

**THE PERSON-SITUATION DEBATE REVISITED:  
EFFECT OF SITUATION STRENGTH AND TRAIT ACTIVATION ON THE  
VALIDITY OF THE BIG FIVE PERSONALITY TRAITS IN PREDICTING JOB  
PERFORMANCE**

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Derived from two theoretical concepts – situation strength and trait activation – we develop and test an interactionist model governing the degree to which five-factor model personality traits are related to job performance. One concept – situation strength – was hypothesized to predict the validities of all Big-Five traits, while the effects of the other – trait activation – were hypothesized to be specific to each trait. Based on this integrative model, personality–performance correlations were located in the literature, and occupationally homogeneous jobs were coded according to their theoretically-relevant contextual properties. Results revealed that all five traits were more predictive of performance for jobs in which the process by which the work was done represented weak situations (e.g., work was unstructured, employee had discretion to make decisions). Many of the traits also predicted performance in job contexts that activated specific traits (e.g., extraversion better predicted performance in jobs requiring social skills, agreeableness was less positively related to performance in competitive contexts, openness was more strongly related to performance in jobs with strong innovation/creativity requirements). Overall, the findings supported our interactionist model in which the situation exerts both general and specific effects on the degree to which personality predicts job performance.

In both psychology and organizational behavior, the maxim that behavior is a function of the person and the situation is nearly a truism, yet when one moves beyond the generality, it is an area that continues to generate an exceptional level of controversy (Lucas & Donnellan, 2009). Though the reasons for this discord are long-standing (Cronbach, 1957, 1975), the controversy seems to rest on two often-repeated critiques of the person and situation perspectives: trait measures have relatively meager effects on complex social behaviors (Bandura, 1999), and situational explanations lack adequate taxonomic progress (Funder, 2001, 2006). Dealing with the latter issue first, it does appear that research has made more progress in classifying and delineating personal rather than situational factors. Funder concluded, “The situational variables examined in published research are almost completely ad hoc” (2008: 571). Buss opined, “One of the key impediments is the nearly total lack of progress in conceptualizing situations in a non-arbitrary manner” (2009: 241). Even if situations are, *ex vi termini*, unique (Hogan, 2009), that does not mean that useful conceptual frameworks cannot be developed which include the situation or context as predictors of psychological (Mischel & Shoda, 1995) or organizational (Joshi & Roh, 2009; Trevino, 1986) behavior. However, even those sympathetic to the social context acknowledge the more limited progress in delineating and testing situational typologies or person  $\times$  situation interactions. Swann and Seyle, while speaking approvingly of the advances provided by the situational perspective, concluded that “the development of a comprehensive taxonomy of situations” has yielded “stunningly modest success” (2005: 162).

As for the former criticism, even when crediting personality research for its taxonomic progress (Goldberg, 1993; McCrae & Costa, 1997), some question the value of these gains. In psychology, Haney and Zimbardo argued that individual differences, while real, represent a “modest point” (2009: 810) in explaining human behavior. In the organizational literature, critics

argue that personality measures “have very low validity for predicting overall job performance” (Morgeson et al., 2007a: 1030). In comparing current estimates of personality trait validity to those reviewed in earlier critiques (Guion & Gottier, 1965; Mischel, 1968), Murphy and Dzieweczynski concluded, “In the 1950s and 1960s, one major concern was that the validity of personality inventories as predictors of job performance and other organizationally relevant criteria seemed generally low. An examination of the current literature suggests that this concern is still a legitimate one” (2005: 345). To be sure, these critiques are critiqued themselves (Hogan, 2007; Ones, Dilchert, Viswesvaran, & Judge, 2007; Roberts, 2009). Still, even advocates acknowledge that trait validities are “relatively low” and “somewhat disappointing” (Barrick, Mount, & Judge, 2001: 22-23).

The purpose of the present study is to address both of these issues—the purportedly low validity of personality traits and the lack of situational theoretical frameworks—by developing and testing an integrative framework of personality – performance relationships, where the model focuses on both general (representing situation strength) and specific (representing trait activation) moderating situational influences. In so doing, we theoretically integrate two situational/interactional models: Meyer et al.’s (2010) conceptualization of situation strength and Tett and Burnett’s (2003) trait activation theory. Because these two theoretical statements have neither been integrated nor compared in past research, we also evaluate the relative validity of these frameworks. In the next sections of the paper, we advance these arguments further, but begin by introducing our guiding conceptual model, and the theoretical arguments that support it.

### **Theoretical Background and Conceptual Model**

The theoretical model appears in Figure 1. The “ribbon” at the top of the figure shows the three central concepts: personality (Big Five traits), situation (job context), and behavior (job

performance). We focus on the Five-Factor Model (FFM), or “Big Five” because it is, unquestionably, the most ubiquitous and widely-accepted trait framework in the history of personality psychology (Funder, 2001). In formulating our classification of the situation, and our general (situation strength) vs. specific (trait activation) distinction, we relied on two distinct theoretical perspectives: situation strength (Mischel, 1977; Meyer, Dalal, & Hermida, 2010; Weiss & Adler, 1984) and trait activation theory (TAT; Tett & Burnett, 2003). As shown in Figure 1, our two situational concepts—situation strength and trait activation—differ in whether they reflect general interactionism (so that they would moderate all trait validities) or specific interactionism (so that they would moderate only certain trait validities). The section that follows describes our theoretical arguments in detail.

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 Insert Figure 1 about here  
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### **GENERAL INTERACTIONISM: SITUATION STRENGTH**

In a general sense, situation strength represents the degree to which situational constraints are present in the environment (Caspi & Moffitt, 1993). Situations are strong to the extent that rules, structures, and cues provide clear guidance as to the expected behavior (Meyer et al., 2010; Mischel, 1977; Weiss & Adler, 1984). In contrast, weak situations comprise environments where social roles are unstructured (Ickes, 1982), organizational structures are decentralized (Forehand & von Haller Gilmer, 1964), and the job provides considerable discretion (Barrick & Mount, 1991) with limited external control over one’s behaviors (Peters, Fisher, & O’Connor, 1982). Central to weak situations is that the context is “ambiguously structured” (Mischel, 1973: 276).

Although there are many theoretical discussions on situational strength, most are vague when it comes to actually articulating the construct. In fact, there has been a plethora of

constructs couched in terms of situation strength, such as situational pressures (Monson, Hesley, & Chernick, 1982), freedom to set goals (Hollenbeck, Williams, & Klein, 1989), and autonomy (Barrick & Mount, 1993). Recently, Meyer et al. (2010) brought some theoretical clarity to the literature by proposing four aspects of situation strength: (1) clarity, the extent to which one's job responsibilities are readily "available and easy to understand," (2) consistency, the degree to which one's job responsibilities are compatible with one another, 3) constraints, the extent to which one's job limits decision-making freedom or action, and 4) consequences, the extent to which an employee's actions or decisions have significant implications for relevant stakeholders. Thus, strong situations as embodied in work contexts are those that are structured (i.e., high clarity), provide little day-to-day variety (i.e., high consistency), involve little unsupervised freedom to make decisions (i.e., high constraints), and have strong penalties associated with negative outcomes (i.e., high consequences).

Strong situations such as these "likely place constraints on the expression of personality" (Cooper & Withey, 2009: 62), and thus should demonstrate low variance in behavior across various personality traits (Mischel, 1977), because there are strong demand characteristics and most individuals agree on what constitutes an appropriate behavioral response. In other words, strong situations provide very clear guidelines on what constitutes valued work behaviors, which ultimately attenuate personality – performance validities. Weak situations, on the other hand, provide few cues regarding expected behaviors, and thus should result in behavioral expressions that are in line with one's basic personal tendencies (i.e., traits, McCrae & Costa, 1999). In the case of the degree to which personality expresses itself in job performance, weak situations amplify personality – performance validities.

Despite compelling theoretical arguments for the idea that personality better predicts

performance in weak situations, the empirical evidence has been mixed, with some results more positive than others. One challenge in making sense of this literature is the diversity of the ways in which situation strength is studied – ranging from the degree to which behavioral expectations are clearly specified (Withey, Gellatly, & Annett, 2005), to job autonomy (Barrick & Mount, 1993), to the degree to which employees agree on the elements comprising effective job performance (Beaty, Cleveland & Murphy, 2001), to constraints on and consequences of performance (Meyer, Dalal, & Bonaccio, 2009).

These mixed results are a logical function of the mixed ways in which situation strength has been conceptualized and measured from study to study. Inconsistencies in the way situation strength is treated across studies will produce inconsistencies in the results of those studies (Buss, 2009; Funder, 2008). While it is difficult to know at which level of abstraction situation strength should be conceptualized – ranging from a very broad, singular assessment of situation strength to the four-dimensional approach developed by Meyer et al. (2010) to a study-by-study assessment – one means of bringing theoretical and empirical clarity to the construct is to consider the locus of analysis.

There are many contexts in which an actor behaves – the dyad, the team, the organization (e.g., its structure, culture, and performance), or the nature of the work itself. While the overall effect of strong situations is the same regardless of the milieu in which behavior occurs – “strong situations lead people to interpret and construe events in the same way and convey uniform expectancies regarding appropriate response patterns” (Withey et al., 2005: 1593) – the specific nature of that context will obviously dictate how strong situations are conceptualized.

In the case of the nature of work as defined by occupation, we conceptualize situation strength along two dimensions. First, work differs in the demands and constraints imposed by the

products of the work. Consequences and responsibilities related to the products (the outcomes) of the work are likely to “induce uniform expectancies regarding the most appropriate response pattern, provide adequate incentives for the performance of that response pattern, and instill the skills necessary for its satisfactory construction and execution” (Mischel, 1973: 276). Thus, jobs in which the outcomes are impactful “send strong signals about what strategic goals are most important and what employee behaviors are expected” (Bowen & Ostroff, 2004: 207), mitigating the degree to which performance differences will be influenced by personality.

Second, in addition to *what* is performed, work differs in *how* it is performed. Positions that involve a narrow set of responsibilities, highly structured duties, and limited discretion in how the work is done represent strong situations because they “restrict the range of plausible behavioral responses to a given set of environmental cues and, in doing so, increase the probability that an individual will exhibit a particular response or series of responses” (Withey et al., 2005: 1593). Conversely, as noted by Snyder and Ickes, “Psychologically ‘weak’ situations tend to be those that do not offer salient cues to guide behavior and are relatively unstructured and ambiguous” (1985: 904). Work processes that fail to provide strong cues – such as when the scope of the work is broad or the tasks are varied, when freedom exists in deciding how the work is done, or when the worker determines tasks, priorities, and goals – therefore represent weak situations.

