

Behavior in Organizations as a Function of Employee's Locus of Control

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Locus of control is an important variable for the explanation of human behavior in organizations. The nature of the concept, its measurement, and general evidence for its validity are discussed. Several hypotheses are presented involving the locus of control in an organizational context, and supporting evidence from applied studies is reviewed. Specifically, it is suggested that locus of control is related to motivation, effort, performance, satisfaction, perception of the job, compliance with authority, and supervisory style. Furthermore, locus of control may moderate the relation between incentives and motivation and between satisfaction and turnover.

Little attention has been given to individual personality in research on job motivation and satisfaction. For the most part, the major theories in organizational psychology assume that the same basic processes account for behavior across all individuals and that situational characteristics cause predictable behavior across people.¹ This article attempts to demonstrate the usefulness of personality in explaining human behavior in organizations and focuses on locus of control as it relates to behavior in organizational settings.

The general theory of locus of control arose from observation and research in clinical psychology. Both the measurement and theory have been refined so that the concept is heuristically useful. Over two dozen studies of locus of control have been related specifically to attitudinal, motivational, and behavioral variables in organizational settings. One major task of this article is to integrate the general theory with the organizational findings.

The Concept of Locus of Control

People attribute the cause or control of events either to themselves or to the external environment. Those who ascribe control of events to themselves are said to have an in-

ternal locus of control and are referred to as *internals*. People who attribute control to outside forces are said to have an external locus of control and are termed *externals*.

Rotter (1966) and his colleagues developed the concept of locus of control from Rotter's (1954) social learning theory. According to Phares (1976), the concept was developed to explain the seeming tendency of some individuals to ignore reinforcement contingencies. Their failure to respond as predicted to rewards and punishments was attributed to a "generalized expectancy" that their own actions would not lead to attainment of rewards or avoidance of punishment. The tendency for internals to believe they can control events and externals to believe they cannot leads to a number of predictions about their behavior that are discussed at length below.

Measurement of Locus of Control

The most widely used instrument to measure locus of control is Rotter's (1966) Internal-External (I-E) scale, which consists of 23 locus of control and six filler items in a forced-choice format. Scores are calculated by summing the total number of ex-

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¹ Some notable exceptions are Hulin and Blood's (1968) suggestion that subscription to middle class values moderates the job satisfaction-enlargement relation and Hackman and Lawler's (1971) finding that higher order need strength moderates the relation between job characteristics and satisfaction.

ternally oriented responses for each pair. Thus, scores range from 0-23 with low scores representing internality and high scores, externality.

Validity of the Concept of Locus of Control

The first basic question to address concerns the basic validity of the locus of control concept itself, that is, whether internals perceive more often than externals that events are due to their own actions and whether they have more choices in situations. Roark (1978) reported that among the employees she surveyed, internals were more inclined to attribute to their own actions the obtaining of their present jobs. Hammer and Vardi (1981) found among manufacturing employees that internals were more likely than externals to attribute past job changes to their own initiative. Finally, Harvey, Barnes, Sperry, and Harris (1974) demonstrated in a laboratory study that internals tended to perceive more alternatives in a choice situation than did externals.

Not only do internals perceive greater control, but they may actually seek situations in which control is possible. Kabanoff and O'Brien (1980) described leisure time activities of internals and externals along five dimensions, including skill utilization (the amount of skill necessary for success) and influence (the amount of personal control involved). They found a small but statistically significant tendency for internals to engage in leisure activities that required greater skill and allowed more personal control. Julian and Katz (1968) conducted a laboratory study of competitive game behavior in which subjects were given the choice of relying on either their own skill or on a more competent opponent. Externals were more likely to rely on the opponent, and internals preferred to rely on themselves. Kahle (1980) gave laboratory subjects the choice of a task requiring either luck or skill. As might be expected, externals were more likely to choose luck, whereas internals tended to prefer skill.

It is interesting that there seems to be an interactive relation between locus of control and experience. That is, locus of control may

affect behavior, and the consequences of behavior may in turn affect locus of control. In a laboratory study, Krolick (1979) found that internals tended to shift their I-E scores in an external direction following an experience of failure, but externals did not shift toward internality following success. Because internals seem to be more sensitive to information that is relevant to them (Phares, 1976), it would follow that they would be more sensitive to reward contingencies in a laboratory task situation, especially if the task is ego involving.

An interesting longitudinal field study by Anderson (1977), however, demonstrated that shifts in locus of control can occur for externals as well as for internals. Anderson administered Rotter's I-E scale to victims of Hurricane Agnes both 8 months and 42 months after the disaster. Each victim was the owner of a small business that was extensively damaged by floods. Anderson also obtained a measure of business performance from a local credit agency both before and 42 months after the hurricane. The 102 subjects of the study were divided into four groups based on whether they were internal or external at the time of the initial 8-month assessment. The results showed a shift toward greater internality for internals whose performance improved and a shift toward greater externality for externals whose performance deteriorated. The improved externals did not shift toward internality, and the poorer internals did not become external.

