective states can precede and influence cognitively-oriented beliefs about environmental stimuli. It is worthwhile to review this literature before drawing specific hypotheses regarding worker affect and task perceptions.

**Affect and Environmental Perceptions**

Ittelson (1973) has argued that individuals' initial response to their environment is essentially affective in nature. Russell and Pratt (1980) have empirically demonstrated that subjects form affective reactions to their surroundings. Offices, classrooms, and kitchens are frequently described as warm or cold, arousing or boring, and so forth. Zajonc (1980) has argued that these reactions are typical in response to any object or object within that environment. Zajonc (1980) speculates that people possess separate mechanisms for processing affective and cognitive reactions to stimuli and that some global response to a situation's ambiance governs future actions or perceptions within that situation. A series of studies by Zajonc has shown that prefer-
ences for objects can be induced by mere repeated exposure (Zajonc, 1968). Later investigations revealed that while prior exposure to the object induced positive affect (liking), this effect was virtually independent of whether or not subjects later recognized the object (Moreland & Zajonc, 1977; 1979). This evidence suggested that cognitive processes (i.e., recognition) need not occur for affective reactions to objects to take place. Further analysis of mediating processes in the same data via structural equations modeling showed affective reactions actually preceded and influenced the cognitive behavior (Moreland & Zajonc, 1979). Studies like this and others (Leventhal, 1974; 1979) have led Zajonc (Zajonc & Markus, 1981) to conclude affective states can and do color our beliefs and the meaning we attach to objects.

Research by Isen also suggests a causal relation between affective states and perceptions of stimuli. Isen and her associates typically manipulate subjects' affect by a mood induction technique at the beginning of the experiment (see Isen & Gorgoglione, 1983 for an appraisal of some techniques). Subjects experiencing positive affect have been found to process information differently than control subjects in a decision-making or problem-solving task (Isen, Means, Patrick, & Nowicki, 1982; Isen & Means, 1983), recall more positive words than negative words in a free recall task (Isen, Shalker, Clark, & Karp, 1978; Natale & Hantar,
Positive affect has also been shown to influence judgments of objects in memory and in the immediate environment. Johnson and Tversky (1983) found that when in a good mood, subjects gave lower probability estimates that a catastrophe would happen to them. Isen has found subjects in a good mood rated the performance of their automobile higher than did neutral affect subjects (Isen et al., 1978) and subjects in a positive affect state rated picture slides of familiar scenes more positively than did subjects experiencing negative affect or control subjects (Isen & Shalker, 1982). Isen and Shalker (1982) also demonstrated that positive mood states did not debilitate subjects' ability to discriminate among slides, but tended to raise the general level of their ratings.

Other research is also suggestive of a relationship between affective states and recall of actual past experiences. In a review of cognitive processes associated with depression, Kovacs and Beck (1979) found depressed persons tended to recall failures or unpleasant events more readily than past successes or pleasant events, even when there was no basis in fact for their misremembrances. Laird, Wagner, Halal, and Szegda (1982) induced an angry mood in subjects and had them recall previously read newspaper editorials. Errors in recall revealed subjects tended to recall the material consistent with their mood during recall.
pie, one angry subject recalled an editorial on killing dolphins and unintentionally erred by increasing the reported number of dolphins killed from an actual 85,000 to 600,000. Induced positive affect has also been shown to heighten subjects' expectations of the probability that certain events will occur (Isen & Fuller, Note 3). Raised expectations have been linked to more positive perceptions of task characteristics in at least two field experiments by Griffin (1983) and King (1974).

To date, there have been no studies which have shown that general affective states partially determine perceptions of task characteristics. However, Weick (1977), Salancik and Pfeffer (1978), and others have suggested these perceptions are properly viewed as enactments or constructions of reality and best understood by attending to how individuals process task-related behavior. Zajonc's (1980) research has indicated affective reactions to stimuli may arise prior to any cognitive processing of object-related information. Isen's work (particularly Isen & Shalker, 1982) has shown that situationally induced affective states directly influence evaluations of specific objects in the environment. Given the prior research supportive of other posited influences on task perceptions, it is not unreasonable to hypothesize that task perceptions are influenced by incumbents general affective states as well. Specifically, workers experiencing positive affect should normally charac-
terize their jobs in more positive terms than workers experiencing neutral or positive affect.

General Affect and Job Satisfaction

While relations between affective states and task perceptions are the primary research query, a second major question is whether general affect may also influence overall job satisfaction. Because task perceptions have been shown to be related to job satisfaction, we may expect to find an indirect relation between affect and satisfaction through mediating task perceptions. However, recent research on job satisfaction suggests that affect may be a direct determinant as well. This possibility is examined more closely after first summarizing past approaches to understanding job satisfaction.

Almost 15 years ago, Locke (1969) noted there existed considerable confusion over whether the determinants of job satisfaction lay solely in the job, in the worker's mind, or in an interaction of the two. The uncertainty lingers. Earlier theoretical approaches emphasized organizations as primary determinants of worker job satisfaction. Employees were believed to be satisfied to the extent that the organization administered direct rewards (Porter & Lawler, 1967) or equitable rewards (Adams, 1965; Lawler, 1971), provided for the fulfillment of intrinsic needs (Alderfer, 1972; Locke, 1969; Porter, 1964), or met pre-employment expectations (Smith, Kendall, & Hulin, 1969; Hanous, 1973).
Subsequent research generally failed to substantiate these theories. For example, the "met expectation" construct has not proven a useful predictor of satisfied workers (e.g., Katerburg, 1977; O'Brien & Bowling, 1980; Erickard & Peters, 1974). Need theories have come under sharp theoretical attack (Salancik & Pfeffer, 1977) and have also lacked substantiating evidence (e.g., Wahba & Bridwell, 1976).

With the failure of organization-dependent models of job satisfaction, researchers began to look more closely at the individual, particularly at the relationship between attitudes about work and nonwork domains. Recently, Rice, Near, and Hunt (1980) reviewed 16 studies (representing 43 statistical relationships) which have examined the correlation of job and life satisfaction. They found that all correlations were positive, 83% were significantly greater than zero, and the median correlation was .31. Thus, from the individual vantage, life and job satisfaction are clearly related. As Kabanoff (1980) has noted, however, there has been considerable debate of the direction of causation; whether job satisfaction is a cause or result of life satisfaction. The issue has not been resolved. In fact, more recent works have suggested the two are reciprocal causes of each other (O'Brien, 1982; Schmitt & Fedeian, 1982).

An alternative view is that the relationship between job and life satisfaction may be explained by a third affec-
tive latent variable or set of variables, which underly and influence both constructs. This affective variable may be thought of as a set of dispositions which cause individuals to construe a variety of situations in a consistently positive or negative way. Possessing generally positive feelings would lead to feelings of satisfaction with both one's job and life.

While this is an inherently cognitive model of satisfaction, it is consistent with the social-learning perspective of Mischel (1973), Bandura (1978), and others, which places primary responsibility on individuals for providing their own satisfactions. In an organization context, Brief and Aldag (1981) suggest individuals will differ in their ability to adapt to any given situation as a function of their expectations, self-maintenance tendencies, past self-reinforcement history, and perceptions of self-efficacy.

Two recent studies support the hypothesized relationship of affect and satisfaction. In the first, Schmitt and Pulakos (Note 4) investigated the consistency of satisfaction states across situations. Specifically, they examined the predictability of job satisfaction from pre-employment life satisfaction. Using a longitudinal design and workers who changed or gained jobs in the interim, Schmitt and Pulakos were able to successfully predict job satisfaction from life satisfaction after first statistically controlling for various demographic variables, pay, tenure, and perceived
task characteristics. Their results suggest that subjects are able to maintain satisfaction levels over changing employment situations.

Schmitt and Pulakos (Note 4) concluded their results may have been due to a "general satisfaction component" underlying both job and life satisfaction components. This conclusion is consistent with findings of Isen and her associates that once subjects achieve a positive mood state, they are motivated to sustain it and are in fact able to do so (see Isen, Note 1).

In the second study, Kraiger and Schmitt (Note 5) tried to predict both the job satisfaction and job perceptions of workers in four different samples using their dominant affect state indicated by survey responses to questions such as "I am generally in good spirits." Kraiger and Schmitt found that not only were affect and satisfaction related indirectly through mediating job perceptions, but the two were directly related as well. Further, a model with affect as a cause of job satisfaction was superior to a model without the affect construct and one with satisfaction causing affect.
Summary

Employee affect is hypothesized to be a determinant of both the way in which employees perceive their jobs and their satisfaction with those jobs. Positive affect should be associated with more positive task perceptions and higher job satisfaction. The proposed affect/task perception relationship is consistent with and an extension of a growing body of literature identifying non-task-related determinants of perceived task characteristics. According to the Job Characteristics Model, affect-influenced task perceptions should result in greater task satisfaction. However, affect is proposed to be directly related to satisfaction as well. This is consistent with recent work in cognitive psychology suggesting affective responses need not be preceded by perceptual processes and with social-learning theory which suggests satisfaction may be self-generated.

Additional Issues Regarding Affect

Before formally presenting the experimental hypotheses, there are several issues regarding affect as an independent variable which need to be examined.

Interaction of Affect and Task Design

The relationship of employee affect and level of task design may not be straightforward. Two studies have shown that subjects experiencing positive affect are protective of
their mood states and act to avoid situations which threaten it (Isen & Patrick, 1983; Isen & Simmonds, 1978). Subjects experiencing positive affect while participating in an unenriched task may respond in an uncharacteristically negative manner to it. These individuals may seek to end the task quickly (to be done with it) or perceive it as dissatisfying because of the threat it poses. On the other hand, positive affect subjects have been shown to prefer and perform better on complex tasks (Isen & Patrick, 1983). Furthermore, positive affect appears to be self-sustaining (Isen et al., 1978) such that succeeding at a task creates further positive feelings. Thus, given an enriched (or complex) task, positive affect persons may perceive it in very favorable terms, partly because of their initial affective state and partly because successful performance of the task will result in higher levels of affect. This interaction is diagrammed and discussed in more detail under experimental hypotheses. In addition to an affect by task design interaction, previous task experience may also be important. It was stated above that on an unenriched task, subjects may respond negatively. It may be the case that how negatively they respond may be dependent on prior task experience. A subject experiencing positive affect may feel somewhat threatened by an unenriched task if that is the first task he or she is exposed to. However, if the subject has already performed an enriched, satisfying task, the subject's
reaction to the unenriched task will be with this in mind so that the intensity of negative reaction is likely to be even stronger. This three-way interaction of affect, task design, and order is also diagrammed and discussed in greater detail under the experimental hypotheses.

**Duration of Affect**

An important question is whether general affect refers to a long-term or short-term (temporary) phenomenon. A related question is whether it is simply a pervasive response tendency or actually a determinant of the way stimuli are perceived and acted upon. Isen (Note 1) has argued persuasively that general affect is not simply a response bias at the moment of evaluation or recall. A response-bias hypothesis would suggest that affect should influence ratings of any stimuli by an equal amount. This hypothesized outcome is incompatible with data from several studies which demonstrate effects are more pronounced on ambiguous stimuli than either positive or negative stimuli (e.g., Isen & Shalker, 1982). Further, Isen (Note 1) presents other data suggesting mood affects the organization of cognitive material in memory, prior to recall.

The issue of duration is more difficult to resolve. Past research has clearly indicated that subjects' mood may be temporarily altered by a variety of methods and that post-induction mood states do influence subjects' cognitive
processes and social behavior. On the other hand, the demonstrated duration of these effects has ranged from periods as short as 2-10 minutes when induced by imagination/visualization methods (Frost & Green, 1982; Isen & Gorgoglione, 1983) to periods as long as 20-30 minutes when induced indirect behavioral methods such as a free gift (Isen, Clark, & Schwartz, 1976; Isen & Gorgoglione, 1983). A question may be raised over whether affective states are totally dependent on the situation and thus limited in duration to the time the stimulus is present or whether there exists differences among individuals in the extent to which they can reach and maintain a high positive affect state. Whether the findings of previous studies of short-term affect may legitimately be generalized to individual tendencies across situations is essentially an empirical question, one beyond the scope of the current investigation. However, several points may be offered on the relationship of short-term affective states and long-term individual tendencies.

The first point is that the two are probably related. A recent study by Warr, Barter, and Brownridge (1983) showed that students' self-reports of short-term positive affect or well-being were positively correlated with the number of desirable events which had occurred in their lives during the prior six months. Likewise, self-reports of short-term negative affect were related to recent undesirable life events. These findings are consistent with Isen et al.'s
(1978) proposed "cognitive loop" whereby positive feelings lead to positive thoughts and behaviors, which in turn lead to more good feelings. Bower (1981) has also suggested that there may be basic personality differences between those who tend to construe the world in a positive way and those who don't. Bower's position is supported by data reported by Costa and McRae (1980) and Barr et al. (1983) showing significant (though low) positive correlations between self-reported short-term affect and personality variables such as extroversion, sociability, and vigor. Thus, while there may be stable differences among individuals related to their basic outlook, these differences have been empirically linked to the intensity of momentary states.

Secondly, Zuckerman (1983) has pointed out that even though state test scores show more variability from occasion to occasion than trait scores, these state measures are nonetheless predictive of individual behavior over time as long as the situations in which that behavior is elicited remain similar. Knowledge of a person's affective reaction to the morning alarm may allow us to make fairly accurate predictions of their behavior on most mornings but it would afford us little information on how he or she would react to winning a lottery. Thus, studying how affect influences workers' perceptions in one situation may allow some insight into their affect/perception relationships in other situations.
Finally, it should be remembered that there has been, to date, no demonstration that either momentary or chronic (long-term) states effect employee job perceptions. How one might measure chronic affect is problematic, the choice of possible covariates huge. However, there is a well-developed set of operations for inducing and studying momentary affect states. It is therefore logical to begin with the study of these conditions. If an effect on perceptions or attitudes is found, then further investigations of both long- and short-term affect seem warranted.

