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Do Personality Traits Contribute to Vocational Self-Efficacy?

Lisa M. Larson
Fred H. Borgen
Iowa State University

Although personality is viewed as a precursor to self-efficacy and interest development (e.g., Lent, Brown, & Hackett, 1994), little research concerns linkages between personality and self-efficacy. This article bridges the relation by presenting the pattern of findings across four university samples. Three general and 11 specific personality traits were operationalized using Tellegen’s Multidimensional Personality Questionnaire (Tellegen, 1982, 2000; Tellegen & Waller, in press). Vocational self-efficacy across Holland’s hexagon (i.e., Realistic, Investigative, Artistic, Social, Enterprising, and Conventional domains) was operationalized using the Skills Confidence Inventory (Betz, Borgen, & Harmon, 1996, 2005). Most of the contributions of personality to vocational confidence were with Positive Emotional Temperament and its related primary traits. Moreover, these same personality traits were also related to the elevation of a person’s profile overall (mean confidence level). Finally, Absorption, affiliated with both Positive and Negative Emotional Temperament, contributed to Artistic confidence whereas Harmavoidance (-) partially explained Realistic confidence.

Keywords: vocational confidence; self-efficacy; personality; Multidimensional Personality Questionnaire; Skills Confidence Inventory

In the past decade, there has been a surge of interest connecting domains of individuality to better understand the clients we serve and to improve our knowledge base in vocational psychology. The conceptual writing (e.g., Borgen, 1999; Borgen & Harmon, 1996; Borgen & Lindley, 2003; Chartrand, Borgen, Betz, & Donnay, 2002; Holland, 1999; Lent et al., 1994; Prediger, 1999; Savickas, 1999, Walsh & Eggerth, 2005) has ignited the field with the reshaping of old ideas and the presentation of new ones. Researchers added synergy by providing evidence that these different domains overlap in distinct and meaningful ways. Examples include data-based articles integrating personality and interest (e.g., Barrick, Mount, & Gupta, 2003; Larson, Rottinghaus, & Borgen, 2002); intelligence,
personality, and interest (Ackerman & Heggestad, 1997); ability, personality, interests, self-estimates, self-concept, motivational skills, and self-efficacy (Ackerman, Kanfer, & Goff, 1995); and self-efficacy and interest (Betz & Rottinghaus, 2006; Rottinghaus, Larson, & Borgen, 2003). A consensus is emerging that domains of individuality are linked in specific and identifiable ways and that this information can illuminate both our science and practice in vocational psychology.

With the emerging dominance of social cognitive career theory (SCCT; Lent et al., 1994) as adapted from Bandura’s (e.g., 1986) social cognitive theory and by Betz, Hackett, and colleagues (Betz, 1978; Betz & Hackett, 1981, 1986; Hackett & Betz, 1981), there has been growing interest in task-specific self-efficacy, defined as the confidence to successfully execute a desired action in the near future (e.g., Bandura, 1986; Lent et al., 1994). This burst of activity in self-efficacy research was fueled by advancement in the measurement of vocational self-efficacy as paralleling the Big Six Holland domains of interest and later the more specific Basic Interest Scales of the Strong Interest Inventory. The measures, the Skills Confidence Inventory (SCI; Betz et al., 1996, 2005), and later the Expanded Skills Confidence Inventory (ESCI; Betz et al., 2003), allowed researchers empirically to examine occupational domains of self-efficacy beyond mathematics, science, and engineering self-efficacy. With SCCT providing the grounding and the ESC and ESCI serving as a means to measure the six Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (RIASEC) General Confidence Themes (GCTs) and the more specific Basic Confidence Scales, researchers began to relate vocational self-efficacy domains to interest (e.g., Rottinghaus, Betz, & Borgen, 2003; Rottinghaus, Larson, et al., 2003), to occupations (e.g., Donnay & Borgen, 1999), to personal styles (e.g., Betz & Borgen, 2000), and to educational aspirations (Rottinghaus, Lindley, Green, & Borgen, 2002). (Note: For our purposes, confidence and self-efficacy will be used interchangeably.)

In the related field of personality psychology, there has also been an explosion of research and conceptual work in the past 20 years regarding the Big Five personality domains (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness), most frequently operationalized by Costa and McCrae’s Neuroticism Extraversion Openness (NEO) Five Factor Inventory (Costa & McCrae, 1992) or their expanded measure, the Revised NEO Personality Inventory (Costa & McCrae, 1992). Vocational researchers became interested in also examining the Big Five personality dimensions as they related to the Big Six interests; enough work was generated to warrant meta-analyses across 12 studies (Larson et al., 2002). Barrick et al. (2003), coming from the industrial–organizational perspective, also generated meta-analyses associating the Big Five with similar findings as Larson et al.

