Work Motivation

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Abstract

The study of work motivation focuses on understanding why individuals pursue particular activities at work as well as the amount of effort exerted and duration of persistence in pursuing activities over time. Work motivation research attempts to understand how individuals allocate their limited resources to competing demands at work, describing when and why specific activities are pursued. In this article, we elaborate on the role of goals as a central organizing mechanism through which motivated action is observed and discuss a variety of approaches aimed at understanding motivated behavior at work.

Motivation is often defined as an internal force that directs, energizes, and sustains behavior over time and across changing circumstances (Kanfer, 1990). As such, motivation is observed in the choices that individuals make regarding which goal to pursue (i.e., direction), the amount of effort they invest in attaining a particular goal (i.e., the vigor or intensity of action), and how long they are willing to pursue a goal (i.e., persistence). Stated differently, motivation pertains to how individuals allocate their limited resources to competing demands over time, describing when and why specific activities attract individuals' attention and limited resources. The study of work motivation represents an attempt to understand motivated behavior in the context of organizations, which introduces a variety of boundary conditions and unique contingencies that can impact basic motivational processes (e.g., compensation systems, externally derived goals, job characteristics, distinct social relationships, norms, and organizational culture; see Diefendorff and Chandler, 2011).

Before describing specific motivation constructs and theories, it is important to distinguish motivation from other influences on behavior. It has become axiomatic in the organizational behavior literature that behavior is the result of three factors: ability, the situation, and motivation. Thus, when determining whether motivation is operating, it is necessary to rule out the influence of ability and the situation on action. An individual may be very motivated but fail to perform because of a lack of ability or because of defective tools or equipment. Alternatively, a person may have little desire to perform a behavior, but may do so because a strong situation coerces action (e.g., an assembly line) or because he or she has a great deal of knowledge and experience and can perform the task easily.

Much of the research on work motivation takes the concept of goal as the central organizing mechanism through which motivated action is observed. We begin our discussion of work motivation by describing goals, goal-setting theory, and constructs thought to reside in the 'hub' of work motivation (Locke, 1991) as well as the self-regulatory processes involved in striving for goals over time (Carver and Scheier, 1998). Next, we turn our attention to describing two approaches aimed at characterizing the structure and phases of behavioral self-regulation. Finally, we discuss content theories of motivation that focus on why individuals pursue different activities and the ways that these reasons for goal pursuit impact self-regulation.

The discussion in this article is intended to touch on some of the dominant approaches to understanding work motivation. As such, it is necessarily brief and incomplete. More detailed and comprehensive reviews of work motivation can be found elsewhere (e.g., Diefendorff and Chandler, 2011; Latham, 2007; Lord et al., 2010; Kanfer, 1990; Kanfer et al., 2008).

Goals and the Motivational Hub

Goals

Goals can be defined as "internal representations of desired end-states" (Austin and Vancouver, 1996: p. 338), with these desired states varying along several dimensions, including importance/commitment (i.e., low vs high), difficulty (challenging vs easy), specificity (specific vs general), temporal range (short vs long), connectedness complexity (isolated, simple vs connected, complex), and level of consciousness (conscious vs unconscious). Further, goals are shaped by both personal characteristics and situational factors. Goals are the dominant focus of motivation research, and their importance can be seen in their pervasive presence in theories of motivation. Some authors argue that goals guide and organize nearly all human activity (e.g., Locke and Latham 1990).

An important tenet of many theories of motivation is that goals are hierarchically arranged (e.g., Carver and Scheier, 1998; Lord et al., 2010). Near the top of this hierarchy exist superordinate goals, which tend to (1) extend relatively far into the future, (2) be relatively stable, and (3) be grounded in core aspects the self, such as personality, needs, motives, and values. Near the bottom of the goal hierarchy exist action goals that represent concrete behaviors individuals engage in at any given point in time. This level of the goal hierarchy is often the focus of employees' attention and regulatory resources during the workday.

As one moves down the goal hierarchy, each successive layer of subordinate goals is more tactical, concrete, and short term. Each subgoal can be considered a strategy (i.e., a means) for achieving the goal above it in the hierarchy. One's confidence for attaining a goal is influenced by the ease with which the subgoals needed to reach the higher order goal can be performed. Additionally, the value of a lower-level goal is determined, in part, by the strength of its relationship to important

higher level goals. Thus, goals are best understood as embedded in a goal hierarchy with their characteristics being tied to their position in the goal hierarchy and the strength of their ties to other goals in the hierarchy.

