Domain-Specific Core Self-Evaluations and Stressors as Predictors of Strains

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DOMAIN-SPECIFIC CORE SELF-EVALUATIONS
AND STRESSORS AS PREDICTORS OF STRAINS

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science

By

MICHAEL RAYMOND HOEPF
B.A., Bowling Green State University, 2008

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I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY SUPERVISION BY Michael Raymond Hoepf entitled Domain-specific Core Self-evaluations and Stressors as Predictors of Strains BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF Master of Science

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ABSTRACT

Hoepf, Michael Raymond. M.S., Department of Psychology, Wright State University, 2009. Domain-specific Core Self-evaluations and Stressors as Predictors of Strains.

The current study examines the use of a frame-of-reference (FOR) in the evaluation of core self-evaluations, stressors and strains. The study investigates the prediction that using a FOR that matches predictors and outcomes will result in a stronger relationship between the constructs being measured, specifically CSE, stressors, and strains. In addition, the study examines the extent to which following this procedure will add incremental validity after non-contextualized predictors are controlled. The hypotheses in this study were generally supported, although the hypotheses related to the school domain were not supported as strongly as those related to general and work domain. The author discusses potential implications, limitations and ideas for future research.

Keywords: frame-of-reference, stress, strain, core self-evaluations
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Introduction

One of the most fundamental questions for industrial-organizational psychology is the extent to which job factors affect employee health and well-being (Spector, Chen, & O’Connel, 2000), and organizations are becoming increasingly conscious of the detrimental impact of stress on organizational performance (Guenole, Chernyshenko, Stark, McGregor, & Ganesh, 2008). Zellars, Perrewe, and Hochwarter (2006) estimate that stress cost organizations billions of dollars annually in disability claims, absenteeism, and lost productivity. Although it is clear that stress is important, it is also imperative to consider individual dispositions when studying strain.

Cronbach (1957; p.671) declared that human behavior is influenced by both the person and the situation, and urged researchers to value and emphasize both—a perspective known as ‘‘interactionism.’’ Eysenck (1991) agrees with the interactionist perspective suggesting that psychosocial variables, particularly personality and stress, are important risk factors for cancer and coronary heart disease (CHD), equal in importance to smoking, heredity, cholesterol level, blood pressure, and other physical variables. Furthermore, Eysenck (1991) suggest that stress and personality factors act synergistically; that is, each by itself is relatively benign, but their effects multiply to produce high levels of disease. For example, individuals with low levels of negative affectivity may not be particularly strained from a stressor such unclear instructions, but individuals with high degrees of negative affectivity may experience significant strain, such as job dissatisfaction, as a result of the stressor.

In order to reduce strain in the workplace, it is necessary to a measure stressors and strains accurately. Bandwidth-fidelity, a term often used to describe the breadth of a
scale, is a useful concept for this task. Bandwidth-fidelity answers the question: how narrow or broad is the measure? Previous research has addressed the issue of bandwidth-fidelity regarding the measurement of personality as a predictor and job satisfaction as a criterion (e.g., Hogan & Roberts, 1996; Ones & Viswesvaran, 1996), but limited research (Bowling, Wang, Tang, & Kennedy, 2010) has examined this issue in regards to the stressor-strain relationship, or for Core-self-evaluations (CSE). The current research will investigate the proposal that using a frame-of-reference that matches the breadth (i.e., broad with broad and narrow with narrow) of predictors (personality and stressors) with the criteria (strains) will result in stronger correlations than mismatching the predictors and criteria (i.e. broad with narrow and narrow with broad). An example of matching a predictor with a criterion variable might include using a measure of role conflict at work to predict job satisfaction (both are narrow measures about work). A situation in which the predictor and criterion are mismatched might include using that same measure of role conflict at work, but using it to predict life satisfaction (use of a narrow measure to predict a broad criterion variable). Although researchers have used the concept of bandwidth-fidelity in many fields, the use of this concept in occupational health has been limited. The goal of the current research is to extend the use of bandwidth-fidelity in the measurement of stressors, strains, and personality.

**Stressors, Strains, and Personality**

Work stressors are environmental factors at work that lead to individual strains (Beehr, 1995). Commonly researched job stressors are role conflict and role ambiguity (Beehr 1995). Meta-analysis indicates that role conflict and role ambiguity are valid constructs in organizational behavior research that are usually associated with negative
outcomes (Jackson & Schuler, 1985). Role conflict is the perception of incompatible or incongruent demands placed on role incumbent (Abdel-Halim, 1978). An example of role conflict would be an individual’s regional manager asking them to focus on sales and their store manager telling them to focus on customer service. Role ambiguity refers to a condition in which the information available to a given organizational position is inadequate or vague (Abdel-Halim, 1978). An example of role ambiguity would be a CEO declaring that the company should be more profitable, but not describing any specific ways in which to accomplish that task. These stressors are important because they cause strain.

Strains are aversive and potentially harmful reactions to stressors (Beehr, 1995). There are three different categories of job strains: behavioral, physical, and psychological (Jex & Beehr, 1991). Behavioral strains are maladaptive actions people engage in response to job stressors, such as drinking alcohol on the job or staying home when not ill (Jex & Beehr, 1991). Physical strains are manifestations of health, such as disease or physiological symptoms (e.g., headache, Jex & Beehr, 1991). Psychological strains are affective reactions, including attitudes (e.g., job dissatisfaction) or emotions (e.g., anxiety, depression or frustration, Jex & Beehr, 1991). Furthermore, occupational stressors have been associated with numerous health problems including headaches, weight control, gastrointestinal concerns, heart disease, compromised immune systems, and psychological disorders (Zellars, Perrewe, Hochwarter, & Anderson, 2006). Research has shown that occupational stressors may contribute to the etiology, progression, and chronicity of pain problems in workers (e.g., Beaton, Murphy, & Pike, 1996). Jex and Beehr (1991) identified lack of control, interpersonal conflict, organizational constraints,
role ambiguity, role conflict, and workload as being important job stressors. Furthermore, Keenan and Newton (1985) underscored the importance of interpersonal conflict on performance, and Peters and O’Connor (1980) give emphasis to the significance of organizational constraints on performance. However, as indicated by the interactionist perspective, both the situation and the person influence outcomes. Thus, when considering the stressor-strain relationship, it is important to take into account individual differences.

Some individuals are more prone to experience higher or lower levels of strain because of enduring personality characteristics (Spector et al., 2000). Some individuals may experience higher levels of strain when exposed to the same environmental stressors as other individuals. Thus, it is important to consider the impact of personality when studying the stressor-strain relationship because stress and personality act synergistically; that is, each factor by itself may not be very harmful, but their combined effects can multiply to produce high levels of strain (Eysenck, 1991). It is also possible for personality to act as a buffer to stressors, which would result in stressors leading to less strain for individuals possessing certain personality characteristics. It is therefore necessary to examine the personality literature to determine which personality characteristics are likely to interact positively and negatively with stress.

Advancing research about individual differences in propensity to experience stress processes, and learning how individual differences influence coping styles, can help employers select individuals who will be best suited to stressful working conditions (Kammeyer-Mueller, Judge & Scott, 2009). Thousands of articles have focused on the role of self-esteem, self-efficacy, locus of control, and emotional stability (Judge, Bono,
& Thoresen, 2003), but recent studies have suggested that researchers may simply be complicating our understanding of the role of dispositions in the stress process by segregating these variables (e.g., Judge, Bono, & Thorensen, 2003; Kammeyer-Mueller et al. 2009). To resolve this problem, self-esteem, dispositional self-efficacy, locus of control, and emotional stability have been unified under a single empirical and theoretical framework described as core self-evaluations (CSE; Judge, Kluger, & Durham, 1988; Kammeyer-Mueller et al. 2009). Specifically, individuals with positive core self-evaluations appraise themselves in a consistently positive manner across situations; such individuals see themselves as capable, worthy, and in control of their lives (Judge, VanVianen, & DePater, 2004, pp. 326-327). Furthermore, these individuals are more motivated (Erez & Judge, 2001), perform their work more effectively (Judge, Erez, Bono, & Thoreseu, 2003), and are more satisfied with their work and lives (Judge & Bono, 2001) than individuals with negative core self-evaluations. After a decade of research, researchers have concluded that CSE explains much of the overlap among these trait measures, while also predicting many work and other applied outcomes better than the individual traits (e.g., Bono & Judge, 2003; Judge, Erez, Bono, & Thoresen, 2003).