Although both Krolick (1979) and Anderson (1977) showed locus of control shifts as a function of experience, their results are somewhat conflicting. Krolick found a shift only for internals in an external direction; Anderson found an internal shift, but no external shift, for internals and an external shift for externals. Andrisani and Nestel (1976) provided further evidence for an internality shift in their longitudinal study of adult male career mobility. They found that career success led to greater internality for their sample, although they did not look at initial differences in locus of control in the way that Anderson did. As a whole, these three studies suggest that locus of control may be sensitive to experience, although they fail to define variables that lead to

shifts. Internals, however, may engage in activities that require greater skill and that allow more personal control (Julian & Katz, 1968; Kahle, 1980), thereby increasing the probability that their experiences will be consistent with an internal view of the world.

Phares (1976) summarized findings concerning differential behavior by internals and externals. Specifically, he noted that in contrast to externals, internals exert greater efforts to control their environment, exhibit better learning, seek new information more actively when that information has personal relevance, use information better, and seem more concerned with information rather than with social demands of situations.

Several studies linking locus of control to learning and problem solving have demonstrated superior performance by internals (e.g., DuCette & Wolk, 1973; Ude & Vogler, 1969; Wolk & DuCette, 1974). Phares (1968) found that internals were superior to externals in the use of memorized information for problem solving even though there were no differences in acquisition. Apparently, internals made better use of information in a complex problem-solving situation.

Because internals believe in and seek personal control, they should exhibit less conformity than do externals. Crowne and Liverrant (1963) found more conformity for externals in an Asch conformity situation, and Hjelle and Clouser (1970) found that internals exhibit less attitude change after exposure to a persuasive message. Biondo and MacDonald (1971) showed that internals are not only resistant to influence but may demonstrate psychological reactance (Brehm, 1966) and shift their attitudes in an opposite direction to the influence attempt. Internals, however, are not totally unaffected by social influence. Phares (1976) argued that internals may be even more subject to social influence of an informational variety than are externals. He cited as an example James, Woodruff, and Werner's (1965) finding that individuals who quit smoking following the Surgeon General's Report on its ill effects were more internal than nonquitters.

Locus of control has been shown to be

related to other "paper-and-pencil" measures, raising questions about the viability of the concept, at least as measured by Rotter's scale. Of particular interest to this discussion are the reported findings concerning anxiety, social desirability, and achievement motivation.

Locus of control is negatively related to anxiety; that is, externals tend to be more anxious than internals. Joe (1971) and more recently Archer (1979a) found the existing studies quite consistent in demonstrating this relation. Ray and Katahn (1968), in a factor analysis of the items of the I-E Scale, Manifest Anxiety Scale, and Test Anxiety Scale, found no factors that crossed scales; they therefore concluded that anxiety was not a hidden factor in locus of control. Archer, Joe, and Ray and Katahn concluded that locus of control and anxiety were distinct but related concepts. Organ (1976) reached the same conclusion but pointed out that "there remains the problem of specifying the nature of the causal model incorporating these variables" (p. 1097). Archer argued for a complex relation in which these two variables are "potentially interactive and multidetermined phenomena" (p. 619).

The interrelatedness of locus of control and anxiety complicates the interpretation of research findings. For example, anxiety moderates the relation between task complexity and performance (Sarason, 1972)—the performance of high-anxiety individuals is impeded on complex tasks and learning tasks but not on simple tasks. It may well be that anxiety rather than locus of control explains why internals seem to learn better than externals. Obviously, additional research is needed to ascertain the joint role of anxiety and locus of control in task performance.

Future researchers might do well to include a measure of anxiety with the I-E Scale in an attempt to uncover both their joint and their interactive effects. A step in that direction has been taken by Archer (1979b), who split internals and externals by high and low trait anxiety. He found a complex interaction involving anxiety, locus of control, and situational characteristics. It may well be that in many circumstances lo-

cus of control has full meaning only if the effects of anxiety are simultaneously considered.

The relation between locus of control and social desirability appears to be equivocal. Rotter (1966) claimed that the I-E Scale was not subject to social desirability bias, but Joe (1971) cited several studies that have found correlations between the I-E Scale and both Marlowe and Crowne's and Edward's social desirability scales. At the present time, it is unclear why some studies have found the relation whereas others have not. Given the equivocal results relating locus of control and social desirability, it is difficult to assess the possible confounding effects in the studies to be reviewed here. It appears, however, that most studies have failed to find a relation between these variables. Furthermore, one of the most well-established organizational correlates of locus of control—job satisfaction—has been found to be uncorrelated with social desirability (Lewis, Note 1; Smith, Note 2).

Finally, Yukl and Latham (1978) looked at the relation among goal setting, locus of control, and achievement motivation. They found that internals set harder goals than externals do, but in their sample of factory workers I-E was correlated with need for achievement ($r = -.55$), causing Yukl and Latham to question whether locus of control or need for achievement was the crucial variable. Hartley (1976), however, in measuring I-E, achievement motivation, and job satisfaction, found that the combination of both personality variables was related to satisfaction, although achievement motivation alone was not. These results suggest that locus of control and achievement motivation are in fact distinct concepts that may in some cases be related to the same variables.

