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WORK MOTIVATION THEORY AND RESEARCH AT THE DAWN OF THE TWENTY-FIRST CENTURY

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■ **Abstract** In the first *Annual Review of Psychology* chapter since 1977 devoted exclusively to work motivation, we examine progress made in theory and research on needs, traits, values, cognition, and affect as well as three bodies of literature dealing with the context of motivation: national culture, job design, and models of person-environment fit. We focus primarily on work reported between 1993 and 2003, concluding that goal-setting, social cognitive, and organizational justice theories are the three most important approaches to work motivation to appear in the last 30 years. We reach 10 generally positive conclusions regarding predicting, understanding, and influencing work motivation in the new millennium.

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INTRODUCTION

At the dawn of this new millennium,[1] Miner (2003) concluded that motivation continues to hold a significant position in the eyes of scholars. "If one wishes to create a highly valid theory, which is also constructed with the purpose of enhanced usefulness in practice in mind, it would be best to look to motivation theories . . . for an appropriate model" (p. 29).

Miner's conclusion is based on a comparison with other middle range theories of organizational behavior (OB). The question remains as to whether, on an absolute standard, motivation theory and research have fared well over the last quarter of a century. In answering this question, we provide a definition of the construct and an assessment of how the field of motivation in the workplace has evolved and progressed since the year in which the last chapter (Korman et al. 1977) devoted exclusively to this topic appeared in the *Annual Review of Psychology* (*ARP*). We selectively review theory and research, emphasizing work published in the past decade, 1993–2003, with special emphasis given to research on contextual effects and mediating mechanisms. This is because scholars (e.g., Pinder 1998) have pointed to the power of context to moderate opportunities for, and constraints against, organizational behavior. In addressing this issue, the chapter concludes with an assessment of the degree to which progress has been made to predict, understand, and influence motivation in the workplace.

Work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration (Pinder 1998, p. 11). Thus, motivation is a psychological process resulting from the interaction between the individual and the environment. Accordingly, the importance of context is acknowledged throughout our analysis. However, because of space limitations, we focus primarily on national culture, job design characteristics, and person-environment fit, omitting reviews of other exogenous sources of motivation (e.g., organization climate and culture, leadership, and groups and teams). Job design is traditionally included in reviews of motivation. National culture and person-environment fit are relatively new to this literature, hence our choice of these three contextual variables.

[1]Latham & Budworth (2004) chronicled the history of research and theories of motivation in the workplace in the twentieth century.

MOTIVATIONAL FRAMEWORK

The framework used in reviewing the literature is consistent with Locke & Henne (1986). Consequently, the flow of the chapter is as follows: A discussion of (*a*) needs is followed by a focus on (*b*) personal traits, as the latter historically have been viewed as needs or drivers. An individual-difference variable rooted in needs is (*c*) values. Because context affects the extent to which needs are met and values are fulfilled, emphasis is given to (*d*) national culture, (*e*) job design characteristics, and (*f*) person-context fit. Needs and values affect (*g*) cognition, particularly goals. Cognition plays an integral role in each of these concepts. Although (*h*) affective reactions need not depend on cognition (Bandura 1997), the two usually are reciprocally related (Lord & Kanfer 2002). Moreover, emotion-focused coping encompasses both cognitive and behavioral strategies (Kanfer & Kantrowitz 2002). Finally, affect is influenced by culture as well as by organizational norms (Lord & Harvey 2002). We close with an (*i*) assessment of progress in the field since 1977.

NEEDS

Kanfer (1991) has stressed the importance of needs as internal tensions that influence the mediating cognitive processes that result in behavioral variability. Thus the resurgence of emphasis on needs since 1977 is not surprising. What may be surprising is the resurgence of interest in Maslow's (1943) hierarchical need theory. Wicker et al. (1993) showed that between-goal correlations and partial correlations across four samples of college students supported Maslow's theory when intentions to act were rated rather than measures of importance. Ronen (2001), using multidimensional scaling of employee data collected in 15 countries rather than factor analysis, found support for the taxonomic element of Maslow's theory. Kluger & Tikochinsky (2001) advocated ongoing efforts to find ways to operationalize the theory validly.

Haslam et al. (2000) presented a process-based analysis of need structure and need salience derived from the social identity approach to organizational behavior. To understand motivation, they argued, one must understand aspirations for the self that exist in a hierarchy. When personal identity is salient, needs to self-actualize and to enhance self-esteem through personal advancement and growth become dominant. When social identity is salient, the need to enhance group-based self-esteem through a sense of relatedness, respect, peer recognition, and attainment of group goals dominate. They stated that McGregor's (1960) Theory Y assumptions apply when the supervisor and employee share the same identity; Theory X assumptions apply when they do not do so.[2] People are motivated to

[2]Theory Y differs from Theory X in that the latter places exclusive reliance upon external control of behavior, whereas Theory Y emphasizes self-control and self-direction.

attain goals that are compatible with their self-identity. Needs associated with a specific group membership are internalized; they serve as a guide for behavior in a specific working context. Their analysis of survey data of Australian employees was interpreted as supporting social identity theory.

Ajila (1997) and Kamalanabhan et al. (1999) argued that the practical significance of Maslow's theory is widely accepted. Physiological needs are considered in decisions regarding space, lighting, and overall working conditions; safety in terms of work practices; love in regard to forming cohesive work teams; esteem through responsibility and recognition; and self-actualization in terms of opportunities for creative and challenging jobs/tasks. This is particularly true in developing countries. Employees in four manufacturing companies in Nigeria rated satisfying lower needs as most important, followed by the higher order growth needs (Ajila 1997). Among bank employees in India, officers attached greater importance to growth needs than did clerks (Rao & Kulkarni 1998).

Based on their socioanalytic theory, Hogan & Warremfeltz (2003) argued that people have innate biological needs for (*a*) acceptance and approval; (*b*) status, power, and control of resources; and (*c*) predictability and order. These needs translate into behaviors for getting along with others, getting ahead in terms of status, and making sense of the world.

Need-based theories explain why a person must act; they do not explain why specific actions are chosen in specific situations to obtain specific outcomes. Moreover, they do not easily account for individual differences. Hence, along with increased attention to needs, there has also been a resurgence of interest in individual differences, particularly with regard to the effects of job characteristics on employee motivation.

TRAITS

Traits have long been considered needs or drivers: their satisfaction leads to pleasure, and lack of fulfillment leads to displeasure (Allport 1951). Nevertheless, Mitchell (1979) found that individual difference variables had few or no moderating or mediating effects on motivation in the workplace. Subsequent findings from meta-analyses challenged this conclusion (e.g., Barrick et al. 2001). Failure to express one's traits can lead to anxiety (Cote & Moskowitz 1998). In the present century, Mitchell & Daniels (2003) reported that research on personality is the fastest growing area in the motivation literature. In a review of predictor domains, Schmitt et al. (2003) concluded that personality is the primary predictor of elements of motivation. In fact, research now shows that traits predict and/or influence job search and choice of job, as well as job performance and satisfaction. These traits include extroversion, conscientiousness, self-regulatory and self-monitoring strategies, tenacity, core self-evaluations, and goal orientation. For example, a meta-analysis by Kanfer et al. (2001) examined the relation between self-regulation and personality measures with respect to job search. The results

showed that self-regulation is more strongly related to positive than to negative affective variables.

Kanfer & Heggestad (1997) proposed a developmental theory that distinguishes between distal influences on action, in the form of relatively stable motivational traits, and proximal influences that are associated with individual differences in self-regulatory or motivational skills. Heggestad & Kanfer (1999) developed a multiple-trait motivational inventory. The scale has convergent and discriminant validity with regard to measures of motivation versus intelligence (Kanfer & Ackerman 2000).

A meta-analysis of a self-monitoring personality by Day et al. (2002) revealed a robust positive relationship with job performance, as well as a relatively strong positive relationship with advancement into leadership positions. This is because self-monitors are motivated to meet the expectations of others, which in turn enhances their likeability. Likeability is a key to job progression (Hogan et al. 1994). In an enumerative review, Day & Schleischer (2004) concluded that self-monitors outperform those who are low on needs in getting along and getting ahead. The evidence is relatively mixed on the need to make sense of the environment.

Furnham et al. (1999) found that extroverts are attracted to enriched jobs. Those who score high on neuroticism are attracted to jobs that excel on hygiene variables.

Tett & Burnett (2003) presented a person-situation interactionist model of job performance that lays the groundwork for specifying the conditions under which particular personality traits predict and explain performance in specific jobs. Their model proposes that employees seek out and are satisfied with tasks, people, and job characteristics that allow them opportunities for expressing an array of personality traits. An ideal work setting, they argued, is one that offers cues to the employee for trait expression per se as well as one where trait-expressive behavior is valued positively by others. Variance in trait-expressive behavior is maximized in "weak" situations. In "strong" situations, extrinsic rewards overpower individual differences in intrinsic rewards associated with trait expression.

Mount & Barrick (1995) showed that conscientiousness is particularly important in jobs that allow autonomy. Witt & Ferris (2003) found that the relationship between conscientiousness and job performance that requires interpersonal effectiveness is moderated by social skill. Among workers low in social skill, the relationship between conscientiousness and performance was either irrelevant or negative. Hogan & Shelton (1998) argued that social skill, a learned ability, is necessary for motivation to lead to success. High needs for achievement or power are likely frustrated, they said, among people low in social skill. Gellatly (1996) too found that conscientiousness was significantly related to performance. This effect was completely moderated by self-efficacy and two measures of personal goals.

Baum et al. (2001) showed that the relationship between personality and performance is mediated by situationally specific goals and self-efficacy. They concluded that traits should be examined through mediation models that test complex causal chains. Baum & Locke (2004) conducted a six-year follow-up study to understand

the way entrepreneurs' passion and tenacity combine to affect the success of the venture as a whole. They found that these two traits have indirect rather than direct effects through specific, nontrait mechanisms, namely goal setting and self-efficacy.

Judge et al. (1997) developed a theory of traits they labeled core self-evaluations that represent one's appraisal of people, events, and things in relation to self. Core evaluations are manifested in four traits, namely self-esteem, locus of control, neuroticism, and generalized self-efficacy. A meta-analysis showed that core self-evaluation is a strong dispositional predictor of job satisfaction (Judge & Bono 2001). Erez & Judge (2001) found that motivation mediated about half the relationship between core self-evaluations and performance. They concluded that core self-evaluation is a motivational trait, and that this explains its effect on job performance.

Dweck (1999) argued that people's conception of their ability influences the goals they pursue. Incrementalists have a learning goal orientation (LGO); they focus on the acquisition of knowledge and the perfecting of competence. Hence they choose tasks that are challenging for them. Errors are viewed as allowing opportunities to learn from mistakes. Entitists view their ability as fixed. They have a performance goal orientation (PGO), whereby they choose tasks that allow them to easily demonstrate proficiency at the expense of learning something new. A PGO disposition correlates negatively with self-efficacy (Phillips & Gully 1997). LGO is positively related to openness to new experiences and optimism (VandeWalle 1996), internal locus of control (Button et al. 1996), desire for hard work (VandeWalle 1997), and effort (VandeWalle et al. 1999). VandeWalle et al. (1999) found that an LGO correlates positively with sales performance, but it is mediated by self-regulation (goal setting, effort, planning). Nevertheless, they concluded, "There is considerable evidence of goal orientation existing as a stable individual difference" (p. 250).

