Industrial and Organizational Psychology, **2** (2009), 118–127.
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RESPONSE

Work Motivation: Advancing Theory and Impact

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It is not often that one gets the opportunity to engage other scholars in lively written dialogue on a topic close to his/her professional heart. So I felt honored to provide the target article on work motivation (Kanfer, 2009), and I looked forward to reading my colleagues' commentaries. As I had hoped, each commentary was quite stimulating. Some commentaries were also provocative, whereas others were more instructive. Regardless of orientation and issue, however, each commentary reflected a positive, forward-looking tone. That is, from a Reichenbach (1951) perspective, the commentaries seem to emphasize discovery (e.g., building new perspectives and approaches) over justification (e.g., extending, refining, and reconciling extant theories that dominated much of the late 20th century). Although paradigmatic work remains important, its role is cast more in the service of new advances rather than the other way around. As the commentaries also demonstrate, many new ideas and research directions are emerging. Their traction and utility for work motivation scientists and organizational personnel raise exciting, empirical questions.

Several commentaries focused on core questions that have lurked in the background of our field for some time, such as the role of implicit motives in action regulation (Johnson & Tan, 2009), the structure of situations, and the impact of situations on work motivation (Meyer & Dalal, 2009). Other commentaries focused on long-standing topics pertaining to motivation vis-a-vis the individual; namely, the role of the individual in managing his/her motivation (Stamov Roßnagel, 2009) and the impact of motivational patterns on personal well-being (Gillespie, 2009). Yet other commentaries focused on topics that have come to the forefront as a function of pragmatic concerns. In recognition of the aging workforce, Truxillo (2009) explored the potential influence of age on trait–performance relations. Building on recent work on generativity motives in other areas of psychology, Grant (2009) described a new approach to enhancing prosocial motivation. Consistent with the changing zeitgeist directed toward understanding person–situation dynamics over time, Vancouver (2009) discussed methods for identifying the critical person characteristics involved in situated performance over time. Given the multitude of topics addressed, I was pleased to note that the 3C framework (Kanfer, Chen, & Pritchard, 2008) offered a common starting point for these commentaries and a platform for showcasing new ideas and research directions in work motivation.

Each commentary makes different noteworthy points and offers insights into different issues in work motivation. As such, I was initially uncertain about how best to

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https://doi.org/10.1111/j.1754-9434.2008.01120.x Published online by Cambridge University Press

organize my reply. In the social sciences, a basic distinction is often made between "lumpers and splitters." In general, lumpers look for similarities and communalities among objects or problems. In contrast, splitters look for differences and distinctions when organizing a domain. I tend to be a scientific lumper, and it was not difficult for me to see how they were interconnected and lead, albeit in different ways, to a relatively small and related set of fundamental questions and concerns. Accordingly, my responses to the commentaries are organized using a "lumper" strategy; that is, in a way that highlights common research themes and scientific approaches. For purposes of brevity, I have selected three broad themes that appear to unify the different commentaries: (a) forging a new integration of work motivation and affect, (b) the changing role of method and measurement in work motivation theory and research, and (c) work motivation research in the service of modern problems and multiple constituencies.

Forging a New Integration of Work Motivation and Affect

There is perhaps no more intimate relationship among psychological constructs than that between motivation and affect. Affect sets motivation into motion, and the outcomes of motivation help to set the stage for affect (in the form of attitudes and emotions). Yet, although affect has always figured prominently in theories of work motivation, its role has often been relatively constrained to serving as the "cold" driver of valence judgments for performance and other work-related outcomes (e.g., promotion) or as the undifferentiated energetic force underlying judgments of self-efficacy and competence (see Kanfer & Stubblebine, 2008).

Recent advances in the affective sciences have strongly challenged this conceptualization of the motivation–affect relation and have begun to importantly influence industrial–organizational (I–O) psychology. Affective Events Theory (AET; Weiss & Cropanzano, 1996), for example, proposes that affect associated with a workplace event may drive workplace behaviors not mediated by conscious cognitive processes. Although AET is not a theory of work motivation per se, the AET formulation is consistent with the notion that individual differences in affective tendencies and reactions to workplace events may motivate purposive (though not necessarily self-conscious) behaviors.

