

Personality Traits and Career Satisfaction in Training and Development Occupations: Toward a Distinctive T&D Personality Profile

Eric D. Sundstrom, John W. Lounsbury, Lucy W. Gibson, Jason L. Huang

As careers in training and development (T&D) continue to evolve, almost no human resource development (HRD) research has investigated personality traits in today's T&D occupations, despite evidence linking personality with work success. Toward filling this lacuna, we identified four Big Five personality traits and four narrow traits with content matching T&D competencies. Based on person-career fit theory, we hypothesized that the trait profile would differentiate T&D from other occupations, and the traits would correlate with T&D career satisfaction. From 90,000+ individuals receiving private career transition services, we compared trait scores of 284 individuals in T&D occupations and the others via bootstrapping (5,000 random samples, $n=284$, with the same age and gender distributions). The T&D personality profile was significantly elevated, with greatest differences on the narrow trait empathy, closely followed by assertiveness and customer service orientation plus optimism (small difference), and significant differences on Big Five traits extraversion, openness, and agreeableness (small difference), but no difference on emotional stability. T&D career satisfaction correlated significantly with five traits in the profile, most strongly with emotional stability and optimism. Also, emotional stability correlated more highly with career satisfaction for T&D than non-T&D occupations. The distinctive T&D personality profile raises questions for further HRD research and carries practical value for training and development of T&D personnel.

Keywords: personality profile, career satisfaction, competency, training and development, Big Five

Personality occupies a prominent role in training and development (T&D; Kraiger & Culbertson, 2013; Rowold, 2007). Empirical studies found personality traits related to job performance (Barrick & Mount, 2005), job satisfaction (Judge, Heller, & Mount, 2002), career satisfaction (Lounsbury et al., 2003), and success (Judge & Hurst, 2008). T&D research examined personality traits of trainees in relation to transfer of training (Blume, Ford, Baldwin & Huang, 2010; Huang, Blume, Ford, & Baldwin, 2015). Studies of training effectiveness found trainer attributes to be significant moderator variables (Arthur, Bennett, Edens, & Bell, 2003). Yet little published, research has examined personality traits in T&D occupations (Brown & Sitzmann, 2011; Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012). We found one study of trainers' traits (Towler & Dipboye, 2001), but no others on the personality traits of individuals with careers in T&D.

Toward filling the knowledge gap, we sought here to identify a distinctive profile of personality traits that differentiate T&D from other occupations—reflecting personality convergence in occupations predicted by two person–career fit theories. After introducing them, we review evolving T&D competencies, identify traits with matching content, and derive hypotheses about a T&D personality profile and career satisfaction.

Person–Career Fit Theories and Occupational Differences in Personality

Holland's Vocational Theory

Holland (1997) theorized that work performance, career satisfaction, and career stability all reflect the fit of an individual's personality and work environment. Supportive, empirical studies found personality differences among vocations (Holland, 1996). Similarly, Satterwhite, Fleenor, Braddy, Feldman, and Hoopes (2009) hypothesized and found significant personality convergence in occupations, consistent with a finding of personality differences across 14 occupations (Lounsbury et al., 2003).

ASA (Attraction, Selection, Attrition) Framework

Schneider (1987) proposed a three-phase process in which person–job fit increases via interaction of individuals and organizations. *Attraction* occurs as individuals find jobs they see as suited to their attributes, including personality traits, and organizations recruit people whose attributes fit the jobs. *Selection* occurs as job offers are made and accepted, the decisions hinging on expected person–job fit. Actual fit, and associated satisfaction and performance, influence the timing of the third phase, *attrition*: sooner with poor fit, or later via voluntary or involuntary termination. Research supported the ASA framework (Schneider, Goldstein, & Smith, 1995). One study found the expected intraorganization, homogeneity of personality (Schneider, Smith, Taylor, & Fleenor, 1998).

A few empirical studies found distinctive, occupation-specific personality profiles, adding to scientific knowledge and offering a practical resource for

evaluating and enhancing person–job fit. Williamson, Lounsbury, and Han (2013) found engineers different from other occupations on nine personality traits and offered the profile as a practical reference for assessing engineers' personality-related person–job fit and tailoring individual development to optimize fit via training, coaching, mentoring, and performance management. Other studies found distinct occupational personality profiles for scientists (Lounsbury et al., 2012) and information technology specialists (Lounsbury, Sundstrom, Levy, & Gibson, 2014).

Person–career fit theories and research point to distinctive occupational personality profiles. However, neither theory specifies personality traits that fit a particular occupation, such as T&D.

Evolving Competencies in T&D

An expanding field of HRD has increasingly focused on competencies needed for its evolving roles (Russ-Eft, Watkins, Marsick, Jacobs, & McLean, 2014; Stevens, 2013). T&D remained relatively stable in the United States and the Netherlands through the 1990s (Nijhof, 2004) but soon evolved to reflect workplace change (Brown & Sitzmann, 2011; Kraiger & Culbertson, 2013). An expanding scope of T&D and rising emphasis on performance management (Berge, de Verniel, Berge, Davis, & Smith, 2002) prompted the American Society of Training and Development (ASTD, now Association for Talent Development) to sponsor a study to identify T&D competencies needed to address shifting workforce demographics, global markets, and related trends. A national practitioner survey supplemented by expert interviews (Bernthal, Colteryahn, Naughton, Rothwell, & Wellins, 2004) identified 12 “foundational competencies” (e.g., strategic thinking) and nine areas of expertise (e.g., designing learning), expanding on the prior ASTD study (Rothwell, Sanders, & Soper, 1999). A follow-up study (Arnesen, Rothwell, & Naughton, 2013) redefined and expanded most of them.

New T&D competencies include a subset labeled foundational (Arnesen et al., 2013), some as broad as basic workplace competencies (Bartram, 2005). Foundational competencies included fundamental interpersonal skills (e.g., active listening, effective communication, emotional intelligence) to support trainer roles historically central to T&D, as in delivering workshops, courses, coaching, team training (Salas et al., 2012). Foundational competencies for analysis, synthesis, planning, and organizing similarly supported T&D tasks like training needs assessment, instructional design, program development, and evaluation (Arnesen et al., 2013). Other emerging competencies involved external integration and alignment of T&D.

Integrated Learning Systems

Calls for T&D to integrate within the larger organization call for competencies involving teamwork with human resource (HR) functions like selection,

performance measurement, career planning, and HR management (Salas et al., 2012). Integrated talent management and fast-evolving learning technologies call for competency in fostering new learning (Arnesen et al., 2013), as well as political prudence and leadership savvy (Smith, 2009).