An equally viable model of personality consists of three, rather than five, overarching domains (Positive Emotional Temperament [PEM], Negative Emotional Temperament [NEM], and constraint) of personality with 11 unique, specific traits underlying the Big Three (e.g., Tellegen, 2000). Tellegen operationalized
this model by developing the Multidimensional Personality Questionnaire (MPQ; Tellegen, 1982, 2000; Tellegen & Waller, in press). The 11 traits are described in Table 1. Tellegen and Waller (in press) differentiated the primary scales of PEM into an agentic component subsumed by Social Potency, Wellbeing, and Achievement and a communal component subsumed by Wellbeing and Social Closeness. Staggs (2003) in her meta-analyses of the MPQ scales with the Strong Interests Inventory across 10 samples corroborated Larson et al. (2002) and Barrick et al. (2003).

Personality as a Driver of Self-Efficacy

Personality was not mentioned in Bandura’s work (e.g., 1986) because self-efficacy was meant to be domain specific and focused on the acquisition of new skills. Lent et al. (1994) tailored the theory to apply the vocational domain specifi-

<table>
<thead>
<tr>
<th>MPQ Primary Scale</th>
<th>α</th>
<th>Description of a high scorer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellbeing</td>
<td>.89</td>
<td>Has a happy, cheerful disposition; feels good about self and sees a bright future.</td>
</tr>
<tr>
<td>Social Potency</td>
<td>.87</td>
<td>Is forceful and decisive; fond of influencing others; fond of leadership roles.</td>
</tr>
<tr>
<td>Achievement</td>
<td>.84</td>
<td>Works hard; enjoys demanding projects and working long hours.</td>
</tr>
<tr>
<td>Social Closeness</td>
<td>.85</td>
<td>Is sociable, likes people, and turns to others for comfort.</td>
</tr>
<tr>
<td>Stress Reaction</td>
<td>.89</td>
<td>Is nervous, vulnerable, sensitive, prone to worry.</td>
</tr>
<tr>
<td>Alienation</td>
<td>.81</td>
<td>Feels mistreated, victimized, betrayed, and the target of false rumors.</td>
</tr>
<tr>
<td>Aggression</td>
<td>.76</td>
<td>Hurts others for own advantage; will frighten and cause discomfort for others.</td>
</tr>
<tr>
<td>Control</td>
<td>.83</td>
<td>Is reflective, cautious, careful, rational, planful.</td>
</tr>
<tr>
<td>Harmavoidance</td>
<td>.84</td>
<td>Avoids excitement and danger; prefers safe activities even if they are tedious.</td>
</tr>
<tr>
<td>Traditionalism</td>
<td>.83</td>
<td>Desires a conservative social environment; endorses high moral standards.</td>
</tr>
<tr>
<td>Absorption</td>
<td>.88</td>
<td>Is responsive to evocative sights and sounds; readily captured by entrancing stimuli.</td>
</tr>
</tbody>
</table>

Note. MPQ = Multidimensional Personality Questionnaire. Internal consistency coefficients are reported by Tellegen (1982), based on samples of 500 college females and 300 college males. The more conservative coefficient of the two samples is reported.

a. Absorption loads on both positive emotional temperament and negative emotional temperament and is considered separately by Tellegen and Waller (in press).
cally to explain the development of interests, career choice, and educational attainment. They included personality as an exogenous preexisting variable that preceded the development of self-efficacy. Like Lent and colleagues, we presume that personality is a driver of the acquisition of self-efficacy—that is, that most personality development precedes the development of vocational self-efficacy.

Although social cognitive theory has given personality a minor role in the development of interests, other theoretical work (e.g., Holland, 1968, 1985, 1997, 1999) and later empirical work (Barrick et al., 2003; Larson et al., 2002; Staggs, 2003; Sullivan & Hansen, 2004) has linked personality dimensions and vocational interests. Moreover, evidence is mounting that like personality, variation in interests and stability in interests are partially genetic (e.g., Betsworth et al., 1994; Waller, Lykken, & Tellegen, 1995).

