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A Social Information Processing Approach to Job Attitudes and Task Design

Gerald R. Salancik and Jeffrey Pfeffer

This article outlines a social information processing approach to explain job attitudes. In comparison with need-satisfaction and expectancy models of job attitudes and motivation, the social information processing perspective emphasizes the effects of context and the consequences of past choices, rather than individual predispositions and rational decision-making processes. When an individual develops statements about attitudes or needs, he or she uses social information — information about past behavior and about what others think. The process of attributing attitudes or needs from behavior is itself affected by commitment processes, by the saliency and relevance of information, and by the need to develop socially acceptable and legitimate rationalizations for actions. Both attitudes and need statements, as well as characterizations of jobs, are affected by informational social influence. The implications of the social information processing perspective for organization development efforts and programs of job redesign are discussed.*

The literature on job attitudes and task design has been dominated by the need-satisfaction paradigm, a model which asserts that people have needs, jobs have characteristics, and job attitudes (and motivation, in some versions) result from their conjunction. Need-satisfaction models emphasize individual dispositional explanations for behavior rather than situational factors, though some versions (see Hackman and Lawler, 1971) do consider the interaction of individual and situation. Within psychology generally, there is continuing controversy concerning the relative importance of personal and situational explanations for behavior (see Sarason, Smith, and Diener, 1975) and the role of the construct of personality in research on behavior (see Hogan, DeSoto, and Solano, 1977; Mischel, 1977). Little of this controversy has permeated the literature on work behavior, with the notable exception of research into the effects of role occupancy (see Lieberman, 1956; Kahn *et al.*, 1964; Pfeffer and Salancik, 1975). Consequently, there have been relatively few attempts to explore situational constraints as alternative explanations for work attitudes and behaviors.

Many of the problems enumerated in a critique of need-satisfaction models (Salancik and Pfeffer, 1977) are at least partially due to the failure of some approaches to take into account the social context in which work occurs and how this context affects attitudes and actions. Furthermore, theorists frequently seem to lose sight of the important fact that persons spend much more time with the consequences of their actions and decisions than they spend contemplating future behaviors and beliefs. The combination of these two factors — the social context of work and the presence of consequences from previous actions — can be combined in a social information processing approach to develop new insights into people's attitudes at work.

This paper offers a perspective on job attitudes that draws on a literature thus far largely unconsidered in theorizing

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about work attitudes and actions, and synthesizes the various parts of this literature to begin developing an integrated way of thinking about work attitudes. Though it is incompletely formulated, we offer this perspective to stimulate thinking about job attitudes in something other than a basic need-satisfaction framework.

Need-Satisfaction Models

In comparing the perspective we present here, we will frequently refer to need-satisfaction models. Although we have described previously what we think comprises such models (Salancik and Pfeffer, 1977), we should point out that we are not referring to any particular model. There would appear to be little value in belaboring the inadequacies of individual models, since our objections are with some basic assumptions characterizing most, if not all, such models. Rather than addressing any particular theoretical statement, we are addressing a perspective, a way of thinking about job attitudes.

This perspective has at its core a belief in the relative efficacy of individual attributes or traits as predictors of behavior and attitudinal responses in work settings. Although need theorists clearly differ as to how to classify needs (see Murray, 1938; Maslow, 1943; McClelland, 1961; Alderfer, 1972), they all predict attitudes and behavior on the basis of personal characteristics. And though some consider that the strength of needs varies according to satiation or frustration, they presume that the needs themselves are relatively enduring traits of the individuals they describe. Furthermore, most theorists ascribe to situations the potential for fulfilling or frustrating individual needs, and posit that individual attitudes and motivation result from the interaction of the need-fulfilling and frustrating properties of situations and individual need strengths.

The Conceptual Status of Needs

Despite our quarrel with need-satisfaction models of behavior, we do not intend to dismiss the language of needs, wants, or desires as operant conditioning theorists have done. This would be hard to do if only because most languages possess a construction similar to the English, "to want." Indeed, language captures nicely the alternate causal textures of human action, with the idea that a person wants to, should, could, would, ought to, needs to, must, and can do something. Most theories of human behavior are selective variations of these basic constructions. Expectancy models, for example, represent a formalization of three verbs: people *will do* what they *can do* when they *want* something.

We use the language metaphor to indicate that the modeling of behavior is frequently a naming or labeling process in which causality and meaning are attributed to observable behavior. This is a process that lay persons engage in as much as behavioral scientists do. Finding meaning in behavior and in a job environment is an information processing activity, and the information processed is frequently verbal.

For our argument, we consider needs to have a conceptual status similar to that of attitudes in theories of attribution

and self-justification. In this view, a need is an outcome produced by a person rather than a property inherent in him or her. Much as some social scientists, individuals use need and attitude concepts to describe and make sense of their own and others' behavior. A need can be personally attributed or socially ascribed (Kelly, 1955), and can be frequently invoked as an explanation for behavior not explainable by readily observed external demands. Needs, in this sense, are not necessities, and their potential for motivating and directing behavior or attitudes must be taken as a theoretical problem rather than an axiom.

Because attitude and need statements are expressions, they are also behaviors (Calder and Ross, 1973). Individuals, or observers, normally construct them in response to externally generated or self-generated requests for evaluations and explanations of some other behavior. However, defining needs and attitudes as personal constructs does not imply that they are individually determined. Indeed, the definition of the relationship between an individual and the environment takes place in a social context and is influenced by that context. Such sense-making activity by individuals can be analyzed, then, only by understanding the processing of social information.

A SOCIAL INFORMATION PROCESSING PERSPECTIVE

The social information processing approach proceeds from the fundamental premise that individuals, as adaptive organisms, adapt attitudes, behavior, and beliefs to their social context and to the reality of their own past and present behavior and situation. This premise leads inexorably to the conclusion that one can learn most about individual behavior by studying the informational and social environment within which that behavior occurs and to which it adapts. Some need theorists also recognize the potential for people to adapt to their circumstances, though such adaptation is frequently labeled a psychological defense mechanism (Argyris, 1957; Alderfer, 1977). This appellation connotes an unnecessary negative evaluation which assumes that the ultimate environment is known.

Individuals develop attitude or need statements as a function of the information available to them at the time they express the attitude or need. The form and content of that expression are affected by the request for the attitude, the purpose for which it is requested, and any other fact that might affect the relative saliency of information relevant to the person deriving the attitude. Saliency refers to information the individual is immediately aware of. Relevance refers to the possibility that individuals can evaluate information as being more or less related to a specific attitude.

One important source of information is the person's immediate social environment, which is why we call this perspective social information processing. The social environment provides cues which individuals use to construct and interpret events. It also provides information about what a person's attitudes and opinions should be. Furthermore, the social context is likely to make more or less salient some information about an individual's own past activities, state-

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ments, and thoughts, and also provides norms and expectations which constrain the process of rationalizing those past activities.

The social context has two general effects on attitude and need statements: (1) it provides a direct construction of meaning through guides to socially acceptable beliefs, attitudes and needs, and acceptable reasons for action; (2) it focuses an individual's attention on certain information, making that information more salient, and provides expectations concerning individual behavior and the logical consequences of such behavior. These two effects — the direct effects of informational social influence and the indirect effects of the social context on the processes by which actions are used to construct attitude and need statements — are diagrammed in the Figure. The Figure presents an overview of the social information processing perspective on job

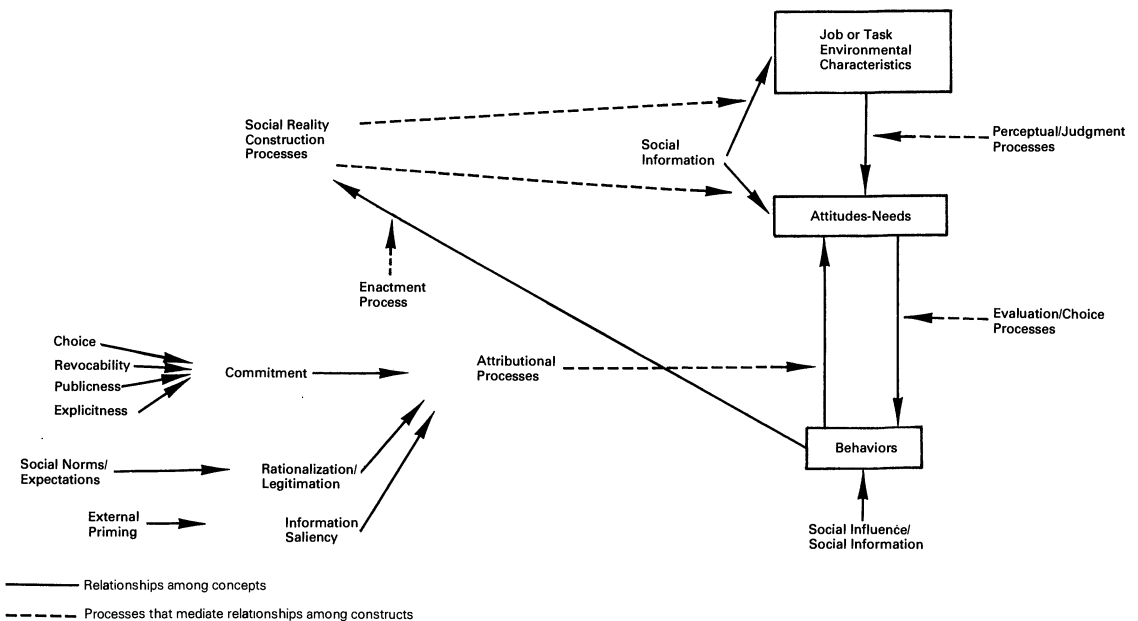


Figure. A social information processing approach to attitudes, behavior, and job characteristics.

attitudes. With its much shorter intellectual history, the social information processing perspective inevitably has loose ends and unanswered questions. Nonetheless, the approach does allow integrating some existing literature and does prompt some interesting predictions, some of which are contrary to those produced using need-satisfaction models of job attitudes.