Strategic Alignment

An expanded purview requires T&D competencies for developing and supporting the organization's HR strategy. These involve acquiring and deploying talent and assuring that it supports the organization's general strategy, identifying system-wide performance gaps, deploying integrated learning systems, and evaluation of learning impacts to address key "business drivers" via organizational metrics (Arnesen et al., 2013).

Facilitating Organizational Change

T&D occupations have had an increasingly prominent role in supporting and even leading organizational change (Reed & Vakola, 2006). New ASTD competencies for T&D explicitly include "change management" (Arnesen et al., 2013).

Personality Traits in T&D Occupations

Research on occupational differences in personality emphasizes the "Big Five" multifaceted traits (McCrae & Costa, 1987): agreeableness, conscientiousness, extraversion, openness (to new experience), and neuroticism—or its opposite, emotional stability. The "five-factor model" has been extensively validated (e.g., Digman, 1990). A meta-analysis found the five broad traits related to criteria of work success (Judge et al., 2002). A meta-analysis of 29 studies of job performance measured via supervisors' ratings found each of eight broad workplace competencies related to one or more of the Big Five personality traits (Bartram, 2005).

Studies of personality differences in occupations have also examined less inclusive "narrow traits," like optimism, which may capture added nuance and account for incremental variability beyond the Big Five (broad) traits (e.g., Paunonen & Ashton, 2001). Some narrow traits are measured as facets of the Big Five. For example, extraversion has six facets, including the narrow trait assertiveness (McCrae & Costa, 1987). Occupational differences have been found on both broad and narrow traits (e.g., Lounsbury et al., 2014; Williamson et al., 2013).

To identify personality traits for a distinctive T&D profile, we began with two premises. First, processes that foster person-career fit eventually optimize certain traits at higher levels in T&D than in other occupations. Second, individuals relatively low on personality traits that support T&D competencies are relatively unlikely to select or be selected into T&D roles—and leave relatively soon after entering roles with poor fit (Holland, 1997; Schneider, 1987), so

those remaining in T&D careers eventually display personality traits at optimal levels for T&D roles.

We reasoned that personality traits differentiating T&D from other occupations would demonstrably enable or facilitate competencies distinctive to T&D roles by virtue of three characteristics: (a) high proficiency—specialized, T&D expertise at advanced levels of mastery requiring years of practice; (b) centrality—importance over a wide or diverse range of T&D responsibilities; and (c) pervasiveness—relevance for interactions for a variety of different counterpart roles. For example, many of today's work roles require teamwork (Landy & Conte, 2013), including T&D roles (Arnesen et al., 2013). While helpful in many jobs, teamwork competencies may be required at higher levels in T&D roles, for effective cooperation in teams as well as for specialized expertise for developing training, performance evaluation, feedback, coaching, and mentoring (Salas et al., 2012). Teamwork competency is central to many T&D duties, from building learning systems to cooperating across organizational boundaries to integrate and implement them via interactions with T&D counterparts, project and management teams, trainees and managers in other units, and external counterparts (Arnesen et al., 2013).

To derive hypotheses about distinctive T&D personality traits, we adapted a deductive, construct-based, content-matching technique used by Barrick, Mount, and Gupta (2003) to map Holland's vocational types to Big Five personality traits. We used content matching to map T&D competencies (Arnesen et al., 2013) to personality traits likely optimized at relatively high levels in T&D roles. Specifically, we sought empirical evidence associating personality traits with competencies required with relatively greater proficiency, centrality, and/or pervasiveness in T&D roles. For example, one meta-analysis found a significant correlation of team average scores on the Big Five trait agreeableness with team performance (Stewart, 2006). We preferred evidence from meta-analyses and from studies reporting at least "medium" correlations ($r \geq .30$; Cohen, 1992) of personality traits with T&D competencies.

In the following subsection we develop hypotheses (and a question) for distinctive T&D traits via competency content matching—first for the Big Five traits, then for four narrow traits.

Agreeableness

Multiple T&D competencies involve fostering supportive interpersonal relationships—with trainees, peers in T&D project teams, relevant HR specialties, and other counterpart roles within and across organizational boundaries (Arnesen et al., 2013). Many explicitly call for teamwork—a pervasive T&D competency that shares content with the broad trait agreeableness (McCrae & Costa, 1987). A meta-analysis found agreeableness significantly related to the workplace competency, "supporting and cooperating" (Bartram, 2005), consistent with the meta-analysis on team performance (Stewart, 2006).

Considering the pervasiveness of T&D competencies for fostering interpersonal relationships and teamwork, we hypothesized:

HYPOTHESIS 1: Individuals in T&D occupations, compared with those in other occupations, score higher on the Big Five (broad) trait agreeableness.

Emotional Stability

Emerging T&D competencies call for managing stress, adapting to change, and dealing constructively with uncertainty, as in many jobs, and go further in calling for building learning systems for managing stress and assisting others in learning how to manage change (Arnesen et al., 2013). These competencies have content matching the trait emotional stability (opposite of neuroticism), which may enable those in T&D roles to cope with, manage, and recover from stress associated with change, developing new learning systems, working toward continuous improvement, and helping others adapt (Huang, Ryan, Zabel, & Palmer, 2014; Jundt, Shoss, & Huang, 2015). Bartram's (2005) meta-analysis found the broad workplace competency "adapting and coping" significantly related to emotional stability. Accordingly, we hypothesized:

HYPOTHESIS 2: Individuals in T&D occupations, compared with those in other occupations, score higher on the broad trait emotional stability.

Extraversion

Content of the broad trait extraversion matches T&D competencies requiring interpersonal skills for communicating, leading, and managing. Bartram (2005) found that extraversion correlated with supervisors' ratings of workplace competencies of interacting with, presenting to, and persuading others. O*NET (2014) lists similar, desirable attributes for T&D managers and specialists: speaking, instructing, social perceptiveness, and oral expression. A study of HR trainers identified expressiveness (part of extraversion) as a significant positive predictor of training effectiveness (Towler & Dipboye, 2001). Content of extraversion also overlaps T&D competencies for integration with HR specialties across organizational boundaries (Arnesen et al., 2013). A facet of extraversion—gregariousness—is helpful for networking; another—interpersonal warmth—facilitates relationship building. A third facet—assertiveness—has been found related to competencies for leadership (Tett, Guterman, Bleier, & Murphy, 2000). Based on content overlap of extraversion with T&D competencies, we hypothesized:

HYPOTHESIS 3: Individuals in T&D occupations, compared with those in other occupations, score higher on the broad trait extraversion.

Openness (to New Experience)

Content of the broad trait openness matches current T&D competencies calling for engagement with and management of organizational change, demands

for new expert learning, and rapid adaptation of that learning for T&D systems—all requiring high proficiency and central and pervasive in T&D roles. Facets of openness include receptivity to change, learning, and new experience (McCrae & Costa, 1987). Research has found openness associated with training proficiency (Barrick & Mount, 1991) and adaptability to change (LePine, Colquitt, & Erez, 2000). Therefore, we hypothesized:

HYPOTHESIS 4: Individuals in T&D occupations, compared with those in other occupations, score higher on the broad trait openness (to new experience).

