

Commentary **Work design *in situ*: Understanding the role of occupational and organizational context**

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Summary

Despite nearly 100 years of scientific study, comparatively little attention has been given to articulating how the broader occupational and organizational context might impact work design. We seek to address this gap by discussing how aspects of the occupational and organizational context can constrain or enable the emergence of different work design features as well as influence the relationships between work design features and various outcomes. We highlight how different forms of context might impact work design and suggest that this is an important and potentially fruitful area for future work design research and theory. Copyright © 2010 John Wiley & Sons, Ltd.

The almost 100 years of scientific research on work design has resulted in an impressive amount of theoretical and empirical knowledge. This ranges from classic research on scientific management (Taylor, 1911) to more contemporary research on motivational (Hackman & Oldham, 1976) and social (Grant, 2007) forms of work design. As recent narrative (Morgeson & Humphrey, 2008), longitudinal (Birdi et al., 2008), and meta-analytic (Humphrey, Nahrgang, & Morgeson, 2007) summaries attest, work design is meaningfully related to a host of attitudinal, behavioral, cognitive, well-being, and organizational outcomes. Yet, despite this impressive body of research, comparatively little attention has been given to articulating how the broader occupational and organizational context might impact work design (Morgeson & Campion, 2003). This neglect is unfortunate for at least two reasons.

First, work roles (and the work designs they imply) have been found to be influenced by a variety of contextual elements (Dierdorff & Morgeson, 2007; Dierdorff, Rubin, & Morgeson, in press). This suggests that context is likely to constrain or enable the emergence of different work design features. Second, context is likely to influence the relationships between work design features and various outcomes, in part because different contexts reinforce or reward different individual needs and behaviors. As a key way in which individuals satisfy their needs or fulfill their role requirements, work design enables role holders to achieve correspondence with the broader context.

The relationship between context and work design can take several possible forms, including (1) contexts that promote more positive work design features (e.g., high task identity), (2) contexts that

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amplify the positive effects of work design on individual outcomes (e.g., satisfaction), (3) contexts that amplify the adverse effects of poor work design (e.g., very low autonomy), (4) work designs that have compensatory effects in particular “unsupportive” contexts (e.g., poor supporting organizational systems), and (5) work designs that convey (mediate) relationships between context and individual outcomes.

The purpose of our commentary is to explicitly discuss these various kinds of relationships between occupational and organizational contexts and work design. We focus on the occupational and organizational context because we believe that these two contextual aspects have a particularly important influence on work design, recognizing that there are potentially other important aspects of context that we are neglecting (e.g., national culture or legal context). In articulating these links, we draw from recent work design research and theory that has sought to explore an expanded set of task, knowledge, social, and contextual work characteristics and outcomes (Morgeson & Humphrey, 2006, 2008). We first briefly review past research that has articulated the importance of context for organizational behavior. We then discuss how the occupational and organizational context influences work design and work design outcomes. We close with some conclusions about the importance of additional future research into context and work design.

The Importance of Context

Over the last 20 years, scholars have noted the importance of the work context for understanding organizational behavior (Cappelli & Sherer, 1991; Hatrup & Jackson, 1996; Mowday & Sutton, 1993; Rousseau & Fried, 2001). These approaches draw from social psychological research that suggests that situational factors can exert a strong effect on human behavior (Mischel, 1968). Johns (2006) has provided the most comprehensive account of the range of different ways in which context can influence behavior. It is helpful to briefly review these different kinds of contextual effects in order to understand exactly how context might influence work design.

Johns (2006) suggests that context can manifest itself in at least seven different ways, including (1) the salience of situational features, (2) as situational strength, (3) as a cross-level effect, (4) as a configuration or bundle of stimuli, (5) as an event, (6) as a shaper of meaning, or (7) as a constant. Summarizing these different manifestations, Johns (2006, p. 386) defines context as “situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables.” The implications of this for work design is that context can serve as a main effect on work design features or interact with work design features and other relevant constructs (e.g., traits, needs) to affect outcomes. In our subsequent discussion of the effects of occupational and organizational context we will consider both these main effects of context as well as potential interactive effects.

Occupational Context and Work Design

One particularly meaningful form of context is the occupational context. An occupation is a group of work roles spanning multiple organizations that share a similar set of work requirements (e.g., tasks and responsibilities), methodologies, objectives, or worker requirements (e.g., knowledge, skills, abilities).

In turn, occupational context is the environment surrounding an occupation. As such, it resides at a higher level of analysis than the individual job level.

There are several reasons why occupational context is important to consider when building work design theory and conducting work design research. For example, work roles (and thereby work designs) are intimately tied to the occupational context within which work is performed (Dierdorff & Morgeson, 2007). Thus, occupational contexts will exert meaningful influences on both work design characteristics and individual outcomes. In addition, different occupations have their own “cultural” features that can be as potent as the effects typically attributed to organizational cultures (Abbott, 1993; Fine, 1996; Trice, 1993). Finally, occupations can be described in terms of their reinforcement properties, and different occupations serve to reinforce different individual needs (Dawis, 1996).