Personality and industrial–organizational writings have not directly connected personality to vocational confidence per se but have integrated vocational interests. Mount, Barrick, Scullen, and Rounds (2005) see both personality and interests as noncognitive dispositional attributes that affect patterns of behavior; however, they see interests as preferences that influence outcomes associated with choice of environments, activities, types of people, and the satisfaction they feel with those choices. In contrast, they see personality as traits pertaining to self-regulatory and motivational processes that influence outcomes associated with performance on the chosen tasks—that is, interests drive people toward types of environments, whereas personality traits determine how they interact in those chosen environments. Ackerman and Heggestad (1997)—in their influential paper integrating ability, interests, and personality—suggested that ability and personality determined the probability of success of a particular task, whereas interest determined whether the task would be attempted. Ozer and Benet-Martinez (2006) viewed personality as the driver of outcomes in the world of work including vocational interests, job satisfaction, and job performance. Vocational confidence or self-efficacy was not mentioned.

Personality may affect vocational confidence in a similar way to interests. If self-efficacy affects choice, effort expended, and success of an activity, (e.g., Lent et al., 1994), then certain personality traits (e.g., extraversion) may moderate those relations. For example, extraverted, outgoing children love to socialize with other children. They make choices that provide multiple opportunities to master social situations and increase their social confidence. In contrast, shy, reserved children rarely seek out opportunities to socialize and may in fact find the experience aversive. Over time, the number of choices made and mastery experiences would be quite different between these two children. This does not diminish the role of parental support, income, education, and barriers like sexism and racism that also affect a child’s choices and self-efficacy over time. Nonetheless, the unique pattern of personality attributes interacts with aspects of the environment and with ability and interests, resulting in different paths of skill acquisition. If self-efficacy is the mediator between knowing what to do and performing the act, it may be that some personality traits contribute to an increase (and decrease) in
the number of opportunities and mastery experiences for vocational confidence to be strengthened or weakened across the RIASEC domains.

**Interests Overlap with Confidence and Personality**

Although the linkage of personality and vocational confidence is largely unexplored, there has been considerable evidence accumulating regarding the connection of both of them independently to vocational interests. Rottinghaus, Larson, et al. (2003), in their meta-analyses of the interest and vocational confidence intersection, showed a moderate to strong relation of interest to confidence across Holland’s RIASEC domains. The literature base that has emerged from the interest-personality linkage shows that five specific areas of overlap are present—namely, extraversion with enterprising and social interests, openness to new experiences with artistic interests, and, to a lesser extent, investigative interests, agreeableness with social interests, and conscientiousness with conventional interests (Barrick et al., 2003; Larson et al., 2002). Staggs (2003) added to our understanding by her meta-analyses of interest and personality using the MPQ. The Big Five dimensions are matched as follows by Tellegen’s MPQ primary traits: MPQ Stress Reaction—Neuroticism, MPQ Social Potency or MPQ Social Closeness—Extraversion, MPQ Absorption—Openness to Experience, MPQ Aggression (inversely)—Agreeableness, and MPQ Control—Conscientiousness (Blake & Sackett, 1999; Church, 1994; Tellegen & Waller, in press). Staggs (2003) confirmed and expanded the personality and interest linkages reported in Larson et al. (2002) and Barrick et al. (2003). These include (a) Social Potency and Social Closeness (Extraversion) with Enterprising interests, (b) Social Closeness (Extraversion) with Social interests, (c) Aggression (inverse of Agreeableness) with Social interests, (d) Absorption (Openness) and Artistic interests, and (e) Control (Conscientiousness) with Conventional interests. She did uncover several more robust associations, the strongest one being Harmavoidance (inverse), measuring physical risk taking and excitement seeking, with Realistic interests.

The purpose of this article is to advance our knowledge of the interface of personality dimensions and vocational self-efficacy. During the past 5 years, several university samples (Bailey, Larson, Borgen, & Gasser, 2004; Larson, Borgen, & Gasser, 2003a, 2003b; Larson, Bailey, Borgen, & Gasser, 2005) have been collected to empirically examine the link between specific personality traits as measured by the MPQ and vocational self-efficacy as measured by the SCI. The goal of this article is to advance knowledge by focusing on the personality and vocational self-efficacy overlap. We anticipated that PEM and its respective dimensions (well-being, social potency, achievement, social closeness) would relate to higher vocational confidence overall given the connection between PEM as described by Tellegen (1982, 2000) and Tellegen and Waller (in press) and self-efficacy as described by Bandura (e.g., 1986).
METHOD

Participants

Four data sets—with sample sizes of 359, 267, 291, and 256—were collected at a large upper Midwestern university in separate semesters during a 2-year period. The demographics of each data set are fully described elsewhere (Bailey et al., 2004, Larson et al., 2003a, 2003b; Larson et al., 2005).