Thus, both the outcomes of work, and the process by which these outcomes are achieved, are elements of situation strength that, we hypothesize, limit or enhance the ability of personality to be expressed in job performance.

*Hypothesis 1. The relationship of the Big Five traits (conscientiousness, emotional stability, extraversion, agreeableness, and openness) with job performance will be*



*stronger (more positive) in occupations where situation strength – in terms of the outcomes of what work is done (H-1a), and in terms of the process of how the work is done (H-1b) – is low (i.e., weak situations).*

### **SPECIFIC INTERACTIONISM: TRAIT ACTIVATION**

Tett and Burnett (2003) argued that the situation is central when it is *trait relevant*—the degree to which trait-consistent behaviors are appropriate in a given situation (see also Tett & Guterman, 2000). According to Tett and Burnett, “A situation is relevant to a trait if it is thematically connected by the provision of cues, responses to which (or lack of responses to which) indicate a person’s standing on the trait” (2003: 502). In other words, trait activation theory argues in favor of situational specificity – whether a trait predicts performance depends on the context, or, alternatively, whether a particular contextual feature is relevant depends on the trait. Thus, the relevance of a trait and the relevance of the situation must correspond, such that the individual must possess the trait that would enable them to respond appropriately according to the cues of the situation. As stated by Tett and Burnett, “Trait activation is the process by which individuals express their traits when presented with trait-relevant situational cues” (2003: 502).

There are several reasons to expect that trait-relevant situations result in better job performance than situations that are trait-irrelevant. When individuals are in trait-relevant situations, their characteristic adaptations (McCrae, 2001) – or their enduring habits, attitudes, roles, interests, and values – should naturally translate into effective job performance. Consistent with this line of thinking, if traits are thought of as resources, then job performance should be enhanced when one’s resources exceed the demands of the environment (i.e., when one possesses the traits necessary to behave in accordance with the environmental demands present).

In contrast, if the demands of the environment exceed one's available resources, then job performance should be reduced (i.e., when one does not possess the traits necessary to behave in accordance with the environmental demands present) (for similar arguments, see Hobfoll's conservation of resources theory, 1989). In addition to enhancing the value of appropriate abilities and resources, trait relevancy may confer motivational benefits that aid performance. Specifically, individuals in trait-relevant situations likely realize that their innate tendencies are beneficial (i.e., valued resources) given the demands of the situation, increasing both the intrinsic and extrinsic motivation to perform. Finally, individuals whose traits are contextually-relevant may find it more likely that their performance is recognized by others because they fit the implicit theory of the situation. In the same way that implicit trait beliefs lead individuals to infer traits from observation of behavior (Church et al., 2003), others may infer high performance when the individuals' traits seem relevant to the environment.

To be clear, trait activation theory does not assume that *poor* performance will result if situations are not trait relevant. Rather, a lack of trait activation should weaken the trait – performance relationship. Although one could easily compile a long list of trait-relevant situational cues that, when present, should activate a particular trait, we rely predominantly on Tett and Burnett's (2003) list of job demands. In particular, we focus on occupations that require independence (i.e., little supervision or guidance when completing one's work), attention to detail (i.e., thoroughness on work tasks), strong social skills (i.e., working with or communicating with others), competition (i.e., presence of competitive pressures), innovation (i.e., need for creative or alternative thinking), and occupations that require dealing with unpleasant or angry people.

Turning to the specific FFM traits, one would expect an employee described as

responsible, reliable, and dependable to fare well in all kinds of occupations. However, meta-analytic evidence reveals that the reason conscientiousness validities are generalizable has more to do with the average validity than the variability in validities, which are either very similar to (Barrick & Mount, 1991), or greater than (Hurtz & Donovan, 2000), those of other Big Five traits.

In particular, conscientious individuals should perform especially well in occupations requiring independence, since conscientious individuals are often described as achievement striving (Costa & McCrae, 1992) and ambitious (Goldberg, 1993). When describing the achievement striving dimension of conscientiousness, Costa and McCrae noted that “individuals who score high on this facet have high aspiration levels and work hard to achieve *their* goals...Very high scorers, however, may invest too much in *their* careers and become workaholics” (1992: 18, italics added). In other words, achievement striving individuals tend to be self-focused and self-governing (Hmel & Pincus, 2002). Allowing these individuals to work independently should strengthen the positive effect of conscientiousness on performance.

In addition to achievement-oriented, conscientiousness individuals are described as responsible, reliable, and dependable (Costa & McCrae, 1992). As a result, conscientious individuals should naturally behave in ways that are consistent with these tendencies (e.g., well-organized, methodical). In a two-week daily behavioral study, Jackson et al. (2010) found that conscientious students were more likely to report behaviors associated with organization, such as using a filing system for important documents and systematically keeping track of important work dates and daily activities, and less likely to report behaviors associated with disorganization, such as forgetting appointments and meetings. Past research has also found that conscientious employees are more likely to set specific work goals for themselves and

demonstrate more commitment towards those goals than individuals who are low on trait conscientiousness (Barrick, Mount, & Strauss, 1993). Because occupations requiring attention to detail demand behaviors that are consistent with trait conscientiousness, conscientious employees in this kind of work environment should be more likely to demonstrate valued behaviors (i.e., conscientious trait activation) and ultimately better job performance than individuals low on conscientiousness.

*Hypothesis 2. The conscientiousness – job performance relationship will be stronger (more positive) in: (a) occupations requiring independence, and (b) occupations with strong attention to detail requirements.*

Of the Big Five traits, emotional stability might have the most consistent relationships with job performance, namely, relatively small, positive correlations (Barrick et al., 2001; Hertz & Donovan, 2000). Although one might assume that this would not bode well for moderators of the relationship, those few studies that have investigated moderators of the emotional stability – job performance relationship have generally been supportive, with respect to either trait (Barrick, Parks, & Mount, 2005) or contextual (Smillie, Yeo, Furnham, & Jackson, 2006) variables. In particular, Mount, Barrick, and Stewart (1998) examined seven studies surveying jobs that require dyadic interactions (e.g., counseling, resident advisor, and customer service). As expected, they found a positive relationship between emotional stability and performance. This result is not surprising given that neurotic individuals tend to report negative relationships with others, as well as overall poor interpersonal relationship quality (e.g., Lopes, Salovey, & Straus, 2003). When compared with neurotic individuals, emotionally stable individuals are less susceptible to negative affect, and should be better at demonstrating emotional control, a particularly important component of social skills (Riggio, 1986).

Emotional stability, or its parallel, neuroticism, is, at its core, an affective trait (Costa & McCrae, 1980). In fact, some scholars use the terms ‘neuroticism’ and ‘negative affect’ interchangeably (Watson & Clark, 1984). Because emotionally stable individuals are less susceptible to others’ emotions (Doherty, 1997), they should be better equipped to cope with environments that require frequently dealing with unpleasant or angry individuals. In addition, emotionally stable individuals are less likely to appraise stressful situations as threats (Gallagher, 1990), ultimately increasing the likelihood that they will respond appropriately in difficult social situations. For example, a meta-analytic review found that neurotic individuals tend to rely on less effective coping strategies, such as withdrawal and wishful thinking (Connor-Smith & Flachsbart, 2007). Because emotional stability should be valued in occupations requiring strong social skills, particularly those that require dealing with unpleasant or angry people, we argue that emotionally stable individuals should perform well in occupations with a strong social component as well as occupations that require dealing with unpleasant or angry people.

*Hypothesis 3. The emotional stability – job performance relationship will be stronger (more positive) in: (a) occupations requiring strong social skills, and (b) occupations in which one must frequently deal with unpleasant or angry people.*

Similar to the emotional stability – job performance relationship, extraverts will perform well in jobs utilizing their strong social skills. Perhaps the most frequently noted feature of extraversion is that of social attention (Ashton, Lee, & Paunonen, 2002). Indeed, several studies using the lexical approach have demonstrated strong factor loadings for terms that describe social behavior (Hofstee, de Raad, & Goldberg, 1992). According to Ashton et al. (2002), extraverts are not only more likely to engage in social behavior (see also Argyle & Lu, 1990), they are also more likely to enjoy social attention than their introverted counterparts. In addition,

extraverts may be particularly adept at social and emotional expressivity, social and emotional control, and emotional sensitivity (e.g., Riggio, 1986), all components of good social skills. As a result, extraverts should perform especially well in occupational contexts that require strong social skills.

In addition to social attention, extraverts are described as high energy, excitement-seekers (Costa & McCrae, 1992; Goldberg, 1990). Indeed, past research suggests that extraverted individuals enjoy (e.g., Graziano, Feldesman, & Rahe, 1985; Kirkcaldy & Furnham, 1991) and even excel in competitive (e.g., Bentea & Anghelache, 2012) environments. For example, in a laboratory study in which participants were randomly assigned to rate either a cooperative or a competitive game, the results demonstrated that, unlike introverts, extraverts rated the competitive game as more likeable and interesting than the cooperative game (Graziano et al., 1985). Results from a second study mirrored the first, namely that extraverts rated a competitive game as more friendly and enjoyable (Graziano et al., 1985). Perhaps as a result, extraverts perform better than introverts when in competitive groups (Bentea & Anghelache, 2012).

As with emotionally stable individuals, extraverts should be particularly skilled at handling problems requiring social interaction (Tett & Burnett, 2003), such as dealing with unpleasant or angry people. In fact, past research seems to support the idea that compared to introverts, extraverts should be better equipped to cope with stressful social situations since they view them as challenges with potential opportunities for reward (Gallagher, 1990). Extraverts also tend to expect social encounters to be more positive (Graziano et al., 1985) and perceive interpersonal disagreements as less aversive than their introverted counterparts. In sum, extraverted individuals are primed to exhibit valued work behaviors in occupations that require strong social skills, occupations that are competitive in nature, and occupations that require

dealing with unpleasant or angry people.

