

1
3 **WHO IS PROACTIVE AND WHY?**
5 **UNPACKING INDIVIDUAL**
7 **DIFFERENCES IN EMPLOYEE**
9 **PROACTIVITY**
11

13 Chia-Huei Wu, Sharon K. Parker and ~~Uta Bindl~~
15

17 Proactive behavior refers to self-initiated and future-oriented action that
19 aims to bring about change (Parker, Williams, & Turner, 2006). Individuals
21 can behave proactively in a variety of domains, such as in regard to their
23 careers, improving their work environment, and influencing organizational
25 strategy. Proactivity has been recognized as particularly critical in complex
27 and uncertain work environments because it allows individuals to master
29 situations in advance and to act on one's own initiative without the need for
31 closer supervision (Griffin, Neal, & Parker, 2007). Supporting its benefits,
33 recent meta-analytic evidence suggests that proactivity is mainly beneficial
35 (Thomas, Whitman, & Viswesvaran, 2010).

27 Researchers have identified dispositional and situational antecedents of
29 employee proactivity, as well as tried to understand the underlying moti-
31 vational mechanisms linking antecedents and outcomes (Parker, Bindl, &
33 Strauss, 2010). Review articles (e.g., Bindl & Parker, 2010; Wu & Parker,
35 2011) have shown that proactive behavior is predicted by certain disposi-
tional characteristics, such as proactive personality, and by situational
features, such as job autonomy, transformational leadership, and supportive
organizational climate. Interactions between personal and environmental

1 factors in shaping proactive behavior have also been identified (e.g., Griffin,
2 Parker, & Mason, 2010; McAllister, Kamdar, Morrison, & Turban, 2007),
3 suggesting that proactive behavior is determined by combinations of
4 personal and situational forces.

5 Nevertheless, compared to research on situational antecedents of
6 proactive behavior, dispositional antecedents to proactive behaviors have
7 been less systematically investigated. One reason for why research has
8 mostly focused on understanding situational antecedents to proactivity
9 could be that these are more amenable to intervention than are stable dis-
10 positional characteristics (Geller, 2002). While we agree it is important to
11 investigate how context influences proactivity, understanding what type of
12 person will typically engage in proactive behaviors will provide additional
13 insights. Proactive behaviors should be shaped by dispositional character-
14 istics because these behaviors are by definition not required in a given job
15 description and are thus typically not tied to formal reward and punishment
16 systems in the organization (Van Dyne & LePine, 1998). Our goal in this
17 chapter is to advance understanding of the role of personality traits for
18 proactive behaviors at work.

19 Personality traits have been classified in different ways. Most typically,
20 personality traits have been classified according to their content, notably via
21 the Big Five personality framework (John, Naumann, & Soto, 2008). This
22 type of classification is referred to as content classification. However, person-
23 ality traits can also be classified according to how they influence behavior. An
24 example of a functional classification approach is Buss and Finn's (1987)
25 differentiation of personality into cognitive, affective, and instrumental traits.
26 We focus particularly on the functional classification to review how perso-
27 nality traits can influence proactive behavior. Our approach offers a different
28 perspective to the question of "who" is proactive, and also helps to integrate
29 past findings on the role of personality traits in shaping proactive behaviors.

30 In the following sections, we first introduce the concept of proactive
31 behavior at work and its features. We then discuss the functional classi-
32 fication of personality traits proposed by Buss and Finn (1987) and review
33 the existing literature accordingly. Finally, we identify directions for further
34 research.

35

36

37 PROACTIVITY IN THE WORKPLACE

38
39 Scholars have argued that different forms of proactive behaviors (e.g.,
40 career initiative, feedback seeking, and taking charge) all involve employees'

1 self-initiated and future-focused efforts to bring about change in a situation
(Parker et al., 2006). There are at least three important elements that define
3 proactivity: future-focus, change-orientation, and self-initiation (Frese &
Fay, 2001; Parker et al., 2006). First, proactive behavior is future-focused,
5 which means that this action is targeted at anticipated problems or at
opportunities with a long-term focus. Second, proactive behavior is change-
7 oriented, involving not just reacting to a situation but being prepared to
change that situation in order to bring about a different future. Third, and
9 underpinning the prior two elements, proactive behavior is self-initiated,
which means that employees initiate a proactive goal without being told to,
11 or without requiring explicit instructions from supervisors. Accordingly,
proactivity has also been conceived of as a process in which employees
13 generate and implement, under their own direction, a proactive goal to bring
about a different future (Bindl, Parker, Totterdell, & Hagger-Johnson, 2012;
15 Frese & Fay, 2001; Grant & Ashford, 2008).

Although there are different forms of proactive behavior across many
17 situations, Parker and Collins (2010) differentiated three overarching
categories of proactive behavior according to their goals. First, employees
19 can proactively aim to achieve a better fit between the person and the
environment. This form of proactivity is referred to as “proactive person-
21 environment fit behavior,” and includes behaviors such as feedback
inquiry, feedback monitoring (Ashford, Blatt, & VandeWalle, 2003), job
23 change negotiation (Ashford & Black, 1996), and career initiative (Seibert,
Kraimer, & Crant, 2001). Second, employees can proactively set out to
25 improve the internal organizational environment, which Parker and Collins
(2010) summarize as “proactive work behavior.” This form of proactivity
27 includes behaviors such as taking charge (Morrison & Phelps, 1999), voice
(LePine & Van Dyne, 1998), individual innovation (Scott & Bruce, 1994),
29 and problem prevention (Frese & Fay, 2001). Third, employees can be
proactive in improving the fit of their organization with its wider environ-
31 ment, so-called “proactive strategic behavior.” Example behaviors of this
form of proactivity include strategic scanning (Parker & Collins, 2010), issue
33 selling credibility (Dutton & Ashford, 1993), and issue selling willingness
(Ashford, Rothbard, Piderit, & Dutton, 1998).

