

2011

## A Comparison of Work-Specific and General Personality Measures as Predictors of OCBs and CWBs in China and the United States

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A COMPARISON OF WORK-SPECIFIC AND GENERAL PERSONALITY MEASURES AS  
PREDICTORS OF OCBS AND CWBS IN CHINA AND THE UNITED STATES

A dissertation submitted to partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy

By

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2011

Wright State University

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AUGUST 12, 2011

I HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER MY SUPERVISION BY Qiang Wang ENTITLED A Comparison of Work-Specific and General Personality Measures as Predictors of OCBs and CWBs in China and the United States BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF Doctor of Philosophy.

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## ABSTRACT

Wang, Qiang. Ph.D., Department of Psychology, Wright State University, 2011.  
A Comparison of Work-Specific and General Personality Measures as Predictors of OCBs and CWBs in China and the United States

Previous studies on frame-of-reference effects have focused on domain-specific personality measures as predictors of performance in North America. The current study expands on this research by comparing work-specific and general personality as predictors of CWBs and OCBs in an East Asian culture (i.e., China). Consistent with the literature on frame-of-reference effects in personality assessment, I found that three Big Five personality dimensions, including agreeableness, conscientiousness, and emotional stability, were significantly related with OCBs and CWBs. Also, use of a frame of reference that is conceptually relevant to the criterion led to increased validity as a result of the decrement in between-subject variability and within-subject inconsistency. Finally, results indicated that work-specific personality mediated the relationships between general personality and extra-role behaviors and that work-specific personality yielded significant incremental relationships with extra-role behaviors even after general personality is controlled.

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## I. INTRODUCTION

Although existing research has demonstrated the importance of personality characteristics as predictors of job performance, some researchers have lamented that the predictive validity of personality tests is often disappointingly low (Morgeson, Campion, Dipboye, Hollenbeck, Murphy, & Schmitt, 2007). For example, the strongest uncorrected validity coefficients for the Big Five reported by Barrick and Mount (1991), and Barrick, Mount, and Judge (2001) were .13, and .17, respectively. In an attempt to enhance the predictive validity of personality measures, recent research has made use of more contextualization in items. In particular, researchers have examined the frame-of-reference effects by rewriting non-contextual personality items into domain-specific items (e.g., Bing, Whanger, Davison, & VanHook, 2004; Bowling & Burns, 2010; Bowling, Eschleman, Wang, Kirkendall, & Alarcon, 2010a; Bowling, Wang, Tang, & Kennedy, 2010b; Heller, Ferris, Brown, & Watson, 2009; Hunthausen, Truxillo, Bauer, & Hammer, 2003; Lievens, Decorte, & Schollaert, 2008; Robie, Schmit, Ryan, & Zickar, 2000; Schmit, Ryan, Stierwalt, & Powell, 1995; Wang, Bowling, & Eschleman, 2010). This body of research has amassed evidence in support of the enhanced predictive validity of domain-specific personality measures through the use of frame-of-reference.

Despite the prominent role attributed to the frame-of-reference effects in personality assessment, its use in predicting various job performance dimensions is still limited. Much of the extant research has focused on task performance (Hunthausen et al., 2003) and student performance (Bing et al., 2004; Lievens et al., 2008; Schmit et al., 1995) as the criterion variables and much of this research has used student samples (Bing et al., 2004; Lievens et al., 2008; Robie et al., 2000; Schmit et al., 1995). In addition, to date, virtually all of the frame-of-reference research has been derived from the United States. As such, the question of whether the



frame-of-reference effect would work differently when it comes to other cultures remains unanswered.

The current study affords an opportunity to address these gaps in several ways. First is the issue of how to specify employee work behaviors falling outside of the rubric of task performance. Researchers suggested that organizational citizenship behaviors (OCBs) and counterproductive work behaviors (CWBs) represent another two primary job performance dimensions aside from task performance (Rotundo & Sackett, 2002; Sackett, 2002; Viswesvaran & Ones, 2000). Even though recent empirical evidence suggests that OCBs and CWBs are largely distinct (Dalal, 2005; Spector & Fox, 2010), they do share strong similarities from a definitional perspective, with the former benefitting the organization and the latter harming it. Specifically, OCBs refer to discretionary behaviors which are not formally recognized by the reward system but can improve the functioning of the organization (e.g., assisting a co-worker who has a heavy workload, volunteering for tasks that are not required; Organ, 1988), whereas CWBs are employees' intentional behaviors that are contrary to legitimate interest of the organization (e.g., arriving late for work, stealing, being abusive to a co-worker or customer; Gruys & Sackett, 2003; Sackett & DeVore, 2001; Robinson & Bennett, 1995).

I conduct the present research to examine work-specific and general personality as predictors of OCBs and CWBs. More specifically, the current study investigates whether work-specific measures of conscientiousness, agreeableness, and emotional stability yield stronger relationships with OCBs and CWBs than do the general versions of those same personality characteristics and whether work-specific personality measures mediate the relationship between the general personality measures and OCBs and CWBs. Also, the present study examines whether work-specific measures of conscientiousness, agreeableness, and emotional stability are

related to OCBs and CWBs after the general versions of those personality characteristics have been controlled.

Another purpose of this study is to explore whether the frame-of-reference effect is generalizable to an East Asian culture (i.e., Chinese culture) which is starkly different from that of the United States. The traditional Chinese business ethics are built upon its reliance on interpersonal mechanisms (e.g., *guanxi*) as opposed to formalisms arising from law in North America (Hui, Lee, & Rousseau, 2004). Implicit in Chinese culture is people's intention to extend the work context to many aspects of Chinese life. For instance, business is usually conducted through social occasions, such as lunches, dinners, and gift giving. Cultural characteristics like this might blur boundaries between work and domains (e.g., home), which renders the contextualization of personality scales more difficult.

In the following section I review the theoretical mechanisms and empirical findings linking three Big Five personality characteristics (i.e., conscientiousness, agreeableness, and emotional stability) to OCBs and CWBs. I then provide arguments for why work-specific and general personality should have different effects on OCBs and CWBs. I also discuss the mediating and incremental effects of work-specific personality measures in predicting OCBs and CWBs.

#### *Employee Personality, OCBs, and CWBs*

A considerable amount of evidence has accumulated over the last 20 years showing that certain personality constructs are consistently predictive of important work-related criteria (Barrick et al., 2001; Barrick & Mount, 1991; James & Mazerolle, 2002; Tett, Jackson, & Rothstein, 1991). Much of this recent enthusiasm for personality assessments in personnel selection has been based on the emergence of the five-factor model of personality (FFM; Costa

& McCrae, 1992; Goldberg, 1990). The robustness of this five-factor model seems to demonstrate adequate predictive validity to qualify their utility in personnel selection.

Researchers' optimism regarding the use of personality tests also grows along with the development of the job performance construct. It has been long suggested that job performance is multidimensional (Campbell, 1990; Campbell, McCloy, Opler, & Sager, 1993; Murphy, 1989). Some researchers (Rotundo & Sackett, 2002; Sackett, 2002; Viswesvaran & Ones, 2000) have argued that job performance can be described by three broad dimensions: task performance, OCBs, and CWBs. Although some environmental antecedents of OCBs and CWBs have been identified (e.g., job attitudes, organizational justice), situational cues triggering these extra-role behaviors tend to be relatively weak (Ilies, Fulmer, Spitzmuller, & Johnson, 2009). One of the major differences among these three performance dimensions is that OCBs and CWBs entail more volition and predisposition than do task performance (Spector & Fox, 2010). Thus, personality should predict these extra-role behaviors better than it predicts task behaviors. Moreover, compared with task performance, extra-role behaviors are less strongly predicted by knowledge, skills, and abilities. Therefore, the extension of job performance to OCBs and CWBs has solidified the status granted to personality in personnel selection given its important role in both OCBs and CWBs. Based on the existing literature, the current study argues that the Big Five personality factors of conscientiousness, agreeableness, and emotional stability suggest tendencies toward both OCBs and CWBs. Now I turn to the personality antecedents of OCBs.

*The FFM and OCBs.* Two factors of the five-factor personality model, conscientiousness and agreeableness, have received the most research attention in relation to OCBs. Conscientious people are responsible, dependable, persistent, and achievement oriented (Barrick & Mount, 1991). Some researchers (e.g., Bowling, 2010; Konovsky & Organ, 1996; Organ & Ryan, 1995)

treated conscientiousness as a personal quality underlying some OCBs factors (e.g., Civic Virtue). People high in conscientiousness are predisposed to engage in constructive and responsible behaviors in all life domains, including work context (Bowling, 2010). Other researchers argued that OCBs can fulfill conscientious individuals' personal sense of achievement on their job by extending their activities beyond the assigned tasks (Ilies et al., 2009; Neuman & Kickul, 1998). Meta-analytic works by Organ and Ryan (1995), LePine, Erez, and Johnson (2002), and Dalal (2005) reported average corrected correlations between conscientiousness and OCBs of .29, .23, and .30, respectively.

Agreeable individuals are described as courteous, flexible, trusting, good-natured, cooperative, altruistic, soft-hearted, and tolerant (Barrick & Mount, 1991). People who are high in agreeableness are generally altruistic, kind, and caring across a number of life domains. High-agreeableness employees, therefore, may displace altruistic, kind, and caring behavior at work by engaging in OCBs. Also, according to Ilies et al. (2009), agreeableness may color people's perception of their environment, and the enactment of OCBs is a function of maintaining such a supportive and cooperative environment. Meta-analyses conducted by Organ and Ryan (1995), and Ilies et al. (2009) also support agreeableness as a fundamental trait associated with OCBs. Thus far, findings on two aspects of the five factor model (i.e., extraversion and emotional stability) have been inconsistent. Previous studies documented both positive (but weak) and negative associations between extraversion and emotional stability, and OCBs (Borman, Penner, Allen, & Motowidlo, 2001). Similarly, the relationship of openness to experience to OCBs is weak at most (Dalal, 2007; Organ, Podsakoff, & MacKenzie, 2006). Accordingly, I hypothesized the following:

*Hypothesis 1:* Both general conscientiousness and agreeableness will be positively related to OCBs.