The focus of the present study will be on induced short-term affective states. Shifts in daily mood states are often caused by seemingly innocuous events like those used in past affect studies: hearing a favorite song on the radio, getting out of the wrong side of the bed, receiving a compliment, etc. A case could be made that if there are individual differences in long-term or chronic mood states, these differences are due to certain individuals "holding on to" heightened affect for a longer period of time than others. Given two individuals, one who always seems to be in a good mood and one who seems subjected to periodic mood fluctuations, there is no obvious reason to suspect that the cognitive processes which occur in the latter while in a heightened state are any different from the typical processes of the former. It is these processes which are ultimately at issue (e.g., how affect influences task perceptions), not whether chronic mood states exist.
Cognitive Mediating Processes

Past theory and research has indicated that several cognitive processes may mediate the relationship between affective states and task perceptions. It is not known whether these processes operate independently or in conjunction with one another. While not essential to the determination of causal relations between affect and task perceptions, some attention to these processes may further illuminate the ways in which workers come to respond to their jobs. The various mechanisms which have been previously suggested may be broadly grouped into three processes: Selective attention, cognitive restructuring or reinterpretation of situational cues, and priming or increased accessibility in memory of like-toned situational features. Both Brower (1981) and James and Jones (1980) have suggested that individuals may selectively attend to only those attributes of the job or task that will maintain or confirm pre-existing affective states. A person in a good mood may only see the silver lining on the cloud. This process is conceptually similar to Broadbent's (1958) selective "filter" in which long-term memory monitors incoming sensory information for specific emotional content and "decides" what to pass and what to block from short-term memory or consciousness. Given task experience with both positive and negative task characteristics, subjects in a positive affective state should attend to or be principally aware of only positive attributes of the
task. In contrast, subjects in a neutral affect state should be aware of both positive and negative attributes of the task. This effect is thought to occur during the initial processing of task-relevant information and prior to actual commitment to memory.

A second possible mechanism is the cognitive reorganization or redefinition of discrepant attributes. Positive affect subjects may process information about negative job features but come to reinterpret them in a positive sense. Another way of saying this is that the individual, in time, attaches a positive meaning to a previously neutral or negative stimulus; the cloud behind the silver lining is noticed, but is perceived as a source of much needed rain. Thus, whether a worker perceives the freedom to make decisions as autonomy or role ambiguity may be partly determined by prior affective state. Evidence that reinterpretation to match mood states can occur comes from previously discussed studies in which manipulations of mood states affected subjects' ratings of their cars' performance record (Isen et al., 1978) and apparently distorted memory for facts in a previously read editorial (Laird et al., 1982). This effect is thought to occur after the initial processing of job-related information, possibly in long-term storage.

A third possible cognitive mediator is priming, or facilitated recall for emotionally consistent material. This effect occurs well after information has been perceived,
processed, and stored in memory. Several explanations of this process exist. Tversky and Kahneman (1974) have suggested that people assess the likelihood of events by the ease with which supportive instances or occurrences come to mind. According to Bower's (1981) theory of state dependent learning, current affective states will facilitate the recall of past events when they occurred in a similar affective state. Thus, experiencing a positive affective state should prompt memories of pleasant work situations, resulting in a positive evaluation of task characteristics by Tversky and Kahneman's (1974) availability heuristic.

A more parsimonious explanation is offered by Isen (Note 1; Isen et al., 1978) who contends that positive affect serves as a retrieval cue for positive material in memory. For example, Bower (1981) has observed that subjects tend to recall more pleasant childhood events when in a happy mood. Similarly, Kovacs and Beck (1979) have reported that clinically depressed patients typically recall more negative than positive experiences. Teasdale and Fogarty (1979) also demonstrated that when subjects were in a positive mood at the time of recall, they recalled pleasant items faster than negative items. Isen (Note 1) has suggested that mood facilitates recall by acting as an organizing unit for related cognitive material. In essence, it is mood which is often first remembered when recalling an event, and recalled mood aids in the reconstruction of the
semantic memory (c.f. Bartlett, 1932). For example, when remembering an argument, it often easier to remember how we felt than what was said or what precipitated the argument. Sometimes, by keenly concentrating on how we felt, the content of the argument "pops" into mind.

**Experimental Hypotheses**

The relationships discussed in this chapter will be tested using a laboratory study with a two-between, one-within design. All subjects will perform both an enriched and an unenriched task. Half of these subjects will perform them while in a positive mood and half while in a neutral mood. Within affect states, half the subjects will perform the enriched task first and half will perform the unenriched one first. The experimental hypotheses are:

1. A main effect for task design is predicted on both perceived task characteristics and task satisfaction.
   a) Perceived task characteristics will be more positive for subjects in the enriched condition than in the unenriched condition.
   b) Task satisfaction will be higher for subjects in the enriched condition than in the unenriched condition.

2. A main effect for affective state is predicted on both perceived task characteristics and task satisfaction.
a) Perceived task characteristics will be higher for positive affect subjects than for neutral affect subjects.

b) Task satisfaction will also be higher for positive affect subjects than for neutral affect subjects.

3. As illustrated in Figure 1, there will be an interaction of affect and task design on task satisfaction and task perceptions. There will be little difference in perception or satisfaction levels between positive and neutral affect subjects in the unenriched condition. A much greater difference will occur in the enriched condition. Task perceptions and satisfaction will be considerably higher for positive affect than neutral affect subjects. Feelings of satisfaction will reinforce positive affect which will in turn strengthen task perceptions and satisfaction feelings.

4. A three-way interaction of affect, task design, and task order on task perceptions and task satisfaction is also hypothesized. The form of the interaction is illustrated in Figure 2. When the unenriched task is experienced first, it is predicted positive affect subjects will express somewhat more positive task perceptions and more satisfaction with the task than neutral affect subjects. However, when the unenriched task is experienced second, positive affect
Figure 1: Predicted Interaction of Task Design and Affect on Satisfaction

subjects will express significantly lower satisfaction and less positive task perceptions than neutral
Figure 2: Hypothesized Three-way Interaction of Design and Order
5. No formal experimental hypotheses will be made regarding the presence or absence of the various cognitive mediating processes. It is possible that none, some, or several may operate simultaneously. Exploratory analyses of the three processes will be made using post-experimental measures of perceptions and other free recall measures in which the proposed processes may be demonstrated in several ways.

a) Selective attention processes would be detected by showing positive affect subjects recalled (or were aware of) primarily positive features of the task (in either condition) while neutral affect subjects recalled positive features of the enriched task but negative features of the unenriched task.

b) Cognitive reinterpretation would be shown by demonstrating that positive affect subjects under both task conditions offered favorable interpretations of ambiguous task descriptions while neutral affect subjects would be expected to offer favorable interpretations only following the enriched condition. The task (e.g., describing freedom as

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By this point in the study, positive affect subjects will have been exposed to two separate affect inductions and one satisfying task. Good feelings should be at a peak such that exposure to an unenriched task (with knowledge that more pleasant alternatives exist) should threaten subjects' mood and produce strong feelings of dissatisfaction.
autonomy rather than role ambiguity). 

c) Priming effects would be demonstrated by showing positive affect subjects principally recall positive elements of the task in a free recall exercise, but neutral affect subjects are equally likely to recall both positive and negative attributes on the same measure.
METHODS

Experimental Design

Overview

The study employed a two-between, one-within experimental design. All subjects experienced two levels of task design (enriched and unenriched). Between-subject factors were subject affect (or mood) state and task order. Half the subjects were given a positive mood induction and half received no explicit mood manipulation. (This latter group will subsequently be referred to as the neutral affect state.) Within each affect state, half the subjects received the enriched task first and half received the unenriched task first. There were 20 subjects per condition and four conditions in all. The experimental design is summarized in Figure 3.
### TASK DESIGN/ CONDITION

**ORDER:** NO.

<table>
<thead>
<tr>
<th>Affect</th>
<th>Condition</th>
<th>No.</th>
</tr>
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<tbody>
<tr>
<td>Positive</td>
<td>Enriched Unenriched</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Unenriched Enriched</td>
<td>2</td>
</tr>
<tr>
<td>Neutral</td>
<td>Enriched Unenriched</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Unenriched Enriched</td>
<td>4</td>
</tr>
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**Figure 3:** Experimental Design
Subjects

Subjects were 80 students enrolled in an introductory psychology course at The Ohio State University. Forty-one subjects were female and thirty-nine were male. Subjects were recruited for a study entitled "Selecting Psychology 100 T.A.'s" and participated in the study for experimental course credit. Because of the nature of the affect induction, subjects were run in small groups of two to four. Subjects were not encouraged to interact with each other and each worked with his or her own materials so that treating subjects as individual data points is still justified.

Procedure

A cover story was given to subjects upon their entry to the laboratory. The experimenter explained to them that the Psychology Department was interested in exploring the efficacy of including student input into the Teaching Associate (T.A.) selection process. The experimenter went on to explain that the Department had developed several different methods of soliciting student input and two such methods would be tried with them. Subjects were informed that the Department was interested in not only the quality of their decisions but their impressions of both methods since the

2 It was believed that had subjects been run individually, they may have felt inhibited in expressing their emotions when given the affect induction. In contrast, the presence of other subjects could be expected to facilitate affective expression.
Department was also ultimately interested in choosing a method students found interesting or enjoyable.

At this point, the affect manipulation was given to half the subjects. The manipulation is described in detail below.

Subjects were then assigned their first task. A set of applicants and a set of forms to be used throughout the experiment were passed out. The forms were face-down and numbered. Subjects were instructed to keep the forms face-down until told to use a particular one. The first task was fully explained to subjects. Subjects worked on the task for 20 minutes and then completed a series of four forms: A satisfaction measure, a task characteristics rating form, and two measures of cognitive processes in task perceptions. The instructions, task descriptions, and measures are described in greater detail below.

Positive affect subject received a reinduction between the first and second tasks to assure that affective states were as similar as possible across tasks.

Subjects then completed the second task. Subjects initially performing the enriched task performed the unenriched task and subjects initially performing the unenriched task performed the enriched one. New applicant packs were passed out and the second task was also explained in detail. Subjects were again given 20 minutes to complete the task. Immediately following the task, five forms were completed by
subjects: Four forms similar or identical to those completed after the first task and a fifth form asking subjects to compare the first and second tasks on each task dimension. Finally, subjects were asked to answer several questions regarding their possible awareness of the experimental hypothesis or any deception used with the manipulations. Subjects were debriefed and dismissed.

**Independent Variables**

**Affect**

Subjects were randomly assigned to either a positive or neutral affect condition. Positive affect was induced by two short (three- to four-minute) comedy films shown before both tasks. Each film showed a series of cut-takes (bloop-

No negative affect condition was run. There were several reasons for this. There may be ethical concerns raised over the creation of even temporary negative affective states in subjects. More importantly, both theory and prior research suggests the effects of positive and negative mood states are not symmetric (see Isen, Note 1). In general, even the induction of mild negative affective states in subjects has led them to engage in mood-ending or mood-altering activities. In contrast, positive affect subjects are more likely to engage in mood-prolonging activities (Isen & Simmonds, 1978). As a result, the duration of heightened negative affect is likely to be shorter than that of positive affect and its influence on subject behavior or cognitions more difficult to predict.

The relationship between positive affect and subject behavior has been shown to be generally robust over a variety of induction methods including having subjects find a dime in the coin return of a public telephone; receive a free sample note pad, nail clipper, or stationery; receive refreshments; win a computer game; or hear positive feedback about their performance on a test of their perceptual-motor skills (Isen, Note 6). Isen and Gorgoglione (1983) showed though that affect induced by a comedy film
ers) from television news shows and popular movies and TV shows.

The comedy film was introduced in the following way: After describing the purpose of the study, the experimenter paused and asked the subjects if they would do him or her a favor. The experimenter explained that s/he was also developing materials for another experiment to be run at a later date. As part of that study, the experimenter would require a film most people found humorous. The experimenter asked subjects if they would watch each film and select their favorite. All subjects agreed. The experimenter then remarked, "Since this is a fairly long study, I'll show you one film now and the other about half-way through, just to break things up."

Task Design

All subjects worked under two different levels of task design: An enriched task and an unenriched one. Differences in design were achieved through task instructions and materials. Manipulations were developed through extensive pilot-testing. The task was broadly introduced to all subjects as a selection process for introductory psychology T.A.'s. The unenriched level was essentially a coding task: Subjects recorded information from 20 applications onto a coding

lasted longer than affect induced by other methods. The film manipulation was chosen because maximizing the duration of induction was a concern in the present study.
sheet. In contrast, the enriched task allowed subjects to actually choose candidates on self-generated dimensions and by their own criteria. Manipulations of specific task dimensions are described below in greater detail. To make the task appear as realistic as possible, applications were printed with Ohio State insignias on them, applications were filled out by different graduate students to vary the handwriting, and different code numbers were written on applications intended to be from different years. Sample applications used in both conditions are included in Appendix A.

**Task Significance.** In the enriched condition, subjects were told they were evaluating candidates currently under review by the psychology faculty. Subjects were further given the opportunity to sign a form indicating permission to have their recommendations forwarded to the selection committee. Unenriched subjects were told they were evaluating applicants from the previous year, on whom decisions had already been made.

**Task Identity.** In the enriched condition, subjects reviewed only 10 applicants. This gave them sufficient time to adequately evaluate and make a decision on each candidate. Subjects in the unenriched condition were instructed that they were only to record information from application materials onto a coding sheet. They were further told that other subjects would later statistically combine that information to reach decisions on candidates.
Autonomy. Subjects in the enriched condition were given a blank worksheet and an instructions page which included "a few suggestions about using the worksheet." While they were given a 20-minute time limit, subjects worked independently, at their own pace. In sharp contrast, subjects in the unenriched condition were given no written procedures, but were verbally instructed how to complete the coding sheet. Subjects were told in excruciating detail how to record specific information (e.g., "Write an 'M' in column two if the applicant is male and an 'F' in the same column if the applicant is female"). Further, unenriched subjects were paced by an audiotape which emitted a loud tone every 60 seconds. Subjects were instructed to process only one candidate per tone. Since subjects typically required only 20-30 seconds to record the necessary information, most spent a large percentage of their time waiting for the tone to sound.

Skill Variety. Subjects in the unenriched condition utilized only a few skills, principally reading and coding information. In addition to these skills subjects in the enriched condition were also afforded the opportunity to exercise numerous decision-making skills such as planning strategy, evaluating applicants on self-selected criteria, and deciding whether to recommend or reject candidates.
Task Feedback and Dealing With Others. There were no intentional manipulations of either task characteristic. This allowed an analysis of whether perceived differences in other attributes results in differential ratings on nonmanipulated dimensions as well.

Task Order
Task order was the third independent variable. Within each affective condition, one-half of the subjects were given the enriched task. In contrast to the selective attention measure, subjects were asked to recall words which described the task, rather than actual features or attributes of the task which stood out to them.

