The Healthy Personality from a Basic Trait Perspective

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Abstract

What basic personality traits characterize the psychologically healthy individual? The purpose of this paper was to address this question by generating an expert-consensus model of the healthy person in the context of the 30 facets (and five domains) of the Revised NEO Personality Inventory (Costa & McCrae, 1992) system of traits. In a first set of studies, we found that the healthy personality can be described, with a high level of agreement, in terms of the 30 facets of the NEO-PI-R. High levels of Openness to Feelings, Positive Emotions, and Straightforwardness, together with low levels on facets of Neuroticism were particularly indicative of healthy personality functioning. The expert-generated healthy personality profile was negatively correlated with profiles of pathological personality functioning and positively correlated with normative personality functioning. In a second set of studies, we matched the NEO-PI-R profiles of over 3,000 individuals from seven different samples with the expert-generated healthy prototype to yield a *healthy personality index*. This index was characterized by good retest reliability and cross-rater agreement, high rank-order stability, and substantial heritability. Individuals with high scores on the healthy personality index were psychologically well-adjusted, had high self-esteem, good self-regulatory skills, an optimistic outlook on the world, and a clear and stable self-view. These individuals were low in aggression and meanness, unlikely to exploit others, and were relatively immune to stress and self-sufficient. We discuss the results in the light of their implications for both research and theory on healthy personality functioning.

Keywords: Health; Personality; Big Five; Traits; Virtues

What basic personality traits characterize the psychologically healthy individual? Although contemporary researchers have used basic trait models such as the Five Factor Model/Big Five domains to characterize personality disorders (e.g., Lynam & Widiger, 2001), little attention has been paid to the characterization of healthy personality from a basic trait perspective. This gap exists despite considerable interest in describing healthy persons in the history of personality psychology and extensive validation of Big Five traits for characterizing normal-range and maladaptive aspects of personality functioning. This paper fills this gap by generating an expert-consensus model of the healthy person in the context of the 5 domains and 30 facets of the Revised NEO Personality Inventory (Costa & McCrae, 1992) system of traits. We describe the results of several studies designed to develop and provide initial validity evidence for an expert-consensus personality profile of the psychologically healthy person. Specifically, we determine how well lay people and experts in positive psychology agreed with trait experts regarding the healthy personality, identify correlations with pathological personality profiles, examine the heritability and psychometric characteristics of the healthy personality, and determine how much the healthy personality profile overlaps with a normative personality profile.

Historical Accounts of the Healthy Personality

Scholars have been interested in characterizing a healthy personality prototype since the beginning of the scientific study of personality. The father of modern personality trait theory, Gordon Allport (1955), distinguished the "mature person" based on their intentional pursuit of long-term goals. He argued that healthy people a) extend aspects of themselves into other activities, people, or ideas, b) relate warmly to others, c) are self-accepting and emotionally secure, d) are realistic in their perceptions of the world and other people, e) show responsibility through industrious work, f) possess self-insight, and g) approach life with directedness and unified identity.

Psychoanalytic authors have also articulated the characteristics of healthy individuals. Erik Erikson (1950) famously claimed that Sigmund Freud described the healthy person as someone who can

"love and work" (Elms, 2001). Erich Fromm (1955) argued that the central challenge of being human was overcoming the human inevitabilities of loneliness and insignificance through union with nature, other people, and the diverse aspects of the self. Individuals who meet this challenge are able to satisfy basic needs for a) relatedness to others, b) creative transcendence over ennui and lethargy, c) rootedness in some personally meaningful aspect of society, d) a secure and stable sense of identity, and e) reasonable as opposed to superstitious inferences about the environment. For Fromm, healthy people are productive, happy, and self-directed.

Conceptualizing optimal functioning was a central preoccupation of humanistic personality theorists. Abraham Maslow (1970) famously hypothesized that individuals self-actualize only when their basic physical and psychological needs are met. Unlike the vast majority of people who live in states of becoming in which they focus on reducing internal tensions related to unmet basic needs, "self-actualizers" live in states of being focused on increasing tension by pursuing new challenges. Maslow described self-actualizing people as accepting, spontaneous, focused on the outside world, autonomous, socially interested, moral, funny, creative, immune to social pressure, and prone to peak experiences in which there is a mystical and blissful connection with the world. Carl Rogers (1961) asserted that healthy functioning is the natural outcome of removing barriers to health. "Fully functioning" people, he argued, are characterized by an a) uninhibited openness to experience and b) creative spontaneity, c) live in the here and now, d) have faith in their internal experience, and e) choose behaviors that accord with their inner standards. Viktor Frankl (1962), who survived two Nazi concentration camps, emphasized the pursuit of meaning in life as a distinguishing indicator of healthy personality functioning. He argued that people whose lives have meaning can endure difficult situations because life is worth living. Meaning is obtained by pursuing goals and interests that lie outside of one's own personal interest. In his scheme, healthy persons are a) free to choose their own course of action, b) responsible for the choices they make, c) focused on pursuing personally meaningful goals, d) in conscious control of their behavior, e)

creative, f) attentive to concerns beyond self-preservation, g) future-oriented, and h) capable of giving and receiving love.

As should be evident, significant points of divergence exist among these classic theorists. Whereas psychoanalytic theorists were mostly interested in the balance of conflicts between society and self or between different aspects of the self, humanistic theorists were more concerned with intrapsychic processes of individuation that culminate, under ideal developmental conditions, in human uniqueness and fulfillment. Yet, three similarities stand out. First, each of these otherwise competing visions of human personalities defined healthy functioning in terms of a specific personality prototype. Second, each of these perspectives interpreted the healthy prototype as a profile of certain personality characteristics. Third, across theories, the identified prototypes generally included the preponderance of positive as opposed to negative emotions, interpersonal warmth and connection, rationality and self-awareness, personal responsibility and achievement, and creative openness.

A limitation of these early accounts of healthy personality functioning is that many of them were not operationalized and systematically tested (Gable & Haidt, 2005). Despite some efforts to assess healthy personality functioning (e.g., Block, 1961; Cartwright & Morey, 1988; McLain, 1970; Sieglman, Block, Block, & von der Lippe, 1970; Wagner & Morse, 1975 Westen & Shedler, 1998), as of yet, existing measures have not contributed to a coherent and systematic body of knowledge about the nature of the healthy personality. The dearth of integrative models and the lack of consensus about the most appropriate tools to assess the healthy personality led to moratorium on empirical research on this topic. This situation has changed, however, with the emergence of positive psychology and its focus on human virtues and character strengths over the last few decades.

Positive Psychology

Positive psychology, whose origins lie in the humanistic movement of the 1950s, focuses on three domains of human strength and flourishing: positive subjective experience, positive character

traits, and positive institutions (Gable & Haidt, 2005; Seligman & Csizkszentmihalyi, 2000). A distinctive feature of positive psychology is its focus on character strengths and virtues as key aspects of healthy personality functioning. As a step towards measuring and studying character strengths, Peterson and Seligman (2004) developed the Values in Action (VIA) taxonomy. This classification includes 24 character strengths organized under six universal virtue domains: a) wisdom and knowledge (creativity, curiosity, judgment, love of learning, perspective); b) courage (bravery, honesty, perseverance, zest); c) humanity (kindness, love, social intelligence); d) justice (fairness, leadership, teamwork); e) temperance (forgiveness, modesty, prudence, self-regulation); and f) transcendence (appreciation of beauty, gratitude, hope, humor, religiousness). According to Park, Peterson, and Seligman (2004), these strengths reflect "positive traits reflected in thoughts, feelings, and behaviors" (p. 603) which can be measured via self- and peer report questionnaires, such as the VIA Inventory of Strengths (VIA-IS).

Strong associations exist between VIA character strengths and well-being, moral competence, and personality functioning (e.g., Bleidorn & Denissen, 2014; Brdar & Kashdan, 2010; Noftle, Schnitker, & Robins, 2010; Park & Peterson, 2008). However, the proposed VIA hierarchical structure of six broad virtue domains subsuming 24 narrower character traits has failed to replicate (e.g., Peterson & Seligman, 2004; McDonald, Bore, & Munro, 2008; Noftle et al., 2010) and questions have been raised about the distinctions between the VIA virtues and basic traits of systems like the Big Five (e.g. Noftle et al., 2010). On the other hand, proponents of the VIA model of character strengths have critiqued basic personality models for being too descriptive, overly broad, and negligent of positive characteristics to be useful to capture healthy personality functioning (Peterson & Seligman, 2004).

Counter to this pessimistic perspective on the utility of basic trait models, we take the position that existing personality trait models are a viable avenue for describing the heathy personality. Contemporary trait models capture both normative and extreme patterns of thoughts, feelings, and behaviors and they have proven to be surprisingly comprehensive in the sense that multidimensional

trait models seemingly capture most of the important variation in human personality (John, Naumann, & Soto, 2008). Thus, we think it is likely that the existing trait models will provide a useful starting point for characterizing a healthy personality prototype. Indeed, the healthy personality could be characterized as a profile of trait levels optimally suited for psychological adjustment (Cattell, 1973). A further advantage of drawing on existing trait models is that they provide a common language for describing both pathological and optimal expressions of personality functioning.

Trait Psychology

The last several decades have witnessed a resurgence of the trait construct (see e.g., Funder, 1991; Roberts et al. 2007) and the tools used to assess global traits (e.g., Grucza & Goldberg, 2007). Trait psychology can be traced back to the early work of Allport (and Odbert, 1936), who argued that the trait-descriptive terms in the English language provided a window to the universe of personality content. Decades of research motivated by this insight and interested in finding a common structure for the myriad ways that people differ from one another has suggested that personality traits are hierarchically organized with five broad domains or factors: Neuroticism (N), Extraversion (E), Openness to experience (O), Agreeableness (A), and Conscientiousness (C; Digman, 1990; McCrae & Costa, 2003). These five trait dimensions reflect one particularly useful level of abstraction and are widely known as the Big Five or domains of the Five-Factor Model (FFM[1]; Goldberg, 1993; McCrae & John, 1992). Each of these five broad domains subsume sets of narrower traits referred to as facets, which in turn have been theorized to be composed of even narrower traits, or nuances (Mõttus, Kandler, Bleidorn, Riemann, & McCrae, 2017).