*Hypothesis 4. The extraversion – job performance relationship will be stronger (more positive) in: (a) occupations requiring strong social skills, (b) occupations with a strong level of competition requirement, and (c) occupations in which one must frequently deal with unpleasant or angry people.*

Along with extraversion, agreeableness is an interpersonal trait (Graziano & Eisenberg, 1997). Given that most jobs have a social component, the average relationship of agreeableness to performance is surprisingly low (Barrick et al., 2001). As Johnson (2003) noted, it may be that agreeableness may aid performance in some jobs but be a limitation in others. Agreeable individuals tend to be described with adjectives like warm, trusting, kind, cooperative, and modest (Costa & McCrae, 1992; Goldberg, 1990), and evidence supports a link between agreeableness and prosocial work behaviors (Chiaburu, Oh, Berry, Li, & Gardner, 2011). Such a link exists, at least in part, because agreeable individuals are motivated to maintain positive interpersonal relationships with others (e.g., Barrick, Stewart, & Piotrowski, 2002). This is particularly important when considering group activity. Graziano, Jensen-Campbell, and Hair (1996) found that agreeable individuals reported higher levels of liking towards a randomly assigned partner. Most relevant to the current study, Mount et al. (1998) found that agreeableness was positively related to performance for service jobs requiring dyadic interactions.

However, some agreeableness characteristics, namely the eagerness to cooperate and avoid conflict (Goldberg, 1990; McCrae & Costa, 1990), suggests that agreeable individuals might struggle in competitive environments. For example, recent research has demonstrated that individuals high on agreeableness tend to perceive competitive situations as more problematic, more difficult, and less rewarding than individuals low on trait agreeableness (Graziano, Hair, &

Finch, 1997). Because trait agreeableness motivates individuals to behave in ways that promote group belongingness (Wiggins, 1991), competitive environments should weaken the potentially beneficial effects of agreeableness on performance.

Agreeableness is often associated with demonstrations of caring and concern for others (Costa & McCrae, 1988) as well as a desire to maintain positive relationships with others (Barrick et al., 2002). These qualities make high-agreeable individuals well-suited for occupations that require effectively dealing with unpleasant, angry, or discourteous people. Because agreeable individuals have a stronger desire to maintain positive relationships, they are more likely to react to even hostile behaviors from others more positively than would individuals low on agreeableness. As a result, agreeable individuals are more likely to respond to “conflict with less negative affect, to select more constructive conflict tactics, and to generate a more constructive pattern of oppositions during conflict than would a low-agreeable person” (Graziano et al., 1996: 832). Overall, these results suggest that the characteristics associated with trait agreeableness are helpful in contexts that require strong social skills, as well as in dealing with unpleasant or angry individuals, and a hindrance in competitive environments.

*Hypothesis 5. The agreeableness – job performance relationship will be: (a) stronger (more positive) in occupations requiring strong social skills, (b) weaker (less positive) in occupations with strong level of competition requirement, and (c) stronger (more positive) in occupations in which one must frequently deal with unpleasant or angry people.*

Although overall openness bears a very small relationship with performance (Barrick et al., 2001), it is likely that trait openness is beneficial for some occupations. For instance, one of the hallmarks of openness is a preference for autonomy (Costa & McCrae, 1988), a characteristic



that should help open individuals perform well in occupations requiring independence. Hmel and Pincus (2002) found that all facets of openness to experience were associated with a tendency to self-govern. Similarly, Koestner and Losier (1996) found that individuals high on openness to experience described themselves as autonomous on The Adjective Checklist, a measure that O'Reilly, Chatman, and Caldwell (1991) found predicts an aversion for jobs requiring teamwork. In particular, openness is associated with reactive autonomy (i.e., “an orientation to act independently of others” [Koestner and Losier, 1996: 465]).

Openness to experience has been described as the “catalyst that leads to creative expression and exploration” (King, Walker, & Broyles, 1996: 190). Of all the FFM traits, it can be argued that open individuals should be most likely to excel in occupations that require creativity and innovation (e.g., King et al., 1996; McCrae, 1987; Raja & Johns, 2010). For example, McCrae (1987) reported that all facets of openness to experience were positively related to creativity and divergent thinking (see also Raja & Johns, 2010). In addition, King et al. (1996) found that openness to experience was positively correlated with creative ability and creative accomplishments. Even research in neuropsychology suggests that openness is linked to the “the tendency to engage actively and flexibly with novelty” and “a more abstract, cognitive exploratory tendency” (DeYoung, Peterson, & Higgins, 2005: 829). As noted by McCrae and Costa (1997), open individuals are motivated to “enlarge” their experiences, including, ostensibly, their work environment. Thus, past research suggests that open individuals will perform well in occupations requiring independence, as well as in occupations with strong demands for innovation.

*Hypothesis 6. The openness – job performance relationship will be stronger (more positive) in: (a) occupations requiring independence, and (b) occupations with strong*

*innovation requirements.*

## METHODS

### Literature Search

We conducted a three-part search process in order to identify all possible studies examining the relationship between the Big Five traits and job performance. First, we manually searched through the reference sections of previously published articles that have meta-analyzed the relationship between the Big Five personality traits and job performance (Barrick & Mount, 1991; Hurtz & Donovan, 2000; Salgado, 1997; Tett, Jackson, & Rothstein, 1991). In addition, to identify articles that were not included in the first meta-analyses published in 1991 (1989-2012), we searched the PsycINFO database for studies that measured both personality and job performance using the keywords *personality*, *neuroticism*, *emotional stability*, *extraversion*, *openness*, *agreeableness*, *conscientiousness*, and *performance*. Finally, we conducted a reverse citation search of previous meta-analyses (Barrick & Mount, 1991; Hurtz & Donovan, 2000; Salgado, 1997; Tett et al., 1991).

To narrow our focus further, we manually searched through each article to determine whether it met the following criteria. First, the study had to use employees as participants. Therefore, consistent with Barrick and Mount (1991), we excluded studies involving military or laboratory participants. Second, the study had to include a measure of job performance, assessed in a natural job setting. As a result, studies using training performance outcomes were excluded. Third, only studies using personality traits that can be classified within the Big Five framework were included (e.g., studies measuring locus of control and type A were excluded from our analysis). Finally, the study had to focus on a single occupation to allow for the coding of job discretion. This resulted in the exclusion of studies that lumped several occupations together, as

well as some studies using a single occupation (e.g., middle management) without specifying a particular industry or application (e.g., Barrick & Mount, 1993). These selection criteria resulted in 125 codeable studies (several articles reported multiple studies). Several studies reported performance validities for more than one trait. In total, we were able to code 114 studies for conscientiousness ( $N = 19,607$ ), 65 for emotional stability ( $N = 11,616$ ), 74 for extraversion ( $N = 14,098$ ), 66 for agreeableness ( $N = 12,747$ ), and 65 for openness to experience ( $N = 11,369$ ). We coded studies that measured either task or overall job performance (41 and 84, respectively).

### **Coding of Key Variables**

In order to examine the relationships of interest, the second author coded for personality trait, sample size, validity coefficients, reliabilities for the predictor and focal criterion, and occupation, while an independent coder coded a random subsample of approximately 26% of the studies included in our analyses. Agreement was over 94% for the variables of interest. To resolve disagreements, both coders referred back to the original article and made a consensus decision. Although the main coder – the second author – was obviously aware of the hypotheses, the second rater was not. In addition, personality and O\*Net occupational coding were performed separately by a third and fourth coder.

As is often the case, some studies failed to report reliabilities. Rather than replacing missing reliabilities with mean reliabilities, which can lead to significantly higher imputed reliability estimates and can artificially reduce variance, we utilized a distributional approach (Newman, 2009). Specifically, we used the studies that reported reliabilities to calculate the mean and standard deviation of reliabilities (personality,  $M = .7933$ ,  $SD = .0681$ ; performance,  $M = .8457$ ,  $SD = .0647$ ), which were then used to construct a sampling distribution of reliability estimates. The missing values were then replaced with values generated according to the

distribution. For single-item measures of performance, we followed Wanous and Hudy's (2001) recommendation and used a reliability of .70, with the sampling distribution around this mean being produced using the same variability estimate as before ( $SD = .0647$ ).

***Personality.*** For studies that did not use direct measures of the Big Five, the third coder classified each measure according to the procedure used by Barrick and Mount (1991). For example, experts classified the Imaginative and Abstract-thinking scales from the 16 PF (Cattell, Eber, & Tatsuoka, 1970) as measures of openness, and the Dominance and Social Presence scales from the California Psychological Inventory (Gough, 1988) as measures of extraversion.

***Occupation context.*** Occupational data provided by O\*Net (Campion, Morgeson, & Mayfield, 1999; Peterson et al., 2001) were used to code for the six situation strength facets, as well as the six factors that should activate some of the Big Five traits (for examples, see Table 1). The O\*Net rating scale for each of these factors ranges from 0-100. In order to categorize occupational characteristics into situation strength or trait activation, the authors independently examined the available O\*Net codes and categorized them according to our theoretical framework. Only variables on which both authors agreed were included in our analyses.

Both of our broad concepts—situation strength and trait activation—are aggregate constructs (Law, Wong, & Mobley, 1998). The particular components of situation strength and trait activation are not reflections of these concepts, nor are they interchangeable—as would be the case under a latent construct. Rather, the twelve specific occupational context variables define or form the two broader constructs. Because of this, we do not assume that the occupational context variables are positively correlated, as would be necessary under a latent model (MacKenzie, Podsakoff, & Jarvis, 2005). In conceptual terms, the twelve occupational context variables are what form, or cause, the two broader concepts. Moreover, though beyond

the purpose of this study, the causes of the six occupational context variables might be quite different (MacKenzie et al., 2005)—what causes a job to be highly structured might be quite different from what causes it to be competitive.

There were six situation strength facets; the first three (1–3) represent outcomes and the second three (4–6) represent process. The six were: (1) **Impact of decisions on coworkers/results**, or “whether the decisions an employee makes impact the results of coworkers, clients or the company” (low scores indicate low impact; high scores reflect high impact); (2) **Consequences of error**, or “how serious the results would be if the worker made a mistake that was not readily correctable” (low scores indicate mild consequences; high scores reflect serious consequences); (3) **Responsibility for health/safety of others**, or “the degree to which the employee is responsible for the health and safety of others” (low scores indicate little responsibility; high scores reflect significant responsibility); (4) **Unstructured (vs. structured) work**, or “the extent to which the job allows the worker to determine tasks, priorities, and goals” (unstructured work) versus “the degree to which the job is structured for the worker” (structured work) (low scores reflect highly structured work; high scores reflect unstructured work); (5) **Freedom to make decisions**, defined as “the degree to which the job offers considerable decision making freedom, without supervision” (low scores reflect little freedom; high scores reflect significant freedom); and (6) **Variety**, which refers to “the extent to which the job requires the employee to do many different things at work, using a variety of skills and talents” (low scores reflect little variety; high scores reflect significant variety).