In theory, only the latter process is presumed to act at recall, when subjects made their other ratings. However, all three mechanisms were measured at this point. Ideally, the selective attention and cognitive redefinition processes should have been examined at the times they were believed to occur. This would have been difficult to do and may have endangered the collection of the primary dependent variables. Since these processes were not the central focus of the study, post-perceptual measures were used, with full recognition of their limitations. First and one-half were given the unenriched task first.
Primary Dependent Variables

For testing the experimental hypotheses, the primary dependent variables were subject perceptions of task characteristics and subject satisfaction with various aspects of the task. Additionally, ancillary measures of three presumed cognitive processes mediating affect and perception were used.

Task characteristic perceptions were measured by an 18-item scale called the "Standard Task Rating Form." The form employed a five-point Likert-type scale which subjects used to describe whether each task characteristic, as described, was present in the task. Three items were used to measure each of the six task dimensions. The items themselves were drawn from the Job Characteristics Inventory (seven items; Sims et al., 1976) or the Job Diagnostic Survey (eight items, Hackman & Oldham, 1976), or written by the author (three items). Most of the items selected from existing measures were rewritten so that they referenced the "task" rather than a "job."

Following the second task, subjects also completed a form entitled "Task Comparison Form." This form essentially defined each of the six task dimensions and asked subjects to compare both tasks on each dimension.

Satisfaction was measured on a form appropriately entitled "Task Satisfaction Form." This form had four items to be rated on a five-point satisfaction scale (very dissatis-
fied to very satisfied). The scales measured satisfaction with working conditions, task stimulation, task challenge, and overall satisfaction.

**Ancillary Measures**

Three cognitive processes were proposed as mediators of the affect/perception relationship: Selective attention, cognitive reinterpretation, and priming or facilitated recall for positive material. Selective attention suggests that positive affect subjects would be more likely to attend to the positive features of either task so that these attributes, when asked, should appear to "stand out" to them. This process was investigated by an open-ended question on a form completed before subjects made their task characteristic ratings. The form was called the "Task Assessment Form I." Specifically, subjects were asked, "(W)hat stood out that you particularly liked or disliked" about the task. Subjects were verbally prompted to try to write down the first attributes which came to mind.

The second proposed mediating process was cognitive reinterpretation where positive subjects may recognize the negative aspects of a task but cognitively reconstruct or reinterpret them in a positive manner. This process was investigated by three items in the "Task Assessment Form II." This form posed three neutral or ambiguous statements about the recently completed task and asked subjects if they liked
or disliked that particular facet and also asked them to explain why or why not. Subjects were free to make a positive, negative, or neutral interpretation of the statement.

For the enriched task, the statements were:

1. This task was designed so that your duties were largely up to you (later referred to as the "structure" question).

2. On this task, you had to use candidates currently on review (on whom decisions have yet to be made) ("currency" question).

3. This task was designed so that each of you could work at your own pace and finish when you like ("pace" question).

For the unenriched task, the statements were:

1. This task was designed so that your duties were clearly defined for you.

2. On this task, you had to use candidates from last year (on whom decisions had already been made).

3. This task was designed so that each of you worked at the same pace and finished at the same time.

The third possible process was facilitated recall. This process suggests that at the time of recall, affective state should serve as a retrieval cue so that positive affect subjects recall more positive features from memory than do neutral affect subjects. This process was also investigated by an open-ended question on the Task Assessment Form.
I. This question asked subjects to list the first three words which came to mind when thinking about the task. Again, subjects were orally prompted to not hesitate but write the first words which came to mind.

There is a problem in the measurement of the selective attention processes which should be noted. Ideally, whether or not subjects attend to only emotionally congruent task information should be measured at the time subjects actually engage in the task. Subjects could be observed and their attentional behavior coded, eye-fixation could be traced, or subjects could be given discrepant sources of task information and forced to choose one. Measurement during the present task was impractical because the task was not designed with conflicting cues and other types of measures carry the threat of contaminating later, primary dependent variables. Thus, a less than optimal alternative procedure for measuring selective attention was chosen: Measuring these processes after the task but in a way that would hopefully allow subjects to recreate their frame of mind while performing the task.

The problem is that both the selective attention and priming processes were measured with open-ended questions administered simultaneously after the task. It was hoped that by phrasing the question differently, distinct recognition/recall strategies would be elicited in subjects. During pilot testing, subject responses certainly appeared
different. In response to the selective attention question, subjects typically wrote longer and more descriptive responses than they did to the priming question. There was also little or no overlap between the words generated to the priming question and adjectives used in the selective attention processes.

The distinction in the way the questions were asked was achieved by asking subjects to list actual task elements or attributes for the selective attention question and to write words which came to mind indicating their evaluation or reaction to those elements. It could be argued that the latter measure required more abstract judgments on the part of subjects and that these abstractions required a greater depth of processing in memory (Craig & Tulving, 1975). Abstractions of an object or task could be expected to temporally follow mental recreation of the object or task. An analogy would be asking a friend who had just visited the art museum if he or she had seen (attended to) any Baroque paintings and whether he or she formed a favorable impression of those paintings. While priming effects do not necessarily require evaluative judgments, the point is simply that if subjects generate adjectives describing a task, the source of those labels in memory could differ from the source of recalled images of actual task events. Further, the evaluative labels probably require a deeper processing in memory than do images of task elements so that the in-
tended priming question is less likely to tap superficial attentional processes than the intended selective attention question. Again, the distinction between the two may not be clear cut but if it were found that subjects responded differently to the two questions then further research into the two methods using better measures would seem valuable.

All response forms are included in Appendix E.
RESULTS

The results section is organized in the following manner: The psychometric quality of task characteristic variables will be presented first. Next, evidence regarding the success of the manipulations of task design and affect will be examined. Thirdly, results pertinent to each experimental hypothesis will be presented. Finally, the results of the ancillary analyses will be presented.

Psychometric Quality of Task Characteristic Ratings

Formation of Variables

Three questions were used to measure each of six task dimensions: Dealing With Others (DWO), Task Significance (SIG), Task Feedback (FE), Skill Variety (SV), Autonomy (AUT) and Task Identity (ID). Dimension scores were formed by simply averaging the three scale scores. Two overall summary scores of task ratings were also formed: Task Scope and Motivating Potential Score (MPS). MPS was computed by the formula provided by Hackman and Oldham (1976): $MPS = (SIG + ID + SV)/3 + FE + AUT$. Task Scope was computed by averaging the five dimension score (excluding DWO; Sims et al., 1976).
Reliability Evidence

Internal consistency measures (Cronbach's alpha; Cronbach, 1951) were computed on each summary score for ratings of both enriched and unenriched tasks. These measures are displayed in Figure 1 and are shown to range from .57 to .92 for individual dimension scores and from .60 to .79 for the task summary scores. These reliability estimates are quite adequate for research purposes and are well within the range of internal consistency indices typically reported by other researchers (see Aldag et al., 1981).

---

5 The reliability of ratings on both tasks combined could not be computed since each subject rated both.
### TABLE 1

**Internal Consistency of Task Characteristic Ratings**

<table>
<thead>
<tr>
<th>Task</th>
<th>Enriched</th>
<th>Unenriched</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealing W/ Others</td>
<td>.76</td>
<td>.76</td>
</tr>
<tr>
<td>Task Significance</td>
<td>.86</td>
<td>.83</td>
</tr>
<tr>
<td>Task Feedback</td>
<td>.77</td>
<td>.57</td>
</tr>
<tr>
<td>Skill Variety</td>
<td>.79</td>
<td>.70</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.87</td>
<td>.81</td>
</tr>
<tr>
<td>Task Identity</td>
<td>.83</td>
<td>.92</td>
</tr>
<tr>
<td>Task Scope</td>
<td>.76</td>
<td>.60</td>
</tr>
<tr>
<td>HPS</td>
<td>.79</td>
<td>.70</td>
</tr>
</tbody>
</table>

**Note:** Internal consistency estimated by Cronbach's alpha.
**Discriminant Validity**

Discriminant validity was examined by intercorrelating task dimensions. Discriminant validity would be shown by low dimension intercorrelations. These intercorrelations are reported in Tables 2 and 3. It can be seen that dimension intercorrelations in the enriched condition ranged from −.25 to .53 with an absolute mean intercorrelation of .25. In the unenriched condition, dimension intercorrelations ranged from −.22 to .41 with an absolute mean of .15. These values are lower than those generally reported (Aldag et al., 1981) and suggest subjects were able to adequately discriminate among task dimensions in their ratings.

The intercorrelations of the satisfaction measures are presented in Table 5. With the exception of the relationship of satisfaction with working and satisfaction with task challenge, these four variables were highly intercorrelated on both tasks.
### Table 2

**Intercorrelations of Task Dimensions for Enriched Condition**

<table>
<thead>
<tr>
<th></th>
<th>SIG</th>
<th>FB</th>
<th>ID</th>
<th>ACT</th>
<th>SV</th>
<th>SCOPE</th>
<th>HPS</th>
<th>DWO</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIG</td>
<td>-34**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FB</td>
<td>-25*</td>
<td>-19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>-25*</td>
<td></td>
<td>-25*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUT</td>
<td>-01</td>
<td>-01</td>
<td></td>
<td></td>
<td>0.37**</td>
<td>-0.36**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>SV</td>
<td>0.16</td>
<td>0.28</td>
<td>0.53***</td>
<td>-0.23*</td>
<td>-0.48***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCOPE</td>
<td>-0.23</td>
<td>0.48***</td>
<td>0.72***</td>
<td>0.50***</td>
<td>0.70***</td>
<td>0.80***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPS</td>
<td>0.14</td>
<td>0.30**</td>
<td>0.79***</td>
<td>0.45***</td>
<td>0.81***</td>
<td>0.73***</td>
<td>0.96***</td>
<td></td>
</tr>
</tbody>
</table>

- * p < 0.05
- ** p < 0.01
- *** p < 0.001

N=80
**TABLE 3**

Intercorrelations of Task Dimensions

for Unenriched Condition

<table>
<thead>
<tr>
<th></th>
<th>SIG</th>
<th>FB</th>
<th>ID</th>
<th>ADT</th>
<th>SV</th>
<th>BPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIG</td>
<td>0.09</td>
<td>-0.13</td>
<td>-0.22</td>
<td>-0.18</td>
<td>0.08</td>
<td>-0.07</td>
</tr>
</tbody>
</table>
| FB    |      | 0.13 | 0.03 | 0.08 | 0.00 | 0.40*
| ID    |      |      | 0.09 | 0.10 | 0.41***|
| ADT   |      |      |      | 0.00 | 0.41***|
| SV    |      |      |      |      | 0.30***|
| BPS   |      |      |      |      |      | 0.94***|

**N=80**

* p<.05
** p<.01
## TABLE 5
Interccorrelations of Satisfaction Variables

<table>
<thead>
<tr>
<th>Working Conditions</th>
<th>Task Stimulation</th>
<th>Task Challenge</th>
<th>Overall Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>WC</td>
</tr>
<tr>
<td>Task Stimulation</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Challenge</td>
<td>.33  .72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>.56  .77  .67</td>
<td></td>
<td>WC</td>
</tr>
</tbody>
</table>

Results for Enriched Condition

<table>
<thead>
<tr>
<th>Working Conditions</th>
<th>Task Stimulation</th>
<th>Task Challenge</th>
<th>Overall Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>WC</td>
</tr>
<tr>
<td>Task Stimulation</td>
<td>.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Challenge</td>
<td>.29  .63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>.48  .69  .67</td>
<td></td>
<td>WC</td>
</tr>
</tbody>
</table>

Results for Unenriched Condition

N=80 for each set
All correlations significant at least at .05 level
Manipulation Checks

Affect

No manipulation checks were run for affect during the actual experiment to avoid sensitizing subjects to the study's true purpose and to minimize the time between induction and task experience. Manipulation checks were used however during pilot testing. After viewing the comedy film (but prior to the first task), 26 pilot subjects (13 positive, 13 neutral affect) rated their mood states on seven Likert-type items. Ratings were made on a 7-point scale with the midpoint defined as a neutral mood state. Based on previous affect studies with similar scales, positive affect subjects were expected to feel more positive, pleasant, and happy than neutral affect subjects, while no differences were expected between positive and neutral affect subjects on the talkativeness, alertness, anxiousness, and curiosity items. The results are displayed in Table 6. Consistent with expectations, positive affect subjects rated themselves as significantly more pleasant and happy than did neutral affect subjects. No differences were found between conditions on the positive, curious, or alert scales. Positive affect subjects also rated themselves as significantly more talkative and anxious than did neutral affect subjects.

These results suggest the mood induction was successful: Positive affect subjects began the task feeling more
pleasant than neutral affect subjects. The lack of an effect on the curious and alert dimensions suggests differences on the other scales were not due solely to a "leniency effect" created in positive affect subjects. While not expected, the significant effect on the talkative scale is consistent with the theoretical definition of an elated or positive affect state. The effect on the anxious scale is hard to explain since at least one other study (Isen & Gor­goglio, 1983) used the same scale but found no effect. The effect may simply be a chance occurrence, given the small sample size. It may also be a true phenomenon and caused by two scenes near the end of one comedy film. In the first of these scenes, a female reporter is accidentally kicked in the mouth by a karate expert, though it is apparent to the viewer that the mishap is inevitable. In the second scene, a male reporter is staggered by a bullet fired into a bullet-proof vest he is wearing. While humorous, the scenes may have been anxiety-provoking as well.
TABLE 6
Scores of Pilot Subjects on Check of Affect Manipulation

<table>
<thead>
<tr>
<th>Dimension:</th>
<th>Positive</th>
<th>Neutral</th>
<th>T-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Positive/Negative</td>
<td>5.6 (1.3)</td>
<td>5.1 (.9)</td>
<td>1.13</td>
</tr>
<tr>
<td>2. Pleasant/Unpleasant</td>
<td>6.0 (-.9)</td>
<td>4.8 (1.1)</td>
<td>3.00***</td>
</tr>
<tr>
<td>3. Happy/Sad</td>
<td>5.5 (1.1)</td>
<td>4.9 (.8)</td>
<td>1.60*</td>
</tr>
<tr>
<td>4. Talkative/Quiet</td>
<td>4.7 (-.9)</td>
<td>3.9 (.9)</td>
<td>1.89*</td>
</tr>
<tr>
<td>5. Curious/Uninterested</td>
<td>5.2 (1.6)</td>
<td>5.0 (1.2)</td>
<td>0.39</td>
</tr>
<tr>
<td>6. Alert/Subdued</td>
<td>5.2 (1.5)</td>
<td>4.9 (.9)</td>
<td>0.77</td>
</tr>
<tr>
<td>7. Anxious/Calm</td>
<td>4.7 (1.3)</td>
<td>3.5 (1.5)</td>
<td>2.19**</td>
</tr>
</tbody>
</table>

n=13         n=13

Note: Higher scores reflect responses in the direction of the adjective to the left of the anchor pair.