Although the Big Five were designed to include largely neutral content that is descriptive of a person's normal personality traits, it also includes content related to healthy personality functioning.

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[1] While acknowledging that there are differences in their respective content and research traditions (particularly with respect to the factor of Intellect or Openness), in this paper we use Big Five and FFM interchangeably.

Some Big Five traits have clear links to concepts that previous theorists have used to describe the healthy person. An individual who is even-tempered (low N), sociable (high E), curious and reflective (high O), cooperative and warm (high A), and responsible and goal-oriented (high C) offers an intuitive profile of the psychologically healthy person. There is also a large body of research showing that FFM traits predict positive life outcomes such as health (Goodwin & Friedman, 2006), self-esteem (Robins, Tracy, Trzesniewski, Potter, & Gosling, 2001), academic performance (Noftle & Robins, 2007), marital quality (Donnellan, Conger, & Bryant, 2004), and work performance (Barrick & Mount, 1991; see Ozer & Benet-Martinez, 2006 and Roberts et al. 2007, for a general review) in ways that are consistent with this intuitive profile (e.g., low N is related to high self-esteem and high C is related to academic achievement and success in the workplace).

Despite this large body of evidence, there have been few systematic efforts to characterize the healthy personality from a basic FFM perspective (Seligman & Csikszentmihalyi, 2000). In one study, VIA scales were correlated with different patterns of Big Five traits and high scores across VIA scales were associated with low N and high E, O, A, and C (McDonald et al., 2008). McGrath et al. (2017) found substantial redundancy between VIA scales and measures of normal range traits with respect to their prediction of criterion variables. Overall, this work suggests that measures of virtues and traits are capturing highly similar aspects of personality.

In contrast to the relatively limited empirical literature on healthy personality from a Big Five perspective, a considerable body of work has characterized unhealthy personality functioning using dimensions associated with the Big Five domains. Lynam and Widiger (2001) developed expert prototypes for the 10 personality disorders listed in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994) using the 30 facets of one of the most commonly used FFM measures, the Revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992). Although different personality disorders were more similar at the level of broad Big Five domains, meaningful

differences emerged at the level of the 30 facets. For instance, whereas most personality disorders were rated as high in N and low in E, A, and C, they tend to be characterized by more mixed patterns at the facet level. For example, schizotypal personality disorder was characterized by moderate ratings on O at the domain level but very high ratings on the facets of Ideas and Fantasy. Meta-analytic research collapsing studies in which measures of personality disorders were correlated with the NEO-PI-R has generally confirmed these expert-generated prototypes (Samuel & Widiger, 2008), and in recent years a suite of personality disorders-specific instruments has been created based on Big Five traits and facets scales (Widiger, Lynam, Miller, & Oltmanns, 2012).

In summary, the FFM is among the most prominent methods for characterizing pathological as well as normal personality functioning. A large body of evidence supports the theoretical structure, cross-cultural universality, heritability, temporal stability, predictive validity, and clinical utility of this model (for reviews, see John et al., 2008; Widiger, 2005). In light of this impressive scholarship, we attempted to use this model to characterize the psychologically healthy personality from a basic trait perspective.

Overview

Despite considerable historical interest in describing the prototype of healthy personality functioning, this issue has received limited sustained empirical attention in the recent literature. Past research and contemporary work that has been done in this area has not been consistently connected to contemporary models of personality traits, such as the Big Five (Digman, 1990; John et al., 2008; McCrae & Costa, 1995). One way to address this gap might be – oddly enough – to adopt techniques that have been used to study the attributes associated with personality pathology (Lynam & Widiger, 2001; Miller & Lynam, 2003).

In Study 1, we adopted the expert-rating approach by Lynam and Widiger (2001) to generate a consensus FFM profile of the psychologically healthy person. Specifically, we asked psychologists with

expertise in trait psychology to act as "experts" and describe their idea of a psychologically healthy individual using the 30 facet scale terms of the FFM as derived from the NEO-PI-R. In addition, we collected ratings from scholars with expertise in positive psychology and two samples of undergraduate psychology students to examine the agreement within and between different groups of raters. Based on past models of healthy personality functioning, we expected experts to describe the healthy personality as being low in facets of N and relatively high in facets of E, O, A, and C.

In Study 2, we examined the reliability, heritability, rank-order stability, external validity, and normativeness of the expert-generated FFM profile of the healthy personality using data from seven different samples (N > 3,000). To do this, we computed a healthy FFM score for each participant by using intraclass q-correlation to match individual FFM profiles to the healthy personality prototype. Intraclass q-correlations take into account profile agreement with regard to magnitude and shape and can be used as an index of similarity to the healthy personality prototype (Lynam & Widiger, 2001, Miller et al., 2003). Through these analyses, we hoped to provide an initial but nonetheless comprehensive description of the nature and correlates of the healthy personality from a contemporary basic trait perspective.

STUDY 1: WHAT IS THE PERSONALITY PROFILE OF A PSYCHOLOGICALLY HEALTHY INDIVIDUAL?

The purpose of Study 1 was to generate the personality profile of a prototypical healthy individual using the 30 facets of the FFM. This was accomplished using an expert-consensus approach and ratings from different groups of raters. We examined the interrater agreement within different samples of raters, the profile agreement across different samples of raters, and compared the healthy personality profile to the personality disorder profiles published by Lynam and Widiger (2001).

Method

The Institutional Review Boards of Michigan State University and the University of Texas at Dallas declared the data collections used in Study 1 exempt from approval.

Participants and Procedure

We identified scholars with expertise in trait psychology by sending requests to the professional email listservs of the Society of Personality and Social Psychology (SPSP) and the Society of Personality Assessment (SPA). Following protocols of previous expert-rating studies (Lynam & Widiger, 2001; Vachon, Sellbom, Ryder, Miller, & Bagby, 2009), we asked experts to rate the prototypic psychologically healthy individual on the 30 facet scales of the NEO PI-R (Costa & McCrae, 1992, see Table 1) on a scale from 1 (extremely low) to 5 (extremely high). In total, 137 trait experts returned completed ratings. Their mean age was 38.12 years (*SD* = 13.26 years), 60% identified as female, 54% had a doctorate degree, and 71% reported being involved with research. We used the ratings from this sample to create an expert consensus profile of the psychologically healthy individual.

To further evaluate this expert-generated profile, we collected data from three independent samples of raters. Specifically, to examine whether psychologists from a positive psychology background would generate a similar profile, we solicited ratings from 77 scholars with expertise in positive psychology. These raters used the same scale and response format as the expert consensus sample described above. The mean age of this sample was 49.01 years (*SD* = 12.67 years), 51% were female, 70% had a doctorate degree, and 61% reported being involved with research.

In addition, we collected ratings from college students at two public universities in Michigan and Texas. The first sample was composed of 216 undergraduate students (age: *M*= 21.06 years, *SD* = 4.41; 68% female) who used the same scale and rating format as the expert samples to describe their idea of the psychologically healthy individual as part of a larger personality rating study. The second sample included 300 undergraduate students (age: *M* = 21.16 years, SD = 3.58; 76% female) who completed the Five-Factor Model Rating Form (FFMRF; Mullins-Sweatt, Jamerson, Samuel, Olson, & Widiger, 2006) to describe their idea of the psychologically healthy individual as part of a larger personality rating project.

The FFMRF includes an identifying term for each of the 30 FFM facets, along with two to four adjectives that describe both poles of each facet. In both instances, participants received course credit for their participation in the study.

Results and Discussion

Expert Rater Profile of the Healthy Personality

We averaged the ratings of 137 experts in trait psychology (SPA/SPSP members, Sample I) to create an expert-consensus profile of the psychologically healthy personality (see Table 1). Using a similar approach as Miller et al. (2001), we considered those facets as particularly prototypical that were rated as higher than 4 or lower than 2. According to this heuristic, the expert-generated profile suggested that psychologically healthy individuals have particularly high scores on Openness to Feelings (O) and low scores on Angry Hostility (N). Other top-rated facets were Warmth (E), Positive Emotions (E), Straightforwardness (A), and Competence (C). Facets rated as particularly low were Depressiveness (N) and Vulnerability (N).

We examined two measures of interrater agreement (see second and third column of Table 1) both of which capture the agreement in ratings of a single stimulus (i.e., the healthy personality). First, as a simple indicator of variation among raters, we inspected the standard deviations for each of the 30 facets, with lower values indicating better agreement among raters (cf. Schmidt & Hunter, 1989). All standard deviations were below .70 (average SD = .55). These standard deviations compared favorably to those obtained in past research on expert-consensus FFM profiles of personality disorders which ranged between .70 and .85 (Lynam & Widiger, 2001; Miller et al., 2001). In addition, we examined the proportional reduction in error variance relative to a random rating process as indicated by the r_{wg} for each of the 30 FFM facets. The r_{wg} coefficient has been used in past research on expert-consensus profiles of personality disorders (e.g., Lynam & Widiger, 2001) and serves as a way of "assessing agreement among the judgements made by a single group of judges on a single variable in regard to a

single target" (James, Demaree, & Wolf, 1984, as cited in James, Demaree, & Wolf, 1993). This statistic is

a function of two factors: (1) the observed variance in experts' ratings and (2) the variance in ratings

assuming they were entirely random (usually operationalized as uniform scale distribution). The

proportion of random variance can be subtracted from 1 to estimate the proportion of variance due to

agreement among experts (O'Neill, 2017). LeBreton and Senter (2008) proposed standards for

interpreting r_{wg} coefficients with r_{wg} < .30 indicating lack of agreement, r_{wg} = .31-.50 indicating weak

agreement), r_{wg} =.51-.70 indicating moderate agreement, r_{wg} =.71-.90 indicating strong

agreement, and r_{wg} =.91–1.0 indicating very strong agreement. In Sample I, the average r_{wg} was .85,

indicating strong agreement among raters across facets. In all cases, the expert ratings achieved at least

a 78% reduction in error.