Goal-Setting Theory

Given the large number of ways that goals can differ, research has examined how different goal dimensions affect performance. One approach to systematically studying the effects of different goal dimensions is goal-setting theory (Locke and Latham, 2002). Goal-setting theory is one of the most influential theories in the study of work motivation, describing how goal characteristics influence performance through the mechanisms of attentional focus, effort, persistence, and strategy development. A key finding from goal-setting research is that difficult, specific goals that are accepted result in better performance than do-your-best or easy goals (Locke and Latham, 2002). Goals with these characteristics are beneficial in that they reduce ambiguity and require individuals to expend more effort, better focus their attention, and persist longer over time. Moreover, as tasks become more complex, difficult and specific goals also produce more strategy development, which can enhance performance.

There are several boundary conditions and caveats surrounding the prescription of assigning difficult and specific goals. First, goal difficulty is determined relative to each individual's capability, with optimal effort exertion occurring when there is a good match between the demands of the task and an individual's skill (Locke and Latham, 1991). Thus, an assigned goal that is determined to be normatively difficult may overshoot the optimal difficulty level for some individuals and undershoot it for other individuals, both of which can result in lower motivation. Second, research has shown that goal setting must be accompanied by feedback that allows individuals to monitor their progress and make necessary adjustments to their goaldirected behavior (Locke and Latham, 1990). Goal environments that are not feedback rich can prevent goal-setting interventions from producing their intended benefits. Finally, research has shown that difficult, specific goals may harm performance when they are assigned for novel or complex tasks as they may inhibit needed strategy development (e.g., Kanfer and Ackerman, 1989). When first working on a task (i.e., early in the skill acquisition process), not assigning a goal may actually be beneficial as it can facilitate learning and strategy development, resulting in a better longterm performance.

An Expanded Motivational Hub

Locke (1991) described the motivational hub as containing goals, performance, and self-efficacy, and suggested that this is "where the action is" (p. 296) for goal pursuit. Building on these ideas, we contend that expectancy theory constructs (expectancy, valence, and instrumentality) and affect may also be a part of this motivational hub, as these dynamic constructs are closely tied to goals and have been shown to impact goal selection and goal striving. We describe each of these constructs and their links to work motivation below.

Valence, Instrumentality, and Expectancy

According to Vroom's (1964) valence, instrumentality, and expectancy (VIE) theory, when individuals are deciding which activity to pursue they evaluate the expectancy, valence, and instrumentality of the possible activities. These three assessments are thought to combine to represent the overall motivational force for a goal. The goal with the highest motivational force is then adopted for pursuit. Expectancy is the perceived likelihood that expending effort will lead to goal attainment (Van Eerde and Thierry, 1996), valence is the desirability, attractiveness, importance, or anticipated satisfaction with outcomes associated with a goal (Van Eerde and Thierry, 1996), and instrumentality is the perceived likelihood that goal attainment will lead to desired outcomes (i.e., if I perform at a particular level, I will receive the associated rewards; Vroom, 1964). Each of these judgments contributes to an individual's motivation for a given task; if any of the three judgments are zero, no motivation is said to exist.

VIE theory variables have received a great deal of attention in the literature, though support for the theory varies as a function of the level of analysis. Van Eerde and Thierry's (1996) meta-analysis found weak support for the theory when the tests were at the between-person level of analysis (i.e., comparing how individuals differ in expectancy, valence, and instrumentality for an action). However, the results were stronger for predicting preferences and effort when the analyses were restricted to the more appropriate within-person level of analysis (i.e., comparing how actions differ in expectancy, valence, and instrumentality within the person). In other words, empirical tests that matched the underlying theory (i.e., choosing among goals vs examining who is more or less motivated to pursue a particular goal) provided stronger support for the theory.

Self-Efficacy

Self-efficacy is a person's belief that he or she can perform the actions needed to attain a specified level of performance (Bandura, 1997), and is conceptually related to the expectancy concept in VIE theory. Self-efficacy is shaped by a variety of factors, with past experiences having the strongest influence (Bandura, 1997). Self-efficacy is a center piece of Bandura's (1997) social cognitive theory and was incorporated into Locke and Latham's (1990) goal-setting theory. As a result, selfefficacy is one of the most commonly studied predictors of task-specific motivation. In general, self-efficacy has been shown to have positive effects on a variety of motivational and performance outcomes across a large number of studies and research contexts (e.g., Stajkovic and Luthans, 1998). However, a stream of research in recent years has challenged the causal role of self-efficacy in positively influencing performance, with some researchers finding that self-efficacy is primarily a reflection of past performance (and does not cause future performance; Heggestad and Kanfer, 2005) and that the causal role it plays in influencing effort and performance can sometimes be negative (e.g., Vancouver and Kendall, 2006).