Locus of Control in an Organizational Context

The basic distinguishing characteristic between internals and externals, belief in personal control, should have direct and powerful effects on organizations in several ways. First, because internals tend to believe that they can control the work setting through

their behavior, they should attempt to exert more control than would externals, *provided that* control is perceived to lead to desired outcomes or rewards. If a situation cannot provide desired outcomes, the internal should not differ from the external in attempts at control. For some individuals, however, control itself might be rewarding, leading some internals to attempt control for its own sake.

Giles (1977) provided interesting data from an organizational study that supports the theoretical role of locus of control in individual action. Female factory workers were administered a questionnaire including a shortened version of the I-E Scale and a measure of satisfaction with higher order needs. They were then asked to volunteer for a job enrichment program. Although locus of control did not predict who would volunteer, it did moderate the relation between need satisfaction and volunteering. That is, internals with low satisfaction on the current job were more likely to volunteer ($r = -.44$) than were externals ($r = -.20$). Thus, although internals were no more likely than externals to volunteer, they were more likely to take action when they were dissatisfied with their current situation.

The attempt of internals to control the work setting might be manifested in many ways. The internal would probably attempt control in the following areas: work flow, task accomplishment, operating procedures, work assignments, relationships with supervisors and subordinates, working conditions, goal setting, work scheduling, and organizational policy. The factors on which control attempts focused would be determined by the potential rewards each carried and by the constraints within the organizational setting.

Internals, as previously mentioned, perform better in learning and problem-solving situations, apparently because of their better use of information (Phares, 1976). It would certainly be expected that internals would exert more effort toward collecting relevant information in situations where they attempt control. This would lead one to predict better performance by internals in training and in performing tasks that necessitate the use of information. Internals, because of their gen-

eralized expectancies of environmental control, should be easier to motivate. Thus, one should find internals more responsive than externals if the appropriate performance-reward contingencies can be presented.

As discussed above, externals are more conforming and compliant than internals. Internals look to themselves for direction; externals look to others. Thus, externals make more compliant followers or subordinates than do internals, who are likely to be independent and resist control by superiors and other individuals. This compliance by externals may seem reminiscent of the submissiveness of authoritarians (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), and in fact, Lefcourt (1966) cited two theses (Holden, 1958; Simmons, 1959) that report a moderately high correlation ($r = .51$) between locus of control and the California F Scale. One further piece of data suggesting similarities between authoritarians and externals is provided by Goodstadt and Hjelle's (1973) finding that externals tend to use a coercive leadership style in dealing with subordinates (see section on leadership).

Externals, because of their greater compliance, would probably be easier to supervise as they would be more likely to follow directions. Externals, however, might be compliant with the social demands of co-workers as well as with the legitimate authority of supervisors, and these co-worker demands might at times conflict with those of management. Thus, externals might comply with one or the other depending on their relative strength of influence.

The nature of a job within the context of organizational factors and demands would determine whether an internal or external would be best suited. If a job requires complex information processing and frequent complex learning, internals would be expected to perform better; for simple tasks, however, the performance differential would disappear. When tasks or organizational demands require initiative and independence of action, the internal would be more suitable; when the requirement is for compliance, however, the external would be more appropriate. Finally, for jobs requiring high motivation, internals would be more likely to believe that their efforts will lead to re-

wards, especially when they actually do, and thus internals would tend to exhibit higher motivation. Therefore, it would seem that internals are best suited for highly technical or skilled jobs, professional jobs, and managerial or supervisory jobs. Externals would be more suited to factory line jobs, unskilled labor jobs, clerical jobs, and jobs of a routine nature.

Unfortunately, the frequent organizational demand for both compliance and complex task performance leads to the obvious conflict that the two characteristics of compliance and complex task skill may be antithetical. With the increasing complexity of jobs because of automation, organizations might well have to sacrifice compliance for skill. This problem may be especially acute in the military, where the internal's skill and the external's compliance are necessary for many complex jobs created by modern, sophisticated equipment. Future organizations must by necessity find ways of managing people in complex jobs that allow them personal control while achieving organizational objectives.

Relations Between Locus of Control and Organizational Variables

Before proceeding further it should be noted that the discussion in the previous section was primarily theoretical, although data exist to validate many of the hypotheses. The next major section of the article reviews the research on the relation of locus of control with several major behavioral variables studied in organizations. For the most part, these findings support the theoretical notions just presented, although they are limited in a number of ways.

First, almost all of the studies presented used Rotter's I-E Scale. There was little attempt to establish convergent validity through the use of alternative measures. Second, most of the studies were cross-sectional and correlational. This makes it quite difficult to draw strong causal inferences from the data. Furthermore, many of the relations reported as statistically significant were based on large samples and small correlation coefficients. Third, most of the studies relied entirely on paper-and-pencil, self-report mea-

tures. The problem of method variance limits the confidence with which many conclusions can be stated. Fourth, as mentioned above, locus of control seems to be related to other personality variables, complicating interpretation of results. In many investigations it is impossible to know whether results can be better explained by reference to variables that were not included, such as anxiety or social desirability.

Motivation

It might be expected that internals would display greater job motivation than would externals because they perceive themselves to have greater control over the environment. It is not that externals are less oriented toward valued rewards or personal goals but rather that internals will exert greater efforts toward acquiring rewards or achieving goals because they are more likely to believe their efforts will be successful. In the specific job or organizational setting, the internal will exhibit more task-oriented and goal-oriented behavior, and for that reason will exhibit more job motivation, although underlying personal motivations may be the same. Job motivation that is operationalized in terms of effort and task orientation will appear to be higher in internals.