Conscientiousness

Content overlap of this broad trait with T&D competencies is contradictory. Two facets—orderliness and planfulness—are at least partly incompatible with T&D competencies calling for flexibility, new learning, and adaptation. A meta-analytic review reported a zero correlation of conscientiousness with skill acquisition in training (Huang et al., 2015), arguably increasingly prominent as T&D roles emphasize new learning. However, T&D competencies require timely execution of responsibilities, consistent with two other facets, dependability and self-discipline. A meta-analysis found conscientiousness correlated with job performance across occupations (Judge, Higgins, Thoresen, & Barrick, 1999); another meta-analysis found team average conscientiousness correlated with work team performance (Stewart, 2006). Mixed findings left no clear basis for a directional hypothesis, so we posed the research question:

RESEARCH QUESTION 1: How do individuals in T&D occupations compare with those in other occupations on average scores on the broad trait conscientiousness?

Narrow Personality Traits

T&D competencies overlap the content of narrow personality traits, which also may differentiate T&D occupations. Competencies in T&D for leadership and conflict management match the narrow trait assertiveness (Tett et al., 2000). The narrow trait customer service orientation has been found elevated in service occupations (Lounsbury et al., 2003), and it aligns with multiple competencies required for responsive delivery of T&D services (Arnesen et al., 2013), notably employee training. The O*NET (2014) occupational summary for T&D includes customer service. The narrow trait empathy, part of emotional intelligence (Goleman, 1998) may be crucial for sensitive T&D duties such as delivering training on racial prejudice or responding to sexual abuse allegations. Empathy shares content with competencies for supporting and cooperating (Bartram, 2005) central in T&D roles. The narrow trait optimism may aid in fostering learning and supporting organizational change, for example, by helping employees focus on benefits of training and coaching, and—in

difficult economic times—minimize negative thoughts and emotions (Seligman, 1991). We hypothesized:

HYPOTHESIS 5: Individuals in T&D occupations score higher than those in other occupations on four narrow traits: assertiveness, customer service orientation, empathy, and optimism.

T&D Personality Profile

For the four broad traits and four narrow traits identified as having content matching T&D competencies, we expected individuals in T&D occupations to have personality profiles significantly elevated across all eight traits. Therefore we hypothesized:

HYPOTHESIS 6: For individuals in T&D occupations, the collective personality profile composed of the broad traits agreeableness, emotional stability, extraversion, and openness, and the narrow traits assertiveness, customer service orientation, empathy, and optimism, is significantly elevated in comparison with the collective profile for non-T&D occupations.

Personality Correlates of T&D Career Satisfaction

Holland's (1997) vocational theory treats career satisfaction as an indicator of perceived person–career fit. Similarly, the ASA framework (Schneider et al., 1995) suggests that among individuals attracted to T&D occupations who are selected for and enter into T&D roles, career satisfaction can be expected to reflect their person–career fit (Lounsbury, 2006). Those in T&D occupations who possess personality traits supportive of T&D competencies are likely to experience better person–career fit and higher T&D career satisfaction than peers with poorer personality fit. Applying the ASA framework suggests that for those continuing in T&D careers, satisfaction should correlate with each personality trait that fosters T&D competencies.

Prior research on the personality traits identified as fostering T&D competencies has found most of them correlated with career satisfaction, but not specifically in T&D occupations. Lounsbury et al. (2003) examined personality traits in relation to career satisfaction in 14 occupational categories, and reported that the broad trait emotional stability and the narrow trait optimism both significantly correlated with career satisfaction across occupations, consistent with findings on core self-evaluations, which includes emotional stability and optimism (Judge, 2009). Lounsbury et al. (2003) found that the other broad traits—extraversion, conscientiousness, openness, and agreeableness—correlated with career satisfaction only in some occupations, along with the narrow traits assertiveness and customer service orientation.

Based on expected person–career fit from possessing personality traits aligned with T&D competencies, and on prior research on career satisfaction, we hypothesized:

HYPOTHESIS 7: For individuals in T&D occupations, career satisfaction correlates positively and significantly with four broad personality traits—agreeableness, emotional stability, extraversion, and openness (to new experience)—and four narrow traits—assertiveness, customer service orientation, empathy, and optimism.

For the one other broad trait with facets aligned with some T&D competencies and misaligned with others—conscientiousness—we posed the corresponding research question:

RESEARCH QUESTION 2: To what extent, if any, does T&D career satisfaction correlate with the broad personality trait conscientiousness?

Method

Research Design

This field study of personality traits, career satisfaction, and occupational category drew data from an archive made available by an international human resources organization offering private, personality-based career transition services to corporate and individual clients. Data were collected from March 2001 through May 2015 from more than 90,000 individuals (currently employed or recently terminated, for instance, in mergers or acquisitions) who received paid, professional career services in the United States and over a dozen other nations, primarily provided by current or former employers. Services included assessment, counseling, training, job referral, and outplacement. Each participant completed an online assessment on just one occasion, composed of self-report measures of gender; age; occupational category; industry and business categories; career satisfaction; and proprietary, multi-item measures of personality traits.

Participants

Participants consisted of 92,262 individuals, of whom 284 identified their current or most recent occupation as “Training and Development” (T&D). Of these, 36% were male. Proportions by age group in the T&D population: below 30 years, 6%; 30 to 39 years, 20%; 40 to 49 years, 33%; 50 to 59 years, 36%; 60 years or more, 5%. T&D industry categories for those who provided them: technology services, 13%; communications, 6%; manufacturing, 5%; financial services, 2%; hotel, 1%; under 1% each in: automotive, banking, consumer products, durable goods, insurance, and travel; and “other” or missing, 66%. The non-T&D population: 52% male. Proportions by age group: below 30 years, 8%; 30 to 39 years, 25%; 40 to 49 years, 36%; 50 to 59 years, 27%; and 60 years or older, 4%. Ethnic data were unavailable. Non-T&D occupations: information technology, 15%; manager/executive, 14%; accounting/finance, 9%; sales, 8%; engineering, 6%; human resources, 5%; consulting, 4%; customer service, 3%; manufacturing, 3%; operations, 3%; education, 2%; arts,

1%; health care, 1%; transportation, 1%; law, 1%; and 19% “other.” Industries represented among non-T&D respondents: financial services, 13%; technology services, 10%; manufacturing, 10%; telecommunications and communications, 9%; professional + business service, 6%; consumer products, 5%; customer service, 5%; sales, 3%; automotive, 3%; health care, 3%; petroleum, 3%; scientific research/development, 3%; airlines, 2%; hospitality, 2%; publishing/printing, 2%; government, 1%; transportation, 1%; utilities, 1%; educational services, 1%; nonprofit, 1%; and “other,” 16%.