In addition, CSE contributes to the degree to which stressors increase strains (differential reactivity; Kammeyer-Mueller et al. 2009). Perhaps most importantly in regards to this study, high CSE has been associated with lower levels of strain (Kammeyer-Mueller et al. 2009). Although CSE is a relatively new concept and the mechanisms for why this is the case are not fully understood, it is logical to assume that those mechanisms are similar to other personality variables. For example, Spector (2000) discusses several feasible mechanisms through which NA might affect job stressors and
job strains. These mechanisms include the perception mechanism, the hyper-responsivity mechanism, the selection mechanism, the stressor creation mechanism, and the mood mechanism. It makes sense for some of these mechanisms to translate from NA to CSE. For example, the perception mechanism suggest that individuals with high levels of NA will be likely to perceive their jobs as having high levels of stressors, which leads to high levels of strain. It is likely that individuals with high levels of CSE will perceive their jobs as being more manageable and having lower levels of stressors, which leads to less strain (Judge et al., 1998). In addition, the selection mechanism suggests that high NA people self-select into objectively more stressful jobs that low NA people. It could also be the case that high CSE people chose more complex job with more autonomy that have lower levels of stressors, which leads to less strain (Judge et al., 2000; Judge, Erez, Bono, & Thoresen, 2002). The stressor creation mechanism suggests that high NA individuals will create job stressors for themselves, which leads to higher levels of strain. It is certainly conceivable that high CSE individuals do just the opposite, actually reducing potential job stressors, which leads to lower levels of strain.

Thus, CSE is a useful unifying construct, and it is worthwhile to consider the different components that comprise it. Self-esteem, self-efficacy, locus of control, and emotional stability correlate on average .59, which would be described as moderately strongly (Judge, 2009). In addition, factor loadings for the four core traits suggest that they indicate a common concept, but this does not mean that there is no meaningful variance attributable to the individual traits (Judge, 2009). Because CSE is a somewhat new concept, there is considerably more research on the traits that constitute it. It is
therefore necessary to review the past research on these traits to understand why CSE is a
useful and valid construct.

**Self-esteem.** Researchers have found buffer effects of self-esteem (e.g.,
Mossholder, Bedeian, & Armenakis, 1981, 1982) as well as a general sense of
competence, (Bhagat & Allie, 1989) such that stressors are less detrimental when
individuals have positive self-perceptions of themselves. Much of the theoretical basis for
examining the effects of self-esteem on role stressors has come primarily from
Brockner’s (1983) plasticity hypothesis, which states that the environment influences
individuals with low self-esteem more than individuals with high self-esteem.
Furthermore, individuals with low self-esteem tend to use more passive forms of coping
than their high self-esteem counterparts (e.g., Kinicki & Latack, 1990). This makes low
self-esteem individuals more vulnerable to the effects of work stressors, because coping
with stressors may require considerable effort on the part of employees (Hall, 1972). Jex
and Elacqua (1999) found additional support for these moderating effects. In addition
self-esteem has been shown to predict life satisfaction (e.g., Judge, 2009; Bowling,
Wang, Tang, & Kennedy, 2010).

**Self-efficacy.** One type of self-belief that has been researched quite extensively
but, as yet, has received relatively little attention in the occupational stress literature is
self-efficacy (Jex & Bliese, 1999). There are currently two ways of thinking about self-
efficacy, dispositional (i.e. generalized) and task specific, the current study examines
dispositional self-efficacy. Generalized self-efficacy is one’s estimate of his or her own
capabilities of performing at a global level across many contexts (Bono & Judge, 2003).
Dispositional self-efficacy fits well with the general CSE scale, which is likely why Judge (1988) included it as one of the four components of the CSE scale.

Self-efficacy is likely to have an impact on the way in which employees cope with stressors in the workplace (Leiter, 1991). Researchers have found that individuals with high levels of self-efficacy tend to use problem-focused coping strategies whereas the coping strategies of individuals with low self-efficacy are likely to be more emotion focused (e.g., Jex & Bliese, 1999). Phrased differently, individuals who are high in self-efficacy are likely to do something about stressors whereas individuals who are low in self-efficacy are likely to worry about them. Not surprisingly, compared to emotion-focused strategies, individuals using a problem focused coping strategy generally facilitate more adaptive responses to stressors (e.g., Kinicki & Latack, 1990).

**Locus of control.** Locus of control represents beliefs regarding the causes of events (Rotter, 1966). Organizational research has suggested that an internal locus of control is positively related to positive outcomes such as high motivation and job satisfaction (e.g., Spector, 1982). In addition meta-analysis indicates that an internal locus of control is positively associated with favorable work outcomes, such as positive task and social experiences, and greater job motivation (Ng, Sorensen, & Eby, 2006; Wang, Bowling, & Eschleman, in press). Individuals with an external locus of control also generally have more negative reactions than internals when faced with the same stressors (Storms & Spector, 1987). In addition, locus of control is also related to health. Empirical evidence has demonstrated that individuals with an internal *health* locus of control, that is, individuals who feel that they have control over the state of their health, are more likely to engage in positive health behaviors (e.g., Wallston, Wallston, & DeVellis,
1978). Furthermore, individuals with an external health locus of control, who do not feel as much control, are less likely to engage in positive health behaviors. In addition, individuals who have an internal health locus of control generally adhere more readily to an exercise program and seek out more health-related information than individuals with an external health locus of control (Carter, Lee, & Greenlocke, 1987).

**Emotional stability.** Research has demonstrated a negative relationship between emotional stability and strain (e.g., Spector et al., 2000). Kammeyer-Mueller, Judge and Scott (2009) suggested that emotional stability is related to stressors primarily through its association with CSE, and they found that emotional stability (as well as self-esteem and locus of control) is associated with lower levels of perceived stressors. Based on this literature regarding CSE and emotional stability, researchers suggest that people who consider themselves worthy and able to cope with life’s exigencies bring a ‘positive frame’ to the events and situations they encounter whereas people who do not see themselves as worthy and able bring a ‘negative frame’ to the same situations (e.g., Judge et al., 1998, pp.30-31).

Thus, stressors, strains, and personality are relevant to the interactionist perspective, and the research on these topics is well established. However, our capabilities as researchers to measure these constructs has yet to reach its full potential. Researchers have sought to improve the measurement of personality to aid in prediction of job performance for years. Better assessment of stressors would almost certainly lead to improved prediction of strain, and incorporating the use of a frame into the measurement of these variables could lead to improved prediction of workplace strain.
Frame-of-Reference

The measurement of job stressors, personality and strains is something that is important to consider when discussing methods of reducing job strain. In order to know to what extent employees are experiencing strain, it is necessary to be able to assess strain accurately. In addition, it is important to be able to assess the stressors and personality variables that cause strain with precision. Without accurate assessment of these variables, researchers cannot determine if they are successful in reducing strain in a precise and meaningful way.

Using a frame-of-reference (FOR) is a concept that can be adapted into many self-report measures. Using a FOR involves giving participants a point of reference such as work, or school, so that they can answer the questions in a survey in the manner in which the researcher intended (e.g., Bing, Whanger, Davison, VanHook, 2004; Hunthausen, Truxillo, Bauer, & Hammer, 2003; Lievens, De Corte, Schollaert, 2008; Schmit, Ryan, Stierwalt, & Powell, 1995). This concept is useful in many situations. For example, an individual’s personality may vary depending on if they are at work, school, or at home. Using a frame-of-reference has been hypothesized to reduce variability in the interpretation of items in both between-subjects designs (e.g., Bing et al., 2004) and within-subjects designs (e.g., Lievens et al., 2008, Study 2). Lievens et al. (2008) explore two possible explanations for why using a frame-of-reference leads to increased criterion-related validity of personality inventories. The authors confirmed their explanation, showing that reliability was affected by within-person inconsistency, and that criterion-related validity was affected by between-person variability (the number of test-takers using a correct frame-of-reference) and within-person inconsistency (the number of items
rated with a correct frame-of-reference) in item responding. Between-person variability results because of individual differences. For example, work may be more salient to a prominent businessman than to a stay-at-home mom. Within-person inconsistency results from an individual changing their point of view on different items. For example, an individual might recall their conscientiousness at work by thinking of their good attendance. However, that same individual might think of an entirely different situation to answer a question about locus of control, perhaps recalling their family life instead of their work life.