Below we briefly explain the characteristics and structure of the social information processing perspective, attending to the various causal relationships and processes represented in the Figure.

The Social and Personal Construction of Reality

The social information processing approach begins by arguing that characteristics of the job or task, such as the style of supervision or conditions of the workplace, are not given but constructed. Indeed, an important area of investigation is to discover just how individuals come to perceive their

work environment. The idea that environments are created through individual and social processes is not original with us, having been discussed by authors such as Berger and Luckmann (1967), Schutz (1967), and Weick (1969, 1977). March and Simon (1958) also noted the impact of information that comes from the environment on the judgments and actions of people in an organization.

Festinger offered some sophisticated insights into processes of informational social influence in his theory of social comparison (1954; see also Deutsch and Gerard, 1955). He recognized that judgments about oneself and the world are problematic. When physical evidence is unavailable and judgment is uncertain, Festinger argued that people are motivated to communicate with others, and through this communication, develop stable, socially derived interpretations of events and their meanings. Festinger also suggested that people evaluate information sources in terms of personal relevance, using similar others for comparison: the more similar someone is, the more relevant his or her views for understanding one's own world. In a work setting, the new employee will rely less on managers than on fellow employees for information about norms and standards for behavior, including impressions of the workplace, the organization, and the specific job. Furthermore, the more ambiguous the job aspects, the more the worker will rely on social comparisons to assess them. The worker does not require an elaborate social comparison process to tell him or her that when the plant is 100 degrees, it is hot.¹ The worker is, however, likely to use social information in developing his or her perceptions of the meaningfulness, importance, and variety of the job.

Individuals also use their own behavior to construct reality. This is represented in the Figure by the link from behavior to social reality construction processes, with the term "enactment process" describing how behavior participates in creating the environment the individual perceives.

To illustrate this process, we can consider how people perceive anything. Perception is a retrospective process: though the experience is immediate, it derives from recall and reconstruction. An object exposed to the individual is coded and briefly stored in short-term memory, where it will deteriorate unless renewed by active coding processes or transferred into long-term memory. The reality of the perception is that the information available about events is composed of recollections. Sometimes, part of what was seen is not recalled, and individuals fill in missing information, thus, literally reconstructing their environment.

Weick (1977) carried the notion of constructed environments further, emphasizing that objects and events cannot become part of a person's environment without the person actually participating in the creation of that environment. In one sense, this is similar to the focusing or priming effect we discussed previously (Salancik and Pfeffer, 1977). To obtain information from an environment, the individual must orient himself to aspects of that environment.

But Weick went further. The selective attention to information in the environment can be identified with his selection

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Although it is true that social comparison processes and informational social influence will operate more under conditions of physical uncertainty, even physical reactions can be mediated and interpreted by social cues. Thus, the presence of other workers who behave as if it were cool might make the individual more reluctant to conclude that it was, in fact, hot. Schacter and Singer (1962) provide one empirical illustration of the use of others as information to interpret physiological reactions.

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mechanism. At the same time, Weick argued that persons create the environment they subsequently enact. For example, when a jazz orchestra plays a piece of music for the first time, each musician's product in the context of the products of other musicians becomes the environment that each works with as the rehearsal progresses. In the case of jobs, the actions of workers become the stuff of the job selected into the worker's conception of the job. In this way, the individual's own behavior affects the process of constructing interpretations of events and environments by changing or creating the environments which he or she then processes.

The Social Basis of Attitudes

In the Figure we posit that attitude or need statements result from three causes: (1) the individual's perception and judgment of the affective components of the job or task environment; (2) the information the social context provides about what attitudes are appropriate; and (3) the individual's self-perception, mediated by processes of causal attribution, of the reasons for his past behavior. We will consider each of these causes in turn, beginning with the effect of the social context on attitude and need statements.

As suggested in the Figure, social information affects attitude and need statements both directly and indirectly. These effects are obtained through several processes. One very direct process has to do with the effect the overt statements of coworkers have on a worker's attitude. If coworkers continuously maintain that a job is horrible, boring, or undesirable, the individual must either reject their judgments or assimilate them into his or her judgment. The worker is susceptible to the evaluations communicated to him by the social context for two reasons. First, because jobs are often complex stimuli, the worker might be uncertain about how to react to the job's multidimensional components. Knowledge of others' evaluations gives the worker some idea as to how to react to the complex cues. Second, the worker may want to agree with the coworkers, if only verbally, to fit in. These repeated verbal agreements may eventually convince the worker himself.

A second way social influence operates is by structuring a person's attentional processes, making aspects of the environment more or less salient. By noting certain aspects of the environment, by talking frequently about certain dimensions, coworkers cue an individual as to what to consider in the work setting. The dimensions made salient can then affect the attitude formed. For instance, calling attention to the fact that workers are doing the same thing over and over may make the job seem routine. Calling attention to the great social importance of an organization's products may, on the other hand, make the job seem significant.

A third way social influence affects attitudes is through the interpretation of environmental cues. More than just focusing attention, others provide their constructed meanings of events. A supervisor who disciplines a worker who is not doing an adequate job may be seen as lacking concern for the employee or, alternately, as concerned for the success of the firm. Which interpretation develops may be socially

determined: the more equivocal events are, the more social definitions will prevail.

A fourth way in which others affect the individual's attitudes is by influencing how the person interprets his or her needs. Thus, the comment that a job does not give a person a chance to think implies not only that the job has a certain feature but that the presence or absence of that feature should be important to the person. Brehm's (1966) theory of psychological reactance implies that mentioning personal deprivation or constraint would motivate the individual to attempt to overcome it. In other words, people learn what their needs, values, and requirements should be in part from their interactions with others.

Attitudes from Environmental Perceptions

Individuals construct attitudes or statements about needs not only as a result of the informational social influences we have just described, but also by cognitively evaluating the dimensions of the job or task environment. In this case, the information used can be any information, including information about one's own past expressions of attitudes, others' expressions, the behavioral responses of oneself or others, and information about features of the environmental context. The link from job characteristics to attitudes represents the cognitive processing of information about the characteristics of the job and its environment. Although the details of such processing are not well known, the literature on judgment suggests that judgments are monotonic functions of the positive and negative items of information a person has about the object of judgment (Anderson, 1971) — in this case, a job.

Past Behavior as an Attitude Determinant

In addition to the social and cognitive processing of job dimensions, the third determinant of job attitudes is the individual's past behaviors and how these behaviors come to be attributed to the environment or the person. Bem suggested that behavior can serve as a source of information for constructing attitude statements in his theory of self-perception (1972). As the Figure shows, however, the process of attributing attitudes from action is itself affected by the individual's commitment to the behavior, the information about past behavior that is salient at the time the attitude is generated, and social norms and expectations that affect what can be considered legitimate or rational explanations for past behavior.

Commitment affects the creation of attitudes from behavior by constraining how individuals make sense of their reactions to their environment. Commitment occurs when behavior is made under conditions of choice, when it is irrevocable, when it is public, and when it is explicit or can be shown undeniably to have occurred (Salancik, 1977). Without choice, a person need not infer that the behavior has any implication for his or her attitudes; publicness and explicitness bind the individual closely to the behavior; and irrevocability forces him to come to terms with the behavior or the situation. It has been repeatedly found that when individuals are committed to a situation, they tend to de-

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velop attitudes consistent with their commitment and their committing behavior (Kiesler, 1971; Salancik, 1977).

In one illustration of this effect, Staw (1974) found that individuals committed to ROTC programs because of binding contracts developed more favorable attitudes toward the program after they received a high draft number and learned that they would probably not have been drafted, compared with those who were not committed to ROTC by contract. This finding might at first appear surprising, since the individuals joined ROTC for the most part to avoid conscription. Presumably, when they learned they would not be drafted, the program should lose its appeal because it no longer fulfilled a personal goal. However, their subsequent draft status did not alter the fact that they had chosen to join ROTC and were committed to remain. The only thing that would make sense of their continuing participation, now that it no longer served to avoid the draft, would be to develop attitudes enhancing the program, and this is precisely what was observed.

Evidence from laboratory experiments also illustrates that individuals develop attitudes consistent with their commitment to an activity. In one study (Comer and Laird, 1975), individuals committed to a situation expected to confront the task of eating a dead worm. Given a brief interval to reconstruct the situation, they developed the belief that either (a) the worm was not so bad; (b) they deserved to suffer; or (c) by performing the task they would serve mankind by advancing science. Their conceptions of the situation were so restructured that when subsequently offered the choice of another task, most chose to eat the worm.

Rationalizing Personal Action

Commitment binds an individual to his or her behavior. The behavior becomes an undeniable and unchangeable aspect of the person's world, and when he makes sense of the environment, behavior is the point on which constructions or interpretations are based. This process can be described as a rationalizing process,² in which behavior is rationalized by referring to features of the environment which support it. Such sense-making also occurs in a social context in which norms and expectations affect the rationalizations developed for behavior, and this can be described as a process of legitimating behavior. People develop acceptable justifications for their behavior as a way of making such behavior meaningful and explainable.