The six trait activation theory variables were: (1) **Independence in completing work**, where “the job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done,” as opposed to working under a

predetermined set of rules, under close supervision, or in dependency on others for guidance (low scores reflect little independence; high scores reflect significant independence); (2)

**Attention to detail requirement**, or “the extent to which the job requires being careful about detail and thoroughness in completing work tasks” (low scores indicate a low level of attention to detail requirement; high scores indicate a high level of attention to detail requirement); (3)

**Social skills requirement**, defined as “the degree to which an occupation frequently involves working with, communicating with, and teaching people” (low scores reflect a low degree of social skills are required; high scores reflect a high degree of social skills are required); (4) **Level of competition requirement**, referring to “the extent to which the job requires the worker to compete or to be aware of competitive pressures” (low scores indicate a low level of competition is required; high scores indicate a high level of competition is required); (5)

**Innovation/creativity requirement**, which is “the extent to which the job requires creativity and alternative thinking to develop new ideas for and answers to work-related problems” (low scores indicate a low requirement for innovation/creativity; high scores indicate a high requirement for innovation/creativity); and (6) **Dealing with unpleasant or angry people**, or “how frequently employees have to deal with unpleasant, angry, or discourteous individuals” (low scores reflect a low level of interface with unpleasant or angry people; high scores reflect a high level of interface with unpleasant or angry people).

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 Insert Table 1 about here  
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## **RESULTS**

### **Descriptive Statistics and Intercorrelations, and Reliability of Job Context Variables**

Descriptive statistics and intercorrelations among study variables are provided in Table 2.

Because the job context variables were measured with individual variables for each occupation, as reported in the O\*Net database, we sought to investigate their reliability (i.e., how well each variable is measured). Accordingly, we constructed eight surveys, administered using an online professional survey website, to a sample of 96 organizational behavior researchers, all of whom have their PhD in organizational behavior or psychology, and each of whom has published at least one article in a refereed journal. To avoiding priming effects or demand characteristics, participants were not informed of the purpose of the study, and did not have knowledge of or experience with the study. Which individual received which survey was determined randomly. Each participant received a survey link, along with instructions for completing the survey.

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Insert Tables 2 and 3 about here  
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For each of the four sets, participants were presented with 12 job titles (e.g., farmer/rancher, flight attendant, machinist, nursing aide, accountant) with corresponding job descriptions. These occupations were chosen based on three criteria: (1) variation in job complexity; (2) variation in prevailing wage rates; and (3) availability of O\*Net ratings on all criteria. For each of these occupations, participants evaluated the degree to which each of the 12 job context variables was present (the six trait activation theory variables and the six facets of situation strength), using the same 0-100 scale as the O\*Net database, and with the job context definitions previously provided. We purposely did not choose experts in job design or job analysis as we felt their intimate familiarity with the O\*Net database and their knowledge of the jobs, job attributes, or ratings contained in it, might contaminate their evaluations (thus upwardly biasing reliability estimates).

Eighty-one individuals spanning different universities and faculty appointments

responded to the survey, for a response rate of 84.4%. Based on these responses, we calculated both single rater reliability—ICC-1 (reliability of an individual rating)—and average rater reliability—ICC-2 (reliability of the average rating) (Bliese, 2000). These two forms of reliability were analyzed among the raters (how well the raters agreed among themselves), and between the average rater (by averaging across the participant ratings) and the O\*Net score for each job context variable. These four ICCs were computed for each of the four sets of job titles, and then these ICCs were averaged over the four sets of ratings.

The results of this reliability analysis are provided in Table 3. As the table shows, there was some variation in reliabilities of the 12 job context variables, though not strongly so. The higher increase from ICC-1 to ICC-2 for reliability among raters than from reliability between raters and O\*Net is a function of the number of ratings. In the former case, there were 12 ratings used for each job context variable. In the latter case, the number of ratings was two: the average of the participant ratings and the O\*Net rating. Overall, both ICC-1 and ICC-2's are relatively high, and compare favorably to other ICC-1 and ICC-2 estimates reported in the literature (e.g., Caldwell, Herold, & Fedor, 2004). Thus, with the exception of the two situation strength composites, we used a single O\*Net rating to assess each of the job context variables; the foregoing analysis indicates that these ratings are reliable.

### **Hypothesis Test Analyses**

*Situation strength composite variables.* Because the two situation strength constructs were conceptualized and assessed as composite variables, each comprised of three facets, it is important to determine whether the constructs are comprised of these facets as assumed. When the six situation strength variables were factor analyzed, using principal components analysis (because principal components are not latent variables [Fabrigar, Wegener, MacCallum, &



Strahan, 1999], it is more appropriate for formative models), two factors emerged with Eigenvalues greater than 1.0. The first factor explained 47.32% of the variance in the facets whereas the second factor explained 28.70% of the variance.

The first factor can be interpreted as Situation Strength: Process since the three strongest loadings were unstructured (vs. structured) work, freedom to make decisions, and variety. The average factor loading was  $\bar{\lambda} = .85$ . The second factor can be interpreted as Situation Strength: Outcomes since the three strongest loadings were impact of decisions on coworkers/results, consequences of error, and responsibility for health/safety of others. The average factor loading was  $\bar{\lambda} = .79$ . There was one anomaly in the results – the loading of impact of decisions on coworkers/results for the Situation Strength: Process factor ( $\lambda = .61$ ) was about the same as the expected loading on the Situation Strength: Outcomes factor ( $\lambda = .58$ ). In retrospect, this may have been observed because the impact variable includes both impact on one's coworkers and "results." Since the former is more process- and the latter outcome-oriented, this is not surprising. However, since in all other respects the factor analysis results were as expected, and cumulatively the two factors explained 76.0% of the variance in the items, we formed the situation strength composites, each comprised of three facets.

***Situation strength interpretation.*** In H-1, we predicted that the relationship between all Big Five traits and job performance would be stronger in weak situations than in strong situations. As noted previously, we conceptualized and assessed two aspects of Situation Strength: Outcomes (the degree to which the products of one's work present strong demands) and process (the degree to which the work provides freedom or latitude in how the work is performed). Since we do not expect these to operate differently, we did not offer separate hypotheses about each. Each is, however, analyzed and reported upon separately. We should

note that the meaning of high scores differs between the two composite variables: High scores on outcomes mean that the occupation presents strong demands that constrain variability permitted in performance. Thus, high scores for this variable represent strong situations. Because high scores on process mean that the occupation provides ample discretion and freedom, high scores on this variable represent weak situations. Thus, we would expect that Situation Strength: Outcomes negatively predicts personality – job performance validities, whereas Situation Strength: Process should positively predict validities.

*Regression analyses.* Our study does not involve meta-analyses in the sense that we do not provide estimates of population-level correlations (i.e., mean correlations, and variability around those correlations). Thus, meta-analyses do not underlie our results. However, our study is very much like a moderator analysis often performed based on meta-analytic data. Specifically, we sought to predict the correlation between personality and job performance in each study (after first correcting the correlation for unreliability, as noted earlier) with the levels of the job context variables for the occupation in that study.

We adopted a regression-based approach for several reasons. First, because jobs differ in their overall complexity, the presence of one job context variable is likely to be correlated with the presence of another in general (i.e., a job that has one demand is more likely to have other demands as well). Moreover, many of the specific job attributes would be expected to co-occur. For example, a job that is social is more likely to also be a job that requires dealing with unpleasant or angry people. Indeed, when moderator variables are correlated, subgroup or other single-variable approaches are problematic. Viswesvaran and Sanchez note, “The fact that moderators are seldom orthogonal poses a problem in their interpretation” (1998: 80). Lipsey argues that considering single variables in isolation makes the results of such analyses

“vulnerable to misinterpretation” (2003: 80). Because of these problems, when explanatory variables are correlated, Hunter and Schmidt (1990) recommend considering the variables’ influences simultaneously, as is done with multiple regression analysis. Although regression analysis addresses these concerns, some argue that regression weights underestimate variable importance (LeBreton & Tonidandel, 2008). This represents an advantage of dominance (Budescu, 1993) or relative weight (Johnson & LeBreton, 2004) analyses, which we discuss shortly.

Consistent with the recommendations of Steel and Kammeyer-Mueller (2002), to account for heteroscedasticity in error variance over the range of effect sizes (i.e., to eliminate the possible biasing effects due to error variances being correlated with correlation values or, in this case, with the job variables), we used bootstrapped estimates (Efron, 1987), wherein the original sample of studies was used to generate additional bootstrap samples. The advantages of bootstrapping are twofold. First, bootstrapping eliminates the aforementioned heteroscedasticity problem (Chernick, 2008). Second, bootstrapped standard errors are often “very accurate” in validity generalization studies (Switzer, Paese, & Drasgow, 1992: 125). In our bootstrapping analysis, conducted with the SPSS CNLR procedure, 1,000 regressions were estimated for each of the five specifications (i.e., the eight job context variables predicting the personality – performance validity coefficients, for each of the five traits). From these 1,000 regressions, the average regression coefficient ( $\hat{B}$ ) is reported, along with its standard error ( $SE_{\hat{B}}$ ).

### **Hypothesis Test Results**

As shown in the Situation Strength Theory portion of Table 4, for the relationship of conscientiousness to job performance, Situation Strength: Outcomes did not predict the size of the validity coefficients, whereas Situation Strength: Process did ( $\hat{B} = .02$  and  $\hat{B} = .30$  ( $p < .05$ ),

respectively). For the relationship of emotional stability to job performance, Situation Strength: Outcomes did not predict ( $\hat{B} = -.00$ ) and Situation Strength: Process did ( $\hat{B} = .29, p < .05$ ). The results for the other three Big Five traits are provided in the Situation Strength Theory portion of Table 5. As with the other traits, Situation Strength: Process positively predicts the relationship of extraversion ( $\hat{B} = .35, p < .01$ ), agreeableness ( $\hat{B} = .42, p < .01$ ), and openness ( $\hat{B} = .20, p < .05$ ) with job performance. Moreover, Situation Strength: Outcomes did negatively predict the relationship of agreeableness ( $\hat{B} = -.32, p < .05$ ) and openness ( $\hat{B} = -.23, p < .01$ ) to job performance, as predicted. Thus, H-1 was supported for all five traits with respect to Situation Strength: Process but for only two of the five traits for Situation Strength: Outcomes.