Reducing between-person variability and within-person inconsistency generally increases the predictive validity of personality measures (Lievens et al., 2008). Hunthausen et al. (2003) demonstrated this in a field study at a major airline in the US. The researchers found that providing an “at work” frame-of-reference moderated the validity of extraversion and openness to experience subscales after controlling for cognitive ability. In addition, the frame-of-reference personality test demonstrated incremental validity over cognitive ability when the standard personality test did not (Hunthausen, et al., 2003). Thus, it is clear that the use of a frame-of-reference has potential to increase the validity of personality test in organizational settings.

In order to explain the change in validity for between subjects designs Lievens et al. (2008) suggest that the criterion-related validity of a generic personality will increase when people interpret the items using a frame-of-reference that shows conceptual overlap with the criterion (i.e., using the correct frame-of-reference). Conversely, the validity will decrease when people interpret generic items using a frame-of-reference that does not show conceptual overlap with the criterion (i.e., using an incorrect frame-of-reference).
This reasoning effectively builds on the notion that conceptually, matching predictors and criterion can improve the validity of measures (e.g., Binning & Barrent, 1989).

Lievens et al. (2008) conceptually explain within-person inconsistency within the context of schema theory. According to schema theory, a survey respondent compares the content of each test item with a cognitive schema (Aroson & Reilly, 2006). The schema then provides a cognitive context for processing relevant self-information. Specifically, respondents will use the schema to conduct a selective memory search to find self-related information. Evidence suggests that respondents will then typically choose autobiographical memories that serve them best (e.g., Kunda & Sanitioso, 1989). Because generic personality inventories do not specify the frame-of-reference required to respond to the items, not all items activate the same schema. Hence, people might use different schemata, and also a different frame-of-reference, from one item to another for selecting relevant self-information. According to the explanation of Lievens et al. (2008), within-person inconsistency affects internal consistency. If different test takers rate the same item from a different perspective, the covariance among these items will be essentially a covariance between “different” items (Lievens et al. 2008). Consequently, using a frame-of-reference in the directions of a survey can help to reduce these problems.

Frame-of-reference research has shown a great deal of potential in the field of I/O. Although somewhat new, using a frame-of-reference is an application of the broad concept of bandwidth-fidelity, a concept researched for years. Bandwidth-fidelity may help to explain why the use of a frame-of-reference should be branched to other domains. For these reasons, it is interesting to review the literature regarding bandwidth-fidelity.
Level of Specificity

According to Cronbach (1960) bandwidth-fidelity describes two separate but related concepts. Bandwidth describes ‘…the amount or complexity of the information one tries to obtain in a given space of time’ (Cronbach, 1960). Although Cronbach does not directly define fidelity, he helps clarify the concept with terms such as accuracy, validity, and reliability. Following Cronbach, it seems appropriate to view bandwidth on a continuum from large or wide to small or narrow and fidelity as being on a continuum ranging from high to low (Hogan & Roberts, 2009).

Fishbein and Ajzen (1973) initiated some interesting research regarding measurement on a broad vs. narrow level. They concluded that researchers cannot expect traditional measures of general attitudes toward objects to predict specific behaviors adequately (Fishbein & Ajzen, 1973). That is, general attitudes toward objects are good predictors of multiple-act criteria, but poor predictors of single-act criteria (Fishbein & Ajzen, 1974). Regarding specific behavior, they determined that the best immediate relevant predictor of specific actions is a person’s behavioral intention (Fishbein & Ajzen, 1973). Furthermore, they suggested that the application of standard attitude scaling procedures may be one effective method of addressing the issue of measuring specific actions. Although Fishbein and Ajzen described their research as the principal of compatibility, conceptually it is the same as bandwidth-fidelity.

Since then, Ones and Viswesvaran (1996), among others, have investigated issues in bandwidth-fidelity that stem from Fishbein and Ajzen’s (1973) work. Researchers agree that there is a need to match the characteristics of predictors to the characteristics of criteria (e.g., Hogan & Roberts, 1996; Ones & Viswesvaran, 1996). That is, general,
broad predictors will predict broad criteria better than specific predictors (Ones & Viswesvaran, 1996). However, researchers do not agree entirely on how researchers should apply this concept. Ones and Viswesvaran (1996) declared that there is a need for the next generation of organizational behavior researchers to evaluate the usefulness of broad personality constructs in explaining organizational behavior constructs systematically. Ultimately, they advocated using broad personality measures to predict work outcomes.

Conversely, other researchers have suggested researchers should not engage in this practice. Specifically, Schneider, Hough, and Dunnette (1996) suggested that the development of theories that incorporate greater specificity should enable researchers to exploit the explanatory power associated with the variance unique to narrow traits to provide understanding of behavior not provided by broad traits alone. Furthermore, narrow traits retain specificity that can add substantially to criterion-related validity (Schneider, Hough, & Dunnette, 1996). Ashton (1998) found support for this view, finding that integrity-related personality traits (narrow traits) are better predictors of job performance than are those that subsume them. He concluded that optimal predictors of job performance will sometimes require the use of narrow personality measures as predictors.

It should be noted that the disagreement on this topic between Ones and Viswesvaran (1996) and other researchers (e.g., Schneider, Hough, & Dunnette, 1996) regarding bandwidth-fidelity was likely due to the criteria of job performance. Job performance is fairly complex and broad criteria, so it is possible that Ones and Viswesvaran (1996) concluded that broad personality traits predicted that criteria better.
because the predictor and the criteria matched (that is, broad to broad). What is important to take away from the discussion of bandwidth-fidelity is the largely agreed upon conclusion that we should choose measures that match our research goals. If one is interested in predicting a broad concept such as job performance, broad personality measures might be well suited to this goal. However, if one is interested in a specific aspect of job performance, it is likely that a more specific personality measure will be more useful. More research is needed that incorporates different organizational variables and outcomes.

**Filling the Research Gap**

Although previous research has addressed the issue of bandwidth-fidelity regarding the measurement of personality as a predictor and performance as a criterion (Ones & Viswesvaran, 1996; Hogan & Roberts, 1996), no research has examined this issue in regards to the stressor-strain relationship. These prior studies have examined the effects of measuring personality broadly and narrowly in relation to job performance. However, job performance is a complex, broad criterion, which might explain why Ones and Viswesvran (1996) suggested that using broad personality measures were more effective. Subsequent studies, however, have determined that there may be merit in using narrower, specific measures of personality (e.g., Ashton, 1998). In addition, FOR research has looked mostly at the big five, not CSE. The stressor-strain relationship has yet to be examined in this context. The current study seeks to fill this research gap.

**Conclusion and Hypotheses**

The current study incorporates the suggestion of Ones and Viswesvaran (1996) that there is a need to match the characteristics of predictors to the characteristics of
criteria. This research advocates the use of a FOR to accomplish this goal. It is likely that using a broad FOR in predictor measures will be more accurate in predicting broad criteria than using a specific FOR, and that using a specific FOR in predictor measures will be accurate in predicting specific criteria than using a broad FOR. In other words, this research investigates the claim that researchers should use broad measures to predict broad criteria and narrow measures to predict narrow criteria.

