

**PROACTIVE WORK BEHAVIOR:
FORWARD-THINKING AND CHANGE-ORIENTED ACTION IN ORGANIZATIONS**

Uta K. Bindl and Sharon K. Parker

Institute of Work Psychology, University of Sheffield, United Kingdom

Abstract

Proactive behavior at work is about making things happen. It involves self-initiated, anticipatory action aimed at changing either the situation or oneself. Examples include taking charge to improve work methods, proactive problem solving, using personal initiative, making i-deals, and proactive feedback seeking. In this chapter, we define proactive behavior and distinguish it from related concepts. We also identify higher-order categories of proactivity in the work place. We then summarize a model of the antecedents and outcomes of proactive behavior, as well as moderators of its effects on performance and other outcomes. We argue a review of this topic is timely given both academic developments and technological and social change occurring within the work place.

Key terms: Proactive Behavior, Active Performance, Personal Initiative

Bindl, U. K., & Parker, S. K. (in press). Proactive work behavior: Forward-thinking and change-oriented action in organizations. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology*. Washington, DC: American Psychological Association.

PROACTIVE WORK BEHAVIOR

“On a few occasions if there’s something that’s not working or is causing a duplication of work then I’ve challenged it. One particular incident is that there was a process not so long back where we’d send out a letter to a customer, then also leave a message on their phone. So what we did - we evaluated that - so to leave a message first then, if there’s no response, send a letter rather than doing both at the same time. I know it’s only a little thing, but it saves a lot of time.”

The above quotation is from a call centre agent whose job it is to sell energy. The behavior reported by the agent aptly illustrates individual proactivity - or self-starting, future-oriented behavior that aims to bring about change in one’s self or the situation (Grant & Ashford, 2008; Jones, 1986; Parker, Williams, & Turner, 2006b). This particular comment is an example of proactive behavior that is aimed at improving work processes, or changing the situation. Several studies have found that employees who are proactive in this way also perform their job more effectively (Ashford & Black, 1996; Morrison, 1993a, 1993b; Thompson, 2005). Proactivity also applies in other domains – for example, individuals can be more or less proactive in managing their careers (Seibert, Kraimer, & Crant, 2001), shaping their work environment (Wrzesniewski & Dutton, 2001), and coping with stress (Aspinwall & Taylor, 1997).

In recent times, there has been a surge of interest in proactivity at work, partly reflecting academic developments, and partly reflecting the increasing importance of this type of behavior in today’s organizations. Academically, there has been a flurry of proactive concepts, albeit varying in whether proactivity is seen as a stable disposition (Crant, 2000), a pattern of behaviors (Frese & Fay, 2001), or – as we do in this chapter – a way of behaving at work (Grant & Ashford, 2008; Parker et al., 2006b). As Frese (2008) noted in a recent article entitled ‘*The word is out: we need an active performance concept for modern work places*’, the current interest in proactivity is warranted given the inadequacy of traditional models that “assume that employees ought to follow instructions, task descriptions, and orders” (p. 67). Practically, organizations are increasingly decentralized, change is fast-paced, there is a demand for innovation, and operational uncertainty is

PROACTIVE WORK BEHAVIOR

greater than ever; all trends that mean employees need to use their initiative and be proactive (e.g., Campbell, 2000; Wall & Jackson, 1995). Moreover, careers are increasingly boundary-less, and not confined to one organization, requiring individuals to take charge of their own careers (Mirvis & Hall, 1994). Thus, for both theoretical and practical reasons, a review on proactivity is timely.

We consider definitions and different types of proactivity in the first part of our review. We then propose an integrating framework of proactive behavior that includes antecedents, motivational processes, outcomes, and moderators (see Figure 1). We discuss how proactive behavior is in part a function of individual attributes, but is also influenced, shaped and constrained by the work context (e.g., the degree of job autonomy provided). We conclude by offering future research directions. We focus primarily on individual-level proactivity, although we also briefly discuss research on team and organization-level proactivity.

WHAT IS PROACTIVE BEHAVIOR?

Traditionally, work psychology has focused on work characteristics to which employees adjust in order to perform their job (e.g., Hackman & Oldham, 1976), on employees commitment to goals that are provided by the organization (Locke, Shaw, Saari, & Latham, 1981), and on social structures and cultures at work to which new employees need to adapt (Van Maanen, 1976). In contrast, research on ‘active’ behavior focuses on how employees change the characteristics of their job and situation (Frese, Garst, & Fay, 2007). For example, employees sometimes redefine the goals they are provided with by the organization to come up with more challenging goals (Hacker, 1985), and actively influence socialization processes in order to improve the quality of their experiences at work (Ashford & Black, 1996; Saks & Ashforth, 1996). These active behaviors have increasingly come to be referred to as examples of proactivity.

What does it mean to be proactive? In line with previous research (Grant & Ashford, 2008; Parker et al., 2006b), we define proactive behavior as self-directed and future-focused action in an

PROACTIVE WORK BEHAVIOR

organization, in which the individual aims to bring about change, including change to the situation (e.g., introducing new work methods, influencing organizational strategy) and/or change within oneself (e.g., learning new skills to cope with future demands). This definition concurs with lay definitions, which highlight both a future focus (anticipation) and a change focus (taking control). Thus, the Oxford English Dictionary (2008) defines being proactive as “creating or controlling a situation by taking the initiative and anticipating events or problems, rather than just reacting to them after they have occurred; (hence, more generally) innovative, tending to make things happen”.

As an example, personal initiative is a form of proactive behavior that involves going beyond assigned tasks, developing one’s own goals, and attempting to solve problems that have not yet occurred (Frese & Fay, 2001). Taking charge is also an example of proactive behavior, referring to active efforts to bring about change on work methods (Morrison & Phelps, 1999). Further examples include individuals proactively shaping their work environment as a newcomer (Ashford & Black, 1996), actively building networks (Morrison, 2002), and persuading leaders to take notice of important strategic issues (Dutton & Ashford, 1993). All of these behaviors have in common an emphasis on taking control of a situation by looking ahead and initiating change. They are also all behaviors that are partially determined by disposition, and partially influenced by situational forces, such as job design and leadership.

Similarities and Differences in Proactive Behavior

Although having in common an emphasis on taking control of a situation in a self-directed future-focused way, the concepts also vary from each other. In response to criticism that the field is not sufficiently integrated (Crant, 2000), Grant and Ashford (2008) proposed that proactive behaviors vary in terms of their form (the type of behavior), their intended target of impact (self, others, and/or the organization), their frequency (how often), their timing (where and when), and their tactics (how). For example, employees can engage in either feedback-seeking or social

PROACTIVE WORK BEHAVIOR

network building (form). The intended target of impact of this behavior can be the self (e.g., to improve one's own performance), or others (e.g., to improve how one manages others). Employees can seek feedback more or less often (frequency), and they can choose certain times for seeking feedback, such as when project work is completed (timing). Employees can also employ different tactics when engaging in feedback seeking, so for example, might ask another person directly for feedback, or rather concentrate on monitoring and interpreting the other person's reactions.

Adopting an empirical approach, Parker and Collins (in press) investigated a higher-order factor structure of proactive behavior at work. Factor analyses of multiple forms of proactive behavior suggested at least three higher-order categories, each with a different target of impact. First, proactive work behavior includes those behaviors aimed at taking control of, and bringing about change in, the internal organization environment. Examples include taking charge (Morrison & Phelps, 1999), voice (Van Dyne & LePine, 1998), the implementation items of individual innovation (Scott & Bruce, 1994), and problem prevention (Frese & Fay, 2001; Parker & Collins, in press). Second, proactive strategic behavior includes those behaviors aimed at taking control of, and causing change in, the broader unit's strategy and its fit with the external environment. For example, individuals can 'sell' important issues to the leader and thereby influence strategy (Ashford, Rothbard, Piderit, & Dutton, 1998), and they can scan the environment to anticipate new products and services the organization might introduce to better achieve competitive advantage (Parker & Collins, in press). Third, proactive person-environment fit behavior includes those self-initiated behaviors that aim to achieve greater compatibility between one's own attributes (skills, knowledge, values, preferences) and the organizational environment. An example is actively seeking feedback about performance such as through inquiry or monitoring (Ashford, Blatt, & VandeWalle, 2003). Through such action, the individual aims to improve their performance within the organization. Proactive person-environment fit behaviors also include those aimed at ensuring

PROACTIVE WORK BEHAVIOR

the environment supplies the attributes desired or valued by an individual (supplies-values fit), such as job-change negotiation (Ashford & Black, 1996), ex post i-deals and job crafting. Ex post i-deals (Rousseau, Ho, & Greenberg, 2006) are arrangements that are negotiated by a new person in the job to accommodate their personal needs for the joint benefit of the individual and the organization. Job crafting (Wrzesniewski & Dutton, 2001) involves individuals' changing tasks, roles and relationships to derive meaning and satisfaction from the work.

Grant and Parker (in press) identified a further higher-order dimension - proactive career behavior. In contrast to the other types of proactivity that occur within the context of a designated job, this dimension refers to proactivity beyond a specific job, such as actions to secure a job or to get a new job (career initiative, Tharenou & Terry, 1998), or actions to negotiate a better deal prior to accepting a job (ex ante i-deals, Rousseau et al., 2006).

One of the advantages of identifying these 'higher-order' categories of proactive behaviors is that the approach can help to identify common processes across the related behaviors within each category. For example, the Parker & Collins (in press) study highlighted commonalities amongst voice, individual innovation, and taking charge – all types of proactive work behavior - even though these tend to be distinct areas of enquiry. At the same time, the study also identified differences across the categories of proactivity. For example, whereas conscientiousness was an important predictor of proactive person-environment fit behaviors, as expected given the desire of conscientious individuals to be dependable and fit well with the organization, it did not predict proactive work behaviors or proactive strategic behaviors. The findings, therefore, also serve to highlight how motivating forces for proactivity vary across different domains and targets of impact.

Other scholars too have differentiated types of proactive behavior. Thus, Griffin, Neal and Parker (2007) identified individual proactivity, team member proactivity, and organization member proactivity. These are effectively all types of proactive work behavior (Parker and Collins' higher

PROACTIVE WORK BEHAVIOR

order category) in that they aim to take control of, and bring about change within, the internal organization environment. However, individual proactivity is directed towards one's individual job (e.g., improving one's work procedures), team proactivity is directed towards helping the team and other team members (e.g., making improvements to the way the team works), and organization-member proactivity is directed towards changing wider organization systems or practices (e.g., improving systems for knowledge management across the organization). Similarly, Belschak and Den Hartog (in press) identified three types of proactivity: self-oriented, social, and organizational proactive behaviors, which are targeted at personal goals such as individual career progression, at co-workers, and at the broader organization, respectively.

Issues around the Conceptualization of Proactivity

In this article, we have defined proactivity as a way of behaving, and therefore acknowledge the role of both individual difference variables (e.g., personality) and situational forces (job design) in shaping this type of action. Early research on the topic of proactivity, however, conceived of it as a stable, dispositional variable. From this view point, 'proactive personality' refers to an individual who is relatively unconstrained by situational forces, and who effects environmental change (Bateman & Crant, 1993). This concept assumes proactive individuals are proactive across multiple contexts and over time, regardless of the contingencies of a situation. Whilst this personality approach is valid, we prefer to focus on proactive actions within a particular context, recognizing that proactive behavior is shaped not only by one's overarching personality, but by one's motivation in a particular context.

A further perspective is to consider proactivity as a special type of citizenship or extra-role behavior. Some have argued that proactive behavior is by definition 'extra-role' since in-role activities are non-discretionary and hence not self-directed (Van Dyne & LePine, 1998). However, classifications of in-role and extra-role are unclear, and depend on how employees construe the

PROACTIVE WORK BEHAVIOR

boundary of their role (Morrison, 1994). Proactive individuals are likely to construe their roles more broadly (Parker, Wall, & Jackson, 1997) and to redefine their roles to encapsulate new tasks and goals (Frese & Fay, 2001). These issues have led researchers to suggest that a more useful way of understanding proactivity is in terms of a dimension that is distinct from in-role and extra-role behavior (and the related dimension of task/ contextual performance). Thus, all types of performance – whether they are defined as task, conceptual, citizenship, or extra-role – can be carried out more or less proactively (Crant, 2000; Grant & Ashford, 2008; Griffin et al., 2007). From this perspective, there is no need to confine proactive behavior to be citizenship or extra-role behavior, and not all extra-role or citizenship behavior is proactive.

Proactive behavior can also be distinguished from related behaviors such as innovation and adaptivity. Innovation is by definition ‘novel’, whereas being proactive does not necessarily imply novelty. Employees might, for example, speak out on issues that affect their work group or they might take charge to resolve a pre-existing problem. Such behavior can be classified as proactive, yet not as innovative (Unsworth & Parker, 2002). Nevertheless, proactivity and innovation are related in that future and change-oriented behaviors are important for the implementation aspect of innovation. For example, Parker & Collins (in press) found high correlations between two proactive behaviors (taking charge and voice) with the implementation items of Scott and Bruce’s (1994) individual innovation measure ($r=.58$, $r=.45$, both $p<.01$; for taking charge and voice, respectively).

Thus, in line with Rank, Pace and Frese (2004), we recommend that research in these two distinct research fields would benefit if findings were better integrated. In a similar vein, adaptivity and proactivity have some parallels in that both behaviors are especially important in uncertain, unpredictable contexts (Griffin et al., 2007). However, adaptivity is about adjusting to and responding to change, whereas proactivity is about initiating change.

PROACTIVE WORK BEHAVIOR

A further perspective on proactivity, which coincides with our understanding of proactivity as a way of behaving, is that it is not just a single act, but rather a process involving distinct phases. Grant and Ashford (2008) suggested that proactive action involves several phases (anticipation; planning; action towards impact). Frese and Fay (2001) similarly identified the redefinition of tasks, information collection and prognosis, plan and execution, monitoring and feedback as key phases of proactivity. Thus far, there is little empirical research from this perspective, as we elaborate later in the chapter.

Summary

In sum, although there are many ways of thinking about proactivity, as well as many relevant concepts across different domains, a useful approach is to consider proactivity as a self-directed way of behaving (or process) that involves thinking ahead to take charge of a situation and to bring about change in that situation or in one's self. Most fundamentally, it is about behavior that 'makes things happen', whether that be to change the work place, the broader organization and its strategy, one's fit within the organization, or one's personal career. We turn now to the core of the chapter: understanding the antecedents, processes and outcomes relevant to proactivity.