Measures

Measures appeared in an online questionnaire presented to clients via secure, password-protected website operated by the international HR organization. The assessment was a work-based, proprietary personality measure, the *Personal Style Inventory* (Lounsbury & Gibson, 2011), with demographic items and brief measure of career satisfaction. All measures used one or more item offering two or more alternative responses. Measures of personality traits had multiple items with five-step response scales and bipolar anchors, as in this sample item from the Optimism scale:

When the future is uncertain, I tend to anticipate positive outcomes.	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">1</td> <td style="padding: 2px 5px;">2</td> <td style="padding: 2px 5px;">3</td> <td style="padding: 2px 5px;">4</td> <td style="padding: 2px 5px;">5</td> </tr> </table>	1	2	3	4	5	When the future is uncertain, I tend to anticipate problems.
1	2	3	4	5			

Agreeableness. Definition: willingness to contribute to group efforts, preference for and comfort with cooperating with others, satisfaction with teamwork (7 items; coefficient $\alpha = .83$).

Assertiveness. Disposition toward actively communicating about important matters, taking initiative, confidently and forcefully expressing oneself, forthrightly (not aggressively) attempting to influence others, and defending personal beliefs (8 items; coefficient $\alpha = .83$).

Conscientiousness. Composite attribute that includes competence-striving, dutifulness, self-discipline, orderliness, preference for planning before action, and readiness to internalize relevant norms (8 items; coefficient $\alpha = .75$).

Customer service orientation. Striving to provide responsive, personalized, high-quality service to customers; putting the other person first; striving for satisfaction even going beyond the job description if necessary (6 items; coefficient $\alpha = .72$).

Emotional stability. Disposition favoring quick recovery from setbacks; calmness under stress and pressure; positive expectations of the future; infrequent mood swings, anger, or depression (6 items; coefficient $\alpha = .81$).

Empathy. Tendency to be aware of, identify with, understand, and respond with sympathy to others' feelings, experiences, or emotional states (7 items; coefficient $\alpha = .79$).

Extraversion. Composite attribute including tendencies to be seen as talkative, outgoing, and inclined toward gregariousness, warmth, and assertiveness (7 items; coefficient $\alpha = .83$).

Openness. Tendency toward receptivity to change, innovation, novel experience, and new learning (9 items; coefficient $\alpha = .78$).

Optimism. Tendency to maintain a hopeful, future outlook, expect the best, minimize problems, and persist at tasks despite difficulty or adversity (6 items; coefficient $\alpha = .85$).

Career Satisfaction. The one-item measure:

I am fully satisfied with my career to date.	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px; text-align: center;">1</td> <td style="width: 20px; height: 20px; text-align: center;">2</td> <td style="width: 20px; height: 20px; text-align: center;">3</td> <td style="width: 20px; height: 20px; text-align: center;">4</td> <td style="width: 20px; height: 20px; text-align: center;">5</td> </tr> </table>	1	2	3	4	5	I am not very satisfied with my career to date.
1	2	3	4	5			

Occupational category. A single item asked for current or most recent occupation, via drop-down menu listing 38 occupational categories, starting with “Accounting, Administration, ...” and continuing with “... Training and Development, Transportation and Logistics,” and “Other.” Only one category was accepted as a response.

Results

Table 1 displays mean scores and standard deviations for the five broad and four narrow personality traits addressed in the hypotheses and research questions, and career satisfaction, for both T&D and non-T&D occupations. Also displayed are results of independent *t* tests comparing the two groups and values of Cohen’s (1992) *d*, a standardized indicator of the magnitudes of between-groups differences.

Career satisfaction proved unexpectedly and significantly higher in T&D than non-T&D occupations. With $d = .34$, this qualified as a “small” difference (Cohen, 1992).

In view of the large size of the non-T&D population ($N > 90,000$), in which traditional statistical tests show significance for even very small differences, we supplemented traditional tests with a second, more conservative set of tests. We used a bootstrapping procedure (Manly, 1997), in which 5,000 iterative, random samples of $n = 284$ were drawn from non-T&D occupations, with age and gender distributions identical to the T&D group with $N = 284$.

Bootstrapped results with gender and age distributions held constant yielded identical significance levels for the tests of differences for all of the trait variables to two decimal places.

Personality Differences Between T&D and Other Occupations

Hypotheses 1 Through 4: Broad Traits. Independent, bootstrapped *t*-tests of differences between T&D and non-T&D occupations showed higher average scores in T&D occupations on three of four broad traits identified as

Table 1. Descriptive Statistics: Career Satisfaction and Personality Traits in T&D & Non-T&D Occupations

Variables	T&D		Non-T&D		Independent		Cohen's <i>d</i>
	Mean	SD	Mean	SD	<i>t</i> tests		
Career Satisfaction	3.95	1.00	3.58	1.16	6.23**		.34
			Broad Traits				
Agreeableness	3.62	.81	3.47	.81	3.14**		.19
Conscientiousness	3.08	.75	3.32	.74	- 5.33**		-.32
Emotional Stability	3.47	.67	3.40	.75	1.55		.10
Extraversion	3.99	.79	3.76	.79	4.93***		.29
Openness	3.93	.64	3.69	.77	5.13***		.37
			Narrow Traits				
Assertiveness	3.86	.65	3.50	.85	7.07***		.48
Customer Service Orient.	4.44	.40	4.12	.82	9.80***		.50
Empathy	3.79	.78	3.33	.91	8.54**		.54
Optimism	3.94	.73	3.80	.79	3.01**		.18

Note: For T&D, N = 284; non-T&D, N = 91,880. Independent *t* tests: df = 92,162, equal variances not assumed.

**p* < .05;

***p* < .01;

****p* < .001

aligned with T&D competencies (Table 1). As predicted (Hypotheses 1, 3, and 4), T&D occupations scored significantly higher than other occupations on agreeableness ($p < .001$; $d = .19$), extraversion ($p < .001$; $d = .29$), and openness ($p < .001$; $d = .37$), the latter two “small” differences (Cohen, 1992). However, contrary to predictions (Hypothesis 2), the mean in T&D occupations was no higher than in non-T&D occupations for the broad trait emotional stability.

Research Question 1: Conscientiousness. In answer to the research question about the broad trait that includes some facets aligned with T&D competencies and other facets likely to interfere with some competencies, individuals in T&D occupations scored significantly lower on conscientiousness ($p < .01$; $d = -.32$) than other occupations.