Research in personality and social psychology investigating affect-driven behavior has taken two tacks. As described by Johnson and Tan (2009), social psychological theorizing and research on implicit cognitive processing and attitude formation provides support for the notion of a second, implicit motivation system that operates largely independent of conscious awareness. Similarly, theory and research by differential and personality psychologists, such as McClelland, provide support for the notion of relatively stable individual differences in affect-driven motives related to achievement, power, and affiliation (for a review, see e.g., Spangler, 1992).

The introduction of affect-driven motives and action into the work motivation equation represents a major new direction in the field. Johnson and Tan (2009) advocate forcefully for more research in this area, pointing out that individual differences in implicit motives may have predictive validity for job performance, particularly in situations that involve time pressure or impose a high cognitive workload. Johnson and Tan provide a balanced summary of the formidable obstacles that confront organizational scientists who work in this area. Of all the problems noted, the most difficult problem by far relates to the development of sound and practical measures by which to assess individual differences in implicit motive strength. So why tackle this issue now? First, Johnson and Tan note that important progress has been made in the measurement of individual differences in motives and much of that progress is occurring in I–O psychology (e.g., James, 1998; Kehr, 2004; LeBreton, Barksdale, Robin, & James, 2007). Second, Johnson and Tan point to the potential benefits associated with implicit motive assessment, including less response distortion and method bias and

https://doi.org/10.1111/j.1754-9434.2008.01120.x Published online by Cambridge University Press

higher levels of predictive validity for attitudes and behavior than can be achieved with explicit measures alone. Finally, Johnson and Tan propose that implicit motive assessment will allow for a better understanding of the complex relationship between the determinants and the consequences of "hot" and "cool" motivation systems as they operate in the workplace. I believe this last point is critical. Supervisors and coworkers frequently learn an individual's implicit motive signature and use this knowledge to make predictions about how an individual will respond to a workplace event or interpersonal exchange. So how does this happen? It seems quite reasonable to me that what these supervisors and colleagues have learned about the employee pertains to their ranking on implicit motive tendencies related to hostility, achievement, power, and affiliation. As such, the development of valid implicit motive measures is likely to systematically capture additional variance that is now encapsulated in subjective ratings. When used in the context of theory, such measures may offer substantial improvement in the predictive validities for different classes of workplace behaviors, particularly as Johnson and Tan indicate, in jobs characterized by high levels of stress, risk, conflict, and frustration.

Grant (2009) addresses the motivation–affect relation from an entirely different but equally important perspective. Specifically, Grant draws upon findings in midlife research on generativity to argue for the importance of prosocial motivation in the workplace. Grant also describes a very clever program of research in which relatively simple interventions, such as personalizing the beneficiary of an employee's efforts, appear to instigate prosocial motivation processes and enhance performance.

Grant's (2009) research program is particularly interesting because it capitalizes on the activation of interpersonal motives toned with positive affect to reinforce allocations of time and effort to job performance. Grant goes beyond generativity research to propose a broad class of motives having to do with helping others in general. His findings make good practical sense and suggest that organizations may strengthen work motivation by elaborating the employee–client relationship in particular ways. Grant's research emphasizes the potential benefits of building employee–client relations and stands in contrast to research directed toward investigating the costs of such relations in terms of employee exhaustion and other manifestations of stress. As Grant notes, more research is needed to delineate the dynamics of prosocial work motivation that are activated in employee–client exchanges. Along these lines, it is interesting to note that most theory and research on altruistic and prosocial behavior in social psychology tend to focus on behaviors that occur relatively infrequently and occur over a relatively short period of time. In I–O psychology, research has focused on the identification of individual differences in select personality traits that are predictive of contextual performance. Grant's ideas represent a natural integration of these historically disparate domains. In particular, future research to delineate the impact of time and act frequency on work motivation appears particularly promising.

Grant's (2009) research also suggests that it is the specific relationship rather than a general motive tendency alone that accounts for the motivational effect on performance. In this way, Grant's work can be related to better understanding the motivational pathways that contribute to contextual performance. As described by Grant, conditions in which the employee knows the beneficiary of his/her actions can occur across a range of workplace relations, including relations among team members, mentor–mentee relations, and relations between supervisors and subordinates. It is not clear, however, how other features of these relations may moderate the motivational effects of an employee–beneficiary relationship.