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 Insert Tables 4 and 5 about here  
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Unlike the hypotheses for situation strength theory, hypotheses for trait activation theory varied by job characteristic, and thus were subject to separate hypotheses, organized by trait. H-2 predicted that the positive relationship of conscientiousness to job performance would be stronger in occupations requiring independence (H-2a), and jobs with strong attention to detail requirements (H-2b). As can be seen in Table 4, H-2a was supported in that the independence requirement predicted the conscientiousness – job performance relationship ( $\hat{B} = .23, p < .01$ ). H-2b was not supported in that the attention to detail requirement negatively predicted this relationship ( $\hat{B} = -.19, p < .05$ ). Hypothesis test results for emotional stability are also provided in Table 4. As the table indicates, H-3 was supported as both job requirements – social skills (H-3a), and dealing with unpleasant or angry people (H-3b) – positively predicted the relationship between emotional stability and job performance ( $\hat{B} = .23 [p < .01]$  and  $\hat{B} = .22 [p < .05]$ , respectively).

Results pertaining to trait activation theory for extraversion, agreeableness, and openness are provided in Table 5. H-4 was supported in that the extraversion – job performance correlation was more positive in jobs with requirements for social skills (H-4a;  $\hat{B} = .24$  [ $p < .05$ ]), level of competition (H-4b;  $\hat{B} = .25$  [ $p < .01$ ]), and dealing with unpleasant or angry people (H-4c;  $\hat{B} = .31$  [ $p < .01$ ]). In regard to H-5, the agreeableness – job performance correlation was stronger in jobs requiring social skills ( $\hat{B} = .26$  [ $p < .05$ ]) and jobs which involved dealing with unpleasant or angry people ( $\hat{B} = .25$  [ $p < .05$ ]), supporting H-5a and H-5c, respectively. H-5b also was supported in that the agreeableness – performance correlation was weaker in jobs that had a strong level of competition requirement ( $\hat{B} = -.40$  [ $p < .05$ ]). Finally, Table 5 also provides results for openness. Consistent with H-6, the openness – job performance correlation was more positive for jobs which emphasized independence in completing work ( $\hat{B} = .20$  [ $p < .05$ ]), and which had strong innovation/creativity requirements ( $\hat{B} = .33$  [ $p < .01$ ]). Thus, H-6a and H-6b were supported.

Because some question the reasonableness of inferences made from corrected correlations in the personality – performance literature (Morgeson et al., 2007), we note that very similar results were obtained when analyzing either uncorrected correlations, or correlations corrected for skew using Fisher's r-to-Z transformation. Specifically, the regression coefficients of the six job context variables predicting the personality – performance correlations for each of the Big Five traits were only trivially stronger when predicting the corrected correlations versus predicting r-to-Z transformed correlations (average difference:  $\Delta\hat{B} = .001$ ; largest difference,  $\Delta\hat{B} = -.023$ ). Similarly, comparing the analysis of corrected versus uncorrected correlations, there were no differences in the overall results (average difference:  $\Delta\hat{B} = .000$ ; largest difference,  $\Delta\hat{B} = -.012$ ). Thus, the results in Tables 4-5 do not depend on whether, or in what manner, the validity

coefficients were corrected or transformed.

### **Control Variables and Non-Hypothesized Results**

Though not reported in Tables 4-5, we explored whether including several study-level controls in the regression equations would alter the results. Specifically, we controlled for design of the study (predictive vs. concurrent), nature of the job performance measure (subjective or objective), purpose of the study (research or administrative), and type of performance measured (task vs. overall or other job performance) using dummy codes. The control variables exerted some consistent and expected effects. For example, in general, predictive (vs. concurrent) designs, objective (vs. subjective) performance measures, and task (vs. overall) types of performance negatively predicted personality – job performance validities. However, including the controls had only trivial effects on the hypothesized relationships. Therefore, for parsimony, the results are not reported but are available upon request.

Turning to the non-hypothesized results for the job context variables, there were some findings of note. (Here, we pay more attention, for reasons we note later, to larger effect sizes [ $\hat{B} > .20$ ].) Jobs which had strong innovation/creativity requirements ( $\hat{B} = .22$  [ $p < .05$ ]) and which involved dealing with unpleasant or angry people ( $\hat{B} = .25$  [ $p < .05$ ]) positively predicted the conscientiousness – job performance correlation. Attention to detail requirements negatively predicted the extraversion – job performance correlation ( $\hat{B} = -.34$ ,  $p < .01$ ) and positively predicted the agreeableness – job performance correlation ( $\hat{B} = .41$ ,  $p < .05$ ), meaning that extraversion was less positively, and agreeableness more positively, related to job performance in jobs requiring attention to detail. Finally, independence in completing work positively predicted ( $\hat{B} = .31$ ,  $p < .05$ ) the agreeableness – job performance correlation. We consider these findings further in the discussion.

### **Decomposing Situation Strength Composite**

Because we viewed situation strength as a formative or composite variable, reliability of the composite variable is not relevant (MacKenzie et al., 2005). However, because the dimensions or facets of a formative construct exist independently of one another (i.e., their covariance does not indicate a common construct, and indeed they may not covary at all [Bollen & Lennox, 1991]), it is relevant to ascertain the unique contribution of each facet. Because the facets are part of each composite, to place the facets and composites in the same regression would lead to a part-whole problem as well as multicollinearity. Accordingly, we used the principal components to represent the two situation strength constructs, and specified regressions in which each situation strength facet was added to a regression that includes the two components. This resulted in 30 ( $5 \times 6$ ) three independent-variable regression equations, five equations (one equation for each of the five personality – job performance correlations) for each of the six individual situation strength facets. To determine the relative explanatory power of each situation strength facet over the principal components, we used rescaled dominance weights (Azen & Budescu, 2003; Budescu, 1993). Dominance weights analysis assesses variable importance by calculating the contribution of each variable (or sets of variables) to variance explained, across all possible combinations of predictor variables. Thus, one variable “dominates” another when it contributes more unique variance across the specifications.

The results of the dominance analyses are provided in Table 6. Across the 30 regressions, the results suggest that in only a relatively small number (6 of 30, or 20%) of cases did the dominance weight for the facet exceed that of both situation strength composites. In a higher number of cases the dominance weight of the facet exceeded that of the corresponding principal component. Specifically, for Situation Strength: Outcomes, the individual facet exceeded that of

the principle component in five of 15 cases (33%). This was especially true with respect to impact of decisions on coworkers/results, where the dominance weight exceeded the Situation Strength: Outcomes dominance weight in three of the five regressions. For Situation Strength: Process, the results were the same – in five of the 15 regressions, the dominance weight for a facet exceeded that of the corresponding principal component. This was especially so with unstructured work, where the facet had a higher dominance weight than the Situation Strength: Process principal component in three of the five cases. Though the results suggest that the importance of the individual situation strength facet varied, and is not trivial overall, in most cases it did not exceed that of the more general construct to which it belonged.

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 Insert Table 6 about here  
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### **Relative Importance of Situation Strength vs. Trait Activation**

As we noted in the introduction, in theoretically integrating the two frameworks—situation strength and trait activation—we also wish to compare their relative validity. To conduct this comparison, we first relied on dominance weights (Azen & Budescu, 2003; Budescu, 1993), in both raw (average variance contributed across all possible independent variable combinations) and rescaled (average variance contributed as a proportion of the total explained variance) form. Once the dominance weights were computed—raw and rescaled—we added these weights together, grouping the individual variables according to which two frameworks they belonged (for situation strength: the two composite variables; for trait activation: the six individual elements).

The results of these analyses appear in the top half of Table 7. As the table shows, the relative importance of each framework varied somewhat by trait. In all five cases, however, the



dominance weights for Trait Activation were higher than for Situation Strength, in most cases substantially so. The Trait Activation variables particularly dominated the Situation Strength composite variables for extraversion. They were closest for openness, but even here, Trait Activation had the dominance weight that was 50% higher than that for Situation Strength.

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Insert Table 7 about here  
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The analysis above could be argued to be biased against Situation Strength because the two composites rely on an equally weighted combination of the six individual Situation Strength facets, whereas for Trait Activation, the individual variables are optimally weighted. Accordingly, we also performed a relative importance analysis with the six individual Situation Strength facets (along with, of course, the six Trait Activation variables). However, because the number of all possible regressions becomes quite large with 12 independent variables, for this analysis, as recommended by other researchers (e.g., LeBreton, Ployhart, & Ladd, 2004; Johnson & LeBreton, 2004; Tonidandel, LeBreton, & Johnson, 2009), we relied on Johnson's (2000, 2004) relative weight index. To compute Johnson's relative weight index, we used the program developed by Lorenzo-Seva, Ferrando, and Chico (2010).

The relative weights for these 12-variable regressions (six individual Situation Strength facets and six individual Trait Activation variables) are provided in the bottom half of Table 7. The Situation Strength facets alter some aspects of the picture from before. In particular, Situation Strength becomes more important than Trait Activation for openness. Moreover, the relative differences in importance become narrower in this analysis. On the other hand, Trait Activation is more important than Situation Strength in explaining personality – performance relationships for four of the five Big Five traits, and in these cases, the Trait Activation relative

weights are nearly double the Situation Strength weights.

### **Representativeness of Dataset**

The generalizability of the focal theoretical framework depends on the generalizability of what the framework predicts: personality – job performance validities. Because the studies included in our analyses are restricted in some significant ways (only direct measures of the Big Five traits, or indirect measures as classified by Barrick and Mount [1991] were included; and because our framework was based on job-level characteristics, only studies with homogeneous occupations could be included), it was important to ascertain whether the validities obtained from the included studies were representative of prior meta-analytic estimates. Accordingly, we performed meta-analyses, following Hunter and Schmidt's (1990) methodology, of the correlations of each of the Big Five traits with job performance. For each trait (the number of studies [ $k$ ] and cumulative sample size [ $N$ ] are in parentheses), the meta-analytic results for the estimated uncorrected correlation ( $\bar{r}$ ), the estimated corrected correlation ( $\hat{\rho}$ ), and the upper and lower limits of a 95% confidence interval around the corrected correlation ( $CI_{\hat{\rho}}$ ) were as follows:

Conscientiousness ( $k = 105$ ;  $N = 17,101$ ):  $\bar{r} = .16$ ;  $\hat{\rho} = .21$ ; 95%  $CI_{\hat{\rho}} = (.18, .23)$ .

Emotional Stability ( $k = 65$ ;  $N = 11,967$ ):  $\bar{r} = .09$ ;  $\hat{\rho} = .12$ ; 95%  $CI_{\hat{\rho}} = (.09, .14)$ .

Extraversion ( $k = 69$ ;  $N = 11,304$ ):  $\bar{r} = .09$ ;  $\hat{\rho} = .11$ ; 95%  $CI_{\hat{\rho}} = (.07, .15)$ .

Agreeableness ( $k = 63$ ;  $N = 11,835$ ):  $\bar{r} = .05$ ;  $\hat{\rho} = .06$ ; 95%  $CI_{\hat{\rho}} = (.02, .10)$ .