By justification, we mean any description of an action which is consistent with the action and provides a reason for performing it. By acceptable, we mean that the justification makes sense and is perceived as being reasonable and legitimate by the person and by others. Justifications can be linked to actions either before or after they have taken place (Salancik, 1975). Acceptable justifications, when developed prior to an action, can increase the probability of its occurring, although they are not necessary for it to occur and can change during its course. Justifications *are* necessary for making sense of prior actions, and there are probably few activities that cannot be justified — which speaks more to the creative capacities of individuals than to the

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The term "rationalize" refers to any situation in which a person's action is described with reference to some supporting reason or cause. The term "legitimate" refers to one criterion by which rationalizations are selected from the many possible explanations for action. Justifications or rationalizations are selected primarily where they are acceptable explanations in a given social context. This means they fit with the facts as known according to the rules of behavior generally followed.

nature of human activity. Given that actions are justified, the question becomes under what conditions certain forms of justification are used, and what the consequences of these various forms of justification are for the development of positive or negative attitudes toward jobs.

Justifications for job activities can be associated with many things in the job context or content — the culture, the job features, or individual traits. Thus, producing a drug to fight disease or an airplane to protect the country will probably produce more favorable attitudes in people working on such products. This implies, however, that part of the investment of meaning in jobs is not under the control of the organization or the worker, but is rather a consequence of general social values. These values can change. Working on defense products probably produced different affective responses to work during World War II than during the Vietnam War. As products, services, and organizations change in value, the meaningfulness of the tasks involved also changes, with consequent changes for workers' attitudes.

Many organizations add their own rationalizing mythology to the social construction of work proffered by society. Screening and recruiting activities become rationalized as aiding organizational effectiveness and performance, while also ensuring that those selected become convinced of the importance of their assignments. Uniforms, titles, organizational sagas (Clark, 1972), company newspapers, and the passing of stories about organizational accomplishments all facilitate the development of a mythology which provides meaning, importance, and justification to work activities.

The argument that individuals seek meaning and justification for their activities does not imply that they need consistency (Singer, 1966), as dissonance theorists argue. Instead of proposing that individuals have an inherent need to make sense of their activities, one could argue that the tendency for them to do so derives from the demands and constraints of their social environment for meaningful and justifiable behavior.

The importance of the rationalizing process for understanding attitudes is that attitudes and needs are frequently expressed to rationalize behavior after it has occurred. Since any activity could conceivably be justified by multiple explanations, the theoretical problem is to determine what affects the selection of a particular explanation. One aspect of this selection is the salience of the elements of information available for justification, a topic we will consider shortly. Another aspect, however, is the credibility of the justification. At a minimum, credibility requires that beliefs fit the salient facts of the situation. Credibility also requires that rationalizing mythologies be acceptable in the social context. It is logically possible to argue that a person worked hard to fail, but in most social contexts such an explanation does not fit common assumptions of motivation and thus lacks credibility. Individuals, because of their desire to maintain social relationships, will probably select explanations for past behavior that are not only consistent with the facts of the situation and their commitments, but are also socially acceptable.

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The salience of the information available about past behavior and its causes is closely related to the requirement of behavior justification. One source of salience is the individual's social relationships and social context at the time the attitude is requested. Kelley (1956), for instance, reported that Catholic girls were more resistant to anti-Catholic propaganda when their affiliations were salient. Just as the acceptability and explanations of behavior can vary with the people witnessing them, so too may attitudes.

There are a variety of ways in which information is made more or less salient to the individual who is constructing attitude or need statements. We have suggested that social affiliations and social context may cause the individual to attend to some aspects of his past behavior more than to others. Information about past behavior can also be made salient through the questioning process. In several experiments, Salancik (1974a, 1976b) demonstrated that one could evoke pro- or anti-course attitudes among students by varying an inquiry into behavior done "frequently" or "occasionally." Under the supposition the people were more likely to recall something they had done occasionally rather than frequently, pairing "frequently" with anti-course behavior and "occasionally" with pro-course behavior induced students to recall more positive behavior and to feel more favorably toward the course. In a subsequent study Salancik (1976b) showed that attitudes were affected by comparable linguistic manipulations of the salience of alternative justifications for behavior. These experiments demonstrated that it was the salience of information about behavior which affected attitudes, not anything indigenous to the behavior or the environment being evaluated.

The Pervasiveness of Social Effects

The theoretical structure of the social information processing model of the relationship between the social context, attitude and need statements, and behavior has now been outlined. The principal contribution of this perspective, and its principal difference from need models of job attitudes, is its emphasis on informational processes in a social context. The social context binds people to behavior through a process of commitment, affects the saliency of information about their past activities, and provides norms and expectations that constrain their rationalization or justification of those activities. The social context, through informational social influence processes, can affect beliefs about the nature of jobs and work, about what attitudes are appropriate, and, indeed, about what needs people ought to possess. Through pressures for conformity emanating from the social environment, attitudes or behaviors may be exhibited which become the material for later cognitive reconstruction processes to work with. These effects of context make behavior in work organizations different from individual behavior and individual cognitive processes considered in isolation.

APPLICATION TO THE LITERATURE ON JOB ATTITUDES AND TASK DESIGN

Having outlined the social information processing perspective as a framework for understanding how attitudes toward

jobs are formed, the next task is to apply the framework to four topics relevant to the literature on job attitudes. This will afford an opportunity to see how the perspective can be used and how it fares when confronted with data from experimental and field studies. The four areas considered are: (1) insufficiently justified behaviors; (2) intrinsically and extrinsically justified behaviors; (3) socially based job attitudes; and (4) organizational climate.

Insufficient Justification Conditions

One of the clear implications of the social information processing perspective is that behavior serves as information in constructing attitudes, particularly when it is both committing and salient. Furthermore, attitudes are constructed from behavior using socially plausible and legitimate rationalizations. In the best-known applications of this effect, persons who are induced to engage in some behavior for apparently little or no external reward adjust their attitudes to reflect the behavior by developing more favorable attitudes toward the task itself. This result has been interpreted as indicating that behavior which cannot be justified by external rewards is justified by constructs of self-motivation.

These studies provide evidence which does not fit easily into most needs models, as the findings appear to contradict the assumption that individual attitudes covary positively with the potential a task has for fulfilling needs. Needs models appear to suggest that attitudes should be more positive when rewards are greater, at least to the extent the rewards are associated with need fulfillment; they would also suggest that an individual's liking for a task should not increase simply because other justifications for doing the job are lacking. The social information processing perspective is, however, consistent with these results. When actions cannot be rationalized with reference to socially recognized rewards, sanctions, or other external pressures, they will be rationalized with reference to personal motivations, attitudes, and needs. Such personal constructs are generally acceptable justifications for certain activities. It is important to note that the insufficient justification research that has been done has not been conducted completely from the point of view described here, in that it does not rely on a social definition to measure the sufficiency or insufficiency of justifications. Nevertheless, the data are relevant to our task of exploring the effect of behavior on attitudes and perceptions of personal needs or other traits.

Pallak, Sogin, and Van Zante (1974) had students randomly generate numbers between zero and nine and insert them into the small squares on a piece of graph paper. After some time on the task, the experimenter revealed that he already had enough samples of random numbers from other persons and did not need any more. Furthermore, he told the subjects that most college students did not generate truly random numbers anyway, and with that, threw the completed work into a wastebasket. Those subjects reported the task as more enjoyable than did others who were not told the task was worthless or who had done the

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task as part of a course requirement. Fulfilling a course requirement or advancing science were both plausible reasons for having engaged in a boring activity. In the absence of such justifications, subjects looked into the task and reconstructed the situation to find satisfaction in the activity itself.

As a further illustration of this effect, we can consider how college students react to courses in which they receive a grade disproportionate to their efforts (Salancik, 1976a). Individuals who received grades either above or below their grade-point average were asked about their work in the course — lecture attendance, reading of required and optional materials, class participation, taking notes, and so forth. When course attitudes were analyzed, it was clear that the courses were liked most by those students who had taken them for their major, had worked hard, and had received grades *below* their accustomed average. It was as if the intrinsic features of the situation made sense of the unrewarded effort and enhanced the enjoyment of the activity.

Zanna (1973) had subjects work on a task in the presence of a confederate who varied the pace of his work to give the subjects the feeling that either they were working hard or were not performing up to standard. Orthogonally, Zanna placed in charge a supervisor who behaved either in a nice or a nasty fashion. When he measured the subjects' attitudes toward the task, Zanna found that the ones with the most favorable attitudes were those who thought they had worked hard for a nasty supervisor. Since it made no sense to attribute their high performance to the supervision, the subjects attributed positive intrinsic features to the task itself, so as to rationalize working faster and create a more favorable impression of the task.