Agreement with Positive Psychology Experts and College Students

We next examined the profile agreement between the expert-generated profile described

above and healthy personality profiles derived from three other samples of raters. To obtain the degree

of convergence between different profiles, we correlated the profiles with facets treated as cases and

the profiles as variables (see Table 2).

Does interest in positive psychology matter?

Column 4 of Table 1 shows the mean FFM profile for the psychologically healthy person as rated

by 77 self-identified experts in positive psychology (Sample II). We found good agreement within our

sample of positive psychology experts as indicated by an average *SD* of .64 and an average r_{wg} of .79.

Moreover, we found high convergence between the healthy personality profile generated by positive

psychologists and the expert-generated profile described above (*r* = .99, see Table 2). Like Sample I,

experts in positive psychology rated high scores on Openness to Feelings (O) and low scores on Angry

Hostility (N) as particularly indicative of a healthy personality profile, closely followed by high scores on

Warmth (E), Positive Emotions (E), Altruism (A), and Straightforwardness (A) as well as low scores on all N facets.

What do students think?

Columns 7 and 10 of Table 1 show the mean FFM profile for the psychologically healthy person as rated by two undergraduate psychology student samples. We found good interrater agreement for both samples with average *SD* of .73 for Sample III and .84 for Sample IV and average r_{wg} coefficients of .73 for both samples. The profiles obtained from student ratings were highly convergent with the two expert-generated profiles, with profile correlations ranging between .85 and .97 (see Table 2). Like the expert samples, students rated low scores on all N facets and high scores on Openness to Feelings (O), Warmth (E), Positive Emotions (E), and Straightforwardness (A) as particularly indicative of a psychologically healthy personality. Somewhat different from Sample I and II, however, both student samples rated facets related to E (i.e., Gregariousness and Excitement Seeking) as more prototypical for a healthy personality than facets related to C.

Correlation with Expert-Generated Profiles of Personality Pathology

We next examined the correlations between the healthy personality profile derived from the ratings by the experts in Sample I (see Table 1) and 11 expert-generated profiles of personality pathology (cf. Lynam & Widiger, 2001; Miller & Lynam, 2003). Figure 1 shows that the healthy personality profile was most negatively associated with the FFM profiles for borderline personality disorder (*r* = -.69), but only weakly with the FFM the profiles for dependent (*r* = -.08) and compulsive (*r* = .08) personality disorder. The pronounced correlation with borderline personality disorder is notable in view of recent findings suggesting that borderline personality disorder can be considered the "g"-factor of maladaptive personality functioning and is a particularly insidious constellation of pathological trait levels (Sharp et al, 2015).

Summary

In Study 1, we sought to create an expert-consensus FFM profile of the psychologically healthy personality. Agreement among experts was excellent as indicated by low standard deviations and high proportional reductions in rating error variance. Furthermore, we found high convergence with healthy personality profiles as rated by scholars with expertise in positive psychology and two independent samples of undergraduate students. The high level of agreement within and between groups of raters was especially impressive given that experts and students were describing their own idea of a healthy personality and not a particular individual case. Finally, the FFM profile of the psychologically healthy individual was negatively correlated with most expert-generated FFM profiles of personality disorders, particularly with the FFM profiles for borderline personality disorder, which has been discussed as being highly related to the core of unhealthy personality functioning (Sharp et a., 2015).

Together, these results suggested that the psychologically healthy personality can be described, with a high level of agreement, in terms of the 30 facets of the FFM. Specifically, focusing on the facets with high prototypicality ratings across all four samples of raters, healthy personality functioning can be best characterized by high levels of Openness to Feelings (O), Positive Emotions (E), and Straightforwardness (A) and low levels on all facets of N. In what follows, we will probe the reliability, heritability, validity, and normativeness of the expert-generated FFM profile of the healthy personality at the individual level.

STUDY 2: HOW WELL DOES THE HEALTHY FFM PROFILE CAPTURE PSYCHOLOGICAL HEALTH?

In Studies 2a - 2d, we used data from seven independent samples ($N > 3,000$, see Table 3) to examine the reliability, heritability, and validity of the expert-generated healthy personality profile. Participants in all samples provided self- and/or peer reports on the 30 facets of the FFM using either the NEO-PI-R (Costa & McCrae, 1992) or the 120-item International Personality Item Pool measure (IPIP-120; Johnson, 2014). In each of these samples, we matched participants' individual five-actor profiles to the healthy personality prototype derived from Sample I (see Figure 1) using intraclass q-correlation (cf.

Miller et al., 2001). Intraclass q-correlations assess the similarity between each individual's FFM profile and the expert-consensus profile of the healthy personality in terms of both shape and magnitude. We used the resultant (Fisher's z- transformed) prototypicality index as a *healthy personality measure* in all subsequent analyses. In samples 2-7, participants also provided self- and / or peer report data on various criterion measures related to psychological adjustment, self-control, aggression, maladaptive behavior, and psychopathy. In what follows, we describe how we used these data to examine the test-retest reliability (Study 2a), cross-rater reliability, long-term stability, heritability (Study 2b), convergent and divergent validity (Study 2c), and normativeness (2d) of the healthy personality profile.

The data collection for Sample 2a was approved by the Institutional Review Board at Purdue University (IRB #: 1110011403). The data collection for Study 2b was completed in 2008 before Bielefeld University had established an Institutional Review Board. The Institutional Review Board of Michigan State University declared the data collections for Sample 3-7 exempt from approval. None of these data collections were designed for the purposes of the current study but have been used in prior studies to address research questions unrelated to the current project.

Study 2a: How Dependable is the Healthy Personality Across Two Weeks?

We examined the test-retest reliability of the healthy personality index using secondary data from a student sample. Part of these data have been previously published in Suzuki, Griffin, and Samuel (2017, cf. Sample 1 in Table 3).

Method

Data came from 185 college students at a large Midwestern university who completed all items of the NEO-PI-R at the first two assessment waves of a three-wave online study (M_{age}= 19.5, SD = 2.3; 59.5% female). Cronbach's alphas for the 30 facets ranged from .69 to .95 (*Mdn* = .86) at the first assessment and .76 to .96 (*Mdn* = .86) at the 2-week follow-up.

Results and Discussion

Descriptives

As described above, we matched participants' individual five-factor profiles to the expert-generated healthy personality prototype using intraclass q-correlation (cf. Miller et al., 2001) to compute a healthy personality index. The mean healthy personality score was $M = .35$ at the first assessment wave ($SD = .28$, range $= -.42$ to .83) and $M = .34$ two weeks later at the second assessment wave ($SD = .29$, range $= -.43$ to .83).

Test-retest reliability

The test-retest correlation of the Fisher's z-transformed healthy personality index was $r = .80$, $p < .001$, 95% CI [.74, .85] across a 2-week interval. This retest reliability is comparable to those typically reported for FFM facet and domain scales (cf. McCrae, Kurtz, Yamagata, & Terracciano, 2011) indicating considerable dependability of the healthy personality index.

Study 2b: What is the Inter-Rater Consistency, Rank-Order Stability, and Heritability

of the Healthy Personality?

We used existing twin data from the Bielefeld Longitudinal Study of Adult Twins (BiLSAT; Kandler, Riemann, Spinath, Bleidorn, Thiel, & Angleitner, 2013) to examine the (1) inter-rater consistency, (2) longitudinal stability, and (3) heritability of the healthy personality index. Parts of these data have been previously published in Bleidorn, Kandler, Riemann, Angleitner, and Spinath (2009) and Mõttus et al. (2017).

Method

Data came from 844 twins (see Table 3, Sample 2) who completed the German version of NEO-PI-R ($M_{age}= 38.9$, $SD = 12.6$; 81% female) at the third assessment wave of BILSAT (here: Time 1). Among these participants were 338 complete twin pairs: 225 monozygotic (MZ) pairs (27 male pairs and 198 female pairs) and 113 dizygotic (DZ) pairs (17 male, 69 female, and 27 opposite-sex pairs). Alphas for self-reported facet scores ranged between .46 and .85 ($Mdn = .72$). For 840 participants, up to two

informant reports (mostly from spouses and friends) were available. Alphas for peer-reported facets

ranged between .44 and .82 (*Mdn* = .73) for peer 1 and between .43 and .82 (*Mdn* = .72) for peer 2,

respectively. Across facets, the median correlation between informant ratings was *r* = .38. When

available, we averaged NEO-PI-R reports from both informants. Aggregating informant-reports has been

a standard procedure in past BILSAT studies to reduce both random and systematic error (e.g., Kandler

et al., 2010; Mõttus et al., 2017).

Of these participants, 430 twins (M_{age} = 47.1, S*D* = 13.8; 84% female) also provided NEO-PI-R

data 5 years later at the fourth assessment wave (here: Time 2) of BILSAT. Alphas ranged between .42

and .85 (*Mdn* = .74). The follow-up sample consisted of 200 twin pairs including 138 MZ pairs (12 male

pairs and 126 female pairs) and 62 DZ pairs (12 male, 35 female, and 15 opposite-sex pairs). For all

twins, up to two NEO-PI-R informant ratings were available at Time 2. Across the 30 facets, alphas

ranged between .45 and .82 (*Mdn* = .73) for peer 1 and between .36 and .83 (*Mdn* = .73) for peer 2,

respectively; the median correlation between informant ratings was *r* = .39.

Results and Discussion

Descriptives

Healthy personality scores ranged between -.46 and .92 (*M* = .48, *SD* = .28) for self-reports and --

-.36 and .92 (*M* = .58, *SD* = .23) for averaged peer reports at Time 1. At the 5-year follow up, self-

reported healthy personality scores ranged between -.52 and .86 (*M* = .53, *SD* = .34); peer-reported

healthy personality scores ranged between −.36 and .88 (*M* = .60, *SD* = .22).

Cross-rater reliability

The cross-rater agreement between self- and averaged peer ratings was *r* = .48, *p* <.001, 95% CI

[.43, .53] at Time 1 and *r* = .47, *p* <.001, 95% CI [.39, .54] at Time 2, respectively. These estimates are

comparable to those reported for FFM facet and domain scales indicating good agreement between

self- and other reported healthy personality scores (e.g., Kandler, Riemann, Spinath, & Angleitner, 2010).