*The FFM and CWBs.* These two aforementioned dimensions (i.e., conscientiousness, and agreeableness) plus emotional stability (viewed from the negative pole; the tendency to experience negative emotions, such as anxiety, depression, anger, embarrassment, worry, and insecurity) have been found to covary with a major type of criterion-focused personality scales, integrity tests (Sackett & Wanek, 1996). Therefore, there might be a common element underlying these three dimensions. Given the well established relationships between integrity tests and counterproductivity criteria (Ones, Viswesvaran, & Schmidt, 1993), it is not surprising that these three factors of the FFM would also be associated with CWBs. Bowling and Eschleman (2010) had further comment about the interrelatedness of conscientiousness, agreeableness, negative affectivity (very similar to emotional stability), and CWBs from a theoretical perspective. Specifically, the characteristics of those high in conscientiousness (e.g., responsible, persistent, and achievement oriented), agreeableness (e.g., courteous, flexible, trusting, good-natured, cooperative, altruistic, soft-hearted, and tolerant), emotional stability (e.g., calm, and relaxed) should make it unlikely that one will commit such CWBs as theft, sabotage, absenteeism, lateness, and harassment. Therefore, conscientiousness, agreeableness, and emotional stability can be considered as common underlying dispositional sources to mitigate CWBs. Meta-analytic attempts to examine the relationship of these three factors to CWBs have received consistent support (Berry, Ones, & Sackett, 2007; Salgado, 2002). Thus, I proposed the following:

*Hypothesis 2:* General conscientiousness, agreeableness, and emotional stability will be negatively related to CWBs.

### *A Frame-of-Reference Approach to Dispositional Constructs*

Although the emergence of a common personality framework (e.g., FFM) has increased our optimism regarding the use of personality tests in personnel selection, many problems surrounding the measurement of personality remain unresolved. One problem that recently emerged in discussions of personality assessment is the frame-of-reference effect (Schmit et al., 1995). Most available personality scales consists of items asking people to describe how they feel, behave, or think in general. This type of item reflects a general frame-of-reference. However, given that item response is largely subjective, different frames-of-reference might be adopted in answering items. This begs the question of how provision of a more specific frame-of-reference might lead to higher criterion-related validity in personnel selection.

The cognitive-affective system theory of personality (Mischel & Shoda, 1995; Wright & Mischel, 1987) sets the theoretical groundwork for the frame-of-reference effect. This theory argues that the expression of personality in forms of stable patterns of behavior is contingent on situational conditions that are reflective of different psychological demands. They referred to these tendencies as conditional dispositions (Wright & Mischel, 1987). This conditional approach poses two important implications for personality assessments. First, behavioral tendencies may be context-specific, so general personality might be a collection of context-specific personality characteristics from different social situations. In another words, broad personality is best understood as a hierarchical construct with general personality occupying the highest level and context-specific personality characteristics occupying lower levels of the hierarchy. General personality should share strong conceptual similarities with its lower-level context-specific personality. Thus, the present study suggests that the relationships of general personality and context-specific personality with criteria should exhibit similar patterns.

Second, the integration of personality and context may improve the predictive power of the measure. A successful practice of this integration is item contextualization in which non-contextual personality items were rewritten into specific contexts by adding a frame-of-reference (e.g., “at work,” “at school”) to each item. One major mechanism by which frame-of-reference can increase scale validity is by decreases in measurement error, including between-subject variability and within-subject inconsistency (Lievens et al., 2008). Between-subject variability happens when different test takers consistently use different frames-of-reference to interpret global personality items, such that subjects can be divided into different groups in terms of the specific frames-of-reference (at home, at work, at school, etc.) they adopt to answer non-contextualized items. For example, when answering the same set of generic items, some subjects might use an at-work frame-of-reference, whereas others might adopt an at-school frame-of-reference. By contextualizing items with the correct frame-of-reference, the decreased between-subject variability in the frame-of-reference used will improve the conceptual overlap between the predictor and the criterion, which will subsequently lead to an increase in validity.

Another source of measurement error derives from within-subject inconsistency (Lievens et al., 2008). It occurs when a subject adopts different frames-of-reference in answering different items in a non-contextualized personality inventory. For instance, a subject might answer some items with an at-work frame-of-reference and other items with an at-school frame-of-reference. This within-subject inconsistency reduces both the reliability and the conceptual overlap between the predictor and the criterion. Contextualizing items with the correct frame-of-reference enables the reduction of within-subject inconsistency, which will subsequently improve the reliability and validity of a personality inventory. Using a student sample, Lievens and his colleagues simulated the effects of the degree of within-subject inconsistency and between-subject

variability by randomly drawing samples from the total sample without replacement. They found that validity decreased as the between-subject variability and within-subject inconsistency increased, respectively. Specifically, validity was highest when a correct frame-of-reference (i.e., the conceptually relevant frame-of-reference) was used either for a large number of items or by a large percentage of participants, whereas it was lowest when a correct frame-of-reference was used either for a limited number of items or by a limited percentage of participants. To my knowledge, this is the only study to directly examine why domain-specific measures have better validity. However, they used student samples to investigate the relationship between school-specific personality and college performance. The current study will attempt to fully extend the findings to organizations. The use of a frame-of-reference as a way of increasing the criterion-related validity of personality tests has also received empirical support in other prior studies (e.g., Bing et al., 2004; Bowling et al., 2010b; Holtz, Ployhart, & Dominguez, 2005; Hunthausen et al., 2003; Schmit et al., 1995). Consistent with these arguments above, I proposed the following:

*Hypothesis 3:* Work-specific personality will yield stronger relationships with OCBs and CWBs than will general personality.

*Hypothesis 4:* The reduction of the between-subject variability and within-subject inconsistency will increase the predictive validity of work-specific personality measures.

#### *Work-Specific Personality as a Mediator of the Effects of General Personality*

Some researchers have suggested that work-specific personality mediates the relationship between general personality and work-related criteria (Heller et al., 2009; Chen, Goddard, & Casper, 2004). This prediction assumes a positive relationship between work-specific personality and general personality, which is supported by previous theorizing on the hierarchical nature of personality. The mediation effect also assumes that general personality will be a distal predictor



and that work-specific personality will be a proximal predictor of work-related criteria. This latter assumption is consistent with the principle of compatibility, which suggests that the relationship between two variables will be strongest when both are assessed at the same level of specificity (Fishbein & Ajzen, 1974). Therefore, I proposed the following:

*Hypothesis 5:* Work-specific personality will mediate the relationship between general personality and OCBs/CWBs.

#### *Incremental Validity of Work-Specific Personality*

I also predict that work-specific personality will be related to work-related criteria after general personality is controlled. Previous studies showed that although work-specific personality yielded a strong relationship with general personality, the relationship was not strong enough to suggest that work-specific personality is redundant with general personality (Bowling et al., 2010a; Bowling et al., 2010b; Heller et al., 2009; Wang et al., 2010). This finding coupled with the prediction that work-specific personality will yield stronger zero-order relationships with OCBs and CWBs than will general personality suggests that work-specific personality will yield unique relationships with OCBs and CWBs after general personality is controlled. Thus, I predicted the following:

*Hypothesis 6:* Work-specific personality will be related to OCBs and CWBs after general personality is controlled.

## Method

### *Participants*

I tested the study hypotheses in two independent samples. The data collection strategy and participant characteristics for each sample are described below.

*American Sample.* The Sample 1 consisted of 300 employed students (209 females and 91 males) from introductory psychology classes at a medium-sized Midwestern university who participated for course credit. The average participant was 19.37 years old, working, on average 22.80 hours per week with an average job tenure of 16.79 months.

*Chinese Sample.* Subjects in Sample 2 were 160 Chinese workers employed in a number of different industries, including sales, information technology, technology research, and the service industry. I enlisted my personal acquaintances to assist with participant recruitment. Of these participants, approximately 51% are female. Mean age was 28.86 years ( $SD = 5.17$  years). The average participants worked an average of 45.02 hours per week and had held his or her current position for about 38.81 months.

### *Procedure*

Similar to previous frame-of-reference studies (e.g., Bing et al., 2004; Bowling et al., 2010b; Bowling & Burns, 2010; Lievens et al., 2008 [Study 2]), I used a within-subject design in which each participant completed both general and work-specific personality measures. Following other frame-of-reference studies (Bing et al., 2004; Lievens et al., 2008), I also counterbalanced the order of these two types of scales such that approximately half of participants were randomly assigned to complete the general personality measures first and the other half were randomly assigned to complete the work-specific personality measures first.

All the original measures in English were translated into Chinese so that they could be completed by the Sample 2 subjects. A translation—back-translation approach was used to improve the accuracy of the translation/adaption process (Brislin, 1980). I, a psychology doctoral student fluent in both English and Chinese, translated the measures from English to Chinese. An English instructor who was fluent in Chinese translated the Chinese version of the

items created by me back into English. A psychology professor, who was a native speaker in English, compared the original English version of the questionnaire with the back-translated version. Based on the comparison, the Chinese version of the items was revised until the most accurate and readable translation was achieved.

### *Measures*

*General Personality.* General conscientiousness, agreeableness, and emotional stability were assessed using the Big Five Factor Markers of the International Personality Item Pool (IPIP; International Personality Item Pool, 2008). Each of these scales was assessed using the average of 10 items. Sample items include “I am always prepared” (conscientiousness), “I sympathize with others’ feelings” (agreeableness), and “I am relaxed most of the time” (emotional stability). Each item was on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree). The three scales each yielded acceptable internal consistency reliabilities (alphas for conscientiousness were .82 in Sample 1 and .79 in Sample 2; alphas for agreeableness were .84 in Sample 1 and .66 in Sample 2; alphas for emotional stability were .88 in Sample 1 and .84 in Sample 2).

*Work-Specific Personality.* I assessed work-specific conscientiousness, agreeableness, and emotional stability using a modified version of the IPIP Big Five Factor Markers (IPIP; International Personality Item Pool, 2008). Similar to the previous frame-of-reference studies (e.g., Bing et al., 2004; Bowling & Burns, 2010; Bowling et al., 2010b; Lievens et al., 2008), I added an “at work” tag to the item stem. The participants were instructed to think about how they behave at work when responding to each item. Each modified IPIP scale was assessed using the average of 10 items. Sample items include “I am always prepared at work” (conscientiousness), “I sympathize with others’ feelings at work” (agreeableness), and “I am relaxed most of the time at work” (emotional stability). Each item was on a 7-point scale from 1 (strongly disagree) to 7

(strongly agree). The work versions of the scales had internal consistency reliabilities of .82 (Agreeableness in Sample 1), .70 (Agreeableness in Sample 2), .79 (Conscientiousness in Sample 1), .79 (Conscientiousness in Sample 2), .82 (Emotional Stability in Sample 1), and .82 (Emotional Stability in Sample 2).