ANTECEDENTS, PROCESSES AND OUTCOMES OF PROACTIVE BEHAVIOR

Figure 1 shows a model that integrates existing research on the antecedents, outcomes, and underpinning processes of proactive behavior. Individual differences (personality, demographics, knowledge and abilities), as well as situational differences (job design, leadership, and climate-related constructs) have been identified as predictors of proactive behavior, both independently from each other, as well as in interaction with one another. These individual and situational differences form distal antecedents of proactive behavior. They appear to, at least in part, have their effects through more proximal cognitive-motivational and affect-related processes that influence proactivity. In turn, proactive behavior has been shown to influence individual outcomes (e.g., job

PROACTIVE WORK BEHAVIOR

performance, well-being, identification). It has further been linked to outcomes on the team level (e.g., team effectiveness), and to the organizational level (performance of the organization). The link between proactive behavior and different individual outcomes has been shown to be partially dependent on individual and situational moderators, labeled in our model as ‘appropriateness of proactive behavior’. Our proposed model extends Crant’s (2000) earlier model that also showed antecedents and outcomes of proactive behavior. In contrast to Crant, in our model, we indicate interactions between individual and situational antecedents, differentiate proximal motivational processes from more distal antecedents of proactive behavior, identify broad categories of proactive behavior, and consider moderators of the outcomes of proactive behaviors.

PLEASE INSERT FIGURE 1 ABOUT HERE

Motivational Processes (Proximal Antecedents)

We start our discussion of the model with the motivational processes that underpin proactive behavior because it is these processes that are the most direct in their influence. Specifically, we report evidence suggesting the importance for proactivity of what Mitchell and Daniels (2003) refers to as ‘cold’ (or cognitive-motivational) processes as well as ‘hot’ (or affect-related) processes.

Cognitively-oriented Motivational Processes

From a motivational perspective, most attention has been given to two cognitive-motivational processes that underpin proactivity (Parker et al., 2006b): first, one’s perceived capability of being proactive, and second, one’s wish to, or interest in, performing proactive behaviors.

Turning to the first of these, engaging in proactive behaviors is likely to involve a deliberate decision-process in which the individual assesses the likely outcomes of these behaviors (see

PROACTIVE WORK BEHAVIOR

Vroom, 1964). A belief that one can be successful (perceived capability) is important because being proactive entails quite a high potential psychological risk to the individual. Consistent with this idea, there is good evidence of the importance for proactivity of self-efficacy, or people's judgments with regards to their capability to perform particular tasks (Bandura, 1986). In a sample of part-time MBA students, self-efficacy beliefs were linked with higher levels of taking charge behaviors as rated by co-workers ($\beta=.20$; $p<.001$; Morrison & Phelps, 1999). Similarly, in a highly sophisticated, longitudinal design over four time points, Frese and colleagues (2007) showed that employees with higher levels of self-efficacy (operationalized in a combined measure with control aspirations and perceived opportunity for control) were also more likely to be rated as higher in self-initiative at the corresponding time point. In addition to general self-efficacy beliefs, specific domains of self-efficacy have been tested in proactivity research. For example, in a meta-analysis over fifty-nine studies and across 19,957 individuals, Kanfer, Wanberg, and Kantrowitz (2001) found a significantly positive, mean corrected sample-weighted correlation between job search-related self-efficacy and proactive job search ($r_c=.27$, $p<.05$). Another example is role breadth self-efficacy, or one's perceived capability of carrying out a range of proactive, interpersonal, and integrative activities beyond the prescribed technical core (Parker, 1998). Role breadth self-efficacy has been shown to promote the suggesting of improvements ($\beta=.31$, $p<.001$; Axtell, Holman, Unsworth, Wall, & Waterson, 2000), a combined measure of problem solving and idea implementation ($\beta=.24$, $p<.01$; Parker et al., 2006b); personal initiative ($\beta=.27$, $p<.05$; Ohly & Fritz, 2007); voice, taking charge, and strategic scanning ($\beta=.23$, $\beta=.15$, $\beta=.16$, respectively, all $p<.01$; Parker & Collins, in press) as well as individual, team-member, and organization-member proactivity across two different organizations ($\beta=.35-.37$; $\beta=.33-.41$; $\beta=.33-.34$, respectively, all $p<.001$; Griffin et al., 2007), to name but a few. In sum, there is consistent, and collectively strong, evidence that perceived capability is positively related with proactivity at work.

PROACTIVE WORK BEHAVIOR

However, it is not enough for individuals to believe that they ‘can’ achieve an outcome; they also need to want to: “Even if people are certain they can do a task, they may have no compelling reason to do it” (Eccles & Wigfield, 2002, p.112). In other words, there is a need to focus on the ‘why’ of proactive behavior. Relevant to this, a second motivational process underpinning proactive behavior is that one sees this behavior as important for fulfilling one’s goals or aspirations. This theme fits with broader motivational theories such as goal-setting theory (Locke & Latham, 1990), action theory (Hacker, 1985) and social cognitive theory (Bandura, 1986), and relates to Crant’s (2000) recommendation to consider the role of goals in proactive behavior. At the simplest level, the outcome individuals are aiming for needs to be important to them. For example, meta-analytic evidence suggests a positive relationship between a strong financial need for employment, as well as high levels of employee commitment, with proactive job search ($r_c=.21$, $p<.05$; $r_c=.29$, respectively, both $p<.05$; Kanfer et al., 2001).

What individuals aspire for is also important. For example, Tuckey, Brewer and Williamson (2002) in a sample of civil service employees found that the desire for useful information positively predicted feedback seeking ($\beta=.23$, $p<.05$). Fay and Frese (2001) investigated the antecedents of personal initiative for employees in East Germany over the duration of six years, starting at the time of the unification of East and West Germany. The researchers found that those individuals who indicated high aspirations for control, who wished to be ‘on top of things’, were more likely to show high levels of personal initiative. In a very similar vein, Ashford and Black (1996) found that individuals’ desire for control was positively linked with engagement in proactive socialization tactics: employees who indicated high levels of desire for control were more likely to engage in information seeking ($\beta=.30$, $p<.01$), socializing ($\beta=.24$, $p<.05$), networking ($\beta=.29$, $p<.01$), job-change negotiation ($\beta=.24$, $p<.05$), and positive framing ($\beta=.22$, $p<.05$). Similarly, an individual’s belief that he or she is personally obligated to bring about environmental change has been

PROACTIVE WORK BEHAVIOR

repeatedly positively linked with proactive behaviors such as taking charge ($\beta=.28$, $p<.001$, in Morrison & Phelps, 1999; $\beta=.42$, $p<.01$, in Parker & Collins, in press), voice ($\beta=.31$, $p<.05$, in Fuller, Marler, & Hester, 2006; $\beta=.24$, $p<.01$, in Parker & Collins, in press), individual innovation and problem prevention ($\beta=.18$, $\beta=.22$, respectively, both $p<.01$; Parker & Collins, in press) and continuous improvement ($\beta=.38$, $p<.05$; Fuller et al., 2006). Likewise, employees' high levels of prosocial motives are positively related with the display of initiative at work ($\beta=.22$, $p<.01$; Grant & Mayer, in press).

The employees' attitude towards their organization seems to take on an influencing role in determining levels of proactivity at work. For example, employees who intend to leave the organization are less likely to voice concerns about organizational improvements ($\beta=-.14$, $p<.001$; Burris, Detert, & Chiaburu, 2008). Organizational commitment, on the other hand, may set the frame for employees' goals to engage in proactive behaviors at work. For example, amongst employees working in the financial services sector, affective commitment was positively related with employees' engagement in proactive service performance ($\beta=.24$, $p<.01$; Rank, Carsten, Unger, & Spector, 2007). In a study across two organizations, Griffin and colleagues (2007) found positive relationships between affective organizational commitment with proactive behaviors directed at improving the effectiveness of the organization ($\beta=.17$, $p<.001$; $\beta=.23$, $p<.001$, for organizations 1 and 2, respectively). The relationships between organizational affective commitment with proactive behaviors directed at the individual or the team were comparatively smaller or non-significant altogether, thus indicating a match between the focus of commitment with the type of proactive action taken. Similarly, Den Hartog and Belschak (2007) showed that different foci of commitment (career, supervisor, team, or organization) related in differential ways with self and supervisor-ratings of personal initiative. Controlling for work-related affect, the researchers found that team commitment was most consistently positively related with self-rated

PROACTIVE WORK BEHAVIOR

personal initiative ($\beta=.16, p<.01$; $\beta=.30, p<.01$; for two independent samples respectively) whereas organizational commitment emerged as a strong positive predictor of supervisor-rated self-initiative ($\beta=.43, p <.01$). An explanation for these findings could be that different types of commitment might shape different types of self-initiative. For example, self-initiated actions which are motivated by the employees' goal to benefit the organization might be more salient to supervisors (hence the significant relationship), than are career or team-commitment driven actions.

A final theorized driving force of proactivity is employees' having a flexible role orientation (Parker, et al., 1997). Flexible role orientation refers to individuals' defining their job broadly, such as to include feeling ownership for customer satisfaction, rather than possessing a narrow and passive 'that's not my job' mentality. As Gagné and Deci (2005) argued, the concept of flexible role orientation might reflect the process of internalization by which external structures (the organization's goals, for example) are internalized. Parker and colleagues (2006b) found flexible role orientation worked together with role breadth self-efficacy to predict self-rated proactive behavior; with both of these aspects being significant and unique predictors, whereas affective commitment became unimportant once these beliefs were controlled for. Likewise, Dorenbosch, van Engen and Verhagen (2005) showed that ownership of work issues beyond one's immediate job (an indicator of flexible role orientation) predicted three types of self-reported innovative work behavior amongst Dutch administrative employees (with beta weights ranging from .29 to .44).

Affect-related Processes

There is good evidence that affect influences behavior (e.g., Ashforth & Humphrey, 1995; Brief & Weiss, 2002; Isen & Baron, 1991). In regard to proactivity more specifically, drawing on Fredrickson (1998), Parker (2007) proposed a model that identified two pathways by which positive affect might shape proactive behavior: a 'broaden' mechanism in which positive affect

PROACTIVE WORK BEHAVIOR

broadens momentary motivational and cognitive processes, and a ‘build’ mechanism in which accumulated positive affect has an effect on more enduring cognitive-motivational states (e.g., self-efficacy, role orientation) and ultimately affects individuals’ capabilities (e.g., their resilience and coping ability). In regard to the broaden mechanism, Parker argued that proactive behavior requires that individuals choose to allocate their effort towards challenging, longer-term, and often rather risky goals. Positive affect is likely to influence the selection of such goals because it broadens thinking and results in more flexible cognitive processes (Fredrickson, 1998, 2001; Isen, 1999). Positive affect also promotes more responsible behavior that is consistent with a long-term focus (Isen & Reeve, 2005). Consistent with these ideas, positive affect has been linked with the setting of higher and more challenging goals (Ilies & Judge, 2005), as well as with engagement with a more problematic future (Oettingen, Mayer, Thorpe, Janetzke, & Lorenz, 2005). Moreover, proactive behavior, with its focus on change, requires regulating one’s effort, staying ‘on-task’, and not being de-railed by negative events. Evidence suggests that positive mood can create an upward spiral of self-regulatory advantage that will help individuals sustain their proactive action (Martin, Ward, Achee, & Wyer, 1993). Parker therefore proposed that positive affect also promotes the goal striving that is necessary for proactivity.

In regard to the build mechanism, Parker argued that these processes over time accumulate to build more enduring aspects of individuals, such as self-efficacy, resilience, and cognitive complexity. This building-thesis is consistent with Weiss and Cropanzano (1996) who proposed that, as well as affective states leading to affect-driven behaviors, affect can also cumulatively shape overall job attitudes and judgments, and hence can influence judgment-driven behaviors.

A further feature of the model developed by Parker (2007) is that it identifies individual and contextual contingencies that affect the key relationships. For example, prior evidence shows that the broadening effect of positive mood on cognitive processes only occurs if the task is judged to

PROACTIVE WORK BEHAVIOR

be important (see Isen, 1999). Positive affect might therefore promote proactivity only when the goal or tasks are considered important and significant. Parker also proposed that high-arousal positive affect (e.g., enthusiasm) will be more important in driving proactive behavior than low-arousal positive affect (e.g., contentment). Contentment, for example, has been linked with inactivity (Frijda, 1986) and appears to facilitate reflection rather than forward-thinking. Enthusiasm, in contrast, is likely to enhance individuals' energy for behaving proactively.

Recent research supports some of Parker's (2007) propositions. In a cross-sectional study conducted in a health care sector environment (Den Hartog & Belschak, 2007), employees who indicated positive high-arousal work-related affect also reported higher levels of personal initiative at work ($\beta=.26, p<.01$; $\beta=.29, p<.05$, for two independent samples respectively). Interestingly, the researchers did not find any relationship between positive affect and supervisor-rated self-initiative. This could indicate that relationships between self-reported affect and proactive behavior at work merely reflect respondents' tendencies to view their behavior in a more positive light when in a good mood, thus stressing the importance of using multiple sources for measuring the relationship between affect and proactivity. Fritz and Sonnentag (2009) investigated day-level variations of affect and proactivity at work. The researchers distributed daily questionnaires over the period of four consecutive work days to a sample of civil service employees. High arousal positive affect was positively related with taking charge behaviors both on the same day ($\gamma=.33, p<.01$), as well as on the following day ($\gamma=.27, p<.05$). Fritz and Sonnentag's study relied on self-reports of taking charge, but the lagged effect of affect on behavior over time helps to establish that affect causes behavioral change rather than the association being a methodological artifact.

In a study of MBA students that used other-reports of proactivity, Parker, Collins and Grant (2008) showed that high arousal positive affect predicted taking charge ($\beta=.20, p<.01$) and strategic scanning ($\beta=.30, p<.01$). Positive affect was, however, only associated with individual innovation

PROACTIVE WORK BEHAVIOR

and issue selling when individuals did not possess a high performance orientation. When performance orientation was high, the negative association of a strong desire to prove one's competency on proactivity appeared to overwhelm any value of positive affect. The authors interpreted these findings as suggesting that positive affect has a direct influence on some types of proactive behaviors, whilst for others – perhaps those that are perceived as more risky such as innovation and issue selling – other motivational dynamics might play a suppressing role.

Several studies investigated the influence of concepts on proactivity at work which are rather close to, albeit not identical with, positive work-related affect. Job engagement, for example, was measured by investigating respondents' feelings of work-related vigor, dedication and absorption. Employees who feel engaged should be more likely to engage in effortful behaviors that are related with changing the situation or themselves, than employees who feel less engaged. In support of this argument, Salanova and Schaufeli (2008) found for a Spanish and a Dutch sample, respectively, positive relationships between work engagement and self-reported personal initiative ($\beta=.56$, $\beta=.64$, both $p<.001$). There has been evidence that this relationship also holds for a three-year time frame: In a sample of dentists, those individuals who indicated higher levels of work engagement at time point one also indicated higher levels of personal initiative three years later, whilst controlling for previous levels of personal initiative ($\beta=.13$, $p<.001$; Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). Interestingly, the authors further found a weakly positive association between personal initiative and subsequent higher levels of work engagement for the same time frame ($\beta=.09$, $p<.001$), indicating a reciprocal effect between work engagement and personal initiative.

