VU Research Portal

The 5-Dimensional Personality Test (5DPT): Relationships with Two Lexically Based Instruments and the Validation of the Absorption Scale

van Kampen, D.

published in

Journal of Personality Assessment
2012

DOI (link to publisher)

[10.1080/00223891.2011.627966](https://doi.org/10.1080/00223891.2011.627966)

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

van Kampen, D. (2012). The 5-Dimensional Personality Test (5DPT): Relationships with Two Lexically Based Instruments and the Validation of the Absorption Scale. *Journal of Personality Assessment*, 94(1), 92-101. [94]. <https://doi.org/10.1080/00223891.2011.627966>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

This article was downloaded by: [Vrije Universiteit Amsterdam], [Dirk van Kampen]

On: 17 December 2011, At: 09:08

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK

Journal of Personality Assessment

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/hjpa20>

The 5-Dimensional Personality Test (5DPT): Relationships With Two Lexically Based Instruments and the Validation of the Absorption Scale

Dirk van Kampen^a

^a Department of Clinical Psychology, Vrije Universiteit, Amsterdam, The Netherlands

Available online: 16 Dec 2011

To cite this article: Dirk van Kampen (2012): The 5-Dimensional Personality Test (5DPT): Relationships With Two Lexically Based Instruments and the Validation of the Absorption Scale, *Journal of Personality Assessment*, 94:1, 92-101

To link to this article: <http://dx.doi.org/10.1080/00223891.2011.627966>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

The 5-Dimensional Personality Test (5DPT): Relationships With Two Lexically Based Instruments and the Validation of the Absorption Scale

DIRK VAN KAMPEN

Department of Clinical Psychology, Vrije Universiteit, Amsterdam, The Netherlands

Although intended to assess vulnerability factors associated with psychopathology, the 5-Dimensional Personality Test (5DPT) shows at least a superficial similarity to instruments that adhere to the lexical tradition in personality psychology. To investigate to which extent this similarity goes, this article compares the 5DPT with 2 lexically based measures, the NEO–Five Factor Inventory and the HEXACO–Personality Inventory–Revised. Moreover, as the NEO Openness to Experience construct demonstrates little relationship with maladaptive personality, whereas the 5DPT Absorption factor was hypothesized to underlie the emergence of positive schizotypic symptoms and related phenomena, the 5DPT was also correlated with the Schizotypic Syndrome Questionnaire (SSQ), the Creative Experiences Questionnaire, Thalbourne’s Transliminality Scale, the Launay–Slade Hallucination Scale, and the OLIFE–Unusual Experiences scale. On examining the correlations between the various instruments, it was ascertained (a) that there is no need to extend the theory-informed 5DPT with a 6th dimension similar to the HEXACO factor Honesty–Humility, (b) that the 5DPT dimensions were found on average to share only a moderate amount of variance with the Five-factor model/Big Five factors, and (c) that the 5DPT Absorption scale turned out as anticipated to correlate with the positive symptom scales of the SSQ, as well as with the remaining criterion scales that measure similar constructs.

Of the few personality models that go beyond the purely taxonomic field by incorporating testable causal assumptions (Eysenck, 1994a, 1994b; Van Kampen, 2009), Eysenck’s PEN model (see, e.g., H. J. Eysenck & Eysenck, 1969, 1976) has undoubtedly exerted the greatest influence on both personality researchers and clinicians. This is not surprising, as the PEN dimensions Psychoticism (P), Extraversion (E), and Neuroticism (N) were not only assumed to offer a comprehensive account of man’s interpersonal conduct (Eysenck, 1991; H. J. Eysenck & Eysenck, 1969), but also to constitute a diagnostic dimensional framework that compares favorably with psychiatric classification (e.g., Eysenck, 1970). Yet, several scholars have criticized the PEN model, particularly with respect to P. Although some of these criticisms might not be wholly justified (see Van Kampen, 1993), the P part of Eysenck’s PEN model has indeed been found to suffer from several shortcomings.