35 In contrast to the differentiation of proactive behavior based on
individuals’ specific goals, Griffin et al. (2007) differentiated proactive
37 behavior based on the level in the organization to which an individual
directs his/her proactive efforts. In brief, they specified the extent to which
39 individuals engage in self-starting, future-oriented behavior relevant to: their
individual work situations or roles (individual task proactivity); to a team’s

1 situation or the way the team works (team member proactivity); and to their
2 organization and/or the way the organization works (organization member
3 proactivity). Although different types of proactivity have their own
4 meanings, they are also positively and moderately related to each other,
5 suggesting that different forms of proactive behavior share the same
6 common base of proactivity, and supporting the conceptualization of
7 proactive behavior as one overarching concept.

8 Three common motivational mechanisms in triggering proactive behavior
9 have been proposed by Parker et al. (2010). In order to enact proactive
10 behavior individuals will consider whether they feel capable of being
11 proactive (a “can do” pathway), whether they have some sense that they
12 want to bring about a different future (a “reason-to” pathway), and whether
13 they experience positive affect that fosters their proactive actions (an
14 “energized-to” pathway). These mechanisms have been supported in
15 empirical studies with different forms of proactive behavior (e.g., Bindl
16 et al., 2012; Den Hartog & Belschak, 2007; Parker et al., 2006), suggesting
17 that different forms of proactive behavior have common motivational
18 mechanisms. A systematic model of how more distal, dispositional chara-
19 cteristics can motivate different types of proactivity at work is currently
20 missing, and we propose next that a functional classification of personality
21 traits can help generate such a framework.

23

25 **A FUNCTIONAL CLASSIFICATION OF** 26 **PERSONALITY TRAITS**

27

28 In contrast to content classifications of personality traits (e.g., the
29 “Big Five” framework), Buss and Finn (1987) draw on three aspects of
30 behavior – cognitive, affective, and instrumental (James, 1890) – to classify
31 personality traits. The cognitive aspect concerns the function of reflecting
32 information processing in thinking and understanding; the affective aspect
33 concerns the function of expressing emotional responses; and the instru-
34 mental aspect concerns the function of interacting with the environment
35 (Elizur & Sagie, 1999; Levy & Guttman, 1975). Corresponding to these
36 aspects, Buss and Finn (1987) identified that cognitive traits involve
37 behavior that has a large component of thoughts, imagination, and infor-
38 mation processing (e.g., *openness to experience* is a cognitive trait because it
39 is associated with an increased tendency to consider unconventional or
unfamiliar ideas); affective traits involve behaviors that have a strong

1 emotional component (*neuroticism* is an affective trait due to its association
with increased experience and expression of negative, distressing emotions);
3 and instrumental traits involve behaviors that have an impact on the
environment (e.g., *assertiveness* is an instrumental trait because it is
5 associated with an increased tendency to speak up, lead others, and force
others to accept one's opinions).

7 This functional classification framework suggests potential psychological
mechanisms (i.e., cognitive, affective, or enactive) via which a specific
9 trait can contribute to proactive behavior. For instance, extraversion as a
broad personality trait has been found to be positively related to various
11 forms of proactive behavior, such as information seeking (Tidwell & Sias,
2005), feedback seeking/relationship building (Wanberg & Kammeyer-
13 Mueller, 2000), personal initiative (Fay & Frese, 2001), and voice
(LePine & Van Dyne, 2001). This is likely because people high in
15 extraversion are more comfortable and skilled in communicating ideas to
others and are more action-oriented in regard to influencing the environ-
17 ment (LePine & Van Dyne, 2001). However, two facets of extraversion,
assertiveness and *excitement*, should influence proactivity mainly via
19 different mechanisms, according to Buss and Finn's (1987) classification.
Assertiveness, an instrumental trait, likely facilitates proactive behavior
21 through its effect on changing the environment, such as persuading
others to build networks, and accumulating social capital for implement-
23 ing proactive ideas (Thompson, 2005). In contrast, excitement, as an
affective trait, is more likely to contribute to proactive behaviors via the
25 role of positive feelings, which Bindl et al. (2012) identified as especially
important for envisioning proactive goals and for energizing proactive
27 action. This example shows how a functional classification can help to
understand why certain personality traits can contribute to proactive
29 behavior, not only because of their content, but also because of their potential
mechanisms associated with instrumental, affective, and cognitive aspects
31 of behavior.

While a functional classification of personality traits appears to facilitate
33 understanding the role of personality traits in shaping proactive behaviors,
different contents within the same functional classifications should
35 additionally matter. For instance, positive affectivity and negative
affectivity are both affective traits; however, they have been differentially
37 linked with proactive behaviors (e.g., Den Hartog & Belschak, 2007).
Consequently, we will present in our review a combination of functions
39 (cognitive, affective, and instrumental) and content of personality traits in
discussing their associations with proactive behaviors.

PERSONALITY TRAITS AS INFLUENCING FACTORS OF EMPLOYEE PROACTIVITY

In this section, we draw on Buss and Finn’s (1987) framework to review existing findings on the role of personality traits in shaping proactive behaviors. In brief, we suggest that cognitive traits will contribute to proactivity at work because these traits enhance the likelihood that an individual will recognize opportunities and will generate ideas for the future, both aspects that are akin to proactivity; affective traits will contribute to proactivity because these traits increase the experience of energy to pursue more challenging goals; and finally, instrumental traits likely contribute to proactivity at work because these traits imply a strong tendency of mastering the environment, likely activating proactive behavior. We will proceed to review each of these traits, in turn. Fig. 1 provides a schematic overview of reviewed personality traits and their proposed influencing mechanisms on proactive behaviors at work.

Cognitive Traits

We expect cognitive traits to take on an important role in triggering proactive behavior because, according to a goal-regulatory perspective (see Parker et al., 2010), effective proactive behavior derives from envisioning a different future, as well as planning and reflecting on past outcomes – all activities that likely require cognitive effort. As Frese and Fay (2001)

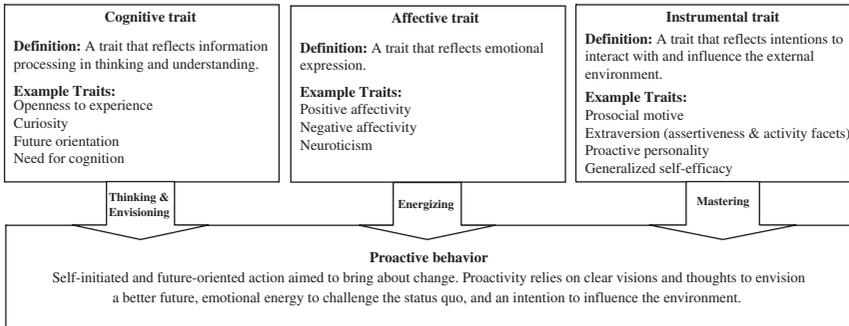


Fig. 1. A Schematic Model of Personality Traits, and Their Proposed Influences on Proactive Behavior.