Openness ( $k = 55$ ;  $N = 9,568$ ):  $\bar{r} = .03$ ;  $\hat{\rho} = .04$ ; 95%  $CI_{\hat{\rho}} = (.00, .07)$ .

To ascertain the generalizability of these results, we compared them to the most comprehensive meta-analysis of Big Five validities to date: Barrick et al.'s (2001) second-order meta-analysis. The above confidence intervals around the corrected correlations overlapped with Barrick et al.'s for each of the Big Five traits. The average difference ( $\bar{d}_r$ ) in correlations was

small:  $\bar{d}_r = .012$ . The confidence intervals also overlapped among the uncorrected correlations. The difference in correlations again was small:  $\bar{d}_r = .010$ . Thus, it appears that the dataset used in this study is representative of the larger population of studies.

## DISCUSSION

Implicit, explicit, dispositional, situational, and interactional perspectives on organizational behavior have always existed, and perhaps will always exist. While most organizational behavior researchers would probably consider themselves interactionists at some level, theory and research on what is arguably the most focal criterion in organizational behavior—job performance—has not necessarily followed suit. To be sure, ample research suggests that the degree to which personality predicts job performance depends on contextual variables (e.g., Barrick & Mount, 1993), and quantitative reviews of the personality – job performance literature have included moderator analyses (e.g., Barrick & Mount, 1991). Yet we believe that some of the extant criticisms of personality validities in organizational literature (Morgeson et al., 2007; Murphy & Dzieweczynski, 2005), like some of the criticisms of personality validities in the personality literature that precede them (Mischel, 1968), are best addressed by further theoretical and empirical work on interactional models.

The model developed and tested in this study—which integrated two theoretical perspectives on person – situation interactionism—received general support. Specifically, the job contexts derived from situation strength theory and trait activation theory significantly explained why personality validities vary. While we believe this study successfully integrated these two perspectives, we also explicitly compared their predictive validity (i.e., the degree to which each framework, controlling for the influence of the other, predicted personality – job performance relationships). A direct comparison of the variables comprising these theoretical explanations

suggested that trait activation theory may be relatively more important than situation strength theory in explaining when and how personality is more predictive of job performance. The variance attributable to situation strength, however, was far from trivial.

For all five traits, the Situation Strength: Process composite significantly predicted the personality validity coefficients, showing that weak situations in terms of how the work is performed produce significantly higher validities for personality traits in predicting job performance. The Situation Strength: Outcomes composite predicted the validity of two traits: agreeableness and openness. For these two traits, weak situations – in terms of fewer demands for the outcomes of one's work – produced higher validities.

The results were much the same for the trait activation theory variables. Conscientiousness and openness were more important to job performance for jobs that afforded independence in completing work, whereas emotional stability, agreeableness, and extraversion were more predictive of job performance in jobs with strong social skills requirements. Agreeableness was more negatively, and extraversion was more positively, related to job performance in jobs with high levels of competition. Openness was more predictive of job performance in jobs with strong innovation/creativity requirements. Extraversion, agreeableness, and emotional stability were more predictive of job performance where jobs involved dealing with unpleasant or angry people. Thus, there certainly seem to be both general and specific situational conditions that facilitate the relevance of personality to job performance.

Though most hypotheses derived from the theoretical model were supported, the results also contained some surprises. First, one link – the effect of attention to detail requirements on the link between conscientiousness and job performance – was actually significant in the opposite direction. The results suggest that conscientiousness is *less* predictive of job

performance in jobs that require attention to detail. One possible explanation for this surprising result is that there are offsetting effects at the facet level. Specifically, if the two primary facets of conscientiousness are responsibility-dutifulness and achievement-orientation (Mount & Barrick, 1995) (or, according to DeYoung et al.'s [2005] typology, order and industriousness), it seems logical that the responsibility-dutifulness aspect of conscientiousness is more relevant to fulfilling detail requirements than the achievement aspect of conscientiousness. Indeed, jobs with strong attention to detail requirements – such as clerks, secretaries, inspectors, and technicians – might frustrate achievement-oriented individuals. Supporting this idea, Hough (1992) found that whereas striving for achievement positively predicted performance for managers/executives, it negatively predicted performance for health care workers. Moon, Livne, and Marinova (2013) found that achievement-orientation predicted attraction toward organizational cultures that were outcome-based, aggressive, and rewards-oriented.

To investigate this explanation in more detail, we identified studies in our dataset that assessed either achievement or dutifulness/order. We then meta-analyzed the relationships of these facets with job performance, and used the attention to detail job requirement to predict this correlation. The results indicated that for studies that reported on the validity of dutifulness/order, the attention to detail requirement positively and significantly predicted this correlation ( $\hat{B} = .293$  [ $p < .05$ ]). Conversely, for studies on the correlation between achievement and job performance, the attention to detail requirement negatively predicted the correlation ( $\hat{B} = -.212$  [ $p < .05$ ]). We should note that the reason the overall result in Table 4 was negative is because there were more studies that assessed achievement-orientation than those which assessed dutifulness/order. Thus, it appears that the unexpectedly negative effect of attention to detail requirements on the validity of conscientiousness is due to opposite effects at the facet level,

with the facet with the negative effect – achievement-orientation – being more common in our dataset than the facet with the positive effect – dutifulness/order.

A second unexpected result was the presence of some non-hypothesized significant links. Specifically, conscientiousness was a more positive predictor of job performance in jobs with strong innovation/creativity requirements and which involved dealing with unpleasant or angry people, extraversion was a negative predictor of job performance in jobs with strong attention to detail requirements, and agreeableness more positively predicted job performance in jobs requiring attention to detail and involving independence in completing work.

Though conscientiousness has not often been linked to creativity in past research, most focal studies suggest that the relationship is a complex one (King, Walker, & Broyles, 1996). As suggested by Feist (1998), it may be that innovation creativity requirements differ by job or industry: How conscientiousness affects creativity is different for scientists than for artists. Regarding the finding that conscientiousness was more predictive of performance in jobs that involved dealing with unpleasant or angry people, conscientiousness is negatively related to anger (Jensen-Campbell, Knack, Waldrip, & Campbell, 2007), suggesting that conscientious people may respond to difficult situations in a more constructive manner. Future research should investigate these possible mechanisms further.

As for agreeableness and jobs with attention to detail requirements, agreeable individuals are compliant (Costa & McCrae, 1992), and it may be that their compliance is particularly evident in detail-oriented work. Put differently, compliance with rules, standards, and procedures may be particularly important in detail-oriented work (e.g., accounting), and agreeable individuals may thus better meet work expectations in such jobs. On the other hand, given that extraverts are more prone to sensation-seeking (Zuckerman, 1996), this may inhibit close

observance to rules and standards in detail-oriented work. Alternatively, extraverted employees may find detail-oriented work less motivating (Judge & Cable, 1997). Finally, it is perhaps hardest to explain why agreeableness is more predictive of performance in jobs emphasizing independence, especially since such jobs, presumably, would emphasize teamwork less. Perhaps overall performance of such jobs depends on discretionary “citizenship” behavior, which is correlated with agreeableness (Chiaburu et al., 2011). As with conscientiousness, future research should investigate these relationships further.

Although the individual links between the job context variables and their relevance to personality – job performance relationships are important and meaningful in their own right, arguably the results of most import are those that pertain to the heart of the theoretical development – namely, the integrative test of the two guiding theoretical frameworks. Both situation strength theory and trait activation theory have benefitted greatly from recent efforts at further theoretical development of the constructs (Meyer et al., 2009, 2010; Tett & Burnett, 2003). Despite implicit and explicit acknowledgments of overlap among the frameworks, the most recent theoretical efforts have been distinct. This distinction is warranted in that situation strength is a general explanation for the degree to which personality predicts behavior, whereas trait activation represents a more specific explanation. However, because both frameworks explicitly address the question: “In what situations or contexts is personality best reflected in behavior?”, it is important to better understand their similarities and differences. Tett and Burnett note, “Trait relevance and situation strength are distinct situational characteristics, and both are required for a full appreciation of situational factors involved in personality expression” (2003: 502). This study represents the first effort to integrate the two theoretical frameworks conceptually; it also represents the first study to compare the two frameworks explicitly.

Overall, our results suggest that both a general theoretical construct—the variables reflecting situation strength—and a specific theoretical construct—the variables reflecting trait activation—explain to a significant degree the validity of the Big Five traits in predicting job performance. Though researchers will differ in their judgments as to what constitutes meaningful validity for personality variables (Roberts & Caspi, 2001), the results suggest that in the “right” situations—namely, situations that are “weak” and where the trait is theoretically relevant—personality validities are far from trivial. For example, whereas the average predictive validity of some traits – especially extraversion ( $\rho = .12$ ), agreeableness ( $\rho = .11$ ) and openness ( $\rho = .08$ ) – is relatively weak, our results show that the theoretical context deeply affects the meaningfulness of these variables. Specifically, the predicted validities of extraversion, agreeableness, and openness in the weakest situations are  $\hat{r} = .29$ ,  $\hat{r} = .31$ ,  $\hat{r} = .16$ , respectively. Thus, when the context is theoretically most appropriate (a weak situation and a context in which a trait is activated), the validities of personality are often double what they are in the typical context.

This has important implications for both future theoretical development—which we discuss shortly—and for practice. As for practice, while some have questioned the practical relevance of personality variables for human resource selection decisions (Morgeson et al., 2007; Murphy & Dzieweczynski, 2005), our results show that when there is reason to believe that the trait is relevant to the job context, the validities cannot be characterized as “disappointingly low” (Schmitt, 2004: 348) to any but the most captious observer. In responding to Morgeson et al.’s (2007) critique of the personality – performance literature, Tett and Christiansen commented, “The ideal situation for any worker is one providing opportunities to express his or her traits...such that trait expression is valued positively by others (bosses, peers, subordinates, customers)” (2007: 977). Our results show that this ideal situation produces validities for



personality traits that are, while not strong, neither trivial in magnitude.

### **Limitations, Contributions, and Future Research**

Our study has some limitations that require discussion. First, our study does not exhaust the list of trait-relevant cues that might moderate personality – job performance relationships. In this study we focused on job- or task-based cues, but there are other cues that may be relevant, such as social factors (Tett & Burnett, 2003), human resource systems (Toh, Morgeson, & Campion, 2008), and organizational culture (Judge & Cable, 1997). Future research might study those variables as situational moderators as well.