Brett & VandeWalle (1999) reported that goal orientation did not have a significant relationship with performance, but that it was mediated by the content of goals (performance versus learning goal) that individuals selected. Those with an LGO disposition selected a learning goal and those with a PGO selected performance goals. A longitudinal study showed that goal orientation influences initial emotional reactions and subsequent self-regulation in the face of negative feedback.

In summary, the importance of personality in predicting, understanding, and influencing choice, affect, and performance has been shown, as well as the importance of job characteristics (e.g., autonomy) as a mediator/moderator. A taxonomy of motivational traits and skills, as well as three theories—socioanalytic, core self-evaluations, and goal orientation—are dominating the literature.

An issue identified by Locke & Latham (2004) that has yet to be addressed is how general variables such as personality are applied to and are mediated by task and situationally specific variables in affecting performance, or how they are moderated by situations and affect situational structuring and choice. A general value or motive must be applied consciously or unconsciously to each specific task and situation.

Situational and task-specific knowledge, assessments, and intentions are likely affected by the person's values and assessments. Locke (2001) showed that values and personality work through goals and self-efficacy to influence performance. Yet it is likely that some trait effects are direct and thus are not mediated. Research is needed on if, when, and why this occurs.

VALUES

Values are rooted in needs and provide a principal basis for goals (Locke & Henne 1986). Indeed, they can be seen as trans-situational goals, varying in importance, that serve as guiding principles in the life of a person (Prince-Gibson & Schwartz 1998). Values are similar to needs in their capacity to arouse, direct, and sustain behavior. Whereas needs are inborn, values are acquired through cognition and experience. Values are a step closer to action than needs. They influence behavior because they are normative standards used to judge and choose among alternative behaviors. Although values can be subconscious, they are usually more easily verbalized than needs.

Locke & Henne (1986) argued that values are inherent in most work motivation theories. These theories focus on the influence of one or several particular values, such as perceptions of fairness on action or on the effects of values in general (expectancy theory). Goals are similar in meaning to values except that they are more specific. They hold the same means-end relationship to values as values do to needs. Goals are the mechanism by which values lead to action.

Values have been examined in expectancy-valence frameworks to predict and understand work-related behavior. Foreman & Murphy (1996) applied a valence-expectancy approach to predict job-seeking behavior. Similarly, Verplanken & Holland (2002) explored how values affect choices. Outcomes with the potential to activate a person's central values instigate the acquisition of information and motivate choice decisions in accordance with pursuing the values in question. That is, activation and information collection mediate the relationship between values and decision behavior.

In a longitudinal study, Malka & Chatman (2003) found that business school graduates who have an external work orientation reported higher job satisfaction and subjective well-being than those who reported an orientation toward the intrinsic aspects of work.

CONTEXT

From 1977 to the present there has been a paucity of theory and research on workplace values alone as predictors or independent variables. As a result of globalization, however, values have been studied within the context of a person's culture and job as well as person-environment fit.

National Culture

In an attempt to tie together needs and values, Steers & Sanchez-Runde (2002) stated that national culture determines three key sets of distal sources of motivation: (*a*) people's self-concept, including personal beliefs, needs, and values; (*b*) norms about work ethic and the nature of "achievement," tolerance for ambiguity, locus of control, etc.; and (*c*) "environmental factors" such as education and socialization experiences, economic prosperity, and political/legal systems. Based on their conceptual model, the authors concluded that these distal factors influence self-efficacy beliefs, work motivation levels, and goals, as well as the nature of incentives and disincentives to perform.

Erez & Earley (1993) have developed a model of "cultural self-representation" to guide individual behavior and managerial practices in cross-cultural settings. They argued that people strive to fulfill values for self-enhancement, efficacy, and self-consistency. Their model is based on two dimensions frequently used to characterize national cultures: collectivism versus individualism, and power distance. Three principles are advanced to assist the design and interpretation of motivation and reward systems: (*a*) identify the cultural characteristics of a country regarding collectivism/individualism and power distance; (*b*) understand yourself and the cultural values you represent; and (*c*) understand the meaning of various managerial practices (such as differential versus flat salary reward distribution and top-down versus two-way communication styles) in each country (Erez 2000).

Projecting values onto people from other cultures that differ on the above two dimensions can create dysfunctional consequences in terms of employee motivation, interpersonal communication, and overall performance (Earley 2002). A cross-cultural study by Roe et al. (2000) found differential relationships between context variables and outcome variables in a comparative test of a motivation model in Bulgaria, Hungary, and the Netherlands.

Building on research findings of other scholars, Leung (2001) has offered four hypotheses for further research: (*a*) work teams in collectivistic cultures have higher levels of unconditional benevolence and positive social identity that, in turn, lead to higher levels of in-group involvement than is the case for groups that value individualism; (*b*) productivity and performance levels are more homogenous (not necessarily higher or lower) in collectivistic cultures than in individualistic cultures; (*c*) motivational strategies by superiors have more effect on subordinates in cultures with high levels of power distance than in cultures low in power distance; and (*d*) negative reactions from supervisors in high power-distance cultures generate more negative reactions among workers than is the case in low power-distance cultures. An experiment comparing Israeli and Chinese college students in Singapore supported the hypothesis that people from low power-distance cultures, the Israelis, set higher goals and reach higher performance levels than people from a high power-distance culture, the Chinese (Kurman 2001).

Earley (2002) proposed a three-level construct of "cultural intelligence," in which a person's self-efficacy vis-à-vis social discourse in cross-cultural settings plays a key role in the effectiveness of such interactions. High self-efficacy resulted

in the individual initiating cross-cultural interactions, persisting in the face of early failures, and engaging in problem solving as a way of mastering the necessary skills.

Sue-Chan & Ong (2002) investigated the effect of goal assignment on goal commitment, self-efficacy, and performance of people from 10 different countries. Self-efficacy mediated the effect of goal assignment on performance for those low in value for power distance.

Not all motivation-related values vary across cultures. A study of more than 19,000 participants from 25 countries (Scholz et al. 2002) found a high degree of consistency in the psychometric properties of a scale assessing general self-efficacy, an important concept in the mechanisms related to goal setting and self-regulation.

In summary, significant progress has been made in understanding cross-cultural differences in work motivation. Mediating mechanisms explain why motivational strategies vary in effectiveness in different countries.

Job Design Characteristics

The job environment affects and is affected by a person's needs, personality, and values. Research emphasis has been on the former rather than on the latter.

Motivation may be low depending on the fit between the characteristics of the job and the person's values. Gustafson & Mumford (1995) reported that the ability of personality measures to predict performance as well as satisfaction increases when characteristics of a job are taken into account. Thus, Nord & Fox (1996) argued that contextual factors and the interplay between context and the individual should be taken into account in organizational behavior. Motivational researchers have responded to this suggestion. More than 200 studies were conducted between 1970 and 1990 on characteristics of jobs that are determinants of attitudinal and behavioral outcomes (Ambrose & Kulik 1999).

Job autonomy can facilitate the time necessary for learning and development, which in turn improves job performance (Wall & Jackson 1995). Cordery (1997) argued the necessity of differentiating the importance of three dimensions of job autonomy, namely (*a*) method control as defined by the amount of discretion one has over the way in which work is performed, (*b*) timing control in terms of the influence one has over scheduling of work, and (*c*) discretion in setting performance goals. He found four interrelated dimensions that affect job autonomy, namely the extent to which the supervisor (*a*) provides clear attainable goals, (*b*) exerts control over work activities, (*c*) ensures that the requisite resources are available, and (*d*) gives timely accurate feedback on progress toward goal attainment. The first three influence employee perceptions of autonomy.

An analysis of survey data from Australian employees led Wright & Cordery (1999) to conclude that affective well-being declines with traditional job designs, particularly where there is production uncertainty, but increases under "high control" job designs. Production uncertainty, they argued, is an important contextual variable that, similar to supervisory practice, has the potential to improve the

prediction and explanatory capability of job design theories. Where the work is routine and predictable, attempts to increase decision control (autonomy) within an operator's job begs the question, they said, of "control over what?" Where the opposite is true, job design can be effective in increasing motivation in the workplace.

In studies of a Dutch bank and school, Houkes et al. (2001) found that there is a positive relationship between work content (skill variety) and work motivation, and between erosion of work content and emotional exhaustion. The latter was also predicted by lack of social support.

Parker & Wall (1998) reported that work-related stress can result in emotional exhaustion and psychosomatic illness. In addition, Parker (2003) found that unenriched simplified jobs stemming from lean processes (LP) can affect an employee's level of job depression. The mediator was job characteristics. Job characteristics also partially mediated organizational commitment. To the extent that LP can be introduced in such a way as to allow job autonomy, skill use, and participative decision making, the employee's well-being and motivation increase. Failure to do so, she argued, is not likely to be conducive to an employee's self-efficacy. These findings, from a U.K.-based company, are consistent with those of Theorell & Karasek (1996), which showed that lack of job autonomy can increase the risk of cardiovascular disease.

Parker's hypothesis regarding the possible mediating effect of self-efficacy regarding job characteristics is supported by Bandura (2001). When people believe themselves to be inefficacious, they are likely to exert little or no effort even in environments that provide opportunities for growth. Conversely, when people view their environment as controllable regarding characteristics that are important to them, they are motivated to exercise fully their perceived efficacy, which in turn enhances their likelihood of success.

Edwards et al. (2000) found that mechanistically oriented job designs are associated with efficiency-related outcomes, whereas motivationally oriented job designs are associated with satisfaction-related outcomes. Moreover, these two designs typically have strong negative relationships with one another. Using the Minnesota Job Description Questionnaire within a pharmaceutical company, Morgeson & Campion (2002) outlined a process to minimize the tradeoff between employee satisfaction and efficiency: (*a*) define task clusters that form a natural work process, (*b*) quantify the task clusters in terms of their motivational (e.g., autonomy) and mechanistic (e.g., specialization) properties, and (*c*) combine task clusters to form a job core.

In summary, the importance of characteristics of jobs, particularly job autonomy, learning, performance, OCB, and satisfaction, has been shown. Autonomy is important, however, in only those jobs where the work is not routine or predictable. Unenriched routine jobs can result in job depression. A questionnaire with excellent psychometric properties now exists to assess job characteristics. Morgeson & Campion (2002) have shown that jobs have three major components: complexity, the social environment, and physical demands. Researchers have relatively ignored the latter two.

Locke & Latham (2004) noted that person-situation interaction studies generally focus on the effect of "strong" or constrained situations where employees feel less free to act as they want or "really are" as compared to when they are in "weak" situations. What has yet to be studied is strong versus weak personalities. As Bandura (1997) noted, people are not simply dropped into situations. Research is now needed on ways they choose, create, and change job characteristics, and the role of traits in doing so. For example, Rousseau (2004) is studying ways an employee directly shapes the terms of the employment arrangement by negotiating valued work conditions, and the effect that these idiosyncratic arrangements have on the person's motivation.