Longitudinal stability

The 5-year rank-order stability of self-reported healthy personality scores was r = .79, p <.001, 95% CI [.75, .82]. This stability is comparable to those typically reported for FFM domain scales and higher than those of facet scales (e.g., Bleidorn et al., 2009 reported an average stability of r =.77 for domain and r =.68 for facet scales). For peer reports, the rank-order stability was somewhat lower (r = .46, p <.001, 95% CI [.38, .53]. Notably, peers were not always the same at both assessment waves. Thus, the peer-rated stability of the healthy personality indirectly takes into account the potential impact of shared method variance, the presence of which might have inflated stability estimates.

Heritability

We used structural equation modeling based on a classic twin design to estimate the genetic and environmental contributions to individual differences in self- and peer-rated healthy personality scores at Time 1. The classic twin design model compares the covariance between monozygotic twins (MZ), who share 100% of their genes, with the covariance between dizygotic twins (DZ), who share on average 50% of their segregating genes, to decompose the variance in a personality measure into additive genetic (*A*), shared environmental (*C*), and non-shared (*E*) environmental variance components. The larger the MZ covariance compared to the DZ covariance, the larger is the genetic variance component; the smaller the difference between MZ and DZ covariance, the larger is the shared environmental variance component. Because MZ twins raised together are assumed to share 100% of their genes and 100% of their shared environmental experiences, any differences between MZ twin siblings must be due to non-shared environmental influences (for more details, see Knopik, Neiderhiser, DeFries, & Plomin, 2013).

Because age and sex differences can bias the covariance among family members, we regressed the self- and peer reported healthy personality scores on participants' age and sex and used these standardized residual scores in our behavioral genetic analyses (McGue & Bouchard, 1984). We first fit a

baseline ACE model separately to self- and peer report data using AMOS Version 24 (Arbuckle, 2014) with Full Information Maximum Likelihood (FIML) to handle missing data. We then fit reduced models (AE vs. CE vs. E) and used model comparison tests to identify the most parsimonious / best-fitting model.

Table 4 shows the fit statistics for all models and the standardized variance components for both self- and peer rated healthy personality scores. Consistent with the vast majority of behavioral genetic studies on other personality variables in adult samples (e.g., Turkheimer, 2000; Krueger, Johnson, & South, 2008), the AE model provided the best fit to both self- and peer reports. This model suggested that between 30% (peer report) and 43% (self-report) of the variance in healthy personality scores were explained by additive genetic influences. The remaining variance reflected nonshared environmental influences whereas shared environmental influences played a negligible role.

In summary, heritability estimates for the healthy personality scores were comparable to those typically obtained for FFM domain and facet scales (Jang, Livesly, & Vernon, 1996). Moreover, consistent with previous behavioral genetic research on other personality traits, non-shared environmental effects accounted for the largest proportion of individual differences in healthy personality scores, whereas shared environmental influences were indistinguishable from zero. Notably, the classic twin design is based on several assumptions which, if violated, can bias the results of classic twin design models. Most importantly, the ACE model assumes the absence of non-additive genetic effects, assortative mating, gene–environment correlation and gene x environment (G ×E) interaction. Extended twin designs including data from other relatives and/or data of relevant environmental influences would be needed to examine the impact of these factors on individual differences in healthy personality scores (cf. Bleidorn, Hufer, Kandler, Hopwood, & Riemann, 2018; Krueger et al., 2008).

Study 2c: Is the Healthy Personality Associated with Health-Related Criterion Variables?

The purpose of Study 2c was to investigate correlates of the healthy personality. To do this, we examined the associations between the healthy personality index and criterion variables related to five major research domains at the intersection of personality, social, and clinical psychology: subjective well-being (e.g., life satisfaction), positive adjustment (e.g., optimism), self-control (e.g., effortful control), aggression (e.g., verbal aggression), narcissism (e.g., grandiosity), and psychopathy (e.g., meanness). Compared to individuals with lower healthy personality scores, we expected individuals with healthier personality scores to be happier, better adjusted, better able to self-regulate their impulses, and less aggressive. We further predicted healthy personality scores to be negatively associated with maladaptive aspects of narcissism and psychopathy, such as entitlement and meanness but positively associated with the more adaptive aspects of these constructs such as boldness, self-sufficiency and stress immunity (cf. Ackerman et al., 2011; Crego & Widiger, 2015; Miller & Lynam, 2012).

Method

Samples

We used data from six independent samples. *Sample 2* was the same as in Study 2b and consisted of 430 twins (M_{age} = 47.1, SD = 13.8; 84% female). In addition to providing NEO-PI-R self- and peer-report data, this sample also completed three self-report measures of subjective well-being. *Sample 3* consisted of 292 college students (73% female). In addition to the NEO-PI-R, participants completed various measures related to their psychological adjustment, aggression, and maladaptive personality traits. *Sample 4* consisted of 415 college students (77% female). In addition to the 120-item IPIP, participants completed questionnaires related to their psychological adjustment, self-control, and psychopathology. Both samples are previously unpublished. *Sample 5* appeared previously in Donnellan and Burt (2016) and consisted of 637 college students (50% female) who, in addition to the 120-item IPIP, also completed various measures related to aggression and maladaptive personality traits. *Sample 6* appeared previously in Ruchensky, Edens, Witt, and Donnellan (2017) and consisted of 380 college

students (75% female). This sample completed the NEO-PI-R and an omnibus measure of psychopathic

personality traits. *Sample 7* is previously unpublished and consisted of 309 college students (75%

female) who completed the 120-item IPIP and various measures related to maladaptive personality

characteristics and psychopathology. In all samples, age was assessed with a categorical variable ranging

from 18 to 25 years and older. In Samples 3-7, age was assessed with either a 4-point (1= 18-20 years to

4= 25+), 5-point (1= 18 years to 5 = 22+), or 7-point (1= 18 years to 7 = 24+); across samples, more than

90% of the participants were between 18 and 22 years old.

Criterion Measures

Well-Being. Sample 2 completed self-report measures of life satisfaction and affective well-being

(see Table 5 for internal consistencies). Affective well-being was measured using the Positive and

Negative Affect Scale (PANAS, Watson, Clark, & Tellegen, 1985). Using a 5-point scale (1 = Very slightly

or not to 5 = Extremely), participants indicate the extent they typically feel positive affect (e.g.,

"excited") and negative affect (e.g., "upset"). Life satisfaction was assessed using the 5-item Satisfaction

with Life Scale (SWLS, Diener, Emmons, Larsen, & Griffin, 1985). Participants completed the SWLS (e.g.,

"I am satisfied with my life") using a 7-item response scale (1 = Strongly Disagree to 7= Strongly Agree).

Self-Esteem. We used the 10-item version of the Rosenberg Self-Esteem Scale (Rosenberg, 1965)

to measure global self-esteem in Samples 3, 4, 5, and 7. Responses were made on a 5-point scale (1 =

Strongly Disagree to 5 = Strongly Agree). Sample items include "I feel that I am a person of worth, at

least on an equal basis with others" and "I feel that I have a number of good qualities". Table 5 shows

the range of internal consistencies (alphas) across samples.

Core Self-Evaluations. Participants in Samples 3 and 4 completed the 12-item Core Self-

Evaluations Scale (CSES, Judge, Bono, & Thoresen, 2003) using a 5-point rating scale (1 = Strongly

Disagree to 5 = Strongly Agree). This scale attempts to measure individuals' fundamental evaluations

about themselves, their abilities, and locus of control. Sample items include "Sometimes when I fail I feel

worthless" (reverse scored) and "I complete tasks successfully". The alpha consistency was .84 in both samples (see Table 5).

Need for Cognition. Participants in Sample 4 completed the 18-item Need For Cognition Scale (Cacioppo, Petty, & Kao, 1984) using a 5-point response scale (1 = Strongly Disagree to 5 = Strongly Agree). Need for cognition refers to an individual's relatively stable tendency to engage in challenging cognitive endeavors. Sample items include "I prefer my life to be filled with puzzles that I must solve" and "The notion of thinking abstractly is appealing to me".

Optimism. Participants in Sample 4 completed a 6-item optimism scale by Carver and Scheier (2002) using a 5-point response scale (1 = Strongly Disagree to 5 = Strongly Agree). Sample items are "In uncertain times, I usually expect the best" and "If something can go wrong for me it will (reverse scored).

Self-Concept Clarity. We assessed the extent to which participants in Sample 4 perceived their self-beliefs to be clearly and confidently defined, internally consistent, and stable using the 12-item Self-Concept Clarity Scale (Campbell et al., 1996). Responses were made on a 5-point scale (1 = Strongly Disagree to 5 = Strongly Agree). Sample items include "In general, I have a clear sense of who I am and what I am" and "I seldom experience conflict between the different aspects of my personality".

Planful Competence. Participants completed a 6-item Planful Competence Scale modified from a description in Clausen (1993) using 5-point rating scale (1 = Strongly Disagree to 5 = Strongly Agree). This scale assesses individuals' ability to choose roles that suit their interests and talents, and to pursue these roles effectively and with perseverance.

Self-Control. We used the 13-item Self-Control Scale (Tangney, Baumeister, & Boone, 2004) to assess participants' ability to exert self-control and inhibit impulses in Samples 4 and 7. Sample items are "I am good at resisting temptation" and "I am lazy" (reverse scored). Participants in Sample 4 also completed three Effortful Control scales by Rothbart, Ahadi, and Evans (2000): Activation Control (7

items, e.g. "I am often late for appointments"), Attentional Control (5 items, e.g., "It is very hard for me to focus my attention when I am distressed") and Inhibitory Control (7 items, e.g., "It is easy for me to inhibit fun behavior that would be inappropriate"). Participants responded to all items using 5-point rating scales (1 = Strongly Disagree to 5 = Strongly Agree).

Aggression. Sample 3 completed the Buss-Perry Aggression Questionnaire (Buss & Perry, 1992) using a 5-point rating scale (1 = Extremely Uncharacteristic of Me to 5 = Extremely Characteristic of Me). This 29-item questionnaire consists of four subscales related to physical aggression (9 items, e.g. "If somebody hits me, I hit back"), verbal aggression (5 items, e.g." I often find myself disagreeing with other people"), anger (7 items, e.g., "I have trouble controlling my temper"), and hostility (8 items, e.g., "I am sometimes eaten up with jealousy").