Regarding the possible influence of work engagement onto personal initiative, further support stems from longitudinal frames of investigations conducted via diary studies. Sonnentag (2003) found positive relationships between day-level work-engagement and day-level self initiative ($\gamma=.77$, $p<.001$), as well as the pursuit of learning ($\gamma =.78$, $p<.001$) over the period of five

PROACTIVE WORK BEHAVIOR

consecutive days. In a similar string of research, but showing even more powerful lagged effects, Binnewies, Sonnentag and Mojza (2009) showed that the feeling of being recovered in the morning predicted higher levels of self-initiative during the same work day ($\gamma=.21$, $p<.001$), and Binnewies, Sonnentag and Mojza (in press, b) showed that employees who recover well from work over the weekend are likely to engage in higher levels of personal initiative during the following working week ($\gamma=.15$, $p<.001$). Further, Binnewies, Sonnentag, & Mojza (in press, a) found that positive reflection about work during non-work time may contribute to subsequent, higher levels of personal initiative at work ($\beta=.10$, $p<.05$), thus indicating a positive spill-over effect from non-work to work. Altogether, there is good evidence of the beneficial role of positive affect, and affect-related concepts such as feeling recovered and vigorous, for proactive behavior, although the contingencies that affect this relationship need further investigation.

Even though it might be expected that negative affect would suppress proactivity, under some situations negative affect might signal a discrepancy between an actual situation and a desired situation, thereby stimulating individuals to engage in self-initiated and change-oriented behaviors in order to reduce the perceived discrepancy (Carver & Scheier, 1982). In support of this argument, Den Hartog and Belschak (2007), across two cross-sectional studies, found some evidence that high-arousal work-related negative affect positively related to personal initiative, although the effect was not consistent across different samples and only applied to self-ratings of initiative. Further calling into question the relationship between negative affect and proactivity, Fritz and Sonnentag (2009) in their diary study found that high arousal negative affect was not related with proactivity, although the same measure for affect was used, and a similar type of proactivity at work, was investigated. Altogether, more research is needed. Perhaps, in order to signal action to remove an unpleasant situation, more constant feelings of negative affect are needed, as opposed to daily feelings of negative affect over the course of one single week.

PROACTIVE WORK BEHAVIOR

Finally, in her model of affect, Parker (2007) proposed contagion and signaling as two processes by which individual's affect can affect other's affect, and thereby their proactive behavior. In this vein, Ang, Cummings, Straub and Earley (1993), in a series of laboratory studies, showed that individuals were more likely to engage in feedback seeking when they perceived that the person they were to seek feedback from was in a good mood. Similarly, Morrison and Bies (1991) in their literature review argued that employees are more likely to engage in feedback seeking if the person to seek feedback from is in a positive mood, because they feel their act of feedback seeking will be seen more favorably. Additionally, Rafaeli (2008) proposed that colleagues' negative affect may deplete an individual's own resources. A depletion of resources, in turn, could result in decreased levels of proactivity at work.

Overall, there is reasonably good evidence that affect can promote or inhibit proactive behaviors. However, future research needs to disentangle the role of different types of affect, as well as dynamic, intra as well as inter-personally affective processes, in more detail. For example, Russell and Feldman Barrett (1999; Russell, 2003) suggested to differentiate affect into the dimensions of pleasure vs. displeasure, and activation vs. deactivation. Research that accounts for these dimensions will yield further insights into the role of affective experiences on proactivity at work. Moreover, how affect relates to judgments of efficacy and individual's proactive goals have yet to be investigated, as have the build mechanisms proposed by Parker (2007).

Individual and Situational Antecedents of Proactive Behavior

Whereas the above section focused on the proximal motivational processes, this section looks at more distal influences, including individual antecedents (demographics, knowledge and abilities, as well as personality), situational antecedents (job design, leadership, and climate), and the interaction between individuals and their situations (see Figure 1). We also describe evidence

PROACTIVE WORK BEHAVIOR

suggesting that the various individual and situational factors can have their influence through the motivational processes described above.

Individual Antecedents

Demographics. Several studies have investigated the relationship between demographical factors and proactive behavior at work. Age appears to be negatively related to several proactive person-environment fit and career behaviors. For example, Kanfer and colleagues (2001) in their meta-analysis, found a very small, albeit significantly negative, mean corrected sample-weighted correlation ($r_c = -.06$, $p < .05$) between age and proactive job search behaviors. This finding coincides with previous research which showed that older individuals typically tend to show lower levels of training motivation (e.g., Maurer, Weiss, & Barbeite, 2003; Warr & Birdi, 1998). Warr and Fay (2001), in a longitudinal, interview-based study, found that age related negatively to person-environment fit proactivity (measured by education initiative) over the two time points – 14 months apart each – of investigation (with beta weights varying from $-.16$, $p < .05$ to $-.27$, $p < .01$).

In relation to work-improvement types of proactivity, results are inconsistent. Some studies show no relationships with age (Morrison & Phelps, 1999; Warr & Fay, 2001 for male respondents) whereas others suggest less proactivity for older workers (Jannsen & Van Yperen, 2004; Axtell et al., 2000) and one study shows greater proactivity with age, at least for women (Warr & Fay, 2001). Altogether, whilst younger employees might not have arrived at their final career position, and are therefore likely to engage in career behaviors, employees of all ages could be equally concerned with improving the effectiveness of work processes and methods. Further studies are needed, including studies that carefully distinguish age from tenure.

Research findings also suggest a mixed picture with regard to the influence of gender on proactive behaviors: Men were found to be more proactive than women both in terms of their willingness to engage in proactive job search ($r_c = .05$, $p < .05$; Kanfer et al., 2001) and, as a finding

PROACTIVE WORK BEHAVIOR

of a multi-national study in several industrialized countries, in networking behaviors ($\beta=.09$, $p<.05$; Claes & Ruiz-Quintanilla, 1998). Men have also been found to be more likely to voice concerns about issues in the workplace ($\beta=.15$, $p<.01$; LePine & Van Dyne, 1998). However, all of these effects are small, and Griffin et al.'s (2007) study showed inconsistent results with regards to the relationship between gender and proactivity depending on the sample. An issue here is that gender often confounds with occupational type and level, and these aspects need to be controlled in order to understand the role of gender and proactivity at work. An interesting insight into the relationship between personal initiative and age was provided by Warr and Fay (2001). Controlling for hierarchical level, job control and complexity, there was no relationship between age and personal initiative for men. However, with regards women, mixed results were found: Interestingly, for women, age and interview-measured self-initiative at the first time point were negatively related ($\beta=-.15$, $p<.05$), whereas age and self-reported self-initiative measured at the second time point were positively related ($\beta=.29$, $p<.001$). The authors argued that the female respondents, who lived in East Germany, possibly felt alienated from work out of feelings of age discrimination after the reunification of Germany, therefore resulting in lower interview-based self-initiative. The positive relationship between age and self-rated personal initiative was argued to have resulted out of higher levels of self-esteem in older women. Further research could take into account possible aspects related to gender-specific social norms on the development of work proactivity.

Ethnicity could play a role in influencing individuals' engagement in proactive behaviors. Proactive behavior is a risky behavior which is facilitated if individuals feel they belong to an in-group (Dutton, Ashford, Lawrence, & Miner-Rubino, 2002), possibly discouraging ethnic minorities from engaging in proactive behaviors. To date, US-based research which included ethnicity as an antecedent for proactive behaviors at work did not reveal clear insights into these possible relationships. LePine and Van Dyne (1998) found that white employees are more likely to

PROACTIVE WORK BEHAVIOR

engage in voice ($\beta=.09$, $p<.05$), Kanfer and colleagues (2001), on the other hand, found that white employees are less likely to engage in proactive job search than were their non-white colleagues ($r_c=-.05$, $p<.05$). However, these results are overall small in size, and third variables could explain the results. In this vein, in the study by LePine and Van Dyne (1998), ethnicity correlated more strongly with education than it did with proactivity ($r=.15$, $p>.01$ for education, as opposed to $r=.10$, $p>.05$ for proactivity) in that non-white employees typically also possessed lower educational qualifications. These qualifications in their own right might explain the relationship between ethnicity and the level of engagement in proactive behaviors.

To our knowledge there is only one study so far which has explicitly investigated the role of culture on proactive behavior at work. In a study across six countries, including Flanders, England, Israel, Italy, the Netherlands, and Spain, Claes and Ruiz-Quintanilla (1998) investigated the influence of cultural dimensions (Hofstede, 1991) on different types of proactive career behaviors. The researchers followed young workers for three years after their first job entry. Culture significantly related to all proactive behaviors investigated. For example, if individuals within a country generally tended to feel less comfortable with uncertain or unknown situations, they were also less likely to engage in skill development ($\beta=-.12$, $p<.05$) or in networking behaviors ($\beta=-.29$, $p<.001$) when at work. These findings make sense in the light of proactive behavior being a risky behavior which 'rocks the boat' and may yield uncertain outcomes due to its change-oriented motivation (Frese & Fay, 2001). Similarly, individuals in more collectivist countries, where the in-group protects and cares for an individual, showed less engagement in career planning behaviors than did their more individualistic counterparts ($\beta=-.13$ $p<.01$). Related research found that in US-companies, Asian American employees, who are typically high in collectivism, tend to progress more slowly in their career than do their individualist European American colleagues (Xin, 2004), probably because they feel more uncomfortable directing too much attention onto their own person

PROACTIVE WORK BEHAVIOR

(Heine, Markus, Lehman, & Kitayana, 1999) – an effect which is likely to be prevalent when engaging in proactive behaviors. These findings raise interesting future research questions as to, for example, in how far proactivity varies in Asian companies, as compared to in US-American or European companies where most research on proactivity has been conducted so far.

In sum, little research has explicitly investigated the relationship between demographical factors and proactivity at work. So far, research on proactivity has almost exclusively looked at the antecedents of proactivity at work for white-collar employees in industrialized Western countries, and has investigated relationships with demographic factors more in order to statically control for their effects than in order to understand them.

Knowledge and abilities. Knowledge and abilities have been suggested to influence individuals' proactive behavior at work. Fay and Frese (2001, p.104) argued: "To be able to take initiative, one needs a good and thorough understanding of what one's work is, that is, one needs job-relevant knowledge, skills, and cognitive ability." There has been some empirical support for this argument. For example, for employees in East and West Germany, Fay and Frese (2001) found moderately positive relationships between job qualification and both self-rated and other-rated personal initiative ($r=.24$ to $.48$, $p<.01$). In a study with just employees from East Germany, the authors found additional support for a stable positive correlation between cognitive ability and personal initiative ($r=.27$ to $r=.46$ across five time points, all $p<.01$). Kanfer and colleagues (2001) found meta-analytical evidence of a positive relationship ($r_c=.12$, $p<.05$) between educational background and the degree of proactive job search. In the same vein, in their research on voicing behavior in groups, LePine and Van Dyne (1998) found that individuals with a higher educational background were also more likely to speak out with suggestions for improvements ($\beta=.13$, $p<.05$). Likewise, job-specific expertise has been found to be a promoting factor for proactivity at work. In their qualitative study with employees from different hierarchical levels, Dutton and colleagues

PROACTIVE WORK BEHAVIOR

(2001) identified three facets of knowledge that facilitated individuals' proactive issue selling attempts to the top management: relational knowledge (e.g., insights into questions such as 'who will be affected by the issue'), normative knowledge (e.g., insights into the question of 'what kinds of meetings or social gatherings are considered legitimate decision forums?'); and strategic knowledge (e.g. insights into the question 'what are the organization's goals?'). Building on Dutton et al.'s (2001) work, in a further, qualitative study, Howell and Boies (2004) compared 19 pairs of innovation champions and non-champions across 15 organizations. Results for coded content analyses indicated that contextual knowledge positively related to individuals' packaging ideas for promotion ($\lambda=.53$, $p<.01$). In a related vein, Ohly, Sonnentag, and Pluntke (2006) found that routinization, the automaticity with which employees carry out their tasks, was as a tendency positively related with the engagement in personal initiative ($\beta=.09$, $p<.10$). Routinization likely reflects deep-level knowledge of the task.

In sum, most of the existing studies indicate a consistently significant and positive relationship between cognitive ability and job-specific expertise with proactive behaviors. However further longitudinal research is needed in order to provide more secure insight into these relationships.

Personality. A considerable amount of research has investigated personal trait characteristics as antecedents for proactive behavior, particularly using the concept of 'proactive personality', or the tendency of an individual to influence their environment and to bring about change across multiple contexts and times. Bateman and Crant (1993) developed and validated a 17-item proactive personality scale, which investigates respondents' agreement to items such as "If I see something I don't like, I fix it." The change-oriented and self-initiated focus of the proactive personality scale makes it highly relevant as an antecedent to specific proactive behaviors. Indeed, a vast number of findings confirm a consistently positive relationship between proactive personality

PROACTIVE WORK BEHAVIOR

and distinct proactive behaviors. To name a few, exemplary findings, proactive personality has been positively linked with network building ($\beta = .18$, $p < .05$ in Lambert, Eby, & Reeves, 2006; $\beta = .37$, $p < .05$; Thompson, 2005), proactive socialization into the organization ($\gamma = .13$, $p < .01$; Kammeyer-Mueller & Wanberg, 2003), career initiative ($\beta = .32$, $p < .01$; Seibert et al., 2001), and various proactive work behaviors such as taking charge, individual innovation, problem prevention, and voice ($\beta = .15$; $\beta = .23$; $\beta = .17$; $\beta = .20$, respectively, all $p < .01$; Parker & Collins, in press).

Apart from a direct relationship with proactive behavior, evidence suggests that proactive personality has its effects via several cognitive-motivational states (role breadth self-efficacy, as well as flexible role orientation in Parker et al., 2006b; job search self-efficacy in Brown, Cober, Kane, & Shalhoop, 2006; motivation to learn in Major, Turner, & Fletcher, 2006). Several of these studies include longitudinal designs, and the use of other-reports of proactivity at work provide rather good evidence that proactive personality drives a range of specific proactive behaviors.