The new perspective on the motivation–affect relation described by Johnson and Tan (2009) and Grant (2009) is qualitatively different from prior work on the role of affect in rational models of motivated decision making. In the new perspective, affect influences work motivation via the strength of

https://doi.org/10.1111/j.1754-9434.2008.01120.x Published online by Cambridge University Press

intrinsic motive tendencies rather than through learned outcome–pleasure associations. Future research is needed to address three basic questions in this domain: (a) what are the primary affect-driven motive tendencies that come into play in work motivation (e.g., James & Rentsch, 2004), (b) do such motive tendencies do more than instigate action—that is do they affect the maintenance of action over time, and (c) how do implicit motive tendencies operate and interact with explicit motive tendencies to affect work motivation outcomes (cf. Kehr, 2004).

Measurement and Research Foundations: Pushing the Envelope

In the development of many 20th century work motivation theories, methodology and measurement have often followed rather than led the way. However, as the commentaries by Vancouver (2009), Johnson and Tan (2009), and Meyer and Dalal (2009) indicate, this state-of-affairs is rapidly changing. New technologies have already spurred the development of innovative research methods and analytic approaches, and more are likely in the near future as less intrusive methods for collecting data over time are brought online and as analytic approaches used in the biological and physical sciences gain popularity. The commentaries describe the inventive ways that work motivation researchers have already begun to exploit these advances in order to study questions previously considered nearly impossible to investigate empirically. Experience sampling methods, computational modeling, and multilevel modeling represent three new integrated research/analytic methods that hold great promise for advancing our knowledge in the realm of work motivation dynamics and change. Conditional reasoning tests and psychophysiological measures offer two new avenues for assessment of affective tendencies and reactions that occur outside conscious awareness. Research to date has already shown the value of experience sampling methods and multilevel modeling in the study of workplace motivation, affect, and behavior. Although research streams using psychophysiological, conditional reasoning, and semiprojective assessments of implicit motive strength and computational modeling are less well-known today, it is already clear that these methods represent more than just a few extra tools in our toolbox. Indeed, as Vancouver notes with respect to computational modeling, these methods are likely to propel (rather than follow) a new round of theory development and testing. Unlike the previous cycle, however, both inductive and deductive reasoning will contribute to theory development from the very start. Indeed, this mix of inductive and deductive reasoning may be of particular assistance to researchers interested in studying interesting emergent but transient motivational states that occur in the workplace, such as individual flow experiences, situational awareness, and team contagion.

Commentaries by Vancouver, Johnson and Tan, and Meyer and Dalal stress the importance of employing more state-of-the-art measurement and research methods to study work motivation, but each commentary focuses on different methods and measures. Vancouver advocates the use of computational modeling techniques to tackle one of motivation's most difficult problems—the simultaneous identification of what, when, and why individual differences matter in work motivation. For Vancouver, computational modeling is necessary to achieve a better representation of the motivational dynamics that link and influence content, context, and change dimensions. Hard as it may be to learn these new methods, Vancouver is fundamentally correct. Although multilevel models may be useful to a point, computational modeling will probably be required for the investigation of how many different person–situation combinations influence work behavior and the work context over time. Vancouver provides several examples that illustrate the potential benefits of computational modeling, including the opportunity for identification and testing of critical person and situational attributes, and the possibility of identifying dynamic or second-order person characteristics (e.g., rate of learning) that

https://doi.org/10.1111/j.1754-9434.2008.01120.x Published online by Cambridge University Press

influence work motivation. Increasing our knowledge about dynamic person characteristics is particularly attractive because these attributes (e.g., speed of adjustment to organizational change, malleability of cognitive schemas) have historically been poorly captured using lexicon-based trait measures.

Measurement is also a central theme in the Meyer and Dalal (2009) commentary, but in this commentary, the problem is not the method but rather the question of what to measure. Consistent with the 3C framework, Meyer and Dalal propose that theories of work motivation are currently limited by our lack of theory about how to conceptualize context or situations. The issue is a critical one because one cannot readily investigate motivational dynamics without an understanding of the key features that define a context. Meyer and Dalal suggest that studies of situational strength provide a good starting point for building a situation taxonomy. The focus on situational strength has distinct advantages, most notably the common understanding that organizational researchers have of this dimension as a result of previous work by Mischel and his colleagues. But it is a long way from studies of this dimension to the development of a situation taxonomy or structure. It will take a concerted effort to make progress in this area. Meyer and Dalal's suggestion that we begin with situation features (e.g., strength) that appear logically and closely related to motive tendencies makes good sense.