Elsewhere (see Van Kampen, 1993, 1996, 1997, 2009), we have described these deficiencies in greater detail, but, essentially, it can be stated that (a) the genetic overlap of schizophrenia and manic-depression as postulated by Eysenck appears to be nonexistent (Cardno, Rijdsdijk, Sham, Murray, & McGuffin, 2002; Kendler & Gardner, 1997) or at most limited to schizophrenia and unipolar depression (e.g., Maier, Hallmayer, Mingos, & Lichtermann, 1990); (b) contrary to Eysenck’s claim, only the schizoid (and not the “classical”) form of psychopathy belongs to the group of spectrum disorders genetically associated with schizophrenia (e.g., Heston, 1970); (c) patients with schizophrenia, unipolar depression, or manic disorder do not

share the same premorbid personality traits believed by Eysenck to be associated with P (see, e.g., Bleuler, 1972; Lauer et al., 1997); and (d) in opposition to Eysenck’s assertion, the testing of the P theory by means of proportionality analysis has not demonstrated the existence of a phenotypic continuum ranging from normality to psychosis because of the mixing up of two conceptually different P models, the phenotypic and the genotypic model (Van Kampen, 2009).

Of course, the same deficiencies point to the possibility of restoring the theory behind Psychoticism. Thus, recognizing the differences between the two P models, a genotypic factor similar to the P dimension as measured by the Eysenck Personality Questionnaire (EPQ; S. B. G. Eysenck & Eysenck, 1975) was postulated, albeit now standing for the phenotypic expression of a genetically based predisposition toward antisocial conduct in schizophrenia and related spectrum disorders (Van Kampen, 1993). This alternative dimension, which was based on descriptions of personality deviance (unrelated to E or N; see later) that might occur prior to the onset of schizophrenia or among biological relatives of schizophrenic patients (e.g., Slater, 1953), was termed S or *Insensitivity*. Subsequently, the inverse of the EPQ P factor was found to include a separate dimension, called G or *Orderliness*, which, according to Tellenbach (1961), Maier, Lichtermann, Mingos, and Heun (1992), and other investigators, appeared to describe a single component of the premorbid personality configuration (also characterized by high N) that determines the probability of being affected by unipolar depression and, perhaps, bipolar disorder (Van Kampen, 1997). Indeed, recent research by Sakai et al. (2009) has very much elucidated the causal role played by this and similar dimensions in the onset of depressive symptoms.

These two attempts to restore the PEN model were accompanied by the construction of the Three-Dimensional Personality Test (3DPT) to measure the factors S, E, and N (Van Kampen,

Received November 30, 2010; Revised March 3, 2011.

Address correspondence to Dirk van Kampen, Department of Clinical Psychology, Vrije Universiteit, Transitorium (2B-69), Van der Boechorststraat 1, 1081 BT, Amsterdam, The Netherlands; Email: d.van.kampen@psy.vu.nl