*Organizational Citizenship Behavior.* I measured organizational citizenship behaviors (OCBs) with items from Lee and Allen (2002). This scale consists of eight items for each of two subscales, with one assessing OCBs targeted at individuals (OCB-Is) and the other assessing OCBs targeted at the organization (OCB-Os). An example item for OCB-I is “Help others who have been absent” and an example item for OCB-O is “Defend the organization when other employees criticize it.” All these items were rated on a 7-point frequency scale ranging from 1 (never) to 7 (daily). The internal consistency reliabilities were .84 for OCB-Is in Sample 1, .79 for OCB-Is in Sample 2, .89 for OCB-Os in Sample 1, and .91 for OCB-Os in Sample 2.

*Counterproductive Work Behavior.* I used Bennett and Robinson’s (2000) scale to assess counterproductive work behaviors (CWBs). This scale consists of a subscale that measures CWBs targeted at individuals (CWB-Is) and a separate subscale measuring CWBs targeted at the organization (CWB-Os). The CWB-I subscale was computed using the average of 7 items<sup>1</sup>, whereas the CWB-O subscale was computed using the average of 12 items. A sample CWB-I item is “Made fun of someone at work” and a sample CWB-O item is “Put little effort into your work.” All these items were rated on a 7-point frequency scale ranging from 1 (never) to 7 (daily). The internal consistency reliabilities were .85 for CWB-Is in Sample 1, .83 for CWB-Is in Sample 2, .88 for CWB-Os in Sample 1, and .80 for CWB-Os in Sample 2.

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<sup>1</sup> I replaced the item “Made an ethnic, religious, or racial remark at work” with the item “Made an offensive remark against others at work” because I believed that this former item would be irrelevant to participants in a culturally homogenous sample such as the one used in Sample 2.

*Demographics.* Participants in each sample also reported their age, gender, number of hours they worked per week, and number of years tenure in their current job. In addition, Sample 1 participants also reported their race.

## Results

Descriptive statistics and intercorrelations between the study variables for Samples 1 and 2 are reported in Tables 1 and 2, respectively. As previously found (Bing et al., 2004; Bowling et al., 2010a; Heller et al., 2009; Wang et al., 2010), general personality characteristics were strongly positively related to work-specific personality characteristics, with correlation coefficients ranging from .55 to .67 (all  $p < .01$ ).

### *Relationships between the Big Five Personality Factors and Extra-Role Behaviors*

Hypothesis 1 predicted that both general conscientiousness and agreeableness would be positively related to OCBs, whereas Hypothesis 2 stated that general conscientiousness, agreeableness, and emotional stability would be all negatively related to CWBs.

*American Sample.* As shown in Table 1, general agreeableness and conscientiousness were positively and significantly related to OCBs ( $r$  for agreeableness and OCB-Is = .51,  $p < .01$ ;  $r$  for agreeableness and OCB-Os = .32,  $p < .01$ ;  $r$  for conscientiousness and OCB-Is = .18,  $p < .01$ ;  $r$  for conscientiousness and OCB-Os = .22,  $p < .01$ ). In addition, general conscientiousness, agreeableness, and emotional stability were negatively and significantly related to CWBs ( $r$  for agreeableness and CWB-Is = -.27,  $p < .01$ ;  $r$  for agreeableness and CWB-Os = -.19,  $p < .01$ ;  $r$  for conscientiousness and CWB-Is = -.18,  $p < .01$ ;  $r$  for conscientiousness and CWB-Os = -.33,  $p < .01$ ;  $r$  for emotional stability and CWB-Is = -.15,  $p < .01$ ;  $r$  for emotional stability and CWB-Os = -.11,  $p < .05$ ), with correlation coefficients ranging from -.11 to -.33, as predicted in Hypothesis 2. Thus, both Hypotheses 1 and 2 were supported among the American participants.

*Chinese Sample.* In full support of Hypothesis 1, both general agreeableness and conscientiousness were positively and significantly related to OCBs ( $r$  for agreeableness and OCB-Is = .21,  $p < .01$ ;  $r$  for agreeableness and OCB-Os = .23,  $p < .01$ ;  $r$  for conscientiousness and OCB-Is = .17,  $p < .05$ ;  $r$  for conscientiousness and OCB-Os = .21,  $p < .01$ ). However, negative and significant correlations were only found between general conscientiousness and CWB-Os ( $r = -.31$ ,  $p < .01$ ), and general emotional stability and CWB-Is ( $r = -.27$ ,  $p < .01$ ). Agreeableness was unrelated to CWBs. Thus, Hypothesis 2 received partial support within the Chinese sample.

#### *Comparing General and Work-Specific Personality Traits as Predictors of Extra-Role Behaviors*

Hypothesis 3 predicted that work-specific personality would yield stronger relationships with OCBs and CWBs than will general personality. I examined this prediction in each sample using Steiger's (1980)  $z$ -test of differences in dependent correlations (see Table 3).

*American Sample.* Consistent with Hypothesis 3, analyses conducted with the American Sample found that work-specific agreeableness yielded a significantly stronger relationship with OCB-Os than general agreeableness did ( $z = 2.75$ ,  $p < .01$ ). Similarly, work-specific conscientiousness is significantly more strongly related to OCB-Is than is general conscientiousness ( $z = 2.53$ ,  $p < .05$ ). In addition, three of the four comparisons examined for emotional stability were consistent with Hypothesis 3. Specifically, work-specific emotional stability yielded significantly stronger relationships with OCB-Os ( $z = 2.09$ ,  $p < .05$ ), CWB-Is ( $z = -2.07$ ,  $p < .05$ ), and CWB-Os ( $z = -2.65$ ,  $p < .01$ ) than general emotional stability did. Thus, 5 of the 12 comparisons (or 42%) provided support for the hypothesis.

*Chinese Sample.* None of the comparisons conducted with Chinese Sample were statistically significant. Taken together, the analyses conducted on the two samples provided only limited support for Hypothesis 3.

#### *Tests of Effects of Between-Subject Variability and Within-Subject Inconsistency*

Hypothesis 4 stated that the reduction of the between-subject variability and within-subject inconsistency would increase the predictive validity of work-specific personality measures. Similar to Lievens et al. (2008), I examined this prediction in each sample using resampling methods. Specifically, I simulated the validity effects of the degree of between-person variability by randomly sampling subjects from the total sample and that of within-subject inconsistency by randomly sampling item responses from the total item responses for each scale. All samples were drawn without replacement.

*Between-Subject Variability.* Tables 4 and 5 summarize the validity effects of different scenarios of between-subject variability in the frame of reference used for the American Sample and Chinese Sample, respectively. Similar to Lievens et al. (2008), I drew 1000 random samples of  $N$  ( $N = 300$  for Sample 1 and 160 for Sample 2) and averaged validity coefficients across these random samples for each scenario. The scenarios differed in terms of the percentages of participants who used a specific frame-of-reference. As can be seen in Table 4, with three exceptions (the relationships of agreeableness with CWB-Is and CWB-Os, the relationship of conscientiousness with OCB-Os), all the average validity coefficients decrease as the percentage of people that interpret the items with at-work frames of reference decreases. In the Chinese Sample (see Table 5) 6 of 12 sets of validity coefficients exhibited such patterns that are consistent with Hypothesis 4.

*Within-Subject Inconsistency.* I also simulated the validity effects of the degree of within-subject inconsistency by drawing random samples from the total sample without replacement. Specifically, the randomly drawn samples differed in terms of the number of items rated with a specific frame of reference. Tables 6 and 7 show the validity results of different levels of within-subject inconsistency for Samples 1 and 2, separately. Again, analyses conducted with the American Sample (see Table 6) provided more support for Hypothesis 4 than that conducted with the Chinese Sample (see Table 7) did. Strictly speaking, eight of twelve sets of validity coefficients (i.e., the relationship of agreeableness to OCB-Os, the relationships of conscientiousness to OCB-Is, CWB-Is, and CWB-Os, the relationships of emotional stability to OCB-Is, OCB-Os, CWB-Is, and CWB-Os) in the American Sample in contrast to six of twelve (i.e., the relationships of agreeableness to OCB-Is, OCB-Os, and CWB-Os, the relationships of conscientiousness to OCB-Is and OCB-Os, the relationship of emotional stability to CWB-Os) in the Chinese Sample indicated decremental linear patterns.

Taken together, the analyses conducted on the two samples provided partial support for Hypothesis 4. The remaining findings in this study didn't corroborate Hypothesis 4 either because the trends shown in some of the validity analyses (e.g., the validity coefficients between agreeableness and CWB-Is as shown in Table 4) were in a direction opposite of what had been expected or because the trend of the average validity coefficients (e.g., the validity coefficients between conscientiousness and OCB-Os as shown in Table 7) follows a curvilinear relationship.

#### *Mediation Analyses*

Hypothesis 5 predicted that work-specific personality would mediate the relationship between general personality and OCBs/CWBs. The procedures detailed by Preacher and Hayes (2004) were followed in conducting simple mediation analyses (see Table 8). Table 8 reports the



direct effect, indirect effect, total effect, the percentage mediated, and the bootstrap estimate of 95% confidence interval for population value of indirect effect. The bootstrap procedure yielded greater power in detecting indirect effects and more accurate Type I error rates in comparison with some traditional methods (e.g., the Sobel test) as it makes no assumptions about the shape of the distributions of the variables or the sampling distribution of the statistic.

*American Sample.* As shown in the top half of Table 8, work-specific personality mediates 7 of 10 paths between general personality and extra-role behaviors. Specifically, Hypothesis 5 was supported for the significant indirect effects of general agreeableness on OCBs via work-specific agreeableness (indirect effect for OCB-Is = .32,  $p < .01$ , 95% CI: {.21, .42}; indirect effect for OCB-Os = .42,  $p < .01$ , 95% CI: {.25, .59}), and general conscientiousness on OCBs via work-specific conscientiousness (indirect effect for OCB-Is = .23,  $p < .01$ , 95% CI: {.13, .33}; indirect effect for OCB-Os = .17,  $p < .01$ , 95% CI: {.05, .29}). Similar support was found for the significant indirect effects of general conscientiousness on CWBs via work-specific conscientiousness (indirect effect for CWB-Is = -.17,  $p < .01$ , 95% CI: {-.28, -.07}; indirect effect for CWB-Os = -.20,  $p < .01$ , 95% CI: {-.29, -.11}), and general emotional stability on CWBs via work-specific emotional stability (indirect effect for CWB-Is = -.15,  $p < .01$ , 95% CI: {-.23, -.07}).