Furthermore, the current study attempts to help fill the gap in the literature regarding the measurement of stressors, strains, and personality. There has been substantial research supporting the use of a frame-of-reference (e.g., Leivens et al. 2008, & Bing et al. 2004) as well as the notion of using broad measures to predict broad criteria and narrow measures to predict narrow criteria (e.g., Ones & Viswesvaran, 1996), but no research has directly used these concepts while examining the stressor-strain relationship. Furthermore, researchers have not conducted any FOR studies on core self-evaluations either. Based on the usefulness demonstrated by the two aforementioned concepts, (FOR and bandwidth-fidelity), the current study proposes the following hypotheses:

**Hypotheses:**

1. **A:** General stressors will be better predictors of general strain than will work stressors.
   **B:** After controlling for work stressors, general stressors will still predict general outcomes.

2. **A:** Work stressors will be better predictors of work strain than will general stressors.
   **B:** After controlling for general stressors, work stressors will still predict work outcomes.

3. **A:** School stressors will be better predictors of school strain than will general stressors.
   **B:** After controlling for general stressors, school stressors will still predict work outcomes.
4. A: General CSE will be a better predictor of general strain than will work CSE. 
   B: After controlling for work CSE, general CSE will still predict general 
   outcomes.

5. A: Work CSE will be a better predictor of work strain than will general CSE. 
   B: After controlling for general CSE, work CSE will still predict work outcomes.

6. A: School CSE will be a better predictor of work strain than will general CSE. 
   B: After controlling for general CSE, school CSE will still predict work 
   outcomes.
Method

Participants

Participants in this study included 309 students enrolled in undergraduate psychology courses who worked at least 20 hours a week and had been working at their current job for at least 12 months. The author asked participants to complete the questionnaire in exchange for research credit. Data was collected between September 2009 and November 2009.

Procedure

The researcher compiled the measures into a large questionnaire that participants accessed through the Wright State University SONA system. Participants completed the items with an at-work, at school, and a general frame-of-reference (see Lievens et. al., 2008). These frames-of-reference were operationalized by adding context tags after each item (see Schmit, Ryan, & Stierwalt, & Powell, 1995). In light of possible item order effects, (see Knowles, 1988) the author were administered the items randomly to the participants. However, the sections varied, such that the author administered the items for specific types of scales together, but the domains varied. For example, participants were given all of the anxiety items on one web page, but the three different scales on anxiety (general, work, and school), were presented randomly to prevent ordering effects. In addition, the sections were also presented randomly to prevent ordering effects of sections.

Predictor Measures

General core self-evaluations (CSE). Core self-evaluations were measured using a 12 item measure developed by Judge et al. (2003). The complete measure is
included in Appendix A. Using the response scale 1 (strongly disagree) – 5 (strongly agree), participants were asked to indicate their agreement or disagreement with each item by placing the appropriate number on the line preceding that item. The measure was be scored by averaging the scores on each of the items. The researcher obtained a coefficient alpha of .87 for this measure.

**Core self-evaluations at work.** We measured CSE at work using a 12 item measure created by Bowling et al. (2009) and adapted from Judge’s general measure of CSE. Bowling et al. (2009) added the phrase “at work” to each item, (usually at the end of the item), in order to add a work FOR to the CSE scale. An example item from this scale would be “Sometimes, I do not feel in control at work.” The complete measure can be found in Appendix B. Bowling et al. (2010) has compiled pilot data suggesting that this is a valid scale. The scaling is the same the original CSE scale. Bowling et al. (2009) observed that the scale correlated .60 with job satisfaction, .47 with life satisfaction, and .78 with general CSE (N = 204). The researcher obtained a coefficient alpha of .84 for this measure.

**Core self-evaluations at school.** The researcher measured CSE at school using a 12 item measure adapted from Judge’s general measure of CSE. The researcher added the phrase “at school” to each item, (usually at the end of the item), in order to add a school FOR to the CSE scale. An example item from this scale would be “Sometimes, I do not feel in control at school.” The complete measure can be found in Appendix C. The researcher obtained a coefficient alpha of .88 for this measure.

**General role conflict.** A general measure of role conflict is not currently available, so we pilotied a measure adapted from the role conflict measure developed by
Glazer and Beehr (2005). We did so by adding a general frame-of-reference to each item, usually at the end of each item. An example item from this scale might include “I receive incompatible requests from two or more people in my life.” For the complete measure, see Appendix D. The researcher obtained a coefficient alpha of .76 for this measure.

**Role conflict at work.** Role conflict at work was measured using the five item Role Conflict measure developed by Glazer and Beehr (2005). The rating key for this measure ranges from 5 (strongly agree) to 1 (strongly disagree). The items are reverse scored so that high scores on these scales indicated role conflict. The measure is scored by averaging the response for each item. A sample item from this scale is “I work on unnecessary things.” Glazer and Beehr (2005) found that confirmatory factor analyses (CFAs) across countries were adequate (Goodness of fit indices (GFI) = 0.94 in Hungary, 0.92 in Italy, 0.89 in the U.K., and 0.92 in the U.S.A., and Tucker–Lewis fit indices (TLI) = 0.88, 0.87, 0.90, and 0.91, respectively). For the complete measure, see Appendix E. The researcher obtained a coefficient alpha of .73 for this measure.

**Role conflict at school.** A measure of role conflict at school is not currently available, so we piloted a measure adapted from the role conflict measure developed by Glazer and Beehr (2005). The researcher did so by adding a school FOR to each item, usually at the end of each item. An example item from this scale includes “I receive incompatible requests from two or more people at school.” For the complete measure, see Appendix F. The researcher obtained a coefficient alpha of .67 for this measure.

**General role ambiguity.** A general measure of role ambiguity is not currently available. To resolve this issue we piloted a measure adapted from the role ambiguity measure developed by Glazer and Beehr (2005). We did so by adding a general frame-of-
reference to each item, usually at the end of each item. An example item from this scale includes “I have clear, planned goals and objectives in my life.” The complete measure can be found in Appendix G. The researcher obtained a coefficient alpha of .79 for this measure.

**Role ambiguity at work.** We measured role ambiguity at work with the five item Role Ambiguity measure developed by Glazer and Beehr (2005). The rating key for this measure ranges from 5 (strongly agree) to 1 (strongly disagree). The items are reverse scored so that high scores on these scales indicated role conflict. The measure is scored by averaging the response for each item. A sample item from this scale is “I have clear, planned goals and objectives for my job.” The complete measure is shown in Appendix H. This role ambiguity measure is part of the role stressors developed by Glazer and Beehr (2005) and possesses the same scaling and development as the role conflict measure. The researcher obtained a coefficient alpha of .79 for this measure.

**Role ambiguity at school.** A general measure of role ambiguity is not currently available. To resolve this issue we piloted a measure adapted from the role ambiguity measure developed by Glazer and Beehr (2005). We did do so by adding a school FOR to each item, usually at the end of each item. An example item from this scale includes “I have clear, planned goals and objectives at school.” The complete measure can be found in Appendix I. The researcher obtained a coefficient alpha of .67 for this measure.

**Criterion Measures**

**Life satisfaction.** We assessed life satisfaction using the five item “Satisfaction with Life Scale (SWLS)” developed by Diener, Emmons, Larson, and Griffin (1985). The scale is based on a 5-point Likert scale in which respondents are asked to express the
extent to which they agree or disagree with each of the items. The SWLS is scored by averaging the scores of each item. A sample item is “I am satisfied with my life.” The complete measure is shown in Appendix J. The SWLS has been shown to correlate moderately to strongly with other subjective well being test and to correlate in a predictable way with specific personality characteristics (Diener et al., 1985). The SWLS is suitable for all age groups (Diener et al., 1985). The researcher obtained a coefficient alpha of .88 for this measure.

**Job satisfaction.** We assessed job satisfaction using the three item scale “Michigan Organizational Assessment Questionnaire (MOAQ).” The author used a 5-point agree-disagree scale of the MOAQ. The MOAQ is scored by obtaining the average of the scores on each of the items. A sample item form the MOAQ is “All in all I am satisfied with my job.” The complete measure is shown in Appendix K. It is considered a brief measure of global job satisfaction (Bowling & Hammond, 2008). A meta-analysis by Bowling and Hammond (2008) found that the MOAQ is a reliable and construct valid measure of job satisfaction. The researcher obtained a coefficient alpha of .88 for this measure.