1993), and the Four-Dimensional Personality Test (4DPT) to measure the factors S, E, N, and G (Van Kampen, 1997). Finally, attention was paid by Van Kampen (2009) to Eysenck's phenotypic conceptualization of P, according to which Psychoticism must be regarded as "a continuum which goes all the way from the perfectly normal, rational to the completely insane, psychotic individual" (Eysenck, 1952, p. 346). Realizing that the subsequent positions on this continuum (which seem to indicate the presence of such gradually more deviating features like fantasy proneness, dissociation, psychotic-like symptoms, and full-blown psychosis) are phenotypically dissimilar, personality features were looked for that share certain properties with psychosis, but that nevertheless only refer to normal personality functioning. As such, Tellegen and Atkinson's (1974) Absorption (A) construct was selected to characterize the normal pole of Eysenck's normality-psychosis continuum. This choice was based on evidence that it is particularly the Five-factor model (FFM) Openness facets O1 (fantasy), O2 (aesthetics) and O3 (feelings)—rather than O4 (actions), O5 (ideas), and O6 (values)—that correlate with positive schizotypy (see, e.g., Ross, Lutz, & Bailly, 2002), and that these facets substantially relate to Absorption (e.g., Glisky, Tataryn, Tobias, Kihlstrom, & McConkey, 1991). Given the importance attached by Eysenck to a general causal theory in which a dimension is embedded (see, e.g., Eysenck, 1994a, 1994b), it is reassuring that Absorption can be considered to "reflect the ease with which a person can pass between different states of consciousness" (Watson, 2001, p. 532), with the enhanced permeability in turn dependent on biological factors (Fleck et al., 2008; Ott, Reuter, Hennig & Vaitl, 2005). As the dimensions E and N in Eysenck's PEN model are also vulnerability factors for schizophrenia and affective disorders (see Van Kampen, 1993, 2009), the finally restored PEN model is composed of five distinct personality factors—Absorption (A), Orderliness (G), Extraversion (E), Neuroticism (N), and Insensitivity (S)—thereby constituting the acronym AGENS. These factors, although basically normal, are believed to create a personality taxonomy of clinical relevance, addressing both the core symptoms of disordered personality that appear to be continuous with normal personality (e.g., Coolidge, Segal, Cahill, & Archuleta, 2008) and the causal relationships between normal personality and Axis I clinical syndromes (see, for schizophrenia, Van Kampen, 2005, 2006b).

To measure these five dimensions, the Five-Dimensional Personality Test (5DPT) was constructed in several rounds using both exploratory and multigroup confirmatory factor analyses. Starting with a preliminary set of 136 potential S, E, N, G, and A items, 100 items were finally selected, 20 in each scale. The selection of these items was guided by the desire to obtain factors that have a similar meaning for different groups of individuals, irrespective of their sex, age, and education, and position (low vs. high) on the 5DPT dimensions themselves. Hence, much attention was paid to maximizing the invariance of the 5DPT factors with respect to these sample parameters.

Although the 5DPT was developed from a clinical-theoretical perspective, the factors Insensitivity, Orderliness, Extraversion, Neuroticism, and Absorption can be expected to correlate with the Big Five or FFM dimensions Agreeableness (negative), Conscientiousness, Surgency/Extraversion, Emotional Stability (negative)/Neuroticism, and Intellect or Openness to Experience. In fact, correlating the factors S, G, E, and N, as measured

by the 4DPT, with Goldberg's (1992) set of 100 unipolar Big Five markers, correlations were observed ranging from $r = -.44$ (S vs. Agreeableness) to $r = -.82$ (N vs. Emotional Stability), thus demonstrating at least moderate convergence between the theory-informed and the lexically based factors (Van Kampen, 1997). Practically the same coefficients, this time ranging from $r = -.44$ (S vs. Agreeableness) to $r = .80$ (N vs. Neuroticism) were obtained by Van Kampen (1997) after correlating the 4DPT with the FFM factors of the NEO-Personality Inventory (NEO-PI), which are usually believed, following McCrae and Costa (1985), for example, to strongly resemble the Big Five dimensions.¹ Moreover, given the evidence that Absorption was found to relate to O1 (fantasy), O2 (aesthetics), and O3 (feelings), we could also expect a correlation between 5DPT A and FFM Openness to Experience. Hence, the 5DPT model, although embracing Eysenck's theory-informed methodology rather than the lexical approach advocated by, among others, Saucier and Goldberg (1996), can be said to conform, at least to some extent, to the Big Five/FFM model.