Sample 5 completed the 23-item Reactive-Proactive Aggression Questionnaire (Raine et al., 2006). Sample items include "Had temper tantrums" (Reactive) and "Hurt others to win a game" (Proactive). Responses were made on a 3-point scale (0 = Never to 2 = Often). Sample 5 further completed the 32-item Sub-Types of Antisocial Behavior questionnaire (STAB; Burt & Donnellan 2009) which assesses different forms of antisocial behavior: Non-aggressive rule-breaking (11 items), social aggression (11-items), and physical aggression (10-items). Responses were made on a 5-point scale (1 = Very Inaccurate to 5 = Very Accurate). Sample items include "Broke into a store, mall, or warehouse" (non-aggressive rule-breaking), "Intentionally damaged someone's reputation" (social aggression), and "Got into physical fights" (physical aggression).

Narcissism. We measured several aspects of narcissism. *Entitlement* was measured in Samples 3, 5, and 7 using the 9-item Psychological Entitlement scale by Campbell, Bonacci, Shelton, Exline, and Bushman (2009). Responses were made on a 7-point scale (1 = Strong Disagreement to 7 = Strong Agreement). Sample items include "Great things should come to me" and "I feel entitled to more of everything." *Grandiosity* was measured in Sample 5 and 7 with the Rosenthal et al. (2007) Narcissistic

Grandiosity Scale (Rosenthal, Hooley, & Steshenko, 2007). This scale consists of 16 adjectives that were rated on a 7-point scale (1 = Not at All to 7 = Extremely). Sample adjectives include "extraordinary" and "superior". Sample 7 also completed the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), which consists of 40 forced-choice, paired statements that include a "narcissistic" response and a "non-narcissistic" response. For example, one NPI item pair is, "I like to be the center of attention," paired with "I prefer to blend in with the crowd." The NPI provides a total score and scores on 7 subscales with the Raskin and Terry (1988) solution: authority, superiority, exhibitionism, entitlement, vanity, exploitativeness and self-sufficiency.

   Psychopathy. Sample 6 completed the 154-item Psychopathic Personality Inventory (PPI, Lilienfeld & Andrews, 1996). The PPI is a self-report survey intended to measure personality traits associated with psychopathy. Participants rated the PPI items on a 4-point scale (1 = False to 4 = True*).* In addition to a total score, the PPI can be used to assess eight subscales: cold-heartedness, fearlessness, social potency, stress immunity, Machiavellian egocentricity, rebellious nonconformity, carefree nonplanfulness, and blame externalization.

   Sample 5 completed the 58-item Triarchic Psychopathy Inventory (TriPM; Patrick, 2010) using a 4-point scale (1 = True to 4 = False). The TriPM measures 3 facets of psychopathy: boldness (19-items), meanness (19-items), and disinhibition (20-items). Sample items include "I am well-equipped to deal with stress" (boldness), "I return insults" (Meanness), and "I jump into things without thinking" (disinhibition). Sample 4 completed the 64-item Self-Report Psychopathy Scale (SRP; Paulhus et al., in press) on a 5-point scale (1= Strongly Disagree to 5 =Strongly Agree). The SRP comprises four subscales: interpersonal manipulation, callous affect, erratic lifestyle, and criminal tendencies.

Results and Discussion

   Table 5 shows the correlations between the healthy personality index and the criterion measures across all participants (see Table S1 in the online supplemental materials for correlations

within each sample). Given the large number of tests, we only interpreted associations with a *p*-value smaller than .005 and effect sizes greater than r = .15 to reduce the risk of type-1 errors and making exaggerated claims from small effect size estimates.

As predicted, we found strong associations between the self-reported healthy personality scores and indicators of well-being (*r*s: |.42 - .55|, cf. Table 5: Sample 2a). Correlations between peer-reported healthy personality scores and subjective well-being measures were somewhat attenuated but still significant (*r*s: |.24 - .28|; cf. Table 5: Sample 2b), indicating a lower limit to which these correlations reflect substantive associations beyond shared method variance.

Consistent with our hypotheses, the healthy personality was also positively associated with each of the six positive adjustment measures. We found particularly strong associations with self-esteem, core self-evaluations, self-concept clarity, and optimism (*r*s: .53 - .61) and somewhat weaker links with need for cognition and planful competence (*r*s: .24 - .29). We further found significant positive correlations with all measures of self-control, indicating that individuals with healthier personality scores were more likely to describe themselves as being able to resist impulses, regulate their behavior, and focus their attention.

As predicted, the healthy personality was negatively associated with overall aggression. We found the strongest links with hostility and anger ($r \sim$ -.56) and somewhat weaker links with verbal (r = -.23) and physical aggression (r = -.44). We further found negative correlations with both proactive and reactive aggression as well as measures of antisocial behavior ($r \sim$ -.40). This pattern suggested that individuals with less healthy personalities were more aggressive and more likely to engage in antisocial behavior such as rule breaking or social aggression.

The correlations with measures of narcissism yielded a more complex picture. Only the NPI subscale of exploitativeness was negatively associated with the healthy personality. Overall narcissism as measured with the NPI and psychological entitlement were unrelated to the healthy personality; and

we found small positive associations with grandiosity and NPI-self-sufficiency (*r*s: .15-.26). These results

converged with past research indicating that the NPI facets associated with leadership and authority

tend to be related to positive outcomes and unrelated to pathological narcissism (Ackerman et al.,

2011).

Largely confirming our predictions, we found the healthy personality to be negatively related to

maladaptive subscales of the three psychopathy measures but positively related to the aspects of

psychopathy related to boldness and stress immunity. We observed the strongest negative relations

with carefree nonplanfulness, blame externalization, and disinhibition (*r* ~ -.50); the strongest positive

correlations occurred with stress immunity and boldness (*r* = .35 - .49).

Together, these results paint a first draft portrait of the psychologically healthy personality as

measured with a contemporary basic trait measure. Specifically, we found that people with healthier

personality profiles tend to be satisfied with their life and experience relatively more positive than

negative affect; they are psychologically well-adjusted, have high self-esteem, good self-regulatory skills,

an optimistic outlook on the world, and a clear and stable self-view; they tend to be low in aggression

and meanness, unlikely to exploit others, relatively immune to stress, bold, and self-sufficient.

Study 2d: Is the Healthy Personality Related to But Also Distinct from a Normative Personality Profile?

To what degree does the healthy personality reflect a normative or average personality profile?

Theory and research have emphasized that a normative personality profile likely has psychological

meaning, particularly in terms of psychological adjustment and health (e.g., Bleidorn et al., 2012; Furr,

2008; Wood & Furr, 2016; Wood & Wortman, 2012). In Study 2d, we examined the degree to which the

healthy personality profile converged vs. diverged from a normative personality profile of college

students.

Method

Data came from Samples 3 – 7 (*N* = 2,025) used in Study 2c. We merged the data from these

samples to compute an average FFM profile for our pooled sample of college students. We then

examined the convergence between this normative personality profile and the expert-generated healthy

personality profile in four ways: First, to obtain the degree of convergence between the healthy and the

normative personality profile, we correlated the two profiles with facets treated as cases and the

profiles as variables. Second, applying the previously mentioned heuristic by Miller et al. (2001), we

compared the most prototypical facets of both profiles (i.e., facets with scores greater 4 and lower than

2). Third, using intraclass q-correlation, we matched each participants' FFM profiles to the normative

personality profile and correlated the resulting *normativeness score* (cf. Wood & Furr, 2016) with the

healthy personality score. Fourth, we inspected the squared mean-level differences between the 30

facets of the normative and the healthy personality profiles.

Results and Discussion

The correlation between the normative FFM profile (see Table 6) and the expert-generated

healthy FFM profile was *r* = .81, indicating high convergence between the shapes of the two profiles.

Notably, this correlation was lower than the correlations with other expert- or student-generated

healthy personality profiles (see Study 1, Table 2), particularly those that used facets derived from the

same rating instrument (i.e., NEO-PI-R). To contextualize this finding, we also estimated the profile

correlation between the healthy profile and the NEO-PI-R norm profile of 1,000 adults (50% female)

published in Costa and McCrae (1992). This correlation was slightly higher (r=.86) alleviating potential

concerns regarding the non-normativeness of our combined college sample.

We then computed a normativeness index by matching participants' individual five-factor

profiles to the normative personality profile using intraclass q-correlation (cf. Miller et al., 2001). Across

all participants in Samples 3-7, the mean-level of the normativeness index was *M* = .33 (*SD* = .24, range =

−.49 to .77). The correlation between the normative and the healthy personality index was *r* = .88, *p* <

.001, 95% CI [.87, .89], suggesting a high convergence between the healthy personality and normative personality profile.

Compared to the healthy personality profile, the normative profile was characterized by fewer extreme facet-level means with students' average scores ranging between M = 2.50 for Depressiveness and M = 3.96 for Altruism. Thus, none of the facets of the normative profile met Miller and colleagues' (2001) cut-off value for particularly prototypical scores. The squared mean-level differences (see Table 6) between facets of the healthy personality and the normative personality profile indicated particularly pronounced differences in N indicating that the normative personality profile was characterized by higher scores on all six facets of N, particularly Angry Hostility and Anxiousness.

General Discussion

The purpose of this article was to advance the psychological understanding of the healthy personality from a basic trait perspective. Using the FFM as a framework and an expert-consensus approach, we first attempted to generate a basic trait profile of a prototypical healthy individual. In a second step, we tested whether this FFM profile can be used to assess healthy personality functioning at the individual level. To do this, we used data from seven independent samples and a prototypicality index based on intraclass q-correlations to examine the reliability, heritability, validity, and normativeness of the healthy personality profile.

What Basic Personality Traits Characterize the Psychologically Healthy Individual?