Another potentially relevant personality dimension is conscientiousness, reflecting tendencies and behaviors related to dependability, conformity, and perseverance (Costa & McCrae, 1992). Unlike other 'Big 5' personality dimensions, conscientiousness has been rather consistently linked to proactive behaviors such as proactive job search (meta-analytic evidence of $r_c = .38$, $p > .05$; Kanfer et al., 2001), proactive performance and task information seeking ($r = .18$; $r = .18$, both $p < .01$; Tidwell & Sias, 2005), as well as to career planning behaviors ($r = .32$, $p < .05$; Carless & Bernath, 2007). Consistent with these studies, Parker & Collins (in press) showed that conscientiousness predicted proactive person-environment fit behaviors such as feedback inquiry both directly, as well as indirectly via the influence of role breadth self-efficacy and felt responsibility for change. However, Parker and Collins found conscientiousness unimportant for proactive work behaviors such as taking charge and individual innovation. These researchers argued that conscientious individuals tend to be rather cautious and appreciative of rules, which stands in contrast to the

PROACTIVE WORK BEHAVIOR

change-oriented nature of these proactive work and strategic behaviors. In contrast, conscientious individuals have a special desire to be dependable and therefore strive to fit in well with the organization, and are thereby more likely to engage in proactive person-environment fit behaviors.

Several further character traits that are linked to employees' willingness to look ahead and to learn new things also influence on proactive behavior: For example, employees who are high in intellectual curiosity were found to be more likely to engage in environmental scanning, specifically in gathering useful information from outside and inside the organization, than were intellectually less curious employees (Howell & Shea, 2001). Employees who are high in consideration of future consequences, the extent to which one considers distant versus immediate consequences, were also found to be more proactive over a wide range of domains (Parker & Collins, in press). On the contrary, employees who tend to have a reluctant attitude towards change, also tend to show less proactivity at work. Fay and Frese (2000) showed that psychologically conservative individuals, measured as the degree to which individuals favored an authoritarian way of upbringing and were politically conservative, scored lower on personal initiative, probably because they were conservative about change ($\beta = -.23$, $p < .05$). Similarly, Fay and Frese (2001) in longitudinal analyses of the same sample reported consistently positive relationships between individuals' tendency of readiness to change, and their current and future level of personal initiative ($r = .25$ to $.45$, all $p < .01$).

Likewise, individuals who are high in learning goal orientation (a preference to understand or master new aspects) as opposed to in performance goal orientation (a preference to gain favorable, and avoid negative, judgments of their competence; Dweck, 1986) have been found to be more likely to engage in feedback seeking ($\beta = .16$, $p < .05$, in Parker & Collins, in press; $\beta = .30$, $p < .001$ for a student sample in Tuckey, Brewer, & Williamson, 2002; $\beta = .13$, $p < .05$ in VandeWalle, Ganesan, Challagalla, & Brown, 2000). One explanation for the favorable role of learning goal

PROACTIVE WORK BEHAVIOR

orientation is that individuals who emphasize learning processes rather than demonstrating capability might find it less risky and more valuable to engage in feedback seeking and therefore engage more frequently in this type of behavior (VandeWalle, 2003; VandeWalle & Cummings, 1997). Finally, consistent with the importance of perceived capability for the choice to engage in proactive behaviors as outlined earlier on in this chapter, traits which tap into individuals' perception of control and self-worth have been positively linked to proactive behaviors at work ($r_c=.25$, $p>.05$ for self esteem in Kanfer et al., 2001; see e.g. Wrzesniewski & Dutton, 2001, for a theoretical elaboration on the relationship between control-related needs and job crafting).

In sum, plenty of research to date has focused on dispositional antecedents of proactivity work, and has provided multi-faceted insights into the role of different types of predispositions for proactive behaviors. Interestingly, some dispositions seem to promote a wide range of proactive behaviors (e.g., proactive personality), whereas others seem to be helpful in promoting only very specific types of proactivity at work (e.g., learning goal orientation). Systematic meta-analyses could reveal more insight into the overall strengths of relationships, while taking into account non-significant results in (non) published studies.

Situational Antecedents

Being proactive is certainly about the type of person one is: – demographics and personality factors all play a role. However the situation also makes a big difference. Individuals in psychologically 'unsafe', de-motivating work teams, for example, are unlikely to take the risk to be proactive. In recent times, there has been a growing focus on work and organizational differences in predicting proactive behavior at work. We summarize findings concerning job design, leadership, and climate-related variables.

Job Design. A long history of job design research has shown that work structures influence the motivation, behavior and well-being of employees (for reviews, see e.g. Latham & Pinder,

PROACTIVE WORK BEHAVIOR

2005; Morgeson & Campion, 2003; Parker & Ohly, 2008). As elaborated earlier, proactive behavior at work is a special type of motivated behavior, which goes hand in hand with perceptions of control and capability. Work design aspects that promote these perceptions should therefore be linked with higher levels of proactivity. In this vein, the concepts of job autonomy, complexity and control, all concerned with the degree to which employees can choose how to proceed with their work, have been very consistently shown to be positively related with proactive behaviors (e.g., Frese et al., 2007; Morrison, 2006). For example, job autonomy has been positively linked with proactive behaviors such as personal initiative ($\beta=.38$, $p<.05$, for a longitudinal investigation; Hornung & Rousseau, 2007) and idea implementation and problem solving ($\beta=.27$, $p<.01$; Parker et al., 2006b). Frese and colleagues (1996) recommended as a result of their longitudinal study that it would be wise to increase job control and complexity in order to enhance personal initiative at work, rather than to focus solely on selecting dispositionally-proactive employees into the organization.

Different pathways through which job design has its influence on proactivity at work are possible. Recently, Salanova and Schaufeli (2008) found that job engagement (feelings of vigor and dedication) mediated the relationship between job resources (job control, feedback, and variety) and personal initiative. Several longitudinal studies have shown that job enrichment predicts self-efficacy and flexible role orientations (Axtell & Parker, 2003; Parker, 1998; Parker et al., 1997), which in turn have shown to predict proactivity (Parker et al., 2006b). In a study based on nurses, Tangirala and Ramanujam (2008) found a u-shaped relationship between personal control and voice such that high levels of personal control were most highly positively related with voice, medium levels of job control showed a negative relationship with voice, and low levels of personal controls again showed a positive relationship with voice, albeit not as strong as the high personal control/voice combination. The researchers interpreted their findings thus:

PROACTIVE WORK BEHAVIOR

“At low levels of control, employees engage in voice owing to a particularly strong motivation arising from personal dissatisfaction with the status quo. At high levels of control, employees engage in voice owing to a particularly strong motivation arising from enhanced expectancy of successfully influencing organizational outcomes. At intermediate levels of control, neither motivation is strong” (p.1192).

These findings relate to our earlier review of the influence of affect-related motivational processes. One could speculate that low control evokes high arousal negative affect, and thereby promotes voice via a discrepancy-reduction motivation; high control is likely associated with high arousal positive affect, thus both encouraging voice out of a broadening mechanism; and medium levels of control might be related with low-arousal affective states which thus promote inactivity.

In line with Tangirala and Ramanujam’s (2008) findings, other ‘negative’ work characteristics have been positively linked with proactive behavior. There has been both conceptual consideration for (Frese & Fay, 2001), as well as empirical support for (e.g., Fay & Sonnentag, 2002; Ohly et al., 2006), the positive role of job stressors like time pressure and situational constraints in motivating employees to engage in proactive behavior at work. For example, Ohly and Fritz (in press) in an experience-sampling approach found support for the assumption that employees perceive time pressure as challenging, and that challenge appraisal in turn promotes proactivity at work. A theory which researchers repeatedly drew on is control theory (Carver & Scheier, 1982). Stressors can thus be perceived as a deviation between a desired and an actual situation, thereby motivating employees to take an active approach in order to decrease the difference between the desired and actual states. Research on proactive coping similarly highlights this active approach to decreasing an unpleasant situation (Aspinwall & Taylor, 1997).

In sum, research on job design and proactivity suggests that proactivity may be shaped by job features, both positive and negative. More research is now needed to reveal how these influences develop over time. For example, time pressure might be helpful as a motivator for proactive behavior in the short run, but conservation of resources theory (Hobfoll, 1989, 2001)

PROACTIVE WORK BEHAVIOR

suggests that repeated exposure could deplete individuals' resources in the long run, thus not only decreasing well-being (e.g., Zapf, Dormann, & Frese, 1996), but also decreasing long-term proactivity. Other work characteristics have also been suggested (Grant & Ashford, 2008) to be important for proactivity (e.g., accountability; see also Anseel, Lievens, & Levy, 2007, for future avenues of research in feedback seeking) but have thus far not had much empirical attention.

Leadership. Leaders, through their impact on motivation as well as their direct effect on the work environment, likely have a role to play in shaping proactive action. Participative leadership, which emphasizes the value of subordinates' contributions as well as involvement in decision making, predicted higher levels of proactive service performance beyond several individual antecedents ($\beta=.30$, $p<.01$; Rank et al., 2007). Transformational leadership, leading towards motivating employees to go beyond standard expectations, was positively linked with supervisor-rated individual innovation behaviors ($\beta=.33$, $p<.01$; Rank, Nelson, Allen, & Xu, in press). In a more fine-grained investigation, Strauss, Griffin and Rafferty (in press) showed that it is not only the type of leadership approach that is important, but also the level of the leader. Team leaders' transformational leadership predicted role breadth self-efficacy and in turn team member proactivity (proactivity directed at changing a team situation and methods), whereas organizational leaders' transformational leadership predicted enhanced affective commitment which in turn predicted organization member proactivity (e.g., making suggestions to improve the organization). In a study that considered different types of proactivity, Belschak and Den Hartog (in press) reported positive relationships between transformational leadership and proactive behavior with an organizational focus ($\beta=.29$, $p<.01$), as well as with an interpersonal focus ($\beta=.32$, $p<.01$). Self-focused proactivity (e.g., career-initiative), however, was not predicted by transformational leadership.

PROACTIVE WORK BEHAVIOR

A high quality exchange between leader and employee should promote a climate of trust, in which employees dare to engage in change-oriented, self-initiated behaviors. In support of this, leader-member exchange (LMX) has been positively related to individual innovation behaviors ($r=.34$, $p<.01$; Janssen & Van Yperen, 2004), as well as to supervisor-rated voice ($r=.25$, $p<.01$; Burris, Detert, & Chiaburu, 2008).

Surprisingly, findings regarding the relationship between supportive leadership with proactive behaviors have been found inconsistent across studies. Whilst some research has found that supervisor support predicts higher levels of personal initiative ($\beta=.15$, $p<.05$; Ohly et al., 2006) and the implementation of ideas ($\beta=.18$, $p<.05$; Axtell et al., 2000), other research has found non-significant relationships between supportive leadership and the implementation of ideas (Frese, Teng, & Wijnen, 1999; Parker et al., 2006b). Similarly, whilst Axtell and colleagues (2000) found no significant relationship between supervisor support and employees' suggestions of ideas, Ohly et al. (2006) reported a significant negative relationship between the two constructs (parameter estimate = -2.05 , $p = 0.04$). Parker and colleagues (2006b) suggested that supervisors might experience an 'initiative paradox' (see Campbell, 2000) in which they feel threatened by their employees' proactive behavior, which might explain why supportive leadership is not necessarily beneficial.

In light of the above, it might be important for employees to perceive not only support from their immediate supervisors, but also from more powerful individuals in the organization at higher hierarchical levels, in order to risk the engagement in proactive behaviors. In this vein, top managements' appreciative attitude towards proactive behaviors seems to be helpful: Axtell et al. (2000) found that management support facilitated the implementation of ideas over and above the positive influence of supervisor support ($\beta=.23$, $p<.01$). Further, Morrison and Phelps (1999) found that top managements' openness to change was positively related with employees' willingness to

PROACTIVE WORK BEHAVIOR

engage in taking charge behaviors ($\beta=.15$, $p<.01$). Similarly, Dutton and colleagues (1997) in a qualitative research approach, based on grounded theory, explored that top management's willingness to listen to employees as well as a supportive organizational culture were positively related to employees' perception that it was favorable to engage in issue selling behaviors.

Climate. Proactive behavior is an interpersonal behavior in that it is likely to affect and provoke reactions from other individuals in the work environment due to its change-oriented nature. The way individuals perceive their work climate, such as others' receptiveness of their proactive actions, is therefore likely to be relevant. Empirically, those individuals who report being satisfied with their work group (LePine & Van Dyne, 1998) and who have a good relationship with the individuals who would be affected by their proactive action (Ashford et al., 1998) are more likely to engage in proactive behaviors. Similarly, the perception of being supported by coworkers (Griffin et al., 2007; Kanfer et al., 2001), or by the organization (Ashford et al., 1998; Dutton et al., 1997), positively relates to proactive behaviors at work. It would be interesting to see research that links climate at work with motivational processes such as self-efficacy, or positive affect, and to track changes in proactive behavior over time in such a research design. Parker and colleagues (2006b) provided a first insight into these links: For a sample of wire makers, the researchers showed that trust in coworkers may increase levels of self-reported proactivity at work, via broadening employees' perception of their role. Future, longitudinal, research may help to further disentangle the relationship underlying organizational climate and proactivity at work.

Interactions between Individual and Situational Antecedents

Individual and situational factors likely interact with each other. Mischel and Shoda (1995) argued that a strong situation (e.g., low autonomy) can overwhelm the role of individual differences, whereas a weak situation (e.g., high autonomy) can mean more scope for individual factors to play a role. Consistent with this, in a study measuring the daily performance at work, Binnewies and

PROACTIVE WORK BEHAVIOR

colleagues (2009) showed that for employees with a high level of job control, the positive relationship between feeling recovered in the morning with personal initiative during the working day was stronger. Job control seemingly allows employees to be proactive when they feel recovered at work, and equally to engage in less proactive behavior if they don't feel recovered. Those employees with low job control may not be in the position to vary their behavior at work regardless of how recovered they feel. Similarly, Grant and Sumanth (in press) investigated proactivity amongst a sample of professional fundraisers working for a US-based university. The researchers found that disposition can compensate for a weak situation: Those individuals who were high in dispositional trust propensity and were also prosocially motivated showed high levels of job-related initiative, even if they indicated their managers were not trustworthy.

Sometimes there is a positive synergy between the work situation and individuals. For example, Kim and Wang (2008) showed that individuals who are high in proactive personality are more likely to seek feedback from their supervisors if the overall climate in the organization is perceived to be fair, and if the supervisor usually engages in positive feedback, than are employees who are less dispositionally proactive. Similarly, McAllister and colleagues (2007) found that employees who perceive their organization as high in procedural justice and who simultaneously hold high role breadth self-efficacy beliefs were rated highest as taking charge at work by their supervisors (interaction effect of $\beta=.20$, $p<.001$). Recently, Griffin and colleagues (in press) found that leader vision in combination with high levels of role breadth self-efficacy led to significant increases in proactivity one year later. Parker and Sprigg (1999) showed that job control mitigated the stressful effects of high job demands for employees who were high in proactive personality but not for those who are more passive (interaction of $\beta=-.12$, $p<.01$). The researchers argued that proactive employees take advantage of high levels of job control to manage their job demands more

PROACTIVE WORK BEHAVIOR

effectively, whereas passive employees do not make good use of autonomy and so high levels of job demands lead to higher levels of strain irrespective of the level of job control.