Weick (1967) has reviewed the literature on task enhancement, indicating that under certain conditions, task enhancement occurred when there was insufficient external justification for an activity. Strikingly, need-satisfaction models of job attitudes do not mention this phenomenon. Task enhancement studies indicate that attitudes can derive from the person's past behavior and the salient information that guides his or her construction of meaning and rationalization for that behavior. Attitudes, then, are not necessarily tied to objective characteristics of the situation or to personal predispositions. Although some organizational theorists dismiss reactions such as those outlined as instances of persons merely trying to appear rational (Porter, Lawler, and Hackman, 1975: 61), such a casual dismissal of an important psychological process is scarcely warranted.³

Insufficient justification effects are not just observed in the laboratory context. Salancik's studies of course attitudes involved using a student interviewer interviewing actual students about courses they had taken the previous semester. Such a situation is not much different from a social scientist interviewing workers about their previous job experiences. At the same time, we recognize that there is no overwhelming evidence for the insufficient justification effect in work settings, in large measure because few have

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In our view, a rational reason for doing something is merely rationalizing done within socially acceptable bounds. The insufficient justification study which finds individuals enjoying a boring task more when paid less for doing it provides counterintuitive results because it is not socially acceptable to say that one enjoys doing a boring task, nor is it acceptable to justify doing a boring task by alluding to the low pay received. The difference between the low pay and the boredom provoked, however, is that the pay is a known and salient fact of the social context and is thus undeniable. This is not the case with the nature of the task itself. Since boredom is too loose a concept to infer it unambiguously from the experimental task, the characterization of the task as enjoyable by the subject is more socially acceptable than would be its characterization as well-paying. One interesting experiment would be to make both low pay and boredom salient insufficient justifications. In this case, the individual might look to some internal characteristic (like masochism) and find some idiosyncratic enjoyment in the task, or might reconstruct the pay condition to be generous considering his or her need for money. The individual still rationalizes the task in a socially acceptable way, selecting characterizations of the situation and of himself within the constraint of his behavior and the social context.

examined work attitudes from this theoretical perspective. Yet the theoretical paradigm is clear. We would expect persons committed to a job because of an initial choice and the present irrevocability of that choice to develop more favorable attitudes toward the job to the extent that it offers no overly sufficient rewards. Furthermore, the satisfaction of persons committed to a task should be more highly correlated with doing extra activities and with intrinsic task features and less highly correlated with externally mediated rewards. Salancik (1976a) found that when students put a lot of effort into activities their professor demanded, their attitudes were not affected systemically. Their attitudes were affected primarily by their effort on less explicable voluntary activities. Since it does not make sense to attribute voluntary activities to others' insistence, and since hard work could not be attributed to receiving a good grade (an external outcome), the hard work was attributed to enjoyment of the task itself.

Intrinsic and Extrinsic Motivation

Rationalization and justification of behavior and the effects of information saliency are discussed in the organizational behavior literature on extrinsic and intrinsic motivation. Herzberg (1966) was one of the first to distinguish between hygienes and motivators, between conditions of the job that are a function of the task and the person's relation to it — such as performance and achievement — and external conditions of the job — such as pay and working conditions. The distinction and causes of intrinsic and extrinsic motivation have sparked considerable debate in the literature (Kruglanski, Friedman, and Zeevi, 1971; Deci, 1972; Calder and Staw, 1975).

The extrinsic-intrinsic motivation debate is related to the insufficient justification condition discussed above. One explanation for the negative relationship between intrinsic and extrinsic motivation is that the availability of salient extrinsic causes for the behavior or attitudes leads people to see those causes as explanatory, rather than reasons stemming from the task itself (Staw, 1976). Researchers who study this phenomenon typically add or subtract extrinsic justifications to a situation, rather than manipulating intrinsic task properties directly. One method is to inform the subject that a particular level of reward is not sufficient justification for the behavior. Another method is to provide a large reward. A number of studies have found that payment for a task, by providing a salient and plausible extrinsic justification, inhibits the development of favorable attitudes toward the task itself (Deci, 1972; Calder and Staw, 1975; Lepper and Greene, 1975).

While some authors have suggested that intrinsic and extrinsic motivation, or justifications, are inversely related (Calder and Staw, 1975; Staw, 1976, 1977), others have maintained that the two forms are independent and additive (Lawler, 1971). Need-fulfillment and expectancy models both imply that intrinsic and extrinsic rewards are additive, as the more needs are satisfied, or the more positive the outcomes achieved by performing the task, the greater the force to achieve and the more satisfying the task. If the effects are additive, a person paid well for an interesting job

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will like it more than one who just seeks its interest. Research results have been ambiguous as to the precise relationship (Staw, 1977), and both inverse and additive relationships have been found.

The social information processing perspective suggests that the salience of information about extrinsic or intrinsic factors for the activity may help explain how the behavior is used to construct attitude and need statements. Furthermore, the information processing approach suggests that the two forms of justification may be causally unrelated but empirically related because of human cognitive capacity constraints. By causally unrelated, we mean that intrinsic and extrinsic explanations for behavior may not be inherently inconsistent, and a person may enjoy doing something that others are demanding that he do. However, there may be an observed negative relationship between intrinsic and extrinsic justifications because of (1) cultural traditions and (2) limitations of cognitive capacity. A given culture may add external rewards and pressures to tasks to compensate for the culturally devalued properties of such tasks. Such practices may lead to a generalized negative association between paying for the task and its inherent enjoyment.

Cognitive constraints are a second source of the inverse relationship between intrinsic and extrinsic motivations or justifications. If a person is thinking of one thing, he or she cannot simultaneously think of something else. Thus, salient information not only provides an explanation for behavior but also interferes with the use of other information to construct other explanations. In the study of course attitudes discussed earlier (Salancik, 1976a), students developed favorable attitudes to make sense out of unrewarded effort. The rationale used to explain the results suggests that if a plausible explanation for the students' behavior were available, favorable attitudes would be less likely to develop. Salancik (1976b) explored this possibility by telling some subjects, "Sometimes students should work hard in a course because it is useful for their career to do so." The available explanation affected attitudes as expected. The attitudes of below average students told that working hard was good for their careers were more unfavorable than those of similar students primed to think they were working hard for a good grade.

Informational saliency appears to be important in determining when payment for a task reduces intrinsic justification. Kruglanski *et al.* (1975) and Staw, Calder, and Hess (1976) found that payment undermined enjoyment only when it was not normally associated with the task and thus was an unusual salient feature of the situation. Ross (1975) has shown that the salience of a reward is critical to decreasing intrinsic motivation and task enjoyment. A salient reward primes a person's attention in such a way that information more intrinsic to the task itself is less available for developing his or her attitude.

One of the more intriguing implications of the information salience explanation of the intrinsic-extrinsic motivation issue is that a plausible intrinsic justification for behavior could diminish the intrinsic value of a task, producing a less

favorable attitude than if no justification had been provided at all. To test this idea using need-satisfaction concepts, it might be productive to provide subjects measuring high on needs for personal growth, for instance, with salient information that the task is fulfilling those growth needs. If this inhibits their processing of cues associated with the task itself, the primed subjects should develop less favorable attitudes toward the task than subjects not given this information. In other words, not only may extrinsic justifications interfere with the development of intrinsic reasons for behavior, but one intrinsic justification (the task fulfills a need) may interfere with the development of other intrinsic justifications (the task is enjoyable to do).

While much of the literature on information saliency and intrinsic and extrinsic justifications derives from laboratory experiments, some field studies also support our argument. Salancik (1974b) has shown that Illinois residents' energy conservation efforts were undermined by inducing them to attribute their actions to extrinsic motivations such as cost savings or government surveillance. Seligman, Fazio, and Zanna (1976) found that dating couples reduce their intentions to marry when partners are induced to attribute their courting to extrinsic bases for the relationship. Salancik and Trieber (1977) found that when job holders are provided an extrinsic justification such as bad weather for absenteeism, their attitude toward the job is enhanced compared with those not provided such external justifications. These results provide some evidence consistent with the argument that attitudes are constructed from behavior in a process affected by the saliency of information and the requirement for legitimizing the behavior socially.

The Effect of Context on Job Attitudes

A third effect posited by the social information processing model is the direct effect of the social environment, through the influence of social information and pressures for conformity, on job attitudes. Seashore (1954) found that the more cohesive the work group, the less the variance in attitudes expressed by members of that group. If individuals express attitudes similar to those of their fellow workers but different from those of workers in other, similar groups, then the possibility of socially mediated attitudes must be seriously considered. In spite of the enormous literature on conformity in social psychology (see Kiesler and Kiesler, 1969), few studies have tested whether individuals' affective responses to work were related to their social context rather than their individual needs. The Seashore study was one of the first to examine the effect of context on job attitudes.

Another major study by Herman and Hulin (1972) attempted to explain individual job attitudes using both individual variables — age, sex, and time employed in the present position — and social structural variables — group, departmental, and divisional affiliations. Comparing the two, Herman and Hulin concluded that group affiliations explained individual attitudes better than the characteristics of the individual did. Herman, Dunham, and Hulin (1975) and O'Reilly and Roberts (1975) replicated this basic conclusion; O'Reilly

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and Roberts (1975: 148–149), concluded that “affective responses to work are predominately associated with organizational characteristics rather than individual ones.”

These studies come closest to supporting a social informational rather than a need-satisfaction basis for work attitudes, but clearly make no overwhelming case. Though the evidence demonstrates social regularities in attitudes and limited effects for personal variables, it is possible, indeed likely, that the personal variables measured may not have been the right ones. Certainly, variables such as age, sex, and length of time on the job are imperfect correlates of need strength. Furthermore, a need-satisfaction model does not deny that persons in the same work group can have the same attitudes, but only maintains that for this to occur the persons must have similar needs and face similar task and job environments. With comprehensive measures of neither needs nor job characteristics, the studies cited provide only suggestive evidence.

A further complication is involved in testing the social versus the individual bases for job attitudes. From a social information processing perspective, an individual's view of his or her needs may result both from behavior and from social information about what needs are appropriate and what needs are being fulfilled. Thus, needs and attitudes may covary even when they are derived socially. One approach to overcoming this problem would be to randomly assign persons (presumably with randomly distributed needs) to identical jobs in social contexts which varied in their pre-existing attitudes toward the task. If the individual's attitudes could be predicted by the attitudes shared in the social context, then there would be stronger evidence for a social rather than a personal basis for attitudes.