Although internals will tend to exhibit greater job motivation than externals do, job settings in which rewards do not follow performance will not long show the internal-external differences. As discussed above, internals are sensitive to reinforcement contingencies, and when effort on the job does not lead to rewards, internals may adopt a more external perspective.

There is research that relates to general job motivation, although often in an indirect manner. Organ and Greene (1974a) studied the relation between locus of control and a scale they developed to measure perceived purposefulness of behavior on the job. This purposefulness measure consisted of 10 items concerned with goal setting, task orientation, meaningfulness of work, and task-related use of time. As such, purposefulness is quite directly related to motivation in that high scores reflect high job motivation. As expected, locus of control was negatively cor-

related with this scale ($r = -.43$) in that internals saw their jobs as more purposeful.

Lied and Pritchard (1976) collected data on both the I-E scale and Mirels and Garrett's (1971) Protestant Ethic (PE) Scale. The PE scale is designed to measure how closely individuals subscribe to a cluster of values reflected by the Protestant Ethic (i.e., hard work is a virtue and leads ultimately to rewards). In validating the scale, Merrens and Garrett (Note 3) found that PE scores were positively related to effort (time spent working) on a repetitive task. Lied and Pritchard found a correlation ($r = -.41$) between the I-E and PE scales, suggesting that internals are more motivated to work than externals are.

Finally, Reitz and Jewell (1979) conducted a survey of over 3,000 workers in six countries. Their results indicated that locus of control was significantly related to job involvement ($r = -.2-.35$), with internals showing more involvement, again indicating greater motivation.

Expectancy Theory

Most of the job motivation studies involving locus of control have been attempts to validate expectancy theory hypotheses. The most popular expectancy theory application to organizations has been developed by Vroom (1964). This theory proposes two types of expectancies, namely, that effort will lead to good job performance and that good performance will lead to rewards. The first is actually the belief in personal effectiveness; that is, the individual can perform well if he or she makes the effort. It is in many ways similar to self-esteem, at least in terms of self-perceived ability on the job. The second is the belief that good performance will be rewarded; that is, good performers get rewarded. This is similar to a belief in justice in the work world that is much like the concept of equity—the person who provides more inputs (good performance) receives more outcomes (rewards). Basically, if an individual holds both expectancies strongly, he or she will have high job motivation and will (within limits of ability and organizational constraints) perform well.

Theoretically, internals should hold higher

expectancies of both varieties than externals would. Internals are more likely to believe that their efforts will result in good performance, and they exhibit stronger beliefs in their own competence. Therefore, they should exhibit greater self-esteem, a hypothesis supported by Lied and Pritchard (1976). Internals should also hold greater expectancies that good performance leads to rewards and should tend to perceive the job situation as more equitable than externals do, a hypothesis for which no data exist. There are six studies of expectancy theory that include the locus of control variable. Before summarizing their findings, which are supportive, it should be noted that methodological problems in operationalizing the necessary constructs in the theory have prevented the completion of its crucial testing. Thus, hypothesized relations between expectancies and performance have been small and sometimes inconsistent (Campbell, 1976).

Szilagyi and Sims (1975) attempted to test the hypothesis that there would be a relation between locus of control and both types of expectancies. Personnel of a university medical center served as subjects and were classified into one of five job categories or levels. The results showed modest but consistent correlations between I-E scores and performance-reward expectancies across all levels ($r = -.2-.39$). The correlations with effort-performance expectancies were smaller and reached significance for only three of the five levels ($r = -.02-.25$). Lied and Pritchard (1976) also studied the relation between locus of control and both expectancies. This time the correlation between I-E and effort-performance was higher than between I-E and performance-reward ($r = -.40$ and $-.20$, respectively).

Broedling (1975) reported the relation between I-E and Vroom's entire expectancy theory composite score and between I-E and the various components. The correlation of I-E with effort-performance was $r = -.28$, that of I-E with the product of performance reward and valence (perceived value of rewards) was $r = -.39$, and that of I-E with the entire composite was $r = -.38$. Mitchell, Smyser, and Weed (1975) found that internals held greater effort-performance and performance-reward expectancies than did

externals, and Evans (1974) found that motivation (product of effort-performance and performance-reward expectancies) was higher for internals than for externals. Finally, Kimmons and Greenhaus (1976) reported that internals showed higher mean performance-reward contingency scores than did externals.

Thus, these results are consistent in demonstrating the hypothesized relation between locus of control and expectancy. That is, internals hold higher expectancies that effort will lead to performance and that performance will lead to rewards. Lawler (1971, p. 177) argued that this tendency makes only internals suitable for pay-incentive systems. That is, internals develop expectancies that will lead them to exert greater job effort for monetary or other rewards. Externals do not develop these expectancies and therefore seem oblivious or insensitive to pay incentives. Lawler suggested using locus of control to select internals for jobs with incentive systems.