However, not forgetting that the 5DPT was primarily developed to assess the main vulnerability factors toward schizophrenia and affective disorders (see Van Kampen, 2009), it is not unthinkable that the 5DPT might be better suited to measure these vulnerabilities. For instance, instead of sticking to the (correct) conclusion of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) Personality Disorders Workgroup (www.dsm5.org) that cognitive-perceptual aberrations in schizotypal personality disorder (which could precede the development of psychotic symptoms; see, e.g., Woods, Miller, & McGlashan, 2001) are not well-represented by FFM Openness to Experience, we might point to the previously mentioned expectation that only Absorption directly covers these aberrant traits. On the other hand, it is mainly the application of the FFM that has contributed to our understanding of the relationship between personality disorders and normal personality traits (e.g., Saulsman & Page, 2004). The demonstration that these two domains share the same underlying structure is particularly telling (see Markon, Krueger, & Watson, 2005).

In this article, we want first to compare the 5DPT with two lexically based instruments, the NEO-Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992) and the HEXACO-Personality Inventory-Revised (HEXACO-PI-R; De Vries, Lee, & Ashton, 2008). The NEO-FFI was selected as a relatively short and popular measure of the FFM dimensions. Hence, the 5DPT can be expected to correlate in a similar manner with the NEO-FFI as the 4DPT and Tellegen's Absorption factor with the NEO-PI. The HEXACO-PI-R represents a six-factor modification of the current Big Five model (B5M), because this instrument also includes the dimension Honesty-Humility as an independent factor. As the HEXACO model includes three dimensions (Extraversion, Conscientiousness, and Openness to Experience) that almost parallel their Big Five counterparts, and two dimensions (Emotionality and Agreeableness) that appear to be rotational variants of the Big Five factors Neuroticism and Agreeableness (see Lee &

¹It is not difficult to find correlations that temper McCrae and Costa's (1985) claim of a "one-to-one correspondence" between the FFM and the lexical Big Five (see, e.g., Mooradian & Nezlek, 1996). However, in this article, we follow this equalization.

Ashton, 2004), the same validity hypotheses concerning the relationship between the 5DPT and the NEO-FFI were also stated in relation to the HEXACO-PI-R. Moreover, as the 5DPT Insensitivity factor was felt to occupy an interstitial position with respect to both HEXACO Agreeableness and HEXACO Honesty-Humility (see Van Kampen, 2009), the expectation was formulated that 5DPT S would also correlate with Honesty-Humility. Because of the overlap in content between the FFM facets O1 (fantasy) and O2 (aesthetics), on the one hand, and the HEXACO-PI-R Openness facets creativity (O-cre) and aesthetic appreciation (O-aes), on the other, the correlations of 5DPT Absorption with O-cre and O-aes were expected to exceed the correlations between 5DPT A and the HEXACO facets inquisitiveness (O-inq) and unconventionality (O-unc). Furthermore, the HEXACO C facets organization (C-org), perfectionism (C-per), diligence (C-dil), and prudence (C-pru) were studied in relation to 5DPT G, with the expectation, grounded in studies on the premorbid personality structure of later depressive patients (see, e.g., Hewitt, Flett, & Ediger, 1996), that the correlations with the two first-mentioned facet scales would exceed the ones with the latter two. Finally, as the NEO-FFI and HEXACO-PI-R were both explicitly designed to encompass the total personality sphere (see, e.g., McCrae & Costa, 1985; Ashton, Lee, Perugini, et al., 2004), the findings assembled in our study might also shed light on the issue whether or not the 5DPT dimensions are comprehensive.

More in line with the fact that the 5DPT was constructed from a clinical-theoretical perspective, the 5DPT was also correlated with the Schizotypic Syndrome Questionnaire (SSQ; Van Kampen, 2006b), the Creative Experiences Questionnaire (CEQ; Merckelbach, Horselenberg & Muris, 2001), Thalbourne's (1998) Transliminality Scale (TS), the Launay-Slade Hallucination Scale (LSHS; Launay & Slade, 1981), and the Unusual Experiences scale from the Oxford-Liverpool Inventory of Feelings and Experiences (OLIFE-UE; Mason, Claridge, & Jackson, 1995). Apart from the negative and asocial scales of the SSQ (see later), these correlational studies were primarily intended to investigate the validity of the 5DPT Absorption scale. Given the likely situation (see Van Kampen, 2009) that the SSQ scales of positive schizotypy, as well as the CEQ, the TS, the LSHS, and the OLIFE-UE scale, assess phenomena that occupy various positions on Eysenck's normality versus psychosis continuum, all these scales were predicted to correlate positively with 5DPT A.