**School Satisfaction.** A measure of school satisfaction that is parallel to the measures the researcher used for job satisfaction and life satisfaction is currently available. To resolve this issue the author piloted a measure adapted from the MOAQ, by adding a school FOR to each item, usually at the end of each item. An example item from this scale includes “All in all I am satisfied with my school.” The complete measure can be found in Appendix L. The researcher obtained a coefficient alpha of .88 for this measure.
**General frustration.** A general measure of frustration that compares to work frustration is not available so we piloted a measure of frustration of life that parallels the work frustration measure developed by Peters, O’Conner, and Rudolf (1980). We did so by adding a general frame-of-reference to each item, usually at the end of each item. Participants were asked to each item on a 5-point Likert scale, and responses are averaged so that a high score indicates more frustration. An example item from this scale includes “Being frustrated is part of my life.” The complete measure can be found in Appendix M. The researcher obtained a coefficient alpha of .71 for this measure.

**Frustration at work.** We assessed frustration with the three item Frustration scale developed by Peters, O’Conner, and Rudolf (1980). Participants were asked to rate each item on a 5-point Likert scale, and responses are averaged so that a high score indicates more frustration. A sample item from this measure is “Being frustrated comes with my job.” The complete measure is shown in Appendix N. The researcher obtained a coefficient alpha of .79 for this measure.

**Frustration at school.** A measure of frustration at school that compares to work frustration is not available so the researcher piloted a measure of general frustration that parallels the work frustration measure developed by Peters, O’Conner, and Rudolf (1980). The researcher did do so by adding a school FOR to each item, usually at the end of each item. Participants are asked to rate each item on a 5-point Likert scale, and responses are averaged so that a high score indicates more frustration. An example item from this scale might include “Being frustrated is part of my school experience.” The complete measure can be found in Appendix O. The researcher obtained a coefficient alpha of .74 for this measure.
**General anxiety.** Anxiety was assessed with the ten item NEO Anxiety measure from the International Personality Item Pool (2009). This scale asks respondents to indicate the degree to which each item accurately describes themselves on a five point Likert-type scale. The response options ranged from 1 (very inaccurate) to 5 (very accurate). The measure is scored by averaging the scores on each individual item so that a high score indicates high anxiety. Items 6-10 are reversed scored. The complete measure is shown in P. The researcher obtained a coefficient alpha of .85 for this measure.

**Anxiety at work.** The researcher piloted a work anxiety measure based on the general NEO Anxiety measure from the International Personality Item Pool (2009). This scale asks respondents to indicate the degree to which each item accurately describes themselves on a five point Likert-type scale. The response options range from 1 (very inaccurate) to 5 (very accurate). The measure is scored by averaging the scores on each individual item so that a high score indicates high anxiety. Items 6-10 are reversed scored. The complete measure is shown in Appendix Q. The researcher obtained a coefficient alpha of .85 for this measure.

**Anxiety at school.** The researcher piloted a school anxiety measure based on the general NEO Anxiety measure from the International Personality Item Pool (2009). This scale asks respondents to indicate the degree to which each item accurately describes themselves on a five point Likert-type scale. The response options range from 1 (very inaccurate) to 5 (very accurate). The measure is scored by averaging the scores on each individual item so that a high score indicates high anxiety. Items 6-10 are reversed scored. The complete measure is shown in Appendix R. The researcher obtained a coefficient alpha of .86 for this measure.
Results

The descriptive statistics and correlations for all of the study variables are reported in Table 2. Consistent with previous research (Bing et al., 2004; Heller, Ferris, Brown, & Watson, 2009), the general CSE measure was significantly ($p < .01$) correlated with the corresponding work-specific CSE measure ($r = .70$). In addition, the general CSE measure was significantly ($p < .01$) correlated with the corresponding school-specific CSE measure ($r = .85$). Furthermore, as shown in Table 2, the general, work-specific, and school-specific personality variables were consistently related to the criterion variables. These latter findings are consistent with previous studies using general personality measures (Judge, Heller, & Mount, 2002; Korotkov, 2008; Korotkov & Hannah, 2004; Salgado, 2002; Steel, Schmidt, & Shultz, 2008; Zimmerman, 2008).

Hypothesis 1a

Analysis testing Hypothesis 1A, which predicted that general stressors would be more strongly related to general criteria than would work-related stressors, are presented in Table 3. To conduct these analyses, the author used Steiger’s (1980) $z$-test of differences in dependent correlations. As shown in table 3, general stressors yielded significantly stronger relationships in 3 of 6 comparisons. Specifically, I found significantly stronger relationships for general stressors for the role conflict-general frustration ($r$ for work-specific = .27; $r$ for general = .40; $z = 3.25$, $p < .01$), the role ambiguity-life satisfaction ($r$ for work-specific = -.35; $r$ for general = -.54; $z = -5.02$, $p < .01$) and the role ambiguity-general anxiety ($r$ for work-specific = .22; $r$ for general = .36; $z = 3.27$, $p < .01$) relationships. Thus, hypothesis 1A was partially supported.
Hypothesis 1b

Hypothesis 1B predicted that general stressors would explain variance in general criteria after the effects of work-stressors were controlled. As displayed in Table 6, the author tested this hypothesis using hierarchical regression analysis. Specifically, I entered employee age and gender into the first step of the equation. In the second step I entered a work-specific stressor and in the third step I entered the general version of the same stressor that was entered in the second step. As shown in Table 6, general role conflict predicted significant incremental variance in life satisfaction ($\Delta R^2 = .02$, $p < .01$), general frustration ($\Delta R^2 = .09$, $p < .01$), and general anxiety ($\Delta R^2 = .04$, $p < .01$). Similarly, general role ambiguity predicted significant incremental variance in life satisfaction ($\Delta R^2 = .17$, $p < .01$), general frustration ($\Delta R^2 = .11$, $p < .01$) and general anxiety ($\Delta R^2 = .08$, $p < .01$). Thus, Hypothesis 1B was fully supported.

Hypothesis 2a

Analysis testing Hypothesis 2A, which predicted that work-specific stressors would be more strongly related to work-related criteria than would general stressors, are presented in Table 4. To conduct these analyses I used Steiger’s (1980) $z$-test of differences in dependent correlations. As shown in table 3, work-specific stressors yielded significantly stronger relationships in 2 of the 6 comparisons. Specifically, I found significantly stronger relationships for work-specific stressors for the role conflict- work frustration ($r$ for work-specific = .45; $r$ for general = .34; $z = -2.74$, $p < .01$), and the role conflict- work anxiety ($r$ for work-specific = .46; $r$ for general = .28; $z = -4.52$, $p < .01$) relationships. Considering these results, Hypothesis 2A was partially supported.
**Hypothesis 2b**

Hypothesis 2B predicted that work-specific stressors would explain variance in work-related criteria after the effects of general stressors were controlled. As displayed in Table 7, I tested this hypothesis using hierarchical regression analysis. Specifically, I entered employee age and gender into the first step of the equation. In the second step I entered a general stressor and in the third step I entered the work-specific version of the same stressor that was entered in the second step. As shown in Table 7, work role conflict predicted significant incremental variance in job satisfaction ($\Delta R^2 = .02, p < .01$), work frustration ($\Delta R^2 = .08, p < .01$), and work anxiety ($\Delta R^2 = .13, p < .01$). Similarly, work role ambiguity predicted significant incremental variance in job satisfaction ($\Delta R^2 = .04, p < .01$), work anxiety ($\Delta R^2 = .02, p < .01$). Thus, Hypothesis 2B was supported in all but 1 of 6 assessments, (work role ambiguity did not predict any of the criteria beyond the effects of general role ambiguity).

**Hypothesis 3a**

Analysis testing Hypothesis 3A, which predicted that school-specific stressors would be more strongly related to school-specific criteria than would general stressors, are presented in Table 5. To conduct these analyses I used Steiger’s (1980) z-test of differences in dependent correlations. As shown in table 5, school-specific stressors did not yield significantly stronger relationships in any comparisons. Thus, Hypothesis 3A was not supported.