Sometimes the situation and individual differences seem to substitute for each other. For example, Speier and Frese (1997) showed that the relationship between job control and initiative is higher for those individuals who have low levels of self-efficacy beliefs. The favorable work situation thus seemed to substitute low individual predispositions to act proactively. In a similar vein, LePine and Van Dyne (1998), drawing on behavior plasticity theory (Brockner, 1988), showed that individuals with low self-esteem were more receptive to favorable situational characteristics promoting voice behaviors in a group (e.g., high levels of overall group autonomy), than were individuals with high levels of self-esteem. Similarly, Rank and colleagues (in press), also drawing on behavioral plasticity theory, found that leadership may substitute for a lack of individual self-esteem. The researchers investigated the influence of leadership styles and individual differences (organization-based self-esteem) on individual innovation behavior. Transformational leadership was more strongly positively related with individual innovation for individuals with lower levels of organization-based self-esteem than for individuals with high levels in organization-based self-esteem, indicating a compensatory effect of leadership on individual differences.

There are of course many other potential interactions between the situation and the individual that might influence proactivity. Grant and Ashford (2008) proposed that three situational antecedents (accountability, ambiguity, and autonomy) are moderated by several dispositional moderators (self-monitoring and conscientiousness, neuroticism and openness, as well as core self-evaluations and maximizing/satisficing) to predict proactive behavior. For example, the authors hypothesized that individuals who are low in conscientiousness will be likely to display more proactive behavior under situations of high accountability, whereas highly conscientious

PROACTIVE WORK BEHAVIOR

individuals may be willing to engage in proactive behavior irrespective of the prevalence of accountability. These ideas, while theoretically promising, still await empirical support.

In sum, the focus of research on antecedents of proactive behavior at work to date has been on individual differences, such as proactive personality. In recent times, researchers have begun to investigate the influences of situational characteristics on proactive behavior at work, as well as interactions between personality factors and situational characteristics. The nature of work, leadership, and work climate can clearly shape employee proactivity. Future research, which focuses on a theory-driven, integrated and thoroughly longitudinal approach to studying the field of interest, will be needed in order to gain further insights into the complex, and possibly reciprocal, influences of disposition and situation on proactive behaviors at work.

Outcomes of Proactive Behavior

Whilst most of the research on employee proactivity focused on antecedents, some research has investigated outcomes of proactive behaviors. Here we focus on individual, team, and organizational-level outcomes.

Individual-level Outcomes of Proactivity

Proactive behavior has both conceptually, as well as empirically, been linked to superior performance. Particularly in uncertain contexts, taking charge of the situation rather than passively waiting to be instructed, should have performance benefits (Griffin et al., 2007). Grant, Parker and Collins (2009) found that proactive individuals were rated more positively in their overall job performance by supervisors, especially if the employees were low in negative affect and high in prosocial motivation. Likewise, employees who engaged in network building and personal initiative were evaluated more favorably by their supervisors ($\beta=.46$, $\beta=.15$, respectively, both $p<.05$; Thompson, 2005), and employees who engaged in voice were rated higher in individual performance by their supervisors six months later ($\beta=.15$, $p<.001$; Van Dyne & LePine, 1998).

PROACTIVE WORK BEHAVIOR

Individuals who seek feedback should overall perform more highly (Ashford, 1986; Ashford et al., 2003). Consistent with this, in a series of studies, Morrison (1993a, 1993b) found a positive influence of proactive information seeking on individual performance. Specifically, in a sample of accountants who were new to their jobs, higher levels of feedback seeking predicted increased levels of task mastery three months later ($\beta=.18$, $p<.05$; Morrison, 1993a). Similarly, in a further sample of accountants, Morrison (1993b) found that information seeking with regards to technical aspects of the job was related with higher levels of job performance as rated by supervisors three months later ($r=.18$, $p<.05$). Likewise, in a study of real estate agents, Crant (1995) showed that proactive agents are likely to sell more houses, obtain more listings, and to gain higher commission incomes ($\beta=.31$, $p<.01$).

If supervisor performance is used as the dependent variable, it is important to understand what this relationship actually means. It might be that proactive employees do indeed perform more effectively (and this would certainly make sense). But other processes might play a role as well. For example, proactive employees might be better at managing the supervisory relationship, thereby resulting in higher performance evaluations. For example, in a study of newcomers, Ashford and Black (1996) found that proactive relationship-building with the supervisor had a strong relationship with self-rated performance 6 months later ($\beta=.56$, $p<.001$). Similarly, early career employees who actively sought out possibilities to be mentored and get into contact with senior colleagues at the beginning of their career were more likely to have a higher income and a higher hierarchical position two years later ($\beta=.20$, $p<.05$ for both income and hierarchical position; Blickle, Witzki, & Schneider, 2009). In a related vein, Singh, Ragins, and Tharenou (2009) showed that employees who engaged in career initiative and in skill development were more likely to have acquired a personal mentor at work one year later ($\beta=.25$, $p<.05$, for both career initiative and skill

PROACTIVE WORK BEHAVIOR

development); these findings are again stressing the importance of proactive career behaviors for shaping interpersonal relations in order to progress within a company.

By being proactive, individuals seem to be able to craft better jobs for themselves to achieve jobs that represent advances in their career and/or jobs that are satisfying. For example, higher levels of career initiative and individual innovation predicted substantial increases in career satisfaction ($\beta=.36$, $\beta=.37$, respectively, both $p<.01$) and in actual promotions at work ($\beta=.20$, $p<.01$, $\beta=.36$, respectively, both $p<.01$) two years later (Seibert et al., 2001). Career-oriented proactive behaviors such as several types of information proactively sought (Morrison, 1993b), feedback seeking, relationship building and positive framing (Wanberg & Kammeyer-Mueller, 2000) have all been linked to higher levels of job satisfaction. For example, in a study of organizational newcomers, the greater the extent that employees engaged in different types of information seeking (e.g., technical information) was positively related with a lower intention to leave the organization three months later ($r=-.15$, $p<.10$ to $r=-.20$, $p<.05$; Morrison, 1993b). Similarly, employees who engaged in proactive coping at work were more likely to report higher levels of positive affect ($\beta=.37$, $p<.001$), which in turn was associated with lower levels of absenteeism ($\beta=-.13$, $p<.05$; Greenglass & Fiksenbaum, 2009).

Some research suggests mechanisms by which these effects occur. Proactive behaviors might lead to a better fit between the job and the individual. Both feedback inquiry and monitoring have been suggested to lead to increased individual adaptation (Ashford, 1986). Job crafting, another form of proactive behavior, has been suggested to be able to alter employees' meaning of work, as well as work identity (Wrzesniewski & Dutton, 2001). Empirically, proactive normative information seeking has been positively linked with social integration ($\beta=.20$, $p<.01$; Morrison, 1993a), and the engagement in feedback seeking has been negatively linked with actual turnover three months later ($\beta=-.19$, $p<.05$; Wanberg & Kammeyer-Mueller, 2000). Likewise, employees

PROACTIVE WORK BEHAVIOR

who show personal initiative at work have been found to be also more likely to negotiate more flexible working conditions ($\beta=.10$, $p<.01$) with better development opportunities ($\beta=.13$, $p<.01$; Hornung, Rousseau, & Glaser, 2008). In sum, there is good evidence that engaging in proactive behaviors is related to favorable individual outcomes.

Team-level Outcomes of Proactivity

Whilst the vast majority of proactivity research has been conducted at the individual-level of analysis, there are some studies which have focused on the team-level of analysis. These studies suggest that proactivity is a relevant team-level concept. For example, in a study of 111 work teams across four organizations, Kirkman and Rosen (1999) found that supervisor-rated team proactive behavior was positively related to supervisors' assessments of team customer service ($r=.61$, $p<.001$) and team productivity ($r=.70$, $p<.001$), as well as to team members' aggregated individual assessments of job satisfaction ($r=.23$, $p<.05$), organizational commitment ($r=.40$, $p<.001$), and team commitment ($r=.33$, $p<.01$). The very high correlations of supervisor ratings of team proactivity with team productivity could indicate a halo-effect from a supervisor's perspective in that high performing teams might be automatically viewed as being rather proactive. Given that the results of this study are correlational only, further longitudinal investigations are needed in order to obtain insights into the causality of the relationships investigated.

In a similar string of research, Hyatt and Ruddy (1997) investigated the relationship between team-level proactivity and team performance in the field of customer service. Team members were asked to report on proactivity on the team-level. Team-effectiveness was determined by supervisor-ratings on their team, as well as by objective performance measures over the previous six months. Whilst this partially temporal backwards-oriented approach does not warrant causal conclusions, correlational analyses do indicate a relevant, positive relationship between team-level proactivity and team effectiveness measured by records of the typical response time to service

PROACTIVE WORK BEHAVIOR

requests ($r=.24$, $p<.05$), as well as by supervisor-ratings of overall team effectiveness ($r=.45$, $p<.05$). In a further study with a team focus, Druskat and Kayes (2000) asked MBA students in short-term, part-time project groups after the completion of their group work to indicate the extent to which their group had engaged in proactive problem solving. Aggregated scores indicated that team-level proactivity positively related to team learning ($\beta=.50$, $p<.01$), as well as to team performance, measured by the final mark received on the project as well as by instructor ratings ($\beta=.42$, $p<.05$). In their research on long-term, full-time groups, Tesluk and Mathieu (1999) investigated how road crews manage performance barriers. The researchers used focus groups and interviews to identify ways that crews manage performance barriers and many of these strategies were highly proactive (e.g., our crew ‘...takes advantage of low-workload times to try to invent new and better ways to do our work’ and ‘...tries to experiment with new ways of doing jobs within project specifications’). Crews that used these strategies, as rated by their supervisors, simultaneously indicated lesser situational constraints which interfered with their performance as a team ($r=-.22$, $p<.05$), as well as higher levels of team cohesion ($\beta=.31$, $p<.001$).

In sum, team-level research on proactivity, whilst adding validity to analyses by drawing on multiple data sources such as self, supervisor, and peer-reports, as well as organizational figures, has been conducted using mostly correlational designs. Longitudinal designs will be necessary in order to draw more secure conclusions. Future research could also usefully investigate how proactivity at the individual level relates to team-level proactivity. For example, in order for a team to act proactively, does it require all team members to be individually proactive, or only a certain number of team members? Such processes have not yet been examined.

Organizational-level Outcomes of Proactivity

Frese and Fay (2001, p.165), in their seminal paper, suggested that personal initiative, a special type of proactivity at work, predicts performance not only at the individual or the team

PROACTIVE WORK BEHAVIOR

level, but also at the organizational level. They argued that personal initiative “means dealing actively with organizational and individual problems and applying active goals, plans, and feedback. This furthers individual self-development and contributes to organizational success”. Consistent with this proposition, studies have shown that small enterprise owners’ proactivity is positively related with firm success in Uganda and in East Germany (Koop, de Reu, & Frese, 2000; Zempel, 1999; both cited in Frese & Fay, 2001). In a further study, Frese, Van Gelderen and Ombach (2000) conducted structured interviews with small scale firm owners (N=80), investigating on their proactive strategies. Responses were numerically coded to reflect different degrees of proactivity. Whilst proactive business strategies were not necessarily linked with business success, reactive business strategies, the opposite dimension of proactivity, related negatively with the success of the firm measured on the basis of objective profit data ($r=-.26$, $p<.05$), as well as the business owners’ subjective impression on how well their business had developed ($r=-.41$, $p<.01$).

Some studies have focused on organizations’ environmentally-oriented proactivity. In this vein, research led by Aragón-Correa found organizational proactivity to predict greater engagement in more modern environmental activities (1998), as well as more positive financial performance (Aragón-Correa, Hurtado-Torres, Sharma, & García-Morales, 2008). With a similar focus of investigation, Ramus and Steger (2000) investigated the consequences of organization-level proactivity directed at environmental activities in a sample of mid to low-level employees working for large European companies. The researchers proposed, and found partial support for, a relationship between organization-level proactivity, as measured by the extent to which employees indicated their company provided a published environmental policy supporting sustainable actions, and higher individual engagement in environment-related initiatives ($\beta=.37$, $p<.05$). The causality of this relationship still awaits further longitudinal support. Moreover, further research could aim to

PROACTIVE WORK BEHAVIOR

investigate organizational-level proactivity by surveying different organizational stakeholders, in order to capture differing point of views on the proactivity of the corporation in question.

Moderators of Outcomes

Proactive behavior might not always lead to positive individual outcomes. Seibert and colleagues (2001) found that employees who voiced many concerns at work were less likely to progress with their salary and to be promoted two years later, than were their colleagues who voiced fewer concerns. Given that other studies have found proactivity to enhance career outcomes, this study suggests the role of moderators. For example, it might be that voice is not always displayed in an appropriate way, thereby being perceived negatively by supervisors, or perhaps in some situations, voicing concerns might be rather passive behavior, representing complaining with little effort to take charge of the problems or issues oneself.

Most attention in disentangling the contingencies under which proactivity unfolds positive outcomes has been given to psychological moderators. For example, the role of situational judgment, which reflects the degree to which individuals obtain the general ability to make effective judgments or responses to situations, was highlighted by Chan (2006): Individuals who were both highly proactive and high in situational judgment reported significantly higher levels of job satisfaction and organizational commitment, and were rated more favorably by their supervisor in terms of job performance. Individuals who were proactive but low in situational judgment, on the other hand, were rated less favorably by their supervisors.

In a similar vein, Grant and colleagues (2009) found values and affect to play an important role in determining whether employees' proactive behaviors are rewarded by supervisors. The authors investigated in two samples of managers vs. firefighters the relationship between employee voice, issue-selling, taking charge, and anticipatory helping with supervisors' ratings of performance. Employees' proactive behaviors were more likely to lead to favorable performance

PROACTIVE WORK BEHAVIOR

ratings by supervisors when employees had high levels of prosocial values, or low levels of negative affect. Drawing on attribution theory, the authors reasoned that employees' values and affect signal to supervisors the appropriateness to make positive attributions for proactivity. For example, the proactivity of employees with prosocial values is likely to be directed toward benefiting others – co-workers, supervisors, the wider team, and/or the organization – behaviors of interest to supervisors who are responsible for facilitating collective goal achievement. In support of this, Grant and Mayer (in press) found that employees who are both high in prosocial as well as impression management motives were rated highest in terms of their initiative at work by supervisors and colleagues. The researchers concluded that “employees who are both good soldiers *and* good actors are most likely to emerge as good citizens in promoting the status quo.”