We found that the healthy personality can be described, with a high level of agreement, in terms of the 30 facets of the NEO-PI-R model of the FFM. The resultant expert-generated prototype indicated that high levels of Openness to Feelings (O), Positive Emotions (E), and Straightforwardness (A) together with low levels on facets of Neuroticism (N), are particularly indicative of healthy personality functioning. Similar to Carl Roger's portrayal of the "fully functioning" person (1961), the psychologically healthy person can be characterized as being capable to experience and express emotions,

straightforward, warm, friendly, genuine, confident in their own abilities, emotionally stable, and fairly

resilient to stress (for FFM facet-level descriptions, see Costa & McCrae, 1992).

As predicted, the healthy personality profile was negatively associated with pathological

personality functioning (Lynam & Widiger, 2001). Consistent with research highlighting that borderline

personality approximates the core of personality pathology (Sharp et al., 2015), we found the strongest

association with the FFM profile for this personality disorder profile. However, a comparison to the

facet-level profile of borderline personality shows that healthy personality is not simply the opposite or

absence of personality problems (Peterson & Seligman, 2004). To illustrate, Figure 2 shows the expert-

consensus FFM profiles of the healthy personality and borderline personality (derived from Lynam &

Widiger, 2001). The strong negative correlation between the two prototypes is reflected in pronounced

differences between N, A, and C at the domain level. Within these domains, however, the facet-level

profiles of the healthy personality profile are not just mirror images of borderline personality. Within N,

Impulsivity is a central feature of borderline personality but is not remarkable for healthy personality,

which may reflect the spontaneity thought to characterize healthy people. Despite substantial mean-

level differences, the facet-level patterns within C are similar across the two profiles, with Competence

being highest and Deliberation the lowest rated facet for both prototypes. For A, low Compliance is a

cardinal feature for the borderline but not for the healthy prototype. Borderline and healthy personality

are also not opposite on the other two domains. In fact, the pattern of O facets is similar with the

exceptions that borderline individuals are rated as being more open to action and less open to values.

There is significant facet-level heterogeneity for the E domain, with people rated as warmer and more

prone to positive emotions whereas borderline individuals were rated as more excitement-seeking.

We also found a strong positive correlation between the healthy personality profile and a

normative FFM profile (derived via self-report from $N > 2,000$) supporting the perspective that

normative personality functioning has psychological meaning and reflects psychological adjustment and

mental health (e.g., Furr, 2008; Wood & Furr, 2016). An implication of this finding is that maladaptive

personality may be found at both tails of these traits (Samuel, 2011). Yet, despite their similar shapes,

we also found important differences between the normative and the healthy profile, which can be seen

in Figure 2. For instance, although both normative and healthy profiles were characterized by low N,

healthy personality scores were substantially lower for all of the facets of N except Self-Consciousness.

Healthy people were also rated as relatively more active and open to values but less prone to fantasy.

Together, these patterns underline the notion that healthy personality functioning is more than the

opposite of malfunction or the same as normal functioning and is thus worth studying in its own right.

Assessing Healthy Personality Functioning with the Healthy FFM Profile

We used self- and peer report data from over 3,000 individuals to examine the psychometric

qualities of the healthy FFM profile at the individual level. To do this, we computed a healthy personality

index based on the similarity between each individual's FFM personality profile and the expert-

generated FFM-profile of the healthy personality. Comparable to findings for other personality scales,

we found that the healthy personality index was characterized by good retest reliability and cross-rater

agreement as well as substantial 5-year rank-order stability and heritability. Together, these results

indicated that the psychometric quality of the healthy personality index is comparable to those typically

obtained for FFM domain and facet scales (Jang et al., 2007; McCrae et al., 2011).

To begin to investigate the construct validity of the healthy FFM profile, we examined its

associations with a broad set of criterion variables related to positive adjustment, self-control,

aggression, narcissism, and psychopathy. As predicted, individuals with healthy personality profiles

tended to be better adjusted as indicated by higher self-esteem, core self-evaluations, self-concept

clarity, and optimism. Individuals with healthy personality scores were also more likely to describe

themselves as being able to resist impulses, regulate their behavior, and focus their attention as well as

being low in aggression and antisocial behavior. The associations with measures of narcissism and

psychopathy yielded a more complex picture. While overall narcissism as measured with the NPI was unrelated to the healthy personality, we found individuals with healthy personalities to score lower in exploitativeness but relatively higher in grandiosity and self-sufficiency. In a similar vein, we found negative associations with maladaptive facets of psychopathy measures (e.g. blame externalization, disinhibition) and positive associations with the more adaptive facets of these scales (e.g., stress immunity, boldness). Overall, these results provide initial evidence for the convergent and divergent validity of the healthy personality index.

Implications

We believe these results have both practical implications for the assessment of and research on healthy personality functioning as well as deeper implications for theories about psychological adaption and functioning. In addition to providing a comprehensive description of a psychologically healthy individual in terms of basic FFM traits, the profile generated and tested herein provides a practical assessment tool for research on healthy personality functioning. Scoring individual trait profiles in terms of their similarity to the healthy FFM prototype provides a simple way to capture relatively optimal personality functioning. The integration of this measure in the well-established and widely used FFM model is associated with several advantages. At an abstract level, the FFM prototype may help scholars interested in connecting the somewhat independent literatures on personality traits and positive adaptation (e.g., Noftle et al., 2010). More concretely, scholars can reanalyze existing datasets including FFM measures using the healthy personality index to further examine the nomological network of healthy personality functioning.

We also suggest that this work touches upon a number of interesting questions concerning the determinants of psychological health and the fulfillment of human potential. In particular, a trait model of healthy personality functioning comes with certain theoretical assumptions about the nature of

adaptation and enables further opportunities for continued research on this topic. Several points are worth mentioning.

First, an underlying assumption of the present research is that a healthy personality prototype can be measured along multiple dimensions of relatively stable thoughts, feelings, and behaviors that are descriptive of personality in general. This assumption is consistent with the historical and contemporary theories of healthy personality functioning discussed above. Psychodynamic, humanistic, and positive psychology accounts of the healthy personality emphasized several different features that characterize a psychologically healthy personality (e.g., Erikson, 1950; Peterson & Seligman, 2004; Rogers, 1961). It is notable that all of their characterizations are basically congruent with our prototype, which also asserts that healthy personality functioning involves more positive than negative emotions, openness and spontaneity, responsibility and achievement, and warm connections to others. Accordingly, the FFM profile presented in this paper can be regarded as a relatively comprehensive portrait that captures important insights from theories of optimal functioning that may tend to emphasize some attributes but neglect others.

Second, there was a high degree of interrater reliability of expert ratings. This might suggest that there is a commonly understood definition of the healthy personality. This view is consistent with theorists from different perspectives credited earlier, who emphasized the features of prototypically healthy human beings. However, it also provides a coherent model of individual differences with which to test possible alternative pathways to optimal functioning, or environments in which different personality configurations might be more optimal (cf. Let et al., 2011). Denissen et al. (2018) showed, for instance, that Extraversion is a more beneficial trait in some work contexts than in others, and that this match vs. mismatch of traits and work contexts is associated with individual differences in income. Thus, our results do not counter the possibility that different trait profiles or levels would be more or less adaptive in certain environments. Indeed, our research enables researchers to test whether

environment-specific adaptation strategies manifest in empirical deviations from the expert-generated healthy personality prototype.

Third, the present results offer some insights into the question of how people become healthy in the first place. The healthy profile indicated that experts consider those traits as particularly healthy that tend to be most pronounced during middle adulthood. This finding is consistent with the large body of literature on personality maturation (Bleidorn, 2015; Roberts, Wood, & Caspi, 2008). According to this research, the average young adult tends to increase in traits that reflect maturity and psychological health, such as emotional stability or agreeableness. Longitudinal and behavioral genetic research suggest that both genes and life experiences contribute to individual differences in personality maturation. The processes that give rise to personality maturation may be the same as the processes that underlie healthy personality functioning. Our behavioral genetic analyses support this view. However, longitudinal research is needed to advance our understanding of the factors that drive healthy personality development.

Fourth, trait psychologists generally assume that hierarchical models such as the Big Five are more or less comprehensive, meaning that they account for all of the major differences in personality at the level of basic dispositions. This view seems to contrast with theorists who have proposed and studied factors that are relevant to healthy personality functioning but not easily placed within the universe of the FFM. Such factors might include authenticity (how much you let your traits through; Sedikides, Slabu, Lenton, & Thomaes, 2017), self-insight (how much insight you have about your traits; Vazire & Carlson, 2011), balance (how flexible you are in enacting any level of a trait depending on the circumstance; Jung, 1953), and competence (how capable you are to adapt any personality trait to certain situations; White, 1959), or other virtues hypothesized to lie outside of trait distributions (Seligman & Peterson, 2004, but see McDonald et al., 2008 and Noftle et al., 2010). Research on the incremental validity of these extra-trait factors is needed to test whether they can contribute

meaningful insights to a comprehensive trait description of healthy personality functioning. We hope

that the trait prototype identified in this study could facilitate this kind of work.

For example, the strong correspondence between healthy and normative personality

functioning observed here is concordant with Carl Jung's assertion that *balancing* different extremes

(which should average to the norm) is key to healthy personality functioning. However, we also find

important differences, and the presence of a relatively normative score does not necessarily mean that

a person can flexibly show behavior representative of both extremes of a trait, as Jung's (1953) theory

implies. Accordingly, the healthy prototype generated by experts in this study can be used to test this

idea empirically, for instance by testing the degree to which people with the levels implied by the

prototype are indeed more flexible and adaptive across situations.

Limitations

We anchored our model of healthy personality functioning in a particular FFM inventory, the 30

facets of the NEO-PI-R. While this measure has been widely used and extensively validated, any single

instrument can be challenged in terms of its accuracy for representing certain aspects of personality. For

instance, there are differences between the FFM and Big Five conceptions of openness (also known as

intellect) that may be relevant for understanding healthy functioning (Trapnell, 1994). There are also

different models of the facet structure of personality (e.g., DeYoung, Quilty, & Peterson, 2008). Evidence

in maladaptive personality research suggests that variance at the maladaptive tails of trait dimensions

extends past the normal range (Morey et al., 2012; Suzuki et al., 2015), and a parallel argument could be

made that trait measures focused on adaptive content would better capture healthy personality than a

normal-range instrument. From a broader perspective, many theorists regard traits as just one level of

personality (e.g., DeYoung, 2015; Hopwood, 2018; Leary, 1957; McAdams & Pals, 2006; McCrae & Costa,

2003). Other levels, such as characteristic adaptations or dynamic signatures that play out in particular

environmental contexts, are also likely to be important for understanding healthy personality

functioning, but they are not captured in our approach. While there are practical advantages to using

the NEO-PI-R model to understand the pattern of facets associated with healthy functioning, it would be

useful for future work to elaborate these ideas in terms of other models of personality traits (e.g.,

McGrath et al., 2017) and concepts (e.g., McAdams & Pals, 2006).