Hypothesis 5: Narrow Traits. As predicted, T&D occupations had higher average scores than other occupations on all four narrow traits identified as aligned with T&D competencies: assertiveness, customer service orientation, and empathy (all $p < .001$; $d = .48$, $d = .50$, and $d = .54$, respectively, the latter two medium differences), and optimism ($p < .01$; $d = .18$, not even a “small” difference).

H6: Personality Profile. To test for the predicted, overall difference between T&D and non-T&D occupations across eight personality traits, we used *profile analysis* (PA), a specialized multivariate statistical technique based on a multivariate analysis of variance (MANOVA) (Tabachnick & Fidell, 2012). PA requires all measures to have a common metric, so for comparison of the T&D and non-T&D, all scores were first converted to normal curve equivalents (NCEs; mean = 50; SD = 21.06).

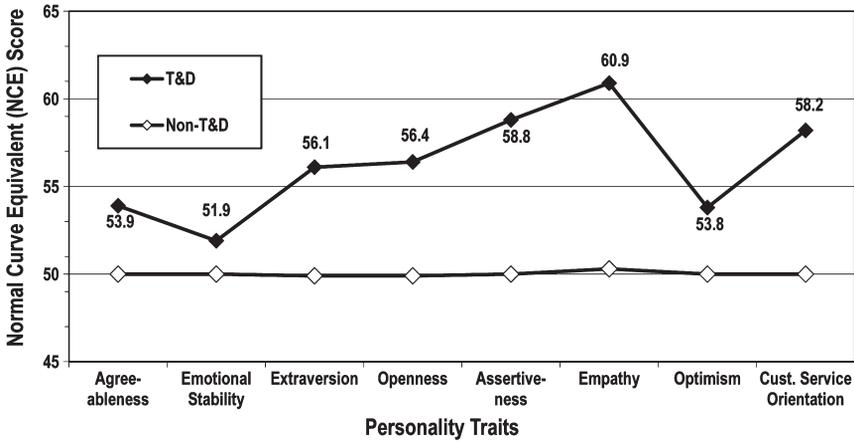
For the PA we performed three required multivariate tests:

1. The *between-groups* test addressed multivariate differences between the two profiles across the eight personality traits, controlling for gender and age by treating them as covariates. This was the primary test for Hypothesis 5, which predicted higher scores across all traits in the profile for the T&D group.
2. The *flatness* test addressed whether profiles had significant, within-group, trait-to-trait differences (not specifically predicted).
3. The *parallelism* test assessed whether the within-group, trait-to-trait differences differed significantly between groups (group X traits interaction).

The PA between-groups test, based on a MANOVA using Wilk’s criterion, revealed the expected, significant difference across traits between the T&D and non-T&D profiles ($F = 59.01$; $df = 1, 92162$; $p < .001$). As predicted (Hypothesis 6), the T&D profile across eight traits identified as matching T&D competencies was significantly elevated.

Figure 1 displays the NCE profiles for both T&D and non-T&D occupations. It shows the elevation of the T&D profile across traits.

Figure 1. NCE Personality Profile for T&D and Non-T&D Occupations



The PA flatness test showed significant within-profile, trait-to-trait variation ($F=8.37$; $df=7, 92162$; $p<.01$), reflecting variability of NCE means in T&D. (Non-T&D means were all near 50 because of much larger N s.) The PA parallelism test—also significant ($F=8.37$; $df=7, 92162$; $p<.01$)—reflected the substantial, trait-to-trait divergence of the two profiles from parallel.

Figure 1 shows the significant trait-to-trait differences between the profiles, ranging from less than four to more than 10 NCE units. The smallest differences appeared for emotional stability (nonsignificant univariate test), agreeableness, and optimism ($d=.19$ and $d=.18$, respectively). The largest difference—on the narrow trait empathy ($d=.54$), of “moderate” magnitude (Cohen, 1992)—was closely followed in magnitude by differences for customer service orientation and assertiveness ($d=.50$ and $d=.48$).

In sum, results supported Hypothesis 6 of a personality profile differentiating T&D occupations. It was significantly higher across eight traits selected for content overlapping key T&D competencies. Differences varied; the trait most elevated in the T&D profile was empathy.

Personality Correlates of T&D Career Satisfaction

Broad Traits. Results partly supported Hypothesis 7, which predicted correlations of T&D career satisfaction with four broad personality traits. Table 2 shows significant correlations for extraversion ($r=.19$) and emotional stability ($r=+.44$), “small” ($\geq .10$) and “medium” ($\geq .30$) relationships, respectively (Cohen, 1992), but not agreeableness or openness.

Narrow Traits. Results mostly supported the prediction of correlations of four narrow traits with T&D career satisfaction. Three traits showed significant correlations (Table 2) ranging from small for assertiveness ($r=.28$) and

Table 2. Intercorrelations of Study Variables in T&D and Non-T&D Occupations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Agreeableness	—	-.10	.07	.31	.17	.05	.17	.34	.23	.03	.05	-.01
(2) Conscientiousness	.11	—	.07	-.05	-.16	-.06	-.13	-.20	.08	.12	-.17	.07
(3) Emotional Stability	.27	.29	—	.25	.18	.22	.65	.10	.23	.44	.18	-.06
(4) Extraversion	.35	.08	.30	—	-.30	.48	.40	.43	.30	.19	.00	-.02
(5) Openness	.40	.07	.36	.32	—	.41	.36	.21	.30	.12	.04	-.04
(6) Assertiveness	.34	.09	.40	.46	.53	—	.32	.26	.30	.19	.01	-.08
(7) Optimism	.23	.13	.56	.46	.29	.34	—	.27	.29	.35	.17	-.01
(8) Empathy	.32	-.04	.12	.36	.20	.33	.21	—	.21	.08	-.04	-.04
(9) Customer Service Orientation	.38	.31	.38	.25	.55	.41	.23	.17	—	.23	.19	-.03
(10) Career Satisfaction	.17	.11	.31	.20	.13	.20	.34	.13	.16	—	.08	.06
(11) Age	.03	-.02	.05	-.03	-.15	.01	.04	.04	.03	.08	—	-.12
(12) Gender (1 = M; 2 = F)	-.09	.04	-.10	.03	-.11	-.15	.01	.05	-.08	.06	-.09	—

Note: For T&D, shown above the diagonal, $n = 284$, where $|r| \geq .13$, $p < .05$ and $|r| \geq .15$, $p < .01$; for non-T&D, below the diagonal, $N = 91,880$, where $|r| \geq .01$, $p < .05$ and $|r| \geq .02$, $p < .01$.

customer service orientation ($r = .23$) to medium for optimism ($r = .39$). Empathy, which showed the largest mean difference between T&D and non-T&D occupations, did not correlate significantly with T&D career satisfaction.