Developing work design theory that incorporates the role of occupational context is currently an important need. Consider, for example, the fact that the sizable body of work design literature has largely ignored influences stemming from occupational factors (Humphrey et al., 2007). Fortunately, there are several existing theories situated at the level of occupations that are likely to inform theory-building around work design. Notable examples of potentially useful occupation-focused theories include Holland’s theory of personality and vocational choice (Holland, 1985, 1997), the “gravitational hypothesis” (McCormick, DeNisi, & Shaw, 1979; McCormick, Jeanneret, & Mecham, 1972; Wilk, Desmarais, & Sackett, 1995), and the theory of work adjustment (Dawis & Lofquist, 1984; Lofquist & Dawis, 1969). In general, all of these theories (a) posit systematic differences attributable to occupational context, (b) describe the influences occupational context exerts on individuals’ behavior and attitudes, and (c) suggest that congruence between individuals and their environments can explain various outcomes such as job satisfaction.

For example, Holland’s theory describes occupational contexts as systematically varying in the extent to which they provide opportunities for individuals to express various work-related interests (i.e., realistic, investigative, artistic, social, or enterprising interests). Congruence between an individual’s interests and the occupational context is thought to lead to greater satisfaction, achievement, and tenure (Holland, 1985). Similarly, a central tenet of the gravitational hypothesis is that different occupational contexts will require different levels of ability on the part of role holders (e.g., “cognitive requirements;” see Gottfredson, 1986). Congruence between occupational demands and individuals’ ability levels will shape the “survival” of these individuals in occupational contexts (McCormick et al., 1972). Thus, from a needs-fulfillment (Holland’s theory) or an abilities-demands perspective (gravitational hypothesis) occupational contexts are expected to differ with regard to what is “given” by the environment. The general implication for work design is that the emergence of various work design characteristics will be promoted or constrained by the nature of the occupational context (an example of the main effects of occupational context on work characteristics). For example, work characteristics such as information-processing and problem-solving entail an underlying cognitive ability component (Morgeson & Humphrey, 2006) and thus, in occupational contexts with high levels of ability demands these work characteristics may be more likely to emerge. To more thoroughly illustrate these types of work design implications, we next discuss the theory of work adjustment as an exemplar of how occupational context can inform work design theory and research.

According to the theory of work adjustment (TWA), the occupational context is influential because individuals are motivated to achieve correspondence with the occupational context through their work behaviors, where correspondence is defined as “a relationship in which the individual and the environment are correspondiv (mutually responsive)” (Lofquist & Dawis, 1969, p. 45). Moreover, the occupational context is comprised of a set of features represented by the development of occupational reinforcer patterns (ORPs). Put simply, ORPs reflect the relative presence or absence of reinforcers in the occupational context and concern the specific individual needs an occupational context satisfies (Dawis & Lofquist, 1984; Lofquist & Dawis, 1969). These ORPs are operationalized by six

“occupational values” that describe the extent to which occupational environments reinforce various needs (Dawis, 1994; Hesketh & Dawis, 1991; Hesketh & Griffin, 2005). *Achievement* reflects occupations that reinforce accomplishment and utilization of one’s abilities. *Comfort* reflects occupations that are comfortable and free from stress. *Status* reflects occupations that provide recognition and prestige. *Altruism* reflects occupations that foster harmony and service to others. *Safety* reflects occupations that are predictable and stable. *Autonomy* reflects occupations that reinforce and stimulate initiative and creativity.

The concepts of correspondence, ORPs, and occupational values have particular relevance to work design in two ways. First, there is likely to be what can be termed a *structural correspondence* linking the individual experience of work characteristics to the occupational values and ORPs. Work designs evolve over time in response to the reinforcement opportunities present in the occupation, ultimately resulting in a connection between different work design features and the values (and ORPs) characterizing an occupation. Put another way, work characteristics arise and are adjusted, in part, in order to gain the reinforcers that are available in a given occupational context (representing main effects of occupational context). Second, there is likely to be an *individual correspondence* connecting individual-level work characteristics, satisfaction, and occupational values. When an individual’s work characteristics are aligned with what the occupation provides in terms of reinforcers, individual correspondence results, as reflected in higher levels of job satisfaction. This suggests that the individual experience of work characteristics will interact with occupational values in predicting work satisfaction (representing moderating effects of occupational context). Interestingly, these two influences of occupational context mirror Johns’ (2006) suggestion that context not only has a broad, structural influence on the occurrence of organizational phenomena (i.e., structural correspondence), but also a more specific influence on the functional relationships among constructs (i.e., individual correspondence).