A recent experimental study comes close to carrying out this procedure. White, Mitchell, and Bell (1977) examined the effect of goal setting, evaluation apprehension, and social cues on both task performance and job satisfaction in a simulated organization. Confederates working with the subjects established the social cues condition. “A positive role consisted of issuing positive comments about the task, the information on the cards, and the work environment. . . . A negative role consisted of issuing negative comments (e.g., ‘I don't like this job’ and ‘I'm not working very fast now’) and sorting one deck of cards per hour” (1977: 667). It is clear that both performance and attitude norms were expressed. Social cues had an effect on only one of the productivity measures — output produced in the last 15 minutes (of a two-hour experiment) — and no effect on the job satisfaction measures from the Job Description Index of the Job Diagnostic Survey. However, there were significant social cue effects in the expected direction on feelings of job pressure and of boredom. Thus, in an experiment lasting only two hours, using two confederates, and not specifically designed to test the argument, the data obtained give mixed support to the arguments we have advanced. In order to understand better why some job attitudes were affected and others were not, one might consider the confederates' protocols to assess the dimensions they talked

about, compared to the dimensions measured on the various attitude scales.

Organizational Climate

The fourth application of the social information processing perspective to the study of job attitudes involves the controversial literature on organizational climate. One of the principal problems with climate research is the inability to discern precisely what climate is (Guion, 1973) and, more fundamentally, how it differs from other organizational variables such as size, decision-making participation, leadership style, or job satisfaction (James and Jones, 1974).

Schneider (1975) distinguished climate from attitudes by arguing that climate perceptions were descriptive of situations, while attitudes were affective evaluations predicated in part on these perceptions and beliefs. Thus, an employee's participation in regulating his or her work presumably describes a job situation, whereas job attitudes reflect his or her affective reaction to this participation.

James and Jones' (1974) review of the literature indicates that scholars disagree about whether climate is a product of the individual, as in an attitude or belief, or a property of the situation (see also Guion, 1973). In part, the problem developed from measuring climates by individual responses to perceptual questionnaire items, while recognizing intuitively regularities in responses within organizations. This made climate researchers vulnerable to two uncomfortable and conflicting charges. When they measured individual characteristics and focused on individual attitudes, they were criticized for adding little except perhaps measurement convenience. Furthermore, they ran the risk of labeling the same variables as climate that in other studies were called satisfaction, leadership style, and so forth. When they measured structural properties, they were criticized for not distinguishing climate from organizational properties such as centralization, size, and differentiation.

Perhaps they would have met with less criticism had they emphasized what the term climate implies for describing the ambience surrounding an individual. Social units share perceptions of reality. These shared meanings are at once created through group processes and a powerful situational constraint on individual attitudes and behaviors, similar to what Blau (1960) and Davis, Spaeth, and Huson (1961) called structural effects. The critical issue, however, is not the correspondence between shared social perceptions and other, nonbehavioral indicators of situational characteristics, unless one is interested in how cultures label the phenomena they produce. Rather, the critical issue is the consistency or unanimity with which persons define the situation, and the forcefulness with which they maintain such shared meanings. Thus, the social information processing approach would define climate in terms of the shared perceptions of what attitudes and needs are appropriate, the shared definitions of jobs and work environments, and the definitions of how people should relate to that environment. Furthermore, the effect of climate as a situational influence on behavior or attitude statements would be a function of the unanimity of the shared beliefs

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and the ambiguity and uncertainty present in the situation. The effect would also depend on the availability of definitions from other social situations within which individuals operate.

The Research Agenda

Our cursory application of the social information processing perspective to specific topics about job attitudes suggests a substantial research agenda. Although several studies were reported that illustrate the perspective we advance, many of them are laboratory experiments. More importantly, few have considered how the various conditions interact in developing a person's attitude statements.

The issue of social versus individual dispositional determinants of job attitudes, opened up by Herman and Hulin (1972) and O'Reilly and Roberts (1975), is germane to the core of our quarrel with need-satisfaction models of job attitudes and warrants substantial additional investigation. The implication and application of the insufficient justification research to field settings needs to be explored, since it highlights differences between social information processing and needs models. And the potential information saliency effects have for creating attitudes from behavior is great both for understanding attitude development and also for affecting the development of attitudes at work.

IMPLICATIONS FOR ORGANIZATION DEVELOPMENT

The need-satisfaction model and its various derivatives have been used to guide the development and implementation of programs for organizational change. They focus on task design and the conception of work as satisfying, at least potentially, various human needs. The need-satisfaction model not only provides a rationale for organizational improvement efforts, but also provides psychological comfort to those advocating the changes. Rather than being accused of manipulating workers' attitudes, of engaging in deception (Alderfer, 1977), or some other, equally unacceptable motive, organization development practitioners can think of their work as helping individuals to satisfy their needs by improving poorly designed environments for well-designed people.

Because of the link between the need-satisfaction model and organizational change efforts, it is important to consider carefully what the social information processing approach implies for organization development programs and some management policies. The examples are selective rather than exhaustive, and illustrate some additional insights into organizational change and improvement.

Reactive Effects of Improvement Efforts

Because of the effects of information saliency on attitudes, the process of measurement may itself create attitudes (Webb *et al.*, 1966). Attitude measurement as part of organizational diagnosis or change programs can interfere with the evaluation of programs of organizational improvement, creating spurious information about the need for improvement or the consequences of various change programs. Individuals, asked evaluative questions in different forms, will

respond differently as a consequence of the information the evaluative question evokes. The question "Is that an interesting job?" causes the respondent to focus on information intrinsic to the job. On the other hand, a question such as "How well did you do?" causes the respondent to consider more extrinsically derived information. Questionnaires can thus be a form of organizational change, whether or not they are intended as such.

Measuring attitudes calls attention to problems that otherwise may have had only minor salience or may not have existed at all. Images about what should be in a job are evoked by asking questions, and provide an opportunity for workers to develop new dissatisfactions when answering them. For example, asking "How much feedback do you receive about your performance on the job?" implies that one ought to get feedback, and the primary issue is how much or how little is actually received.

Thus, investigators who develop their questionnaires around some presumed organizational problem should not be surprised to discover that the problem they believed existed can be documented with information they gather from their informants. By this process, the investigator also generates data affirming the organization's need for his or her expertise. Such a self-confirming process can occur regardless of the investigator's conscious intent, and results from the effect of his or her own behavior on the behavior of the respondents.

An investigation or an attempt to change aspects of the organization's operations also suggests that problems may exist. The questioning, the attempts at change, make salient the desire for change. A survey conducted to assess employee attitudes about improving fringe benefits makes salient the existing level of benefits and, moreover, the idea that some improvement might be desirable or possible. This produces a paradox: by attempting to improve conditions, one is led almost inevitably to a series of activities which focus attention on problems, increasing their salience, and raising expectations for change and improvement. Both increasing problem salience and causing employees to expect change can lessen satisfaction with the present work environment.

It is clear that operating managers do recognize the possibly reactive effects of organizational diagnoses, for they frequently deny researchers access with questionnaires, and undertake improvement efforts only when problems are general and well-recognized. Only organizations that routinely conduct surveys or undertake organization development efforts will be less likely to signal the existence of a problem by the interrogation process itself.

Investigators usually provide cues about the problems of the organization when introducing a project, partly to gain cooperation. To make the project legitimate to relevant groups, they will disclose that they are studying how to design jobs better, or how to fulfill workers' needs. The fact of the statement may lead to the conclusion that the premise must be true: jobs in the organization are poorly designed, and that must be why the study is being undertaken.

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One effect of creating a climate in which changes become expected because of the investigation is that expecting change, individuals may find fault and seek change. After the investigation, if no change is implemented, they may be more dissatisfied than before. Expecting change, they have less need to come to terms with the reality of their jobs, and indeed, adopt the goal of discovering, and thereby making salient, the negative aspects of their present situation.

While we may be exaggerating the potential effects of investigations and interventions on attitudes, we do so to call attention to the fact that the attitudinal climate of organization development tends to produce illusions of beneficence. The very roles played by organizational investigators and change agents force them into a series of acts requiring, first, the documentation of some problem, a process that may produce the problem in the first place, and then other actions that require their own rationalizing mythologies. The most salient and acceptable justification is that they are trying to make things better, a justification that must serve regardless of the actual consequence of the activities. The critical elements are the justifications, the expectations, and the intentions, rather than any actual consequences, which are always difficult to interpret. The process of investigation creates the perceived need for change and dissatisfaction, and, with beneficent justifications and some actual or symbolic changes, creates increased satisfaction as the changes are justified and rationalized as solving the problems that were uncovered or created.

King (1974) documented the power of expectations in a field experiment conducted at four plants. Job rotation or job enlargement programs were introduced at each plant. At two plants, the expectation for improvement was created; at the other two, the expectation of no improvement was created. King found that the effects of expecting improvement were far greater than the differences between enlargement and rotation programs. He concluded that "increases in output are more attributable to expectations of the effects of job enrichment than to the type of enrichment program employed" (1974: 225).

Indeed, many organization development strategies focus specifically on attitude change using information saliency. The Michigan Survey Research Center feedback technique employs attitude questionnaires to uncover organizational problems which are then discussed at work group meetings. This technique emphasizes the importance of the feedback of results in a program of planned change within the organization (see Bowers and Franklin, 1975). Interestingly, few studies have attempted to isolate the effects of the questioning process from the effects of feedback. As our discussion of information saliency suggests, the mere distribution of questionnaires is likely to focus the employees' attention on aspects of their job and work environment that they may not have considered before, and to inform them about critical dimensions of the job environment and what to expect from work. It is quite possible that this questioning, through its saliency effects, is more important than the feedback for changing attitudes.