Note: T-tests for the first three scales are one-directional

* p<.05
** p<.01
*** p<.001
Task Design

Explicit manipulations in instructions or materials were made to alter all task dimensions but Dealing With Others and Task Feedback. The success of the manipulations were examined by asking subjects (after completing the second task) to directly compare one task to another on the extent to which either could be characterized as possessing each task attribute. Subjects responses are displayed in Table 7. For each dimension, the table shows the percentage of all subjects who saw that dimension as more characteristic of one task than the other or who saw no difference between the two tasks. The table also presents results of a sign test of the difference between the number of subjects showing a preference for one task rather than the other. A visual inspection of the data in Table 7 suggests that, with the exception of Task Identity, subjects perceived a difference between tasks (in the predicted direction) on each dimension which had been manipulated. Additionally, most subjects appeared to see no difference between the two tasks on the Dealing With Others and Task Feedback dimensions.

Results of the sign tests largely confirm these observations. The results show that the intended difference in task design was accurately perceived for the Task Significance, Skill Variety, and Autonomy dimensions, while Dealing With Others was successfully "not manipulated." The manipulation of Task Identity was unsuccessful as the the majority
of subjects saw no difference between the two tasks on that dimension. While the sign test showed a significant difference between the percentage of subjects who perceived more feedback in the enriched condition than subjects who perceived more feedback in the unenriched task, the large majority of subjects saw no difference between the two tasks in amount of task feedback.

Again, the manipulation appears successful: Most subjects saw more task attributes present in the enriched task rather than the unenriched one. Separate analyses were run for the positive and negative affect conditions. Similar patterns were found for each group. Thus, the manipulation can be said to have produced differences in task enrichment irrespective of affect condition. Both positive and neutral affect subjects perceived the same broad differences in task enrichment, though it will be later shown that they saw differences in the level of enrichment. The failure to add high task identity to the enriched task is largely inconsequential as the goal of the manipulations was to design the tasks so that subjects perceived overall differences in enrichment between tasks, though not necessarily uniform differences across task attributes. This appears to have occurred.
### TABLE 7

Number of All Subjects Indicating Preference for a Task on Various Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Less</th>
<th>Equal</th>
<th>More</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealing w/ Others</td>
<td>13</td>
<td>58</td>
<td>9</td>
<td>-0.26</td>
</tr>
<tr>
<td>Task Significance</td>
<td>6</td>
<td>17</td>
<td>57</td>
<td>3.25**</td>
</tr>
<tr>
<td>Skill Variety</td>
<td>7</td>
<td>16</td>
<td>57</td>
<td>3.28**</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3</td>
<td>15</td>
<td>60</td>
<td>3.91**</td>
</tr>
<tr>
<td>Task Identity</td>
<td>8</td>
<td>41</td>
<td>31</td>
<td>1.24</td>
</tr>
<tr>
<td>Task Feedback</td>
<td>6</td>
<td>58</td>
<td>20</td>
<td>2.60**</td>
</tr>
</tbody>
</table>

Note: Z statistic is for sign test.

N=80

** p<.01
Tests of Hypotheses

Influence of Task Design on Subject Responses

Task design was hypothesized to have a direct effect on both subjects' task perceptions and their satisfaction with the task. Both effects were found. Mean scores by task design for the task dimensions are shown in Table 8 and mean scores for satisfaction variables are shown in Table 9.

Statistical tests of the differences between the enriched and unenriched tasks was done as part of a series of three-way analyses of variance also including task order and affect. The results of these analyses are presented in Tables 10 through 21. Main effects for task design were found on all six task dimensions and both task summary measures. Main effects for task design were found on all four satisfaction variables as well. The main effects were extremely strong. The proportion of explainable variance accounted for by the task design factor ranged from 62 to 98% for the task dimensions and from 74 to 92% for the satisfaction variables.6

6 Other measures of effect size such as Omega-squared (Hays, 1973) and eta squared (Friedman, 1968) could not be used as there was no apparent method for calculating these values for a repeated-measures factor. Percentage of explainable variance accounted for serves as a crude estimation of relative effect size among factors in a single analysis. It was determined by computing the ratio of the mean square for a factor to the difference of the total mean square and error mean square.
TABLE 8

Means and Standard Deviations of Task Dimensions

by Task Condition

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Enriched Mean (SD)</th>
<th>Unenriched Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealing W/ Others</td>
<td>1.49 (.64)</td>
<td>1.86 (.86)</td>
</tr>
<tr>
<td>Task Significance</td>
<td>3.64 (.94)</td>
<td>2.48 (.98)</td>
</tr>
<tr>
<td>Task Feedback</td>
<td>2.87 (.84)</td>
<td>2.34 (.76)</td>
</tr>
<tr>
<td>Task Identity</td>
<td>4.52 (.66)</td>
<td>4.01 (1.22)</td>
</tr>
<tr>
<td>Autonomy</td>
<td>4.00 (.97)</td>
<td>1.85 (.96)</td>
</tr>
<tr>
<td>Skill Variety</td>
<td>3.15 (.89)</td>
<td>1.59 (.64)</td>
</tr>
<tr>
<td>Task Scope</td>
<td>3.64 (.56)</td>
<td>2.45 (.51)</td>
</tr>
<tr>
<td>MPS</td>
<td>10.64 (1.86)</td>
<td>6.89 (1.58)</td>
</tr>
</tbody>
</table>

N=80
TABLE 9

Means and Standard Deviations of Satisfaction Variables by Task Condition

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Task Condition:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enriched</td>
<td>Mean (SD)</td>
<td>Unenriched</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>3.93 (0.91)</td>
<td>2.84 (1.31)</td>
<td></td>
</tr>
<tr>
<td>Task Stimulation</td>
<td>3.30 (1.07)</td>
<td>1.96 (1.07)</td>
<td></td>
</tr>
<tr>
<td>Task Challenge</td>
<td>3.46 (1.14)</td>
<td>1.76 (0.98)</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>3.64 (0.97)</td>
<td>2.31 (1.07)</td>
<td></td>
</tr>
</tbody>
</table>

N=80
Influence of Affect on Subject Responses

Affective state was hypothesized to have a direct effect on both subjects' task perceptions and their satisfaction with the task. Only an effect on task perceptions was found. Means scores by affect condition for the primary dependent measures on both tasks are displayed in Tables 22 and 23. By visual inspection of Tables 22 and 23, it can be seen that, with only few exceptions, positive affect subjects gave higher ratings (more positive) ratings on all variables than did neutral affect subjects.

Tests of significance were run as part of the three-way analyses of variance presented in Tables 10 through 21. Main effects for affective state were found on both task summary measures: Task Scope (F=8.53; df=1,76; p<.005) and MFES (F=6.73; df=1,76; p<.02). Mean scores were 3.2 and 2.9 for the positive and neutral subjects (respectively) on Task Scope and 9.1 and 8.4 for positive and neutral affect subjects on MFES. Main effects for were also found on several individual task dimensions including Skill Variety (F=6.79; p<.02), Task Feedback (F=4.78; p<.04), and Task Significance (F=3.70; p<.06). Means for the positive affect subjects on these three dimensions were 2.6, 2.8, and 3.2; while the means for neutral affect subjects were 2.2, 2.5, and 2.9. Proportion of explainable variance accounted for by affect was typically low; values for the task summary measures were .03 (MFES) and .04 (Task Scope).
<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>F(F)</th>
<th>Proportion of Explained Variance Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>1</td>
<td>1.34</td>
<td>1.75</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Order</td>
<td>1</td>
<td>0.23</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AxC</td>
<td>1</td>
<td>1.00</td>
<td>1.30</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>6.77</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
<td>5.38</td>
<td>13.67</td>
<td>.001</td>
<td>.64</td>
</tr>
<tr>
<td>DxA</td>
<td>1</td>
<td>0.40</td>
<td>1.02</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DxO</td>
<td>1</td>
<td>0.03</td>
<td>0.06</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DxAxO</td>
<td>1</td>
<td>0.03</td>
<td>0.06</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>.39</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
### Table 11

Three-Way Analysis of Variance on Task Significance

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>F(1)</th>
<th>Proportion of Explained Variance Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>1</td>
<td>4.67</td>
<td>3.70</td>
<td>.058</td>
<td>.08</td>
</tr>
<tr>
<td>Order</td>
<td>1</td>
<td>0.23</td>
<td>0.18</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>AxO</td>
<td>1</td>
<td>0.10</td>
<td>0.08</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
<td>54.44</td>
<td>92.51</td>
<td>.001</td>
<td>.90</td>
</tr>
<tr>
<td>DxA</td>
<td>1</td>
<td>0.03</td>
<td>0.04</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>DxO</td>
<td>1</td>
<td>0.80</td>
<td>1.36</td>
<td>-</td>
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</tr>
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<td>DxAxO</td>
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<td>1.36</td>
<td>-</td>
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<tr>
<td>Error</td>
<td>76</td>
<td>1.59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
### TABLE 12

Three-Way Analysis of Variance on Task Feedback

<table>
<thead>
<tr>
<th>Source of Variance:</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P (F)</th>
<th>Proportion of Explained Variance Accounted For</th>
</tr>
</thead>
<tbody>
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<td>Affect</td>
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<td>3.70</td>
<td>4.78</td>
<td>0.032</td>
<td>0.21</td>
</tr>
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<td>0.08</td>
<td>0.11</td>
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<td>-</td>
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<td>AxO</td>
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<td>0.75</td>
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<td>-</td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
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<td>24.25</td>
<td>0.01</td>
<td>0.62</td>
</tr>
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<td>1.17</td>
<td>2.53</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>DxO</td>
<td>1</td>
<td>0.67</td>
<td>4.44</td>
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<td>-</td>
</tr>
<tr>
<td>DxAxO</td>
<td>1</td>
<td>.67</td>
<td>1.44</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Error</td>
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<td>.46</td>
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</tr>
</tbody>
</table>

**Note:** Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS.

The ratio was always computed for Affect, Design, and any significant factors or interactions.
TABLE 13

Three-Way Analysis of Variance on Task Identity

<table>
<thead>
<tr>
<th>Source of Variance</th>
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<th>F</th>
<th>p(F)</th>
<th>Proportion of Explained Variance Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
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<td>0.03</td>
<td>-</td>
<td>0.00</td>
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<tr>
<td>Order</td>
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<td>3.91</td>
<td>3.92</td>
<td>.051</td>
<td>.24</td>
</tr>
<tr>
<td>AxO</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
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<td>10.17</td>
<td>10.89</td>
<td>.002</td>
<td>.63</td>
</tr>
<tr>
<td>DxA</td>
<td>1</td>
<td>0.76</td>
<td>0.81</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>DxO</td>
<td>1</td>
<td>.67</td>
<td>0.71</td>
<td>-</td>
<td></td>
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<tr>
<td>DxAxO</td>
<td>1</td>
<td>.51</td>
<td>0.54</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
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<td>.93</td>
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<td></td>
</tr>
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</table>

Note: Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P(F)</th>
<th>Proportion of Explained Variance Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.81</td>
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<td>0.60</td>
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<td>3.04</td>
<td>0.05</td>
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</tr>
<tr>
<td>AxO</td>
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<td>0.04</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
<td>183.47</td>
<td>210.26</td>
<td>0.001</td>
<td>0.98</td>
</tr>
<tr>
<td>DxA</td>
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<td>0.18</td>
<td>0.20</td>
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<td></td>
</tr>
<tr>
<td>DxO</td>
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<td>0.01</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DxAxO</td>
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<td>0.47</td>
<td>0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
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<td>0.87</td>
<td></td>
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</tbody>
</table>

Note: Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
### Table 15

Three-Way Analysis of Variance on Skill Variety

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>p(F)</th>
<th>Proportion of Explained Variance Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>1</td>
<td>5.14</td>
<td>6.79</td>
<td>.011</td>
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</tr>
<tr>
<td>Order</td>
<td>1</td>
<td>1.00</td>
<td>1.33</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>AxO</td>
<td>1</td>
<td>0.03</td>
<td>0.03</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
<td>98.18</td>
<td>276.92</td>
<td>.001</td>
<td>.90</td>
</tr>
<tr>
<td>DxA</td>
<td>1</td>
<td>3.60</td>
<td>10.15</td>
<td>.02</td>
<td>.03</td>
</tr>
<tr>
<td>DxO</td>
<td>1</td>
<td>.54</td>
<td>1.54</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>DxAxO</td>
<td>1</td>
<td>.40</td>
<td>1.13</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
### TABLE 16

Three-Way Analysis of Variance on Task Scope

<table>
<thead>
<tr>
<th>Source of Variance:</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P (F)</th>
<th>Proportion of Explained Variance Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>1</td>
<td>2.21</td>
<td>8.53</td>
<td>.005</td>
<td>.04</td>
</tr>
<tr>
<td>Order</td>
<td>1</td>
<td>1.21</td>
<td>4.64</td>
<td>.034</td>
<td>.02</td>
</tr>
<tr>
<td>AxO</td>
<td>1</td>
<td>0.31</td>
<td>0.58</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>.26</td>
<td></td>
<td></td>
<td>.26</td>
</tr>
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<td>Design</td>
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<td>55.85</td>
<td>204.78</td>
<td>.001</td>
<td>.93</td>
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<td>DxA</td>
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<td>0.78</td>
<td>2.87</td>
<td>.094</td>
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<td>DxO</td>
<td>1</td>
<td>.00</td>
<td>0.01</td>
<td>-</td>
<td></td>
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<td>DxAxC</td>
<td>1</td>
<td>.08</td>
<td>0.28</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>.27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
### TABLE 17
Three-Way Analysis of Variance on MPS

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P(F)</th>
<th>Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>1</td>
<td>18.98</td>
<td>6.73</td>
<td>.011</td>
<td>.03</td>
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<tr>
<td>Order</td>
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<td>10.11</td>
<td>3.59</td>
<td>.064</td>
<td>.02</td>
</tr>
<tr>
<td>AxO</td>
<td>1</td>
<td>1.26</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>2.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
<td>562.50</td>
<td>196.46</td>
<td>.001</td>
<td>.94</td>
</tr>
<tr>
<td>DxA</td>
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<td>6.14</td>
<td>2.14</td>
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</tr>
<tr>
<td>DxO</td>
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<td>.15</td>
<td>0.05</td>
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<td></td>
</tr>
<tr>
<td>DxAxO</td>
<td>1</td>
<td>2.03</td>
<td>0.71</td>
<td></td>
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<tr>
<td>Error</td>
<td>76</td>
<td>2.86</td>
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</table>