*Chinese Sample.* In the bottom half of Table 8, work-specific agreeableness completely mediated the relation of general agreeableness to OCB-Is (indirect effect = .17,  $p < .01$ , 95% CI: {.02, .35}) and OCB-Os (indirect effect = .27,  $p < .01$ , 95% CI: {.04, .58}). Therefore, Hypothesis 5 received limited support based on the analyses conducted with the Chinese Sample.

#### *Incremental Validity of Work-Specific Personality*

Hypothesis 6 predicted that work-specific personality would be related to OCBs and CWBs after general personality is controlled. I tested this hypothesis using hierarchical regression analysis. Specifically, I entered participant age, tenure, number of hours they worked per week, gender, ethnicity, and a dummy-coded variable reflecting the two counterbalance conditions (1 = work-specific personality measures were completed first; 2 = general personality measures were completed first) into the first step of the equation. In the second step I entered a general personality variable and in the third step I entered the work-specific version of the same personality variable that was entered during the second step.

*American Sample.* As shown in the top half of Table 9, agreeableness at work predicted incremental variance in OCB-Is ( $\Delta R^2 = .07, p < .01$ ) and OCB-Os ( $\Delta R^2 = .10, p < .01$ ). Similarly, conscientiousness at work predicted incremental variance in OCB-Is ( $\Delta R^2 = .04, p < .01$ ), OCB-Os ( $\Delta R^2 = .02, p < .01$ ), CWB-Is ( $\Delta R^2 = .03, p < .01$ ), and CWB-Os ( $\Delta R^2 = .05, p < .01$ ). Also, emotional stability at work predicted incremental variance in OCB-Is ( $\Delta R^2 = .01, p < .01$ ), OCB-Os ( $\Delta R^2 = .04, p < .01$ ), CWB-Is ( $\Delta R^2 = .03, p < .01$ ), and CWB-Os ( $\Delta R^2 = .03, p < .01$ ). Thus, ten of the twelve regression analyses conducted with the American Sample provide support for Hypothesis 6.

*Chinese Sample.* As reported in the bottom half of Table 9, regression analyses conducted with the Chinese Sample found that agreeableness at work predicted incremental variance in OCB-Is ( $\Delta R^2 = .04, p < .01$ ) and OCB-Os ( $\Delta R^2 = .05, p < .01$ ). Conscientiousness at work predicted incremental variance in OCB-Is ( $\Delta R^2 = .03, p < .05$ ), and OCB-Os ( $\Delta R^2 = .02, p < .05$ ). Finally, emotional stability at work predicted incremental variance in CWB-Is ( $\Delta R^2 = .02, p < .05$ ), and CWB-Os ( $\Delta R^2 = .04, p < .01$ ). Six of twelve analyses conducted with Chinese Sample, thus, provide support for Hypothesis 6.

## Discussion

### *Personality and Extra-Role Behaviors*

The current study examined the hypothesized relationships between three Big-Five personality dimensions (i.e., conscientiousness, agreeableness, and emotional stability) and extra-role behaviors (i.e., OCBs and CWBs). Across the two samples, I found full support for the hypothesis that both general conscientiousness and agreeableness will be positively related to OCBs. The direct link between these three Big-Five personality factors and CWBs also received full support based on the analyses conducted with the American Sample and partial support in the Chinese Sample. These findings are generally consistent with the existing literatures on personality antecedents of OCBs and CWBs (e.g., Berry et al., 2007; Dalal, 2005; Ilies et al., 2009; LePine et al., 2002; Organ & Ryan, 1995; Salgado, 2002).

In addition, the current study found only limited support for the hypothesis that work-specific personality would yield stronger relationships with OCBs and CWBs than would general personality. Of the 24 comparisons that I examined, only 4 provided support for the hypothesis. This finding is consistent with past frame-of-reference research showing that domain-specific personality does not always yield significantly better predictive validity than does general personality (e.g., Bowling et al., 2010b; Hunthausen et al., 2003) and warrants further research attention. Potential explanations for the results are presented below.

In support of the hypothesized effects of two sources of variability (i.e., between-subject variability and within-subject inconsistency) on validity, about three fifths of the simulation analyses found that validity was positively related to the percentage of test takers who used and the number of items that is rated with an at-work frame of reference. It should be recognized from the results of this study that the decrements in between-subject variability and/or within-

subject inconsistency through item contextualization does not always have beneficial effects on validity as either an opposite or a curvilinear pattern was found in the rest of the simulation analyses.

There are several plausible explanations for the unexpected findings. One explanation is that the “context” manipulation by adding at-work tag to the item could conceivably be less than perfect. Layman, without a broad knowledge of personality theory and research, might not be capable of differentiating work-specific items from general items based on a contextualization perspective. A second explanation is that some personality traits—especially conscientiousness—are primarily demonstrated in the work context. For these traits, even a general measure primes people to think about work. A third possible explanation is that perhaps not all items need to be highly contextualized for higher relations of predictors with criteria. As Robie et al. (2000) note, contextualization of some items may prime contextualization-related expectations that context-free items are to be interpreted with an at-work frame of reference. This is especially true in a within-subject design as was conducted in the present study. I conducted exploratory analyses in each sample examining condition as the moderator within the relationships between general and work-specific personality traits. The regression analyses (Hayes & Matthes, 2009) conducted with the American Sample for condition found significant interactions for the relationship between general and work-specific conscientiousness ( $\beta = -.17, p < .05$ ), and general and work-specific emotional stability ( $\beta = -.22, p < .01$ ). Likewise, the analyses conducted with the Chinese Sample for condition found significant interactions for the relationship between general and work-specific agreeableness ( $\beta = .28, p < .05$ ), and general and work-specific conscientiousness ( $\beta = .29, p < .05$ ). Whereas further analyses conducted with the American Sample found that the relationships between general and work-specific personality

traits (i.e., conscientiousness, and emotional stability) were stronger when the work-specific personality items follow the general items in the questionnaire than when the order is reversed, analyses with the Chinese Sample found that the relationships between general and work-specific personality traits (i.e., agreeableness, and conscientiousness) were stronger when participants completed the general personality scales first than when they completed the work-specific personality scales first. Future research will need to be conducted to compare the effects of different research designs (e.g., between-subject design, within-subject design, etc.) on frame-of-reference manipulation.

The hierarchical nature of personality constructs might be a fourth reason. Levens et al. (2008) compared the validity of two context-specific sub-dimensions (at work and at school) that both exist at lower levels of a single hierarchy. By contrast, the present study highlighted the differences between general personality occupying the highest level and work-specific personality occupying a lower level of the hierarchy. Relative to the differences between distal predictors and proximal predictors of certain criteria, the differences between two proximal predictors are much more difficult to detect. Another potential explanation may be related to the conceptual overlap between the predictor and the criterion. Perhaps extra-role behavior is broad in that both OCBs and CWBs include a heterogeneous mix of behaviors, and any disadvantages that general personality has in not being context-specific are made-up for by the fact that general personality is broad. In other words, the broadly defined nature of the predictor and the criterion may increase their conceptual overlap in that both are broad.

This study also extends previous research by showing that the results were a little different for the American and Chinese Samples. Such findings are consistent with reasoning mentioned above. Specifically, the measures in the current study may not be equivalent across

the two samples. In other words, culture and societal differences may result in discrepancies in participants' understanding of the survey items and their relation to the measured constructs. For example, as noted by Hui et al. (2004), the traditional Chinese business ethics is known for its reliance on human, instead of legal (as in North America), factors when managing business and employees. In a society such as China, where relationships play a central role at work, people are particularly motivated to behave in ways that strengthen their relationships with others for the sake of business. Interpersonal relationship development may reinforce the call for the extension of work context to many aspects of Chinese life. Such confounding contexts in the Chinese society render it difficult to differentiate one contextualized measure from the other. The use of college students in the American Sample and workers in the Chinese Sample may also explain the differences across the two samples. According to Bing et al. (2004), studies conducted on job incumbents typically suffer from range restriction in performance criteria compared with studies on college freshmen. Also, college students' high "job" autonomy (e.g., deciding to attend class, choosing to study, and so forth) may lead to increased personality-to-performance relationships.

#### *Work-Specific Personality as a Mediator of the Effects of General Personality*

Other researchers have predicted that the relationships between general personality and extra-role behaviors would be mediated by work-specific personality (e.g., Heller et al., 2009; Chen et al., 2004). The current study found considerable evidence for this prediction. These findings are particularly true in the American Sample. It is of note, however, that the effects of general personality were not completely explained by work-specific personality.

#### *Incremental Validity of Work-Specific Personality*

I also found considerable support for the hypothesis that work-specific personality predicted OCBs and CWBs after general personality was controlled. Specifically, of the 24

regression analyses I conducted, 16 (or 67%) found support for the incremental validity of work-specific personality. These findings are consistent with the results of previous frame-of-reference research (Bing et al., 2004; Bowling et al., 2010b; Wang et al., 2010) and they thereby enhance the practical benefits to using work-specific personality measures across different cultures.

### *Future Research*

Given the results of the current study, I believe that more research is needed to examine the use of work-specific measures of personality. First, other contextualization practices are needed. In order to reduce item error, most previous research has explored the effect of frame-of-reference on the validity of personality measures by adding a context-specific tag (e.g., at work, at school) to each item (Bing et al., 2004; Hunthausen et al., 2003; Lievens et al., 2008; Schmit et al., 1995). This practice was chosen partly for reasons of convenience. I believe other contextualization practices of the same simplicity and ease warrant future research. For instance, one can examine the frame-of-reference effect by adding role-specific tags (e.g., as a worker, as a student) to items. Rooted deeply in the integration of role and trait theories (Donahue, Robins, Roberts, & John, 1993; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997; Roberts & Donahue, 1994), role-specific personality measures might be much less error-laden in comparison with context-specific personality measures. This might be especially true in a culture with blurry boundaries among different contexts such as the Chinese culture. Such extension to role-specific personality can uncover more information about the frame-of-reference effect on personality test validity. Also, some studies have contextualized personality either by asking participants to think about their work as part of the survey instructions (e.g., Hunthausen et al., 2003) or by completely rewriting general personality items into domain-specific items (e.g., Coaster, Christiansen, Henson, Robie, & Tett, 2010). These methods should be used in future research.