1 indicated, proactive behavior is not the application of a standard procedure;
rather, an individual must actively consider new methods or pathways to
3 approach a future-oriented goal. Therefore, we suggest that cognitive traits
that can lead an individual to generate more new ideas and envision a
5 different future will positively contribute to proactive behavior. Here, we
review four such cognitive traits – *openness to experience, curiosity, future*
7 *orientation, and need for cognition* – that have been previously found to
relate to proactive behavior.

9

Openness to Experience

11 Openness to experience can be viewed as a cognitive trait because people
high in openness to experience tend to appreciate new experiences and
13 explore unfamiliar situations (Costa & McCrae, 1992). One would expect
openness to experience to relate positively to proactivity, and studies
15 support this. Openness to experience has been found to positively correlate
with feedback seeking and positive framing; two kinds of proactive
17 socialization behavior for newcomers (Wanberg & Kammeyer-Mueller,
2000). Fay and Frese (2000) showed that psychologically conservative
19 individuals, who are high in authoritarianism and rejection attitude of
foreigners (and likely low on openness to experience), are less likely to
21 engage in personal initiative. Fay and Frese (2001) also reported that
individuals high in readiness to change, or “the preference for jobs that
23 allow the change of routines and readiness to participate in qualification”
(p. 114), are more likely to report personal initiative.

25 At the same time, however, studies have reported nonsignificant
relationships between openness to experience and proactive behavior,
27 including personal initiative (Fay & Frese, 2001), voice (LePine & Van
Dyne, 2001), and task, relational and performance information seeking
29 (Tidwell & Sias, 2005). These inconsistent findings can be explained by
Bateman and Crant’s (1993) argument that openness to experience also
31 implies tolerance with others’ thoughts, which might incline people against
change-oriented proactivity. In other words, considering openness to
33 experience as a single whole dimension may be overly crude because specific
facets related to proactivity are grouped with nonrelevant facets. This lack
35 of specificity could explain the unreliable relationship of openness to
experience with proactivity.

37 Supporting this possibility, when studies consider facets of openness to
experience, only three facets (i.e., facets of actions, ideas, and values) have
39 been found to be positively related to proactive behavior. Facet of actions
means willingness to try different activities and preference for novelty over

1 the familiar or routine; facet of ideas means curiosity and willingness to
2 consider unconventional ideas; and facet of values means readiness to
3 reexamine values (social, political, or religious). LePine and VanDyne
4 (2001) found that the facet of actions was positively related to voice
5 behavior. Major, Turner, and Fletcher (2006) found that the facet of ideas
6 and the facet of values predicted motivation to learn, which in turn, was
7 associated with greater engagement in personal development activities.
8 These findings highlight that we need to focus on specific facets of open-
9 ness to experiences to fully understand how this trait shapes proactive
10 behavior.

11 *Curiosity*

12 Curiosity is “an appetitive state involving the recognition, pursuit, and
13 intense desire to investigate novel information and experiences that
14 demand one’s attention” (Kashdan & Steger, 2007, p. 159). We thus
15 expect that curiosity will contribute to proactive behavior because it leads
16 individuals to identify and exploit opportunities, especially in novel
17 situations. Supporting this view, Kashdan and Steger (2007) reported that
18 trait curiosity fosters proactive behaviors and proactive goal-directed
19 efforts. Howell and Shea (2001) also reported that employees who are high
20 in intellectual curiosity are more likely to engage in environmental scan-
21 ning, which then triggers more championing behavior in innovation (e.g.,
22 conviction in innovation, building involvement and support, and persisting
23 in the face of adversary). Similarly, Harrison, Sluss, and Ashforth
24 (2011) found that curiosity can lead an individual to positively frame the
25 external environment, which then enhances proactive behavior (i.e., taking
26 charge).

27 *Future Orientation*

28 Future orientation is defined as the degree to which one is thoughtful about
29 his/her future in motivation (goal setting), planning, and evaluation (Nurmi,
30 1991). Future orientation is a cognitive trait that has been theorized to
31 positively contribute to proactive behavior. This perspective coincides with
32 recent conceptualizations of proactivity as a goal-regulatory process that
33 comprises elements such as envisioning (thinking ahead to bring about a
34 better future), planning (developing plans for how to implement proactive
35 ideas), action directed toward future impact (manifestation of anticipation
36 and planning into concrete proactive behaviors), as well as reflection
37 (monitoring and evaluating outcomes of proactive action; Bindl et al., 2012;
38

1 Frese & Fay, 2001; Grant & Ashford, 2008). All four phases of proactive
3 goal regulation are influenced by a strong future orientation, which leads a
5 person to think ahead, plan in advance, and take actions for the future. As
7 such, it is not surprising that future-orientation can contribute to proactive
9 behavior. Empirically, Parker and Collins (2010) have found that
consideration of future consequences were positively related with three
broad higher-order sets of proactive behaviors (i.e., proactive work
behaviors, proactive strategic behaviors, and proactive person-environment
fit behaviors).

11 *Need for Cognition*

12 Need for cognition is another cognitive trait that has been recently examined
13 in proactivity literature (Wu, Parker, & de Jong, in press). Need for
14 cognition is a personality variable reflecting “the tendency for an individual
15 to engage in and enjoy thinking” (Cacioppo & Petty, 1982, p. 116). Need
16 for cognition is expected to contribute to proactive behavior because
17 deliberate and active thinking is needed when planning and enacting
18 proactive actions. This thinking process has been discussed by Frese and
19 Fay (2001), who argued that deliberate cognitive engagement is crucial to
20 identify opportunities and find alternative ways to bring about changes. In
21 this vein, need for cognition has been shown to be positively associated with
22 individual innovation behavior (Wu et al., in press), with the latter being
23 strongly related to proactive behaviors like taking charge and voice
24 (Parker & Collins, 2010).