**Note:** Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS.

The ratio was always computed for Affect, Design, and any significant factors or interactions.
### TABLE 18

**Three-Way Analysis of Variance on Satisfaction with Working Conditions**

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P (F)</th>
<th>Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
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<td>7.65</td>
<td>5.57</td>
<td>.021</td>
<td>.12</td>
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<tr>
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<td>1.41</td>
<td>1.02</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>AxO</td>
<td>1</td>
<td>1.81</td>
<td>1.32</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satis</td>
<td>1</td>
<td>47.31</td>
<td>45.41</td>
<td>.001</td>
<td>.74</td>
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<tr>
<td>SxA</td>
<td>1</td>
<td>0.01</td>
<td>0.01</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>SxO</td>
<td>1</td>
<td>6.01</td>
<td>5.77</td>
<td>.020</td>
<td>.09</td>
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<tr>
<td>SxAxO</td>
<td>1</td>
<td>0.01</td>
<td>0.01</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.04</td>
<td></td>
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</tbody>
</table>

**Note:** Proportion of Explainable Variance equals the ratio of a factor’s MS to the difference of Total MS and Error MS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
TABLE 19
Three-Way Analysis of Variance on Satisfaction with Task Challenge

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>HS</th>
<th>F</th>
<th>p(F)</th>
<th>Proportion of Explained Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>1</td>
<td>3.60</td>
<td>2.56</td>
<td>-</td>
<td>0.03</td>
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<td>Order</td>
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<td>0.23</td>
<td>0.16</td>
<td>-</td>
<td></td>
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<td>AxO</td>
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<td>0.10</td>
<td>0.07</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satis</td>
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<td>115.60</td>
<td>143.91</td>
<td>0.001</td>
<td>0.92</td>
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<td>5.26</td>
<td>0.025</td>
<td>0.03</td>
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<tr>
<td>SxAxO</td>
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<td>2.03</td>
<td>2.52</td>
<td>-</td>
<td></td>
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<tr>
<td>Error</td>
<td>76</td>
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</tr>
</tbody>
</table>

Note: Proportion of Explainable Variance equals the ratio of a factor's HS to the difference of Total HS and Error HS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
TABLE 20
Three-Way Analysis of Variance on Satisfaction with Task Stimulation

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
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<th>F</th>
<th>F(F)</th>
<th>Accounted For</th>
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</thead>
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<tr>
<td>Affect</td>
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<td>0.31</td>
<td>0.25</td>
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<td>.00</td>
</tr>
<tr>
<td>Order</td>
<td>1</td>
<td>1.41</td>
<td>1.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AxC</td>
<td>1</td>
<td>0.31</td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satis</td>
<td>1</td>
<td>71.56</td>
<td>65.82</td>
<td>.001</td>
<td>.91</td>
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<tr>
<td>SxA</td>
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<td>2.26</td>
<td>2.08</td>
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<tr>
<td>SxO</td>
<td>1</td>
<td>0.31</td>
<td>0.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SxAxC</td>
<td>1</td>
<td>2.76</td>
<td>2.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.09</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Proportion of Explainable Variance equals the ratio of a factor's HS to the difference of Total HS and Error HS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
TABLE 21

Three-Way Analysis of Variance on Overall Satisfaction

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>( \frac{\text{MS}}{\text{Error MS}} )</th>
<th>Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>1</td>
<td>2.03</td>
<td>1.73</td>
<td>-</td>
<td>.02</td>
</tr>
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<td>Order</td>
<td>1</td>
<td>2.50</td>
<td>2.13</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>AxO</td>
<td>1</td>
<td>4.23</td>
<td>3.60</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>1.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satis</td>
<td>1</td>
<td>70.23</td>
<td>82.68</td>
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<td>.85</td>
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<tr>
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<td>1</td>
<td>1.60</td>
<td>1.88</td>
<td>-</td>
<td></td>
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<td>1.23</td>
<td>1.44</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>SxAxC</td>
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<td>0.40</td>
<td>0.47</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Proportion of Explainable Variance equals the ratio of a factor's MS to the difference of Total MS and Error MS. The ratio was always computed for Affect, Design, and any significant factors or interactions.
Contrary to hypotheses, affective state had little impact on subjects' satisfaction with either task. One main effect for affect was found for satisfaction with working conditions ($F = 5.57; df = 1, 76; p < .03$). Mean satisfaction was 3.6 for the positive affect subjects and 3.2 for the neutral affect subjects. The factor accounted for only 12% of the explainable variance. Effects on satisfaction with task challenge and stimulation, and on overall satisfaction were negligible.
### TABLE 22

Means and Standard Deviations of Task Characteristics by Dimension

<table>
<thead>
<tr>
<th></th>
<th>Positive Affect</th>
<th>Neutral Affect</th>
</tr>
</thead>
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<tr>
<td>Dealing W/ Others</td>
<td>1.8</td>
<td>1.6</td>
</tr>
<tr>
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<td>(.5)</td>
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<td>Task Significance</td>
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<td>2.9</td>
</tr>
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<td>(.8)</td>
<td>(.7)</td>
</tr>
<tr>
<td>Task Feedback</td>
<td>2.8</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>(.7)</td>
<td>(.6)</td>
</tr>
<tr>
<td>Task Identity</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>(.7)</td>
<td>(.7)</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.0</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>(.7)</td>
<td>(.7)</td>
</tr>
<tr>
<td>Skill Variety</td>
<td>2.6</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>(.6)</td>
<td>(.7)</td>
</tr>
<tr>
<td>Task Scope</td>
<td>3.2</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>(.4)</td>
<td>(.4)</td>
</tr>
<tr>
<td>HPS</td>
<td>9.1</td>
<td>8.4</td>
</tr>
<tr>
<td></td>
<td>(.31)</td>
<td>(.1)</td>
</tr>
</tbody>
</table>

n=80  n=80
<table>
<thead>
<tr>
<th></th>
<th>Positive Affect</th>
<th>Neutral Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Conditions</td>
<td>3.6 (-.9)</td>
<td>3.2 (-.8)</td>
</tr>
<tr>
<td>Task Stimulation</td>
<td>2.6 (-.8)</td>
<td>2.7 (-.8)</td>
</tr>
<tr>
<td>Task Challenge</td>
<td>2.8 (-.9)</td>
<td>2.5 (-.8)</td>
</tr>
<tr>
<td>Overall</td>
<td>3.1 (-.8)</td>
<td>2.9 (-.7)</td>
</tr>
</tbody>
</table>

n=80

Note: Main table entries are mean scores. Standard deviations are in parentheses.
Interactions

A two-way interaction was predicted between affect and task design. The interaction was found for only two dependent variables: Skill Variety ($F=10.15$; $df=1,76$; $p<.005$) and Satisfaction with Task Challenge ($F=5.26$; $df=1,76$; $p<.03$). An analysis of simple main effect for Skill Variety showed that the interaction was the result of no differences between affect conditions on the unenriched task ($M=1.62$ for positive affect subjects, $M=1.56$ for neutral affect subjects, $F=.08$), but significantly higher scores for positive affect subjects following the enriched task ($M=3.5$ for positive affect and $M=2.8$ for neutral affect, $F=6.08$, $p<.05$). For Satisfaction with Task Challenge, the form of the interaction was different: No difference between affect conditions on the enriched task ($M=3.4$ for positive affect and $M=3.2$ for negative affect; $F=.21$, $p>.10$) and lower satisfaction scores for positive affect subjects on the unenriched task ($M=1.8$ for positive affect and $M=2.1$ for negative affect; $F=.97$, $p>.10$).

A three-way interaction was also hypothesized with positive affect subjects always showing higher satisfaction or task perceptions unless they experienced the unenriched task second. There was no evidence of such an interaction on any of the task dimensions or satisfaction variables. As an example, for the HES variable, perceived score on the unen-
riched task was consistently higher for positive affect subjects regardless of whether the task was first (M=7.2 for positive affect, M=7.0 for neutral affect) or second (M=6.8 for positive affect, M=6.5 for neutral affect).

Finally, it should be noted in passing that there were no significant affect x order interactions on any primary measure. Such an interaction would be expected if the reinduction of affect was unsuccessful. The lack of such an interaction suggests that subjects' affective levels remained stable over the course of the session.

**Attitudinal Determinants of Satisfaction**

Previous researchers have shown that perceived job characteristics can be predicted from knowledge of employee job satisfaction. It has also been argued in the present paper that affect, as it is theoretically and operationally defined here, is a construct distinct from satisfaction. It follows then that affect and satisfaction should be independent predictors of task perceptions. This expectation was confirmed through hierarchical regression analyses with MPS and Task Scope as the dependent variables. The results of these analyses are displayed in Table 24. It can be seen in Table 24 that subjects overall satisfaction was strongly related to both summary measures of task perceptions across levels of task design. (Both variables were measured at the same time.) Affect condition was coded as a dichotomous va-
riable and added as a second predictor of the MPS and Task Scope variables. For both measures, subject affective state accounted for a significant proportion of variance (four to six percent) beyond that already accounted for by overall satisfaction. In other words, affect and satisfaction were indeed independent predictors of subject task perceptions.
TABLE 24
Hierarchical Regression Analysis of Affect and Satisfaction on Task Perceptions

Dependent Variable:

<table>
<thead>
<tr>
<th>Predictor</th>
<th>BES</th>
<th>ΔR²</th>
<th>F (ΔR²)</th>
<th>Task Scope</th>
<th>BES</th>
<th>ΔR²</th>
<th>F (ΔR²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>-31</td>
<td>.31</td>
<td>34.52***</td>
<td>-28</td>
<td>.28</td>
<td>.28</td>
<td>30.48***</td>
</tr>
<tr>
<td>Affect</td>
<td>-35</td>
<td>.04</td>
<td>4.75**</td>
<td>-34</td>
<td>.06</td>
<td>.06</td>
<td>6.40**</td>
</tr>
</tbody>
</table>

N=80

* p<.05
** p<.01
*** p<.001
Ancillary Analyses

Selective Attention

Scoring Responses. The selective attention mechanism was investigated by having subject responses (to a question of what stood out to them) typed verbatim and given to several graduate students to judge. The graduate students rated the responses as favorable, unfavorable, neutral in tone, or unscorable (due to vagueness or insufficient information). Responses were coded so that the judges (students) were unaware of the condition under which each response was scored. Each response was first evaluated by two students. Inter-rater agreement of category assignment was extremely high (judges agreed on 92% of the responses). Whenever a response was rated neutral by one judge and favorable or unfavorable by the other, the extreme score was used. In several instances, one judge rated the response favorable and the other rated it unfavorable. In these cases, a third judge was used as a tie-breaker.

Analyses. Separate analyses were done on the enriched and unenriched tasks. The frequency of favorable, unfavorable, or neutral/unsorable responses for positive and neutral affect subjects are shown in Table 25. Also shown in Table 25 are the results of a sign test for the test of the difference between favorable and unfavorable responses (ex-
cluding neutral/unscorable responses). The sign test showed that while positive affect subjects were significantly more likely to respond favorably (27 favorable, 5 unfavorable, $Z=3.71$), there was no difference between the frequencies of favorable and unfavorable responses in neutral affect subjects (18 favorable, 10 unfavorable, $Z=1.32$). Responses for the unenriched task are displayed in Table 26. The response patterns for both affect conditions were very similar, with both groups giving significantly more unfavorable than favorable responses (for positive affect: 6 favorable, 25 unfavorable, $Z=3.23$; for neutral affect: 3 favorable, 28 unfavorable, $Z=4.31$).
TABLE 25
Favorabtility of Subject Responses to Enriched Task

<table>
<thead>
<tr>
<th>Process/Affect</th>
<th>Response:</th>
<th>Favorable (Fav.)</th>
<th>Unscorable</th>
<th>Unfavorable (Unfav.)</th>
<th>Z Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selective Attention:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;What Stood Out?&quot;</td>
<td>Pos.</td>
<td>27</td>
<td>8</td>
<td>5</td>
<td>3.71***</td>
</tr>
<tr>
<td></td>
<td>Neut.</td>
<td>18</td>
<td>12</td>
<td>10</td>
<td>1.32</td>
</tr>
<tr>
<td>Reinterpretation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Structure&quot;</td>
<td>Pos.</td>
<td>34</td>
<td>0</td>
<td>6</td>
<td>4.27***</td>
</tr>
<tr>
<td></td>
<td>Neut.</td>
<td>32</td>
<td>2</td>
<td>6</td>
<td>4.06***</td>
</tr>
<tr>
<td>&quot;Currency&quot;</td>
<td>Pos.</td>
<td>31</td>
<td>4</td>
<td>7</td>
<td>4.17***</td>
</tr>
<tr>
<td></td>
<td>Neut.</td>
<td>18</td>
<td>7</td>
<td>15</td>
<td>0.35</td>
</tr>
<tr>
<td>&quot;Pace&quot;</td>
<td>Pos.</td>
<td>25</td>
<td>3</td>
<td>2</td>
<td>5.26***</td>
</tr>
<tr>
<td></td>
<td>Neut.</td>
<td>34</td>
<td>4</td>
<td>2</td>
<td>5.17***</td>
</tr>
</tbody>
</table>

Note: Z value is for a sign test of the difference in frequencies of favorable and unfavorable responses.

*** p<.001
Cognitive Reinterpretation

Cognitive reinterpretation was investigated by the same procedure used for the selective attention mechanism but with three different questions. Inter-rater agreement of category assignment was again very high (judges agreed on 90% of the responses to the structure question, 88% of the responses to the currency question, and 92% of the responses to the pace question). The results for the enriched condition are displayed in Table 25 and the results for the unenriched condition are displayed in Table 26. The results for the unenriched task were mixed. Neutral affect subjects gave significantly more unfavorable responses to two questions and positive affect subjects gave significantly more unfavorable responses to one question. On one question for neutral affect subjects and two questions for positive affect subjects, there was no difference in the frequency of favorable and unfavorable responses.