Moderating effects of proactive behaviors have also been found within the context of socialization into the organization. Erdogan and Bauer (2005) investigated the relationship between dispositional proactivity and career satisfaction, as well as job satisfaction. The authors found that the degree of fit between employees with their organization and their job can predict whether proactivity leads to higher satisfaction. For example, amongst teachers, proactivity led to higher job satisfaction only when these teachers also reported a high fit between themselves and their schools.

Together, these findings suggest the perils of assuming that proactivity will always lead to positive outcomes. As well as situational judgment, prosocial values, and affect, other individual differences might be important moderators on the effects of proactive behavior. Situational influences, as well as temporal aspects, also need to be considered. For example, Šverko, Galić and Seršić (2008) in their longitudinal study over 27 months suggested that demographical variables such as educational background take on a more dominant role in subsequent employment success amongst job searchers ($\beta=.27$, $p<.01$) than do proactive job search behaviors ($\beta=.07$, $p<.01$). Finally, Parker and colleagues (2006b) proposed that proactive behavior might be more important

PROACTIVE WORK BEHAVIOR

in highly uncertain operational environments where it is not possible to pre-specify all desired responses (see also Griffin et al., 2007), but this hypothesis has not been examined.

METHODOLOGICAL ISSUES

In this section, we focus on questions that are related to the assessment of proactive behavior at work, as well as on questions related to the research design involved in the assessment.

Assessment of Proactive Behavior

Most proactive research to date has focused on self-report, likert-type measures of proactive behavior at work (e.g., Bateman & Crant, 1993; Parker & Collins, in press). As with all behaviors, there are the usual challenges associated with asking individuals to self-rate their proactivity, such as social desirability bias. Nevertheless, gauging employee proactivity from other sources such as supervisors or colleagues has its own disadvantages, including egocentric bias as means of impression management (e.g., supervisors reporting that ‘of course, their subordinates are proactive’) and observational bias (e.g., employees might behave more proactively when they are being observed). A more specific problem is that, because proactive behavior can involve questioning directions and challenging accepted practices, it is not always welcomed by supervisors or colleagues, and can be assessed negatively by them (Frese, Fay, Hilburger, Leng, & Tag, 1997).

Several solutions have been employed to overcome these challenges of assessing proactive behavior. Frese and colleagues (1997) used a complex interview technique based on the situational interview technique (Latham & Saari, 1984). The researchers presented the interviewees with hypothetical problems at work, and asked them to explain how they would solve these problems. Interviewees’ responses were then coded in terms of activeness and the degree of overcoming of barriers, both core parts of the definition of self-initiative at work. The researchers further probed for past examples of self-initiative at work and rated the quantitative and qualitative degree of these instances in order to arrive at an overall measure for interview-rated self-initiative. These interview

PROACTIVE WORK BEHAVIOR

ratings were complemented by additional quantitative self-report measures of the employees, as well as by spouse-ratings of proactivity. Another interview- and survey combination was employed by Parker and colleagues (2006b). On the one hand, the researchers investigated two proactive behaviors (proactive idea implementation as well as proactive problem solving behaviors) by means of a survey. Proactive idea implementation was investigated by asking respondents about the quantity of new ideas they had over the last year, related to improvement at work, such as saving money or cutting down costs. Answers were scored on the number of ideas mentioned, in conjunction with the criteria on whether they had put this idea forward, and whether it was implemented. Proactive problem solving was measured by using context-specific problem scenarios (e.g., dealing with tangled wire). Respondents were asked how they would usually act in these situations, and could choose from a list of preset, possible answers that varied in their degree of proactivity, as previously rated by a group of managers and researchers. The researchers then correlated these survey measures with ratings based on in-depth interviews with a subsample of employees. For example, in interviews, proactive problem prevention was investigated by asking participants about barriers for effectiveness at work, and then probing them on how they dealt with this problem, while confronting them with several barriers to a solution of the problem. The resulting significant positive correlations between the survey-based measures and the ratings from interviews suggested the former was a valid approach.

A scenario-based, approach to measuring proactive behavior was recently introduced by Bledow and Frese (2009). In the Situational Judgment Test of Personal Initiative (SJT-PI), respondents are asked to reveal their most, as well as least, likely preferences of acting in simulated situations. The actions provided in the survey reflect typical self-initiative-related behaviors across different professions. The SJT-PI was found to be valid, and the results obtained correlated positively with supervisors' ratings of personal initiative ($r=.48$, $p<.01$). This approach, however,

PROACTIVE WORK BEHAVIOR

aims to assess personal initiative as a dispositional variable – one’s stable-level of proactivity across lots of situations – rather than Parker et al.’s (2006b) focus on proactivity within a specific context.

In sum, the assessment of proactive behavior at work so far has varied in terms of approaches that choose self vs. other-report measures of proactive behavior, and context-free or context-specific measures. Regarding the former, self-report measures have been found valid (Parker et al., 2006b), so this approach appears a legitimate approach to measuring this type of behavior. Nevertheless, if the study design permits it, a combination of different sources for assessment seems the optimal solution. Regarding the question of whether proactive behavior should be measured in a rather context-specific or context-free way, this depends on whether the focus is proactivity in a particular situation or general proactive personality. One advantage of context-specific approaches is that general statements for proactive behavior such as ‘I make things happen’ might result in less valid answers due to social desirability, relative to context-specific questions where social desirable answers are less obvious (Parker et al., 2006b). On the other hand, context-specific measures are less applicable to other contexts, therefore inhibiting generalized inferences across samples. Highly context-specific measures also require more resources than generalized measures in that they need to be specifically developed prior to the investigation. We recommend a careful choice according to the specific objectives that underlie each investigation.

A further issue regarding the assessment of proactive behavior is the choice of the concrete measure. Sometimes, even though researchers speak of ‘proactive behavior’, in fact the construct measured resembles rather a stable disposition or attribute. For example, some studies (e.g. in Chiaburu, Marinova, & Lim, 2007; Kirkman & Rosen, 1999) have used the proactive personality scale (Bateman & Crant, 1993) as a proxy for assessing proactive behavior as an outcome. The problem with measuring a stable disposition as an indicator for situation-specific behavior is that

PROACTIVE WORK BEHAVIOR

differences across situations might not be captured. Similarly, at the team and organizational level, proactivity has been either measured as the aggregation of individual level-behavior, or as an attribute, rather than as a team or organizational behavior. An approach to conceptualizing proactivity at the organizational level was formulated by Shepard, Betz and O'Connell (1997). The researchers argued that proactive organizations are characterized by engaging in co-operation, participation, and negotiation with stakeholders, as well as by directly anticipating potential harm to stakeholders. This approach still awaits empirical assessment.

Methodological Approaches

Much research on proactive behavior at work to date has focused on cross-sectional, inter-individual approaches to measurement (e.g., Den Hartog & Belschak, 2007; Parker et al., 2006b). Several studies tried to overcome the limitations of such designs by employing rigorous, longitudinal designs (e.g., Frese et al., 2007; Parker, 1998). However, one challenge with longitudinal studies is choosing the appropriate time frame. At the moment, little is known about the temporal linkages between antecedents and proactive behavior, such as how long it takes work characteristics to promote or prevent proactive behavior, or the time it takes for proactive behavior to unfold and influence well-being or performance. For example, Parker and Ohly (2008, p.266) proposed that “work design can impact on positive affect, which might have a relatively immediate (although perhaps short-lived) effect on job crafting consistent with the broaden-and-build theory (Fredrickson, 2001). However, work design might also affect employees’ level of self-esteem or their aspiration ..., which will likely have longer-term and more enduring consequences on role innovation and job crafting”. A further problem related with some longitudinal studies carried out is that the independent and dependent variables were sometimes not consistently measured and controlled for at all time points (e.g., in LePine & Van Dyne, 1998; Seibert et al., 2001). It is important to control for both independent and dependent variables at all measurement time points

PROACTIVE WORK BEHAVIOR

in order to be able to partial out the amount of variance caused by the measure of interest over time (see Zapf et al., 1996).

Another challenge when measuring proactive behavior over time lies in its dynamic nature. Proactive behaviors by definition influence the situation. At the same time, situations influence proactive behaviors. For example, employees might engage in job change negotiation in order to better fit the job, which might result in higher autonomy that then promotes further proactive behaviors. Methods that allow in-depth investigation of processes, such as intra-individual techniques like diary studies (Fritz & Sonnentag, 2009; Sonnentag, 2003) and laboratory studies (LePine & Van Dyne, 2001; Morrison, 2006; Staw & Boettger, 1990), are fruitful. Qualitative methods that involve a more exploratory approach could also be useful for understanding the processes that underpin proactivity (Dutton et al., 1997, 2001; Howell & Boies, 2004).

We also recommend intervention studies as an especially powerful way to demonstrate causal processes (Parker, Johnson, & Collins, 2006a; Searle, 2008; Raabe, Frese, & Beehr, 2007; Yu, Collins, White, Fairbrother, & Cavanagh, 2008). For example, Raabe and colleagues (2007) introduced career self-management training. In a four-wave study design, the authors showed that the intervention led to higher levels of active career self-management behaviors via influences in goal commitment ($\beta=.34$, $p<.001$), planning quality ($\beta=.48$, $p<.001$), and knowledge of personal strengths and weaknesses ($\beta=.43$, $p<.001$). Parker and colleagues (2006a) showed that the introduction of an advanced nursing role during overtime shifts led to more proactive care, taking charge and voice behaviors amongst junior doctors. Several mechanisms underpinned this finding, such as the presence of an advanced nurse increased the self-efficacy of trainee doctors.

A further useful way of reaching more generalizable insights about proactivity is by conducting meta-analytical analyses. Meta-analytic evidence exists for specific types of proactivity at work. For example, Kanfer and colleagues (2001) conducted a meta-analysis on antecedents of

PROACTIVE WORK BEHAVIOR

proactive job search behaviors, comprising 68 independent samples with overall 19,957 participants. However, what is now needed is meta-analytic work on the antecedents of proactive behaviors more in general, for example by drawing on systematic frameworks summarized earlier in this chapter (e.g., Parker & Collins, in press; Belschak & Den Hartog, in press; Griffin et al., 2007). Researchers have recently started to engage in this type of more integrated, meta-analytic work on proactive behaviors (e.g., Tornau & Kunze, 2008) but such work is currently unpublished. The use of more integrative approaches to proactive research, as discussed in this section of our review, will hopefully generate a more complete insight into the nature of proactivity at work.

AN AGENDA FOR FUTURE RESEARCH

We complete our chapter on proactive behavior at work by suggesting some key directions for research in this area, including some of the methodological challenges.

A Process Perspective

Proactivity research has focused on a rather static view on proactive behavior, assuming that being proactive is a single event. The dynamic processes involved in being proactive have thus largely been neglected. Building on earlier conceptual work (Frese & Fay, 2001; Grant & Ashford, 2008), Bindl and Parker (2009) proposed and found initial empirical support for a process model of proactivity. The authors proposed four phases that derived from consideration of action theory (Frese & Zapf, 1994; Hacker, 1985). In the first phase, ‘envisioning’, individuals set and decide on proactivity-related goals. For example, in the envisioning phase an employee would realize that the way a task is completed is inefficient, and identify ways to improve the process of completing this task. The second phase, ‘planning’ constitutes the preparation aimed at engaging in proactive behavior. For example, employees might go through different scenarios in their mind of how to bring about the desired change. The third phase, ‘enacting’, is the actual engagement in proactive behavior, as previously investigated in proactivity research, and the fourth phase, ‘reflecting’,

PROACTIVE WORK BEHAVIOR

consists of the individuals' efforts to retrospectively think about the success, failure, consequences, or implications of their proactive behavior. Whilst the third, enacting, phase is outward-focused and observable, the other three phases are likely to be mostly, even though not necessarily fully, internalized. Bindl and Parker (2009) suggest that the four phases, while logically sequential, will not always be sequential in an applied context. For example, an employee might think about ways of improving their tasks, prepare for and engage in behaviors to improve their tasks, and then if the behavior does not appear satisfactory, go back and re-think alternative ways to improve their tasks.

Although Bindl and Parker (2009) showed that different phases of proactive behavior at work can be empirically meaningfully distinguished, future research is needed to investigate the process of employees engaging in these different phases of proactive behavior, including how the process varies for different forms of proactive behavior (see e.g., Belschak & Den Hartog, in press; Parker & Collins, in press). Voicing an issue that affects the workplace might represent a more momentary act, whereas the engagement in individual innovation might involve a phase of planning with intense information processes or liaising with experts. How these processes evolve over time is also unclear. For example, Grant and Ashford (2008) proposed that the repeated display of proactive behavior results in more automated processes, with employees then displaying proactive behavior regardless of expected feedback or consequences.

Situational Antecedents

As noted earlier, although researchers have begun to investigate situational variables as predictors of proactive behavior, several issues remain unsolved. For example, there have been contrasting findings on the effects of leadership on proactive behavior, with findings that transformational leadership promotes proactive behavior at work (Belschak & Den Hartog, in press; Rank et al., in press; Strauss et al., in press), whilst the effects of supportive supervision are mixed (Axtell et al., 2000; Frese et al., 1999; Ohly et al., 2006; Parker et al., 2006b). Similarly,

PROACTIVE WORK BEHAVIOR

stressors at work have been found to have either promoting (Fay & Sonnentag, 2002) or inhibiting (Sonnentag, 2003) effects on proactive behavior. Research is needed to further identify under which circumstances situational influences may promote or inhibit proactive behaviors at work. Moreover, since proactive behaviors are both rather interpersonal, as well as risky in character, issues such as trust in the supervisor and/or colleagues (e.g., McAllister, 1995), organizational climate (e.g., Baer & Frese, 2003) as well as leader-membership exchange (e.g., Graen & Uhl-Bien, 1995) are likely more important determinants of proactive behavior than hitherto considered.

Benefits versus Costs

As we noted earlier, the boundary conditions around the outcomes of proactivity have not been fully explored. Grant and Ashford (2008, p.24) concluded: “Insofar as proactive behavior involves expending additional effort, challenging the status quo, and disrupting deviating from assigned tasks, prescribed roles, reified norms, accepted practices, and existing routines, researchers should expect to find mixed effects and unintended consequences for groups, organizations, and employees themselves”. We advocate more studies of the effects of proactive behavior on employee well-being. For example, Chan (2006) showed that employees who are proactive but lack situational judgment may encounter negative evaluations from supervisors. Such negative evaluations might lower employee well-being. Proactive behaviors may be regarded as an attempt to ‘rock the boat’, resulting in negative responses from colleagues and supervisors (Frese & Fay, 2001). How employees cope with negative reactions from their environment related to proactive behaviors, and whether proactive behavior might, in certain constellations, decrease rather than increase individual well-being, are important avenues of further study.