Instruments

SCI. The SCI (Betz et al., 1996, 2005) is a 60-item self-efficacy, or confidence, measure of six GCTs corresponding to the Holland RIASEC dimensions. These include Realistic confidence, Investigative confidence, Artistic confidence, Social confidence, Enterprising confidence, and Conventional confidence. Multiple studies support its reliability and validity (e.g., Betz, 2000; Betz et al., 2005; Donnay & Borgen, 1999). To assess overall vocational confidence, the mean across the six RIASEC GCTs is also reported. It will be reported as mean confidence level.

MPQ. The MPQ (Tellegen, 1982, 2000; Tellegen & Waller, in press) is a measure of personality comprising 11 primary scales, three higher order factors, and two validity scales. The three higher order factors are: PEM, NEM, and Constraint. The first two higher order factors are interpreted as emotional temperament dimensions, whereas the latter one is considered a behavioral constraint parameter. High scorers on PEM “present themselves as efficacious, as actively involved in their social and work environments and as ready to experience the positive emotions congruent with these involvements” (Tellegen & Waller, in press, p. 35). High scorers on NEM can be characterized as “often stressed and harassed, as prone to respond with negative emotions (such as anxiety and anger) to everyday vicissitudes, and as enmeshed in adversarial relationships” (Tellegen & Waller, in press, p. 35). High scorers on Constraint “convey caution, planfulness, and a tendency to avoid danger, conventionality and adherence to traditional values” (Tellegen & Waller, in press, p. 36). The names and interpretations of high scorers on the 11 primary scales are presented in Table 1.

Studies have shown the measure to have adequate internal consistency as shown by Table 1 and to be consistent over time with correlations ranging from .82 to .92 (Tellegen & Waller, in press). The validity estimates of the MPQ are extensive, including cross-cultural applications (e.g., Ben-Porath, Almagor, Hoffman-Chemi, & Tellegen, 1995), convergence of self and other data (e.g., Harkness, Tellegen, & Waller, 1995), predicted correlations with behavioral indi-
ces (e.g., McGue, Slutske, & Iaconon, 1999), evidence of heritability (e.g., Finkel & McGue, 1997), and related to physiological aspects of emotion (e.g., White & Depue, 1999). The MPQ’s scales have correlated in meaningful and expected ways with personality scales of other prominent measures (e.g., Church, 1994) and with a variety of mood (Gjerde, Block, & Block, 1988), vocational (e.g., Larson & Borgen, 2002; Staggs, Larson, & Borgen, 2003) and relationship variables (Robins, Caspi, & Moffitt, 2000).

**Procedures**

The samples were recruited from introductory psychology classes and received extra credit for their participation. Across the four samples reported elsewhere (Bailey et al., 2004; Larson et al., 2003a, 2003b; Larson et al., 2005), other measures were used depending on the sample (e.g., measures of vocational interest, vocational goals, outcome expectancies).

**RESULTS**

The range of personality and confidence correlations across the four samples, with a total of 1,173 university students, are presented in Table 2. The results are presented across the total samples and not by sex because no significant sex differences in the correlations emerged across the four samples that would have altered the major results. Although meta-analyses could have been conducted, it was agreed that there were too few samples to warrant meta-analyses. Personality and self-efficacy correlations that were at least .19 across all four samples are in bold in the table. For example, in looking at Table 2, PEM was correlated .36 to .43 with Social confidence across the four samples. Larson et al. (2002) also used .19 as a cutoff in discussing the results of their meta-analyses of the relation of personality and interest and stating that smaller correlations that capture less than 4% overlap would have few clinical implications.