For the enriched condition, there was no difference in response patterns between positive and neutral affect subjects for the structure and pace questions. Both groups of subjects were more likely to give favorable than unfavorable responses. For the third question, reactions to using current candidates, there was a difference between response patterns. Neutral affect subjects were no more likely to give favorable responses (n=18) than unfavorable responses.
(n=15, \(Z=0.35\)). However, positive affect subjects gave a significantly greater number of favorable responses (n=31) than unfavorable responses (n=5, \(Z=4.17, p<.001\)).
TABLE 26
Favorability of Subject Responses to Unenriched Task

<table>
<thead>
<tr>
<th>Process/Affect</th>
<th>Response</th>
<th>Neut/</th>
<th>Favorable</th>
<th>Unscoreable</th>
<th>Unfavorable</th>
<th>Z Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selective Attention:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;What Stood Out?&quot;</td>
<td>Pos.</td>
<td>6</td>
<td>9</td>
<td>25</td>
<td></td>
<td>3.23***</td>
</tr>
<tr>
<td></td>
<td>Neut.</td>
<td>3</td>
<td>9</td>
<td>28</td>
<td></td>
<td>4.31***</td>
</tr>
<tr>
<td>Reinterpretation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Structure&quot;</td>
<td>Pos.</td>
<td>22</td>
<td>2</td>
<td>16</td>
<td></td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>Neut.</td>
<td>26</td>
<td>0</td>
<td>14</td>
<td></td>
<td>1.74</td>
</tr>
<tr>
<td>&quot;Currency&quot;</td>
<td>Pos.</td>
<td>11</td>
<td>7</td>
<td>22</td>
<td></td>
<td>1.74</td>
</tr>
<tr>
<td></td>
<td>Neut.</td>
<td>10</td>
<td>7</td>
<td>23</td>
<td></td>
<td>2.08*</td>
</tr>
<tr>
<td>&quot;Face&quot;</td>
<td>Pos.</td>
<td>7</td>
<td>4</td>
<td>29</td>
<td></td>
<td>3.50***</td>
</tr>
<tr>
<td></td>
<td>Neut.</td>
<td>9</td>
<td>2</td>
<td>29</td>
<td></td>
<td>3.08***</td>
</tr>
</tbody>
</table>

Note: Z value is for a sign test of the difference in frequencies of favorable and unfavorable responses.

*** p<.001
* p<.05
Facilitated Recall

Scoring. All words offered by subjects in response to the free recall question were compiled, alphabetized, and again given to graduated students to judge. Judges were asked to categorize each word as favorable or unfavorable as a description of the task. The same method for resolving disagreements on the other measures was used again, though inter-rater agreement of category placement was again high (judges agreed on 93% of the responses). The form used for these judgments are given in Appendix C. Using the judges' evaluations, subjects' responses were scored in the following way: For each task, subjects were assigned a value of +1 for each freely generated favorable word, 0 for each neutral or unscorable word, and -1 for each unfavorable word. Values for each word were summed to produce one score per subject of "Word Favorability" on both tasks. Thus, subjects' score on either task measure could range from +3 to -3.

Analysis. Thirty-six of forty positive affect subjects received either a neutral or positive Word Favorability score on the enriched task, while only 23 of 40 neutral affect subjects did. For the unenriched task, 11 of 40 positive affect subjects received a positive or neutral score but only 5 of 40 neutral affect subjects did so. Thus, po-
positive affect subjects were more likely to generate more positive words than were neutral affect subjects.

A three-way analysis of variance was performed on the scores with affect and task order as between-subject factors and task design as a within-subjects factor. The results are displayed in Table 27. There was a strong effect for task design ($F=79.19; \text{df}=1,76; \ p<.001$) with more positive words recalled in the enriched task ($M=5$) than the unenriched task ($M=-1.6$). There was no main effect for affective state ($F=2.75, \ p>.10$), but there was a significant effect for the affect by order interaction ($F=3.84; \ \text{df}=1,76; \ p<.05$). The interaction is most apparent on the enriched task. When the enriched task was experienced first, there was only a small difference between the mean Word Favorability scores of positive (.50) and neutral affect subjects (.25). However, when the unenriched task was first, mean Favorability scores on the enriched task were considerably higher for the positive affect subjects ($M=1.2$ for positive affect, $M=.10$ for neutral affect; $t=1.97, \ p<.05$ for a one-tail test).
### TABLE 27

Analysis of Variance of Word Favorability

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>DF</th>
<th>SS</th>
<th>F</th>
<th>p(F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>1</td>
<td>6.81</td>
<td>2.75</td>
<td></td>
</tr>
<tr>
<td>Order</td>
<td>1</td>
<td>11.56</td>
<td>4.66</td>
<td>.03</td>
</tr>
<tr>
<td>AxO</td>
<td>1</td>
<td>9.51</td>
<td>3.84</td>
<td>.05</td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>2.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
<td>178.51</td>
<td>79.19</td>
<td>.001</td>
</tr>
<tr>
<td>DxA</td>
<td>1</td>
<td>2.76</td>
<td>1.22</td>
<td></td>
</tr>
<tr>
<td>DxO</td>
<td>1</td>
<td>2.76</td>
<td>1.22</td>
<td></td>
</tr>
<tr>
<td>DxAxO</td>
<td>1</td>
<td>0.16</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>76</td>
<td>2.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PLEASE NOTE:

This page not included with original material. Filmed as received.

University Microfilms International
DISCUSSION

A Fable

In a currently popular television show, "Cheers," an ex-ballplayer named Sam Malone owns and operates a bar. His chief bartender is an older man named "Coach," another ex-ballplayer who appears to have been hit in the head by a baseball a few times too many. In spite of this, Coach often displays a keen insight into human behavior. In one episode, the bar regulars learn that Sam's brother is coming to visit. One of them must inform Sam, but they are all afraid to because they know Sam hates his brother and may react violently to the news. Coach volunteers, assuring the others that he knows how to handle Sam. He approaches Sam and says, "Bad news, Sam. I just got word that your house burned down." Sam is horrified and shouts, "No! You're kidding!," to which Coach replies, "Yeah, I am. Actually your brother is coming to visit, but aren't you happy your house is OK?"

The moral of the story is, it all depends on how you look at things.
Summary of Purpose and Results

Recent conceptual approaches to the experience of work have emphasized both the inherently ambiguous nature of the work environment (Salancik & Pfeffer, 1978) and the worker as an information processor (Hanser & Huchinsky, 1978). In refining the popular Job Characteristics Model of Hackman and Oldham (1976), researchers have sought to identify both social and individual determinants of workers' subjective task perceptions. The present study explored one potential determinant, employee affective state. Affect was thought to be important based on a growing number of studies in other areas of psychology demonstrating that mood or affect can influence subjects' judgments, recall, evaluation, and other cognitive processes. In short, the study attempted to show whether ratings of task characteristics and task satisfaction are dependent upon "how you look at things."

In the experiment, subjects performed both an enriched (interesting) and unenriched (boring) task. Positive affect was induced by a method unrelated to the task itself: Subjects watched a short comedy film. Several formal hypotheses were made relevant to subject affect. Among the most important, it was hypothesized that, regardless of task, ratings of perceived task characteristics would be higher for positive affect subjects than neutral affect subjects and that, regardless of task, task satisfaction would also be higher for positive affect subjects.
Analysis of Results

Before reviewing specific hypotheses, mention should be made of the lack of any two-way or three-way interactions involving affect and order (with the exception of one task dimension). (A three-way interaction on both task characteristics and satisfaction was predicted.) An affect x order interaction would suggest that the affect manipulation had a differential effect on subject responses depending on whether it preceded the first or second task. In other words, it would indicate the effect of the affect reinduction was not equivalent to the initial induction. Thus, the lack of an interaction is welcomed. It suggests that order of tasks was not important with respect to affect and allows a more straightforward interpretation of the results.

Influence of Affect on Task Perceptions

Subject affective states clearly had an effect on their perceptions of the task itself. Summary measures of task perceptions, Task Scope and MFSS, were significantly higher for positive affect subjects than neutral affect subjects regardless of task. In addition, significant differences were found on several individual task dimensions: Task Feedback, Skill Variety, and Task Significance (a marginal effect). For each of these, positive affect subjects again rated the dimensions higher than did neutral affect subjects.
Interpreting the pattern of results for individual dimensions, a case could be made that affect had a greater impact on the more ambiguous aspects of the task (in particular, task feedback and skill variety). When asked to rate an unambiguous attribute of the task such as autonomy (when subjects were paced by an audiotape) or dealing with others (when subjects were separated and not encouraged to interact), respondents may confidently make such a judgment based only on task information and not other information sources. However, if the attribute in question is less obvious, respondents may consider other informational sources (Salancik & Pfeffer, 1978) including their own feelings. That affect should have its greatest influence on ambiguous stimuli is consistent with other affect research (e.g., Forrest, Clark, Hills, & Isen, 1979; Isen & Shalker, 1978).

The demonstrated effect of mood state on task perceptions is consistent with five previous studies which have shown that job satisfaction is a determinant or predictor of perceived task characteristics. This study differs from previous ones in several important ways, ways which permit a clearer understanding of basic processes in the perception of the work environment. First, the present study has the clearest demonstration, to date, of a causal effect on their perceptions. Four of the previous studies used survey data and simply used self-reported job satisfaction as a predictor of subjective task perceptions using regression analyses.
The fifth study manipulated satisfaction, but did so by having subjects role-play feeling satisfied or dissatisfied while performing a task. The present study used a non-task-related manipulation of affect. The manipulation produced clear, predictable differences in the internal states of experimental and control group subjects. Thus, it was not necessary to ask subjects to role-play a certain way because they actually felt that way. The present investigation also makes an important theoretical contribution beyond the other studies. Even discounting problems of causation, past studies have demonstrated that task perceptions may be affected by employee satisfaction. Job satisfaction is a complex attitude, possibly involving not only an appraisal of the job but a comparison of the self to others, and a consideration of one's own needs or values (Locke, 1976). A comparable effect was produced in the current study by a much simpler and more basic causal factor. The results suggest that the way we characterize our jobs is influenced by mundane, low-level "everyday" feeling states, the kinds that can be change by an event as simple as laughter. Hierarchical regression analyses indicated that subject affective states accounted for significance variance in task perceptions beyond that accounted for by satisfaction alone. Moreover, the job satisfaction/job characteristics relation-
ship implies a cognitive loop which raises the chicken or the egg question. The present study suggests the source of the mood need not be compatible with the object of perception for an effect to exist (cf., Johnson & Tversky, 1983).

**Influence of Affect on Task Satisfaction**

Contrary to hypotheses, subject affect state had no effect on task satisfaction, except for satisfaction with working conditions. For that variable, positive affect subjects reported higher satisfaction levels than neutral affect subjects, regardless of task design. For satisfaction with task stimulation, task challenge, and overall satisfaction, no differences were found between neutral and positive affect subjects.

The absence of a direct effect on satisfaction is compelling, particularly since satisfaction is considered a largely affective attitude. Indeed, Locke (1976) goes so far as to call it an "emotional response" to a job. Prior to conducting the study, if one were to bet on finding a main effect for only one set of dependent variables, it is likely that most of the money would have been riding on the satisfaction variables. Yet, an effect was only found for the perceptual measures. There are several reasons why this may be so.

One explanation considers the timing of the task experience and measurement. The term "perceived task character-
istics" implies an immediate processing (if not awareness) of task information as subjects are engaged in the task. Their dominant mood state could potentially influence the way in which they process (or perceive) task information long before they are asked to relate those perceptions. No necessary information processing is implied by the term "satisfaction." Subjects may not even have formed their satisfaction feelings until asked to do so in the self-report measure. At that point, their initial affect state may have dissipated or may be ignored if they attend to other internal states, such as the extent to which personal needs were fulfilled.

A second explanation concerns whether subject responses were made on an absolute or relative basis. Most theories of job satisfaction either implicitly or explicitly hold that satisfaction is a comparative judgment of current state to an ideal or preferred state (e.g., Lawler, 1973). When asked how satisfied they were with the task, subjects in the present study may have compared their experience to the previous task, to what else they could have been doing (e.g., sunbathing), or other psychology experiments. In contrast, because of the novelty of the task, most subjects probably had little to compare it to in making their ratings of task characteristics. As a result, these judgments may have been

---

7 One subject in a positive affect condition spontaneously commented that the experiment was a lot more fun than another task design study she had participated in.
made on a more absolute basis than the satisfaction judgments were. Though the issue has not been addressed before, the results are consistent with a hypothesis that affective states are more influential on absolute judgments (for which alternative sources of information are unavailable) than on relative judgments (for which other sources of information is available). This explanation is compatible with a study by Hanks and Muchinsky (1978) which showed that university faculty were most likely to rely on personal thoughts and feelings when other sources of feedback (organizational policy, deans, or peers) were unavailable.

Two methodological explanations should be noted. One is that the inability to account for variation in satisfaction scores could have been due to unreliability in the measurement of those variables. In contrast to the task perception variables, satisfaction scores were based on single-item measures. Also, the lack of an effect could have been due to the affect induction dissipating over the course of task and ratings. Subject satisfaction responses were made after task perceptions were made and about 25 minutes after the affect induction. As noted in the introduction, the duration of affect induction has been a concern in past research. While the lack of an affect by order interaction only affirms that the reinduction of affect successfully returned subjects to their initial states, it does not address whether level of affect was constant across task and
ratings. It should be noted thought that some predictable effects due to affect on cognitive mechanisms were found on questions asked after the satisfaction measures. Also, on several different occasions, positive affect subjects were observed giggling or smiling on the post-study questionnaire, well after the measurement of satisfaction. This evidence suggests the affect induction probably did not greatly diminish, however, is not strong enough to refute the dissipation argument. In future research on affect and task responses, it may be worthwhile to counterbalance order of measurement until the issue is resolved.

In the meantime, the absence of an effect of mood on satisfaction scores, together with their independent effects of task perceptions raise serious questions regarding their equivalency for describing worker job attitudes. While it is understandably tempting to call job satisfaction an "affective response," it is clearly not the same as "feeling good" when on the job.

**How Affect Influence Perceptions**

Additional exploratory analyses yielded some insight into the way in which different affect states effect task perceptions. Previous theory and research had suggested three possible cognitive mechanisms through which affect may operate: Selective attention to positive task attributes, cognitive reinterpretation of task attributes in a positive
manner, and/or priming or facilitative recall for positive attributes. The present study found some support for all three processes, but only on the enriched task; cognitive processes of positive and neutral affect subjects on the unenriched task were quite similar. The unenriched task was clearly a boring, if not painful, experience for many subjects. That the cognitive reactions of both positive and neutral affect subjects to it were essentially identical suggests there are limitations on the type of tasks or situations in which affect (or positive affect) matters. Apparently, there are settings when it is impossible to make lemonade from lemons, no matter how you feel.