**Hypothesis 3b**

Hypothesis 3B predicted that school-specific stressors would explain variance in school-related criteria after the effects of general stressors were controlled. As displayed
in Table 8, I tested this hypothesis using hierarchical regression analysis. Specifically, I entered employee age and gender into the first step of the equation. In the second step I entered a general stressor and in the third step I entered the school-specific version of the same stressor that was entered in the second step. As shown in Table 8, school role conflict predicted significant incremental variance in school frustration ($\Delta R^2 = .01, p < .01$), and school anxiety ($\Delta R^2 = .03, p < .01$). Similarly, school role ambiguity predicted significant incremental variance in school satisfaction ($\Delta R^2 = .05, p < .01$) and school anxiety ($\Delta R^2 = .01, p < .05$). Thus, Hypothesis 3B was partially supported.

**Hypothesis 4a**

Analyses testing Hypothesis 4A, which predicted that general CSE would be more strongly related to general criteria than would work CSE, are also presented in Table 3. To conduct these analyses I used Steiger’s (1980) z-test of differences in dependent correlations. As shown in table 3, general personality yielded significantly stronger relationships in all 3 of the comparisons. Specifically, I found significantly stronger relationships for general personality for the CSE-life satisfaction ($r$ for work-specific = .48; $r$ for general = .71; $z = 6.77, p< .01$), the CSE-general frustration ($r$ for work-specific = -.35; $r$ for general = -.55; $z = -5.35, p< .01$), and the CSE-general anxiety ($r$ for work-specific = -.47; $r$ for general = -.63; $z = -4.68, p< .01$) relationships. Thus, hypothesis 4A was fully supported.

**Hypothesis 4b**

Hypothesis 4B predicted that general CSE would explain variance in general criteria after the effects of work-specific CSE were controlled. As displayed in Table 6, I tested this hypothesis using hierarchical regression analysis. Specifically, I entered
employee age and gender into the first step of the equation. In the second step, I entered work CSE and in the third step, I entered the general CSE. As shown in Table 6, general CSE predicted significant incremental variance in life satisfaction ($\Delta R^2 = .26, p < .01$), general frustration ($\Delta R^2 = .18, p < .01$), and general anxiety ($\Delta R^2 = .17, p < .01$). Thus Hypothesis 4B was fully supported.

**Hypothesis 5a**

Analyses testing Hypothesis 5A, which predicted that work CSE would be more strongly related to work-related criteria than would general CSE, are presented in Table 4. To conduct these analyses I used Steiger’s (1980) z-test of differences in dependent correlations. As shown in Table 4, work CSE yielded significantly stronger relationships in all 3 of the comparisons. Regarding Hypothesis 5A, I found significantly stronger relationships for work CSE for the CSE-job satisfaction ($r$ for work-specific = .49; $r$ for general = .33; $z = -2.98, p < .01$), the CSE-work frustration ($r$ for work-specific = -.54; $r$ for general = -.37; $z = -4.31, p < .01$), and the CSE-work anxiety ($r$ for work-specific = -.65; $r$ for general = -.54; $z = -3.18, p < .01$) relationships. Considering these results, Hypothesis 5A was fully supported.

**Hypothesis 5b**

Hypothesis 5B predicted that work CSE would explain variance in work-related criteria after the effects of general CSE were controlled. As displayed in Table 7, I tested this hypothesis using hierarchical regression analysis. Specifically, I entered employee age and gender into the first step of the equation. In the second step, I entered general CSE and in the third step I entered work CSE. As shown in Table 7, work CSE predicted significant incremental variance in job satisfaction ($\Delta R^2 = .12, p < .01$), work frustration
\( \Delta R^2 = .15, p < .01 \), and work anxiety \( \Delta R^2 = .14, p < .01 \). Thus, Hypothesis 5B was fully supported.

**Hypothesis 6a**

Analyses testing Hypothesis 6A, which predicted that school-specific CSE would be more strongly related to school-related criteria than would general CSE, are presented in Table 5. To conduct these analyses I used Steiger’s (1980) \( z \)-test of differences in dependent correlations. As shown in table 5, school-specific CSE yielded significantly stronger relationships in 1 of the 3 comparisons. Specifically, I found a significantly stronger relationship for school-specific CSE for the CSE-school frustration \( r \) for school-specific = -.54; \( r \) for general = -.48; \( z = 2.47, p < .05 \) relationship. It is important to note in none of the comparisons did general CSE yield significantly stronger relationships than did school specific CSE. Considering these results, Hypothesis 6A was partially supported.

**Hypothesis 6b**

Hypothesis 6B predicted that school-specific CSE would explain variance in school-related criteria after the effects of general CSE were controlled. As displayed in Table 8, I tested this hypothesis using hierarchical regression analysis. Specifically, I entered employee age and gender into the first step of the equation. In the second step I entered general CSE and in the third step I entered school CSE. As shown in Table 8, school CSE predicted significant incremental variance in school satisfaction \( \Delta R^2 = .02, p < .01 \), school frustration \( \Delta R^2 = .05, p < .01 \), and school anxiety \( \Delta R^2 = .04, p < .01 \). Thus Hypothesis 6B was fully supported.
Discussion

In general, the results of this study were consistent with the hypotheses. CSE and stressor variables were consistently related to strain variables as expected. Overall, the hypotheses comparing correlations were generally supported. Matching the frame-of-reference (FOR) of predictors and outcomes often resulted in stronger correlations. Furthermore, although it was often the case that matching the FOR of predictors and outcomes did not result in significantly stronger correlations than not matching them, mismatching the FOR of predictors and outcomes never produced significantly stronger correlations between predictors and outcomes than matching them. Thus, there were no instances in which the data provided significant differences contradicting the hypotheses. In addition, adding an FOR that matched predictors and outcomes often provided incremental validity over control variables and the corresponding incorrectly contextualized predictor measure. Thus, the hypotheses regarding incremental validity were largely supported as well, although the amount of support for each hypothesis differed. The correlation hypotheses were supported about 44% of the time and the incremental validity hypothesis were supported about 88% of the time. Specifically, the hypotheses regarding CSE were supported more strongly than the hypothesis regarding stressors. This is not a surprising finding because past research has shown that adding an FOR to personality measures can improve their predictive validity (e.g. Bing et al., 2004; Hunthausen et al., 2003; Schmit et al., 1995), but extending the use of a FOR to the stress inventories role conflict and role ambiguity is novel to this study. There are several possible reasons to explain why results were weaker regarding stressors as compared to personality (CSE). One explanation for this result is the lower reliabilities the stress
scales (role conflict and role ambiguity) possessed compared to the CSE scales, which may have resulted because the frame-of-reference hypothesis were originally developed with personality in mind.

Another explanation for the lower reliabilities of the stress scales might be the addition of a FOR to certain scales. For example, Glazer and Beehr (2005) created the role conflict and role ambiguity scales to pertain to work. Perhaps role conflict and role ambiguity are simply not stressors that can be relevant to life in general and school, but rather apply more directly to work. Certain items in these scales do not translate flawlessly into a general or school. For example, the first item from the Role Ambiguity at School scale reads “I feel certain about how much authority I have at school,” and the parallel item from the General Role Ambiguity scale reads “Generally speaking, I feel certain about how much authority I have.” With a work FOR these items makes sense, but it understandable that these items might be unclear to participants with a general and/or a school FOR. It may be difficult to think of authority in general because participants are likely tempted to think of one facet of their life, such as their work or family. Furthermore, most students do not typically have much authority.

This possible problem arose because the author of this study deliberately tried to keep the scales parallel, changing only the FOR. By doing so, any improvements in predictive validity could be explained because of the use of a FOR. It is for this reason that the author ultimately chose the current design instead of using non-parallel measures. For example, if a measure of daily life hassles would have been used instead of general role ambiguity, it would be hard to argue that any improvements in predictive validity were due to the use of a FOR.
Another explanation could be that adding an FOR to stress scales does not provide the same strength of results as adding an FOR to personality scales. It is possible that there was no problem with the stress scales, but the results of the current study reflect true predictive validity. It could be the case that adding a FOR to stress scales is not as beneficial of a practice as adding a FOR to personality scales. However, this is likely not the case because there were many instances in which adding a matching FOR to stress scales improved their predictive validity, and there was no evidence found that would suggest the opposite is true.