Research Question 2: Conscientiousness

In answer to the research question about career satisfaction and the broad trait with some facets consistent with T&D competencies and some incompatible, results showed a tiny, barely significant correlation with T&D career satisfaction ($r = .12$).

Also shown in Table 2, all correlations of personality traits with career satisfaction in non-T&D occupations were statistically significant (as expected with the large N). Magnitudes of the non-T&D correlations paralleled those in T&D. The same two traits correlated most strongly with career satisfaction in both—the broad trait emotional stability ($r = .44$ and $r = .31$ in T&D and non-T&D occupations, respectively) and the narrow trait optimism ($r = .35$ and $r = .34$).

We tested differences between T&D and non-T&D occupations in the correlations of personality traits with career satisfaction using z -tests (Guilford & Fruchter, 1979). For emotional stability the correlation with career satisfaction in T&D was significantly higher than in non-T&D ($z = 2.51$, $p < .05$), but no other correlation with career satisfaction differed significantly.

To further explore the correlations of personality traits with T&D career satisfaction, we conducted additional analyses to assess the magnitudes of those relationships after controlling for gender and age. To evaluate the relative contributions of the traits to career satisfaction in T&D occupations ($N = 284$), we performed a hierarchical, multiple linear regression analysis, entering gender and age on the first step, and the eight personality variables in the profile on the second step. Age and gender accounted for a nonsignificant increment in variance ($\Delta R^2 = .012$; $p = .17$). One personality trait, emotional stability, accounted for significant, incremental variance beyond the control variables in career satisfaction ($\Delta R^2 = .19$; $p < .001$), while the remaining traits accounted for no further incremental variance in T&D career satisfaction.

Another analysis addressed the question of whether the relationships of personality traits and career satisfaction found in T&D occupations differed from those in non-T&D occupations. We performed a hierarchical regression analysis of the whole data set, treating occupational group (T&D or non-T&D) as a moderator variable. We entered gender and age on the first step; eight personality variables from the profile on the second step; and on the third step, terms representing interactions of each trait \times occupational group (T&D or non-T&D).

The moderated regression analysis produced three results. First, age and gender together accounted for a tiny but significant increment in variance in career satisfaction ($\Delta R^2 = 0.004$; partial $F = 167.7$; $df = 87402$;

$p < .001$). Second, controlling for age and gender, the personality traits together accounted for significant, incremental variance in career satisfaction ($\Delta R^2 = .015$; partial $F = 1695.8$; $df = 87393$; $p < .001$). We found the same general result in non-T&D occupations as in T&D: one trait accounted for most of the variance: optimism. Third, no interaction of personality trait X occupational group proved significant, nor did the standardized beta weights for personality traits differ between T&D and non-T&D occupations.

Discussion

Our comparison of traits in T&D and non-T&D occupations yielded two main findings. First, the competency-derived personality profile was significantly elevated in T&D compared with other occupations (and T&D was higher on career satisfaction). Second, all but three of the profile traits correlated significantly with T&D career satisfaction. Also, controlling for gender and age, traits in the profile accounted for significant, incremental variance in career satisfaction in T&D and non-T&D occupations.

T&D Personality Profile

Our main finding—the personality profile that differentiated T&D from other occupations—appears unprecedented in relevant, published literature. Prior research focused on traits of trainees (Arthur et al., 2003; Salas et al., 2012) and left personality in T&D occupations largely unexamined (Brown & Sitzmann, 2011; Kraiger & Culbertson, 2013).

The distinctive T&D personality profile reinforces person–career fit theory (Holland, 1997; Schneider et al., 1995), and its prediction of occupational differences in personality (e.g., Satterwhite et al., 2009). Results agree with predictions of the ASA framework that individuals with traits matching the T&D profile are relatively likely to: (a) be recruited for, and attracted to, T&D roles; (b) be selected for, and accept, job offers in T&D; and (c) continue in T&D longer than others with personality traits less suited to the role. Our results are consistent with the proposition that personality traits aligned with T&D competencies foster person–career fit.

Among the evidence in the present study that the traits in the T&D personality profile support person–career fit in T&D occupations is the finding that those in T&D occupations also had significantly higher career satisfaction ($d = .34$) than non-T&D occupations. While higher T&D career satisfaction likely reflects many factors besides person–career fit based on personality, to the extent that career satisfaction indicates person–career fit the result is consistent with collective, personality-based person–career fit in T&D occupation.

The T&D personality profile offers limited, indirect support for the method of identifying specific personality traits for an occupational group

via content-matching with key competencies (following Barrick et al., 2003). Support comes from the significant elevation of the T&D profile of personality traits with content overlapping T&D competencies. This result reinforces prior research on competencies (e.g., Stevens, 2013; Tett et al., 2000) and their relationships with personality traits (Bartram, 2005). However, the support is at best indirect, as we did not measure the T&D competencies or performance of T&D job duties that require those competencies, or other factors in person-career fit. The T&D personality profile might also reflect person-career fit involving other factors, like unmeasured correlates of the personality traits, such as mental ability or vocational interests, also related to career success (Sackett & Walmsley, 2014).

The T&D personality profile found in the present study adds to a small literature on occupational personality profiles (e.g., Lounsbury et al., 2012; Williamson et al., 2013). Our results reinforce earlier studies reporting personality convergence (Satterwhite et al., 2009) and personality homogeneity (Schneider et al., 1998) within occupational groups.

We found T&D occupations significantly higher on the broad traits extraversion, openness, and agreeableness (a small difference)—but not emotional stability—and all four narrow traits in the profile: empathy, assertiveness, customer service orientation, and optimism (a small difference). T&D occupations scored lower on the broad trait with facets inconsistent with T&D competencies: conscientiousness.

In the remainder of the discussion, we address occupational differences in specific traits, then the correlations with career satisfaction. Next, we address practical applications, limitations, and questions for further research, followed by conclusions.

Hypothesis 1: Agreeableness

As hypothesized, T&D scored significantly—and only slightly—higher than other occupations on agreeableness. This result is consistent with competency models emphasizing supportive interpersonal relationships in T&D contexts (Arnesen et al., 2013) and teamwork—a pervasive T&D competency sharing content with agreeableness (McCrae & Costa, 1987). The relatively small elevation of agreeableness in T&D could reflect the importance of agreeableness in other occupations. Many jobs now demand teamwork (Landy & Conte, 2013) and the basic competency for cooperation associated with agreeableness (Bartram, 2005). The profile could show the optimal level of agreeableness for T&D.