Recent studies have attempted to reconcile these conflicting findings. For instance, Vancouver et al. (2008) theorized and found support for a nonmonotonic and discontinuous model in which self-efficacy has positive effects up to the decision to pursue a task and then has negative effects as self-efficacy

further increases. That is, an increase in self-efficacy can lead individuals who would not pursue a goal to suddenly switch and decide to pursue the goal (producing a positive effect). However, after the person has adopted the goal, further increases in self-efficacy may lead individuals to become overconfident and, as a result, not exert as much effort in the pursuit of the goal, resulting in a negative effect of self-efficacy on performance.

Other research has also attempted to further clarify these conflicting effects. For instance, Schmidt and DeShon (2009) found that challenging circumstances led to a positive relationship between self-efficacy and performance (i.e., very confident individuals rose to the challenge following poor performance), whereas less challenging situations resulted in a negative relationship (i.e., very confident individuals did not exert as much effort as individuals with low confidence following successful performance). Further, Schmidt and DeShon (2010) found that ambiguity moderated the selfefficacy and performance relationship, such that under conditions of high ambiguity a negative relationship was observed, but under low ambiguity a positive relationship was observed. Together, these studies suggest that the self-efficacy and performance relationship is complex and that there are conditions under which high self-efficacy can be beneficial or harmful. More work on this interesting and complex topic is needed.

Affect

Motivation and affect are inextricably linked. Affect is thought to influence motivation both indirectly through cognitive processes and directly through unconscious processes. Seo et al. (2004) present a theoretical model in which these processes are explicated. In relation to indirect effects, they theorized that when evaluating goals or performance (especially in ambiguous situations) individuals use their current affective state to make judgments regarding expectancy, utility, and progress. Positive affect is thought to result in more favorable goalrelated judgments as compared to negative affect. Consistent with this idea, Erez and Isen (2002) found that for more difficult performance goals, individuals in a positive mood had higher expectancy, valence, and instrumentality than individuals in a neutral mood. Further, Carver and Scheier (1998) argued that positive affect may signal that goal progress is adequate, leading individuals to reduce their subsequent effort. In contrast, negative affect may signal that goal progress is not sufficient and that greater goal-direct effort is needed.

Seo et al. (2004) also theorized that there are situations in which motivational processes are not mediated by conscious judgments. Instead, they argue that affect itself can be a motivational force that directly energizes an individual's goal-directed behaviors. Indeed, research has suggested that positive and negative affect trigger different motivational orientations, with positive emotions showing greater alignment with approach motivation and negative emotions show greater alignment with avoidance motivation (e.g., Neumann and Strack, 2000). Additionally, some research has shown that unconscious affective priming can shape goal-directed behavior (Aarts et al., 2007). The continued integration of affect and motivation processes represents an exciting direction for work motivation research.

Self-Regulation Approaches to Understanding Work Motivation

Now that we have described goals and constructs in the motivational hub, we turn our attention to the regulation of goal-directed behavior over time. Motivation is a dynamic process in which individuals self-regulate their goal-directed activities (Diefendorff and Chandler, 2011). Consistent with the definition of motivation provided at the beginning of this article, the self-regulation of goal-directed activities occurs over time and across changing circumstances. As such, many models of work motivation adopt a self-regulation perspective to characterize this process. Self-regulation may be described in structural terms that explain the interrelationship of self-regulation components or in terms of distinct phases in the self-regulation process. We elaborate on each of these perspectives below.