**The Big Three and Their Relation to Vocational Confidence**

As can be seen by Table 2, PEM was robustly related to the mean confidence level as well as to Realistic, Investigative, Artistic, Social, and Enterprising confidence across all four samples. None of the four samples yielded any significant correlations with NEM and confidence; only one of the four samples yielded a small significant correlation of Constraint with the Realistic GCT (-) and the Artistic GCT (-).
Table 2
Correlations Between Personality Dimensions and General Confidence Themes
Across the Four Midwestern University Samples

<table>
<thead>
<tr>
<th>Level of Confidence</th>
<th>Realistic Confidence</th>
<th>Investigative Confidence</th>
<th>Artistic Confidence</th>
<th>Social Confidence</th>
<th>Enterprising Confidence</th>
<th>Conventional Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEM</td>
<td>.41 to .48</td>
<td>.19 to .25</td>
<td>.23 to .30</td>
<td>.29 to .35</td>
<td>.36 to .43</td>
<td>.43 to .52</td>
</tr>
<tr>
<td>Well-being</td>
<td>.17 to .32</td>
<td>.01 to .20</td>
<td>.10 to .20</td>
<td>.12 to .22</td>
<td>.25 to .33</td>
<td>.20 to .32</td>
</tr>
<tr>
<td>Social potency</td>
<td>.35 to .44</td>
<td>.07 to .15</td>
<td>.05 to .12</td>
<td>.24 to .30</td>
<td>.29 to .38</td>
<td>.58 to .66</td>
</tr>
<tr>
<td>Achievement</td>
<td>.29 to .35</td>
<td>.15 to .28</td>
<td>.27 to .34</td>
<td>.08 to .16</td>
<td>.14 to .24</td>
<td>.19 to .30</td>
</tr>
<tr>
<td>Social closeness</td>
<td>-.01 to .02</td>
<td>-.10 to -.16</td>
<td>-.05 to -.16</td>
<td>-.02 to .07</td>
<td>.19 to .28</td>
<td>.05 to .18</td>
</tr>
<tr>
<td>NEM</td>
<td>-.01 to -.08</td>
<td>&lt; .01 to .08</td>
<td>&lt; .01 to -.03</td>
<td>.04 to .11</td>
<td>-.07 to .03</td>
<td>.01 to .09</td>
</tr>
<tr>
<td>Stress reaction</td>
<td>-.23 to .11</td>
<td>-.08 to -.18</td>
<td>-.13 to -.20</td>
<td>-.08 to .03</td>
<td>-.12 to -.01</td>
<td>-.11 to -.26</td>
</tr>
<tr>
<td>Alienation</td>
<td>-.04 to .02</td>
<td>-.02 to .05</td>
<td>-.02 to -.12</td>
<td>-.05 to .05</td>
<td>-.12 to -.02</td>
<td>&lt; .01 to .04</td>
</tr>
<tr>
<td>Aggression</td>
<td>.12 to .17</td>
<td>.16 to .25</td>
<td>.03 to .12</td>
<td>-.08 to .07</td>
<td>-.11 to -.01</td>
<td>.17 to .24</td>
</tr>
<tr>
<td>Constraint</td>
<td>&lt; .01 to .15</td>
<td>-.11 to -.27</td>
<td>-.10 to .03</td>
<td>-.22 to .07</td>
<td>-.01 to .10</td>
<td>-.03 to -.15</td>
</tr>
<tr>
<td>Control</td>
<td>-.07 to .13</td>
<td>-.15 to .05</td>
<td>&lt; .01 to .17</td>
<td>-.15 to .04</td>
<td>-.09 to .07</td>
<td>-.12 to .09</td>
</tr>
<tr>
<td>Harm avoidance</td>
<td>-.14 to -.3</td>
<td>-.28 to -.47</td>
<td>-.30 to -.15</td>
<td>-.21 to -.01</td>
<td>-.02 to .07</td>
<td>-.12 to -.21</td>
</tr>
<tr>
<td>Traditionalism</td>
<td>&lt; .01 to .05</td>
<td>-.02 to .06</td>
<td>-.07 to .07</td>
<td>-.10 to .02</td>
<td>.05 to .16</td>
<td>.03 to .07</td>
</tr>
<tr>
<td>Absorptiona</td>
<td>.23 to .33</td>
<td>.08 to .26</td>
<td>.09 to .27</td>
<td>.40 to .44</td>
<td>.17 to .27</td>
<td>.13 to .18</td>
</tr>
</tbody>
</table>

Note. The sample sizes for the four samples were 359, 267, 291, and 256. Correlations that were greater than |.19| are in bold. PEM = Positive Emotional Temperament; NEM = Negative Emotional Temperament.

a. Absorption loads on both PEM and NEM and is being considered by Tellegen and Waller (in press) as a primary trait distinct from the Big Three.
The 11 Primary Traits and Their Relation to Vocational Confidence

Two of PEM’s primary scales (Social Potency and Achievement) were consistently related to the mean confidence level. Social Potency was also related to three of the RIASEC confidence themes—namely Artistic, Social, and Enterprising confidence—across all four samples. Wellbeing was related to Social and Enterprising confidence whereas Achievement was related to Investigative and Enterprising confidence across all four samples. Social Closeness was related to Social confidence across all four samples. Harmavoidance (-) related robustly to Realistic confidence. Finally, Absorption was related to Artistic confidence as well as to the mean confidence level.