For the enriched task, how did positive affect cause subjects to perceive task characteristics more favorably? The results suggest it did so in several ways. Positive affect subjects selectively attended to positive aspects of the situation more so than did neutral affect subjects. The use of the term "situation" rather than "task" is intentional since some positive affect subjects seemed to search past the boundaries of the task for positive experiences. When asked what stood out to them as particularly interesting or boring, positive affect subjects were significantly more likely to mention favorable attributes than unfavorable. Sometimes these attributes were related to the task (e.g., "I liked being able to choose candidates in my own way") but sometimes the attributes were unrelated (e.g., "I enjoyed
reading the career objectives of the graduate students" or "I liked looking for spelling mistakes on applications with high GPA's). If a subject attends to only (or predominantly) positive task/situation features, then it is not surprising they report positive task perceptions as well.

Positive affect subjects were also somewhat more likely to attach a positive meaning to neutral cues through cognitive restructuring or reinterpretation processes. (The evidence is not overwhelming, since an effect was found on only one of three measures.) When asked whether or not they liked making decisions on candidates currently under review, about half the neutral affect subjects responded favorably, but over half did not (primarily because they felt unqualified to be making decisions which could affect others). However, nearly all the positive affect subjects reported that the use of current candidates appealed to them. Interestingly, much of the current work on affect began with studies of the relationship of mood and helping behavior (e.g., Batson, Coke, Chard, Smith, & Taliaferro, 1979; Isen, 1970; Isen et al., 1976). When asked why they liked evaluating current applicants, a large number of positive affect subjects said they liked being in a position to help someone get a job. (Positive affect subjects recommended a significantly greater percentage of candidates than did neutral affect subjects: M=66% for positive affect; M=56% for neutral affect; t=2.30, p<.05). As indicated by the responses of
neutral affect subjects, there is nothing inherently favorable about making real decisions. Yet, positive affect subjects uniformly responded to this in a favorable manner. This evidence suggests that even when these subjects are aware of nonpositive situational attributes, they come to attach a favorable meaning to them.

Positive affect subjects were also more likely to recall positive features of the task. When asked to list the first three words which came to mind when thinking about the enriched task, 53% of the positive affect subjects recalled primarily positive words while only 43% of the neutral affect subjects did so. Recall was facilitated even more when the enriched task occurred second. When the enriched task was first, the difference between positive and neutral affect subjects was only slight (word favorability means were .50 for positive affect and .25 for neutral affect). However, when the enriched task followed prior experience with the unenriched task, positive affect subjects were much more likely to recall positive words ($M=1.20, Sd=1.24$ for positive affect; $M=1.10, Sd=2.17$ for neutral affect; $t=1.98, df=38, p<.05$ for a one-tail comparison). Thus, when asked to indicate their task perceptions, even if positive affect subjects did attend to some negative features and fail to reconstruct those features in a positive sense, these results suggest that positive material in memory was still more accessible to them at the time in which they made their rat-
Limitations of the Current Study

Negative Affect

The current study investigated the influence of positive affect on task perceptions. For reasons mentioned in the introduction, no attempt was made to study negative affect. Recently, Isen (Note 6) has remarked that the influence of affect probably interacts with characteristics of the task and other aspects of the situation as well. The similarity in cognitive responses between affect conditions on the unenriched task substantiates this observation. It is not known whether there would be differences in responses between negative affect subjects and neutral or positive affect subjects on such a task. This study suggests that affect is an important construct for understanding worker responses to their jobs. To study negative affect would seem important too since job redesign efforts are often aimed at improving low morale and since stress and emotional disorders have been linked to role overload or role conflict (Beehr & Newman, 1978).

While other studies have shown a facilitative effect of mood on recall of positive material, these studies have typically employed either previously learned word lists or writing samples (Isen et al., 1976; Laird et al., 1982; Teasdale & Fogarty, 1979). To the author's knowledge, this is the first study to show a spontaneous effect on perceptual rather than semantic phenomenon.
External Validity

Some concerns may be raised regarding the external validity of a study of job perceptions conducted in a laboratory setting. The casual reader may be tempted to ask if the results imply that organizations should show comedy films to disenchanted workers at the beginning of each work day. However, the question of external validity for the present investigation is not a particularly relevant one since the purpose of the study was not to demonstrate that affect does influence task perceptions in the world, but that it can influence them at all. Essentially, a laboratory setting was used to legitimize a phenomenon for study, a phenomenon which can be further explored in both lab and field settings. Indeed, the fact that the study was conducted in a laboratory setting probably decreased the likelihood of finding an effect (Nock, 1983). That is, it could be argued that an effect would be much less likely to be detected using inexperienced workers who perform a short but clearly defined task in a sterile setting rather than with experienced workers given a long, hazy assignment to be performed in an office with an air-conditioning unit is on the fritz.

Regarding the manipulation itself, while this study is unique to the I/O literature, it follows a well-developed line of research in social and cognitive psychology. In general, the results of most other affect studies have been consistent with theory and robust over a variety of induc-
tion methods in both laboratory and field settings (see Isen, Note 6). Certainly this does not preclude the need for repeated demonstrations with multiple tasks, settings, and induction methods, but it does give the researcher some confidence that affect matters. An interesting follow-up in an organization setting would be to measure task perceptions, directly manipulated affect, then measure task perceptions again.
Regarding the state vs. trait issue discussed earlier, the present results address short-term affective states only. They suggest that organizational researchers should be cognizant of recent or current circumstances which create extraordinary temporary mood states in organizational members. If surveys are administered to measure work attitudes or perceptions, the extent to which these surveys reflect typical organizational conditions may be limited by the degree to which conditions at measurement are normal.

Generalizing to individuals' responses over longer periods of time is a little more difficult, but it has been suggested that there do exist individual differences in the extent to which people are typically happy or unhappy (Costa & McCrae, 1980) and that persons who are more often happy may simply "string together" more positive momentary states (Harr et al., 1983). This suggests a relationship between stable individual traits and long-term attitudes may parallel the one demonstrated between short-term traits and perceptions, but further research is clearly needed to clarify and confirm such a phenomenon.

**Implications for Practice**

This study presented evidence consistent with the hypothesis that employee affect may influence the way in which employees view their jobs. The findings have a certain intuitive appeal. In organizations, one may often hear state-
ments such as, "Ch, don't bother explaining it to him. He has a bad attitude; he hates everything;" or, "If you can sell it to her, you can sell it to anyone."

Earlier, the question was facetiously raised whether the results implied that organizations should show comedy films to unhappy workers. However, the practical implications of the results are a concern since employee job perceptions and/or morale are often a primary concern of organizations. The study of affect does suggest several ways of changing employee attitudes, but in doing so it also identifies a major paradox in the attitude/attitude change literature. The tripartite division of attitudes is well-recognized by psychologists (see Fishbein & Ajzen, 1975), with the three attitude components being affect, cognition, and behaviors (or behavioral intentions). Many psychologists would also agree with the assertion that attitudes are primarily affective in nature. Yet, the most popular models of attitude change completely ignore affect as a suitable object of change! Many models are forms of persuasive communication. With these, the objective is to change (cognitive) beliefs through the presentation of factual information, with the hope that affect changes will follow cognitive changes. Both self-perception (Bem, 1972) and dissonance theories (Festinger & Carlsmith, 1959) hold that attitudes should change if the target person can be made to engage in counter-attitudinal behaviors. Again, here the
hope is that affective changes follow behavioral change. There are no prevalent affectively-based attitude change models. However, several suggestions as to how this may be accomplished are offered:

1. **Classical conditioning.** Hackman (1976) has suggested the use of classical conditioning to change attitudes. The idea would be to arrange for affect-inducing events to occur in the workplace. Through repeated pairings of an unconditioned stimulus with a previously neutral stimulus (the workplace), the employee may learn to respond favorably to the work setting. This strategy is often employed by coffee, utility, and soft-drink companies who peddle their products on television by pairing them with scenes guaranteed to create warm feelings in the viewer.

2. **Contingent/Noncontingent Rewards.** In some affect studies, positive affect has been induced by telling subjects they had succeeded on a pre-experimental task. An organizational analog might be the use of feedback and recognition by supervisors. On the other hand, affect has also been successfully induced in several other studies by the administration of non-contingent rewards (e.g., free samples, discarded books, refreshments, etc.). This would suggest that the organization should use "surprises" to induce affect, that is, rewards administered without relating
them to employee behavior (e.g., the boss brings the secretary a flower).

3. **Personnel Selection.** If future research is able to identify stable individual differences in affect, then morale or climate problems can be viewed in a new way. Typically, when an organization encounters a morale problem, attributions are made to management style, unionism, the economy, and so forth. However, it is probably the case that the organization tends to choose its members from the same population: Neighborhood, education level, age at entry, and so forth. If so, the negative affect may be simply a result of the types of people the organization selects. If job satisfaction or climate is a desirable goal to the organization then the organization may be able to specifically select members to maximize organizational outcomes on these variables (cf., Schnitt & Schneider, 1983).

**Implications for Theory and Future Research**

Overall, the results of the study are not inconsistent with the popular Job Characteristics model; changes in the task itself produced strong changes in subject task responses. However, the study also demonstrated the subjective, interpretative nature of task perceptions. As Salancik and Pfeffer (1978) have suggested, task ratings should be viewed
as personal constructions of reality. Salancik and Pfeffer have also suggested that as the actual work environment becomes more ambiguous, the individual is more likely to draw on other informational sources than the task itself. Salancik and Pfeffer and others have closely examined the impact of social cues, but have largely ignored intra-personal sources, such as affective state. It would be interesting to test whether moods have a greater effect on more ambiguous tasks than the ones employed in the current study.

As mentioned earlier, it would also be valuable to replicate this study in an organization setting. The induction of affect would be difficult, though the use of noncontingent rewards would seem to hold some promise.

Perhaps the most interesting facet of the current investigation was the exploratory analyses of the cognitive mediating processes. Some evidence was found for each of the three processes. In subsequent research, more care should be paid to the measurement of these constructs. One obvious improvement was mentioned earlier, to measure each process closer in time to the moment it is believed to exert influence on perception. Thus, selective attention should be measured as the subject experiences the task and priming should be measured later, after the subject has time to store task-relevant information. The study of the processes need not be limited to the laboratory. Critical incidents, diaries, and other check-lists along with periodic self-mood
ratings by actual workers would provide a great deal of useful information about what types of information workers attend to while in different mood states.

A solid research foundation for the study of affect has been laid in the social/cognitive psychology fields. The success of the present study suggests that studying affect-related processes would be useful in understanding phenomena in industrial/organizational psychology as well.
REFERENCE NOTES


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REFERENCES


Hanser, I.M., & Huchinsky, P.M. Work as an information environment. *Organizational Behavior and Human Performance,* 1978, 21, 47-60.


Isen, A.H., & Gorgoglione, J.A. Some specific effects of
four affect-induction procedures. *Personality and Social

Isen, A.H., & Means, E. The influence of positive affect on

Isen, A.H., Means, E., Patrick, B., & Nowicki, G. Some
factors influencing decision-making and risk-taking. In

Isen, A.H., & Patrick, R. The effect of positive feelings
on risk-taking. *Organizational Behavior and Human
Performance*, in press.

Isen, A.H., & Shalker, T.E. The effect of feeling state on
evaluation of positive, neutral, and negative stimuli:
When you "accentuate the positive," do you "eliminate
the negative"? *Social Psychology Quarterly*, 1982, 45,
58-63.

Isen, A.H., Shalker, T.E., Clark, M., & Karp, L. Affect,
accessibility of material in memory, and behavior: A
cognitive loop? *Journal of Personality and Social
Psychology*, 1976, 36, 1-12.

Isen, A.H., & Simmonds, S.F. The effect of feeling good on a
helping task that is incompatible with good mood. *Social

Ittelson, B.H. Environmental perception and contemporary
perceptive theory. In B.H. Ittelson (Ed.), *Environment

James, L.R., Hater, J.J., Gent, H.J., & Bruni, J.B.
Psychological climate: Implications from cognitive
social learning theory and interactional psychology.

James, L.R., & Jones, A.P. Perceived job characteristics
and job satisfaction: An examination of reciprocal

Johnson, E.J., & Tversky, A. Affect, generalization, and
the perception of risk. *Journal of Personality and

Kabanoff, B. Work and nonwork: A review of models, methods,

King, A.S. Expectation effects in organizational change.


Heiss, H.J., & Shaw, J. Social influences on judgments about tasks. Organizational Behavior & Human Performance, 1979, 24, 125-140.


Appendix A

SAMPLE APPLICATIONS
APPLICATION FOR APPOINTMENT TO BE
A GRADUATE TEACHING ASSOCIATE

Name: ____________________________
Address: ________________________

Marital Status: M/S Sex: N/F

Education
Date began Graduate School: ___________
Number of Graduate Credits: ________________
Date of Master's Degree: ________________
Area of Specialization: ______________________
Expected Date of Graduation: ________________
Career Objective: _________________________
Current Grade Point Average: ____________

Work Experience
Have you ever taught before? ____________
If so, describe in what capacity: _______________________
Indicate any previous assistantships in research, counseling, or testing:

Indicate any previous courses, experience, or other qualifications which may be relevant to this position:

_________________
The Ohio State University

APPLICATION FOR APPOINTMENT TO BE
A GRADUATE TEACHING ASSOCIATE

Name: __________________________________________
Address: 1143 Neil Ave
           Columbus, Oh
Marital Status: M S   Sex: M F

Education

Date began Graduate School: Sept. '82
Number of Graduate Credits: 51
Date of Master's Degree: Will receive next year
Area of Specialization: Physiological
Expected Date of Graduation: June '86
Career Objective: Academic Position
Current Grade Point Average: 3.99

Work Experience

Have you ever taught before?: No
If so, describe in what capacity: ___________________________

Indicate any previous assistantships in research, counseling, or testing:
First year fellowship

Indicate any previous courses, experience, or other qualifications which may be relevant to this position: None
APPLICATION FOR APPOINTMENT TO BE
A GRADUATE TEACHING ASSOCIATE

Name:

Address:

Columbus, OH

Marital Status: M S  Sex: M F

Education

Date began Graduate School: 9/79
Number of Graduate Credits: 130
Date of Master's Degree: 3/83
Area of Specialization: Social
Expected Date of Graduation: 8/84
Career Objective: Academics
Current Grade Point Average: 3.88

Work Experience

Have you ever taught before?: Yes
If so, describe in what capacity: I have taught psychology 100 for 3 years now.

Indicate any previous assistantships in research, counseling, or testing:

Indicate any previous courses, experience, or other qualifications which may be relevant to this position: Built lecture in 5 different undergraduate courses.
APPLICATION FOR APPOINTMENT TO BE A GRADUATE TEACHING ASSOCIATE

Name: 
Address: 366 Cloveroak Ct. 