Job Performance

For at least two reasons one would predict that internals would perform better on the job than externals. First, they hold greater expectancies that effort will lead to good performance and good performance to reward. Thus, they exert greater effort in situations where rewards are tied to performance, and ultimately, greater effort should lead to better performance across individuals. In fact, Lawler (1968) provided evidence that expectancies of good performance leading to rewards is a causal factor in high job performance. Using cross-lagged and dynamic correlations, Lawler found that self-reported expectancies were related to both peer and supervisor ratings of performance in a manner that was consistent with the notion that expectancies affect performance. Second, as discussed previously, internals seek more relevant information and perform better than externals in complex task situations. Again, this should lead to better performance by internals for tasks involving complex information and learning, assuming the internals are motivated to perform.

Several studies support the notion that internals exert greater effort on the job and perform better. Some have investigated personal career effectiveness across several jobs, and others were concerned with more immediate job performance.

Career effectiveness is measured over time by salary increases and promotions. Although its relation to performance on specific jobs may not be strong, in a global sense, career effectiveness reflects job performance, and hence one would expect internals to be more successful in their careers because they perform better.

Three studies support this contention. Heisler (1974) collected data on 196 government employees of all levels. He computed an index of effectiveness based on five variables: number of promotions, salary increases, awards received, current salary, and grade differential (current job grade level minus entry job grade level). The correlation between this effectiveness index and the I-E scale was found to be modest but significant ($r = -.25$). In addition, Heisler hypothesized that specific beliefs in the skill versus luck nature of the job would moderate the relation between I-E and effectiveness. This hypothesis was upheld in that employees who believed agency rewards were controlled by luck demonstrated a lower I-E effectiveness correlation than did employees who believed rewards were related to skill ($r = -.01$ and $-.34$, respectively).

Valecha (1972) reported the results of a 5-year longitudinal study conducted on a national sample of 4,330 men. His results showed that for white men, internals made better job progress (increase in job level) than did externals. Finally, Andrisani and Nestel (1976) presented results of a 3-year longitudinal study of a national sample of men. Although the relations were rather small, their data showed that scores on I-E were related to success at work, as indicated by occupational attainment and earnings.

Four studies have also investigated the relation between locus of control and immediate job effort and performance. Unfortunately, the measures of effort and performance were self- or supervisor ratings, and the strength of relations found were rather modest. The results, however, support the

contention that internals exert greater effort and perform better than externals.

Majumder, MacDonald, and Greever (1977) studied the relations among locus of control and several organizational variables including supervisors' rating of performance. Their sample was composed of 90 rehabilitation counselors working for a state vocational rehabilitation program. Locus of control was correlated with performance ($r = .40$), with internals receiving higher ratings.

Broedling (1975) collected I-E scores and performance ratings for 207 naval personnel. Ratings were made of both effort and performance by supervisors, peers, and the subjects themselves. Although correlations between I-E and performance were quite small, they supported the present hypothesis in that internals tended to score higher on both effort and performance. Lied and Pritchard (1976) investigated locus of control and effort among 146 Air Force trainees. They found significant correlations for both self- and trainer ratings of effort ($r = -.39$ and $-.30$, respectively). Finally, Hersch and Scheibe (1967) studied locus of control and effectiveness of students working for the Connecticut Service Corps in state mental hospitals. For 2 of 3 years for which data were available, supervisors' ratings of performance were significantly correlated with I-E ($r = -.2$ and $-.37$).

The existing evidence suggests that internals do perform better than externals. Internals seem to exhibit greater personal career effectiveness, exert greater effort, and perform better on the job. One should keep in mind, however, that internals will only display better performance if they perceive that effort will lead to *valued* rewards. In many situations, internals may hold higher performance-reward expectancies but not value the rewards. Furthermore, if there are no rewards for performance (either immediate or long-term career), internals might not differ from externals in their performance-reward expectancies. In addition, the advantage that internals have over externals in information seeking and utilization is only an advantage in situations involving complex information, so simple situations may yield no internal-external differences. Future studies that attempt to confirm the relation

between locus of control and performance should take into account the moderating influence of situation complexity and real performance-reward contingencies as well as the contribution of trait anxiety.

Job Satisfaction

Internals should demonstrate greater job satisfaction than externals do for at least four reasons. First, because internals tend to take action more frequently than externals do, the dissatisfied internal is more likely to quit a dissatisfying job. Thus, there would be fewer dissatisfied internals than externals. Second, internals may perform better and receive the benefits of that performance. In situations where rewards follow performance, internals are likely to be more satisfied. Third, internals tend to advance more quickly and receive more raises than do externals. More frequent promotions and salary increases should be expected to lead to greater satisfaction. Organizational level has been shown to be positively correlated with satisfaction, although direction of causality has not been established (Porter & Lawler, 1965). Finally, cognitive consistency theory would predict that individuals who have perceived personal control to leave the situation and who choose to stay will tend to reevaluate the situation favorably to retain consistency between their attitudes and behavior (Salancik & Pfeffer, 1978). Internals who perceive greater control and ability to leave are more likely to leave in dissatisfying situations. If they perceive the opportunity to leave but do not, they will be under some internal cognitive pressure to evaluate the job situation as favorable, thus justifying their behavior. Externals who perceive no options are under only external constraints to remain on the job and feel little pressure to change their job attitudes in a positive direction.