Second, future research should address the potential effect of testing setting on how participants respond to general personality items. I wonder if participants would interpret general personality items as being more work-specific when they complete the items while at their jobs or as part of an employee selection system than when they complete items in other settings. This possibility certainly warrants future research.

Third, future research needs to examine other mechanisms through which the correct frame-of-reference will increase validity. Lievens et al. (2008) attributed the increase in criterion-related validity obtained with contextualized personality inventories to the reduction of both between-subject variability and within-subject inconsistency. Although empirical research appears to support this argument, evidence is largely mixed. According to the principle of compatibility (Ajzen, 1991; Fishbein & Ajzen, 2005), it might be the case that the work-specific personality and the criterion are assessed at different levels of specificity. Further research examining frame-of-reference from the principle of compatibility perspective (e.g., making comparisons among several correct frame of references at different levels of specificity) rather than error reduction perspective is warranted. Or, future research could directly examine the mechanism by which item contextualization might increase scale validity by using verbal protocol analysis (i.e., having people to talk through what is going on in their heads as they answer personality items).

A final potential avenue for future research is the generalizability of the effects of context specificity to other countries. As mentioned earlier, while the importance of using frame of reference as a vehicle for reducing measurement errors has begun to receive greater attention, virtually all of the frame-of-reference research has been derived from the United States. The present study is an attempt to answer this call by extending the effects of contextualization to a



Chinese Sample. Further examination of frames of reference in other cultures is necessary for a better understanding of the prediction of extra-role behaviors by personality variables.

### *Limitations*

Several limitations of the present study are noteworthy. First, because we used a cross-sectional research design, this study does not allow firm conclusions about the causal relationships. Established theory, nevertheless, suggests that agreeableness, conscientiousness, and emotional stability are causes rather than consequences of OCBs and CWBs (e.g., Dalal, 2005). Therefore, I do not believe the use of cross-sectional data in this study is a major concern. Second, all the data were based upon self-reports and common method bias may be an issue. However, this issue could be overstated. Considerable evidence suggests that the assumption of common method bias artificially inflating observed correlations is generally unfounded (Spector, 2006; Spector & Brannick, 2009). Third, the inclusion of employed undergraduates in the American Sample may limit the generalizability of the results to a field setting. However, the investigation used a field sample of Chinese workers did give additional support to predictions made by this study.

### *Summary*

In closing, results across two samples provide evidence that three Big Five dimensions of personality (i.e., agreeableness, conscientiousness, and emotional stability) yielded significant relationships with OCBs and CWBs. I also found that between-subject variability and within-subject inconsistency in the frame of reference adopted impact on validity. I further found that work-specific personality mediated and provided incremental validity beyond the effects of general personality. Given these current results, future frame of reference research is undoubtedly warranted.

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Table 1

*Descriptive Statistics and Correlations for Sample 1 Variables*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. A	5.28	.88	(.84)														
2. C	4.95	.86	.30**	(.82)													
3. ES	4.25	1.07	.17**	.29**	(.88)												
4. Work-Specific A	4.93	.89	.66**	.20**	.12*	(.82)											
5. Work-Specific C	5.55	.74	.42**	.55**	.09	.29**	(.79)										
6. Work-Specific ES	4.53	.93	.28**	.25**	.58**	.30**	.31**	(.82)									
7. OCB-Is	4.77	1.15	.51**	.18**	.08	.54**	.32**	.17**	(.84)								
8. OCB-Os	4.45	1.37	.32**	.22**	.12*	.44**	.25**	.23**	.60**	(.89)							
9. CWB-Is	2.02	1.09	-.27**	-.18**	-.15**	-.21**	-.28**	-.25**	.01	.02	(.85)						
10. CWB-Os	1.95	.90	-.19**	-.33**	-.11*	-.15**	-.42**	-.25**	-.05	-.03	.60**	(.88)					
11. Age	19.37	3.79	.12*	.13*	.05	-.12*	.04	.00	.02	.11	-.03	-.01	--				
12. Tenure	16.79	23.64	.06	.11*	.09	.06	.03	.01	.06	.05	.05	-.03	.50**	--			
13. Hours Worked	22.80	11.55	.03	-.02	-.01	-.01	.01	-.05	.23**	.23**	.14*	.09	.09	.09	--		
14. Gender	1.30	.46	-.20**	-.10	.26**	-.16**	-.28**	.00	-.17**	.01	.11	.20**	.13*	.02	.11	--	
15. Ethnicity	1.52	1.23	-.13*	.01	.03	-.14*	-.07	.00	-.20**	-.02	.00	.09	-.05	-.09	-.17**	-.01	--
16. Condition	1.39	.48	.01	-.03	-.08	-.13*	.16**	.08	.00	-.02	-.04	-.10	.00	-.01	-.08	-.14*	.00

*Note.*  $N = 300$ . \* $p < .05$ , \*\* $p < .01$ . Alpha reliabilities are in parentheses and appear on the diagonal. A = Agreeableness. C = Conscientiousness. ES = Emotional Stability. OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior. Hours Worked = hours worked per week. Condition is the order in which the general and work-specific personality measures were completed (1 = work-specific personality measures were completed first; 2 = general personality measures were completed first). Gender, 1 = Female, 2 = Male. Ethnicity, 1 = White, 2 = Black, 3 = Hispanic, 4 = Native American, 5 = Asian, 6 = Other.

Table 2

*Descriptive Statistics and Correlations for Sample 2 Variables*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. A	5.30	.75	(.66)													
2. C	5.33	.92	.41**	(.79)												
3. ES	4.26	1.14	.17*	.19*	(.84)											
4. Work-Specific A	5.22	.79	.64**	.30**	.19*	(.70)										
5. Work-Specific C	5.53	.89	.34**	.67**	.17*	.53**	(.79)									
6. Work-Specific ES	4.40	1.06	.25**	.38**	.66**	.09	.19*	(.82)								
7. OCB-Is	4.20	.93	.21**	.17*	.09	.27**	.22**	.10	(.79)							
8. OCB-Os	4.26	1.16	.23**	.21**	.14	.31**	.24**	.11	.60**	(.91)						
9. CWB-Is	1.41	.65	-.15	-.13	-.27**	-.06	-.08	-.24**	.08	.05	(.83)					
10. CWB-Os	1.69	.68	-.15	-.31**	-.15	-.20*	-.28**	-.22**	.06	-.16*	.41**	(.80)				
11. Age	28.86	5.17	.02	.07	.02	.14	.05	-.11	-.05	-.09	-.05	-.02	--			
12. Tenure	38.81	42.44	-.01	.14	.01	.04	.07	-.04	-.03	-.08	-.07	-.11	.47**	--		
13. Hours Worked	45.02	17.61	.06	.09	.04	.07	.13	.08	.10	.07	-.04	-.04	.04	-.04	--	
14. Gender	1.48	.51	.03	-.02	.03	.03	-.14	.05	.12	.16*	.16*	.01	.16*	-.04	.20**	--
15. Condition	1.66	.47	.02	.03	-.14	-.14	-.01	.13	.13	.03	.20**	.11	-.37**	-.23**	.07	-.01

Note.  $N = 160$ . \* $p < .05$ , \*\* $p < .01$ . Alpha reliabilities are in parentheses and appear on the diagonal. A = Agreeableness. C = Conscientiousness. ES = Emotional Stability. OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior. Hours Worked = hours worked per week. Condition is the order in which the general and work-specific personality measures were completed (1 = work-specific personality measures were completed first; 2 = general personality measures were completed first). Gender, 1 = Female, 2 = Male.

Table 3

*Comparisons of Work-Specific Personality's and General Personality's Relationships with Extra-Role Behaviors*

Sample	Personality	Criterion	Work-Specific Personality	General Personality	<i>z</i>
Sample 1 ( <i>N</i> = 300)	Agreeableness	OCB-Is	.54**	.51**	.80
		OCB-Os	.44**	.32	2.75**
		CWB-Is	-.21**	-.27**	1.27
		CWB-Os	-.15**	-.19**	.97
	Conscientiousness	OCB-Is	.32**	.18**	2.53*
		OCB-Os	.25**	.22**	.68
		CWB-Is	-.28**	-.18**	-1.73
		CWB-Os	-.42**	-.33**	-1.81
	Emotional Stability	OCB-Is	.17**	.08	1.78
		OCB-Os	.23**	.12**	2.09*
		CWB-Is	-.25**	-.15**	-2.07*
		CWB-Os	-.25**	-.11*	-2.65**
Sample 2 ( <i>N</i> = 160)	Agreeableness	OCB-Is	.27**	.21**	.86
		OCB-Os	.31**	.23**	1.25
		CWB-Is	-.06	-.15	1.29
		CWB-Os	-.20*	-.15	-.76
	Conscientiousness	OCB-Is	.22**	.17*	.73
		OCB-Os	.24**	.21**	.40
		CWB-Is	-.08	-.13	.71
		CWB-Os	-.28**	-.31**	.52
	Emotional Stability	OCB-Is	.10	.09	.26
		OCB-Os	.11	.14	-.46
		CWB-Is	-.24**	-.27**	.51
		CWB-Os	-.22**	-.15	-1.22

*Note.* \* $p < .05$ , \*\* $p < .01$ . OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior.