Second, we have grounded our model in the degree to which personality traits express themselves in job performance. This is a bit removed from the degree to which personality expresses itself, and the degree to which it expresses itself in behavior. While this is appropriate given the goals of our study, it is important for future research to link how situations impede or activate the expression of traits, and how these traits are manifest in specific job behaviors that, in turn, lead to performance. There are situations, for example, that influence the degree to which an extravert feels like or behaves like an extravert, just as there are situations that an extravert may find more motivating, or more likely to produce assertive behaviors, than others. These sorts of expressions are distinct from (but often related to) performance, and the situational features that lead to these kinds of expressions may be different from those which lead to performance.

This brings us to a third, related issue, which is a measurement consideration that is intimately bound to a theoretical consideration. Specifically, what is the best way to conceptualize and measure situational differences in the nature of a job? The term *job* actually conflates three sources of variation in situational characteristics: (1) occupation; (2) organization; and (3) nature of the work itself. In comparing occupation and organization, the job Cashier in

one organization may be quite different from the job Cashier in another. In comparing organization and the nature of the work itself, two Cashiers employed by the same organization might perform very different work on a day-to-day basis if they work for two different supervisors, if they have coworkers of differing motivations and abilities, or if they work different schedules. There are idiosyncrasies in the job performed by every individual employee. One might argue that a situationalist approach is best revealed at the highest level of specificity possible. However, so doing presents both conceptual and generalizability (the more specifically one delineates a situation in which personality predicts job performance, the more difficult it is to know whether that specific context works in different but similar contexts) limitations of its own.

Fourth, of Murray's (1938) two situational concepts, we studied only alpha press (here, objective characteristics of an occupation). Beta press (in this case, job conditions as uniquely perceived by an individual) as a moderator has, of course, been studied (Barrick & Mount, 1993). Each press has arguments in its favor. Alpha press is better suited to analysis at the occupation level and it is, arguably, more methodologically rigorous in that it relies on independent expert analysis. On the other hand, because the motivational aspects of a situation matter most as they have psychological meaning to an individual (Cattell, 1963), beta press may be more relevant to study with respect to motivational aspects of job performance. Because most foundational scholars in interactional psychology emphasized both the objective and subjective environment (Lewin, 1936; Murray, 1938), it would be worthwhile to determine whether similar moderation works with beta press as was found in this study with respect to alpha press.

Finally, whilst our model is interactionist, that does not mean it "fits" with all interactionist perspectives. Specifically, by relying on "unconditional and uncontextualized" (Mischel, 2009: 287) conceptualizations of traits, we do not consider the kind of "behavioral

signatures” advocated by Mischel (see Mischel & Shoda, 1995), or the conditional measures similarly advanced by Bandura (1999). Nor do we consider the ways in which traits and situations may affect one another: Situations may be a function of personality (Bowers, 1973; Diener, Larsen, & Emmons, 1984; Schneider, 1987), or personality may change over time in response to the situation (Caspi, Roberts, & Shiner, 2005). As noted by Ekehammar (1974) a generation ago, interactionism can mean many things to many people, and thus it is important to articulate both what our model is, and what it is not. We certainly do not believe our study to be the last word on person  $\times$  situation interactions in organizational behavior.

These limitations notwithstanding, the present study contributes to the personality, situational, and interactional literature in three ways. First, most other “situational moderator” studies are at the individual level (e.g., Barrick & Mount, 1993). In these cases, personality and situation were measured by the same source. Though this makes sense for reasons noted earlier, we believe a more objective assessment of the job context, specifically at the job level, makes a unique contribution as well. Second, most other meta-analytic research of the Big Five traits has tested methodological moderators (e.g., study-level characteristics such as criterion measures), or has grouped occupations into typological categories (sales, managerial, clerical). Though we did control for some salient methodological variables in this study, our focus was on the theoretical moderators. Third, research that has tested theoretical moderators either has not used the entire Big Five framework (Meyer et al., 2009), or has investigated a single moderator category (e.g., Mount et al., 1998; Vinchur, Schippmann, Switzer, & Roth, 1998).

As for this latter issue, Hogan flatly stated: “After 40 years, there is little agreement about how to define situations, there is no widely accepted taxonomy of situations, and social psychologists have no idea how to measure them in a standardized manner” (2009: 249). Though

we do not profess to have solved all the dilemmas and difficulties in classifying and measuring work situations—no single study ever will—we do think we have provided both a conceptual and methodological framework that is useful for improving the validity of personality traits in predicting behavior, and in revealing how, and how much, the context matters to these validities. We hope that by including both general (situation strength) and specific (trait activation) contextual elements, our model, and the results testing it, provides conceptual and empirical support for interactional organizational behavior.

Another advantage of the framework developed in this study is that it can be adapted to study other traits, other situations (i.e., other job context variables), and other behaviors and attitudes. As noted by Lucas and Donnellan, a problem with situationalist explanations is “this research is often so bound by the particulars of a given situation that it is unclear how strongly findings generalize to other settings and even other individuals” (2009: 147). However, we think the theoretical framework we have developed and tested here can be adapted to other settings, though we realize care must be taken in the development of specific job context variables within this framework.

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**TABLE 1**  
**Sample Jobs for Situation Strength and Trait Activation Variables**

	<b>Low scores</b>	<b>High scores</b>
<i>Impact of decisions on coworkers/results</i>	Nursery worker Costume attendant Astronomer	Aviation inspector Police dispatcher Education administrator
<i>Consequences of error</i>	Library assistant Foreign language teacher Usher	Surgeon Ship captain Acute care nurse
<i>Responsibility for health/safety of others</i>	Proofreader Graphic designer Economist	Dentist Hoist/wench operator Ambulance driver
<i>Unstructured (vs. structured) work</i>	Forging machine tender Licensing examiner Railroad conductor	Recreational therapist Poet, creative writer Skin care specialist
<i>Freedom to make decisions</i>	Dancer Tire builder Ticket agent	Judge Hairdresser Chief executive officer
<i>Variety</i>	Assembler Rock splitter Meat packer	Nanny Zoologist Healthcare social worker
<i>Independence in completing work</i>	Database administrator Waiter / waitress Gaming cage worker	Anthropologist Taxi driver Marketing manager
<i>Attention to detail requirement</i>	Forester Massage therapist Model	Air traffic controller Accountant / auditor Legal secretary
<i>Social skills requirement</i>	Software engineer Pump operator Broadcast technician	Clergy Counseling psychologist Concierge
<i>Level of competition requirement</i>	Postal service clerk Nuclear reactor operator Historian	Coach / scout Financial manager Advertising sales manager
<i>Innovation/creativity requirement</i>	Archivist Court reporter Medical technician	Actor Systems analyst Materials scientist
<i>Dealing with unpleasant or angry people</i>	Composer Molecular biologist Craft artist	Correctional officer Telemarketer Flight attendant

**TABLE 2****Means (M) and Standard Deviations (SD) of, and Intercorrelations Among, Situation Strength and Trait Activation Variables<sup>a</sup>**

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Impact of decisions on coworkers/results	71.43	11.23	---												
2. Consequences of error	45.27	16.37	.39	---											
3. Responsibility for health/safety of others	46.58	21.88	.49	.67	---										
4. Situation Strength: Outcomes composite	54.43	13.91	.68	.85	.92	---									
5. Unstructured (vs. structured) work	77.61	12.20	.35	-.07	-.10	.01	---								
6. Freedom to make decisions	78.47	11.29	.55	.13	.19	.30	.74	---							
7. Variety	53.93	12.10	.45	.11	.20	.27	.58	.50	---						
8. Situation Strength: Process composite	70.01	10.19	.52	.07	.11	.22	.90	.86	.81	---					
9. Independence in completing work	49.22	13.26	-.28	-.32	-.49	-.46	-.04	-.10	-.43	-.22	---				
10. Attention to detail requirement	83.14	9.16	.28	.37	.23	.34	.27	.23	.27	.30	-.41	---			
11. Social skills requirement	50.05	20.05	.38	.03	.22	.23	.19	.28	.46	.36	-.25	-.03	---		
12. Level of competition requirement	54.40	19.56	.28	-.40	-.28	-.23	.30	.38	.37	.41	.02	.03	.32	---	
13. Innovation/creativity requirement	61.08	10.38	.35	.07	.08	.16	.57	.44	.62	.63	-.36	.50	.19	.36	---
14. Dealing with unpleasant or angry people	62.44	16.38	.13	.28	.31	.31	-.39	-.22	-.07	-.26	-.19	-.06	.34	-.07	-.33

<sup>a</sup>  $N = 562$ . For  $|r| \geq .08$ ,  $p < .05$ . For  $|r| \geq .10$ ,  $p < .01$ . The two situation strength composites were formed from a unit-weighted average of the three corresponding facets preceding the composites. For Situation Strength: Outcomes, high scores indicate strong situations. For Situation Strength: Process, high scores indicate weak situations.

**TABLE 3**  
**Reliability of Situation Strength and Trait Activation Variables<sup>ab</sup>**

Variable	Reliability Among Study Raters		Reliability Between Study Raters and O*Net <sup>c</sup>	
	ICC-1	ICC-2	ICC-1	ICC-2
<b><i>Situation Strength: Outcomes</i></b>				
Impact of decisions on coworkers/results	.81	.98	.68	.79
Consequences of error	.76	.96	.84	.91
Responsibility for health/safety of others	.70	.95	.63	.77
<b><i>Situation Strength: Process</i></b>				
Unstructured (vs. structured) work	.30	.82	.60	.74
Freedom to make decisions	.65	.94	.64	.77
Variety	.67	.94	.81	.90
<b><i>Trait Activation Theory</i></b>				
Independence in completing work	.60	.96	.59	.71
Attention to detail requirement	.37	.89	.54	.68
Social skills requirement	.65	.96	.63	.77
Level of competition requirement	.59	.94	.61	.76
Innovation/creativity requirement	.50	.93	.57	.69
Dealing with unpleasant or angry people	.60	.91	.71	.82
<b>Average</b>	<b>.60</b>	<b>.93</b>	<b>.65</b>	<b>.78</b>

<sup>a</sup> Study raters were 81 organizational behavior researchers.

<sup>b</sup> ICC-1 = Intraclass correlation (reliability) for single rating. ICC-2 = Intraclass correlation (reliability) for mean rating.

<sup>c</sup> For *Reliability Between Study Raters and O\*Net*, we used: (1) average rating across study raters and (2) score in O\*Net database.