25

27

Affective Traits

28 We propose that affective traits will additionally influence proactive
29 behavior because affect has been identified as a powerful activator of
30 behavior (Carver & White, 1994; Elliot & Thrash, 2002). Affective traits
31 comprise an individual’s typical evaluative feelings across time and
32 situations. In this vein, individuals who are high in *positive affectivity* tend
33 to frequently experience positive emotions, such as enthusiasm and alert-
34 ness, whereas people who are high in *negative affectivity* tend to frequently
35 experience negative emotions, such as nervousness and distress. Both of
36 these two traits have been associated with individuals’ performance at work
37 (Kaplan, Bradley, Luchman, & Haynes, 2009), as well as with proactive
38 behavior more specifically (see Bindl & Parker, *in press*), as we will review
39 next.

1 *Positive Affectivity*

To date, ample evidence suggests that positive affective experience, activated
3 positive affective in particular (Bindl et al., 2012), promotes positive ways of
behaving at work (Forgas & George, 2001; Staw, Sutton, Pelled, 1994).
5 Conceptually, these associations should prevail because positive affect
facilitates individuals' focus on positive outcomes of their behaviors (Mayer,
7 Gaschke, Braverman, & Evans, 1992) and generates high expectancy
judgments for outcomes (Wegener & Petty, 1996).

9 We propose that positive affect should be particularly relevant for
activating proactive behaviors. This is because proactivity is self-initiated, or
11 generated by employees' themselves (Frese & Fay, 2001; Parker et al., 2010),
and represents more internalized rather than externalized goals (Ryan &
13 Deci, 2000). With weaker external forces on proactive behavior, there is
more scope for internal influences, such as affect. For example, positive
15 affective experience increases individuals' tendency to choose generative
behaviors (Seo, Feldman, Barrett, & Bartunek, 2004). Additionally, because
17 proactive behaviors are change-oriented and self-initiated, they likely
require effortful and complex self-regulation processes (Muraven &
19 Baumeister, 2000). As such, positive affectivity provides feelings of energy
(Shraga & Shirom, 2009) and thus facilitates engagement and persistence in
21 activities (Tsai, Chen, & Liu, 2007).

In support of these arguments, evidence suggests that positive affectivity
23 is associated with higher levels of self-reported personal initiative (Den
Hartog & Belschak, 2007) and improved proactive socialization behaviors
25 among newcomers (Ashforth, Sluss, & Saks, 2007). Similarly, LePine and
Van Dyne (2001) reported that indicators of positive affectivity in extra-
27 version (positive emotions, excitement seeking) predict voice. Altogether,
there is consistent evidence of a positive link between positive affectivity and
29 proactive behaviors at work.

31 *Negative Affectivity*

Negative affect can negatively influence proactive behaviors to the extent
33 that it may elicit negative outcome expectancies (Johnson & Tversky, 1983)
and that it generates an orientation toward avoiding negative outcomes
35 rather than approaching positive ones (Seo, Feldman Barrett, & Bartunek,
2004). Supporting this view, Ashforth et al. (2007) found negative affectivity
37 had a negative correlation with proactive socialization behaviors among
newcomers. Grant, Parker, and Collins (2009) similarly reported a negative
39 correlation between negative affectivity and voice. In addition to purely
affective experience-related measures, neuroticism (a trait from the Big Five

1 framework discussed earlier) is an indicator for negative affectivity that has
2 been widely examined in the proactivity literature. Neuroticism is the
3 tendency to experience negative, distressing emotions, such as fearfulness,
4 social anxiety, poor inhibition of impulses, and helplessness (Costa &
5 McCrae, 1987). Neuroticism has been found to be negatively associated with
6 proactive behaviors, such as voicing suggestions for organizational
7 improvement (LePine & Van Dyne, 2001) and actively seeking information
8 on one's performance (Tidwell & Sias, 2005).

9 However, negative affectivity could also promote proactive behaviors to
10 the extent that it signals a discrepancy between an actual situation and a
11 desired situation, thereby stimulating individuals to engage in self-initiated
12 and change-oriented behaviors in order to reduce the perceived discrepancy
13 (Carver & Scheier, 1982). Supporting this view, Den Hartog and Belschak
14 (2007) reported partial evidence of a positive relationship between negative
15 affectivity and personal initiative. However, studies by Griffin et al. (2007)
16 and Strauss, Griffin, and Rafferty (2009) did not find a significant relation-
17 ship between neuroticism and proactive behavior with respect to completing
18 individual tasks, being a team member, and being an organization member.
19 Neuroticism did not predict newcomer's proactive behavior, including
20 information seeking, feedback seeking, relationship building, and positive
21 framing (Wanberg & Kammeyer-Mueller, 2000). These mixed findings on
22 negative affective traits may highlight the need for further investigations on
23 the role of negative affect in proactivity.

24 One possible explanation for the incoherent findings on negative
25 affectivity with proactivity is that activation levels in negative affective
26 traits could additionally matter in shaping proactive behaviors. Most studies
27 to date have drawn on the PANAS scale of affectivity (Watson, Clark, &
28 Tellegen, 1988), using items such as feeling *enthused*, *interested*, and *deter-*
29 *mined* for positive affectivity, and feeling *scared*, *afraid*, and *upset* for
30 negative affectivity. The PANAS scale did not cover ~~the entire circumplex of~~
31 ~~affect~~ (Russell, 1980) but rather included only the more activated quadrants, AU:1
32 or high-activated positive and high-activated negative affect (Tellegen,
33 Watson, & Clark, 1999).

34 To date, only Bindl and colleagues (2012) differentiated affect into four
35 quadrants of the affective circumplex model with the combinations of high
36 versus low activation and positive versus negative valence and examined the
37 impact of each affect category on different stages in a proactive goal process
38 (i.e., envisioning, planning, enacting, and reflecting). They found that high-
39 activated positive mood was positively associated with all elements of the
40 proactive process, and low-activated negative feelings of depressive and sad

1 moods positively predicted employees' envisioning of proactive goals. These
3 findings suggest that activation levels of affect should additionally be taken
5 into account when investigating how affective traits influence proactive
7 behaviors.