Table 4

*Summary of Validity Results of Different Levels of Between-Subject Variability for Sample 1*

Criterion	Scenarios	Agreeableness	Conscientiousness	Emotional Stability
OCB-Is	10% participants in general context, 90% at work	.542	.298	.164
	20% participants in general context, 80% at work	.535	.278	.151
	30% participants in general context, 70% at work	.531	.261	.143
	40% participants in general context, 60% at work	.527	.249	.132
	50% participants in general context, 50% at work	.523	.234	.123
	60% participants in general context, 40% at work	.521	.221	.114
	70% participants in general context, 30% at work	.519	.212	.105
	80% participants in general context, 20% at work	.518	.204	.097
	90% participants in general context, 10% at work	.518	.196	.089
	M	.526	.239	.124
	SD	.018	.043	.033
Minimum	.455	.116	.031	
Maximum	.593	.377	.230	
OCB-Os	10% participants in general context, 90% at work	.432	.247	.223
	20% participants in general context, 80% at work	.416	.239	.209
	30% participants in general context, 70% at work	.404	.232	.198
	40% participants in general context, 60% at work	.393	.227	.185
	50% participants in general context, 50% at work	.380	.225	.175
	60% participants in general context, 40% at work	.369	.222	.164
	70% participants in general context, 30% at work	.360	.219	.155
	80% participants in general context, 20% at work	.348	.221	.146
	90% participants in general context, 10% at work	.340	.220	.136
	M	.382	.228	.177
	SD	.039	.030	.034
Minimum	.266	.118	.076	
Maximum	.494	.344	.286	
CWB-Is	10% participants in general context, 90% at work	-.223	-.261	-.243
	20% participants in general context, 80% at work	-.228	-.245	-.231
	30% participants in general context, 70% at work	-.232	-.234	-.220
	40% participants in general context, 60% at work	-.238	-.224	-.209
	50% participants in general context, 50% at work	-.243	-.214	-.197
	60% participants in general context, 40% at work	-.250	-.207	-.186
	70% participants in general context, 30% at work	-.254	-.200	-.177
	80% participants in general context, 20% at work	-.261	-.194	-.168
	90% participants in general context, 10% at work	-.269	-.190	-.160
	M	-.244	-.219	-.199
	SD	.028	.035	.033
Minimum	-.337	-.331	-.303	
Maximum	-.156	-.074	-.108	
CWB-Os	10% participants in general context, 90% at work	-.156	-.405	-.237
	20% participants in general context, 80% at work	-.159	-.389	-.222
	30% participants in general context, 70% at work	-.164	-.375	-.206
	40% participants in general context, 60% at work	-.168	-.363	-.192
	50% participants in general context, 50% at work	-.171	-.355	-.176
	60% participants in general context, 40% at work	-.178	-.348	-.164
	70% participants in general context, 30% at work	-.180	-.342	-.151
	80% participants in general context, 20% at work	-.185	-.340	-.138
	90% participants in general context, 10% at work	-.192	-.337	-.128
	M	-.173	-.361	-.179
	SD	.025	.033	.040
Minimum	-.267	-.487	-.306	
Maximum	-.082	-.255	-.083	

*Note.* For each of the nine scenarios, 1,000 random samples were drawn. Summary statistics at the bottom for each criterion are calculated across all 9,000 samples. OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior.

Table 5

*Summary of Validity Results of Different Levels of Between-Subject Variability for Sample 2*

Criterion	Scenarios	Agreeableness	Conscientiousness	Emotional Stability
OCB-Is	10% participants in general context, 90% at work	.264	.215	.104
	20% participants in general context, 80% at work	.259	.210	.105
	30% participants in general context, 70% at work	.254	.206	.102
	40% participants in general context, 60% at work	.248	.200	.099
	50% participants in general context, 50% at work	.243	.195	.097
	60% participants in general context, 40% at work	.236	.192	.096
	70% participants in general context, 30% at work	.232	.187	.094
	80% participants in general context, 20% at work	.226	.182	.093
	90% participants in general context, 10% at work	.219	.177	.091
	M	.242	.196	.098
	SD	.030	.028	.027
Minimum	.137	.097	.005	
Maximum	.352	.295	.199	
OCB-Os	10% participants in general context, 90% at work	.304	.237	.119
	20% participants in general context, 80% at work	.296	.234	.126
	30% participants in general context, 70% at work	.288	.232	.127
	40% participants in general context, 60% at work	.281	.231	.129
	50% participants in general context, 50% at work	.274	.225	.132
	60% participants in general context, 40% at work	.263	.225	.135
	70% participants in general context, 30% at work	.258	.222	.138
	80% participants in general context, 20% at work	.249	.219	.140
	90% participants in general context, 10% at work	.239	.216	.144
	M	.273	.227	.132
	SD	.039	.031	.030
Minimum	.145	.099	.025	
Maximum	.410	.350	.238	
CWB-Is	10% participants in general context, 90% at work	-.076	-.091	-.251
	20% participants in general context, 80% at work	-.085	-.096	-.254
	30% participants in general context, 70% at work	-.093	-.100	-.258
	40% participants in general context, 60% at work	-.099	-.104	-.259
	50% participants in general context, 50% at work	-.111	-.109	-.263
	60% participants in general context, 40% at work	-.119	-.112	-.266
	70% participants in general context, 30% at work	-.129	-.119	-.269
	80% participants in general context, 20% at work	-.137	-.122	-.273
	90% participants in general context, 10% at work	-.145	-.128	-.276
	M	-.110	-.109	-.263
	SD	.034	.025	.026
Minimum	-.214	-.205	-.353	
Maximum	-.020	-.022	-.162	
CWB-Os	10% participants in general context, 90% at work	-.197	-.283	-.221
	20% participants in general context, 80% at work	-.191	-.284	-.212
	30% participants in general context, 70% at work	-.188	-.287	-.205
	40% participants in general context, 60% at work	-.181	-.290	-.195
	50% participants in general context, 50% at work	-.180	-.294	-.188
	60% participants in general context, 40% at work	-.172	-.295	-.181
	70% participants in general context, 30% at work	-.169	-.301	-.172
	80% participants in general context, 20% at work	-.162	-.302	-.165
	90% participants in general context, 10% at work	-.157	-.308	-.158
	M	-.178	-.294	-.189
	SD	.032	.029	.035
Minimum	-.312	-.424	-.295	
Maximum	-.051	-.182	-.077	

*Note.* For each of the nine scenarios, 1,000 random samples were drawn. Summary statistics at the bottom for each criterion are calculated across all 9,000 samples. OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior.

Table 6

*Summary of Validity Results of Different Levels of Within-Subject Inconsistency for Sample 1*

Criterion	Scenarios	Agreeableness	Conscientiousness	Emotional Stability
OCB-Is	1 general item, 9 at-work items	.556	.316	.170
	2 general items, 8 at-work items	.562	.309	.162
	3 general items, 7 at-work items	.565	.298	.155
	4 general items, 6 at-work items	.566	.287	.146
	5 general items, 5 at-work items	.564	.272	.136
	6 general items, 4 at-work items	.560	.255	.124
	7 general items, 3 at-work items	.553	.239	.113
	8 general items, 2 at-work items	.544	.223	.102
	9 general items, 1 at-work item	.519	.201	.090
	M	.554	.267	.133
	SD	.021	.045	.031
	Minimum	.478	.138	.056
Maximum	.599	.351	.197	
OCB-Os	1 general item, 9 at-work items	.443	.263	.231
	2 general items, 8 at-work items	.438	.265	.223
	3 general items, 7 at-work items	.431	.265	.215
	4 general items, 6 at-work items	.421	.264	.204
	5 general items, 5 at-work items	.410	.261	.193
	6 general items, 4 at-work items	.396	.254	.180
	7 general items, 3 at-work items	.382	.248	.166
	8 general items, 2 at-work items	.365	.240	.153
	9 general items, 1 at-work item	.340	.229	.138
	M	.403	.254	.189
	SD	.034	.019	.036
	Minimum	.306	.189	.102
Maximum	.459	.303	.262	
CWB-Is	1 general item, 9 at-work items	-.230	-.278	-.253
	2 general items, 8 at-work items	-.239	-.274	-.247
	3 general items, 7 at-work items	-.247	-.269	-.239
	4 general items, 6 at-work items	-.256	-.260	-.230
	5 general items, 5 at-work items	-.262	-.249	-.219
	6 general items, 4 at-work items	-.267	-.238	-.204
	7 general items, 3 at-work items	-.271	-.227	-.191
	8 general items, 2 at-work items	-.275	-.214	-.179
	9 general items, 1 at-work item	-.277	-.199	-.159
	M	-.258	-.245	-.214
	SD	.025	.031	.036
	Minimum	-.353	-.302	-.290
Maximum	-.202	-.181	-.123	
CWB-Os	1 general item, 9 at-work items	-.161	-.432	-.246
	2 general items, 8 at-work items	-.167	-.432	-.236
	3 general items, 7 at-work items	-.173	-.429	-.224
	4 general items, 6 at-work items	-.180	-.422	-.211
	5 general items, 5 at-work items	-.184	-.413	-.196
	6 general items, 4 at-work items	-.189	-.400	-.179
	7 general items, 3 at-work items	-.193	-.386	-.163
	8 general items, 2 at-work items	-.195	-.371	-.148
	9 general items, 1 at-work item	-.201	-.354	-.128
	M	-.183	-.406	-.192
	SD	.021	.031	.040
	Minimum	-.240	-.456	-.263
Maximum	-.130	-.334	-.095	

*Note.* For each of the nine scenarios, 1,000 random samples were drawn. Summary statistics at the bottom for each criterion are calculated across all 9,000 samples. The specific items rated with a frame of reference were fixed across participant in each sample. OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior.



Table 7

*Summary of Validity Results of Different Levels of Within-Subject Inconsistency for Sample 2*

Criterion	Scenarios	Agreeableness	Conscientiousness	Emotional Stability
OCB-Is	1 general item, 9 at-work items	.267	.219	.107
	2 general items, 8 at-work items	.267	.217	.108
	3 general items, 7 at-work items	.262	.214	.105
	4 general items, 6 at-work items	.257	.210	.105
	5 general items, 5 at-work items	.253	.208	.104
	6 general items, 4 at-work items	.245	.201	.101
	7 general items, 3 at-work items	.238	.194	.099
	8 general items, 2 at-work items	.231	.189	.096
	9 general items, 1 at-work item	.219	.181	.092
	M	.249	.204	.102
	SD	.033	.027	.021
	Minimum	.168	.127	.053
Maximum	.338	.268	.153	
OCB-Os	1 general item, 9 at-work items	.309	.242	.122
	2 general items, 8 at-work items	.305	.242	.128
	3 general items, 7 at-work items	.299	.242	.132
	4 general items, 6 at-work items	.291	.241	.136
	5 general items, 5 at-work items	.284	.240	.140
	6 general items, 4 at-work items	.275	.237	.144
	7 general items, 3 at-work items	.264	.231	.145
	8 general items, 2 at-work items	.254	.227	.147
	9 general items, 1 at-work item	.244	.225	.144
	M	.281	.236	.138
	SD	.031	.024	.020
	Minimum	.199	.167	.079
Maximum	.358	.296	.194	
CWB-Is	1 general item, 9 at-work items	-.077	-.093	-.256
	2 general items, 8 at-work items	-.085	-.098	-.264
	3 general items, 7 at-work items	-.096	-.105	-.270
	4 general items, 6 at-work items	-.107	-.111	-.276
	5 general items, 5 at-work items	-.114	-.114	-.280
	6 general items, 4 at-work items	-.124	-.120	-.282
	7 general items, 3 at-work items	-.131	-.125	-.283
	8 general items, 2 at-work items	-.139	-.128	-.283
	9 general items, 1 at-work item	-.152	-.125	-.272
	M	-.114	-.113	-.274
	SD	.040	.028	.016
	Minimum	-.220	-.194	-.319
Maximum	-.021	-.039	-.237	
CWB-Os	1 general item, 9 at-work items	-.200	-.288	-.225
	2 general items, 8 at-work items	-.196	-.295	-.222
	3 general items, 7 at-work items	-.193	-.302	-.214
	4 general items, 6 at-work items	-.191	-.307	-.207
	5 general items, 5 at-work items	-.183	-.310	-.199
	6 general items, 4 at-work items	-.179	-.313	-.191
	7 general items, 3 at-work items	-.174	-.315	-.182
	8 general items, 2 at-work items	-.166	-.316	-.172
	9 general items, 1 at-work item	-.158	-.311	-.153
	M	-.182	-.306	-.196
	SD	.029	.020	.029
	Minimum	-.261	-.365	-.261
Maximum	-.099	-.252	-.120	

*Note.* For each of the nine scenarios, 1,000 random samples were drawn. Summary statistics at the bottom for each criterion are calculated across all 9,000 samples. The specific items rated with a frame of reference were fixed across participant in each sample. OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior.