PERSON-CONTEXT FIT

By design, so-called goodness-of-fit models simultaneously consider individual and contextual variables. The basic assumption underlying these models is that the relationship between person variables (such as needs or values) and both individual and organizational outcomes is contingent upon various features of the environment (such as the job, the organization, or culture). These models originated with the seminal work of Shaffer (1953). He used Murray's (1938) needs to develop a goodness-of-fit model that takes into account individual differences in needs as well as the characteristics of jobs. The relationship between individual differences (e.g., needs or abilities) and both individual and organizational outcomes is contingent upon characteristics of the job or the organization as a whole (Kristof 1996). Thus, goodness-of-fit models consider individual and contextual variables simultaneously.

Cable & DeRue (2002), through a confirmatory factor analysis, found that employees differentiate among three varieties of fit: (*a*) person-environment fit (in which the focus is on organizational outcomes such as organizational identification and turnover decisions); (*b*) "needs-supplies" fit (in which the primary focus is on career-related outcomes such as employee satisfaction) and (*c*) job demands–employee abilities fit. The first two forms of fit result in benefits for both persons and organizations. Similarly, at the individual level, Holtom et al. (2002) found that matching employees' preferences for full- or part-time work status benefited job satisfaction, commitment, and retention as well as extra-role and in-role behaviors. Kristof-Brown et al. (2002) showed that three varieties of person-context fit could have simultaneous positive effects on job satisfaction. Edwards (1996) compared two versions ("supplies/values" and "demands/abilities") of fit models. He found that the former was more effective in predicting job dissatisfaction while the latter was better at predicting individual tension among graduate business students performing a managerial task. Hollenbeck et al. (2002) developed a model expanding notions of fit across several levels of analysis at once, and found that there is benefit in studying both the degree of fit between individuals and groups simultaneously with the degree of fit between those groups and their task environments.

The attraction-selection-attrition (ASA) model states that people gravitate to organizations and jobs that are congruent with their values. It addresses the dysfunctions of interpersonal homogeneity (e.g., the dangers of limited perspectives for decision making, groupthink, etc.) as well as the putative benefits such as high levels of interpersonal harmony and job satisfaction (Schneider et al. 2001). ASA offers a meso-level approach that integrates individual, organizational, and industry-wide parameters, including plausible hypotheses to explain mediating mechanisms.

A limitation of person-environment fit research is that interactions between the person and characteristics of the job or organization are usually treated as stable states rather than as dynamic. Moreover, there are no agreed-upon ways of assessing dynamic interactions (Borman et al. 2003). On balance, Hulin & Judge (2003) concluded that the conceptual advantages of goodness-of-fit models have yet to yield the significant gains that might be expected in understanding workplace affect and behavior. This may be the result of treating the environment as somehow independent of the employee, even though the employee affects the environment (cf. Bandura 2001). Additional research on person-environment fit is also needed on the extent to which performance, as opposed to satisfaction, is increased.

COGNITION

As Locke & Henne (1986) observed, cognition is inherent in motivation. The sensations of pleasure and pain are informational. Based on needs, values, and the situational context, people set goals and strategize ways to attain them. They develop assumptions of themselves and of their identity. This too affects their choice of goals and strategies. Thus, in this section we review goal setting as a theory, research on feedback and self-regulation, as well as expectancy and social cognitive theories.

Goal-Setting Theory

The content of goal-setting theory was developed inductively over a quarter of a century. Based on extensive laboratory and field experiments conducted in a wide variety of settings using many different tasks, Locke & Latham presented their first comprehensive statement of goal setting as a theory in 1990, in contrast to goal setting as a technique (Locke & Latham 1990, 1984, respectively). Research on goal-setting theory continues unabated. Mitchell & Daniels (2003, p. 231) concluded that it "is quite easily the single most dominant theory in the field, with over a thousand articles and reviews published on the topic in a little over 30 years."

Latham et al. (1994) investigated assigned versus participative goal setting in which people worked in a group (participative decision making; PDM) or alone on a complex task. No main effect was found for goal setting as the two conditions were yoked. But there was a main effect for decision making with performance significantly higher in the PDM than in the individual decision making condition.

The main effect of PDM on performance, however, was mediated by self-efficacy and task strategy.

Brown & Latham (2000) found that unionized telecommunication employees had high performance and high job satisfaction with their performance appraisal process when specific high goals were set. Moreover, self-efficacy correlated positively with subsequent performance. Lee et al. (1997) showed that if goals are perceived as impossible, offering a bonus for goal attainment can lower motivation. Klein et al. (1999) found that commitment is most important and relevant when the goal is difficult. Goal commitment measures have high reliability and validity (Klein et al. 2001, Seijts & Latham 2000a). Locke (2001) argued that the effects of incentives and personality affect performance through personal goals, goal commitment, and self-efficacy. Kirkpatrick & Locke (1996) found that goals and self-efficacy mediated the effect of visionary leadership on performance.

A meta-analysis by Zetik & Stuhlmacher (2002) revealed that negotiators who have specific, challenging, and conflicting goals consistently achieve higher profits than those with no goals. Consistent with goal-setting theory, the higher the goal, the higher the outcome. No effect was found for participation in setting goals.

Latham et al. (2002) updated the high performance cycle that explains how high goals lead to high performance, which in turn leads to rewards. Rewards result in high satisfaction as well as high self-efficacy regarding perceived ability to meet future challenges through the setting of even higher goals. High satisfaction is the result of high performance; it can lead to subsequent high performance only if it fosters organizational commitment, and only if the commitment is to specific challenging goals.

Contextual Conditions

Seijts & Latham (2000b) examined the applicability of goal-setting principles when personal goals are potentially incompatible with those of the group. They found that social dilemmas are boundary conditions for the usual positive effects of goal setting. Self-enhancing personal goals have a detrimental effect on a group's performance. Those in seven-person groups were more competitive than those in groups of three. Only when the individual's goal was compatible with the group's goal was the group's performance enhanced.

Winters & Latham (1996) replicated Kanfer & Ackerman's (1989) finding that on a task that is complex for people, urging them to do their best results in higher performance than does setting a specific high performance goal. A high learning goal in terms of discovering a specific number of ways to solve a complex task, however, led to the highest performance. A learning goal requires people to focus on understanding the task that is required of them, and developing a plan for performing it correctly. High performance is not always the result of high effort or persistence, but rather is due to cognitive understanding of the task and strategy or plan necessary for completing it (Frese & Zapf 1994).

Another impediment to the usual positive benefits of goal setting is environmental uncertainty, as the information required to set goals may become unavailable or

obsolete because of rapid ongoing environmental changes. Latham & Seijts (1999) found support for the assertion that performance errors on a dynamic task are often due to deficient decomposition of a distal goal into proximal goals. Proximal goals increase error management (Frese & Zapf 1994). Durham et al. (1997) found that on tasks that are complex for people, there are often goal-strategy interactions, with goal effects strongest when effective strategies are used. On a complex task, Seijts & Latham (2001) found that a distal learning goal in terms of discovering appropriate strategies resulted in higher self-efficacy and goal commitment than a distal performance goal. Those with high self-efficacy discovered and implemented task-relevant strategies. Mediation analyses showed that strategies had both a direct effect on self-efficacy and an indirect effect on performance. Setting proximal goals resulted in the greatest number of strategies generated. Similarly, Knight et al. (2001) reported that difficult goals affect performance through their effect on strategies. A job analysis can obviate the necessity of a learning goal by making explicit the behaviors necessary for attaining the goal (Brown & Latham 2002).

Audia et al. (2000) found that past success increased strategic decision makers' satisfaction, and satisfaction led them to increase their past strategies. Higher satisfaction was associated with higher self-efficacy and higher performance goals that increased dysfunctional persistence subsequent to a radical change in the environment.

Implementation Intentions and Auto-Motive Goals

A limitation of Locke & Latham's (1990, 2002) theory of consciously set goals is that it does not take into account that the subconscious is a storehouse of knowledge and values beyond that which is found in awareness at any given time. Arguably the most exciting research in this domain is occurring in social psychology. Gollwitzer (1999) found that goal intentions that are accompanied by implementation intentions on tasks that are complex for people lead to a higher rate of goal attainment than do goal intentions only. An implementation intention is a mental link that is created between a specific future situation and the intended goal-directed response. Thus, it is subordinate to goal intention. Implementation intentions specify when, where, and how behavior is likely to lead to goal attainment. Thus, holding an implementation intention commits the person to goal-directed behavior once the appropriate situation is encountered. By forming implementation intentions, people strategically switch from conscious effortful control of their goal-directed behavior to being automatically controlled by situational cues.

Bargh & Ferguson (2000) summarized research findings that show that automatic or nonconscious goals produce the same outcomes as conscious goal pursuit in information processing, memory storage, social behavior, and task performance, as well as in self-efficacy, self-evaluation, and mood state.

The effect of priming on nonconscious goal setting appears to be so powerful that it may raise ethical issues in the workplace. For example, Bargh et al. (2001)

found that a primed goal resulted in people continuing to work on a task after being told to stop doing so. On the positive side, primed goals were found to reduce prejudice (Bargh 1994).

Consistent with goal-setting theory, feedback is a moderator to guide behavior toward the automatized goal (Bargh & Ferguson 2000). The environment can activate a person's goal within a given situation as part of the preconscious analysis of the situation. The habitual plan for carrying out the goal is activated automatically without conscious planning. To the extent that environmental features become associated with the goal, the importance of conscious choice is removed entirely.

The *sine qua non* of these experiments is the participant's report of being "unaware." Psychologists should conduct double-blind experiments when they examine the external validity of these findings in organizational settings. An organizational setting may be sufficiently structured, relative to social settings, that it masks the effect of auto-motive goals. No study yet has compared the effect on job performance of subconscious priming with explicit goal setting.

The Galatea effect refers to the direct manipulation of a person's self-expectations (Eden & Sulimani 2002). Self-expectations are a mediator of the Pygmalion effect. Recent demonstrations of the effect have essentially been exercises in ways to increase self-efficacy through persuasion by a third party (e.g., the leader).

Feedback

Feedback is a moderator of goal-setting effects (Locke & Latham 2002). Active feedback seeking by new employees is related to high performance (Ashford & Black 1996). Ashford et al. (2003) stated that the processing of feedback likely involves monitoring the environment in an automatic preconscious fashion through visual, auditory, and relational cues. Significant changes in the environment or in the preconscious monitored cues themselves may cause a shift to the conscious seeking of feedback, and the conscious evaluation of the costs and benefits of doing so. Having sought feedback and resolving uncertainty associated with the interruption, the person returns to the automatic processing of information.

In their enumerative review, Ashford & Black (1996) also suggested three primary motives for feedback seeking: instrumental to attain a goal and perform well, ego-based to defend or enhance one's ego, and image-based to protect or enhance the impression others have of oneself. Unsolicited feedback may be discarded (Roberson et al. 2003) but, as the perceived value of feedback increases, people seek it actively and frequently (Tuckey et al. 2002).