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This argument is certainly consistent with the data reported by Trice and Belasco (1968). These authors evaluated a program training 222 front-level supervisors to diagnose and cope with alcoholism among their subordinates. From careful analysis, they found that the initial attitude questionnaire about alcoholism and the work place had a much larger effect than the training did. "In contrast to the ineffectiveness of training, the completion of the questionnaire items alone, without training, was associated with dramatic, consistent and often statistically significant changes in attitudes and action toward the alcoholic, while there was a slight lowering of the knowledge score" (Trice and Belasco, 1968: 389). The authors accounted for the effects of the questionnaire, interestingly, by using the term "saliency" (p. 390). "By sensitizing the trainee to important information, or by raising doubts and anxieties which create a readiness to seek additional information, completion of test items may accomplish the objectives of training" (p. 396). The effects observed in a training context are, of course, potentially generalizable to any organizational change effort in which questionnaires are used.

The Trice and Belasco experience with the potency of questionnaires puts a different light on two recent experimental attempts to test some need-satisfaction propositions. In the cases of both Umstot, Bell, and Mitchell (1976) and Hackman, Pearce, and Caminis (1978), questionnaires were distributed before the job content or structure was changed. For instance, Hackman and his colleagues studied an organization in which jobs were going to be redesigned. Some jobs were to be enriched, others were to be left alone, and still others were to be redesigned to make the fulfillment of higher-order needs even less likely. By measuring job satisfaction before and after the job had been redesigned, the effects of job changes on work attitudes could be assessed experimentally. But the very assessment of job attitudes and need strengths, measured along preferences for various job dimensions, may have primed and focused the workers' attention on those aspects of the job that were to be measured subsequently. The problems of repeated measurement have been well discussed by Campbell and Stanley (1963). Suffice it to say that it is possible that part of the results Hackman, Pearce, and Caminis (1978) obtained resulted from the administration of the questionnaire and its interaction with subsequent job changes. A similar possibility affects the interpretation of the Umstot, Bell, and Mitchell (1976) study.

Dissatisfaction and the Availability of Options

The elements of choice and the availability of options also affect the attitudes of persons toward their jobs. As seen in the Staw (1974) and Comer and Laird (1975) studies, persons make sense of situations to which they are committed. In field studies, the frequently observed relationship between length of time in the organization and positive attitudes toward the organization (see Sheldon, 1971) may result because persons with few options, committed to a situation, come to appreciate its positive aspects. In contrast, persons who feel uncommitted to a situation, because

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of other options, may feel less favorable toward the job they have. Other things equal, persons in fields with poor job markets, and therefore, with fewer options for mobility, should express greater satisfaction with their job situations. And conversely, organizations that use the market to evaluate personnel, forcing employees to market-test their worth, should foster less favorable inclinations toward the organization and its jobs. The external offers and environment are the most salient information. It is, therefore, ironic that the freedom to choose other options forestalls the process of finding satisfaction in a present situation, and leads to the prediction that the greater the number of external options available and not actively rejected, the less the satisfaction with the present job and organization.

We all know of persons who have avoided testing the outside market in the implicit realization that the availability of options would tend to make them less satisfied with their present circumstances. Another implication of this argument is that job satisfaction should be higher in times of high unemployment, or for those workers with either personal characteristics or skills that make them less mobile and therefore more committed to their present jobs. Finally, the frequently noted difference between urban and rural workers' reactions to their jobs (Turner and Lawrence, 1965; Hulin and Blood, 1968) might represent differences in the availability of job options.

At the same time, a close reading of the available literature finds that the process described above is overly simplistic. An important component of the process of commitment is choice. After all, the person who has no choice in performing some act or accepting some job need not like it; rather, he or she can explain his or her involvement on the basis of external pressures. Other things being equal, a person who takes a job because it is the only one available will be less satisfied than one who picks it from several offers. This result will hold regardless of the content of the job and regardless of whether, when confronted with options, the person would have chosen the same job. The committing effects of choice are well documented and often intentionally manipulated. To develop support for a course of action, administrators are frequently careful to propose other options, though ones that are clearly less desirable. The mere presence of options increases commitment and, consequently, satisfaction with choices.

Thus, in managing satisfaction, there is something of a paradox. For a person to be committed to his or her job, it is better that he or she choose from a large number of alternatives. This forecloses the possibility that the person can explain his or her behavior by the external constraint of lack of options. But once in the situation, it is better for the person to perceive few options, so that he or she is forced to come to terms with the present environment. The presence of alternatives, both at the time of the choice of behavior and subsequently, can thus determine satisfaction and other job attitudes. It is, again, the context of the job, not merely its content, that determines affective reactions.

Wanous (1977) has reviewed the literature on persons entering an organization and provides some evidence consist-

ent with the argument we are developing. First of all, he reports that those studies that have explicitly tested dissonance predictions concerning the reevaluation of selected and rejected alternatives following choice have found the dissonance predictions to hold (Vroom and Deci, 1971; Misra and Kalro, 1972; Lawler *et al.*, 1975). Of even more interest is the finding that realistic interviews prior to organizational entry lead to reduced turnover and to more favorable job attitudes (Wanous, 1973). We would argue that realistic job interviews have an effect similar to that observed in Comer and Laird's study in that they prepare the new entrant for any harsh realities and remove a rationale for disliking the job — namely, that the person did not have full knowledge at the time he chose it. Having made a choice, and having made it with full information, the individual will be more committed to the choice and, therefore, more satisfied with the job.

Pay and Satisfaction

The task enhancement and insufficient justification literatures discussed earlier imply that to the extent persons are well paid and the conditions of pay are salient, dissatisfaction from intrinsic job aspects may be greater and, alternatively, satisfaction with intrinsic job dimensions will be lower. The presence of high pay and the salience of pay mean that the individual need not find satisfactions within the job to account for his or her behavior.

The idea that the way to promote job satisfaction is to pay people less, however, is too simplistic an extension of the above reasoning. Pay is a complex aspect of work, serving not only to justify the activity but also to convey worth, status, and competence, as well as to provide for various goods and services obtained outside of work. People engage in social comparisons (see Goodman, 1977), and if they discover inequitable treatment, they will become dissatisfied and leave.

Pay at work is also part of a much more unorganized setting than that found in the laboratory. The problem of translating knowledge from experiments into other settings is not solved by noting a few similarities and hoping that others exist. For example, people compare their situations with their coworkers or neighbors. That attitude change in laboratories may be more successful than elsewhere may be, in part, because there is greater attention to details like this that do, in fact, make a difference.

We would predict that individuals who do choose to stay in organizations they know pay lower wages will be more intrinsically satisfied with their jobs than those who choose to accept equivalent, higher-paying jobs in order to receive a higher salary. Ingham (1971) found that industrial workers in a large firm that paid more found their jobs more disagreeable than workers who were employed by small, lower-paying firms. We would also expect job satisfaction with the intrinsic aspects of work to decrease to the extent external pay and benefits are more salient. Satisfaction with work should decrease at contract negotiation time, at review time, or at any point when pay is more salient. Daniel (1971, 1973) has observed that workers think about differ-

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ent aspects of their situations at different times. When jobs are being redesigned, workers think about dimensions of work; when contract or pay are being negotiated, salary becomes more salient.

One possibly unintended consequence of organization development efforts, which frequently focus on the job and the organization, is that pay and benefits become less salient. In this way, satisfaction with the job is increased because the various extrinsic justifications for doing the job are made less salient. The saliency of information about organizational dimensions, not necessarily the character of the dimensions themselves, is thus important in determining job attitudes. Organization development efforts, focused on improving job attitudes, might well be understood from this perspective.

The Effects of Job Redesign

From an analysis of the social information processing approach one might deduce that job redesign might be effective in making job attitudes more favorable. Indeed, the thrust of our argument is not an attack on the practice or procedures of job redesign, but on the theoretical basis for much current organization development. The outcome of job design programs may not be so much a consequence of changing the job content to meet individual needs more closely as the result of a process of cooptation. By cooptation, we mean a process in which individual employees define their work situations using dimensions and criteria constructed by the organization and its managers. We also mean the cooptation of personal satisfaction, a process by which individuals come to believe in the value and consequences of a job-design program because they have agreed to participate in it.

Cooptation occurs in job-redesign programs in a variety of ways. Some projects, such as many conducted under the quality-of-work-life rubric, involve committees of employee representatives. This parallels Coch and French's (1948) early efforts to demonstrate the advantages of group-based organizational change. Employees elect representatives, and these representatives in turn participate publicly in the work-redesign process. Because of their implicit involvement in the process, and the public commitments it provokes, both the representatives and, by extension, the workers who elected them become committed to the outcome. From this commitment, satisfaction with work may increase regardless of the specific changes made.

Another process of cooptation occurs even in programs in which workers or their representatives do not participate directly in redesigning the job. Job design, according to need-satisfaction models, should take account of workers' needs. Therefore, an important part of any job-redesign effort is a diagnosis of the characteristics of the workers and of their present jobs. Hackman and Oldham (1975), for instance, explicitly refer to their survey instrument as a Job Diagnostic Survey. As we have already argued, in the process of answering questions about their needs and the characteristics of their jobs, workers are influenced to think about their jobs using those dimensions. Once the workers

come to think in those terms, then management can arrange changes along those dimensions and increase satisfaction.

Such changes may be real or only apparent. Since job characteristics and dimensions are open to multiple interpretations in any event, it is only necessary for workers to perceive some change in these now salient dimensions, and this appearance of change can be constructed through a managed social process as well as by actual changes. Consequently, worker satisfaction with the intrinsic aspects of the job may increase because those aspects have, first, been made more salient, and second, may be changed or seem to be changed to conform to expectations. We suppose that failures of job-redesign programs to foster positive job attitudes derive from the failure of the programs to make those aspects of the job salient, or to convince the workers that those salient aspects are, in fact, satisfying and good.