The research supports the locus of control-satisfaction hypothesis. Internals have been found to be more satisfied generally than externals, although there have been some interesting interactions involving satisfaction with supervision (see section on leadership). One exception is Dailey's (1978) finding that internals were less satisfied with their co-workers.

Three studies are reviewed comparing satisfaction of internals and externals holding managerial, professional, and high-level jobs. Gemmill and Heisler (1972) collected locus of control and job satisfaction data as part of a larger study of 133 production managers. They found a significant correlation of $-.27$ between these variables. This finding is somewhat confounded by the fact that I-E was correlated ($r = -.26$) with job level. Organ and Greene (1974b) found a correlation of $-.36$ between I-E and satisfaction for senior scientists and engineers. Finally, Satmoko (1973) studied satisfaction with Maslow's categories of needs among high-level government employees in Indonesia. Again, internals were found to be more satisfied than externals.

Three studies sampled nonsupervisory employees and found comparable results. Munoz (1973) found that among New York City policemen, internals were more job satisfied than externals. Lester and Genz (1978) found similar results with their two police samples. Singh (1978) also reported greater satisfaction among internal nurses.

Two studies mixed employees of different job levels and found essentially the same results. Andrisani and Nestel (1976) in their national survey found a small, significant correlation between I-E and satisfaction ($r = -.19$). Mitchell et al. (1975) found internals to be more satisfied than externals, although they found supervisors to be more internal than nonsupervisors.

Although the findings are quite consistent for overall satisfaction, the findings for specific job aspect satisfaction were somewhat different. Dailey (1978) reported that for a sample of scientists and engineers from 15 organizations, internals were less satisfied with co-workers than were externals. He explained these results in terms of the greater social orientation of externals. Mitchell et al. (1975) and Runyon (1973) investigated satisfaction with supervision and found it to be moderated by leadership style (see next section on leadership).

Leadership

There are two sides to the leadership process that have been studied—the subordinate's reaction to his or her supervisor's be-

havior or style and the behavior of the supervisors themselves. It would be expected that locus of control affects both the supervisor's behavior and the subordinate's reaction to it.

Runyon (1973) studied the moderating effect of locus of control on the relation between supervisory style and satisfaction with supervision. He administered to 110 hourly manufacturing employees questionnaires containing the I-E scale, a single-item measure of satisfaction with supervision, and a measure of supervisory style of the subject's supervisor. As expected, internals were more satisfied with supervision than were externals under a participative style, and they were more satisfied with a participative than with a directive style. Externals were more satisfied than internals under a directive style, and they were more satisfied with a directive than with a participative style. Mitchell et al. (1975) were partially able to replicate these findings. In their sample of 900 public utility employees of varying levels, internals were more satisfied than externals with supervision regardless of style, although internals were more satisfied with participation and externals with direction.

Abdel-Halim (1981) administered the Leader Behavior Description Questionnaire (Stogdill, 1963), the I-E scale, and a measure of intrinsic job satisfaction to lower and middle managers. Internals' satisfaction was unrelated to their supervisors' consideration, but externals reported less satisfaction with low-consideration than with high-consideration supervisors. Evans (1974), however, studied a group of young managers and found a small but significant relation between I-E and the Leader Behavior Description Questionnaire scales of initiation ($r = -.26$) and consideration ($r = -.24$). Apparently, internals and externals either perceive supervisors somewhat differently, or supervisors tend to treat their internal and external subordinates differently. Thus, it may be difficult to draw firm conclusions from studies relying on perceptions of supervisory behavior by subordinates.

Cravens and Worchel (1977) conducted a laboratory simulation of a repetitive job. Subjects worked on a manual task under a supervisor who used either a coercive or a noncoercive style to increase productivity. It

was found that internals complied less with the coercive supervisor than did externals. There were no differences with the noncoercive supervisor.

These results suggest that the appropriate supervisory style may differ depending on the subordinate's locus of control. It is reasonably clear that the two types of individuals prefer different styles and may react differently to them. This fits consistently with the aforementioned findings that locus of control correlates with authoritarianism (Holden, 1958; Simmons, 1959).

Two laboratory studies provide data concerning the different behavior of internal and external leaders. Anderson and Schneier (1978) extensively studied the behavior of college students who had been assigned class projects in groups. Among their findings were the following: (a) Internals were more likely to emerge as group leaders, (b) internal leaders performed better in class than external leaders, (c) groups led by internals performed better than those led by externals, and (d) internal leaders were more task oriented, and external leaders were more socially oriented. These results are quite consistent with the profile of internals as being action oriented and better performers and externals as being more socially oriented.

Goodstadt and Hjelle (1973) conducted a laboratory simulation of a factory setting to study the relation between locus of control and use of power by supervisors. They assigned college students as supervisors over work groups assigned to one of two repetitive tasks. The work groups were composed of confederates, one of whom created difficulties for the supervisor. Data were collected on the types of supervisory practices used as a function of I-E scores. It was found that internals attempted to use personal persuasion to a greater extent than did externals, whereas externals used coercion more than internals did.