In a study of salespeople, Brown et al. (2001) found that self-efficacy moderates the effectiveness of information seeking from supervisors and coworkers regarding role expectations and performance. Similarly, Heslin & Latham (2004) found that managers in Australia change their behavior in a positive direction in response to feedback when they have high self-efficacy to do so. Nease et al. (1999) found that self-efficacy tends to be influenced by numerous rather than single instances of feedback. Future studies should allow for a systematic analysis of quartiles to test

possible configured relationships. Self-efficacy may have a low positive effect, or even a negative effect at very low and very high levels of performance, and a high positive effect at moderate levels of performance (second and third quartiles).

Context, personality, and self-efficacy moderate feedback seeking. Williams et al. (1999) found that a feedback source that is perceived as supportive increases feedback seeking. However, people with low self-esteem lack the resilience to seek negative feedback because it may corroborate a negative self-appraisal (Bernichon et al. 2003). Tabernero & Wood (1999) and VandeWalle et al. (2000) found that people with an LGO disposition are more likely than those with a PGO disposition to process negative feedback on ways to improve performance. Perceived value of feedback seeking fully mediated the effect of LGO on actual feedback seeking in VandeWalle's study. LGO individuals are able to put negative feedback into perspective, and rebound from distress.

Given ongoing questions on the psychometric properties and factor structure of goal orientation scales (e.g., Button et al. 1996, VandeWalle 1997), given that an LGO correlates positively with effort, self-efficacy, and goal-setting level (VandeWalle et al. 2001), and given that an LGO is easily induced (Elliott & Harackiewicz 1996), it would appear that it is time to stop examining the influence of dispositional goal orientation and continue to examine it as a state. As VandeWalle (2003) stated, when the situation provides strong cues, the dispositional goal preference is overridden. This was shown empirically by Seijts et al. (2004). Thus, to select/exclude job applicants on the basis of a disposition that is acquired easily is of dubious value. Goal orientation is by no means a stable individual difference trait across situations. Dweck (1999) now believes that goal orientation is a domain-specific personality pattern. A person could have a PGO in one area of one's job and an LGO in another. Research emphasis should be placed on setting specific high learning goals and fostering an LGO on tasks that are complex for an individual.

Brown et al. (2001) found that people with high self-efficacy use feedback to increase motivation, task focus, and effort and to decrease anxiety and self-debilitating thoughts. Renn & Fedor (2001) reported that feedback seeking increases goal setting, which in turn increases quality and quantity of performance.

Kluger & DeNisi (1996) reported that the effect of feedback is variable; 38% of feedback interventions had negative effects on performance. They proposed that task-focused individuals who receive feedback are likely to maintain cognitive resources allocated to the task whereas ego-involved people allocate their cognitive resources away from the focal task to self, which in turn decreases the potential for future task success following feedback. Heimbeck et al. (2003) found that error management instructions (e.g., "I have made an error. Great!") help to keep attention on the task and away from the self.

Ilgen & Davis (2000) provided a model to aid practitioners in providing negative feedback. A meta-analysis by Kluger & DeNisi (1996), however, shows that feedback sign per se is not a moderator of the effect of feedback on performance. Yet, control theory (Carver et al. 2000) states that failure motivates more than success, whereas goal-setting (Locke & Latham 2002) and social cognitive theories

(Bandura 1997) state that positive feedback in relation to goal pursuit increases effort and goal difficulty levels. Drawing on Higgins' (2000) theory, Van-Dijk & Kluger (2004) conducted a series of experiments to resolve these contradictory predictions. They showed that people who receive either positive feedback under a promotion focus or negative feedback under a prevention focus have higher motivation than do people who receive feedback that is incongruent with their regulation focus. However, as regulatory focus was easily manipulated/induced, it is questionable whether regulatory focus should be considered as an individual difference variable, or whether feedback sign should be tailored to occupations as suggested by the authors (e.g., positive feedback for people in artistic and investigative jobs).

Self-Regulation

Goal setting and feedback seeking in relation to goals are the core of self-regulation (Latham & Locke 1991). Self-regulatory processes supporting goal implementation were examined by Gollwitzer & Bayer (1999). They offered a time perspective on goal striving and self-regulatory processes as mediating the effects of intentions on behavior. The latter consists of four phases: predecisional (choosing among competing wishes, based on expected value); preactional (forming implementation intentions in the service of the goal intention); actional (bringing goal direct actions to a successful end); and postactional (evaluation as to whether further action is necessary). Brandstatter et al. (2003) inferred from field interviews that the portion of variance accounted for in action initiation increases by adding expected value, goal intention step-by-step.

The level of complexity in Gollwitzer's work on self-regulation is in strong contrast with theory and research by industrial/organizational psychologists in North America. Lord & Levy (1994) suggested that self-regulation was an automatic data-driven process. De Shon et al. (1996) obtained empirical support for this assertion. They reported that self-regulation does not require a significant amount of attentional resources.

Roe (1999) and Frese & Fay (2001) argued the importance of personal initiative, defined as self-starting proactive behavior that overcomes barriers to the attainment of self-set goals. Employees high on personal initiative are able to change the complexity of and control over their workplaces even when they do not change jobs (Frese et al. 2000). Personal initiative, measured within the framework of a situational interview (Latham & Sue-Chan 1999), has adequate inter-rater and scale reliabilities as well as construct validity (Fay & Frese 2001).

Frayne & Geringer (2000) trained insurance salespeople in the use of self-management techniques. The result was an increase in performance because of increases in self-efficacy and outcome expectancies. Bandura (2001) noted that when people are confronted by setbacks, they engage in self-enabling or self-debilitating self-talk. Millman & Latham (2001) successfully used Meichenbaum's (1971) methodology to change the dysfunctional self-talk of displaced managers to increase their self-efficacy and subsequent reemployment. Morin & Latham (2000) used Richardson's (1967) methodology regarding mental practice to increase the

self-efficacy and communication skills of supervisors in interactions with their counterparts in the union.

Expectancy Theory

After reviewing the literature, Ambrose & Kulik (1999) concluded that little or no advances have been made in expectancy theory research in the past decade. Moreover, goals have been shown to mediate the effect of expectancy theory constructs on performance (Klein 1991). Thus, Ambrose & Kulik concluded that there are few theoretical or applied reasons for additional research on the application of this theory to organizational behavior. However, Lord et al. (2003) illustrated the potential value of neuropsychologically based models for explaining expectancy theory. A major criticism of the theory, they said, is that the computations it requires are unrealistically time-consuming and often exceed working memory capacity. Using simulation methodology and neural networks that operate implicitly, the authors reinterpreted the theory so that cognitive resources were not exhausted by simple computations.

Pritchard & Payne (2003) updated the motivational component of Naylor, Pritchard, & Ilgen's "NPI" theory (1980), which they stated is based on expectancy theory. Motivation is defined as the process that determines how energy is used to satisfy needs. Motivation is a resource-allocation process where time and energy are allocated to an array of tasks. Motivation includes the direction, intensity, and persistence of this allocation process. Motivation is seen as a future-oriented concept in that people anticipate the amount of need satisfaction that will occur when outcomes are received. The perceived relationship between applying energy to actions and the resulting need satisfaction influences how much of the energy pool is devoted to that action. Empirical studies are needed to test the predictive and explanatory power of this theory.

An intervention known as the productivity measurement and enhancement system (ProMes) is based directly on NPI theory, with emphasis on goal setting and feedback (Pritchard et al. 2002). It is a step-by-step process that (*a*) identifies organizational objectives, (*b*) measures the extent to which the objectives are met, and (*c*) provides a feedback system regarding performance. Productivity is defined as how well a system uses its resources to achieve its goals. ProMes has led to organizational-level productivity improvements in European countries regardless of differences in culture.

Social Cognitive Theory

With few exceptions (e.g., Komaki et al. 2000), little attention has been given since 1977 to the philosophy of behaviorism as an approach to motivation. This is due in large part to social cognitive theory (SCT) (Bandura 1977), one of the most significant theories to influence motivation research subsequent to the Korman et al. (1977) review. SCT research shows empirically that the effect of environmental antecedents and consequences are mediated by cognitive variables. SCT

emphasizes dual control systems in the self-regulation of motivation, namely a proactive discrepancy production system that works in concert with a reactive discrepancy reduction system (Bandura 2001). Thus, people are motivated by the foresight of goals, not just the hindsight of shortfalls. A specific high goal creates negative discrepancies to be mastered. Effort and resources are mobilized based on anticipatory estimates of what is necessary for goal attainment. Therefore, at the outset a goal can enhance performance before any feedback is provided. Upon goal attainment, people with high self-efficacy set an even higher goal because this creates new motivating discrepancies to be mastered. If the goal is not attained, self-efficacy and goal commitment predict whether people redouble their effort, react apathetically, or become despondent. Meta-analyses by Sadri & Robertson (1993) as well as Stajkovic & Luthans (1998) of wide-ranging methodological and analytic work-related laboratory and field studies provide overwhelming evidence that efficacy beliefs influence the level of motivation and performance. Colquitt et al. (2000) found that self-efficacy relates to transfer of training independent of skill acquisition.

Nevertheless, Vancouver and colleagues (Vancouver et al. 2001) have attacked SCT. In a laboratory experiment, they showed that as people near their goal, they slacken their effort and consequently perform poorly. High self-efficacy, they said, creates complacency that undermines performance. Based on nine meta-analyses conducted by other scholars across diverse spheres of functioning, Bandura & Locke (2003) concluded that this contradictory finding was an artifact of the particular laboratory task that was used.

This is not to say that high self-efficacy is always desirable. It can be the source of inappropriate task persistence (Whyte et al. 1997). The correction for the downside of seeking success, however, is not to diminish self-efficacy. The correction likely lies in developing ways of identifying ongoing practices that have exceeded the point of utility. The necessity for doing so is evident in the airline and trucking industries. Dysfunctional persistence was shown to be the result of high goals, self-efficacy, and satisfaction with past performance. The result was less seeking of information after a radical environmental change (Audia et al. 2000).

SCT rejects the trait approach to human behavior. Perceived self-efficacy and outcome expectancies are not contextless global dispositions assessed by an omnibus test (Bandura 2002). Nevertheless, Chen et al. (2004) have validated a measure of general rather than task-specific self-efficacy. They found that self-efficacy is distinct from self-esteem in predicting important outcomes in organizational settings. Eden (2001) showed that this measure, namely a person's belief in the efficacy of the tools available to perform the requisite work, can be as motivating as self-efficacy.

Bandura (personal communication, 2003) disagrees strongly with the development of this type of scale: "There is no all purpose specific self-efficacy scale. It is a contradiction in terms. Specific scales are tailored to particular domains of functioning. An already developed specific scale is usable in other studies only if the activity domain is the same as the one on which the scale was developed."

AFFECT/EMOTION

Mowday & Sutton (1993) argued against an overemphasis on cognition in the study of motivation. This is because moods and emotions influence the attainment of complex long-term goals (Lord & Kanfer 2002) and are interrelated with the other constructs we have discussed. Brief & Weiss (2002) devoted their *ARP* chapter to this subject matter. Hence, we report only a few recently published studies.

Erez & Isen (2002) showed that people with higher levels of positive affect exhibited higher levels of persistence, effort, self-reported motivation, and performance on two different tasks. Positive affect was associated with higher levels of valence and expectancy beliefs at these tasks as well as higher levels of instrumentality beliefs at one of them. Seo et al. (2004) offered a conceptual model to propose that affect can have direct effects on direction, intensity, and persistence, as well as indirect effects on judgments about expectancy, utility and progress, and goal characteristics.