Table 8

*Mediation of the Effect of General Personality on Extra-Role Behaviors through Work-Specific Personality*

Criterion	Variable	Indirect Effect	Direct Effect	Total Effect	Mediated (%)	Bootstrapping 95% CI	
						Lower	Upper
OCB-Is	A	.32**	.35**	.67**	47	.21	.42
	C	.23**	.02	.25**	91	.13	.33
	ES	.12**	-.03	.08	--	.03	.21
OCB-Os	A	.42**	.08	.51**	83	.25	.59
	C	.17**	.18	.35**	48	.05	.29
	ES	.18**	-.01	.16*	--	.08	.29
CWB-Is	A	-.05	-.29**	-.34**	14	-.20	.06
	C	-.17**	-.06	-.23**	74	-.28	-.07
	ES	-.15**	-.002	-.15**	98	-.23	-.07
CWB-Os	A	-.02	-.17*	-.20**	12	-.14	-.08
	C	-.20**	-.15*	-.35**	56	-.29	-.11
	ES	-.13**	.03	-.09*	--	-.21	-.07
OCB-Is	A	.17*	.08	.26**	67	.02	.35
	C	.12	.04	.17*	72	-.008	.27
	ES	.04	.02	.07	63	-.05	.17
OCB-Os	A	.27**	.08	.35**	76	.04	.58
	C	.15	.12	.27**	54	-.05	.38
	ES	.02	.12	.15	15	-.12	.19
CWB-Is	A	.02	-.16	-.13	--	-.06	.13
	C	.002	-.09	-.09	--	-.08	.10
	ES	-.04	-.11*	-.16**	26	-.13	.03
CWB-Os	A	-.10	-.03	-.13	75	-.23	.02
	C	-.06	-.16*	-.23**	27	-.15	.06
	ES	-.09*	.002	-.09	--	-.20	-.01

Note.  $N = 300$  for sample 1 (top half);  $N = 160$  for sample 2 (bottom half). \* $p < .05$ , \*\* $p < .01$ . A = Agreeableness. C = Conscientiousness. ES = Emotional Stability. OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior.

Table 9

Regression Analyses for Sample 1 (Top Half) and Sample 2 (Bottom Half) Examining the Incremental Validity of Work-Specific Personality after General Personality, Demographics, and Condition are Controlled

Variable	OCB-Is			OCB-Os			CWB-Is			CWB-Os		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
1. Age	.01	-.06	-.09*	.10	.05	.02	-.10	-.06	-.06	-.02	.00	.00
Tenure	.03	.04	.04	-.01	-.01	.00	.09	.08	.08	-.02	-.02	-.02
Hours Worked	.22**	.21**	.23**	.23**	.22**	.25**	.13**	.14**	.14**	.09	.09	.09
Gender	-.20**	-.08*	-.06	-.05	.02	.04	.10*	.04	.03	.19**	.15**	.15**
Ethnicity	-.16**	-.10*	-.07	.01	.05	.08	.02	-.01	-.01	.11*	.09	.09
Condition	-.01	.00	.05	-.01	-.01	.05	-.01	-.02	-.03	-.06	-.07	-.07
2. General A		.48**	.23**		.32**	.03		-.27**	-.23**		-.15**	-.13*
3. Work-Specific A			.38**			.44**			-.05			-.03
R <sup>2</sup> Δ	.12**	.21**	.07**	.06**	.09**	.10**	.04*	.06**	.00	.06**	.02**	.00
Total R <sup>2</sup>	.12**	.33**	.41**	.06**	.16**	.27**	.04*	.10**	.11**	.06**	.09**	.09**
1. Age	.00	-.01	-.01	.10	.07	.07	-.10	-.08	-.08	-.02	.01	.02
Tenure	.03	.02	.03	-.01	-.03	-.02	.09	.10	.09	-.02	.00	-.01
Hours Worked	.22**	.23**	.22**	.23**	.24**	.23**	.13**	.13*	.14**	.09	.08	.09*
Gender	-.20**	-.17**	-.12*	-.05	-.02	.02	.10*	.08	.02	.19**	.15**	.09
Ethnicity	-.16**	-.16**	-.14**	.01	.01	.02	.02	.02	.01	.11*	.11*	.09*
Condition	-.01	.00	-.04	-.01	.00	-.03	-.01	-.02	.01	-.06	-.08	-.04
2. General C		.17**	.03		.22**	.10		-.17**	-.04		-.32**	-.16**
3. Work-Specific C			.26**			.21**			-.25**			-.30**
R <sup>2</sup> Δ	.12**	.03**	.04**	.06**	.04**	.02**	.04*	.03**	.03**	.06**	.10**	.05**
Total R <sup>2</sup>	.35**	.39**	.44**	.06**	.11**	.14**	.04*	.07**	.11**	.06**	.16**	.22**
1. Age	.00	.01	.01	.10	.10*	.10*	-.10	-.11*	-.10*	-.02	-.03	-.02
Tenure	.03	.01	.02	-.01	.03	-.02	.09	.11*	.10	-.02	.00	-.01
Hours Worked	.22**	.23**	.24**	.23**	.24**	.25**	.13**	.13*	.12*	.09	.08	.07
Gender	-.20**	-.24**	-.21**	-.05	-.09	-.05	.10*	.15**	.12*	.19**	.24**	.21**
Ethnicity	-.16**	-.16**	-.15**	.01	.01	.02	.02	.03	.02	.11*	.11*	.11*
Condition	-.01	.00	-.02	-.01	.00	-.03	-.01	-.02	.00	-.06	-.07	-.05
2. General ES		.15**	.04		.15**	-.02		-.20**	-.06		-.19**	-.05
3. Work-Specific ES			.16**			.26**			-.21**			-.21**
R <sup>2</sup> Δ	.12**	.02**	.01**	.06**	.02**	.04**	.04*	.03**	.03**	.06**	.03**	.03**
Total R <sup>2</sup>	.12**	.14**	.16**	.06**	.08**	.13**	.04*	.07**	.10**	.06**	.10**	.13**
1. Age	-.04	-.05	-.07	-.12	-.13	-.15*	.01	.02	.01	.08	.09	.10
Tenure	.02	.02	.03	-.02	-.01	-.01	-.03	-.03	-.03	-.12	-.13	-.13
Hours Worked	.07	.05	.04	.04	.03	.01	-.10	-.09	-.10	-.06	-.05	-.05
Gender	.11	.11	.11	.17*	.17*	.17*	.18*	.18**	.19**	.00	.00	.00
Condition	.12	.11	.15*	-.01	-.01	.02	.21**	.22**	.23**	.12	.13	.11
2. General A		.20**	.03		.22**	.03		-.16*	-.23*		-.15*	-.05
3. Work-Specific A			.27**			.31**			.11			-.15
R <sup>2</sup> Δ	.04	.04**	.04**	.04	.05**	.05**	.08*	.02*	.00	.03	.02*	.01
Total R <sup>2</sup>	.04	.08*	.12**	.04	.09**	.15**	.08*	.10**	.11**	.03	.05	.06
1. Age	-.04	-.05	-.06	-.12	-.12	-.13	.01	.01	.01	.08	.09	.09
Tenure	.02	.00	.00	-.02	-.05	-.04	-.03	-.01	.00	-.12	-.08	-.08
Hours Worked	.07	.05	.02	.04	.02	.00	-.10	-.09	-.10	-.06	-.03	-.02
Gender	.11	.12	.16	.17*	.18*	.21**	.18*	.18*	.19**	.00	.00	-.02
Condition	.12	.11	.11	-.01	-.02	-.02	.21**	.22**	.22**	.12	.14*	.14*
2. General C		.17*	.01		.23**	.08		-.12	-.18*		-.31**	-.22
3. Work-Specific C			.23*			.22*			.07			-.12
R <sup>2</sup> Δ	.04	.03*	.03*	.04	.05**	.02*	.08*	.01	.00	.03	.09**	.00
Total R <sup>2</sup>	.04	.06*	.10*	.04	.09**	.12**	.08*	.09**	.10*	.03	.12**	.13**
1. Age	-.04	-.04	-.04	-.12	-.11	-.11	.01	.00	-.01	.08	.07	.05
Tenure	.02	.02	.02	-.02	-.02	-.02	-.02	-.03	-.02	-.12	-.12	-.11
Hours Worked	.07	.06	.06	.04	.03	.03	-.10	-.09	-.08	-.06	-.05	-.05
Gender	.11	.11	.11	.17*	.17*	.17*	.18	.19**	.20**	.00	.01	.02
Condition	.12	.13	.13	-.01	.01	.01	.21**	.17*	.21**	.12	.10	.16*
2. General ES		.10	.09		.14*	.15		-.25**	-.11		-.13*	.07
3. Work-Specific ES			.01			-.01			-.20*			-.29**
R <sup>2</sup> Δ	.04	.01	.00	.04	.02*	.00	.08*	.06**	.02*	.03	.01*	.04**
Total R <sup>2</sup>	.04	.05	.05	.04	.06	.06	.08*	.14**	.16**	.03	.04	.09*

Note. N = 300 for sample 1; N = 160 for sample 2. \*p < .05, one-tailed; \*\*p < .01, one-tailed. A = Agreeableness. C = Conscientiousness. ES = Emotional Stability. OCB = Organizational Citizenship Behavior. CWB = Counterproductive Work Behavior. Hours Worked = hours worked per week. Condition is the order in which the general and work-specific personality measures were completed (1 = work-specific personality measures were completed first; 2 = general personality measures were completed first). Gender, 1 = Female, 2 = Male. Ethnicity, 1 = White, 2 = Black, 3 = Hispanic, 4 = Native American, 5 = Asian, 6 = Other.