7 *Instrumental Traits*

9 By definition, proactive behavior aims to bring about change in the
11 environment (Parker et al., 2006). Therefore, instrumental personality
13 traits that are associated with tendencies to influence the environment
15 through action can positively contribute to proactive behavior. We identify
17 proactive personality (Bateman & Crant, 1993) and generalized self-efficacy
(Morrison & Phelps, 1999) as two instrumental traits for which there is solid
19 evidence of a link with proactivity. We also review evidence on prosocial
motives (Grant & Berg, 2011), and specific facets of extraversion (LePine &
Van Dyne, 2001) as instrumental traits for which there is some, but not
consistent, evidence. We elaborate these findings in more detail.

19 *Proactive Personality*

21 Proactive personality describes a stable tendency to "scan for opportunities,
23 show initiative, take action, and persevere until they reach closure by
25 bringing about change" (Bateman & Crant, 1993, p. 105). As such, pro-
27 active personality represents an instrumental trait that is aimed at mastering
the environment and has been positively linked to multiple forms of
proactive behavior. For example, meta-analytic evidence suggests that
proactive personality is positively linked to voice, taking charge, creativity,
networking, and career initiative, amongst others (Fuller & Marler, 2009).

29 *Generalized Self-Efficacy*

31 Self-efficacy represents individual beliefs to be able to perform a goal-
33 directed behavior in a specific situation (Bandura, 1994). Although
35 self-efficacy involves cognitive elements of behavior with respect to self-
37 perception, we also regard it as an instrumental trait because it emphasizes
the ability of certain behaviors to influence the environment (Morrison &
Phelps, 1999). In line with our view, Frese and Fay (2001) similarly
proposed that self-efficacy is an intermediate variable that can transfer an
individual's behavioral tendency into concrete behaviors, indicating the
instrumental function of generalized self-efficacy in triggering behaviors to
influence the external environment. Although Bandura (1994) and Frese and

1 Fay (2001) conceptualized self-efficacy as a state construct, it has also been
2 regarded as a trait concept and has been shown to have a positive effect on
3 promoting proactive behaviors such as personal initiative (Fay & Frese,
4 2001; Speier & Frese, 1997), as well as taking charge at work (Morrison &
5 Phelps, 1999). Therefore, at the trait level, we consider self-efficacy as an
6 instrumental trait that can contribute to proactive behavior.

7

Prosocial Motive

8 Prosocial motive refers to an individual's desire to have a positive impact on
9 other people or social collectives (Grant & Berg, 2011). Prosocial motives at
10 work have been theorized as a strong reason to engage in proactive
11 behaviors (Wu & Parker, 2011) because different forms of proactive
12 behavior at work have in common an emphasis on bringing about positive
13 and constructive change. From this perspective, prosocial motive can be
14 regarded as an instrumental trait, albeit with a more prosocial-oriented
15 emphasis in influencing the environment. Supporting this view, prosocial
16 motive has been found positively related to personal initiative (De Dreu &
17 Nauta, 2009), as well as general initiative and voice (Grant & Mayer, 2009).
18 The positive relationship between prosocial motive and proactive behavior
19 can also be inferred from the duty or other-centered facet of conscientious-
20 ness (Moon, 2001). Because the facet of duty reflects the extent to which an
21 individual is concerned about the organization, high levels of prosocial
22 motives were expected (and found) to be positively related to taking charge
23 (Moon, Kamdar, Mayer, & Takeuchi, 2008). However, in Grant et al.'s
24 (2009) study, high levels of prosocial motives did not have a direct positive
25 association with voice and anticipatory helping behavior, suggesting the
26 need for further studies to provide a cogent conclusion.

Extraversion (The Activity and Assertiveness Facets)

27 Extraversion, as a broad personality trait, describes the quantity and
28 intensity of energy directed outward into the social world (Costa & McCrae,
29 1992). Extraversion can be regarded as an instrumental trait due to the
30 extent that extraverted individuals tend to seek to interact with other
31 individuals. Nevertheless, extraversion can additionally be regarded as an
32 affective trait because it contains some facets (excitement seeking and
33 positive emotions) that relate to positive affect (Costa & McCrae, 1992).
34 Hence, when discussing the role of extraversion on proactive behavior, it is
35 relevant to differentiate its different facets. However, most of studies only
36 use the overall extraversion trait as a broad variable and show that
37 extraversion is positively related to proactive behaviors, such as feedback
38

1 seeking and relationship building among newcomers (Wanberg &
Kammeyer-Mueller, 2000), information seeking (Tidwell & Sias, 2005), and
3 voice (LePine & Van Dyne, 2001).

In a more fine-grained fashion, studies by Major et al. (2006) and LePine
5 and Van Dyne (2001) suggest two specific instrumental facets of overall
extraversion that can contribute to proactive behavior: the activity facet,
7 reflecting pace of living (e.g., a sense of urgency; a need to keep busy; and to
maintain a rapid tempo); and the assertiveness facet, reflecting social
9 ascendancy and forcefulness of expression (e.g., to be dominant and
forceful; to have a tendency to speak up; Costa & McCrae, 1992). The
11 activity facet has been positively associated with a motivation to learn as
well as with developmental activity (Major et al., 2006), and the activity and
13 assertiveness facets have been positively associated with voice (LePine &
Van Dyne, 2001). However, more studies will be needed to provide a solid
15 conclusion.

17

SUMMARY AND FUTURE RESEARCH

19

In our review, we suggested that the proactivity literature to date has tended
21 to be rather disparate in its approach of considering disposition as an
influencing factor of employee proactivity. By far the dominant approach
23 has been to focus on the concept of proactive personality (Bateman &
Crant, 1993) to acknowledge there are individual differences that shape
25 proactive behaviors. Other researchers have used the Big Five personality
framework to understand why people differ in proactive behavior, and yet
27 others have identified personality traits in terms of motives that are relevant
to proactivity. Although this research has provided compelling arguments
29 for why individual personality constructs are important for understanding
proactive behaviors at work, there is a need for integrating the existing
31 findings in an overall conceptual framework. We suggest that the functional
classification of personality traits (Buss & Finn, 1987) provides such a
33 framework. Consistent with this reasoning, our review suggests that
cognitive, affective, and instrumental traits can all contribute to proactive
35 behavior. That is, proactivity research collectively suggests that proactive
behavior is shaped by clear visions and thoughts about a better future,
37 emotional energy to challenge the status quo, and an intention to influence
environment, respectively.