Work Motivation in the Service of Modern Problems and Multiple Constituencies

Four commentaries (i.e., Gillespie, 2009, Grant, 2009, Stamov Roßnagel, 2009, and Truxillo, 2009) address issues in work motivation that arise from consideration of how changes in the workforce and the nature of work affect our study of work motivation. Truxillo, Grant, and Stamov Roßnagel focus primarily on the implications of an aging workforce and adult development, whereas Gillespie directs her comments to the impact of work motivation for employee well-being. At the broadest level, these commentaries reflect a concern for the connectedness of work motivation theory and research to the realities of 21st century work and employee well-being. More specifically, these commentaries point out the importance of thinking about work motivation as much more than just a determinant of job performance but also as an important determinant of employee adjustment, employee well-being, and organizational success.

Truxillo (2009) raises a practical question about how age may moderate the trait–performance relationship and the implications of moderating age effects on a range of human resource management activities, including personnel selection and training readiness. The path that Truxillo takes to arrive at this question is quite straightforward and appealing. Truxillo also raises the interesting yet untested notion that age-related changes in motive salience exert specific influences on goal selection and self-regulatory activities. It is also unknown precisely how age-related motive changes would manifest in goal selection. Perhaps, individuals who hold salient generativity motives might show a propensity to set fewer or less specific relational goals than individuals for whom achievement motives are most salient. Or maybe age-related changes promote the adoption of less specific goals regardless of whether they are relational or task oriented? I completely agree with Truxillo that the impact of age-related changes on basic work motivation constructs represents a rich but relatively unexplored area.

Grant (2009) reminds us of two important but often overlooked characteristics about work and workers. The first characteristic pertains to the relational nature of work. Social psychological theories have long recognized that work does not occur in a social vacuum. But Grant goes further to argue that the products of work motivation and job performance have a relational component as well; that is, what employees do at work has import and meaning for others who use the products produced or benefit in some way from the employee's efforts. The notion of a relational contract between the employee and the

https://doi.org/10.1111/j.1754-9434.2008.01120.x Published online by Cambridge University Press

customer or client who is affected by the employee's work is particularly germane to work motivation in the service sector and represents an important new direction in the field.

The second characteristic pertains to workers. Specifically, Grant reminds us that intrinsic and extrinsic motives for action are not exhaustive and that the motive to exert a positive influence on the lives of others remains an important incentive for action across cultures, contexts, and the life span. Twentieth-century theories of job design tended to focus on work characteristics that provided psychological satisfactions related to growth and personal development (e.g., challenge, decision latitude). Building on research by McAdams and others, Grant argues for an expansion of these perspectives to include the motivational impact of work designs in which performance offers a salient opportunity for satisfaction of generativity and relational motives.

In an era where the "importance of doing good" with respect to others and the environment appears to be gaining favor, Grant's (2009) call for research on prosocial motivation is quite timely. As Grant clearly spells out, empirical research is needed to address a number of theoretical and practical issues related to prosocial motivation. Grant makes a particularly interesting point with respect to the differential effect of prosocial motivation depending upon preexisting motivational orientation. As Grant notes, there is a positive effect for job designs that make prosocial motives salient when the job is intrinsically motivating. However, when the dominant motivational orientation is extrinsic, or not related to satisfaction of self-motives, designs that promote prosocial motives may undermine work motivation. The beneficial effect in the context of an intrinsically motivating job is consistent with formulations of altruism that emphasize the positive self-related consequences that follow from helping others. But the detrimental influence of prosocial experiences on motivation in extrinsically motivated jobs is less obvious and warrants further investigation.

Grant's approach also extends current work in the life span literature in two ways. First, he suggests that job design may be used to activate and promote prosocial motivation in the workplace. Second, Grant goes beyond generativity motives to suggest that prosocial motives represent a potentially potent motivational force across the life span. This raises an interesting question about the relationship between generativity and other prosocial and relational motives.

Stamov Roßnagel's (2009) commentary focuses on age-related changes in work motivation. Stamov Roßnagel sets forth the important idea that individuals actively manage or regulate their motivation in a way that compensates for age-related changes in KSAOs and takes into account age-related changes in the salience of different goals. He begins his commentary by incorrectly portraying the Kanfer and Ackerman (2004) analysis as concluding that age-related declines in work motivation are inevitable. The Kanfer and Ackerman formulation describes a motivational dynamic that arises from the interaction of task demands and age-related changes in KSAs and motives, interests, and other nonability traits. As Stamov Roßnagel points out, the conclusion of an inevitable decline in work motivation across the life span requires additional assumptions that workers are passive in the face of changing person–task fit and that work conditions remain constant. Neither assumption is realistic or required for the Kanfer and Ackerman conceptualization. Although I focused my discussion in the target article on organizational interventions (e.g., changing work roles) that might facilitate work motivation among older individuals, this does not preclude or any way rule out worker agency to affect changes that have similar positive outcomes for work motivation.