## Appendix A

### *Scales and Items for Conscientiousness, Agreeableness, and Emotional Stability*

Variables	Items
Conscientiousness	<ul style="list-style-type: none"><li>• I am always prepared. 我对事总是有所准备。</li><li>• I leave my belongings around. 我常把自己的东西到处乱放。</li><li>• I pay attention to details. 我注重细节。</li><li>• I make a mess of things. 我常把事情搞得一团糟。</li><li>• I get chores done right away. 平常的事我能马上就处理，不拖。</li><li>• I often forget to put things back in their proper place. 我常忘记把东西放回该放的地方。</li><li>• I like order. 我喜欢有条理。</li><li>• I shirk my duties. 我常逃避责任。</li><li>• I follow a schedule. 我常按计划行事。</li><li>• I am exacting in my responsibilities. 我对份内职责力求准确无误。</li></ul>
Agreeableness	<ul style="list-style-type: none"><li>• I feel little concern for others. 我不关心其他人。</li><li>• I am interested in people. 我对人感兴趣。</li><li>• I insult people. 我容易冒犯别人。</li><li>• I sympathize with others' feelings. 我容易冒犯别人。</li><li>• I am not interested in other people's problems. 我对别人遇到的问题不感兴趣。</li><li>• I have a soft heart. 我心肠软。</li><li>• I am not really interested in others. 我对他人不太感兴趣。</li><li>• I take time out for others. 我会抽时间帮助别人。</li><li>• I feel others' emotions. 我能感受别人的情绪。</li><li>• I make people feel at ease. 我常让人觉得很自在。</li></ul>

Appendix A (Continued)

*Scales and Items for Conscientiousness, Agreeableness, and Emotional Stability*

Variables	Items
Emotional stability	<ul style="list-style-type: none"><li>• I get stressed out easily. 我容易觉得压力过大。</li><li>• I am relaxed most of the time. 我大多数时间都比较放松。</li><li>• I worry about things. 我担心的事多。</li><li>• I seldom feel blue. 我很少感到忧郁。</li><li>• I am easily disturbed. 我易受干扰。</li><li>• I get upset easily. 我容易心烦意乱。</li><li>• I change my mood a lot. 我情绪波动很大。</li><li>• I have frequent mood swings. 我的情绪经常不稳定。</li><li>• I get irritated easily. 我容易生气。</li><li>• I often feel blue. 我经常感到忧郁。</li></ul>
Work-specific conscientiousness	<ul style="list-style-type: none"><li>• I am always prepared <b>at work</b>. <u>在工作中</u>, 我对事总是有所准备。</li><li>• I leave my belongings around <b>at work</b>. <u>在工作中</u>, 我常把自己的东西到处乱放。</li><li>• I pay attention to details <b>at work</b>. <u>在工作上</u>, 我注重细节。</li><li>• I make a mess of things <b>at work</b>. <u>在工作上</u>, 我常把事情搞得一团糟。</li><li>• I get chores done right away <b>at work</b>. <u>工作上</u>的事我能马上就处理, 不拖。</li><li>• I often forget to put things back in their proper place <b>at work</b>. <u>在工作中</u>, 我常忘记把东西放回该放的地方。</li><li>• I like order <b>at work</b>. <u>在工作上</u>, 我喜欢有条理。</li><li>• I shirk my duties <b>at work</b>. <u>在工作上</u>, 我常逃避责任。</li><li>• I follow a schedule <b>at work</b>. <u>在工作上</u>, 我常按计划行事。</li><li>• I am exacting in my responsibilities <b>at work</b>. <u>在工作上</u>, 我对份内职责力求准确无误。</li></ul>

Appendix A (Continued)

*Scales and Items for Conscientiousness, Agreeableness, and Emotional Stability*

Variables	Items
Work-specific agreeableness	<ul style="list-style-type: none"> <li>• I feel little concern for others <b>at work</b>. <u>在工作中</u>, 我不关心其他人。</li> <li>• I am interested in people <b>at work</b>. <u>在工作中</u>, 我对人感兴趣。</li> <li>• I insult people <b>at work</b>. <u>在工作中</u>, 我容易冒犯别人。</li> <li>• I sympathize with others' feelings <b>at work</b>. <u>在工作中</u>, 我能同情他人的感受。</li> <li>• I am not interested in other people's problems <b>at work</b>. <u>在工作上</u>, 我对别人遇到的问题不感兴趣。</li> <li>• I have a soft heart <b>at work</b>. <u>在工作中</u>, 我心肠软。</li> <li>• I am not really interested in others <b>at work</b>. <u>在工作上</u>, 我对他人不太感兴趣。</li> <li>• I take time out for others <b>at work</b>. <u>在工作中</u>, 我会抽时间帮助别人。</li> <li>• I feel others' emotions <b>at work</b>. <u>在工作上</u>, 我能感受别人的情绪。</li> <li>• I make people feel at ease <b>at work</b>. <u>在工作上</u>, 我常让人觉得很自在。</li> </ul>
Work-specific emotional stability	<ul style="list-style-type: none"> <li>• I get stressed out easily <b>at work</b>. <u>在工作中</u>, 我容易觉得压力过大。</li> <li>• I am relaxed most of the time <b>at work</b>. <u>在工作中</u>, 我大多数时间都比较放松。</li> <li>• I worry about things <b>at work</b>. <u>在工作上</u>, 我担心的事多。</li> <li>• I seldom feel blue <b>at work</b>. <u>在工作中</u>, 我很少感到忧郁。</li> <li>• I am easily disturbed <b>at work</b>. <u>在工作上</u>, 我易受干扰。</li> <li>• I get upset easily <b>at work</b>. <u>在工作上</u>, 我容易心烦意乱。</li> <li>• I change my mood a lot <b>at work</b>. <u>在工作中</u>, 我情绪波动很大。</li> <li>• I have frequent mood swings <b>at work</b>. <u>在工作中</u>, 我的情绪经常不稳定。</li> <li>• I get irritated easily <b>at work</b>. <u>在工作上</u>, 我容易生气。</li> <li>• I often feel blue <b>at work</b>. <u>在工作中</u>, 我经常感到忧郁。</li> </ul>

Appendix A (Continued)

*Scales and Items for Conscientiousness, Agreeableness, and Emotional Stability*

Variables	Items
OCB-Is	<ul style="list-style-type: none"><li>• Help others who have been absent. 帮助缺勤未到者。</li><li>• Willingly give your time to help others who have work-related problems. 愿意花时间帮助工作上有困难的人。</li><li>• Adjust your work schedule to accommodate other employees' requests for time off. 调整自己的工作日程以配合其他有休假需要的员工。</li><li>• Go out of the way to make newer employees feel welcome in the work group. 特意让新成员觉得自己受到团队的欢迎。</li><li>• Show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations. 即使是在最尴尬的事上或者私人场合也会对同事表现出关心和礼貌。</li><li>• Give up time to help others who have work or nonwork problems. 牺牲自己的时间去帮助那些在工作上或者其他方面有困难的人。</li><li>• Assist others with their duties. 协助他人履行职责。</li><li>• Share personal property with others to help their work. 分享个人物品以协助他人的工作。</li></ul>
OCB-Os	<ul style="list-style-type: none"><li>• Attend functions that are not required but that help the organizational image. 分享个人物品以协助他人的工作。</li><li>• Keep up with developments in the organization. 跟得上组织内部的发展。</li><li>• Defend the organization when other employees criticize it. 当组织受到其他员工批评时，为它申辩。</li><li>• Show pride when representing the organization in public. 在公开场合以自己的组织为荣。</li><li>• Offer ideas to improve the functioning of the organization. 为改善组织的运转而出谋划策。</li><li>• Express loyalty toward the organization. 向组织表示忠诚。</li><li>• Take action to protect the organization from potential problems. 采取行动以保护组织免受潜在问题的干扰。</li><li>• Demonstrate concern about the image of the organization. 对组织的形象表示关心。</li></ul>

Appendix A (Continued)

*Scales and Items for Conscientiousness, Agreeableness, and Emotional Stability*

Variables	Items
CWB-Is	<ul style="list-style-type: none"><li>• Made fun of someone at work. 在工作中取笑某人。</li><li>• Said something hurtful to someone at work. 在工作中对某人说一些会给对方带去伤害的话。</li><li>• Cursed at someone at work. 在工作中咒骂某人。</li><li>• Played a mean prank on someone at work. 在工作中对某人搞恶作剧。</li><li>• Acted rudely toward someone at work. 在工作中粗暴地对待某人。</li><li>• Publicly embarrassed someone at work. 在工作中公然使某人难堪。</li></ul>
CWB-Os	<ul style="list-style-type: none"><li>• Taken property from work without permission. 未经允许将公司财物据为己有。</li><li>• Spent too much time fantasizing or daydreaming instead of working. 花太多时间在空想或做白日梦而非工作上。</li><li>• Falsified a receipt to get reimbursement for more money than you spent on business expenses. 伪造发票来报销超出实际业务所花费的钱。</li><li>• Taken an additional or longer break than is acceptable at your workplace. 在工作间隙超时休息或者额外休息。</li><li>• Come in late to work without permission. 未经许可的上班迟到。</li><li>• Littered your work environment. 在工作场所中乱扔东西。</li><li>• Neglected to follow your boss's instructions. 忽略并不遵守上级指示。</li><li>• Intentionally worked slower than you could have worked. 故意慢条斯理地工作。</li><li>• Discussed confidential company information with an unauthorized person. 和未经许可的人讨论公司的机密信息。</li><li>• Consumed alcohol on the job. 工作时间饮酒。</li><li>• Put little effort into your work. 不努力工作。</li><li>• Dragged out work in order to get overtime. 为了加班费而刻意拖延时间工作。</li></ul>