39 To develop this possible integrating framework even further, we further
suggest that the functional classification of personality can be linked to the

1 three motivational mechanisms for proactive behavior proposed by Parker
2 et al. (2010; i.e., can do, reason-to, and energized-to motivation). Most
3 studies we reviewed suggest the direction of the relationship between a
4 personality trait and proactive behavior without examining potential
5 psychological processes that take place. Conceptually, according to the
6 functional classification of personality traits, cognitive traits should be
7 linked to the *reason-to* pathway because they are helpful to develop a
8 proactive goal that guides subsequent proactive behaviors (e.g., Bindl et al.,
9 2012), as well as the *can do* pathway, because with clearer goals that result
10 from deep thinking and imagination, an individual should be more likely to
11 have higher confidence to engage in proactive, goal-directed behavior
12 (Grant & Ashford, 2008). Affective traits, especially positive affectivity, can
13 be directly linked to the *energized-to* pathway given that these traits reflect
14 an individual's typical affective experience across time and situations, likely
15 affecting more fluctuant affective experiences. Finally, instrumental traits
16 can be linked to the *reason-to* pathway because a higher tendency in
17 mastering the environment directly provides a motive to enact behavior to
18 influence the environment, as well as to the *can do* pathway, because
19 individuals with a higher tendency of mastering the environment are also
20 more likely to perceive themselves as having more capability to enact
21 behaviors to influence environment. Empirical studies are now needed to
22 test these and related speculations. In sum, we suggest that unpacking the
23 psychological mechanisms that take place as personality shape proactive
24 behaviors is an important topic for the future.

25 Additionally, a functional classification of personality traits can
26 contribute to the investigation of the interaction effect between personality
27 traits and situational factors in shaping an individual's proactive behavior.
28 Based on the functional classification, a given personality trait has its own
29 particular function in shaping proactive behaviors. As such, situational
30 factors that have similar functions may moderate the impact of that
31 personality trait on proactive behavior because they might enhance or
32 replace the functions a personality trait has. Adopting this perspective,
33 Wu et al. (in press) focused on the interaction effect of ~~the~~ need for
34 cognition (a cognitive trait) and work design variables (i.e., job autonomy
35 and time pressure) in shaping individual innovation behavior. The
36 researchers proposed that the functions of ~~the~~ need for cognition in
37 triggering individual innovation behavior, such as generating new ideas
38 (Nair & Ramnarayan, 2000) and having stronger ownership of one's ideas
39 due to the effortful thinking (Cacioppo, Petty, Kao, & Rodriguez, 1986),
can be substituted with the situational influences of higher job autonomy

1 and higher time pressure because these two work design factors drive
2 similar behavioral functions (Wu & Parker, 2011). For example, autonomy
3 has been shown to promote both idea generation and ownership
4 (see Parker et al., 2006). In line with these predictions, the authors found
5 that need for cognition had a positive effect on individual innovation
6 behavior when job autonomy or time pressure was low to moderate, but
7 no effect when job autonomy was high. This study therefore illustrates
8 how a functional approach to personality traits can guide an understand-
9 ing of the interactions between trait and situation in shaping proactive
10 behavior.

11 A final contribution of considering a functional approach to personality
12 traits for understanding proactivity concerns interactions between, and
13 configurations of, personality traits. The fact that personality traits have
14 different functions implies that these functions might work together in
15 various synergistic and/or complementary ways. For example, it might be
16 that having a strong focus on changing the environment (proactive
17 personality) drives ineffective or unwise proactivity if the individual lacks
18 a strong cognitive orientation toward thinking (e.g., need for cognition).
19 Likewise, if an individual has a high need for cognition and thereby
20 generates proactive ideas, yet at the same time is highly neurotic in his/her
21 affective orientation, then the individual might generate proactive goals yet
22 fail to achieve the goal because their negative affectivity inhibits their ability
23 to deal with challenges or overcome obstacles. These speculative combina-
24 tions of personality characteristics have not been considered, yet the
25 functional classification of personality lends itself to such considerations
26 ~~because an intention to behave in a particular way, affect and cognition~~
27 ~~likely operate together to shape proactivity.~~

AU :2

29

CONCLUSION

31

32 Proactivity is undoubtedly shaped by personality. Exactly what types of
33 personality, and how personality plays out, has had little attention. Drawing
34 on the functional classification of personality traits proposed by Buss and
35 Finn (1987), we suggested that personality traits, in addition to their
36 content, also imply different functions (i.e., cognitive, affective, and
37 instrumental) that differentially influence proactive behavior. We now
38 recommend future studies that simultaneously consider both content and
39 function, that investigate the underlying mechanisms of traits in shaping
40 proactivity, and that theorize and test the person–environment interactions

1 and person–person interaction effects implied by the functional classifica-
 2 tion of personality traits.

3

5

7

REFERENCES

9

Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire
 for control. *Journal of Applied Psychology, 81*, 199–214.

11

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*,
 773–799.

13

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*, 23–57.

15

Ashforth, B. E., Sluss, D. M., & Saks, A. M. (2007). Socialization tactics, proactive behavior,
 and newcomer learning: Integrating socialization models. *Journal Of Vocational
 Behavior, 70*, 447–462.

17

Bandura, A. (1994). Self-efficacy. In V. S. Ramachandra (Ed.), *Encyclopedia of human behaviour*
 (Vol. 4, pp. 71–81). New York, NY: Academic Press.

19

Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A
 measure and correlates. *Journal of Organizational Behavior, 14*, 103–118.

21

Bindl, U. K., & Parker, S. K. (2010). Proactive work behaviour: Forward-thinking and change-
 oriented action in organizations. In S. Zedeck (Ed.), *APA handbook of industrial and
 organizational psychology* (pp. 567–598). Washington, DC: American Psychological
 Association.

23

25

Bindl, U. K., & Parker, S. K. (in press). A reflection on affect and goal regulation theory. In **AU 3**
 N. Ashkanasy, W. J. Zerbe, & C. E. J. Härtel (Eds.), *Research on emotion in
 organizations* (Vol. 8). Bingley, UK: Emerald.