In a study of university administrative assistants, Grandey (2003) combined notions from dramaturgy with a goodness-of-fit perspective and hypothesized that different levels of acting on the job can have different effects on employees' levels of emotional exhaustion and successful affective delivery to customers. Independent ratings of affective delivery were positively related to deep acting (which entails deliberately taking on the emotions required at the moment on a job), but negatively related to surface acting (which is seen as false and phony to customers/clients). Further, surface acting, but not deep acting, was related to self-reported stress.

In a study of creative designs for helicopters, George & Zhou (2002) found that negative rather than positive mood correlated significantly with creativity. Negative moods signal that the status quo is problematic; hence employees exert effort to generate useful ideas rather than stop because of their satisfaction with the status quo. The mediator is a meta-mood process, namely clarity of one's feelings. The moderating contextual variable is an organizational culture in which recognition and rewards are given for creativity. When clarity as to one's feelings as well as rewards are absent, negative mood appears to have little association with creativity.

Organizational Justice

A significant body of research on work motivation that has appeared since Korman et al.'s 1977 review is conceptualizations of organizational justice (Greenberg 1987). These studies, based on sociolegal research of disputants' reactions to a conflict resolution, supplement Adam's equity theory, the fundamental idea of which is that individuals develop beliefs about the inputs they provide in their employment relationship as well as about the outcomes (in the form of tangible and intangible compensation and benefits) they receive in return, and they form attitudes about the ratio between inputs and outcomes in relation to the corresponding ratios they perceive among comparison others. The premise of organizational

justice is that fair procedures enhance employee acceptance of organizational outcomes. Organizational justice is as important to leadership (e.g., De Cremer & Van Knippenberg 2002, Skarlicki & Latham 1997) as it is to employee motivation in its second premise, namely that in addition to being fair, leaders must be perceived as fair with regard to outcomes and processes that serve an important psychological need (Greenberg 1990). When employees feel unfairly treated they respond both affectively (e.g., low commitment) and behaviorally (e.g., turnover).

Harlos & Pinder (1999) reported the results of a qualitative study of 33 individuals who reported having been unjustly treated in the workplace. Interactional injustice was defined as "perceived interpersonal mistreatment by a hierarchical superior or authority figure," and systemic injustice, defined as "perceptions of unfairness involving the larger organizational context within which work relationships are enacted." Emotions were antecedents and consequences of injustice experiences. Superiors' expressions of anger and their widespread lack of emotion were common causes of emotional responses by employees. Fear, anger, hopelessness, sadness, excitement, and decreased emotionality were common emotional consequences of perceived injustice. These same emotions, in addition to several others such as rage, irritation, shame, embarrassment, guilt, dread, and cynicism appeared in the accounts of many wronged individuals. Subsequently, based in part on incidents in the Canadian military, Pinder & Harlos (2002) developed a conceptual model of the relationship between being victimized by injustice and employee silence. Two forms of silence—quiescence and acquiescence—are proposed, along with hypotheses regarding how wronged employees move into and between these two states.

Cropanzano et al. (2001) discussed how workers formulate appraisals of justice, why they do so, and what is being appraised. Lind's (2001) fairness heuristic theory suggests that decisions can be automatic as well as deliberate. Folger's (1998) moral virtues model adds ethical to the instrumental and relational models of justice. Justice matters to people because it facilitates maximization of personal gain, it provides information as to their value to the leader or team, and it is aligned with a basic respect for human worth (Ambrose 2002, Cropanzano et al. 2001). Van den Bos (2002) showed that the same event could be evaluated more or less severely depending on the social context. Schminke et al. (2002) found that organizational structure (decentralization, formalization, participation) affects justice perceptions of only those employees at lower rather than higher levels of the organization.

Controversy continues regarding the structure of justice. Three separate meta-analyses concluded that procedural justice and interactional justice are separate constructs (Bartle & Hayes 1999, Colquitt et al. 2001, Cohen-Charash & Spector 2000). Nevertheless, Locke (2003) argued that the latter concept should be discarded because no single term can capture all the dimensions that interactional justice is said to assess.

A second controversy is whether event and entity perceptions of justice have the same structure. The former refers to ways that employees react to specific

occurrences (e.g., pay raise) within the workplace. The entity paradigm involves an appraisal of the fairness of a person, group, or organization as a whole. Event perceptions may mediate the relation between the situational elements and global justice evaluations. Entities may cause events to be perceived as unfair. As Cropanzano et al. (2001) noted, the distinction between events and social entities suggests that researchers must make explicit what is being measured.

The dependent variables that are influenced by employee perceptions of fairness are not limited to traditional measures of job performance, citizenship behavior, or job attitudes. Additional variables affected by fairness perceptions include theft (Greenberg 2002), exploitation and self-sacrificing decision allocations (Turillo et al. 2002), retribution (Mclean Parks 1997), the aesthetically pleasing attributes of workplace revenge (Trip et al. 2002), sabotage (Ambrose et al. 2002), workplace retaliation (Skarlicki & Folger 1997), and reactions to being laid off (Skarlicki et al. 1998). In short, when employees feel unfairly treated, they respond both affectively (e.g., low commitment) and behaviorally (e.g., decrease in helping behavior). Rousseau (1995) has studied affect and behavior from the standpoint of idiosyncratic psychological contracts and the effect they have on trust in the workplace.

CONCLUSIONS

Conclusions emanating from this review are tenfold. First, three theories dominate the motivation literature: goal-setting, social cognitive, and organizational justice.[3] The latter two emerged subsequent to the Korman et al. (1977) review. In the ensuing period, behaviorism and expectancy theory have been overwhelmed by goal-setting and social cognitive theories, while equity theory has given way to conceptualizations of organizational justice. Second, whereas theory and research in the third quarter of the twentieth century focused almost exclusively on cognition (Latham & Budworth 2004), this is no longer true. Today there is recognition of the importance of affect and behavior as well as the reciprocal interactions among cognition, affect, and behavior. Research on affect is blossoming. Third, the ability to predict, understand, and influence motivation in the workplace has increased significantly as a result of the attention that has been given to all rather than only a few aspects of an employee's motivation. There is now ongoing research on needs, values, cognition (particularly goals), affect (particularly emotions), and behavior. Fourth, whereas the dependent variables historically studied

[3]Strictly speaking, there is currently no single theory of organizational justice; rather, there are multiple conceptualizations of justice in the work place. Hence, Greenberg (2004, personal communication) prefers the term organizational justice to describe the large rapidly growing body of work in this area that as yet does not reflect a unified theoretical approach.

were limited to traditional measures of job performance and satisfaction, today's dependent variables range from citizenship to counterproductive behavior. Fifth, Cronbach's (1957) plea a half century ago for experimental and correlational psychology to combine forces has been heeded. Researchers have done a creditable job of explaining the mechanisms, particularly individual differences (traits), that mediate between independent and dependent variables. Sixth, the importance of context to motivation has been recognized much more in recent years than in the past; so much so that an additional chapter could be devoted to it. Significant advances have been made in understanding how national culture, characteristics of the job itself, and the fit between the person and the organization influence motivation. Seventh, these advances in the study of motivation may reflect the fact that this subject is no longer restricted to the research findings of North Americans. Today motivation is studied empirically by scholars worldwide (e.g., Africa, Asia, Australia, and Europe). Eighth, behavioral scientists in the latter half of the twentieth century responded positively to William James' exhortation to systematically study consciousness. At the dawn of the present century they are poised to expand their domain to the study of the pre- or subconscious. Ninth, the antagonisms among theorists that existed throughout much of the twentieth century have either disappeared or have been minimized. Much of the energy expended on theory destruction has been replaced by theory construction aimed at building upon and enhancing what is already known. Relative to the 1960s to 1980s, consensus rather than controversy characterizes the field. Tenth, the nomological nets related to work motivation constructs are thicker and tighter than ever before, but the size of the aggregate net (metaphorically speaking) is not growing at a rate commensurate with the energy that scholars and practitioners have invested since 1977. Few fundamentally new models of work motivation have appeared with the groundbreaking impact that Maslow's need theory, Vroom's expectancy theory, or Locke & Latham's goal-setting theory had when they were initially promulgated. Accordingly, Steers (2001) recently recognized the limitations of current theory and research in work motivation, and issued a call for groundbreaking papers for publication in a special edition of the *Academy of Management Review* in 2004. It is too soon to assess whether any of the papers published in response to his call will provide the new insights he sought and that we desire.

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LITERATURE CITED

Ajila CO. 1997. Maslow's hierarchy of needs theory: applicability to the Nigerian industrial setting. *IFE Psychol.* 5:162–74

Allport GW. 1951. Basic principles in improving human relations. In *Cultural Groups and Human Relations*, ed. KW Bigelow, pp. 8–28. Oxford, UK: Bur. Publ.

Ambrose ML. 2002. Contemporary justice research: a new look at familiar questions. *Organ. Behav. Hum. Decis. Process.* 89:803–12

Ambrose ML, Kulik CT. 1999. Old friends, new faces: motivation research in the 1990s. *J. Manag.* 25(3):231–92

Ambrose ML, Seabright MA, Schminke M. 2002. Sabotage in the workplace: the role of organizational justice. *Organ. Behav. Hum. Decis. Process.* 89:947–65

Ashford SJ, Black JS. 1996. Proactivity during organizational entry: the role of desire for control. *J. Appl. Psychol.* 81:199–214

Ashford SJ, Blatt R, VandeWalle D. 2003. Reflections on the looking glass: a review of research on feedback-seeking behavior in organizations. *J. Manag.* 29:773–79

Audia PG, Locke EA, Smith KG. 2000. The paradox of success: an archival and a laboratory study of strategic persistence following radical environmental change. *Acad. Manag. J.* 43:837–53

Bandura A. 1977. *Social Learning Theory*. Englewood Cliffs, NJ: Prentice-Hall

Bandura A. 1997. *Self-efficacy: The Exercise of Control.* Stanford, CA: Freeman

Bandura A. 2001. Social cognitive theory: an agentic perspective. *Annu. Rev. Psychol.* 52:1–26

Bandura A. 2002. Social cognitive theory in cultural context. *Appl. Psychol.: Int. Rev.* 51: 269–90

Bandura A, Locke EA. 2003. Negative self efficacy and goals revisited. *J. Appl. Psychol.* 88:87–99

Bargh JA. 1994. The four horseman of automaticity: awareness, efficiency, intention, and control in social cognition. In *Handbook of Social Cognition*, ed. RS Wyer Jr, TK Srull, pp. 1–40. Hillsdale, NJ: Erlbaum

Bargh JA, Ferguson MJ. 2000. Beyond behaviorism: on the automaticity of higher mental processes. *Psychol. Bull.* 126:925–45

Bargh JA, Gollwitzer PM, Lee-Chai A, Barndollar K, Tröetschel R. 2001. The automated will: nonconscious activation and pursuit of behavioral goals. *J. Personal. Soc. Psychol.* 81:1014–27