These results again fit with the locus of control-authoritarianism parallels in that externals, who tend to be more authoritarian, rely more on coercive means of supervision. Whether authoritarianism alone accounts for these results is an empirical question. The research summarized in this section, however, suggests that internals and externals differ in their personal supervisory

styles and in their reactions to the supervisory styles of their superiors. Externals seem to prefer supervisors who are directive, and they themselves rely more on coercion with their subordinates. In addition, they seem more concerned with the social rather than the task aspects of the job. Internals, on the other hand, prefer participative approaches from their supervisors, rely more on personal persuasion with their own subordinates, and seem more task oriented and less socially oriented.

Perceived Job Characteristics and Role Strain

From their generalized expectancies, one might assume that internals and externals would differ in their perceptions of job characteristics as well as in their reactions to those characteristics. It would be predicted that because internals perceive more personal control over their environment, they would tend to perceive the job as offering more autonomy; also, because internals are more sensitive to information in the environment, they should report more feedback on the job. Kimmons and Greenhaus (1976) provided support for both of these contentions. In their sample of 193 managers, internals reported having more autonomy and receiving more feedback than did externals.

Role strain and role ambiguity are two other variables that have been investigated. Here the results with locus of control are inconsistent. Gemmill and Heisler (1972) found a correlation of .31 between their measure of job strain (uncertainty of promotion, ambiguity of supervisor's evaluations, too heavy workload, too little authority, etc.) and locus of control, with internals perceiving less strain than do externals. Organ and Greene (1974b) found a correlation ($r = .42$) between I-E and a similar measure, role ambiguity. Evans (1974), however, found a negative correlation between I-E and the same role ambiguity measure that Organ and Greene used.

Abdel-Halim (1980) found that locus of control moderated the relation between role ambiguity and job satisfaction. Specifically, externals were considerably more satisfied under low than under high ambiguity. This

tendency was insignificant for internals, who seemed less affected by task ambiguity.

On the other hand, Batlis (1980) found no evidence for a moderating effect of locus of control on the relation between role ambiguity or role conflict and job satisfaction. There were small but significant correlations between both role variables and locus of control. There was, however, a nonsignificant relation between locus of control and job satisfaction, making one question the comparability of these data with other reported studies.

Sims and Szilagyi (1976) hypothesized that locus of control would moderate the relation between perceived job characteristics and job satisfaction. They focused their investigation on job aspects measured by the Job Characteristics Inventory, which includes the following dimensions: variety, autonomy, task identity, feedback, interactions with others, and friendship opportunities. They calculated correlations between each of these dimensions and job satisfaction separately for internals and externals. Only for autonomy was there a significant difference in the correlations with work satisfaction ($r = .39$ and $.16$ for externals and internals, respectively) and with supervisor satisfaction ($r = .49$ and $.15$ for externals and internals, respectively). Kimmons and Greenhaus (1976) replicated part of this study with different instruments and found that locus of control did not significantly moderate the relation between satisfaction and autonomy or feedback, although internals had a somewhat higher correlation between autonomy and satisfaction than did externals, a trend that is opposite to that in Sims and Szilagyi's study.

The literature on the relation between perceived job characteristics and locus of control is inconsistent and inconclusive. The studies included here that reported a relation between I-E and job characteristics were consistent in showing that there may be differences in perceptions, but they were inconsistent in demonstrating a direction of relation. Likewise, the moderating role of locus of control in the relation between perceptions of and affective responses to the job is unclear. It would seem potentially fruitful for future research to investigate the relation

between locus of control and perceptions of the job in an attempt to clarify these inconsistencies.

Turnover

The relation between locus of control and turnover is complex, and a consistent correlation between locus of control and quitting would not be expected. On the one hand, internals tend to take action and thus might be expected to quit jobs more readily. On the other hand, they tend to be more successful on the job and more satisfied, factors associated with less individual turnover.

Job satisfaction has consistently been found to be somewhat predictive of turnover (Mobley, Griffeth, Hand, & Meglino, 1979; Porter & Steers, 1973). The relations found, however, have been modest, suggesting that dissatisfaction alone does not account for turnover. Locus of control might well moderate the relation between satisfaction and turnover in the following way: Externals tend not to take action, and therefore even if they are dissatisfied they may stay on the job, at least until environmental factors force them to leave. Internals, on the other hand, tend to take action and would be expected to quit a dissatisfying job. Therefore, the correlation between satisfaction and turnover should be higher for internals than for externals.

If dissatisfied internals tend to leave jobs, it would follow that conditions leading to satisfaction would moderate the locus of control-turnover relation. For highly satisfying jobs, internals would exhibit the same rate of turnover as do externals; for highly dissatisfying jobs, internals would exhibit more turnover than do externals.

No data exist to validate these hypotheses, but data are available on the relation between job tenure and locus of control. Harvey (1971) found among chief government administrators in Canada that locus of control was negatively related to tenure; that is, internals held longer tenure on the job. Similar results were found by Andrisani and Nestel (1976) in a general male population and by Organ and Greene (1974a) with senior scientists and engineers.

Summary and Conclusions

The results of the research summarized in this article suggest that locus of control may be an important personality variable in organizational research and theory. It may be useful as a moderator in tests of expectancy theory and predictions of turnover, and it may help to explain behavior in a number of organizational situations. Furthermore, on a practical level, locus of control may be useful as a selection device for many specific jobs and settings.