As an illustration, there is likely to be a strong structural correspondence between the occupational value of altruism and several work characteristics from the task domain. For example, task variety reflects the degree to which an array of tasks is performed and task significance is the extent to which the job impacts others’ lives. Both of these task characteristics should enable attainment of occupational reinforcers associated with the occupational value of altruism. This is likely to be the case for task variety, in part, because performing a variety of tasks potentially represents an expansion of work roles to include more discretionary, prosocial elements into the focal role (Morgeson, Delaney-Klinger, & Hemingway, 2005). Such “job crafting” (Wrzesniewski & Dutton, 2001) can be seen as an attempt to gain the occupational reinforcers associated with service to others. In addition, recent research has suggested that task significance can enhance the motivation to make a prosocial difference (Grant, 2007, 2008), and such a motivational state (and the role behaviors associated with task significance) is consistent with the occupational value of altruism.

With regard to individual correspondence, occupational values are likely to act as cross-level moderators of the individual-level work characteristics and job satisfaction relationships. Consider as an example the occupational value of achievement (i.e., reinforcement of accomplishment and utilization of one’s abilities). Unless individuals work in occupational contexts high in achievement, the relationship between some work characteristics and job satisfaction could diminish. For example, recent research has found that the introduction of team-based work designs is most beneficial in contexts with relatively poor supporting organizational systems (Morgeson, Johnson, Medsker, Campion, & Mumford, 2006). Thus, increasing a work characteristic from the social domain, such as interdependence (i.e., moving to team-based work), may only reap the rewards of increased satisfaction in occupational contexts that do not offer many chances for recognition (low achievement contexts).

Organizational Context and Work Design

Organizational context refers to the broader organizational environment in which employees work, and has been shown to influence a variety of individual outcomes such as organizational commitment and job satisfaction (Carr, Schmidt, Ford, & DeShon, 2003), effort and problem solving in semi-autonomous teams (Morgeson et al., 2006), and employee well-being (Parker, 2003). Although the organizational context can be described in a number of different ways, we focus on how the three contextual factors of organizational climate, technical systems, and organizational structure can impact work design.

Organizational climate

Organizational climate refers to the shared perceptions regarding formal and informal organizational policies, practices, and procedures among organization members (Reichers & Schneider, 1990; Schneider, 1990). Although organizational climate has been discussed as a molar construct encompassing general organizational environment perceptions (Schneider, 1975), it has also been discussed in terms of specific climates, such as a climate for service or safety (Schneider, 1990; Zohar, 1980). Both conceptualizations of organizational climate are elements of organizational context that may influence work design.

The shared perceptions that comprise the construct of organizational climate likely influence work design characteristics by making particular design features more salient. For example, in an organization with a strong safety climate, incumbents may be more attuned to the physical features of the job (e.g., physical demands, equipment use) and jobs are likely to be designed in such a way to enhance safe work performance (e.g., enhanced autonomy to enable adjustments to changing conditions). For example, autonomy is positively related to safe work performance and enhanced safety work role definitions (Parker, Axtell, & Turner, 2001; Turner, Chmiel, & Walls, 2005). Additionally, organizational climate may influence work design by shaping the meaning of work design characteristics in specific ways. For instance, in organizations with strong teamwork climates, there might be strong social expectations that certain work characteristics (e.g., interdependence, social support) are highly important. In this way, the climate may represent a source of information that affects judgments of work characteristics (Salancik & Pfeffer, 1978).

In addition to these direct effects on work characteristics, organizational climate may also moderate the relationship between work characteristics and outcomes. Consider how this might function in organizations that have strong climates for customer service. Interaction outside the organization is unlikely to be consistently related to individual-level performance unless the organizational context supports or encourages such behavior. In organizations with strong customer service climates, however, such behavior may be viewed quite favorably, in part because customers typically reside outside organizational boundaries and interacting with these customers is likely to be consistent with such climates. As another example, although problem solving is likely to be important for individual performance in most organizations, it is likely to be particularly important in organizations that value customer service, in part because solving a customer's problems is essential to good customer service.

Technical systems

As classic sociotechnical systems research has shown, an organization's technical system can also have a potent effect on work design (Pasmore, Francis, Haldeman, & Shani, 1982; Trist & Bamforth, 1951).

The technical system reflects “the techniques used by an organization or its subunits to transform inputs into outputs” (Billings, Klimoski, & Breugh, 1977, p. 319). The technical system can act as a constraining or enabling force, thereby making certain kinds of work designs more probable. Thompson (1967) identified three major technological types: long-linked (reflecting serial interdependence); mediating (reflecting a link between organizations and customers or clients); and intensive (reflecting custom or unique interactions based on feedback from the object being transformed). Each of these technical forms is likely to shape work designs. For example, the nature of the interdependence between jobs, opportunities for feedback from others, and the potential for social support will be affected by the technical system. In addition, dimensions of technology are also strongly related to work characteristics such as autonomy, task significance, and skill variety (Brass, 1985).