Barrick MR, Mount MK, Judge TA. 2001. Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *Int. J. Sel. Assess.* 9:9–30

Bartle SA, Hayes BC. 1999. *Organizational justice and work outcomes: a meta-analysis*. Presented at Annu. Meet. Soc. Indust. Organ. Psychol., Atlanta, GA

Baum JR, Locke EA. 2004. The relationship of entrepreneurial traits, skill and motivation to subsequent venture. *J. Appl. Psychol.* 89: 587–99

Baum JR, Locke EA, Smith KG. 2001. A multidimensional model of venture growth. *Acad. Manag. J.* 44:292–303

Bernichon T, Cook KE, Brown JD. 2003. Seeking self-evaluative feedback: the interactive role of global self-esteem and specific self-views. *J. Personal. Soc. Psychol.* 84:194–204

Borman WC, Ilgen DR, Klimoski RJ. 2003. Stability and change in industrial and organizational psychology. In *Handbook of Psychology, Vol. 12: Industrial and Organizational Psychology,* ed. WC Borman, DR Ilgen, RJ Klimoski, pp. 1–17. New York: Wiley

Brandstatter V, Heimbeck D, Malzacher JT, Frese M. 2003. Goals need implementation intentions: the model of action phases tested in the applied setting of continuing education. *Eur. J. Work Organ. Psychol.* 12:37–59

Brett JF, VandeWalle D. 1999. Goal orientation and goal content as predictors of performance in a training program. *J. Appl. Psychol.* 84:863–73

Brief AP, Weiss HM. 2002. Organizational behavior: affect in the workplace. *Annu. Rev. Psychol.* 53:279–307

Brown SP, Ganesan S, Challagalla G. 2001. Self-efficacy as a moderator of information-seeking effectiveness. *J. Appl. Psychol.* 86: 1043–51

Brown TC, Latham GP. 2000. The effects of goal setting and self-instruction training on the performance of unionized employees. *Ind. Relat.* 55:80–94

Brown TC, Latham GP. 2002. The effects of behavioural outcome goals, learning goals, and urging people to do their best on an individual's teamwork behaviour in a group problem-solving task. *Can. J. Behav. Sci.* 34: 276–85

Button SB, Mathieu JE, Zajac DM. 1996. Goal orientation in organizational research: a conceptual and empirical foundation. *Organ. Behav. Hum. Decis. Process.* 67:26–48

Cable JP, DeRue DS. 2002. The convergent and discriminant validity of subjective fit perceptions. *J. Appl. Psychol.* 87:875–84

Carver CS, Sutton SK, Scheier MF. 2000. Action, emotion, and personality: emerging conceptual integration. *Personal. Soc. Psychol. Bull.* 26:741–51

Chen G, Gully SM, Eden D. 2004. General self-efficacy and self-esteem: toward theoretical and empirical distinction between correlated self-evaluations. *J. Organ. Behav.* 25:375–95

Cohen-Charash Y, Spector PE. 2000. The role of justice in organizations: a meta-analysis. *Organ. Behav. Hum. Decis. Process.* 86: 287–321

Colquitt JA, Conlon DE, Wesson MJ, Porter C, Ng KY. 2001. Justice at the millennium: a meta-analysis of 25 years of organizational justice research. *J. Appl. Psychol.* 86:425–45

Colquitt JA, LePine JA, Poe RA. 2000. Toward an integrative theory of training movitation: a meta-analytic analysis of 20 years of research. *J. Appl. Psychol.* 85:678–707

Cordery J. 1997. Reinventing work design theory and practice. *Aust. Psychol.* 32:185–89

Cote S, Moskowitz DS. 1998. On the dynamic covariation between interpersonal behavior and affect: prediction from neuroticism, extraversion, and agreeableness. *J. Personal. Soc. Psychol.* 75:1032–46

Cronbach LJ. 1957. The two disciplines of scientific psychology. *Am. Psychol.* 12:671–84

Cropanzano R, Byrne ZS, Bobocel DR, Rupp DE. 2001. Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *J. Vocat. Behav.* 58:164–209

Day DV, Schleicher DJ. 2004. Self-monitoring at work: a motive-based perspective. *J. Personal.* In press

Day DV, Schleicher DJ, Unckless AL, Hiller NJ. 2002. Self-monitoring personality at work: a meta-analytic investigation of construct validity. *J. Appl. Psychol.* 87:390–401

De Cremer D, van Knippenberg D. 2002. How do leaders promote cooperation? The effects of charisma and procedural fairness. *J. Appl. Psychol.* 87:858–66

DeShon RP, Brown KG, Greenis JL. 1996. Does self-regulation require cognitive resources? Evaluation of resource allocation models of goal setting. *J. Appl. Psychol.* 81:595–608

Durham CC, Knight D, Locke EA. 1997. Effects of leader role, team-set goal difficulty, efficacy, and tactics on team effectiveness. *Organ. Behav. Hum. Decis. Process.* 72:203–31

Dweck CS. 1999. *Self-theories: Their Role in Motivation, Personality, and Development*. Philadelphia, PA: Psychol. Press

Earley CP. 2002. Redefining interactions across cultures and organizations: moving forward with cultural intelligence. In *Research in Organizational Behavior: An Annual Series of Analytical Essays and Critical Reviews,* ed. BM Staw, RM Kramer, pp. 271–99. Kidlington, UK: Elsevier

Eden D. 2001. Means efficacy: external sources of general and specific efficacy. See Erez & Kleinbeck 2001, pp. 73–85

Eden D, Sulimani R. 2002. Pygmalion training made effective: greater mastery through

augmentation of self-efficacy and means efficacy. In *Transformational and Charismatic Leadership: The Road Ahead*, ed. BJ Avolio, FJ Yammarino, pp. 287–308. Oxford, UK: Elsevier

Edwards JR. 1996. An examination of competing versions of the person-environment fit approach to stress. *Acad. Manag. J.* 39:292–339

Edwards JR, Scully JA, Brtek MD. 2000. The nature and outcomes of work: a replication and extension of interdisciplinary work-design research. *J. Appl. Psychol.* 85:860–68

Elliot AJ, Harackiewicz M. 1996. Approach and avoidance achievement goals and intrinsic motivation: a mediational analysis. *J. Personal. Soc. Psychol.* 70:461–75

Erez A, Isen AM. 2002. The influence of positive affect on components of expectancy motivation. *J. Appl. Psychol.* 87:1055–67

Erez M. 2000. Make management practice fit the national culture. In *Handbook of Principles of Organizational Behavior*, ed. EA Locke, pp. 418–34. Oxford: Blackwell

Erez M, Earley PC. 1993. *Culture, Self-identity, and Work*. New York: Oxford Univ. Press

Erez M, Judge TA. 2001. Relationship of core self-evaluations to goal setting, motivation and performance. *J. Appl. Psychol.* 86:1270–79

Erez M, Kleinbeck U, Thierry H, eds. 2001. *Work Motivation in the Context of a Globalizing Economy*. Mahwah, NJ: Erlbaum

Fay D, Frese M. 2001. The concept of personal initiative: an overview of validity studies. *Hum. Perform.* 14:97–124

Folger R. 1998. Fairness as a moral virtue. In *Managerial Ethics: Morally Managing People and Processes,* ed. M Schminke, pp. 13–34. Mahwah, NJ: Erlbaum

Foreman P, Murphy G. 1996. Work values and expectancies in occupational rehabilitation: the role of cognitive variables in the return-to-work process. *J. Rehabil.* 62:44–49

Frayne CA, Geringer JM. 2000. Self-management training for improving job performance: a field experiment involving salespeople. *J. Appl. Psychol.* 85:361–72

Frese M, Fay D. 2001. Personal Initiative (PI): the theoretical concept and empirical findings. In *Research in Organizational Behavior*, ed. BM Staw, RM Sutton, 23:133–87. Amsterdam: Elsevier

Frese M, Zapf D. 1994. Action as the core of work psychology: a German approach. In *Handbook of Industrial and Organizational Psychology*, ed. HC Triandis, MD Dunnette, 4:271–340. Palo Alto, CA: Consult. Psychol.

Frese M, Krause SI, Friedrich C. 2000. Microenterprises in Zimbabwe: the function of sociodemographic factors, psychological strategies, personal initiative, and goal setting for entrepreneurial success. In *Success and Failure of Microbusiness Owners in Africa: A Psychological Approach*, ed. M Frese. Westport, CT: Quorum/Greenwood

Furnham A, Forde L, Ferrari K. 1999. Personality and work motivation. *Personal. Indiv. Differ.* 26:1035–43

Gellatly IR. 1996. Conscientiousness and task performance: test of a cognitive model. *J. Appl. Psychol.* 81:474–82

George JM, Zhou J. 2002. Understanding when bad moods foster creativity and good ones don't: the role of context and clarity of feelings. *J. Appl. Psychol.* 87:687–97

Gollwitzer PM. 1999. Implementation intentions and effective goal pursuit: strong effects of simple plans. *Am. Psychol.* 54:493–503

Gollwitzer PM, Bayer U. 1989. Deliberative versus implementational mindsets in the control of action. In *Dual-Process Theories in Social Psychology*, ed. S Chaiken, Y Trope, pp. 403–22. New York: Guilford

Grandey AA. 2003. When "the show must go on": surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery. *Acad. Manag. J.* 46:86–96

Greenberg J. 1987. A taxonomy of organizational justice theories. *Acad. Manag. Rev.* 12: 9–22

Greenberg J. 1990. Looking vs. being fair: managing impressions of organizational justice. In *Research in Organizational Behavior*,

ed. BM Staw, LL Cummings, 12:111–57. Greenwich, CT: JAI

Greenberg J. 2002. Who stole the money, and when? Individual and situational determinants of employee theft. *Organ. Behav. Hum. Decis. Process.* 89:985–1003

Gustafson SB, Mumford MD. 1995. Personal style and person environment fit: a pattern approach. *J. Vocat. Behav.* 46:163–88

Harlos KP, Pinder CC. 1999. Patterns of organizational justice: a taxonomy of what employees regard as unjust. *Adv. Qual. Organ. Res.* 2:97–126

Haslam SA, Powell C, Turner JC. 2000. Social identity, self-categorization, and work motivation: rethinking the contribution of the group to positive and sustainable organizational outcomes. *Appl. Psychol.: Int. Rev.* 49:319–39

Heggestad ED, Kanfer R. 1999. *Individual differences in trait motivation: development of the Motivational Trait Questionnaire.* Poster presented at Annu. Meet. Soc. Indust. Organ. Psychol., Atlanta, GA

Heimbeck D, Frese M, Sonnentag S, Keith N. 2003. Integrating errors in the training process: the function of error management instructions and the role of goal orientation. *Pers. Psychol.* 56:333–61

Heslin P, Latham GP. 2004. The effect of upward feedback on managerial behavior. *Appl. Psychol.: Int. Rev.* 53:23–37

Higgins ET. 2000. Making a good decision: value from fit. *Am. Psychol.* 13:141–54

Hogan R, Curphy GJ, Hogan J. 1994. What we know about leadership: effectiveness of personality. *Am. Psychol.* 49:493–504