It is interesting to note that the five job dimensions which are often the focus of job redesign do not deal at all with organizational control or the distribution of power in the social system. Only one, job autonomy, is even relevant to a fundamental issue in organizations: who governs and who has the right to assign and evaluate task activities. In this context it is, perhaps, not surprising that job redesign has met more acceptance in industry than earlier organization development strategies, which tended to focus more explicitly on power equalization (Leavitt, 1965).

Job-redesign strategies can be viewed productively from the framework we have proposed. The effects and consequences of job redesign need not be assessed by the need-satisfaction model, and can probably be explained by considering the salient information and social influences that we have argued are important bases of attitudes.

CONCLUSION

By focusing on individual attributes to explain human behavior and attitudes at work, and by taking situational and task dimensions as objective realities, need-satisfaction models have missed both the multifaceted importance and effects of social influence and the consequences of past choices. Whether needs models are merely incomplete, leaving much variance unexplained, or whether they are incorrect depends on whether, in the specific case, social influences operate orthogonally or in opposition to individual predispositions. Though the issue is far from resolved empirically, the social information processing perspective posits that the multiple social influences on attitudes are more consequential for predicting attitudes at work than are individual needs or other characteristics. To compare fully the relative predictive utility of the social information processing perspective with the need-satisfaction approach, situations must be investigated in which either or both can be disconfirmed, and in which the two make different predictions. We have suggested throughout this article some of the conditions that might permit comparing the two models.

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Two other important implications of the social information processing perspective should be stressed. First, in contrast with need-satisfaction models, the social information perspective holds that workers possess the ability to construct their own satisfaction by selectively perceiving and interpreting their social environment and their own past actions. Need-satisfaction models, on the other hand, excuse individuals from coping with the realities of their situations, and lodge the responsibility for workers' happiness either in the workers' needs, over which they have little control, or in the task environment, over which, again, workers typically exercise little control. Whether this perspective is beneficial or not is open to debate. The growing literature that treats the attribution of success and failure indicates that to the extent problems are interpreted as being within the province and control of the individual, the individual is more likely to attempt to do something about them (Weiner *et al.*, 1971; Weiner and Sierad, 1975). Similarly, to the extent problems and dissatisfactions are believed to be beyond the control of the individual, the person will not be stimulated to take action (Dweck, 1975). Thus, somewhat paradoxically, the attribution of job satisfaction to inherent task or worker characteristics, over which the worker typically exercises little control, may produce alienated and immobilized workers who are convinced they can do little about their plight. In contrast, the social information processing perspective suggests that (1) workers, when committed to a situation or responsible for it, can find satisfaction and meaning in it; and (2) the critical variable in positive job attitudes is the construction of the environment and the appropriate attitudinal responses. Again, satisfaction is partly outside the control of the individual, but the capability to restructure and adapt to situations cognitively is more explicitly recognized.

Second, a social information processing perspective tells us that job attitudes may vary with the form of the question used to assess them, the questioner, or the social context that is salient at the time the question is asked. The form of the question may affect the information used to construct the attitude, while the source of the question and the social context in which it is asked may also affect the saliency of the information as well as the rationalizations or explanations adduced. By asking for intrinsic or extrinsic outcomes, the respondent is cued to consider different information and consequently may develop different attitudes. Questions asked by coworkers may elicit different responses than questions asked by supervisors or by outside consultants. Even the setting of the questioning may affect the responses. Asking about work when one is enjoying the fruits of that work, such as sailing a boat, may elicit a different response than if the attitude is sought while the individual is hard at work at the task that led to the where-withal to purchase the boat.

If attitudes toward work are dependent on salient information, social priming, and commitment effects, it appears questionable whether large-scale organization development efforts and various governmental social policies concerning work life should be anchored on such malleable data. The perspective developed here sees attitudes as consequences

of behaviors, informational social influence, and evaluations of situational characteristics. If we try to diagnose social problems by just measuring attitudes, we will fail to understand which of the possible causes produced the attitude, and we rely excessively on instrumentation that is possibly invalid. It is one thing for Salancik (1976a, 1976b) to demonstrate, using course-attitude questionnaires, how information is used to construct attitudes. It would be quite another for administrators to base consequential personnel actions on an instrument to which responses are so readily controlled.

We have suggested the social information processing perspective not because we can demonstrate that it is completely correct, but because it offers insights into aspects of behavior and job attitudes that require serious attention. Need models offer limited knowledge as to how people develop job attitudes, in part because they take as given much of what ought to be explained. It is only by attempting to confront need-satisfaction models with situations capable of disconfirming them, and only by juxtaposing such models with alternatives such as the one proposed, that we can develop a better understanding of people at work.

REFERENCES

- Alderfer, Clayton P.**
1972 *Human Needs in Organizational Settings*. New York: Free Press of Glencoe.
1977 "A critique of Salancik and Pfeffer's examination of need-satisfaction theories." *Administrative Science Quarterly*, 22: 658–669.
- Anderson, Norman H.**
1971 "Integration theory and attitude change." *Psychological Review*, 78: 171–206.
- Argyris, Chris**
1957 *Personality and Organization*. New York: Harper.
- Bem, Daryl J.**
1972 "Self-perception theory." In L. Berkowitz (ed.), *Advances in Experimental Social Psychology*, Vol. 6: 1–62. New York: Academic Press.
- Berger, P. L., and T. Luckmann**
1967 *The Social Construction of Reality*. London: Penguin.
- Blau, Peter M.**
1960 "Structural effects." *American Sociological Review*, 25: 178–193.
- Bowers, David G., and Jerome Franklin**
1975 *Survey Guided Development: Data Based Organizational Change*. Ann Arbor, MI: University of Michigan, Institute for Social Research.
- Brehm, Jack W.**
1966 *A Theory of Psychological Reactance*. New York: Academic Press.
- Calder, Bobby J., and Michael Ross**
1973 *Attitudes and Behavior*. Morristown, NJ: General Learning Press.
- Calder, Bobby J., and Barry M. Staw**
1975 "The self-perception of intrinsic and extrinsic motivation." *Journal of Personality and Social Psychology*, 31: 76–80.
- Campbell, Donald T., and Julian C. Stanley**
1963 *Experimental and Quasi-Experimental Designs for Research*. Chicago: Rand McNally.
- Clark, Burton R.**
1972 "The organizational saga in higher education." *Administrative Science Quarterly*, 17: 178–184.
- Coch, L., and J. R. P. French, Jr.**
1948 "Overcoming resistance to change." *Human Relations*, 1: 512–532.
- Comer, R., and J. D. Laird**
1975 "Choosing to suffer as a consequence of expecting to suffer: why do people do it?" *Journal of Personality and Social Psychology*, 32: 92–101.
- Daniel, W. W.**
1971 "Productivity, bargaining and orientation to work — a rejoinder to Goldthorpe." *Journal of Management Studies*, 8: 329–335.
- 1973 "Understanding employee behavior in its context: illustrations from productivity bargaining." In J. Child (ed.), *Man and Organization*: 39–62. London: Allen and Unwin.
- Davis, J. A., J. L. Spaeth, and C. Huson**
1961 "A technique for analyzing the effects of group composition." *American Sociological Review*, 26: 215–225.
- Deci, Edward L.**
1972 "The effects of contingent and noncontingent rewards and controls on intrinsic motivation." *Organizational Behavior and Human Performance*, 8: 217–229.
- Deutsch, Morton, and Harold Gerard**
1955 "A study of normative and informational social influence upon individual judgment." *Journal of Abnormal and Social Psychology*, 51: 629–636.
- Dweck, Carol S.**
1975 "The role of expectations and attributions in the alleviation of learned helplessness." *Journal of Personality and Social Psychology*, 31: 674–685.
- Festinger, Leon**
1954 "A theory of social comparison processes." *Human Relations*, 7: 114–140.