**TABLE 4**  
**Situation Strength and Trait Activation as Predictors of the Personality – Job Performance Relationship:  
 Conscientiousness and Emotional Stability<sup>a</sup>**

Situation Strength / Trait Activation Variable	Conscientiousness – Job Performance Relationship		Emotional Stability – Job Performance Relationship	
	$\hat{B}$	(SE $\hat{B}$ )	$\hat{B}$	(SE $\hat{B}$ )
<i>Situation Strength Theory</i>				
Situation Strength: Outcomes	.022	.109	-.004	.106
Situation Strength: Process	.295*	.124	.286*	.132
<i>Trait Activation Theory</i>				
Independence in completing work	.233**	.089	.062	.093
Attention to detail requirement	-.193*	.090	.083	.101
Social skills requirement	-.146	.086	.234**	.090
Level of competition requirement	-.071	.094	-.018	.100
Innovation/creativity requirement	.218*	.094	-.139	.131
Dealing with unpleasant or angry people	.249*	.106	.220*	.094
<i>Overall Variance Explained</i>				
R <sup>2</sup>	.201**		.251**	

<sup>a</sup>  $\hat{B}$  = Average bootstrapped regression coefficient, SE $\hat{B}$  = bootstrapped standard error of  $\hat{B}$ . \* p < .05 (two-tailed). \*\* p < .01 (two-tailed). For Situation Strength: Outcomes, high scores indicate strong situations. For Situation Strength: Process, high scores indicate weak situations.

**TABLE 5**  
**Situation Strength and Trait Activation as Predictors of the Personality – Job Performance Relationship:  
 Extraversion, Agreeableness, and Openness<sup>a</sup>**

Situation Strength / Trait Activation Variable	Extraversion – Job Performance Correlation		Agreeableness – Job Performance Correlation		Openness – Job Performance Correlation	
	$\hat{B}$	(SE $_{\hat{B}}$ )	$\hat{B}$	(SE $_{\hat{B}}$ )	$\hat{B}$	(SE $_{\hat{B}}$ )
<i>Situation Strength Theory</i>						
Situation strength: Outcomes	.021	.106	-.324*	.131	-.233**	.085
Situation strength: Process	.345**	.116	.424**	.163	.199*	.087
<i>Trait Activation Theory</i>						
Independence in completing work	-.177	.107	.305*	.143	.202*	.103
Attention to detail requirement	-.342**	.105	.411*	.175	.013	.102
Social skills requirement	.243*	.120	.259*	.122	.101	.112
Level of competition requirement	.252**	.093	-.400*	.169	-.115	.108
Innovation/creativity requirement	-.014	.130	-.099	.088	.332**	.124
Dealing with unpleasant or angry people	.314**	.122	.251*	.124	.023	.099
<i>Overall Variance Explained</i>						
R <sup>2</sup>	.502**		.299**		.205**	

<sup>a</sup>  $\hat{B}$  = Average bootstrapped regression coefficient, SE $_{\hat{B}}$  = bootstrapped standard error of  $\hat{B}$ . \* p < .05 (two-tailed). \*\* p < .01 (two-tailed). For Situation Strength: Outcomes, high scores indicate strong situations. For Situation Strength: Process, high scores indicate weak situations.

**TABLE 6**  
**Dominance Analyses of Contribution of Individual Situation Strength Facets Beyond Situation Strength Principal Components<sup>a</sup>**

	C – JP Correlation	ES – JP Correlation	E – JP Correlation	A – JP Correlation	O – JP Correlation
<i>Impact of decisions on coworkers/results</i>					
Component 1: Process	79.63	45.24	40.97	48.61	51.05
Component 2: Outcomes	7.41	23.81	5.85	43.06	35.90
Impact of decisions on coworkers/results	12.96	30.95	53.17	8.33	13.05
<i>Consequences of Error</i>					
Component 1: Process	83.33	64.46	59.30	56.94	48.48
Component 2: Outcomes	10.92	21.60	22.65	25.00	26.52
Consequence of Error	5.75	13.95	18.04	18.06	25.00
<i>Responsibility for health/safety of others</i>					
Component 1: Process	93.21	61.93	90.98	49.58	39.77
Component 2: Outcomes	2.47	16.34	4.51	35.83	40.76
Responsibility for health/safety of others	4.32	21.73	4.51	14.58	19.47
<i>Unstructured (vs. Structured) Work</i>					
Component 1: Process	44.05	31.33	64.37	23.77	22.71
Component 2: Outcomes	2.98	39.20	3.88	14.75	31.50
Unstructured (vs. Structured) Work	52.98	29.48	31.75	61.48	45.79
<i>Freedom to Make Decisions</i>					
Component 1: Process	60.90	49.15	65.90	30.26	24.38
Component 2: Outcomes	7.05	32.48	7.68	43.42	53.52
Freedom to Make Decisions	32.05	18.38	26.43	26.32	22.10
<i>Variety</i>					
Component 1: Process	68.59	34.67	27.70	56.51	45.76
Component 2: Outcomes	7.05	28.67	2.37	19.01	42.66
Variety	24.36	36.67	69.93	24.48	11.58

<sup>a</sup> Table entries are rescaled dominance weights. C = Conscientiousness; ES = Emotional stability; A = Agreeableness; E = Extraversion; O = Openness; JP = Performance. Totals for each three-variable set do not always equal 100.00% due to rounding error.

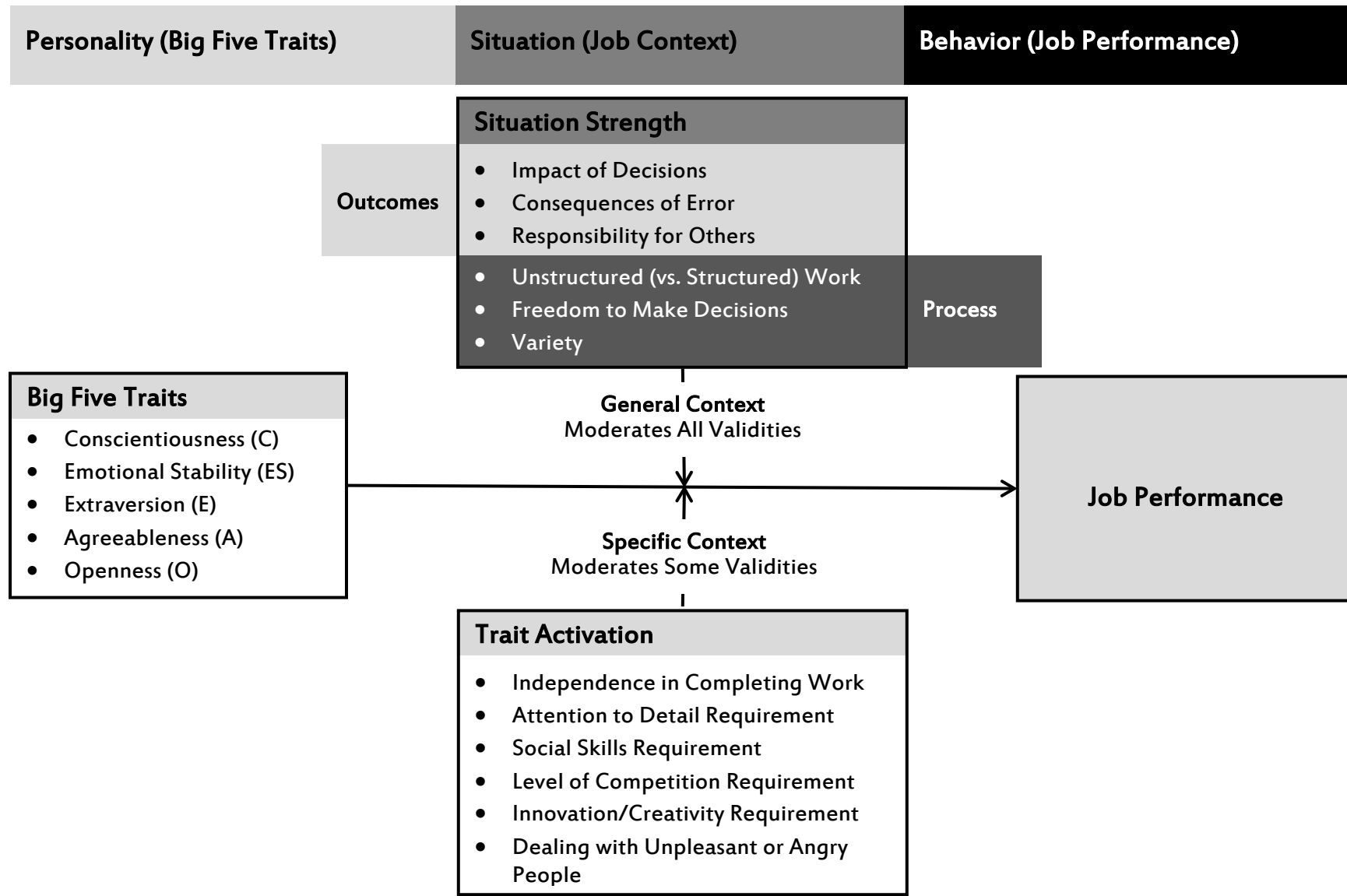
TABLE 7

Comparative Analysis of Two Theoretical Explanations of Personality – Performance Relationships<sup>a</sup>

	Conscientiousness		Emotional Stability		Extraversion		Agreeableness		Openness	
	Trait Activation	Situation Strength	Trait Activation	Situation Strength	Trait Activation	Situation Strength	Trait Activation	Situation Strength	Trait Activation	Situation Strength
<i>Two Situation Strength Composites and Six Trait Activation Variables</i>										
Dominance (Raw)	15.43	4.69	17.57	7.52	41.39	8.84	22.98	6.93	12.19	8.31
Dominance (Rescaled)	76.69	23.31	70.03	29.97	82.40	17.60	76.83	23.17	59.46	40.54
<i>Six Situation Strength Facets and Six Trait Activation Variables</i>										
Relative (Raw)	13.00	6.01	18.00	11.08	31.90	18.53	31.98	13.61	17.74	24.38
Relative (Rescaled)	68.40	31.60	61.90	38.10	63.26	36.74	70.16	29.84	42.12	57.88

<sup>a</sup>Raw dominance weights are summed  $\Delta R^2$  values across “all subsets” regressions. Relative weights are summed relative weight indexes, computing using Lorenzo-Seva, Ferrando, and Chico’s (2010) program. Rescaled dominance and relative weights express  $R^2$  values as a percent of explained variance.

**Figure 1**  
**Personality – Situation Interactional Theoretical Model<sup>a</sup>**



<sup>a</sup> Impact of Decisions = Impact of Decisions on Coworkers/Results. Responsibility for Others = Responsibility for Health/Safety of Others

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