Synergies and Theoretical Development

As should be clear from our review thus far, proactivity research has emerged from different streams of interest. Theoretically, efforts to understand proactivity have mostly drawn on

PROACTIVE WORK BEHAVIOR

motivation theory (e.g., Bandura, 1986; Hacker, 1985; Hackman & Oldham, 1976). We join with the call made by prior reviews on proactive behavior (Crant, 2000; Grant & Ashford, 2008) for theoretical advancement on the topic. Theories pertaining to self-identity (e.g., Markus & Nurius, 1986) and social processes (e.g., Tajfel & Turner, 1986), for example, could usefully be applied to the topic of proactive behavior. Additionally, further integration of proactivity research with advances in related fields of research, such as entrepreneurship (e.g., Baron, 2008), innovation (e.g., Scott & Bruce, 1994), and stress management (e.g., proactive coping, Aspinwall & Taylor, 1997) will also help so synthesize and develop knowledge.

CONCLUSION

Proactive behavior at work is a timely and relevant topic for today's work places. With greater decentralization and fast-paced change, it is increasingly important that employees take charge of their careers and their work environments. Such behavior will not always be positive, as our review suggests. But the price of passivity might be even greater than occasional misdirected proactivity. Most importantly, our review suggests that one can shape employee proactivity through designing work structures, leader behaviors, and work climates that foster employees' confidence, activate challenging goals, and promote positive affect. We hope our review will guide researchers and practitioners to gain further insight into proactive behavior at work.

REFERENCES

- Ang, S., Cummings, L. L., Straub, D. W., & Earley, P. C. (1993). The effects of information technology and the perceived mood of the feedback giver on feedback seeking. *Information Systems Research, 4*(3), 240-261.
- Anseel, F., Lievens, F., & Levy, P. E. (2007). A self-motives perspective on feedback-seeking behavior: Linking organizational behavior and social psychology research. *International Journal of Management Reviews, 9*(3), 211-236.

PROACTIVE WORK BEHAVIOR

Aragón-Correa, J. A. (1998). Strategic proactivity and firm approach to the natural environment.

Academy of Management Journal, 41(5), 556-567.

Aragón-Correa, J. A., Hurtado-Torres, N., Sharma, S., & García-Morales, V. J. (2008).

Environmental strategy and performance in small firms: A resource-based perspective.

Journal of Environmental Management, 86(1), 88-103.

Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy*

of Management Journal, 29(3), 465-487.

Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for

control. *Journal of Applied Psychology*, 81(2), 199-214.

Ashford, S. J., Blatt, R., & VandeWalle, D. (2003). Reflections on the looking glass: A review of

research on feedback-seeking behavior in organizations. *Journal of Management*, 29(6),

773-799.

Ashford, S. J., Rothbard, N. P., Piderit, S. K., & Dutton, J. E. (1998). Out on a limb: The role of

context and impression management in selling gender-equity issues. *Administrative Science*

Quarterly, 43(1), 23-57.

Ashforth, B. E., & Humphrey, R. H. (1995). Emotion in the workplace: A reappraisal. *Human*

Relations, 48(2), 97-125.

Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping.

Psychological Bulletin, 121(3), 417-436.

Axtell, C. M., Holman, D. J., Unsworth, K. L., Wall, T. D., & Waterson, P. E. (2000). Shopfloor

innovation: Facilitating the suggestion and implementation of ideas. *Journal of*

Occupational and Organizational Psychology, 73(3), 265-285.

Axtell, C. M., & Parker, S. K. (2003). Promoting role breadth self-efficacy through involvement,

work redesign and training. *Human Relations*, 56(1), 113-131.

PROACTIVE WORK BEHAVIOR

- Baer, M., & Frese, M. (2003). Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior*, 24(1), 45-68.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Baron, R. A. (2008). The role of affect in the entrepreneurial process. *Academy of Management Review*, 33(2), 328-340.
- Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, 14(2), 103-118.
- Belschak, F. D., & Den Hartog, D. N. (in press). Pro-self, pro-social, and pro-organizational foci of proactive behavior: Differential antecedents and consequences. *Journal of Occupational and Organizational Psychology*.
- Bindl, U. K., & Parker, S. K. (2009). *Phases of proactivity: How do we actually go the extra mile?* Paper presented at the European Congress of Work and Organizational Psychology, Santiago de Compostela, Spain.
- Binnewies, C., Sonnentag, S., & Mojza, E. J. (2009). Daily performance at work: Feeling recovered in the morning as a predictor of day-level job performance. *Journal of Organizational Behavior*, 30(1), 67-93.
- Binnewies, C., Sonnentag, S., & Mojza, E. J. (in press, a). Feeling recovered and thinking about the good sides of one's work. A longitudinal study on the benefits of non-work experiences for job performance. *Journal of Occupational Health Psychology*.
- Binnewies, C., Sonnentag, S., & Mojza, E. J. (in press, b). Recovery during the weekend and fluctuations in weekly job performance: A week-level study examining intra-individual relations. *Journal of Occupational and Organizational Psychology*.

PROACTIVE WORK BEHAVIOR

- Bledow, R., & Frese, M. (2009). A situational judgment test of personal initiative and its relationship to performance. *Personnel Psychology, 62*(2), 229-258.
- Blickle, G., Witzki, A., & Schneider, P. B. (2009). Self-initiated mentoring and career success: A predictive field study. *Journal of Vocational Behavior, 74*(1), 94-101.
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology, 53*(1), 279-307.
- Brockner, J. (1988). *Self-esteem at work: Research, theory, and practice*. Lexington, MA: Lexington Books.
- Brown, D. J., Cober, R. T., Kane, K., Levy, P. E., & Shalhoop, J. (2006). Proactive personality and the successful job search: A field investigation with college graduates. *Journal of Applied Psychology, 91*(3), 717-726.
- Burris, E. R., Detert, J. R., & Chiaburu, D. S. (2008). Quitting before leaving: The mediating effects of psychological attachment and detachment on voice. *Journal of Applied Psychology, 93*(4), 912-922.
- Campbell, D. J. (2000). The proactive employee: Managing workplace initiative. *Academy of Management Executive, 14*(3), 52-66.
- Carless, S. A., & Bernath, L. (2007). Antecedents of intent to change careers among psychologists. *Journal of Career Development, 33*(3), 183-200.
- Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality-social, clinical, and health psychology. *Psychological Bulletin, 92*(1), 111-135.
- Chan, D. (2006). Interactive effects of situational judgment effectiveness and proactive personality on work perceptions and work outcomes. *Journal of Applied Psychology, 91*(2), 475-481.

PROACTIVE WORK BEHAVIOR

- Chiaburu, D. S., Marinova, S. V., & Lim, A. S. (2007). Helping and proactive extra-role behaviors: The influence of motives, goal orientation, and social context. *Personality and Individual Differences, 43*(8), 2282-2293.
- Claes, R., & Ruiz-Quintanilla, S. A. (1998). Influences of early career experiences, occupational group, and national culture on proactive career behavior. *Journal of Vocational Behavior, 52*(3), 357-378.
- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO PI-R) and NEO five factor inventory: Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Crant, J. M. (1995). The proactive personality scale and objective job performance among real estate agents. *Journal of Applied Psychology, 80*(4), 532-537.
- Crant, J. M. (2000). Proactive behavior in organizations. *Journal of Management, 26*(3), 435-462.
- Den Hartog, D. N., & Belschak, F. D. (2007). Personal initiative, commitment and affect at work. *Journal of Occupational and Organizational Psychology, 80*(4), 601-622.
- Dorenbosch, L., Van Engen, M. L., & Verhagen, M. (2005). On-the-job innovation: The impact of job design and human resource management through production ownership. *Creativity and Innovation Management, 14*(2), 129-141.
- Druskat, V. U., & Kayes, D. C. (2000). Learning versus performance in short-term project teams. *Small Group Research, 31*(3), 328-353.
- Dutton, J. E., & Ashford, S. J. (1993). Selling issues to top management. *Academy of Management Review, 18*(3), 397-428.
- Dutton, J. E., Ashford, S. J., Lawrence, K. A., & Miner-Rubino, K. (2002). Red light, green light: Making sense of the organizational context for issue selling. *Organization Science, 13*(4), 353-369.

PROACTIVE WORK BEHAVIOR

- Dutton, J. E., Ashford, S. J., O'Neill, R. M., Hayes, E., & Wierba, E. E. (1997). Reading the wind: How middle managers assess the context for selling issues to top managers. *Strategic Management Journal*, 18(5), 407-425.
- Dutton, J. E., Ashford, S. J., O'Neill, R. M., & Lawrence, K. A. (2001). Moves that matter: Issue selling and organizational change. *Academy of Management Journal*, 44(4), 716-736.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist*, 41(10), 1040-1048.
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53(1), 109-132.
- Erdogan, B., & Bauer, T. N. (2005). Enhancing career benefits of employee proactive personality: The role of fit with jobs and organizations. *Personnel Psychology*, 58(4), 859-891.
- Fay, D., & Frese, M. (2000). Conservatives' approach to work: Less prepared for future work demands? *Journal of Applied Social Psychology*, 30(1), 171-195.
- Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies. *Human Performance*, 14(1), 97-124.
- Fay, D., & Sonnentag, S. (2002). Rethinking the effects of stressors: A longitudinal study on personal initiative. *Journal of Occupational Health Psychology*, 7(3), 221-234.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2(3), 300-319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218-226.
- Frese, M. (2008). The word is out: We need an active performance concept for modern workplaces. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 1(1), 67-69.

PROACTIVE WORK BEHAVIOR

- Frese, M., & Fay, D. (2001). Personal initiative (PI): An active performance concept for work in the 21st century. *Research in Organizational Behavior*, 23, 133-187.
- Frese, M., Fay, D., Hilburger, T., Leng, K., & Tag, A. (1997). The concept of personal initiative: Operationalization, reliability and validity in two German samples. *Journal of Occupational and Organizational Psychology*, 70(2), 139-161.
- Frese, M., Garst, H., & Fay, D. (2007). Making things happen: Reciprocal relationships between work characteristics and personal initiative in a four-wave longitudinal structural equation model. *Journal of Applied Psychology*, 92(4), 1084-1102.
- Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: Differences between East and West Germany. *Academy of Management Journal*, 39(1), 37-63.
- Frese, M., Teng, E., & Wijnen, C. J. D. (1999). Helping to improve suggestion systems: Predictors of making suggestions in companies. *Journal of Organizational Behavior*, 20(7), 1139-1155.
- Frese, M., Van Gelderen, M., & Ombach, M. (2000). How to plan as a small scale business owner: Psychological process characteristics of action strategies and success. *Journal of Small Business Management*, 38(2), 1-18.
- Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. In H. C. Triandis, M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., Vol. 4, pp. 271-340). Palo Alto, CA: Consulting Psychologists Press.
- Frijda, N. H. (1986). *The emotions*. Cambridge, Cambridge University Press.
- Fritz, C., & Sonnentag, S. (2009). Antecedents of day-level proactive behavior: A look at job stressors and positive affect during the workday. *Journal of Management*, 35(1), 94-111.

PROACTIVE WORK BEHAVIOR

- Fuller, J. B., Marler, L. E., & Hester, K. (2006). Promoting felt responsibility for constructive change and proactive behavior: Exploring aspects of an elaborated model of work design. *Journal of Organizational Behavior*, 27(8), 1089-1120.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6(2), 219-247.
- Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in Organizational Behavior*, 28, 3-34.
- Grant, A. M., & Mayer, D. M. (in press). Good soldiers *and* good actors: Prosocial and impression management motives as interactive predictors of affiliative citizenship behaviors. *Journal of Applied Psychology*.
- Grant, A. M., & Parker, S. K. (in press). Redesigning work design theories: The rise of relational and proactive perspectives. *Academy of Management Annals*.
- Grant, A. M., Parker, S.K., & Collins, C. G. (2009). Getting credit for proactive behavior: supervisor reactions depend on what you value and how you feel. *Personnel Psychology*, 62(1), 31-55.
- Grant, A. M., & Sumanth, J. J. (in press). Mission possible? The performance of prosocially motivated employees depends on manager trustworthiness. *Journal of Applied Psychology*.
- Greenglass, E. R., & Fiksenbaum, L. (2009). Proactive coping, positive affect, and well-being. Testing for mediation using path analysis. *European Psychologist*, 14(1), 29-39.

PROACTIVE WORK BEHAVIOR

- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, *50*(2), 327 - 347.
- Griffin, M. A., Parker, S. K., & Mason, C. M. (in press). Leader vision and the development of adaptive and proactive performance: A longitudinal study. *Journal of Applied Psychology*.
- Hacker, W. (1985). Activity: A fruitful concept in industrial psychology. In M. Frese & J. Sabini (Eds.), *Goal directed behavior: The concept of action in psychology* (pp. 262-283). Hillsdale, NJ: Lawrence Erlbaum.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250-279.
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior*, *73*(1), 78-91.
- Heine, S. J., Markus, H. R., Lehman, D. R., & Kitayana, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, *106*(4), 766-794.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513-524.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review* *50*(3), 337-421.
- Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. London: McGraw-Hill.
- Hornung, S., & Rousseau, D. M. (2007). Active on the job-proactive in change: How autonomy at work contributes to employee support for organizational change. *Journal of Applied Behavioral Science*, *43*(4), 401-426.

PROACTIVE WORK BEHAVIOR

- Hornung, S., Rousseau, D. M., & Glaser, J. (2008). Creating flexible work arrangements through idiosyncratic deals. *Journal of Applied Psychology, 93*(3), 655-664.
- Howell, J. M., & Boies, K. (2004). Champions of technological innovation: The influence of contextual knowledge, role orientation, idea generation, and idea promotion on champion emergence. *Leadership Quarterly, 15*(1), 123-143.
- Howell, J. M., & Shea, C. M. (2001). Individual differences, environmental scanning, innovation framing, and champion behavior: Key predictors of project performance. *Journal of Product Innovation Management, 18*(1), 15-27.
- Hyatt, D. E., & Ruddy, T. M. (1997). An examination of the relationship between work group characteristics and performance: Once more into the breach. *Personnel Psychology, 50*(3), 553-585.
- Ilies, R., & Judge, T. A. (2005). Goal regulation across time: The effects of feedback and affect. *Journal of Applied Psychology, 90*(3), 453-467.
- Isen, A. M. (1999). On the relationship between affect and creative problem solving. In S. W. Russ (Ed.), *Affect, creative experience, and psychological adjustment* (pp. 3-17). Philadelphia: Taylor & Francis.
- Isen, A. M., & Baron, R. A. (1991). Positive affect as a factor in organizational behavior. *Research in Organizational Behavior, 13*, 1-53.
- Isen, A. M., & Reeve, J. (2005). The influence of positive affect on intrinsic and extrinsic motivation: Facilitating enjoyment of play, responsible work behavior, and self control. *Motivation and Emotion, 29*(4), 297-325.
- Janssen, O., & Van Yperen, N. W. (2004). Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. *Academy of Management Journal 47*(3), 368-384.