In addition, the hypothesis involving a general and work FOR were supported more strongly than the hypothesis regarding a school FOR. In general, the measures with a school FOR had lower reliabilities than the measures with a general or school FOR. Once again, it might be the case that trying to incorporate a school FOR to measures that were originally designed to be general or work measures might not have transferred well. Alternatively, it could be the case that adding a school FOR to measures is not as beneficial practice as adding a general or work FOR to measures. However, this is likely not the case as there were instances in which adding a school FOR that matched predictors and outcomes did improve predictive validity of measures, and there were no instances in which mismatching the FOR of predictors and outcomes improved predictive validity. Furthermore, past research has shown this not to be the case (e.g. Schmit et al., 1995).

This research advances the literature in several ways. First, it extends the research of Hunthausen et al., (2003) and Bing et al., (2004) by demonstrating that contextualized personality surveys can provide incremental validity over non-contextualized personality
inventories. In addition, this study used CSE instead of the NEO Five-Factor Inventory to assess personality, which demonstrates that adding an FOR to other preexisting personality inventories is beneficial for improving their validities as well. Second, this research builds on Lievens et al., (2008) and Schmit et al., (1995) by demonstrating that contextualized personality inventories that have conceptual overlap with outcomes will often have improved predictive validity. Once again, the personality inventory used in this study was CSE instead of the NEO Five-Factor Inventory, which further expands the generalizability of this finding. Third, and perhaps most interesting, this research extends the literature on FOR to the field of occupational health. Whereas Hunthausen et al., (2003) used job performance in their study to advance the research of Schmit et al., (1995) who used GPA, the current research examines strain as an outcome measure instead of performance. This demonstrates that there are potentially limitless applications of FOR in research. Improvements in the reliabilities and validities of many measures might be possible by including a FOR. This research has examined the use of a FOR in personality measures, stress measures, and strain measures. In many situations, this provided more predictive power in preexisting measures. In the future researchers should examine the use of a FOR in other domains.

**Future Research**

There are many possible studies that would useful to conduct in order to further the findings of this study. First, it would be useful to replicate the current study design, but to improve on some of the measures that possess lower reliabilities. The author might be able to improve some of the measures in the current study by rewording the items to reflect the FOR intended by the question better, or perhaps it would be more beneficial to
restructure the items for certain measures entirely. For example, the author might improve measures of general role conflict and general role ambiguity by rewriting the items entirely rather than only altering a few words to change the FOR from work to general or school. In addition, it makes sense that researchers should examine the use of a frame-of-reference in different fields of research. Adding a FOR to measures may be useful in virtually any field in industrial and organizational psychology including personnel selection, training job attitudes, and teams. For example, using a FOR will likely be especially useful for personnel selection because of the potential increase in validity of personality measures.

Measures incorporating a FOR should be utilized further to evaluate personality and performance. Based on previous research (e.g., Hunthausen et al., 2003), it seems possible that researchers will be able to vastly improve the predictive validity of personality measures to predict job performance, simply by adding a FOR. For example, Mount and Barrick (1995) found a corrected mean correlation of $r = .31$ between non-contextualized conscientiousness and job proficiency, and Hunter and Hunter (1984) found a cognitive ability have been shown to have a corrected mean correlation of .45 for predicting job proficiency. Eventually, it might be possible for personality measures to match cognitive ability test in their ability to predict job performance. Although using personality in addition to cognitive ability test together provides incremental variance, the improvement of personality test to predict job performance is an important goal in field of I/O because they may be a good alternative to intelligence test, which result in adverse impact (Hunter & Hunter, 1984). Furthermore, although cognitive ability test predict overall job performance, personality might predict specific facets of performance better.
than cognitive ability (Motowidlo & Van Scotter, 1994). This research provides support to suggest that using a FOR in organizations is useful for occupational health, and it is likely that using a FOR is useful to understand different context and environments further.

The author of this study would like to examine other domains other than general, work and school. Specifically, it would be interesting to examine a home or a family domain and a social or friends domain. Researchers would need to determine if there is a significant difference between a home FOR and an outside socialization FOR. Furthermore, the author of this study is curious to know if individuals responded using a home FOR instead of a general FOR in this study. If this was the case, the results of this study might have been strengthened by emphasizing this distinction. In addition, it would be interesting to see how individuals differ when in a relaxed mindset compared to a productive mindset. Specifically, it would be interesting to study the use of a FOR to look at different aspects of mental models. Perhaps researchers should not look at a school or work FOR, but rather a productive FOR vs. a relaxed FOR. Instead of examining personality at work, it might be more constructive to look at personality based on goals. This would make sense for people who work from home, or for some individuals who might waste time at the office, but be productive at other times of the day. It might be the case that physical location is not as important as state of mind.

**Limitations**

Possible limitations of this study include common method variance (CMV), and the use of a cross sectional design with students. However, some researchers would suggest CMV and the use of a student sample are not necessarily a problem. Spector
(2006) argues that the popular position suggesting CMV automatically affects variables measured with the same method is a distortion and oversimplification of the true state of affairs, reaching the status of urban legend. He cast doubt on the idea that the method itself produces systematic variance in observations that inflates correlations to a significant degree. Moreover, common method variance did not necessarily inflate the obtained correlations because several non-significant relationships the author observed in the correlation matrix. For example, general role ambiguity was not significantly related to role ambiguity at work or school satisfaction, although it was significantly related to general satisfaction. These findings suggest that the correlations obtained in this study were due to real and theoretically meaningful relationships, and were not just the result of common method variance. Furthermore, it might be the case that using a student sample is not a limitation. Highhouse (2009) suggest that it is rare in applied behavioral science for the nature of the sample to be an important consideration for generalizability, but some researchers are still stubbornly adhering to the idea that samples matter.

In addition, this study might be somewhat limited by low reliability. Although a pilot study demonstrated acceptable reliabilities overall, some of the measures that were adapted to use a FOR that were different from than the original measures (e.g., role conflict and role ambiguity) demonstrated comparably low reliabilities. It is likely that by improving the measures in this study, it would be possible to obtain stronger correlations between predictors and outcomes. There were many instances in this study in which matching the FOR of predictors and outcomes produced stronger correlations that not doing so, but the difference was not statistically significant. In general, previously established measures tended to produce stronger support for the hypotheses than the
measures that were adapted from their original FOR. By improving the reliabilities of the measures that were adapted, it seems probable that the author could obtain stronger support for the hypotheses.

**Practical Implications**

The practical implications of this study are rather straightforward. Researchers should consider adding a FOR to personality measures to improve their predictive validity. Although the results were stronger for adding a FOR to personality (CSE) measures than stressor and strain measures, there were advantages to adding an FOR to stressor and strain measures. In addition, because there were not instances in which predictive validity was lessened by matching the FOR of predictors and outcomes, researchers should consider adding a FOR other types of measures as well. Overall, this research strongly suggests that adding a FOR to personality measures is a good research practice.