DISCUSSION

Relation Between the Big Three and the Six GCTs

PEM. Traits characterized by vigor, excitement, joy, and engagement with the world characterize PEM (Tellegen & Waller, in press). Vocational confidence, based on these data, is affected by PEM in at least three ways. First, PEM affects general level of confidence. Second, PEM may drive confidence across all of the RIASEC domains with the possible exception of the Conventional domain. Across all four samples, PEM correlated higher than .19 with all the RIASEC confidence domains except for Conventional. Third, PEM’s contribution to confidence is robust. As shown by Table 2, PEM was included in three of the seven strongest relations reported across the four samples. PEM contributed 18% to 27% of the variance in Enterprising confidence, 13% to 18% of the variance in Social confidence, and 17% to 23% of the variance in the mean confidence level.

As seen by Table 2, PEM correlated substantially with mean confidence level (.41 to .48). This is the first published study to examine the correlates of mean level of confidence on the six GCTs of the SCI. Interestingly, NEM did not relate to mean level of confidence. This is consistent with Tellegen’s view that PEM and NEM are relatively orthogonal or independent measures of personality, not simply bipolar measures of positive and negative affective temperament.

Relation Between the 11 Primary Traits and the Six GCTs

Social Potency. The strongest relation in this study is the association between Social Potency and Enterprising confidence. The large correlations across all four samples ranged from .58 to .66, with Social Potency explaining 34% to 45% of the variance in Enterprising confidence. When the description of these scales is
examined, their content is very similar. As shown in Table 1, a Social Potency high scorer “is forceful and decisive; fond of influencing others; fond of leadership roles.” A high scorer on Enterprising confidence is likely to be confident in performing tasks such as public speaking, selling a product, or leading others (Betz et al., 2005). Similar content is being measured within these personality and self-efficacy scales. This is intriguing because the scales were created within totally different approaches to psychological space. Social Potency arises out of the effort by Tellegen (Tellegen, 1982, 2000; Tellegen & Waller, in press) to map the primary dimensions of personality. Enterprising confidence was created by Betz et al. (1996) to measure self-efficacy for the tasks represented by Holland’s (1997) Enterprising interest dimension. This is a clear indicator that these theoretical viewpoints—personality, interests, and self-efficacy—are not nearly as distinctive constructs as their often disparate literatures would suggest. These nominally different domains of individuality are obviously linked in important ways.

Social Potency contributes to the variation of other themes besides Enterprising. Overall, it may drive mean level of vocational confidence as it explained 12% to 19% of the variance in mean level of confidence. Social Potency also contributed a lesser extent to Artistic confidence. The variance accounted for ranged from 4% to 9% across the four samples. Interestingly, Staggs (2003) in her meta-analyses of the MPQ with the Strong Interest Inventory reported Social Potency contributing only 1% of the variance to artistic interests. This may suggest that people who are more confident of rather than more interested in artistic pursuits may see themselves as more forceful and persuasive. Social Potency contributed somewhat (8% to 14% of the variance) to people’s Social confidence—that is, being more confident of helping or serving other people. The effect is much smaller than Social Potency’s correlation with Enterprising confidence, which may be because social potency has more to do with being persuasive than serving others. This finding is similar to Staggs’s (2003) finding of Social Potency with social and enterprising interests, namely the correlation with Social was smaller. Finally, Social Potency was significantly related to Artistic confidence. In short, Social Potency in these samples was connected to confidence centered around people rather than things (Prediger, 1982), as reflected by the overlap to the lower half of Holland’s hexagon, namely Enterprising, Social, and Artistic confidence.