Structure of Self-Regulation

The basic structure of self-regulation can be characterized using the principles of control theory (e.g., Carver and Scheier, 1998). At the center of control theory is the negative feedback loop. As shown in Figure 1, the negative feedback loop includes a standard (reference value or goal a person is trying to attain), a comparator (for matching the standard against performance), an input function (for sensing current performance), and an output function (for changing behavior). The negative feedback loop operates as a continuous process in which individuals monitor and sense discrepancies between current and desired states and engage in behaviors to reduce any observed discrepancies. If no discrepancy is sensed, the person is expected not to make any changes to behavior. If performance is lower than the goal (i.e., a negative discrepancy), the output function is engaged, resulting in greater effort expenditure so as to bring performance into line with the goal and reduce the discrepancy. If performance is higher than the goal (i.e., a positive discrepancy), effort on the focal goal may be reduced and resources may directed to another goal that is awaiting attention. This discrepancy detection and reduction process is thought to operate continuously and automatically over time as conditions in the environment change (Carver and Scheier, 1998).

Phases of Self-Regulation

In addition to describing the cyclical process of self-regulation, some researchers have broken self-regulation into distinct phases and examined how motivational, cognitive, and affective processes differ across these phases. One common way to divide the process is into the phases of goal setting, goal striving, and goal revision (see Diefendorff and Lord, 2008, for more discussion of self-regulatory phases).

Goal Setting

Self-regulation begins with goal selection (or commitment to an assigned goal). The act of choosing or accepting a goal creates a discrepancy that individuals are motivated to reduce. Selecting an action goal involves choosing among different tasks to pursue (e.g., finish reading a book vs finish writing a report) or the level of performance to aspire to within a task

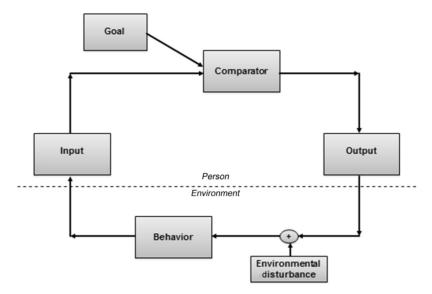


Figure 1 Structural model of self-regulation: the negative feedback loop.

(e.g., write five pages vs write ten pages), which can be done according to the VIE theory principles outlined above. The selection of an action goal can involve both conscious and nonconscious processes that take into account stable and dynamic aspects of the person (e.g., long-term motives, short-term affect) and situation (e.g., organizational culture, fluctuations in work processes).

Goal Striving

After an action goal is chosen, individuals must put forth effort to attain the goal. Effort refers to the amount of mental or physical resources devoted to a task. The more effort allocated to a task, the more the person is said to be motivated. Effort has been operationalized in a variety of ways including cardiovascular reactivity, resource allocation, and subjective experience of exerting effort. Some researchers have argued that persistence (another hallmark of motivation) essentially reduces to the same concept of effort in that both pertain to the amount of resources dedicated to a task during a period of time (Dalal and Hulin, 2008).

Individuals regulate their effort during goal striving by not only comparing their current state against the desired state, but also by matching their current rate of discrepancy reduction against their desired rate of discrepancy reduction (Carver and Scheier, 1998). In effect, individuals compare their actual rate of progress with a desired rate of progress and experience distinct affective states based on this comparison. If progress is faster than expected, individuals may experience a sense of calm or happiness, which leads to a reduction in effort on the task and allows the person to devote resources to other things. In contrast, if progress is slower than expected, the individual may experience anxiety and increase effort on the task. Goal striving continues until the goal is reached or a predetermined stop time is reached (i.e., a deadline).

Goal Revision

At the end of a goal-striving episode, individuals once again compare their performance against the goal to determine whether the goal was attained (Carver and Scheier, 1998). If the goal was attained, individuals may set a new goal within the same domain or decide to pursue a goal in a different domain. If the goal was not attained, individuals must make a choice on how to proceed. For example, individuals may decide to keep the goal at its current level and try again, they may decided to revise it (upward or downward), or they may abandon the goal altogether and pursue a new and/or different goal. Of course, in many work environments where competing demands are plentiful, individuals may also decide to table the goal and momentarily direct attention to another activity, returning later to the decision of whether and in what way to revise the goal.

In general, research investigating goal revision has suggested that individuals with large, negative discrepancies (i.e., one's performance was below the goal) tend to revise their goal downward in future goal-striving episodes, whereas individuals with positive discrepancies (i.e., one's performance was above the goal) tend to revise their goals upward. In addition, these relationships may be affected by both the time left to pursue the goal and the causal attributions that individuals make for performance (Donovan and Williams, 2003).