Hogan R, Shelton D. 1998. A socioanalytic perspective of job performance. *Hum. Perform.* 11:129–44

Hogan R, Warremfeltz R. 2003. Educating the modern manager. *Acad. Manag. J.* 2:74–84

Hollenbeck JR, Moon H, Ellis APJ, West BJ, Ilgen DR, et al. 2002. Structural contingency theory and individual differences: examination of external and internal person-team fit. *J. Appl. Psychol.* 87:599–606

Holtom BC, Lee TW, Tidd ST. 2002. The relationship between work status congruence and work-related attitudes and behaviors. *J. Appl. Psychol.* 87:903–15

Houkes I, Janssen PPM, deJonge J, Nijhuis FJN. 2001. Specific relationships between work characteristics and intrinsic work motivation, burnout and turnover intention: a multi-sample analysis. *Eur. J. Work Organ. Psychol.* 10:1–23

Hulin CL, Judge TA. 2003. Job attitudes. In *Handbook of Psychology: Industrial and Organizational Psychology*, ed.WC Borman, DR Ilgen, pp. 255–76. New York: Wiley

Ilgen DR, Davis CA. 2000. Bearing bad news: reaction to negative performance feedback. *Appl. Psychol.: Int. Rev.* 49:550–65

Judge TA, Bono JE. 2001. Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: a meta-analysis. *J. Appl. Psychol.* 86:80–92

Judge TA, Locke EA, Durham CC. 1997. The dispositional causes of job satisfaction: a core self-evaluation approach. *Res. Organ. Behav.* 19:151–88

Kamalanabhan TJ, Uma J, Vasanthi M. 1999. A dephi study of motivational profile of scientists in research and development organizations. *Psychol. Rep.* 85:743–49

Kanfer R. 1991. Motivation theory and industrial and organizational psychology. In *Handbook of Industrial and Organizational Psychology*. ed. MD Dunnette, LM Hough, pp. 75–170. Palo Alto, CA: Consult. Psychol.

Kanfer R, Ackerman PL. 1989. Motivation and cognitive abilities: an integrative/aptitude-treatment interaction approach to skill acquisition. *J. Appl. Psychol.* 74:657–90

Kanfer R, Ackerman PL. 2000. Individual differences in work motivation: further explorations of a trait framework. *Appl. Psychol.: Int. Rev.* 49:470–82

Kanfer R, Heggestad ED. 1997. Motivational traits and skills: a person-centered approach to work motivation. *Res. Organ. Behav.* 19:1–56

Kanfer R, Kantrowitz TM. 2002. Emotion regulation: command and control of emotion in work life. See Lord et al. 2002, pp. 433–72

Kanfer R, Wanberg CR, Kantrowitz TM. 2001. Job search and employment: a personality-motivational analysis and meta-analytic review. *J. Appl. Psychol.* 86:837–55

Kirkpatrick SA, Locke EA. 1996. Direct and indirect effects of three core charismatic leadership components on performance and attitudes. *J. Appl. Psychol.* 81:36–51

Klein HJ. 1991. Further evidence on the relationship between goal setting and expectancy theories. *Organ. Behav. Hum. Decis. Process.* 49:230–57

Klein HJ, Wesson MJ, Hollenbeck JR, Alge BJ. 1999. Goal commitment and the goal-setting process: conceptual clarification and empirical synthesis. *J. Appl. Psychol.* 84:885–96

Klein HJ, Wesson MJ, Hollenbeck JR, Wright PM, DeShon RP. 2001. The assessment of goal commitment: a measurement model meta-analysis. *Organ. Behav. Hum. Decis. Process.* 85:32–55

Kluger AN, Tikochinsky J. 2001. The error of accepting the "theoretical" null hypothesis: the rise, fall, and resurrection of commonsense hypotheses in psychology. *Psychol. Bull.* 127:408–23

Kluger AV, DeNisi A. 1996. The effects of feedback interventions on performance: a historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychol. Bull.* 119:254–84

Knight D, Durham CC, Locke EA. 2001. The relationship of team goals, incentives, and efficacy to strategic risk, tactical implementation, and performance. *Acad. Manag. J.* 44: 623–39

Komaki JL, Coombs T, Redding TP Jr, Schepman S. 2000. A rich and rigorous examination of applied behavior analysis research in the world of work. In *International Review of Industrial and Organizational Psychology 2000*, ed. CL Cooper, IT Robertson, pp. 265–367. Sussex, UK: Wiley

Korman AK, Greenhaus JH, Badin IJ. 1977. Personnel attitudes and motivation. *Annu. Rev. Psychol.* 28:175–96

Kristof AL. 1996. Person-environment fit: an integrative review of its conceptualizations, measurement, and implications. *Pers. Psychol.* 49:1–49

Kristof-Brown AL, Jansen KJ, Colbert AE. 2002. A policy-capturing study of simultaneous effects of fit with jobs, groups, and organizations. *J. Appl. Psychol.* 87: 985–93

Kurman J. 2001. Self-enhancement: Is it restricted to individualistic cultures? *Personal. Soc. Psychol. Bull.* 27:1705–16

Latham GP, Budworth M. 2004. The study of employee motivation in the 20th century. In *The Science and Practice of Industrial-Organizational Psychology: The First Hundred Years*, ed. L Koppes. Mahwah, NJ: Erlbaum. In press

Latham GP, Locke EA. 1991. Self regulation through goal setting. *Organ. Behav. Hum. Decis. Process.* 50:212–47

Latham GP, Locke EA, Fassina NE. 2002. The high performance cycle: standing the test of time. In *The Psychological Management of Individual Performance. A Handbook in the Psychology of Management in Organizations,* ed. S Sonnentag, pp. 201–8. Chichester: Wiley

Latham GP, Seijts GH. 1999. The effects of proximal and distal goals on performance on a moderately complex task. *J. Organ. Behav.* 20:421–29

Latham GP, Sue-Chan C. 1999. A meta-analysis of the situational interview: an enumerative review of reasons for its validity. *Can. Psychol.* 40:56–67

Latham GP, Winters DC, Locke EA. 1994. Cognitive and motivational effects of participation: a mediator study. *J. Organ. Behav.* 15:49–63

Lee TW, Locke EA, Phan SH. 1997. Explaining the assigned goal-incentive interaction: the role of self-efficacy and personal goals. *J. Manag.* 23:541–59

Leung K. 2001. Different carrots for different rabbits: effects of individualism-collectivism

and power distance on work motivation. See Erez & Kleinbeck 2001, pp. 329–39

Lind EA. 2001. Fairness heuristic theory: justice judgments as pivotal cognitions in organizational relations. In *Advances in Organizational Justice,* ed. J Greenberg, R Cropanzano, pp. 56–88. Stanford, CA: Stanford Univ. Press

Locke EA. 1991. The motivation sequence, the motivation hub, and the motivation core. *Organ. Behav. Hum. Decis. Process.* 50:288–99

Locke EA 2001. Self-set goals and self-efficacy as mediators of incentives and personality. See Erez & Kleinbeck 2001, pp. 13–26

Locke EA. 2003. Foundations for a theory of leadership. In *The Future of Leadership Development*, ed. SE Murphy, RE Riggio, pp. 29–46. Mahwah, NJ: Erlbaum

Locke EA, Henne D. 1986. Work motivation theories. In *International Review of Industrial and Organizational Psychology*, ed. CL Cooper, I Robertson, pp. 1–36. New York: Wiley

Locke EA, Latham, GP. 1984. *Goal Setting: A Motivational Technique That Works*. Englewood Cliffs, NJ: Prentice Hall

Locke EA, Latham GP. 1990. *A Theory of Goal Setting and Task Performance*. Englewood Cliffs, NJ: Prentice Hall

Locke EA, Latham GP. 2002. Building a practically useful theory of goal setting and task motivation: a 35-year odyssey. *Am. Psychol.* 57:705–17

Locke EA, Latham GP. 2004. What should we do about motivation theory? Six recommendations for the twenty-first century. *Acad. Manag. Rev.* 29:388–404

Lord RG, Hanges PJ, Godfrey EG. 2003. Integrating neural networks into decision-making and motivational theory: rethinking VIE theory. *Can. Psychol.* 44:21–38

Lord RG, Harvey JL. 2002. An information processing framework for emotional regulation. See Lord et al. 2002, pp. 115–46

Lord RG, Kanfer PE. 2002. Emotions and organizational behavior. See Lord et al. 2002, pp. 5–19

Lord RG, Klimoski RJ, Kanfer R, eds. 2002. *Emotions in the Workplace: Understanding the Structure and Role of Emotions in Organizational Behavior*. San Francisco, CA: Jossey-Bass

Lord RG, Levy PE. 1994. Moving from cognition to action: a control theory perspective. *Appl. Psychol.: Int. Rev.* 43:335–67

Malka A, Chatman JA. 2003. Intrinsic and extrinsic orientations as moderators of the effect of annual income on subjective well-being: a longitudinal study. *Personal. Soc. Psychol. Bull.* 29:737–46

Maslow AH. 1943. A theory of human motivation. *Psychol. Rev.* 50:370–96

McGregor DM. 1960. *The Human Side of the Enterprise.* New York: McGraw-Hill

Mclean Parks J. 1997. The fourth arm of justice: the art and science of revenge. In *Research on Negotiations in Organizations*, ed. RJ Lewicki, RJ Bies, pp. 113–44. Greenwich, CT: Elsevier Science/JAI

Meichenbaum DH. 1971. Cognitive factors in behavior modification: modifying what clients say to themselves. *Cat. Select. Doc. Psychol.* 27:14–15

Millman Z, Latham GP. 2001. Increasing reemployment through training in verbal self-guidance. In *Work Motivation in the Context of a Globalizing Economy*, ed. M Erez, U Klenbeck, HK Thierry, pp. 87–98. Hillsdale, NJ: Erlbaum

Miner JB. 2003. The rated importance, scientific validity, and practical usefulness of organizational behavior theories: a quantitative review. *Acad. Manag.: Learn. Educ.* 2:250–68

Mitchell TR. 1979. Organizational behavior. *Annu. Rev. Psychol.* 30:243–81

Mitchell TR, Daniels D. 2003. Motivation. *Handbook of Psychology, Vol. 12: Industrial Organizational Psychology,* ed. WC Borman, DR Ilgen, RJ Klimoski, pp. 225–254. New York: Wiley

Morgeson FP, Campion MA. 2002. Minimizing tradeoffs when redesigning work: evidence from a longitudinal quasi-experiment. *Pers. Psychol.* 55:589–612

Morin L, Latham GP. 2000. Effect of mental

practice and goal setting as a transfer of training intervention on supervisors' self-efficacy and communication skills: an exploratory study. *Appl. Psychol.: Int. Rev.* 49: 566–78

Mount MK, Barrick MR. 1995. The Big Five personality dimensions: implications for research and practice in human resources management. *Res. Pers. Hum. Resour.* 13:153–200

Mowday R, Sutton RI. 1993. Organizational behavior: linking individuals and groups to organizational contexts. *Annu. Rev. Psychol.* 44:195–229

Murray H. 1938. *Explorations in Personality*. New York: Oxford Univ. Press

Naylor JC, Pritchard RD, Ilgen DR. 1980. *A Theory of Behavior in Organizations.* New York: Academic