**Summary**

The current research found that contextualized stressors and CSE often yielded significantly stronger relationships with general and work criteria than non-contextualized stressors and CSE, although this was findings was not as strong with school criteria. Furthermore, contextualized predictors (stressors and CSE) consistently yielded incremental validity above and beyond the effects of non-contextualized predictors. Considering that there were no instances in which mismatching predictors and outcomes resulted in stronger correlations than matching them, it seems unlikely that the hypothesis in this study will be disproven. Based on the current study, using a FOR
appears to be a useful practice in occupational health and personality research and practice, and should be the topic of future research.
References


Table 1

*Means and Standard Deviations*

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*Note. N=309. SD is standard deviation.*
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*Note. N = 309, *p < .05, **p < .01. Alphas of scales on diagonal in parenthesis.*
Table 2 continued

*Correlation Matrix and Scale Alphas*

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Note. *N = 309, *p < .05, **p < .01. Alphas of scales on diagonal in parenthesis.
Table 3

Comparisons of Work-Specific and General Predictor's Relationships with General Criteria

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<th>Predictor</th>
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<th>General Domain</th>
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*Note. N = 309, *p < .05, **p < .01.*
Table 4

*Comparisons of Work-Specific and General Predictor’s Relationships with Work-Related Criteria*

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*Note. N = 309, *p < .05, **p < .01.*
Table 5

*Comparisons of School-Specific and General Predictor’s Relationships with School-Related Criteria*

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*Note. N = 309, *$p < .05$, **$p < .01$.*
Table 6

*Hierarchical Regression Analysis Examining the Incremental Validity of General Predictors and General Criteria*

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*Note. N = 309, *p < .05, **p < .01.*
Table 7
Hierarchical Regression Analysis Examining the Incremental Validity of Work Specific Predictors and Work Criteria

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Note. $N = 309$, *$p < .05$, **$p < .01$. 
Table 8

*Hierarchical Regression Analysis Examining the Incremental Validity of School Specific Predictors and School Criteria*

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*Note.* $N = 309$, *p* < .05, **p* < .01.
Appendix A

Items

General Core self-evaluations

Instructions: Below are several statements about you with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

1 2 3 4 5

Strongly disagree Disagree Neutral Agree Strongly agree

1. - I am confident I get the success I deserve in life.
2. - Sometimes I feel depressed. (r)
3. - When I try, I generally succeed.
4. - Sometimes when I fail I feel worthless. (r)
5. - I complete tasks successfully.
6. - Sometimes, I do not feel in control of my work. (r)
7. - Overall, I am satisfied with myself.
8. - I am filled with doubts about my competence. (r)
9. - I determine what will happen in my life.
10. - I do not feel in control of my success in my career. (r)
11. - I am capable of coping with most of my problems.
12. - There are times when things look pretty bleak and hopeless to me. (r)

r = reverse-scored.
Appendix B

Core self-evaluations at work

Instructions: Below are several statements about you with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

1 2 3 4 5

Strongly disagree Disagree Neutral Agree Strongly agree

These questions are about your behavior at work.

1. - I am confident I get the success I deserve at work.
2. - Sometimes I feel depressed at work. *(r)*
3. - When I try, I generally succeed at work.
4. - Sometimes when I fail at work I feel worthless. *(r)*
5. - I complete tasks at work successfully.
6. - Sometimes, I do not feel in control at work. *(r)*
7. - Overall, I am satisfied with myself at work.
8. - I am filled with doubts about my competence at work. *(r)*
9. - I determine what will happen at work.
10. - I do not feel in control of my success at work. *(r)*
11. - I am capable of coping with most of my problems at work.
12. - There are times when things at work look pretty bleak and hopeless to me. *(r)*

*r* = reverse-scored.
Appendix C

Core self-evaluations at school

Instructions: Below are several statements about you with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

1 2 3 4 5

Strongly disagree Disagree Neutral Agree Strongly agree

These questions are about your behavior at work.

1. - I am confident I get the success I deserve at school.
2. - Sometimes I feel depressed at school. (r)
3. - When I try, I generally succeed at school.
4. - Sometimes when I fail at school I feel worthless. (r)
5. - I complete tasks at school successfully.
6. - Sometimes, I do not feel in control at school. (r)
7. - Overall, I am satisfied with myself at school.
8. - I am filled with doubts about my competence at school. (r)
9. - I determine what will happen at school.
10. - I do not feel in control of my success at school. (r)
11. - I am capable of coping with most of my problems at school.
12. - There are times when things at school look pretty bleak and hopeless to me. (r)

r = reverse-scored.
Appendix D

General Role Conflict

Please indicate the extent to which you agree or disagree with the following statements by circling the appropriate number, from 1 (strong agree) to 5 (strongly disagree).

1. Generally I have to do things that should be done differently.
2. I operate with two or more groups in my life that operate quite differently.
3. I receive incompatible request from two or more people in my life.
4. Generally, I do things that are apt to be accepted by one person and not by others.
5. I work on unnecessary things in my life.
Appendix E

Role Conflict at work

Please indicate the extent to which you agree or disagree with the following statements by circling the appropriate number, from 1 (strong agree) to 5 (strongly disagree).

1. I have to do things that should be done differently.
2. I operate with two or more groups that operate quite differently.
3. I receive incompatible request from two or more people.
4. I do things that are apt to be accepted by one person and not by others.
5. I work on unnecessary things.
Appendix F

*Role Conflict at school*

Please indicate the extent to which you agree or disagree with the following statements by circling the appropriate number, from 1 (strong agree) to 5 (strongly disagree).

1. I have to do things that should be done differently at school.
2. I operate with two or more groups at school that operate quite differently.
3. I receive incompatible request from two or more people at school.
4. I do things that are apt to be accepted by one person and not by others at school.
5. I work on unnecessary things in class.
Appendix G

General Role Ambiguity

1. Generally speaking, I feel certain about how much authority I have.

2. I have clear, planned goals and objectives in my life.

3. In general, I know I have divided my time properly.

4. Generally, I know exactly what is expected of me.

5. Generally speaking, it is clear of what has to be done in my life.
Appendix H

Role Ambiguity at work

1. I feel certain about how much authority I have.

2. I have clear, planned goals and objectives for my job.

3. I know I have divided my time properly.

4. I know exactly what is expected of me.

5. Explanation is clear of what has to be done.
Appendix I

Role Ambiguity at school

1. I feel certain about how much authority I have at school.

2. I have clear, planned goals and objectives for my schoolwork.

3. I know I have divided my time properly for school activities.

4. I know exactly what is expected of me at school.

5. Explanation is clear of what has to be done at school.
Appendix J

*Life Satisfaction*

1. In most ways my life is close to my ideal.

2. The conditions of my life are excellent.

3. I am satisfied with my life.

4. So far I have gotten the important things I want in life.

5. If I could live my life over, I would change almost nothing.
Appendix K

*Job Satisfaction*

1. All in all I am satisfied with my job.
2. In general, I don’t like my job.
3. In general, I like working here.
Appendix L

School Satisfaction

1. All in all I am satisfied with my school.

2. In general, I don’t like my experience at school.

3. In general, I like attending class here.
Appendix M

*General Frustration*

1. Trying to achieve what I want in life is a frustrating experience.

2. Being frustrated is part of my life.

3. Overall, I experience very little frustration with my life.
Appendix N

Frustration at work

1. Trying to get my job done is a very frustrating experience

2. Being frustrated comes with my job

3. Overall, I experience very little frustration with my job
Appendix O

_Frustration at school_

1. Trying to get my school work done is a very frustrating experience
2. Being frustrated is a part of my school experience
3. Overall, I experience very little frustration with my school
Appendix P

*General Anxiety*

1. Worry about things

2. Fear for the worst.

3. Am afraid of many things.

4. Get stressed out easily.

5. Get caught up in my problems.

6. Am not easily bothered by things.

7. Am relaxed most of the time.

8. Am not easily disturbed by events.

9. Don’t worry about things that have already happened.

10. Adapt easily to new situations.

*Note: Items 6-10 are reverse scored.*
Appendix Q

Anxiety at Work

1. Worry about things at work.
2. Fear for the worst at work.
3. Am afraid of many things at work.
4. Get stressed out easily at work.
5. Get caught up in my problems at work.
6. Am not easily bothered by things at work.
7. Am relaxed most of the time at work.
8. Am not easily disturbed by events at work.
9. Don’t worry about things that have already happened at work.
10. Adapt easily to new situations at work.

Note: Items 6-10 are reverse scored.
Appendix R

Anxiety at school

1. Worry about things at school.
2. Fear for the worst at school.
3. Am afraid of many things at school.
4. Get stressed out easily at school.
5. Get caught up in my problems at school.
6. Am not easily bothered by things at school.
7. Am relaxed most of the time at school.
8. Am not easily disturbed by events at school.
9. Don’t worry about things that have already happened at school.
10. Adapt easily to new situations at school.

Note: Items 6-10 are reverse scored.