This prediction, for instance, seems obvious in the case of the positive symptom scales of the SSQ that measure living in a fantasy world, perceptual disturbances, and delusional thinking. However, because of the contribution of anxiety and other emotional states to the development of psychotic symptoms (see, e.g., Freeman & Garety, 2003), the positive SSQ scales can also be expected to correlate with 5DPT N. Similar predictions were formulated in the case of the CEQ, the LSHS, and the OLIFE-UE, which assess fantasy proneness, the predisposition to visual and auditory hallucinations, and positive schizotypy. The evidence obtained in previous studies that fantasy proneness is linked to absorption, dissociation, and schizotypy (see, e.g., Lynn & Rhue, 1988) lends further support to the hypothesis of a positive correlation with 5DPT A. The concept of transliminality relates to several phenomena, such as mystical experience, dissociation, magical ideation, schizotypy, hyperesthesia, and belief in the paranormal, that were postulated by Thalbourne (1998) to define a general factor that is akin to Watson's (2001)

permeability dimension. However, noting (see Van Kampen, 2009) that Thalbourne's study actually resulted in three correlated factors, namely, Reality Changes (with high loadings from unusual experiences, hallucinatory predisposition, magical ideation, schizotypy, absorption, fantasy proneness, and two dissociation measures), Spiritual Experiences (with loadings from religiosity, mystical experience, and paranormal belief), and Creativity (creative personality), the total score on the TS was supplemented by two additional scores, referring to the subfactors reality changes and spiritual experiences, respectively. Of these subfactors, reality changes was expected to correlate most highly with 5DPT A. The TS was also scored for those items that form part of the Revised Transliminality Scale (RTS), which omits the facets paranormal beliefs and creativity (Lange, Thalbourne, Houran, & Storm, 2000).

For the negative symptom scales of the SSQ, the literature on schizoid or schizotypal personality (see Van Kampen, 1993, 2009) suggests negative correlations with 5DPT E or positive correlations with 5DPT N, whereas a positive correlation with 5DPT S seems likely in the case of the asocial symptom scales of the SSQ. 5DPT G was not hypothesized to correlate with the SSQ (or with the CEQ, TS, LSHS, and OLIFE-UE), as hardly any personality features associated with orderliness have been found to characterize the premorbid personality configuration of later schizophrenic patients.

METHOD

Subjects and Procedure

In the investigations reported here, four samples of general population subjects were used. The first of these samples (Sample A) consisted of 708 normal subjects (382 women, 256 men, and 70 of unknown sex), with a mean age of 43.04 and a standard deviation of 13.45 years (range = 15–64 years). These individuals were recruited thanks to the cooperation of four general practitioners in four Dutch cities (Den Bosch, Groningen, Nijmegen, and Zutphen). In this sample, the 5DPT was correlated with the NEO-FFI, and a beginning was made of the validation of the 5DPT A scale by also administering the positive symptom scales FTW, PER, and DET (see later) of the SSQ, as well as the CEQ. The second sample (Sample B) included 1,205 general population subjects (610 women and 595 men), with a mean age of 48.42 and a standard deviation of 15.06 years (range = 19–88 years). This sample was drawn from an International Standardization for Organization (ISO)-certified and representative Internet panel of approximately 20,000 subjects (see De Vries & Van Kampen, 2010). In this sample, the participants were asked to complete both the 5DPT and the HEXACO-PI-R. The third sample (Sample C), consisting of 216 subjects (136 women, 78 men, and 2 of unknown sex; M age = 52.54, SD = 10.86 years), as well as the fourth one (Sample D), which included 159 subjects (94 women, 57 men, and 8 with sex unknown; M age = 46.93, SD = 14.03 years), formed part of a larger sample of 659 general population participants that was drawn from the files of 18 general practitioners from Amsterdam, The Hague, Eindhoven, Ermelo, Groningen, Heerlen, Kerkrade, Laren, Leeuwarden, Leiden, Reusel, Tilburg, and Waddinxveen, with the aim to conduct several studies (see, e.g., Van Kampen, 2006a). In Sample C, participants were requested to fill in the 5DPT, the CEQ, and all 12 scales of the SSQ; in Sample D, the 5DPT was accompanied by the TS, the LSHS, and the OLIFE-UE scale.