A Social Information Processing Approach

- Goodman, Paul S.**
1977 "Social comparison processes in organizations." In Barry M. Staw and Gerald R. Salancik (eds.), *New Directions in Organizational Behavior*: 97–132. Chicago: St. Clair Press.
- Guion, R. M.**
1973 "A note on organizational climate." *Organizational Behavior and Human Performance*, 9: 120–125.
- Hackman, J. Richard, and Edward E. Lawler III**
1971 "Employee reactions to job characteristics." *Journal of Applied Psychology*, 55: 259–286.
- Hackman, J. Richard, and Greg R. Oldham**
1975 "Development of the job diagnostic survey." *Journal of Applied Psychology*, 60: 159–170.
- Hackman, J. Richard, Jone L. Pearce, and Jane Caminis**
1978 "Effects of changes in job characteristics on work attitudes and behaviors: a naturally occurring quasi-experiment." *Organizational Behavior and Human Performance* (in press).
- Herman, Jeanne Brett, and Charles L. Hulin**
1972 "Studying organizational attitudes from individual and organizational frames of reference." *Organizational Behavior and Human Performance*, 8: 84–108.
- Herman, J., R. Dunham, and C. L. Hulin**
1975 "Organizational structure, affect, and demographic characteristics." *Organizational Behavior and Human Performance*, 13: 206–232.
- Herzberg, Frederick**
1966 *Work and the Nature of Man*. Cleveland: World.
- Hogan, Robert, Clinton B. DeSoto, and Cecilia Solano**
1977 "Traits, tests, and personality research." *American Psychologist*, 32: 255–264.
- Hulin, Charles L., and Milton R. Blood**
1968 "Job enlargement, individual differences, and worker responses." *Psychological Bulletin*, 69: 41–55.
- Ingham, G. K.**
1971 *Size of Industrial Organizations and Worker Behavior*. Cambridge: Cambridge University Press.
- James, Lawrence R., and Allan P. Jones**
1974 "Organizational climate: a review of theory and research." *Psychological Bulletin*, 81: 1096–1112.
- Kahn, Robert L., D. M. Wolfe, R. P. Quinn, J. D. Snoek, and Robert A. Rosenthal**
1964 *Organizational Stress*. New York: Wiley.
- Kelley, Harold H.**
1956 "Salience of membership and resistance to change of group anchored attitudes." *Human Relations*, 8: 275–290.
- Kelly, G. A.**
1955 *The Psychology of Personal Constructs*. New York: Norton.
- Kiesler, Charles A.**
1971 *The Psychology of Commitment: Experiments Linking Behavior to Belief*. New York: Academic Press.
- Kiesler, Charles A., and Sara Kiesler**
1969 *Conformity*. Reading, MA: Addison-Wesley.
- King, Albert S.**
1974 "Expectation effects in organizational change." *Administrative Science Quarterly*, 19: 221–230.
- Kruglanski, A. W., I. Friedman, and G. Zeevi**
1971 "The effects of extrinsic incentive on some qualitative aspects of task performance." *Journal of Personality*, 39: 606–617.
- Kruglanski, A. W., A. Riter, A. Amitai, B. S. Margolin, L. Shabtai, and D. Zaksh**
1975 "Can money enhance intrinsic motivation?: a test of the content-consequence hypothesis." *Journal of Personality and Social Psychology*, 31: 744–750.
- Lawler, Edward E.**
1971 *Pay and Organizational Effectiveness: A Psychological View*. New York: McGraw-Hill.
- Lawler, E. E., W. J. Kuleck, J. G. Rhode, and J. E. Sorenson**
1975 "Job choice and post decision dissonance." *Organizational Behavior and Human Performance*, 13: 133–145.
- Leavitt, Harold J.**
1965 "Applied organizational change in industry: structural, technological and humanistic approaches." In James G. March (ed.), *Handbook of Organizations*: 1144–1170. Chicago: Rand McNally.
- Lepper, M. R., and D. Greene**
1975 "Changing play into work: effects of adult surveillance and extrinsic rewards on children's intrinsic motivation." *Journal of Personality and Social Psychology*, 31: 479–486.
- Lieberman, Seymour**
1956 "The effects of changes in roles on the attitudes of role occupants." *Human Relations*, 9: 385–402.
- March, James G., and Herbert A. Simon**
1958 *Organizations*. New York: John Wiley.
- Maslow, Abraham H.**
1943 "A theory of human motivation." *Psychological Review*, 50: 370–396.
- McClelland, David C.**
1961 *The Achieving Society*. Princeton, NJ: Van Nostrand.
- Mischel, Walter**
1977 "On the future of personality measurement." *American Psychologist*, 32: 246–254.
- Misra, S., and A. Kalro**
1972 "Simulated organization choice: postdecision dissonance reduction and self-perception." *Journal of Applied Psychology*, 56: 461–466.
- Murray, H. A.**
1938 *Explorations in Personality*. New York: Oxford University Press.
- O'Reilly, Charles A., and Karlene H. Roberts**
1975 "Individual differences in personality, position in the organization, and job satisfaction." *Organizational Behavior and Human Performance*, 14: 144–150.
- Pallak, M. S., S. R. Sogin, and A. Van Zante**
1974 "Bad decisions: effects of volition, locus of causality, and negative consequences on attitude change." *Journal of Personality and Social Psychology*, 30: 217–227.
- Pfeffer, Jeffrey, and Gerald R. Salancik**
1975 "Determinants of supervisory behavior; a role set analysis." *Human Relations*, 28: 139–154.
- Porter, Lyman W., Edward E. Lawler, and J. Richard Hackman**
1975 *Behavior in Organizations*. New York: McGraw-Hill.

- Ross, Michael**
1975 "Salience of reward and intrinsic motivation." *Journal of Personality and Social Psychology*, 32: 245–254.
- Salancik, Gerald R.**
1974a "Inference of one's attitude from behavior recalled under linguistically manipulated cognitive sets." *Journal of Experimental Social Psychology*, 10: 415–427.
1974b "The effect of retrospective attribution on commitment to past behaviors: consumers and the conservation of energy." Unpublished manuscript, University of Illinois, Department of Business Administration.
1975 "Notes on loose coupling: linking intentions to actions." Unpublished manuscript, University of Illinois, Department of Business Administration.
1976a "When hard work and failure lead to happiness: a quasi-experiment of attitude inference from behavior." Unpublished manuscript, University of Illinois, Department of Business Administration.
1976b "Extrinsic attribution and the use of behavioral information to infer attitudes." *Journal of Personality and Social Psychology*, 34: 1302–1312.
1977 "Commitment and the control of organizational behavior and belief." In Barry M. Staw and Gerald R. Salancik (eds.), *New Directions in Organizational Behavior*: 1–54. Chicago: St. Clair Press.
- Salancik, Gerald R., and Jeffrey Pfeffer**
1977 "An examination of need-satisfaction models of job attitudes." *Administrative Science Quarterly*, 22: 427–456.
- Salancik, Gerald R., and Sue Trieber**
1977 "Absenteeism and attribution." Unpublished manuscript, University of Illinois, Department of Business Administration.
- Sarason, Irwin G., Ronald E. Smith, and Edward Diener**
1975 "Personality research: components of variance attributable to the person and the situation." *Journal of Personality and Social Psychology*, 32: 199–204.
- Schacter, Stanley, and Jerome Singer**
1962 "Cognitive, social, and physiological determinants of emotional state." *Psychological Review*, 69: 379–399.
- Schneider, Benjamin**
1975 "Organizational climates: an essay." *Personnel Psychology*, 28: 447–479.
- Schutz, Alfred**
1967 *The Phenomenology of the Social World*. Evanston, IL: Northwestern University Press.
- Seashore, Stanley E.**
1954 *Group Cohesiveness in the Industrial Work Group*. Ann Arbor, MI: Institute for Social Research.
- Seligman, C., R. H. Fazio, and M. P. Zanna**
1976 "Consequences of extrinsic rewards for impressions of liking and loving." Unpublished manuscript, Princeton University, Department of Psychology.
- Sheldon, Mary E.**
1971 "Investments and involvements as mechanisms producing commitment to the organization." *Administrative Science Quarterly*, 16: 143–150.
- Singer, Jerome E.**
1966 "Motivation for consistency." In Shel Feldman (ed.), *Cognitive Consistency: Motivational Antecedents and Behavior Consequents*: 48–75. New York: Academic Press.
- Staw, Barry M.**
1974 "Attitudinal and behavioral consequences of changing a major organizational reward: a natural field experiment." *Journal of Personality and Social Psychology*, 29: 742–751.
1976 *Intrinsic and Extrinsic Motivation*. Morristown, NJ: General Learning Press.
1977 "Motivation in organizations: toward synthesis and redirection." In Barry M. Staw and Gerald R. Salancik (eds.), *New Directions in Organizational Behavior*: 55–95. Chicago: St. Clair Press.
- Staw, B. M., B. J. Calder, and R. Hess**
1976 "Situational norms and the effect of extrinsic rewards on intrinsic motivation." Working paper, Northwestern University Graduate School of Management.
- Trice, Harrison M., and James A. Belasco**
1968 "Supervisory training about alcoholics and other problem employees: a controlled evaluation." *Quarterly Journal of Studies on Alcohol*, 29: 382–398.
- Turner, Arthur N., and Paul R. Lawrence**
1965 *Industrial Jobs and the Worker: An Investigation of Response to Task Attributes*. Boston: Harvard University Graduate School of Business Administration.
- Umstot, D. D., C. H. Bell, Jr., and T. R. Mitchell**
1976 "Effects of job enrichment and task goals on satisfaction and productivity: implications for job design." *Journal of Applied Psychology*, 61: 379–394.
- Vroom, V. H., and E. L. Deci**
1971 "The stability of post-decisional dissonance: a follow-up study of the job attitudes of business school graduates." *Organizational Behavior and Human Performance*, 6: 36–49.
- Wanous, John P.**
1973 "Effects of a realistic job preview on job acceptance, job attitudes, and job survival." *Journal of Applied Psychology*, 58: 327–332.
1977 "Organizational entry: newcomers moving from outside to inside." *Psychological Bulletin*, 84: 601–618.
- Webb, Eugene J., Donald T. Campbell, Richard D. Schwartz, and Lee Sechrest**
1966 *Unobtrusive Measures: Non-reactive Research in the Social Sciences*. Chicago: Rand McNally.
- Weick, Karl E.**
1967 "Dissonance and task enhancement: a problem for compensation theory?" *Organizational Behavior and Human Performance*, 2: 189–208.
1969 *The Social Psychology of Organizing*. Reading, MA: Addison-Wesley.
1977 "Enactment processes in organizations." In Barry M. Staw and Gerald R. Salancik (eds.), *New Directions in Organizational Behavior*: 267–300. Chicago: St. Clair Press.
- Weiner, B., I. Frieze, A. Kukla, L. Reed, S. Rest, and R. M. Rosenbaum**
1971 *Perceiving the Causes of*

A Social Information Processing Approach

Success and Failure. Morristown, NJ: General Learning Press.

Weiner, B., and J. Sierad

1975 "Misattribution for failure and enhancement of achievement strivings." *Journal of Personality and Social Psychology*, 26: 386–394.

White, Sam E., Terence R. Mitchell, and Cecil H. Bell, Jr.

1977 "Goal setting, evaluation apprehension, and social cues as determinants of job performance and job satisfaction in a simulated organization." *Journal of Applied Psychology*, 62: 665–673.

Zanna, Mark P.

1973 "On inferring one's belief from one's behavior in a low-choice setting." *Journal of Personality and Social Psychology*, 26: 386–394.