Stamov Roßnagel makes two key points about self-regulation of motivation. First, he suggests that work motivation becomes more task specific with age, presumably as a consequence of age-related changes in KSAO/task fit that lead workers to focus on and engage in work behaviors and tasks for which there is a better fit. The principle of increasing task specificity in work motivation among older workers is very interesting

https://doi.org/10.1111/j.1754-9434.2008.01120.x Published online by Cambridge University Press

and warrants further examination. It may be, for example, that the age–task specificity relation is moderated by occupation. For example, one might ask whether age-linked task specificity is observed among trade workers but not among service-sector workers.

Second, Stamov Roßnagel (2009) notes the importance of self-regulatory strategies, such as assimilation and compensation in work motivation. Similar to the Kanfer and Ackerman (2004) formulation, Stamov Roßnagel asserts that motivational regulation is undertaken to optimize psychological well-being, including positive self-concept and sense of competence. But little is known about the person–context conditions that activate such strategies or their success. As Stamov Roßnagel points out, Ng and Feldman's meta-analytic findings on age–performance relations suggest that older individuals may employ a task-specific compensatory strategy rather than a relation-oriented compensatory strategy. As Kanfer and Ackerman point out, however, task-specific compensatory activities may be helpful in the short term but less successful in sustaining work motivation over the long term. Longitudinal research is needed to assess the activation, frequency of use, and outcomes of different compensatory self-regulatory strategies across a range of work motivation outcomes, including not just task-directed and other-directed organizational citizenship behaviors but also the decision to accept a bridge retirement offer, amount of time spent on avocational activities, and decisions related to retirement-related turnover. Findings from such studies are likely to provide new knowledge about how to teach motivational regulation strategies, as well as to whom and when.

In contrast to the other commentaries, Gillespie (2009) raises a philosophical point about why we study work motivation. Specifically, she notes that in my target article, I emphasized "traditional corporatist values," by focusing on the costs and benefits of work motivation for organizationally desired outcomes rather than a more balanced consideration of the costs and benefits of work motivation for organizations, individuals, and societies. According to Gillespie, a greater focus on outcomes related to employee well-being permits more precise delineation of the unique features of employee work motivation profiles associated with positive and negative employee outcomes. Gillespie's interest in looking at multitrait work motivation profiles is consistent with Stamov Roßnagel's approach, as well as my call for greater use of a trait-complex perspective, rather than studying individual traits in isolation.

I agree with Gillespie that my article highlighted the benefits of work motivation theory and research for outcomes that are of greater interest to organizations than to individuals or to societies. However, I should make clear that these examples showing the effects of motivation on common organizationally relevant outcomes are not intended to emphasize or reinforce any particular organizational value system (e.g., traditional corporatist values). Values refer to beliefs and standards about ideal states. My point in using these examples was simply to indicate how researchers working in and with organizations may strengthen organizational interest in work motivation research and interventions by illuminating the potential benefits of their work for outcomes that organizations value—whether they be about maximal job performance, safety, going green, organizational citizenship, or workplace ethics.

This concern aside, Gillespie (2009) makes an excellent point in noting the importance of being more explicit about the influence of work motivation on individual well-being. Most theorists and organizational personnel agree that individuals generally behave in ways that they perceive facilitates their personal well-being. That is, individuals allocate personal resources to actions that facilitate attainment of desired outcomes and/or satisfaction of implicit motive tendencies. The problem, however, lies in a second, less obvious assumption often made by organizational researchers; namely, that what is rewarding for the organization is also rewarding for the individual. As Gillespie points out, organizations may design jobs that promote work motivation and outcomes, which are

https://doi.org/10.1111/j.1754-9434.2008.01120.x Published online by Cambridge University Press

positively related to job performance but negatively related to employee well-being. Call center workers, for example, might be offered strong monetary incentives for higher levels of job performance that can only be accomplished through higher and frequently exhausting levels of emotional labor. In this instance, it is often difficult for the employee and the organization to readily detect a dissociation between the positive value of higher levels of work motivation for the organization and the negative value of higher levels of work motivation for the employee.