Hypothesis 2: Emotional Stability

The Big Five trait emotional stability did not differentiate T&D occupations. One explanation of this unexpected result is that emotional stability is equally prerequisite for competencies in T&D as in other occupations. Emotional stability may support stress management across occupations in an era of increased

workplace demands, pressures, and stress (Landy & Conte, 2013). Stress management calls for the broad workplace competency, adaptation and coping (Bartram, 2005)—associated with emotional stability—which has also been found correlated with indices of success across a range of careers (Judge et al., 2002).

Hypothesis 3: Extraversion

Elevated scores on extraversion in T&D occupations supported the prediction based on the overlap of the content of extraversion with T&D competencies calling for developing and fostering relationships toward integrated learning systems, strategic alignment, and facilitating organizational change (Arnesen et al., 2013).

Hypothesis 4: Openness

Significantly elevated T&D scores on openness supported our hypothesis that this broad personality trait supports central, pervasive T&D competencies that can aid in fostering innovation, organizational change, new learning, and adaptation (Arnesen, et al., 2013).

Research Question 1: Conscientiousness

The one broad trait not included in the T&D profile proved significantly lower in T&D. This may reflect the relative importance of two facets identified as inconsistent with T&D competencies—orderliness and planfulness—which may interfere with central, pervasive T&D competencies calling for flexibility and adaptation. This result aligns with Ones and Dilchert's (2009) finding that in personality profiles of executives and senior managers, conscientiousness was least elevated of the broad traits. This result raises questions for future research as well as practical issues.

Hypothesis 5: Narrow Traits

All four narrow traits selected for the T&D personality profile significantly differentiated T&D from other occupations. Empathy was most elevated in the T&D profile. Empathy clearly aligns with T&D competencies involving interpersonal relationships, particularly leadership, service delivery, and teamwork. Empathy was also a common feature of behaviors demonstrated by exemplary performers in T&D work (Smith, 2009).

Assertiveness was nearly as highly elevated in the T&D profile as empathy. This narrow trait can be expected to support emerging T&D competencies involving leadership of HRD programs and organizational change and management of learning systems and T&D projects (Arnesen et al., 2013), as well as leadership of increasingly prevalent team training (Salas et al., 2012).

Customer service orientation was also highly elevated in the T&D personality profile. This trait aligns with competencies for responsive delivery of T&D services (Arnesen et al., 2013) at a time when organizations emphasize service to internal customers (Landy & Conte, 2013).

Optimism was only slightly more elevated in T&D than other occupations, possibly because of its importance in the workplace via its connection with self-efficacy (Seligman, 1991), core self-evaluations (Judge et al., 2009), and possibly dispositional positive affect. Whether optimism promotes positive work outcomes that enhance career satisfaction (as suggested by Lyubomirsky, King, & Diener, 2005) and/or positive work experiences augment optimism (as suggested by Seligman, 1991) remain questions for research.

While the T&D profile includes traits selected for their content overlap with T&D competencies, convergence of personality in an occupation like T&D could involve influences unrelated to competency. For example, if a T&D unit begins to attract similar personalities, selective attraction and attrition could reflect *homophily*, the tendency to form relationships based on personal similarity (McPherson, Smith-Lovin, & Cook, 2001), and/or attraction based on personality similarity, for example, in learning settings (Varela, Cater, & Michel, 2011) or between managers and their direct reports (Berr, Church, & Waclawski, 2000). The possibility of multiple dynamics in occupational personality convergence raises questions about relationships of personality and career satisfaction.

Correlation of Personality Traits with T&D Career Satisfaction (Hypothesis 7)

We included a hypothesis predicting correlations of eight personality traits with T&D career satisfaction partly to validate these traits for inclusion in the T&D personality profile. Following Holland (1997), we treated career satisfaction as an indicator of person–career fit, and reasoned that traits differentiating T&D occupations would correlate with career satisfaction, to the extent that higher levels of the traits are associated with better person–career fit.

Consistent with the hypothesis, significant, positive correlations emerged for five of eight traits, including the broad trait extraversion, which significantly differentiated T&D occupations, and emotional stability, which did not. Neither agreeableness nor openness correlated with career satisfaction (both differentiated T&D occupations). Three narrow traits that differentiated T&D occupations correlated significantly with career satisfaction—notably optimism ($r = .35$)—as well as assertiveness and customer service orientation. However, the narrow trait most elevated in the T&D profile—empathy—did not correlate significantly with career satisfaction.

Why would empathy fail to correlate with T&D career satisfaction? Empathy shares content with T&D competencies demanding high proficiency and central to many T&D tasks as well as pervasive in interactions with a variety of T&D counterparts (Arnesen et al., 2013). One study suggested that empathy may be central to exemplary T&D performance (Smith, 2009).

A plausible explanation for the lack of correlation of empathy with T&D career satisfaction must account for the elevated T&D score for empathy. Possibly, empathy is so essential in T&D careers that it serves as a *gateway trait*

for which some minimum level is needed for successful entry into many T&D roles. If so, individuals who lack the requisite entry level of empathy might not be drawn to T&D careers, and might experience early attrition if they are attracted and selected—assuring that those who remain in T&D careers have relatively high empathy.

A second explanation for the lack of correlation of empathy with T&D career satisfaction invokes the “trait activation hypothesis” (Tett & Burnett, 2003), that coworkers activate expression of a personality trait in the workplace by rewarding it. Perhaps T&D coworkers’ rewarding response to expressions of empathy depended on concurrent expression of a second trait, like minimal “stress reaction” (similar to emotional stability), as suggested in Tett and Burnett’s (2003) model. If so, emotional stability might support T&D competencies indirectly by catalyzing coworkers’ reinforcement of appropriate expression of empathy in T&D work roles. For example, those entering T&D with high emotional stability may experience early career success when they begin expressing empathy in ways their coworkers expect and reinforce.

Results of the present study align with the two-part proposition that empathy functions as a gateway trait for successful entry into T&D occupations, and emotional stability serves as a catalyzing trait prerequisite for its expression. Empathy strongly differentiated T&D from other occupations. In contrast, while emotional stability was no higher in T&D than other occupations, it strongly correlated with T&D career satisfaction. In fact, after controlling for age and gender, emotional stability accounted for practically all explainable variance in T&D career satisfaction.

Why would emotional stability and optimism prove to be the two strongest personality correlates of career satisfaction in both T&D and non-T&D occupations? They are two of the four traits comprising “core self-evaluations,” a personality composite found correlated with indicators of career success, job satisfaction, and salary across occupations (Judge, 2009; Judge & Hurst, 2008). To the extent that emotional stability and optimism foster work success generally, they may aid in developing work competencies by promoting—or catalyzing—peer activation of workplace expressions of other supportive traits (Tett & Burnett, 2003). If so, both emotional stability and optimism can be expected to correlate highly with satisfaction in any career, with occupational differences perhaps in high-pressure jobs roles such as executive roles (as in Ones & Dilchert, 2009). For example, if emotional stability catalyzes workplace expression of traits supportive of performance in high-pressure occupations, it could also stimulate ASA dynamics (Schneider, 1987) that facilitate occupational convergence on other personality traits.