Both laboratory and field studies have established that the behavior of internals and externals can differ across situations. In general, internals tend to believe that they have personal control over rewards and events. This generalized belief or expectancy leads the internal to take action when action is perceived to lead to rewards that are valued or desired. Thus, the internal is potentially more motivated than the external, who may seem to ignore the reinforcement contingencies in a situation.

Organizational settings in which rewards are tied to performance, such as piece-rate systems or incentive systems, would be expected to work well with internals and poorly with externals. Hence, locus of control could be used to select employees who will work under incentive systems. In order to motivate or at least to control the performance of externals, directive supervision would probably be far more effective than incentives. As shown above, externals tend to be more satisfied with directive supervision (Mitchell et al., 1975; Runyon, 1973), to comply more with demands of coercive supervisors (Cravens & Worchel, 1977), and to be more compliant with social demands than internals are (Phares, 1976).

The style of supervision preferred by internals and externals seems to be quite opposite. Internals who tend to be self-motivated prefer participative approaches, whereas the more outward-directed externals prefer directive approaches. Thus, externals would seem more appropriate for directive supervisors or situations that demand directive supervision. Internals would be more appropriate for participative supervisors or situations requiring participative

approaches. This difference in preferred style seems to carry over into the style used by internals and externals with their own subordinates. That is, internals tend to be participative supervisors, whereas externals tend to be directive supervisors.

Task or organizational demands often dictate the style of supervision that should be used. Tasks that require close coordination of many people generally require quite directive styles. Thus, assembly line work where individual worker's tasks are highly interdependent, and battlefield operations where precise carrying out of orders is essential, would be most appropriate for externals who are more suited for directive supervision. Tasks that require initiative and independent action are more suited for internals, who are in turn best supervised by participative supervisors. Situations in which initiative is needed but a directive supervisory style is adopted may create demands that both internals and externals find incompatible. That is, the internal's initiative and the external's compliance are necessary, but these may be qualities that are not often found in the same individual. To summarize, low initiative-high compliance and high initiative-low compliance call for externals and internals, respectively. High compliance-high initiative situations create conflicting demands. Externals in such situations comply but perform poorly where independent action is essential. Internals, on the other hand, are able to perform independently but become frustrated and uncomfortable with compliance demands.

These contentions are consistent with research in education and psychotherapy. There is evidence, although it is somewhat equivocal, that internals prefer and often perform better with participative approaches and externals with directive approaches in both the classroom (Harpin & Sandler, 1979; McMillan, 1980) and psychotherapy (Messer & Meinster, 1980; Rostow, 1980).

Another difference between internals and externals is their ability to handle complex information. Internals seem better at collecting and processing information and would be better at performing complex tasks. This tendency is totally independent of intelligence (Phares, 1976), suggesting that per-

haps it is motivation that accounts for the performance differential. Internals would seem better suited for tasks requiring complex information collection or processing. Thus, not only the compliance and initiative demands of a task but also its information complexity should be considered in selecting the optimal person for a given job. Again, there may be inconsistencies in the demands made by a particular job. Jobs requiring complex information processing and high compliance might demand qualities that are incompatible. Tasks that are complex in information-processing demands are obviously best handled by internals. Where the complexity demands conflict with the need for compliance, one must decide which demand is the most cogent and select internals or externals on that basis. If complexity demands are more important, one should select internals, although this may cause problems with compliance. If compliance is more important, externals would be more appropriate, although they will probably perform more poorly than internals. Where compliance is essential it might be best to simplify individual jobs, and where complexity must occur, participative supervisory practices should be implemented.

Of course, as discussed previously, there are considerable methodological limitations to the research summarized here, and these conclusions are tentative. This research is primarily cross-sectional and correlational and suffers from method variance and too narrow a scope; that is, it ignores other important variables, specifically anxiety. In addition, most of this research has not attempted to delineate complex relations among forms of behavior, locus of control, and other variables, both situational and individual. Some exceptions were the studies that used locus of control as a moderator of supervisory style and job satisfaction.

On the bivariate level, many of the relations described in this article have been well established. What is needed for future research are more complex studies that will contribute to a more thorough understanding of these relations. Researchers might do well to include anxiety in their studies to determine its interactive effects, as attempted by Archer (1979b). Furthermore,

studies that use behavioral variables related to personality are needed, as the current reliance on self-report greatly limits conclusions. It is suggested that locus of control might prove to be a useful variable for employee selection. The limited data of this review indicate that I-E might well be related to job performance for at least some jobs, but its utility as a selection device needs empirical validation. Certainly, more research is needed on locus of control and leadership variables. The current data are incomplete concerning supervisory styles and behavior of internals and externals and reactions by internal and external subordinates to internal and external supervisors.

One further note is that internals seem to behave in ways that validate much theory in organizational psychology. That is, internals respond to reinforcement contingencies (incentive systems) on the job, they seem to prefer participative supervision, they demonstrate initiative, and they tend to take personal action on the job. Externals on the other hand seem unresponsive to incentives (they want them but will not necessarily work harder for them) and prefer directive supervision. Thus, much organizational theory might well be limited to internals.

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Received May 4, 1981 ■