Content Approaches to Understanding Work Motivation

In contrast to focusing on the motivational hub or the structure and phases of self-regulation, *content theories* of motivation emphasize the ways in which motivation may differ between individuals and the effects of these differences on self-regulation. Content theories focus on why individuals pursue activities and how the reasons for goal pursuit alter the ways in which self-regulation proceeds. Several theories may fall into the category of content approaches to motivation, but a few have been frequently applied to organizational contexts and are discussed in more detail here: Deci and Ryan's (2000) self-determination

theory (SDT), Dweck's (1986) goal-orientation theory, and Higgins' (1997) regulatory focus theory.

Self-Determination Theory

SDT (Ryan and Deci, 2000) emphasizes the satisfaction of basic human needs for autonomy, competence, and relatedness as a key driver of motivated behavior. In contrast to many theories of motivation, which emphasize the quantity of motivation (e.g., goal-setting theory), SDT emphasizes the idea that qualitative differences in motivation also matter. Specifically, a key contribution of SDT is that it describes a continuum in which goals may be pursued for different reasons, ranging from being intrinsically motivating at one extreme to being extrinsically motivating at the other end. The theory suggests that these different motivations can all lead individuals to act, but they may have different implications for performance and well-being.

According to SDT, intrinsically motivating tasks are interesting, enjoyable, and spontaneously pursued by individuals. Such motivation is experienced as autonomous and selfdetermined (Deci and Ryan, 2000). In contrast, extrinsically motivated tasks are pursued because of external contingencies, but can be experienced as controlling or autonomous depending on the extent to which the contingencies have been internalized by the individual. As such, SDT describes several different types of extrinsic motivation. External regulation is the least internalized form of extrinsic motivation with individuals pursuing tasks because of rewards or punishments present in the environment. Introjected regulation is the next form of extrinsic motivation, with individuals pursuing goals because they have internalized and come to self-administer the rewards and punishments for the goal. Often, individuals who experience introjected motivation pursue tasks because they would feel guilty if they did not. Identified regulation reflects a more internalized form of extrinsic motivation whereby individuals understand the value of the goal and pursue it based on that understanding, but they have not come to personally value the goal and the reasons for its pursuit. Integrated regulation reflects the most complete internalization of an extrinsic goal whereby individuals have come to personally value the goal and experience it as important. The goal is not inherently interesting or fun (so it is not intrinsically motivating), but it is valued, important, and experienced as autonomously motivating. Finally, in contrast to the motivated behaviors described above, SDT also recognizes that some behaviors may be amotivated, which means that individuals are not able to provide a reason for why they engage in them.

Ryan and Deci (2000) argued that some goals are more consistent with satisfying an individual's basic needs than others. In particular, striving for autonomous goals may lead to greater need satisfaction and better well-being, whereas striving for controlled goals may lead to the thwarting of one's needs and worse well-being. A key finding from research on SDT is that more autonomous forms of motivation are associated with better performance on interesting or complex tasks. However, differences between autonomous and controlled motivation are not observed for boring or mundane tasks (Koestner and Losier, 2002). Further, autonomous motivation is positively associated with well-being and job attitudes. Thus, both forms

of motivation may lead individuals to perform a behavior, but autonomous motivation better satisfies psychological needs and leads to greater well-being compared to controlled motivation.

Goal Orientation and Implicit Person Theories

Goal orientation refers to differences in how people interpret and respond to achievement situations (Dweck, 1986). Research has identified two distinct goal orientations: performance and mastery. Someone high in performance goal orientation focuses on demonstrating ability and defines success or competence by comparing oneself to others, either by demonstrating competence relative to others (performance prove orientation) or by avoiding displays of incompetence relative to others (performance avoid orientation; Dweck, 1986). In contrast, an individual with a mastery goal orientation focuses on developing skills and abilities and defines success or competence against internal standards (Dweck, 1986). The commonly accepted view is that a mastery orientation is associated with an adaptive behavioral pattern (e.g., selecting challenging tasks, setting difficult goals, persisting in the face of obstacles), whereas performance approach can be adaptive or maladaptive depending on the circumstances, and performance avoid is maladaptive.