PROACTIVE WORK BEHAVIOR

- Jones, G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustments to organizations. *Academy of Management Journal* 29(2), 262-279.
- Kammeyer-Mueller, J. D., & Wanberg, C. R. (2003). Unwrapping the organizational entry process: Disentangling multiple antecedents and their pathways to adjustment. *Journal of Applied Psychology*, 88(5), 779-794.
- Kanfer, R., Wanberg, C. R., & Kantrowitz, T. M. (2001). Job search and employment: A personality-motivational analysis and meta-analytic review. *Journal of Applied Psychology*, 86(5), 837-855.
- Kim, T. Y., & Wang, J. (2008). Proactive personality and newcomer feedback seeking: The moderating roles of supervisor feedback and organizational justice. In M. A. Rahim (Ed.), *Current Topics in Management* (Vol. 13, pp. 91-108). London: Transaction Publishers.
- Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42(1), 58-74.
- Lambert, T. A., Eby, L. T., & Reeves, M. P. (2006). Predictors of networking intensity and network quality among white-collar job seekers. *Journal of Career Development*, 32(4), 351-365.
- Latham, G. P., & Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twenty-first century. *Annual Review of Psychology*, 56, 485-516.
- Latham, G. P., & Saari, I. M. (1984). Do people do what they say? Further studies on the situational interview. *Journal of Applied Psychology*, 69(4), 569-573.
- LePine, J. A., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of Applied Psychology*, 83(6), 853-868.
- LePine, J. A., & Van Dyne, L. (2001). Voice and cooperative behavior as contrasting forms of contextual performance: Evidence of differential relationships with big five personality characteristics and cognitive ability. *Journal of Applied Psychology*, 86(2), 326-336.

PROACTIVE WORK BEHAVIOR

- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.
- Locke, E. A., Shaw, K. N., Saari, L. M., & Latham, G. P. (1981). Goal setting and task performance: 1969-1980. *Psychological Bulletin*, *90*(1), 125-152.
- Major, D. A., Turner, J. E., & Fletcher, T. D. (2006). Linking proactive personality and the big five to motivation to learn and development activity. *Journal of Applied Psychology*, *91*(4), 927-935.
- Markus, H., & Nurius, P. (1986). Possible Selves. *American Psychologist*, *41*(9), 954-969.
- Martin, L. L., Ward, D. W., Achee, J. W., & Wyer, R. S. (1993). Mood as input: People have to interpret the motivational implications of their moods. *Journal of Personality and Social Psychology*, *64*(3), 317-326.
- Maurer, T. J., Weiss, E. M., & Barbeite, F. G. (2003). A model of involvement in work-related learning and development activity: The effects of individual, situational, motivational, and age variables. *Journal of Applied Psychology*, *88*(4), 707-724.
- McAllister, D. J. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, *38*(1), 24-59.
- McAllister, D. J., Kamdar, D., Morrison, E. W., & Turban, D. B. (2007). Disentangling role perceptions: How perceived role breadth, discretion, instrumentality, and efficacy relate to helping and taking charge. *Journal of Applied Psychology*, *92*(5), 1200-1211.
- Mirvis, P. H., & Hall, D. T. (1994). Psychological success and the boundaryless career. *Journal of Organizational Behavior*, *15*(4), 365-380.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, *102*(2), 246-268.

PROACTIVE WORK BEHAVIOR

- Mitchell, T. R., & Daniels, D. (2003). Motivation. In W. C. Borman, D. R. Ilgen & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and organizational psychology* (Vol. 12, pp. 225-254). Hoboken, NJ: John Wiley.
- Morgeson, F. P., & Campion, M., A. (2003). Work Design. In W. C. Borman, D. R. Ilgen & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and organizational psychology* (Vol. 12, pp. 423-452). Hoboken, NJ: John Wiley.
- Morrison, E. W. (1993a). Longitudinal study of the effects of information seeking on newcomer socialization. *Journal of Applied Psychology, 78*(2), 173-183.
- Morrison, E. W. (1993b). Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Academy of Management Journal, 36*(3), 557-589.
- Morrison, E. W. (1994). Role definitions and organizational citizenship behavior: The importance of the employee's perspective. *Academy of Management Journal, 37*(6), 1543-1567.
- Morrison, E. W. (2002). Newcomers' relationships: The role of social network ties during socialization. *Academy of Management Journal, 45*(6), 1149-1160.
- Morrison, E. W. (2006). Doing the job well: An investigation of pro-social rule breaking. *Journal of Management, 32*(1), 5-28.
- Morrison, E. W., & Bies, R. J. (1991). Impression management in the feedback-seeking process: A literature review and research agenda. *Academy of Management Review, 16*(3), 522-541.
- Morrison, E. W., & Phelps, C. C. (1999). Taking charge at work: Extrarole efforts to initiate workplace change. *Academy of Management Journal, 42*(4), 403-419.
- Oettingen, G., Mayer, D., Thorpe, J. S., Janetzke, H., & Lorenz, S. (2005). Turning fantasies about positive and negative futures into self-improvement goals. *Motivation and Emotion, 29*(4), 237-267.

PROACTIVE WORK BEHAVIOR

- Ohly, S., & Fritz, C. (2007). Challenging the status quo: What motivates proactive behavior? *Journal of Occupational and Organizational Psychology*, 80(4), 623-629.
- Ohly, S., & Fritz, C. (in press). Work characteristics, challenge appraisal, creativity and proactive behavior: A multi-level study. *Journal of Organizational Behavior*.
- Ohly, S., Sonnentag, S., & Pluntke, F. (2006). Routinization, work characteristics and their relationships with creative and proactive behaviors. *Journal of Organizational Behavior*, 27(3), 257-279.
- Oxford English Dictionary. (2008). Retrieved September 24, 2008, from <http://www.oed.com/>.
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology*, 83(6), 835-852.
- Parker, S. K. (2007). *How positive affect can facilitate proactive behavior in the work place*. Paper presented at the Academy of Management Conference, Philadelphia, USA.
- Parker, S. K., & Collins, C. G. (in press). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*.
- Parker, S. K., Collins, C. G., & Grant, A. (2008). *The role of positive affect in making things happen*. Paper presented at the Annual SIOP Conference, San Francisco, USA.
- Parker, S. K., Johnson, A., & Collins, C. G. (2006a). *Enhancing proactive patient care: An intervention study*. Paper presented at the Academy of Management Conference, Atlanta, USA.
- Parker, S. K., & Ohly, S. (2008). Designing motivating work. In R. Kanfer, G. Chen & R. D. Pritchard (Eds.), *Work motivation: Past, present, and future* (pp. 233-384). New York: Routledge.

PROACTIVE WORK BEHAVIOR

- Parker, S. K., & Sprigg, C. A. (1999). Minimizing strain and maximizing learning: The role of job demands, job control, and proactive personality. *Journal of Applied Psychology, 84*(6), 925-939.
- Parker, S. K., Wall, T. D., & Jackson, P. R. (1997). “That’s not my job’’: Developing flexible employee work orientations. *Academy of Management Journal, 40*(4), 899-929.
- Parker, S. K., Williams, H. M., & Turner, N. (2006b). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology, 91*(3), 636-652.
- Raabe, B., Frese, M., & Beehr, T. A. (2007). Action regulation theory and career self-management. *Journal of Vocational Behavior, 70*(2), 297-311.
- Rafaeli, A. (2008). *Anger in the workplace*. Paper presented at the Institute of Work Psychology International Conference, Sheffield, UK.
- Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee “ecoinitiatives” at leading-edge European companies. *Academy of Management Journal, 43*(4), 605-626.
- Rank, J., Carsten, J. M., Unger, J. M., & Spector, P. E. (2007). Proactive customer service performance: Relationships with individual, task, and leadership variables. *Human Performance, 20*(4), 363-390.
- Rank, J., Nelson, N. E., Allen, T. D., & Xu, X. (in press). Leadership predictors of innovation and task performance: Subordinates’ self-esteem and self-presentation as moderators. *Journal of Occupational and Organizational Psychology*.
- Rank, J., Pace, V. L., & Frese, M. (2004). Three avenues for future research on creativity, innovation, and initiative. *Applied Psychology: An International Review, 53*(4), 518-528.
- Rousseau, D. M., Ho, V. T., & Greenberg, J. (2006). I-deals: Idiosyncratic terms in employment relationships. *Academy of Management Review, 31*(4), 977-994.

PROACTIVE WORK BEHAVIOR

- Russell, J. A. (2003). Core affect and the psychological construction of emotion. *Psychological Review*, 110(1), 145-172.
- Russell, J. A., & Feldman Barrett, L. (1999). Core affect, prototypical emotional episodes, and other things called emotion: Dissecting the elephant. *Journal of Personality and Social Psychology*, 76(5), 805-819.
- Saks, A. M., & Ashforth, B. E. (1996). Proactive socialization and behavioral self-management. *Journal of Vocational Behavior*, 48(3), 301-323.
- Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *International Journal of Human Resource Management*, 19(1), 116-131.
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37(3), 580-607.
- Searle, B. J. (2008). Does Personal Initiative Training Work as a Stress Management Intervention? *Journal of Occupational Health Psychology*, 13(3), 259-270.
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, 54(2), 845-874.
- Shepard, J. M., Betz, M., & O'Connell, L. (1997). The proactive corporation: Its nature and causes. *Journal of Business Ethics*, 16(10), 1001-1010.
- Singh, R., Ragins, B. R., & Tharenou, P. (2009). Who gets a mentor? A longitudinal assessment of the rising star hypothesis. *Journal of Vocational Behavior*, 74(1), 11-17.
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between nonwork and work. *Journal of Applied Psychology*, 88(3), 518-528.

PROACTIVE WORK BEHAVIOR

- Speier, C., & Frese, M. (1997). Generalized self-efficacy as a mediator and moderator between control and complexity at work and personal initiative: A longitudinal field study in East Germany. *Human Performance, 10*(2), 171-192.
- Staw, B. M., & Boettger, R. D. (1990). Task revision: A neglected form of work performance. *Academy of Management Journal, 33*(3), 534-559.
- Strauss, K., Griffin, M. A., & Rafferty, A. E. (in press). Proactivity directed toward the team and organization: The role of leadership, commitment and role-breadth self-efficacy. *British Journal of Management*.
- Šverko, B., Galić, Z., Seršić, D. M., & Galešić, M. (2008). Unemployed people in search of a job: Reconsidering the role of search behavior. *Journal of Vocational Behavior, 72*(3), 415-428.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (2nd ed., pp. 7-24). Chicago: Nelson-Hall.
- Tangirala, S., & Ramanujam, R. (2008). Exploring Nonlinearity in Employee Voice: The Effects of Personal Control and Organizational Identification. *Academy of Management Journal, 51*(6), 1189-1203.
- Tesluk, P. E., & Mathieu, J. E. (1999). Overcoming roadblocks to effectiveness: Incorporating management of performance barriers into models of work group effectiveness. *Journal of Applied Psychology, 84*(2), 200-217.
- Tharenou, P., & Terry, D. J. (1998). Reliability and validity of scores on scales to measure managerial aspirations. *Educational and Psychological Measurement, 58*(3), 475-492.
- Thompson, J. A. (2005). Proactive personality and job performance: A social capital perspective. *Journal of Applied Psychology, 90*(5), 1011-1017.

PROACTIVE WORK BEHAVIOR

- Tidwell, M., & Sias, P. (2005). Personality and information seeking: Understanding how traits influence information-seeking behaviors. *Journal of Business Communication*, 42(1), 51-77.
- Tornau, K., & Kunze, N. (2008). *The Nomological Network of Proactivity: A Meta-Analytic Investigation*. Paper presented at the Institute of Work Psychology International Conference, Sheffield, UK.
- Tuckey, M., Brewer, N., & Williamson, P. (2002). The influence of motives and goal orientation on feedback seeking. *Journal of Occupational and Organizational Psychology*, 75(2), 195-216.
- Unsworth, K., & Parker, S. K. (2002). Proactivity, creativity, and innovation: Promoting a new workforce for the new workplace. In D. Holman, T. D. Wall, C. W. Clegg, P. Sparrow & A. Howard (Eds.), *The new workplace: A handbook and guide to the human impact of modern working practices* (pp. 175-196). Chichester, UK: John Wiley.
- Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 41(1), 108-119.
- Van Maanen, J. (1976). Breaking in: Socialization to work. In R. Dubin (Ed.), *Handbook of work, organization and society* (pp. 67-130). Chicago: Rand McNally.
- VandeWalle, D. (2003). A goal orientation model of feedback-seeking behavior. *Human Resource Management Review*, 13(4), 581-604.
- VandeWalle, D., & Cummings, L. L. (1997). A test of the influence of goal orientation on the feedback-seeking process. *Journal of Applied Psychology*, 82(3), 390-400.
- VandeWalle, D., Ganesan, S., Challagalla, G. N., & Brown, S. P. (2000). An integrated model of feedback-seeking behavior: Disposition, context, and cognition. *Journal of Applied Psychology*, 85(6), 996-1003.

PROACTIVE WORK BEHAVIOR

- Vroom, V. H. (1964). *Work and motivation*. New York: John Wiley.
- Wall, T. D., & Jackson, P. R. (1995). New manufacturing initiatives and shopfloor work design. In A. Howard (Ed.), *The changing nature of work* (pp. 139-174). San Francisco: Jossey-Bass.
- Wanberg, C. R., & Kammeyer-Mueller, J. D. (2000). Predictors and outcomes of proactivity in the socialization process. *Journal of Applied Psychology, 85*(3), 373-385.
- Warr, P., & Birdi, K. (1998). Employee age and voluntary development activity. *International Journal of Training and Development, 2*(3), 190-204.
- Warr, P., & Fay, D. (2001). Short report: Age and personal initiative at work. *European Journal of Work and Organizational Psychology, 10*(3), 343-353.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Research in Organizational Behavior, 18*, 1-74.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review, 26*(2), 179-201.
- Xin, K. R. (2004). Asian American Managers: An Impression Gap? An Investigation of Impression Management and Supervisor-Subordinate Relationships. *The Journal of Applied Behavioral Science, 40*(2), 160-181.
- Yu, N., Collins, C. G., White, K., Fairbrother, G., & Cavanagh, M. (2008). Positive coaching with frontline managers: Enhancing their effectiveness and understanding why. *International Coaching Psychology Review, 3*(2), 30-42.
- Zapf, D., Dormann, C., & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology, 1*(2), 145-169.

PROACTIVE WORK BEHAVIOR

FIGURE CAPTION

Figure 1: Model of Individual-level Proactive Behavior

Figure 1: Model of Individual-level Proactive Behavior