Columbus, Ohio 

Marital Status: M or F 

Sex: M or F 

Education 
Date began Graduate School: 9/79 
Number of Graduate Credits: 122 
Date of Master's Degree: 3/83 
Area of Specialization: Experimental 
Expected Date of Graduation: 8/84 
Career Objective: Research and teaching at a small private school. 
Current Grade Point Average: 3.63 

Work Experience 
Have you ever taught before?: No 
If so, describe in what capacity: N.A. (Not applicable) 

Indicate any previous assistantships in research, counseling, or testing: University fellowship for 2 years, research assistant for two years. 
Indicate any previous courses, experience, or other qualifications which may be relevant to this position: Proctored exams as an undergraduate course assistant.
Appendix B

SUBJECT RESPONSE FORMS
TEACHING CANDIDATE DECISION SHEET

** Below are the names of the candidates I would recommend for teaching Psychology 100 next year.

1. __________________________ (Best candidate)
2. __________________________ (2nd best candidate)
3. __________________________
4. __________________________
5. __________________________
6. __________________________
7. __________________________
8. __________________________
9. __________________________
10. __________________________

** Below are the names of the candidates I would reject for teaching Psychology 100 next year.

1. __________________________ (Worst candidate)
2. __________________________ (2nd worse candidate)
3. __________________________
4. __________________________
5. __________________________
6. __________________________
7. __________________________
8. __________________________
9. __________________________
10. __________________________

Name __________________________

Please mark this spot if you permit your decisions to be shown to the selection committee.
**SELECTION DECISION WORKSHEET**

<table>
<thead>
<tr>
<th>Candidate No.</th>
<th>Final Decision</th>
<th>Dimensions:</th>
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<tbody>
<tr>
<td>1.</td>
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<td>7.</td>
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<td>8.</td>
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<td>9.</td>
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<td>10.</td>
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</tbody>
</table>
DECISION WORKSHEET INSTRUCTIONS

This form was designed to help you make more qualified decisions about the teaching candidates.

Here are a few suggestions about using the worksheet:

* Record the candidates application number in the left hand column.

* You can consider any pieces of information from the applications that you'd like. (Don't be afraid to be creative. If you think you can make decisions based on an "analysis" of their handwriting, go ahead and try it.)

* Once you decide on the dimensions for evaluating applicants, write that dimension on the top of one of the worksheet columns.

* Then, for each candidate, record as much information as you'd like in the appropriate columns. Record it in any way you'd like.

Reaching and recording decisions about the candidates:

* You can choose to either recommend or reject any candidate.

* When you reach a decision about a candidate, indicate your decision by placing a + (for recommend) or a - (for reject) in the 2nd column of the worksheet.

* Record your final decisions on the "Teaching Candidate Decision Sheet." While it is not essential to be totally precise, try to rank the candidates as best you can on both the recommend and reject lists. (Rank from best candidate to 2nd best to 3rd best, etc. Then rank from worse candidate to 2nd worse to 3rd worse, etc.)
TASK ASSESSMENT FORM I

Below are several questions which will help us better understand your reactions to the task you just completed. Please try to answer them as honestly as possible.

1. In the space below, try to list everything you can think of that was a part of the task and made it especially boring or especially interesting. In other words, what stood out that you particularly liked or disliked? Try to be as specific as possible.

2. What are the first 3 words which come to your mind which would describe the task you just completed?
STANDARD TASK RATING FORM

THE ITEMS IN THIS SECTION MAY OR MAY NOT DESCRIBE THE TASK YOU'VE JUST COMPLETED. USE THE SCALE BELOW TO INDICATE THE ACCURACY OF EACH STATEMENT IN DESCRIBING THE TASK. WRITE THE APPROPRIATE NUMBER IN THE SPACE TO THE RIGHT OF THE ITEM.

1---------2---------3---------4---------5

Very    Somewhat Uncertain Somewhat Very
Inaccurate Inaccurate Accurate Accurate

1. The task allowed me to do my work independently of others

2. The task required me to use a number of different skills

3. Just doing the work required by the task provided many chances for me to figure out how well I was doing

4. The task provided me the chance to completely finish the pieces of work I began

5. I had a good deal of say in determining how the work got done

6. The work itself was not very significant or important in the overall scheme of things

7. Much of task depended upon the ability to work with others

8. The duties I performed were very repetitious

9. The results of my work were clearly evident to me

10. The task was arranged so that I did not have the chance to do an entire piece or work from beginning to end

11. The task gave me considerable opportunity for independence and freedom in how I did the work
12. The task was one where a lot of other people be affected by how well I did the work.............

13. The task required a lot of cooperation with other people...........................................

14. The task gave me an opportunity to do a number of different types of things......................

15. The task itself provided very few clues about whether or not I was doing a good job.............

16. I had the opportunity to complete the work I started..................................................

17. I had control over the pace of my work.............

18. The decisions I made could have a strong impact on the lives of others..........................
TASK SATISFACTION FORM

THIS FORM ALLOWS YOU TO SHOW YOUR SATISFACTION WITH SPECIFIC ASPECTS OF THE TASK YOU HAVE JUST COMPLETED. INDICATE YOUR SATISFACTION WITH EACH ASPECT BY CIRCLING THE APPROPRIATE NUMBER ON THE SCALE BELOW.

1. My satisfaction with the working conditions:

1------------2---------3--------4----------5

Very Dissatisfied
Neither Satisfied Nor Dissatisfied

2. My satisfaction with the extent to which the task was stimulating:

1------------2---------3--------4----------5

Very Dissatisfied
Neither Satisfied Nor Dissatisfied

3. My satisfaction with the extent to which the task was challenging:

1------------2---------3--------4----------5

Very Dissatisfied
Neither Satisfied Nor Dissatisfied

4. My overall satisfaction with the task:

1------------2---------3--------4----------5

Very Dissatisfied
Neither Satisfied Nor Dissatisfied
TASK ASSESSMENT FORM II

BELOW ARE SEVERAL QUESTIONS WHICH WILL HELP US UNDERSTAND YOUR REACTIONS TO THE TASK YOU JUST COMPLETED. PLEASE TRY TO ANSWER THEM AS HONESTLY AS POSSIBLE.

1. This task was designed so that your duties were clearly defined for you.

Did you like or dislike this?

Why or why not?

2. On this task, you had to use candidates from last year (on whom decisions had already been made).

Did you like or dislike this?

Why or why not?

3. This task was designed so that everyone worked at the same pace and finished at the same time.

Did you like or dislike this?

Why or why not?
TASK ASSESSMENT FORM II

BELOW ARE SEVERAL QUESTIONS WHICH WILL HELP US UNDERSTAND YOUR REACTIONS TO THE TASK YOU JUST COMPLETED. PLEASE TRY TO ANSWER THEM AS HONESTLY AS POSSIBLE.

1. This task was designed so that your duties were largely up to you.
   
   Did you like or dislike this?
   
   Why or why not?

2. On this task, you had to use candidates currently on review (on whom decisions have yet to be made).
   
   Did you like or dislike this?
   
   Why or why not?

3. This task was designed so that each of you could work at your own rate and finish at your own time.
   
   Did you like or dislike this?
   
   Why or why not?
### TASK COMPARISON FORM

Compared to the first task that you did, to what extent could this task be characterized as:

(Check One)

<table>
<thead>
<tr>
<th></th>
<th>Lesser Extent</th>
<th>About Equal</th>
<th>Greater Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Requiring you to work closely with other people</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Producing results which may significantly affect others</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. Requiring you to use a variety of your skills and talents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Requiring you to decide on your own how to do the work</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Requiring you to complete a whole or complete piece of work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Providing you with feedback on how well you were doing</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
EXPERIMENTAL EVALUATION FORM

1. As an experiment in psychology, how would you evaluate this study (check ✓ all that apply)?

   AMUSING       RELAXING       THREATENING
   EXCITING       INTERESTING    UNINTERESTING
   NEITHER GOOD NOR BAD    A WASTE OF TIME

   I LEARNED SOMETHING USEFUL ABOUT PSYCHOLOGY
   I LEARNED SOMETHING USEFUL ABOUT RESEARCH
   I LEARNED SOMETHING USEFUL ABOUT HOW TA'S ARE PICKED
   I LEARNED NOTHING USEFUL AT ALL

2. What do you think the purpose of this experiment was? What was the experimenter's hypothesis?

3. As Psych 100 students participate in experiments, they usually come to realize that some deception is often necessary in many studies. (For example, subjects are told things which may not be 100% true.)

   Do you think there was any deception in this study? (Circle one: Yes, no, maybe)

   If you answered yes, what kind of deception do you think was used?

4. Any other comments?
Appendix C

FAVORABILITY RATING FORMS
Below are a series of statements made by subjects following completion of a laboratory task. I am interested in how favorable or unfavorable each response seems to you. Rate each statement using the following scale:

- 5 = Very Favorable
- 4 = Favorable
- 3 = Neutral (Contains both positive and negative comments or seems neither positive nor negative)
- 2 = Unfavorable
- 1 = Very Unfavorable
- 0 = Cannot rate from available information

Skim all responses on a page before making your ratings. Indicate your ratings by placing the appropriate number in the space to the left of the statement number.

23.2 The tone was kind of monotonous. It was boring because you had to wait for the next tone before going on.

24.1 This was an interesting project, I felt as though my opinion really counts; the part that stood out the most is rating the future would be T.A.'s and filling out the dimensions part.

25.1 Its a good idea to have students pick TAs, because their the ones whom will be associated closely with them.

26.2 It was interesting to read the applications - in terms of experience the applicants had previously. The lowest G.P.A. I encountered was a 3.3- ! I did not like waiting for the beeps to move on to the next application. Also I couldn't see the purpose in each of sitting here doing the same task when the surface appearance of the task seems to be organization of information for comparison purposes.

27.2 Not much evaluation, same questions y/n or a/na. No in depth answers. Did not the persons attitudes. I liked it because it was short, and did not take much time.

28.1 I was able to make my own standards. It was more challenging, because are these good standards of judgment. Personal contact still necessary.

29.2 The task quickly became boringly repetitive. The questions I answered moved quicker for each applicant. The questions came to be easily located and simplistic to fill out as we moved further down the line.
TASK INTERPRETATION FORM

Below are comments made by subjects in response to a question regarding the degree of structure in the assignment of their duties. I am interested in how favorable or unfavorable each response seems to you. Rate each statement using the following scale:

5 = Very Favorable  
4 = Favorable  
3 = Neutral (Contains both positive and negative comments or seems neither positive nor negative)  
2 = Unfavorable  
1 = Very Unfavorable  
0 = Cannot rate from available information

Indicate your ratings by placing the appropriate number in the space to the left of the statement number. (Note: Subjects first responded to whether or not they liked the assignment and then why or why not.)

____ 2.2 Disliked; boring.
____ 1.1 There was no information about the person's personality. I prefer personal interview with individual.
____ 3.2 I liked this, because we didn't know what we had to do when we got here. Someone had to tell us where to begin.
____ 4.1 Yes. I have my own criteria by which I would judge a person. I don't mind when the procedure of how to accomplish a goal is left up to me but I do mind when the goal is not clearly stated.
____ 5.1 Like. Like more of a challenge, to be creative.
____ 6.1 Like this; felt more a part of decision making in regards to TA next year.
____ 7.2 Dislike; the task seemed very irrelevant.
____ 8.2 It was alright; boring but not so much as to be impossible to tolerate.
____ 9.1 Like looking at everyone else's app. Not my kind of work.
____ 10.2 Like; easy.
____ 11.1 Like, because I know what kinds of things are important to look for in a TA. I can't go by others standards.
____ 12.1 Like; I have a better feeling when I'm in the drivers seat than when I am just following.
____ 13.2 I liked it; it wasn't hard or confusing.
Below are comments made by subjects in response to a question regarding the extent to which they had an impact in the current selection process. I am interested in how favorable or unfavorable each response seems to you. Rate each statement using the following scale:

5 = Very Favorable  
4 = Favorable  
3 = Neutral (Contains both positive and negative comments or seems neither positive nor negative)  
2 = Unfavorable  
1 = Very Unfavorable  
0 = Cannot rate from available information

Indicate your ratings by placing the appropriate number in the space to the left of the statement number. (Note: Subjects first responded to whether or not they liked their amount of impact and then elaborated on why or why not.)

51.2 Like; because the people had already been hired, therefore I had no affect on their chances to get a job.

52.1 Like; feel that I have valuable input.

53.1 Yes - because I like making decisions.

54.2 Dislike; it was a pure waste of time. If you wanted our opinions why didn't you just compare our selections to yours this year.

55.2 Dislike; because I think we should have been making decisions for this year.

56.2 It made no difference.

57.1 Like; maybe we may have some input.

58.1 Dislike; I'm really not in a position to judge the qualifications of a possible TA.

59.2 Disliked; takes away from the importance of the job. It's merely an experiment.

60.1 Like; because I can see who and what kind of people try for the job.

61.1 Yes; if the decisions had already been made, there would be biased thinking about the results of the experiment.

62.2 Dislike; nothing I did will have an effect on who gets picked.

63.2 Disliked; altered results perhaps by telling us that TA's were from last year.
Below are comments made by subjects in response to a question regarding the degree to which they could work independently or in concert with others. I am interested in how favorable or unfavorable each response seems to you. Rate each statement using the following scale:

- 5 = Very Favorable
- 4 = Favorable
- 3 = Neutral (Contains both positive and negative comments or seems neither positive nor negative)
- 2 = Unfavorable
- 1 = Very Unfavorable
- 0 = Cannot rate from available information

Indicate your ratings by placing the appropriate number in the space to the left of the statement number. (Note: Subjects first responded to whether or not they liked the pacing and then elaborated on why or why not.)

1.1 It was okay.
2.2 Dislike; boring - lack of control in setting your own pace.
3.2 Liked and disliked. Since we have to do it together it is O.K., but the task should be done ones pace.
4.1 Yes. It allowed us the freedom I needed to work at my most productive pace.
5.1 Like; because that is better for me.
6.1 Like - no wasted time.
7.2 Dislike; it was incredibly boring!
8.2 Dislike; the pace was too slow and it made the task seem monotonous.
9.1 Like it; gave time to what I felt needed time.
10.2 Like; did not have to wait or be waited on.
11.1 Like; because each individual works well at his own pace.
12.1 Liked; made it more challenging & not as boring.
13.2 I disliked that there was alot of wasted time.
Below are a series of words subjects used to describe an experimental task. For each word I would like you to make 2 statements. To the left of the word, check the appropriate column indicating whether you believe the word is primarily descriptive (e.g., "classification") or evaluative (e.g., "great"). Then to the right, check one column indicating whether the word seems positive, negative, or neutral in tone.

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