The expert-rating approach has significant strengths and weaknesses for this kind of research.

As discussed above, this approach has been successfully used to understand the normal trait variation

underlying maladaptive personality constructs. It also overcomes some of the limitations of single-

authored theories, including blind spots and an over-emphasis on a single individual's preferred ideas.

That being said, ultimately this descriptive approach does not inform us about why different facets were

thought to be optimal, and human history has proven many times that it is entirely possible for the

views typical of a large body of experts to be wrong. Ultimately, concatenating different visions of the

healthy personality from well-regarded theorists, different theoretical viewpoints (e.g., positive,

psychoanalytic, and trait psychology), and empirical data will be needed to move the field towards a

more functional understanding of why certain kinds of personalities tend to flourish.

Our use of a single profile to represent healthy personality traits is both a strength and a

limitation. As described above, the profile approach allows us to quantify overall psychological health

using a single number that takes into account the scores of a relatively comprehensive set of personality

traits. That being said, substantial information about specific traits is lost in this approach, and it masks

the fact that different personalities may be more or less adaptive for different people in different

contexts. For example, findings have suggested that elevated levels of conscientiousness may be

adaptive in high-complexity jobs, but increasing levels results in diminished performance for low-

complexity roles (Le et al., 2011). There are also empirical issues with the profile approach, such as the

influence of normativeness that we addressed in this paper, and the fact that different aspects of a

profile can impact similarity coefficients (e.g., Furr, 2008). With these issues in mind, we believe that the

healthy personality profile derived in this study has an important place in future research, but that it should be complemented with other approaches to fully understand healthy personality functioning from a trait perspective

Finally, our extensive use of Western convenience samples limited the generalizability of our findings in several ways. First, it remains an open question whether and to what degree the identified healthy personality profile generalizes to other cultures. We hope that future studies will extend our work by examining healthy personality profiles in different cultures using data from population-representative samples. Second, the majority of our validation samples were college students. More research is needed to test whether the healthy profile generated in this study is also adaptive in samples with different social backgrounds (e.g., low socioeconomic status) and across different life stages (e.g., old age).

Conclusion

This study supports the perspective that the healthy personality can be understood as a configuration of normal personality traits as represented by the FFM. Individuals with a personality profile composed of low Neuroticism along with high levels of Openness to Feelings, Warmth, Positive Emotions, and Straightforwardness, behave in a manner consistent with healthy personality functioning. This research integrates a number of historical threads in the literature on optimal human personality configurations and provides a practical means for future research on this important and interesting topic.

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Table 1. *Five-Factor Model personality profiles for the psychologically healthy person as rated by four independent samples of raters.*

Domain and Facet	Sample I			Sample II			Sample III			Sample IV		
	M	*SD*	r_{wg}	*M*	*SD*	r_{wg}	*M*	*SD*	r_{wg}	*M*	*SD*	r_{wg}
Neuroticism												
Anxiousness	<u>2.34</u>	.63	.80	<u>2.27</u>	.68	.77	<u>2.61</u>	.84	.65	<u>2.38</u>	.91	.65
Angry Hostility	<u>1.77</u>	.65	.79	<u>1.83</u>	.68	.77	<u>2.07</u>	.82	.66	<u>1.83</u>	.87	.66
Depressiveness	<u>2.01</u>	.61	.82	<u>2.01</u>	.82	.66	<u>2.13</u>	.80	.68	<u>1.99</u>	.92	.68
Self-Consciousness	2.72	.54	.85	2.73	.70	.76	2.74	.88	.61	2.47	.89	.61
Impulsivity	<u>2.47</u>	.58	.83	<u>2.48</u>	.70	.75	<u>2.77</u>	.86	.63	<u>2.27</u>	.94	.63
Vulnerability	<u>2.21</u>	.66	.78	<u>2.09</u>	.75	.72	<u>2.38</u>	.83	.66	<u>2.10</u>	.92	.66
Extraversion												
Warmth	**3.95**	.49	.88	**3.86**	.56	.84	**3.97**	.63	.80	3.86	.87	.80
Gregariousness	3.60	.59	.83	3.53	.60	.82	**3.93**	.67	.77	**3.91**	.83	.77
Assertiveness	3.26	.47	.89	3.16	.61	.81	3.38	.70	.75	3.25	.71	.75
Activity	3.67	.57	.84	3.81	.65	.79	3.84	.64	.79	**3.91**	.81	.79
Excitement-Seeking	3.01	.45	.90	3.06	.57	.84	3.33	.68	.77	3.03	.78	.77
Positive Emotions	**3.91**	.50	.88	**3.78**	.68	.77	**3.96**	.70	.75	**4.04**	.77	.75
Openness to Experience												
Fantasy	3.03	.53	.86	2.99	.62	.81	3.35	.80	.68	3.13	.86	.68
Aesthetics	3.39	.60	.82	3.43	.70	.76	3.58	.60	.82	3.57	.84	.82
Feelings	**4.00**	.53	.86	**4.00**	.61	.81	**3.92**	.56	.84	**4.19**	.84	.84
Actions	3.01	.47	.89	3.18	.58	.83	3.29	.71	.75	3.03	.80	.75
Ideas	3.21	.46	.90	3.32	.59	.82	3.40	.73	.73	3.23	.75	.73
Values	3.66	.66	.78	3.70	.65	.79	3.57	.81	.67	3.53	.97	.67
Agreeableness												
Trust	3.24	.54	.86	3.34	.66	.78	3.40	.80	.68	3.19	.79	.68
Straightforwardness	**3.90**	.52	.87	**3.97**	.54	.86	**3.93**	.69	.76	**4.02**	.85	.76
Altruism	3.75	.57	.84	**3.83**	.55	.85	3.74	.71	.75	3.84	.87	.75
Compliance	3.22	.51	.87	3.23	.69	.76	3.62	.74	.73	3.64	.81	.73
Modesty	3.13	.51	.87	3.18	.68	.77	3.38	.75	.72	3.53	.94	.72
Tender-Mindedness	3.66	.56	.84	3.68	.64	.80	3.57	.67	.77	3.72	.80	.77
Conscientiousness												
Competence	**3.77**	.53	.86	3.65	.63	.80	3.76	.64	.79	3.70	.82	.79
Order	3.56	.56	.85	3.49	.58	.83	3.72	.65	.79	3.79	.84	.79
Dutifulness	3.64	.51	.87	3.64	.67	.78	3.78	.74	.72	3.85	.85	.72
Achievement	3.53	.53	.86	3.57	.60	.82	3.65	.75	.72	3.54	.78	.72
Self-Discipline	3.59	.54	.86	3.75	.62	.81	3.78	.75	.72	3.72	.84	.72
Deliberation	3.42	.54	.86	3.59	.55	.85	3.57	.70	.76	3.72	.81	.76

Notes. Sample I: trait psychology experts (*N*= 137); Sample II = positive psychology experts (*N*= 77); Sample III = undergraduate students (*N* = 216); Sample IV = undergraduate students (*N* = 300); r_{wg}: proportional reduction in error variance relative to a discrete uniform distribution. Lowest 5 facets underlined and top 5 rated facets in bold.

Table 2. *Correlations between five-factor model profiles of the healthy personality derived from expert and student samples.*

	I	II	III
Sample I	–		
Sample II	.99	–	
Sample III	.97	.97	
Sample IV	.85	.85	.85

Notes. Sample I: trait psychology experts (*N*= 137); Sample II = positive psychology experts (*N*= 77); Sample III = undergraduate students (*N* = 216); Sample IV = undergraduate students (*N* = 300).

Table 3. *Validation samples.*

Sample #	Reference	Subjects	N	Female	FFM measure
1	Suzuki et al., 2017	Students	185	60 %	NEO-PI-R
2	Kandler et al., 2013	Twins	844	81 – 84 %	NEO-PI-R
3	Unpublished Report	Students	292	73 %	NEO-PI-R
4	Unpublished Report	Students	415	77 %	IPIP-120
5	Donnellan & Burt (2016)	Students	637	50 %	IPIP-120
6	Ruchensky et al. (2017)	Students	380	75 %	NEO-PI-R
7	Unpublished Report	Students	309	82 %	IPIP-120

Notes. FFM = Five-Factor Model; NEO-PI-R = Revised NEO Personality Inventory (Costa & McCrae, 1992); 120-item International Personality Item Pool measure (IPIP-120; Johnson, 2014).

Table 4. *Genetic (a^2) and environmental ($c^2 + e^2$) influences on individual differences in self- and peer-rated healthy personality scores.*

Model	χ^2	df	p	CFI	RMSEA	a^2	c^2	e^2
				Self-rated healthy personality				
			Model fit statistics			Standardized variance components		
ACE	1.046	3	.790	1.000	.000	.378*	.046	.576*
AE	**1.112**	**4**	**.892**	**1.000**	**.000**	**.428***		**.572***
CE	4.913	4	.296	.978	.021		.356*	.644*
				Peer-rated healthy personality				
ACE	0.975	3	.807	1.000	.000	.299*	.000	.701*
AE	**0.975**	**4**	**.914**	**1.000**	**.000**	**.299***		**.701***
CE	5.493	4	.240	.918	.027		.231*	.769*
E	24.425	5	.000	.000	.089			1.000*

Notes. 225 monozygotic twin pairs, 113 dizygotic twin pair s (self-ratings); 224 monozygotic twin pairs, 112 dizygotic twin pairs (peer ratings); the best-fitting model is shown in boldface, *p < .001.