Nease AA, Mudgett BO, Quinones MA. 1999. Relationships among feedback sign, self-efficacy, and acceptance of performance feedback. *J. Appl. Psychol.* 84:806–14

Nord WR, Fox S. 1996. The individual in organizational studies: the great disappearing act? In *Handbook of Organization Studies*, ed. ST Clegg, C Hardy, pp. 148–74. Thousand Oaks, CA: Sage

Parker SK. 2003. Longitudinal effects of lean production on employee outcomes and mediating role of work characteristics. *J. Appl. Psychol.* 88:620–34

Parker SK, Wall TD. 1998. *Job and Work Design: Organizing Work to Promote Well-being and Effectiveness.* Thousand Oaks, CA: Sage

Phillips JM, Gully SM. 1997. Role of goal orientation, ability, need for achievement, and locus of control in the self-efficacy and goal setting process. *J. Appl. Psychol.* 82:792–802

Pinder CC. 1998. *Work Motivation in Organizational Behavior.* Upper Saddle River, NJ: Prentice Hall

Pinder CC, Harlos KP. 2002. Employee silence: quiescence and acquiescence as responses to perceived injustice. In *Research in Personnel and Human Resource Management*, ed. GR Ferris, 20:331–69. Greenwich, CT: JAI

Prince-Gibson E, Schwartz SH. 1998. Value priorities and gender. *Soc. Psychol. Q.* 61:49–67

Pritchard RD, Paquin AR, DeCuir AD, McCormick MJ, Bly PR. 2002. Measuring and improving organizational productivity: an overview of ProMes, the productivity measure and enhancement system. In *Improving Organizational Performance with the Productivity Measurement and Enhancement System: An International Collaboration*, ed. RD Pritchard, H Holling, F Lammers, BD Clark, pp 3–50. Huntington, NY: Nova

Pritchard RD, Payne SC. 2003. Motivation and performance management practices. In *The New Workplace: People, Technology and Organization: A Handbook and Guide to the Human Impact of Modern Working Practices*, ed. D Holman, TD Wall, CW Clegg, P Sparrow, A Howard, pp.219–44. New York: Wiley

Rao PUB, Kulkarni AV. 1998. Perceived importance of needs in relation to job level and personality make-up. *J. Indian Acad. Appl. Psychol.* 24:37–42

Renn RW, Fedor DB. 2001. Development and field test of a feedback seeking, self-efficacy, and goal setting model of work performance. *J. Manag.* 27:563–83

Richardson A. 1967. Mental practice: a review and discussion, Part I. *Res. Q.* 38:95–97

Roberson L, Deitch EA, Brief AP, Block CJ. 2003. Stereotype threat and feedback seeking in the workplace. *J. Vocat. Behav.* 62:176–88

Roe RA. 1999. Work performance: a multiple regulation perspective. In *International Review of Industrial and Organizational Psychology*, ed. CL Cooper, IT Robertson, pp. 231–335. New York: Wiley

Roe RA, Zinovieva IL, Diebes E, TenHorn LA. 2000. A comparison of work motivation in Bulgaria, Hungary, and the Netherlands: test of a model. *Appl. Psychol.: Int. Rev.* 49:658–87

Ronen S. 2001. Self-actualization versus collectualization: implications for motivation theories. See Erez & Kleinbeck 2001, pp. 341–68

Rousseau DM. 1995. *Psychological Contracts in Organizations: Understanding Written and Unwritten Agreements*. Newbury Park, CA: Sage

Rousseau DM. 2004. *Idiosyncratic Deals: When Workers Bargain for Themselves*. Armonk, New York: Sharpe. In press

Sadri G, Robertson IT. 1993. Self-efficacy and work-related behavior: a review and meta-analysis. *Appl. Psychol.: Int. Rev.* 42:139–52

Schminke M, Cropanzano R, Rupp DE. 2002. Organization structure and fairness perceptions: the moderating effects of organizational level. *Organ. Behav. Hum. Decis. Process.* 89:881–905

Schmitt N, Cortina JM, Ingerick MJ, Wiechmann D. 2003. Personnel selection and employee performance. In *Handbook of Psychology*, ed. WC Borman, DR Ilgen, RJ Klimoski, 12:77–106. New York: Wiley

Schneider B, Smith BD, Paul MC. 2001. P-E fit and the attraction-selection-attrition model of organizational functioning: introduction and overview. See Erez & Kleinbeck 2001, pp. 231–46

Scholz U, Dona Sud S, Schwarzer R. 2002. Is general self-efficacy a universal construct? Psychometric findings from 25 countries. *Eur. J. Psychol. Assess.* 18:242–51

Seijts GH, Latham GP. 2000a. The construct of goal commitment: measurement and relationships with task performance. In *Problems and Solutions in Human Assessment*, ed. R Goffin, E Helmes, pp. 315–32. Dordrecht, The Netherlands: Kluwer Acad.

Seijts GH, Latham GP. 2000b. The effects of goal setting and group size on performance in a social dilemma. *Can. J. Behav. Sci.* 32:104–16

Seijts GH, Latham GP. 2001. The effect of learning, outcome, and proximal goals on a moderately complex task. *J. Organ. Behav.* 22:291–307

Seijts GH, Latham GP, Tasa K, Latham BW. 2004. Goal setting and goal orientation: an integration of two different yet related literatures. *Acad. Manag. J.* 47:227–39

Seo M, Barrett LF, Bartunek JM. 2004. The role of affective experience in work motivation. *Acad. Manag. Rev.* 29:423–39

Shaffer RH. 1953. Job satisfaction as related to need satisfaction in work. *Psychol. Monogr.: Gen. Appl.* 67:364

Skarlicki DP, Ellard JH, Kelln BRC. 1998. Third-party perceptions of a layoff: procedural, derogation and retributive aspects of justice. *J. Appl. Psychol.* 83:119–27

Skarlicki DP, Folger R. 1997. Retaliation in the workplace: the roles of distributive, procedural, and interactional justice. *J. Appl. Psychol.* 82:434–43

Skarlicki DP, Latham GP. 1997. Leadership training in organizational justice to increase citizenship behavior within a labor union: a replication. *Pers. Psychol.* 50:617–33

Stajkovic AD, Luthans F. 1998. Self-efficacy and work-related performance: a meta-analysis. *Psychol. Bull.* 124:240–61

Steers RM. 2001. Call for papers. AMR special topic forum—The Future of Work Motivation Theory. *Acad. Manag. Rev.* 26:686–87

Steers RM, Sanchez-Runde CJ. 2002. Culture, motivation, and work behavior. In *The Blackwell Handbook of Principles of Cross-cultural Management,* ed. MJ Gannon, KL Newman, pp. 190–216. Bodmin, UK: MPG Books

Sue-Chan C, Ong M. 2002. Goal assignment and performance: assessing the mediating role of goal commitment and self-efficacy and the moderating role of power distance. *Organ. Behav. Hum. Decis. Process.* 89:1140–61

Tabernero C, Wood RE. 1999. Implicit theories versus the social construal of ability in self-regulation and performance on a complex task. *Organ. Behav. Hum. Decis. Process.* 78:104–27

Tett RP, Burnett DD. 2003. A personality trait–based interactionist model of job performance. *J. Appl. Psychol.* 88:500–17

Theorell T, Karasek RA. 1996. Current issues relating to psychosocial job strain and cardiovascular disease research. *J. Occup. Health Psychol.* 1:9–26

Trip TM, Bies RJ, Aquino K. 2002. Poetic

justice or petty jealousy? The aesthetics of revenge. *Organ. Behav. Hum. Decis. Process.* 89:966–84

Tuckey M, Brewer N, Williamson P. 2002. The influence of motives and goal orientation on feedback seeking. *J Occup. Organ. Psychol.* 75:195–216

Turillo CJ, Folger R, Lavelle JJ, Umphress EE, Gee JO. 2002. Is virtue its own reward? Self-sacrificial decisions for the sake of fairness. *Organ. Behav. Hum. Decis. Process.* 89:839–65

Vancouver JB, Thompson CM, Williams AA. 2001. The changing signs in the relationships among self-efficacy, personal goals, and performance. *J. Appl. Psychol.* 86:605–20

Van den Bos K. 2002. Assimilation and contrast in organizational justice: the role of primed mindsets in the psychology of the fair process effect. *Organ. Behav. Hum. Decis. Process.* 89:866–80

VandeWalle DM. 1996. *Are our students trying to prove or improve their ability? Development and validation of an instrument to measure academic goal orientation.* Presented at Annu. Meet. Acad. Manag., 56th, Cincinnati, OH

VandeWalle DM. 1997. Development and validation of a work domain goal orientation instrument. *Educ. Psychol. Meas.* 57:995–1015

VandeWalle DM. 2003. A goal orientation model of feedback-seeking behavior. *Hum. Resour. Manag. Rev.* 13:581–604

VandeWalle DM, Brown SP, Cron WL, Slocum JW. 1999. The influence of goal orientation and self-regulation tactics on sales performance: a longitudinal field test. *J. Appl. Psychol.* 84:249–59

VandeWalle DM, Cron WL, Slocum JW. 2001. The role of goal orientation following performance feedback. *J. Appl. Psychol.* 86:629–40

VandeWalle DM, Ganesan S, Challagalla GN, Brown SP. 2000. An integrated model of feedback-seeking behavior: disposition, context, and cognition. *J. Appl. Psychol.* 85:996–1003

Van-Dijk D, Kluger AN. 2004. Feedback sign effect on motivation: Is it moderated by regulatory focus? *Appl. Psychol.: Int. Rev.* 53:113–35

Verplanken B, Holland RW. 2002. Motivated decision making: effects of activation and self-centrality of values on choices and behavior. *J. Personal. Soc. Psychol.* 82:434–47

Wall TD, Jackson PR. 1995. New manufacturing initiatives and shop floor job design. In *The Changing Nature of Work*, ed. A Howard, pp. 139–74. San Francisco, CA: Jossey-Bass

Whyte G, Saks A, Hook S. 1997. When success breeds failure: the role of self-efficacy in escalating commitment to a losing course of action. *J. Organ. Behav.* 18:415–33

Wicker FW, Brown G, Wiehe JA, Hagen AS, Reed JL. 1993. On reconsidering Maslow: an examination of the deprivation/domination proposition. *J. Res. Personal.* 27:118–33

Williams JR, Miller CE, Steelman LA, Levy PE. 1999. Increasing feedback seeking in public contexts: It takes two (or more) to tango. *J. Appl. Psychol.* 84:969–76

Winters D, Latham GP. 1996. The effect of learning versus outcome goals on a simple versus a complex task. *Group Organ. Manag.* 21:236–50

Witt LA, Ferris GR. 2003. Social skill as a moderator of the conscientiousness-performance relationship: convergent results across four studies. *J. Appl. Psychol.* 88:809–21

Wright BM, Cordery JL. 1999. Production uncertainty as a contextual moderator of employee reactions to job design. *J. Appl. Psychol.* 84:456–63

Zetik DC, Stuhlmacher A. 2002. Goal setting and negotiation performance: a meta-analysis. *Group Process. Intergroup. Relat.* 5:35–52