Gillespie's (2009) comments raise longstanding concerns about our field's focus and criteria. The inclusion of criteria related to employee well-being is a good idea for several reasons. First, including these criteria permits the identification of situations in which increasing work motivation yields divergent personal and organizational outcomes. To date, most theories and research findings on job stress suggest that the dissociation between organizationally valued outcomes (e.g., job performance) and personally valued outcomes (e.g., utilization of skills) occurs over time and on different timescales. In general, work motivation researchers tend to evaluate the impact of work motivation interventions on short-term performance in "maximal performance" environments. In contrast, employee well-being outcomes are often assessed in "typical performance" environments that refer to the cumulative effects of resource allocations on well-being. Thus, it is not surprising that even employees may not immediately recognize the lagged negative personal impact of a motivational intervention that enhances job performance. When these criteria are coordinated in terms of timescale and situation, however, it is possible to delineate the impact of performance-oriented work motivation interventions on personal well-being at specific points in job tenure, in specific situations, and/or among individuals with a particular motive profile. Research to identify the determinants of dissociation and when the dissociation is recognizable to employees has potential value for both organizations and employees.

At another level, Gillespie's comments remind me that in many economic sectors of the modern world, the distinction between employees and customers is quite murky. Good places to work are often described as places that promote personal well-being through policies that do not create stress, yet motivate the individual and promote a sense of competence. In turn, good places to work are often publicized by employees and others as good places from which to buy goods and services and good places for others to seek work. In an increasingly services-oriented economy, the close relationship between employee and customer provides a strong incentive for organizations to enhance personal well-being.

Gillespie's (2009) emphasis on the potential dissociation between motivational outcomes for individuals and organizations also brings to mind McClelland's argument, made many decades ago, about the broad societal advantages of achievement motivation training. Although the effectiveness of McClelland's studies investigating the impact of such training on the GNP in developing nations was inconsistent, the strategy McClelland used sought to enhance personal well-being by bringing individuals' motives in line with organizational motives to increase work motivation and enhance performance. In the modern context, elements of this approach to enhancing personal well-being through employee development are reflected in the growth of organizational programs directed at building employee skills (e.g., coping and emotion regulation skills) to prevent the job from exerting detrimental effects on personal well-being. As Gillespie suggests, work motivation interventions that promote high levels of job performance in the short term, at the cost of employee well-being over the long term, might represent a poor strategy for engaging the workforce.

Summary

The commentaries support my contention in the target article that we are in the early stage of a new era in work motivation. In contrast to problems and issues that occupied us

https://doi.org/10.1111/j.1754-9434.2008.01120.x Published online by Cambridge University Press

during the late 20th century, current concerns in the field pertain to understanding work motivation "in situ." One important aspect of this new focus relates to investigating the impact and interaction of multilevel determinants of person–situation dynamics. We are also interested in an array of outcomes as they affect all vested parties not just organizations. In this emerging paradigm, motivation and affect have been rewoven such that affect now plays a multitude of roles in the direction, intensity, and persistence of behavior. The inherently social nature of the modern workplace is also gaining attention as a rich medium for the study of affect-driven action and affective reactions.

During the late 20th century, work motivation was often conceptualized much like a bridge or a pocket watch. To understand work motivation, scientists needed to identify the basic elements, their function, and how they fit together to produce work motivation. In this engineering-oriented perspective, the bridge functions as long as there are no earthquakes or other threats to the integrity of the structure. In much the same way, work motivation is assumed to remain relatively constant except in extreme conditions.

In the 21st century, I anticipate that work motivation will be increasingly conceptualized more like a phenomenon, such as vision or locomotion. In this biologically oriented perspective, the most interesting questions pertain less to the basic structure and function of distinct components, but rather more to how the components interface and the motivational system adapts and transforms as a consequence of changing internal and external conditions (reflecting Woodworth's [1918] notion of dynamic psychology). In this new perspective, affect takes on a key role in motivation by linking cognitions across contexts and time, thereby providing a critical pathway by which to maintain system integrity in turbulent environments. Work motivation reflects the consequence of this complex and dynamic process and the unique role of the individual in managing this process for goal accomplishment. In the context of today's volatile environment, perhaps the most pressing theoretical and practical need is for a better understanding of the person–situation interactions and processes that promote robust and resilient systems of work motivation. As the commentaries attest, work motivation researchers are hard at work on this charge.

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