Absorption. Those students who were more emotionally responsive to engaging visual and auditory stimuli (Absorption) expressed more artistic confidence. The artistic domain in the SCI includes writing, the performing arts, and the dramatic arts. Moreover, this correlation ranges from .4 to .44 in Table 2, meaning that 16% to 19% of the variance in Artistic confidence is because of Absorption. A similar relation appeared in the connection between Absorption (Openness) and artistic interests (Barrick et al., 2003; Larson et al., 2002; Staggs, 2003). Finally, Absorption was related to higher confidence level overall, explaining 5% to 11% of the variance. This relation was not expected and needs to be followed up.
Harmavoidance (-). People who score low on Harmavoidance are people who tend to enjoy adventure, danger, and are physical risk takers (Tellegen, 2000). As shown by Table 2, this trait in our samples seems to be robustly associated with Realistic confidence—that is, confidence in working with their hands and working outdoors. From these samples, Harmavoidance (-) accounted for 8% to 22% of the variance in the Realistic GCT. This makes sense in that common Realistic occupations like firefighters, police officers, and emergency medical technicians, and avocational Realistic interests like rock climbing, are in areas requiring more physical risk. This relation was also shown in a related area, namely the overlap of Harmavoidance (-) and Realistic interests (Staggs, 2003, Staggs et al., 2003).

Achievement. Achievement captures the tendency to work hard, enjoy demanding projects, and be persistent (Tellegen, 1982, 2000) and was related to several confidence variables. First, it related to mean confidence level with the overlap ranging from 6% to 12%. Second, Achievement accounted for 7% to 12% of the variation in Investigative confidence paralleling a similar finding by Larson and Borgen (2002). They found that Achievement partially explained science and mathematics interests after variance because PEM was removed. Third, Achievement was consistently related to Enterprising confidence accounting for 4% to 9% of the variance in the Enterprising GCT. This relation was unexpected and may relate to the competitive nature of enterprising occupations like sales, advertising and the corporate culture in general. To have confidence in those activities involves a drive and a willingness to push oneself. Achievement was not related to Social confidence. Perhaps the association of Achievement with Enterprising and not Social confidence will help researchers and practitioners to differentiate between the two types of confidence that are both geared toward people.

Wellbeing. Those who expressed more cheerfulness and happiness (well-being) were more confident of helping or serving other people and were more confident of enterprising activities like sales and managing others. Wellbeing accounted for about 6% to 11% of the variance in Social confidence and a similar amount (4% to 10%) in Enterprising confidence. Being happier in these samples relates to more confidence in performing activities dealing with the people end of the continuum of Prediger’s (1982) people versus things continuum.

Social Closeness. Social Closeness captures the tendency to be both warm and affectionate as well as needing others for comfort and support (Tellegen, 1982, 2000). Although subsumed under PEM as is Social Potency, it is distinct from it with the latter focusing more on leadership and persuading others rather than on investing in others based on enjoyment and need. It made intuitive sense that Social Closeness related consistently to Social confidence although the magnitude was weaker than some might expect with the variance ranging from 4% to 8%. Like Achievement relating to Enterprising but not Social confidence, it
appears that Social Closeness may be the second personality trait that distinguishes the two confidence domains dealing with people.

Limitations

For theoretical reasons, espoused by Lent et al. (1994), it is a reasonable proposition that personality is a precursor to self-efficacy and therefore may play a causal role in its development. However, the data we have presented are purely correlational and do not prove causality. Experimental and longitudinal research designs are necessary to address a causal model linking personality to self-efficacy.

This personality and confidence connection is relatively unexplored. These four data sets are based exclusively on an upper Midwestern university population that limits the generalization of these findings across regions and cultures. Cross-cultural studies are sorely needed as are studies in which the samples are exclusively focused on U.S. racial and ethnic minority participants. The lack of meaningful sex differences in these correlations between personality and confidence are consistent with few substantive sex differences reported by previous investigations examining personality and interests (Barrick et al., 2003; Larson et al., 2002; Staggs, 2003) as well as interests and self-efficacy (Rottinghaus, Larson, et al., 2003). Nonetheless, sex differences need to continue to be examined. Finally, although four data sets are an excellent starting point, more research presenting the overlap between personality and vocational confidence is needed.

Overlap With the Personality—Interest Literature

One goal of this article was to ignite the field to build on the knowledge gained from the personality and interest reviews (Barrick et al., 2003; Larson et al., 2002; Staggs, 2003) and the interest and self-efficacy reviews (Betz & Rottinghaus, 2006; Rottinghaus, Larson, et al., 2003) by connecting personality with vocational self-efficacy. Prior reviews have shown that interests across the RIASEC converge and diverge from personality dimensions and confidence domains in specific and meaningful ways. The personality and vocational confidence associations we have discussed in this article are just beginning to emerge.