Mastery and performance goal orientations are grounded in implicit person theories (Dweck, 1986). According to this view, individuals vary in the degree to which they view attributes and abilities as malleable (as opposed to stable and enduring). A belief that human attributes are malleable and that effort and experience can improve one's standing reflects an incrementalist implicit person theory. A belief that human abilities are fixed and that effort and experience cannot improve the situation reflects an entity implicit person theory (Dweck and Grant, 2008). Research has shown that implicit theories are associated with differences in reactions to failure. For entity theorists, failure is viewed as a reflection of the self and thus, is experienced as threatening. Accordingly, these individuals tend to engage in strategies aimed at preventing or hiding failure (e.g., choosing easy tasks, self-handicapping, or withdrawing from tasks; Dweck and Grant, 2008). In contrast, incremental theorists view failure as an opportunity to learn (Dweck and Grant, 2008). As a result, incremental theorists enjoy learning new things because they view them as a way to increase their ability. Consistent with these ideas, Robins and Pals (2002) found that entity theorists adopted performance goals and displayed less adaptive behavioral patterns when faced with challenge, whereas incremental theorists adopted learning goals and displayed more adaptive behavioral patterns when faced with challenge.

Regulatory Focus Theory and Approach/Avoidance Motivation

According to regulatory focus theory, goal-directed behavior operates differently for individuals high in promotion focus compared to individuals high in prevention focus (Higgins, 1997). A promotion focus refers to a motivational strategy that is approach oriented and concerned with positive outcomes, accomplishments, gains, and aspirations. A prevention focus, on the other hand, refers to a motivational strategy that is avoidance oriented and concerned with safety,

duties, and avoiding negative outcomes. For preventionfocused individuals, goals are seen as obligations, rather than desired standards. In this way, promotion-focused individuals seek to reduce discrepancies between actual and 'ideal' selves, whereas prevention-focused individuals seek to minimize discrepancies between their actual and 'ought' selves.

Individuals with these different motivational foci also exhibit distinct behavioral patterns and experience different emotions in the goal-striving process. For example, individuals with a promotion focus tend to experience eagerness when goal striving, feel joy when goals are attained, and feel sadness when goals are not attained (Brockner and Higgins, 2001). On the other hand, prevention-focused individuals are cautious during goal striving, feel relaxed when goals are attained, but feel nervous when goals are not attained (Brockner and Higgins, 2001).

Consistent with the approach/avoid distinction outlined by regulatory focus theory, Gray (1982) theorized that behavior is derived from two biologically based motivational systems: the behavioral activation system (BAS), an appetitive or approach system, and the behavioral inhibition system (BIS), an aversive or avoidance system. High BAS sensitivity is reflected by a heightened reactivity to signals of reward or nonpunishment and a perceptual readiness and strong emotional responsiveness to such stimuli (Gray, 1982). High BAS sensitivity is associated with under arousal, impulsivity, a strong drive to attain goals, and the experience of positive emotions. High BIS sensitivity, on the other hand, is reflected by responsiveness to signals of punishment or nonreward and a strong sensitivity to and perceptual readiness for negative stimuli. High BIS sensitivity is associated with low levels of behavioral activity and the experience of negative emotions. Consistent with this theory and research, Elliot and Thrash (2002) found that BIS sensitivity, neuroticism, and negative affectivity loaded on a common avoidance latent trait, and BAS sensitivity, extraversion and positive affectivity formed a common approach latent trait. Additionally, the authors found that these latent traits predicted the selection of achievement goals (i.e., mastery, performance approach, and performance avoid) in theoretically consistent ways (Elliot and Thrash, 2002).

Conclusion

The study of work motivation has seen significant advances in recent years in our understanding of motivational processes, antecedents, and outcomes. In this Encyclopedia article, we have highlighted what we believe to be some of the most influential concepts and perspectives in this area of study. However, it is important to note that we have only scratched the surface of empirical findings pertaining to the field of work motivation. Indeed, researchers have explored a myriad of issues that fall outside the scope of this article.

Although the field has made significant strides in terms of understanding motivation at work, there is also still much to be learned. Some new and exciting directions to take the field of work motivation include examining: (1) the role of conscious (i.e., self-attributed) and unconscious (i.e., implicit) motivational processes, (2) the substantive role of time in shaping motivational processes (e.g., effects over time and

within-person dynamics), (3) group motivation, and (4) integration of multiple theoretical perspectives, such as the investigation of structural models of self-regulation with content theories like SDT. The advances in work motivation research outlined in this article, coupled with emerging themes in the study of motivation, make it clear that this area of study is vibrant and will remain so in the coming years.

See also: Avoidance and Approach Motivation: A Brief History; Emotions and Work; Expectancy-Value-Cost Model of Motivation; Mastery Learning; Motivation and Actions, Psychology of; Self-Determination Theory; Self-Efficacy; Self-Regulated Learning.

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