Table 5. *Correlations between the healthy personality index and criterion measures.*

Constructs and Measures	Sample	α [a]	r	p	95% CI
Positive Adjustment					
Self-Esteem (Rosenberg, 1965)	3, 4, 5, 7	.88 – .90	.58	<.001	(.55, .61)
Core Self Evaluations (Bono et al., 2003)	3, 4	.84	.60	<.001	(.55, .65)
Need for Cognition (Cacioppo et al., 1984)	4	.89	.24	<.001	(.15, .33)
Optimism (Carver & Scheier, 2002)	4	.82	.53	<.001	(.46, .60)
Self-Concept Clarity (Campbell et al., 1996)	4	.90	.52	<.001	(.46, .59)
Planful Competence (Clausen, 1993)	4	.79	.27	<.001	(.18, .36)
Self-Control					
Self-Control (Tangney et al., 2004)	4, 7	.86-.87	.47	<.001	(.41, .53)
Effortful Control (Rothbart et al., 2000)	4	.81	.46	<.001	(.38, .53)
Activational Control	4	.68	.32	<.001	(.23, .40)
Attentional Control	4	.69	.46	<.001	(.38, .53)
Inhibitory Control	4	.59	.34	<.001	(.25, .42)
Subjective Well-being					
PANAS Positive Affect (Watson et al., 1985)		.85			
FFM Self-Report	2		.48	<.001	(.40, .55)
FFM Peer Report	2		.24	<.001	(.15, .33)
PANAS Negative Affect (Watson et al., 1985)	2	.85			
FFM Self-Report	2		-.54	<.001	(-.60, -.47)
FFM Peer Report	2		-.25	<.001	(-.34, -.16)
Satisfaction with Life Scale (Diener et al., 1985)	2	.86			
FFM Self-Report	2		.42	<.001	(.34, .49)
FFM Peer Report	2		.28	<.001	(.19, .37)
Aggression					
Aggression (Buss & Perry, 1992)	3	.92	-.58	<.001	(-.65, -.50)
Physical	3	.86	-.44	<.001	(-.53, -.34)
Verbal	3	.72	-.25	<.001	(-.35, -.14)
Anger	3	.83	-.56	<.001	(-.63, -.48)
Hostility	3	.82	-.55	<.001	(-.63, -.46)
Proactive Aggression (Raine et al., 2006)	5	.81	-.37	<.001	(-.44, -.30)
Reactive Aggression (Raine et al., 2006)	5	.85	-.41	<.001	(-.47, -.34)
Sub-Types of Antisocial Behavior (Donnellan & Burt, 2016)					
Rule Breaking	5	.84	-.33	<.001	(-.40, -.26)

Social Aggression	5	.88	-.40	<.001	(-.46, -.33)
Physical Aggression	5	.87	-.40	<.001	(-.46, -.33)
Narcissism					
Psychological Entitlement (Campbell et al., 2004)	3, 5, 7	.80 – .88	-.02	.556	(-.08, -.04)
Grandiosity (Rosenthal et al., 2006)	5,7	.94 – .95	.14	<.001	(.08, .20)
Narcissistic Personality Inventory (Raskin & Terry, 1988)	7	.83	.02	.665	(-.09, .13)
Authority	7	.73	.12	.044	(.01, .23)
Self Sufficiency	7	.41	.26	<.001	(.15, .36)
Superiority	7	.43	.07	.215	(-.04, .18)
Exhibitionism	7	.65	-.12	.045	(-.23, -.01)
Exploitativeness	7	.58	-.22	<.001	(-.33, -.11)
Vanity	7	.68	.11	.056	(.00, .22)
Entitlement	7	.51	-.13	.020	(-.24, -.02)
Psychopathy					
Psych. Personality Inventory-Revised (Lilienfeld & Andrews, 1996)					
Coldheartedness	6	.82	-.13	.013	(-.23, .03)
Fearlessness	6	.87	.02	.676	(-.08, .12)
Social Influence	6	.87	.31	<.001	(.22, .40)
Stress Immunity	6	.84	.36	<.001	(.27, .45)
Machiavellian Egocentricity	6	.82	-.39	<.001	(-.47, -.30)
Rebellious Nonconformity	6	.85	-.24	<.001	(-.33, -.14)
Carefree Nonplanfulness	6	.84	-.53	<.001	(-.60, -.45)
Blame Externalization	6	.87	-.45	<.001	(-.53, -.37)
Patrick Triarchic Psychopathy Inventory (Patrick et al., 2010)					
Boldness	5	.82	.48	<.001	(.42, .54)
Meanness	5	.89	-.36	<.001	(-.43, .29)
Disinhibition	5	.87	-.54	<.001	(-.59, -.48)
Self-Report Psychopathy Scale (Paulhus et al., 2016)					
Interpersonal Manipulation	4	.86	-.29	<.001	(-.38, -.20)
Callous Affect	4	.81	-.22	<.001	(-.31, -.13)
Erratic Lifestyle	4	.84	-.22	<.001	(-.31, -.13)
Criminal Tendencies	4	.88	-.20	<.001	(-.29, -.11)

Notes. [a] range of alphas across samples; Fisher r-to-z transformed healthy personality scores and criterion measures across participants (correlations within each sample are presented in Table S1 in the online supplemental materials).

Table 6. *Normative and healthy Five-Factor Model personality profile.*

	Healthy		Normative		$(M_1 - M_2)^2$
	M	*SD*	*M*	*SD*	
Neuroticism					
Anxiousness	2.34	.63	3.20	.68	0.74
Angry Hostility	1.77	.65	2.82	.68	1.10
Depressiveness	2.01	.61	2.50	.82	0.24
Self-consciousness	2.72	.54	2.90	.70	0.03
Impulsivity	2.47	.58	3.01	.70	0.29
Vulnerability	2.21	.66	2.71	.75	0.25
Extraversion					
Warmth	**3.95**	.49	**3.74**	.62	0.04
Gregariousness	3.60	.59	3.41	.72	0.04
Assertiveness	3.26	.47	3.36	.68	0.01
Activity	3.67	.57	3.15	.59	0.27
Excitement-Seeking	3.01	.45	3.42	.64	0.17
Positive Emotions	**3.91**	.50	**3.78**	.62	0.02
Openness to Experience					
Fantasy	3.03	.53	3.52	.67	0.24
Aesthetics	3.39	.60	3.42	.74	0.00
Feelings	**4.00**	.53	3.71	.56	0.08
Actions	3.01	.47	**2.93**	.59	0.01
Ideas	3.21	.46	3.35	.70	0.02
Values	3.66	.66	3.14	.71	0.27
Agreeableness					
Trust	3.24	.54	3.44	.67	0.04
Straightforwardness	**3.90**	.52	3.64	.65	0.07
Altruism	3.75	.57	**3.96**	.53	0.04
Compliance	3.22	.51	3.44	.73	0.05
Modesty	3.13	.51	3.06	.62	0.00
Tender-Mindedness	3.66	.56	3.58	.56	0.01
Conscientiousness					
Competence	**3.77**	.53	**3.78**	.48	0.00
Order	3.56	.56	3.28	.78	0.08
Dutifulness	3.64	.51	**3.74**	.54	0.01
Achievement	3.53	.53	3.61	.63	0.01
Self-Discipline	3.59	.54	3.30	.62	0.08
Deliberation	3.42	.54	3.24	.75	0.03

Notes. Normative profile is the average Five-Factor Model profile derived from self-report data of *N* = 2,025 college students (Samples 3, 4, 5, 6, 7,). Healthy Five-Factor Model profile as derived from ratings by *N* = 137 experts (Sample I). Lowest 5 facets underlined and top 5 rated facets in bold. $(M_1 - M_2)^2$ = squared mean-level differences between facets of the normative profile and the healthy profile.

Figure 1. Correlations between the expert-generated Five-Factor Model personality profile for the healthy personality and 11 expert-generated profiles of personality disorders published by Lynam and Widiger (2001) and Miller and Lynam (2003).
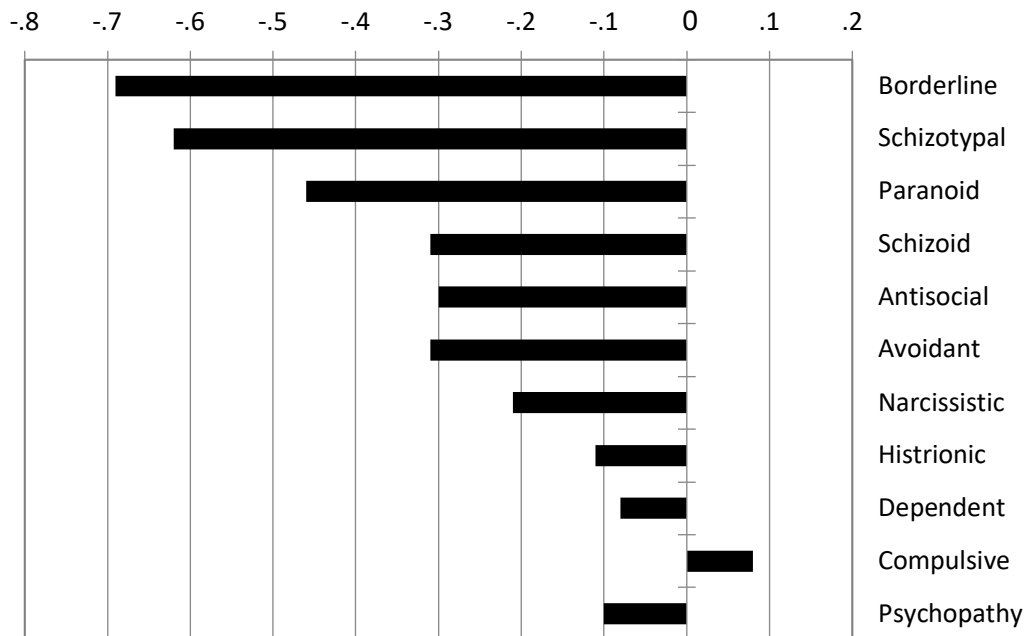
Figure 2. Five-Factor Model personality profiles for the psychologically healthy personality, normative personality, and borderline personality (dashed line represents scale mid-point).