Another explanation for the strong correlation of emotional stability with career satisfaction involves dispositional positive affect, which has been found strongly correlated with both career satisfaction (Judge & Hurst, 2008) and job satisfaction, and may have a genetic basis (Arvey, Bouchard, Segal, & Abraham, 1989). One study found that dispositional

positive affect mediated the relationship of job satisfaction with subjective well-being (Judge & Hulin, 1993), consistent with other research relating job satisfaction with subjective well-being (SWB; Judge & Larsen, 2001) and subsequent findings on SWB (Diener, 2013). Correlation of dispositional affect with both emotional stability and career satisfaction may help explain their strong correlation in the present study, independent of person–career fit.

Emotional stability and optimism may be among key personality traits for person–career fit across occupations. They may function as threshold traits for initial workplace fit for any career, beyond which other traits enable further, career-specific fit. If so, our results support a multiple-hurdles conception of person–career fit in which a threshold personality trait is emotional stability, followed by other personality traits as subsequent career-specific hurdles—as in multiple hurdles approaches in staffing (Landy & Conte, 2013).

Questions for Further Research

Obvious next questions include whether future research will replicate the distinctive, eight-trait personality profile found here for T&D occupations, or the significantly higher T&D career satisfaction. Many of the findings summarized in the profile are consistent with the current HRD research literature, but some were unexpected or unprecedented, prompting particularly the question about replication of the significant elevation in T&D of the narrow trait empathy.

Other obvious questions concern differences between T&D and other occupations, in their observed levels of the personality traits assessed here, and in correlations of those traits with career satisfaction and other indicators of person–career fit. Our finding of a significantly higher correlation of emotional stability with career satisfaction in T&D than other occupations particularly calls for a larger study of T&D occupations.

Regarding T&D competencies, to what extent do T&D occupations share basic workplace competencies with other occupations? What T&D competencies are distinctive in calling for high proficiency or specialized expertise central to many T&D roles or pervasive across a range of interactions with counterpart roles?

A primary question for future research is whether the T&D personality profile found in the present study applies in other T&D populations, as the present population consisted mainly of individuals in job transition. A related question concerns other personality traits that might helpfully be included in the profile, such as specific facets of the broad traits, conscientiousness or openness, or facets of emotional intelligence.

Other questions involve specific, narrow traits in the T&D profile, particularly empathy. Besides whether a replication repeats the high-level empathy in T&D, another question is whether this trait serves a gateway function for

T&D careers. Does empathy predict vocational choice of T&D or early career attrition? Other questions involve the broad trait emotional stability and the extent to which it might foster workplace expression of other traits, notably empathy, in ways that bring rewarding or reinforcing responses by peers (Tett & Burnett, 2003).

Practical Applications

Our results offer a practical resource for individuals in T&D occupations: a distinctive, empirically based personality profile as a reference for evaluating T&D person–career fit on eight personality traits. Though the profile comes from a relatively small T&D population, it appears to be the first of its kind in the published research literature. Individuals in T&D occupations can use it as context for career development in cooperation with their own managers and HR coaches. For example, they might compare their own personality results with the collective T&D personality profile found here, identify areas where personal traits might foster or hinder T&D competencies, and prepare individual development plans of assessment, feedback, performance management, training, mentoring, and coaching to enhance their own T&D competencies as appropriate for personal traits that foster or hinder them. Even if the profile from the present study lacks key traits or differs slightly from a T&D profile found later, it still serves as a point of reference for personal development plans tailored to the individual T&D professionals themselves—and valuable by virtue of the tailoring.

Our results raise practical questions about recruiting and selecting individuals for T&D occupations. In particular, to what extent do the personality traits identified in the present study serve as valid predictors of performance in T&D occupations? Early emphasis on these traits, especially during talent identification and recruitment, may result in more effective hiring and placement decisions, more successful socialization, and, ultimately, better person–career fit. It is an open question whether these traits will predict career success in T&D occupations.

Limitations

Limitations of the study involve the population and the research design. While data came from a diverse, international database of more than 90,000 individuals from a wide variety of industries and occupations, the population of primary interest—in T&D occupations—consisted of just 284 individuals. All in the database, including those in T&D, received career transition services; some were involuntarily terminated in mergers or acquisitions, leaving uncertainty about their comparability with T&D populations not in career transition. Though the T&D subgroup in the present study expressed significantly greater career satisfaction than those in other occupations, the extent to which those in T&D occupations in the present study may be representative of other T&D populations remains an open question.

The research design was limited by the lack of measures of T&D competencies, which would have enabled us to test both our assumptions about the connection of the traits with the competencies and their role in the relationship of personality and career satisfaction. Also, the study would have benefited from other measures of person–job fit, notably job performance overall and in specific T&D competencies.

Limitations of the research design included reliance on self-report, measurement at just one point in time, and data collection between 2001 and 2015. Results from our personality measures, with items designed for work environments and a bipolar response format, may or may not generalize to other measures and populations. Also, the self-report measure of career satisfaction consisted of just a single item. A one-item index can be as valid as a multi-item scale (Diener, 2013), but a multi-item measure might yield different or more generalizable results.

The study used only age and gender as control variables, and did not include several other, relevant demographic factors as control variables: education, work experience, ethnicity, job tenure, and career trajectory. These would have enhanced our analyses of career satisfaction.

Conclusions

In conclusion, our study yielded a distinctive, empirically based profile in T&D occupations representing four broad personality traits and four narrow traits with content overlapping T&D competencies. All but one of the traits was significantly elevated in T&D compared with non-T&D occupations. T&D occupations scored higher on the broad traits extraversion, openness, and agreeableness—but not emotional stability—and on the narrow traits assertiveness, customer service orientation, empathy, and optimism. Also, T&D occupations scored lower on the Big Five trait conscientiousness, which is partly aligned and partly misaligned with T&D competencies. Of five profile traits correlated with T&D career satisfaction, emotional stability accounted for most of the variance. The distinctive T&D personality profile fills an important knowledge gap—the lack of published, empirical research on T&D personality traits. It also advances current research on HRD theories of person-career fit and offers the first empirical assessment of convergence of personality in T&D occupations.

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Eric D. Sundstrom and John W. Lounsbury, Professors, Department of Psychology, University of Tennessee, Knoxville.

Lucy W. Gibson, Vice President, Resource Associates, Inc., Knoxville, TN.

Jason L. Huang, Assistant Professor, School of Human Resources and Labor Relations, Michigan State University.

Corresponding Author:

Eric D. Sundstrom can be contacted at esundstr@utk.edu.