Technology can interact with work design to influence outcomes such as job satisfaction and stress as well. For example, Wright and Cordery (1999) found that under high levels of technical complexity and instability (thereby creating high environmental uncertainty), workers with greater decision-making autonomy reported higher levels of job satisfaction and intrinsic motivation. Other aspects of technical systems can have an interactive effect with work design characteristics. For example, electronic performance monitoring has been linked to increased stress and decreased satisfaction among workers (Amick & Smith, 1992; Smith, Carayon, Sanders, Lim, & LeGrande, 1992). The use of performance monitoring technology may have a more negative relationship with worker stress in work design configurations that hinder coping or exacerbate stress. For example, the negative relationship with stress is likely amplified when workers have little autonomy or social support in their jobs, as these work characteristics have been argued to assist in alleviating worker stress (Karasek, 1979).

Organizational structure

An organization’s structure is the final organizational context factor we will discuss. Various dimensions of organizational structure have been identified, such as the degree of centralization of decision-making and the formalization of organizational procedures (Pugh, Hickson, Hinings, & Turner, 1968). One common distinction is between mechanistic and organic organizational structures (Burns & Stalker, 1961). In mechanistic structures, jobs are more specialized, the flow of work is standardized, decision-making is centralized, and rules and procedures are relatively formalized such that workers perform in a predictable manner. In contrast, organic structures are less centralized or formalized, allowing for greater flexibility and adaptability.

These different organizational structures have a straightforward effect on work designs. For example, decentralized structures likely have more autonomous work designs, largely because the granting of various forms of autonomy (e.g., work methods, work scheduling, decision-making) is a key way in which decentralization is implemented. Indeed, high organization centralization and formalization have been shown to be negatively related to autonomy (Sutton & Rousseau, 1979). In addition, work design characteristics mediate the relationship between organizational structure and outcomes such as satisfaction (Brass, 1981; Oldham & Hackman, 1981; Rousseau, 1978), suggesting that organizational structure influences work characteristics. For example, Oldham and Hackman (1981) found that the relationship between organizational structure (e.g., centralization and formalization) and worker ratings of personal growth and development, pay, and supervisory satisfaction is mediated by several task characteristics (e.g., autonomy, skill variety).

Organizational structure may also interact with work design characteristics to influence worker outcomes, such that relationships with worker outcomes could be enhanced or attenuated. For example, within a highly centralized organization where individuals have limited decision-making control,

increased knowledge or social work design characteristics may help to reduce any potentially negative outcomes of centralization by acting as buffers that compensate for limited job control.

Conclusion

Our goal in this commentary was to highlight how elements of the occupational and organizational context might impact work design in two distinct ways. First, these forms of context might have a main effect on work design characteristics, thereby shaping, enabling, or constraining the ultimate form work might take. Second, these forms of context might act as cross-level moderators and shape the relationship between work characteristics and the consequences of work design. Our review was deliberately selective as our goal was to call attention to some of the ways in which occupational and organizational context can affect work design, rather than develop comprehensive taxonomies. Clearly, future research needs to expand the range of contextual features beyond those discussed here and then conduct systematic empirical research.

In many respects, research exploring the link between occupational and organizational context and work design represents an open playing field. So little research has been conducted up to this point that almost any research that systematically explores context and work design is likely to represent a contribution to the literature. In our view there are at least four broad priorities for future research. First, research on occupational context should draw from existing taxonomies of occupational characteristics (e.g., the occupational interests and values noted earlier) and explore the ways in which these occupational features can make certain work characteristics more or less likely as well as the ways in which they can enhance or attenuate the relationships between work characteristics and a range of individual-level outcomes. Second, although there has been some research on how individuals “gravitate” toward certain occupations, the focus has largely been on the fit between individual abilities and occupational demands. From a work design perspective, however, one could explore how individuals gravitate toward certain occupations (and occupational contexts) because of the work characteristics that are present in the occupation.

Third, future research into organizational context should build on the small body of past research by showing how elements of the organizational context can shape a broader range of work characteristics (beyond traditional task characteristics) and how those characteristics can serve to mediate the relationships between contexts and outcomes. Fourth, as we reviewed earlier, there is some suggestive evidence that organizational context can act as a cross-level moderator, with positive contexts enhancing the relationships between work characteristics and outcomes and negative contexts intensifying the adverse effect of poor work characteristics. Future research should explore how these processes occur, as well as examining how different work characteristics can compensate for an unsupportive context. Pursuing this and other research on context and work design will yield more veridical theoretical models of work design and help practitioners to more effectively design and redesign work with respect to the particular contexts within work is being performed. This represents an important and potentially fruitful area for future work design research and theory.

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