27

Bindl, U. K., Parker, S. K., Totterdell, P., & Hagger-Johnson, G. (2012). The fuel of the self-
 starter: How mood influences proactivity. *Journal of Applied Psychology, 97*, 134–150.

29

Buss, A. H., & Finn, S. E. (1987). Classification of personality traits. *Journal of Personality and
 Social Psychology, 52*, 432–444.

31

Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social
 Psychology, 42*, 116–131.

33

Cacioppo, J. T., Petty, R. E., Kao, C. F., & Rodriguez, R. (1986). Central and peripheral routes
 to persuasion: An individual difference perspective. *Journal of Personality and Social
 Psychology, 51*, 1032–1043.

35

Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework
 for personality-social, clinical, and health psychology. *Psychological Bulletin, 92*,
 111–135.

37

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective
 responses to impending reward and punishment: The BIS/BAS Scales. *Journal of
 Personality and Social Psychology, 67*, 319–333.

39

Costa, P. T., Jr., & McCrae, R. R. (1987). Neuroticism, somatic complaints, and disease: Is the
 bark worse than the bite? *Journal of Personality, 55*, 299–316.

- 1 Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO PI-R) and*
2 *NEO five factor inventory: Professional manual*. Odessa, FL: Psychological Assessment
3 Resources.
- 4 De Dreu, C. K. W., & Nauta, A. (2009). Self-interest and other-orientation in organizational
5 behavior: Implications for job performance, prosocial behavior, and personal initiative.
6 *Journal of Applied Psychology, 94*, 913–926.
- 7 Den Hartog, D. N., & Belschak, F. D. (2007). Personal initiative, commitment and affect at
8 work. *Journal of Occupational and Organizational Psychology, 80*, 601–622.
- 9 Dutton, J. E., & Ashford, S. J. (1993). Selling issues to top management. *Academy of*
10 *Management Review, 18*, 397–428.
- 11 Elizur, D., & Sagie, A. (1999). Facets of personal values: A structural analysis of life and work
12 values. *Applied Psychology: An International Review, 48*, 73–87.
- 13 Elliot, A. J., & Thrash, T. M. (2002). Approach-avoidance motivation in personality: Approach
14 and avoidance temperaments and goals. *Journal of Personality and Social Psychology, 5*,
15 804–818.
- 16 Fay, D., & Frese, M. (2000). Conservatives' approach to work: Less prepared for future work
17 demands? *Journal of Applied Social Psychology, 30*, 171–195.
- 18 Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies.
19 *Human Performance, 14*, 97–124.
- 20 Forgas, J. P., & George, J. M. (2001). Affective influences on judgments and behavior in
21 organizations: An information processing perspective. *Organizational Behavior and*
22 *Human Decision Processes, 86*, 3–34.
- 23 Frese, M., & Fay, D. (2001). Personal initiative (PI): An active performance concept for work in
24 the 21st century. In B. M. Staw & R. M. Sutton (Eds.), *Research in organizational*
25 *behavior* (Vol. 23, pp. 133–187). Amsterdam: Elsevier Science.
- 26 Fuller, J. B., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of the
27 proactive personality literature. *Journal of Vocational Behavior, 75*, 329–345.
- 28 Geller, E. S. (2002). Organizational behavior management and industrial/organizational
29 psychology: Achieving synergy by valuing differences. *Journal of Organizational*
30 *Behavior Management, 22*, 111–130.
- 31 Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in*
32 *Organizational Behavior, 28*, 3–34.
- 33 Grant, A. M., & Berg, J. M. (2011). Prosocial motivation at work: When, why, and how making a
34 difference makes a difference. In K. Cameron & G. Spreitzer (Eds.), *The Oxford handbook*
35 *of positive organizational scholarship* (pp. 28–44). New York, NY: Oxford University Press.
- 36 Grant, A. M., & Mayer, D. M. (2009). Good soldiers and good actors: Prosocial and impression
37 management motives as interactive predictors of affiliative citizenship behaviors. *Journal*
38 *of Applied Psychology, 94*, 900–912.
- 39 Grant, A. M., Parker, S. K., & Collins, C. G. (2009). Getting credit for proactive behavior:
40 Supervisor reactions depend on what you value and how you feel. *Personnel Psychology,*
41 *62*, 31–55.
- 42 Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance:
43 Positive behavior in uncertain and interdependent contexts. *Academy of Management*
44 *Journal, 50*, 327–347.
- 45 Griffin, M. A., Parker, S. K., & Mason, C. M. (2010). Leader vision and the development of
46 adaptive and proactive performance: A longitudinal study. *Journal of Applied Psycho-*
47 *logy, 95*, 174–182.

- 1 Harrison, S. H., Sluss, D. M., & Ashforth, B. E. (2011). Curiosity adapted the cat: The role of
trait curiosity in newcomer adaptation. *Journal of Applied Psychology, 1*, 211–220.
- 3 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, 15–27.
- 5 James, W. (1890). *The principles of psychology* (Vol. 1). New York, NY: Holt.
- 7 John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five
trait taxonomy: History, measurement, and conceptual issues. In L. Pervin & O. P. John
(Eds.), *Handbook of personality: Theory and research* (pp. 114–158). New York, NY:
Guilford.
- 9 Johnson, E. J., & Tversky, A. (1983). Affect, generalization, and the perception of risk. *Journal
of Personality and Social Psychology, 45*, 20–31.
- 11 Kaplan, S., Bradley, J. C., Luchman, J. N., & Haynes, D. (2009). On the role of positive and
negative affectivity in job performance: A meta-analytic investigation. *Journal of Applied
Psychology, 94*, 162–176.
- 13 Kashdan, T. B., & Steger, M. F. (2007). Curiosity and pathways to well-being and meaning in
life: Traits, states, and everyday behaviors. *Motivation and Emotion, 31*, 159–173.
- 15 LePine, J. A., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of
Applied Psychology, 83*, 853–868.
- 17 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*, 326–336.
- 19 Levy, S., & Guttman, L. (1975). On the multivariate structure of wellbeing. *Social Indicators
Research, 2*, 361–388.
- 21 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*,
927–935.
- 23 Mayer, J. D., Gaschke, Y. N., Braverman, D. L., & Evans, T. W. (1992). Mood-congruent
judgment is a general effect. *Journal of Personality and Social Psychology, 63*, 119–132.
- 25 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*, 1200–1211.
- 27 Moon, H. (2001). The two faces of conscientiousness: Duty and achievement striving in
escalation of commitment dilemmas. *Journal of Applied Psychology, 86*, 533–540.
- 29 Moon, H., Kamdar, D., Mayer, D. M., & Takeuchi, R. (2008). Me or we? The role of
personality and justice as other-centered antecedents to innovative citizenship behaviors
within organizations. *Journal of Applied Psychology, 93*, 84–94.
- 31 Morrison, E. W., & Phelps, C. C. (1999). Taking charge at work: Extrarole efforts to initiate
workplace change. *Academy of Management Journal, 42*, 403–419.
- 33 Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources:
Does self-control resemble a muscle? *Psychological Bulletin, 126*, 247–259.
- 35 Nair, K. U., & Ramnarayan, S. (2000). Individual differences in need for cognition and complex
problem solving. *Journal of Research in Personality, 34*, 305–328.
- 37 Nurmi, J.-E. (1991). How do adolescents see their future? A review of the development of future
orientation and planning. *Developmental Review, 11*, 1–59.
- 39 Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive
motivation. *Journal of Management, 36*, 827–856.