PEM clearly overlaps with vocational interests and vocational confidence with similar and unique linkages. In our data, PEM cuts across all the vocational domains concerning one’s confidence with the possible exception of Conventional confidence. For interest, the link was limited to the investigative, social, and enterprising domains (Staggs, 2003). Researchers may want to reconsider how the vigor, zest, and engagement with the environment contribute more to Artistic and Realistic confidence more than Artistic and Realistic interests.

Specific primary traits associated with PEM were associated with both vocational confidence and interest including (a) Wellbeing and Social interest and
confidence, (b) Social Potency and Enterprising interest and confidence, (c) Achievement and Investigative interest and confidence, and (d) Social Closeness and Social interest and confidence. There are some specific PEM linkages with vocational confidence that did not emerge with the personality and interest reviews. These include Wellbeing and Achievement with Enterprising confidence and Social Potency with Artistic and Social confidence. Interestingly, the specific PEM connections with vocational confidence separate the PEM and communal primary scales (Social Closeness and Wellbeing) with social confidence and the PEM and agentic primary scales (Social Potency, Achievement, and Wellbeing) with Enterprising confidence. Our self-efficacy correlations with Social Potency and Social Closeness reveal a similar pattern as Staggs’s (2003) and Sullivan and Hansen’s (2004) personality and interest correlations—namely Social interests and confidence correlate stronger with Social Closeness (warmth) whereas Enterprising interests and confidence correlate stronger with Social Potency (Assertiveness).

The proclivity for adventure, physical risk taking, and enjoyment of danger (Harmavoidance [-]) seems linked to realistic confidence as well as Realistic interests (Staggs, 2003; Staggs et al., 2003). This connection is important because this finding helps elucidate our understanding of the Realistic domain of both interest and confidence. The Big Five–Big Six meta-analytic reviews showed no relation between any of the Big Five and the Realistic domain; Harmavoidance (-) is not one of the Big Five. Staggs (2003), however, did show this connection in her meta-analyses using the Big Three and the Big Six.

Absorption appears to drive both Artistic interests and confidence accounting for a substantial amount of variance in both vocational constructs. Not only does Absorption (Openness) appear to be a major contributor to interest in pursuing artistic pursuits like drama, art, and music, it seems equally important in driving people’s confidence in those areas as well.

Personality Matters?

Ozer and Benet-Martinez (2006) argued that personality matters in the world of work, driving such important outcomes as vocational interests, job satisfaction, and job performance. They did not mention vocational confidence or self-efficacy. Our results also show that personality matters tremendously in many aspects of career self-efficacy.

Several trends, often from distinctive perspectives on the world of work, are stimulating a unified view of individuality. First is Holland’s (1968, 1985) long contention that interests are an expression of personality. Second are the recent meta-analyses that robustly address Holland’s contention by clarifying the relations between Big Six interests and Big Five personality (Barrick et al., 2003; Larson et al., 2002). Third is the 1981 introduction of career self-efficacy by Betz and Hackett and the subsequent 25 years of vigorous measurement and theoriz-
ing it has stimulated. Fourth is the return of personality to mainstream theory and assessment in vocational psychology (Borgen, 1999; Borgen & Lindley, 2003; Walsh & Eggerth, 2005) and in industrial–organizational psychology (Barrick & Ryan, 2003; Hogan & Holland, 2003; Mount et al., 2005).

This study is one of the first to examine how personality and vocational self-efficacy overlap in psychological space (Betz, Borgen, & Harmon, 2006; Borgen & Lindley, 2003). Although personality, interests, and self-efficacy historically were studied in separate literatures, their intersections within a unified depiction of individuality are now becoming clear. It is also apparent that best practices in career theory and assessment will comprehensively integrate personality, interests, and self-efficacy.

Personality affects openness to new experiences and to new learning. Major components of personality are the dispositions to approach or to avoid. Personality components that will lead to approach behaviors are extraversion and risk taking. Anxiety is the major component that drives avoidance behaviors. In Tellegen’s (1982, 2000) terms with the MPQ, these are components of PEM, NEM, and Constraint. Empirical results in this article and those we have cited show that personality matters in career behavior. Personality matters in career interests and self-efficacy, career development, career choice, job performance, and job satisfaction. The stage is set for continued theoretical and assessment advances and integration.

NOTES

1. Tellegen and Waller (in press) treat Absorption separately because it loads on both Positive and Negative Emotional Temperament.

2. Social potency is considered a marker of extraversion by Blake and Sackett (1999) whereas Church (1994) treated social closeness as a marker of extraversion.

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