- 1 Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple
proactive behaviors. *Journal of Management*, 36, 633–662.
- 3 Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive
behavior at work. *Journal of Applied Psychology*, 91, 636–652.
- 5 Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social
Psychology*, 39, 1161–1178.
- 7 Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic
motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- 9 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, 580–607.
- 11 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, 845–874.
- 13 Seo, M. G., Feldman Barrett, L. F., & Bartunek, J. M. (2004). The role of affective experience
in work motivation. *Academy of Management Review*, 29, 423–439.
- 15 Shraga, O., & Shirom, A. (2009). The construct validity of vigor and its antecedents:
A qualitative study. *Human Relations*, 62, 271–291.
- 17 Speier, C., & Frese, M. (1997). Generalized self-efficacy as a mediator and moderator between
control and complexity at work and personal initiative: A longitudinal study in East
Germany. *Human Performance*, 10, 171–192.
- 19 Staw, B. M., Sutton, R. I., & Pelled, L. H. (1994). Employee positive emotion and favorable
outcomes at the workplace. *Organization Science*, 5, 51–71.
- 21 Strauss, K., Griffin, M. A., & Rafferty, A. E. (2009). Proactivity directed toward the team and
organization: The role of leadership, commitment, and role-breadth self-efficacy. *British
Journal of Management*, 20, 279–291.
- 23 Tellegen, A., Watson, D., & Clark, L. A. (1999). On the dimensional and hierarchical structure
of affect. *Psychological Science*, 10, 297–303.
- 25 Thomas, J. P., Whitman, D. S., & Viswesvaran, C. (2010). Employee proactivity in
organizations: A comparative meta-analysis of emergent proactive constructs. *Journal
of Occupational and Organizational Psychology*, 83, 275–300.
- 27 Thompson, J. A. (2005). Proactive personality and job performance: A social capital
perspective. *Journal of Applied Psychology*, 90, 1011–1017.
- 29 Tidwell, M., & Sias, P. (2005). Personality and information seeking: Understanding how
traits influence information-seeking behaviors. *Journal of Business Communication*, 42,
51–77.
- 31 Tsai, W. C., Chen, C. C., & Liu, H. L. (2007). Test of a model linking employee positive moods
and task performance. *Journal of Applied Psychology*, 92, 1570–1583.
- 33 Wanberg, C. R., & Kammeyer-Mueller, J. D. (2000). Predictors and outcomes of proactivity in
the socialization process. *Journal of Applied Psychology*, 85, 373–385.
- 35 Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures
of positive and negative affect: the PANAS scales. *Journal of Personality and Social
Psychology*, 54, 1063–1070.
- 37 Wegener, D. T., & Petty, R. E. (1996). Effects of mood on persuasion processes: Enhancing,
reducing, and biasing scrutiny of attitude-relevant information. In L. L. Martin &
A. Tesser (Eds.), *Striving and feeling: Interactions among goals, affect, and self-regulation*
39 (pp. 329–362). Mahwah, NJ: Lawrence Erlbaum Associates.

1 Wu, C. H., & Parker, S. K. (2011). Proactivity in the work place: Looking back and looking
forward. In K. Cameron & G. Spreitzer (Eds.), *The Oxford handbook of positive*
3 *organizational scholarship* (pp. 84–96). New York, NY: Oxford University Press.

5 Wu, C. H., Parker, S. K., & de Jong, J. P. J. (in press). The need for cognition as an antecedent **AU :4**
of individual innovation behavior. *Journal of Management*.

7

9

11

13

15

17

19

21

23

25

27

29

31

33

35

37

39

AUTHOR QUERY FORM

	Book: APOP-V001-3610736 Chapter: 12	Please e-mail or fax your responses and any corrections to: E-mail: Fax:
---	--	---

Dear Author,

During the preparation of your manuscript for typesetting, some questions may have arisen. These are listed below. Please check your typeset proof carefully and mark any corrections in the margin of the proof or compile them as a separate list.

Disk use

Sometimes we are unable to process the electronic file of your article and/or artwork. If this is the case, we have proceeded by:

- Scanning (parts of) your article Rekeying (parts of) your article
 Scanning the artwork

Bibliography

If discrepancies were noted between the literature list and the text references, the following may apply:

- The references listed below were noted in the text but appear to be missing from your literature list. Please complete the list or remove the references from the text.**
 ***UNCITED REFERENCES:* This section comprises references that occur in the reference list but not in the body of the text. Please position each reference in the text or delete it. Any reference not dealt with will be retained in this section.**

Queries and/or remarks

Location in Article	Query / remark	Response
AU:1	In the following sentence: "The PANAS scale did..." please check the phrase "circumplex of affect."	
AU:2	Please check the following sentence "These speculative combinations of personality characteristics..." for clarity.	
AU:3	Please provide the year in the ref. Bindl & Parker (in press).	

AU:4

Please provide the year, volume no. and page range in the ref. Wu et al. (in press)