Measures

5DPT. The 5DPT is a 100-item questionnaire for the assessment of the dimensions S, E, N, G, and A. In a series of factor-analytic investigations, it was established that the 5DPT's factor structure, except for a small correlation between E and N ($r = -.31$), agreed with expectations. A high degree of factor invariance was demonstrated with respect to the sample parameters sex, age, education, and the 5DPT dimensions themselves, making the 5DPT an instrument that bridges the cleft between nomothetic and idiographic approaches in personality psychology (see Van Kampen, 2000). The 5DPT was found to demonstrate adequate reliability, with Cronbach's alpha coefficients amounting to .82 for S, .88 for E, .92 for N, .84 for G, and .86 for A. In a small sample, administering the 5DPT two times with an interval of about 1 month ($M = 31.1$, $SD = 5.9$ days), the test-retest reliability of the 5DPT scales also proved satisfactory.²

NEO-FFI. The NEO-FFI was used in a Dutch translation by Hoekstra, Ormel, and De Fruyt (1996). The NEO-FFI is a 60-item personality inventory that was constructed to measure the FFM domain factors N, E, O, A, and C. The five scales, each including 12 items, were reported by Hoekstra et al. to demonstrate modest to adequate internal consistency reliability (Cronbach's α), amounting to .85 for N, .77 for E, .68 for O, .68 for A, and .75 for C, much in line with the original data provided by Costa and McCrae (1992).

HEXACO-PI-R. The HEXACO-PI-R consists of 200 items divided among 24 8-item facets representing the factors Honesty-Humility (H), Emotionality (E), eXtraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O), and one interstitial facet, representing Altruism. The items are answered on a 5-point scale, running from 1 (*strongly disagree*) to 5 (*strongly agree*). The six factors are believed to capture the main dimensions of normal personality variation better than the current B5M (Ashton & Lee, 2005). The internal consistency reliabilities of the HEXACO-PI-R domain scales were found to equal .91 for H, .88 for E, .90 for X, .88 for A, .85 for C, and .87 for O (De Vries & Van Kampen, 2010). As indicated earlier, the HEXACO-PI-R was also scored for the Openness facet scales aesthetic appreciation (O-aes), creativity (O-cre), inquisitiveness (O-inq), and unconventionality (O-unc), and for the Conscientiousness facet scales organization (C-org), perfectionism (C-per), diligence (C-dil), and prudence (C-pru). The facet scales for O were reported by De Vries and Van Kampen (2010) to have Cronbach's alpha reliabilities between .69 and .78; the scales related to C had alpha reliabilities between .71 and .83.

SSQ. The SSQ relates to a model of prodromal unfolding in later schizophrenic subjects (Van Kampen, 2005; Van Kampen, Maurer, An der Heiden, & Häfner, 2009) that comprises the symptom scales social anxiety (SAN), active isolation (AIS), affective flattening (AFF), apathy (APA), alienation (ALN), living in a fantasy world (FTW), egocentrism (EGC), suspicion

(SUS), hostility (HOS), cognitive derailment (CDR), perceptual disturbances (PER), and delusional thinking (DET). Each scale contains 9 items. The SSQ breaks down into three correlated factors: Negative Schizotypy (characterized by loadings from SAN, CDR, AFF, APA, and ALN), Asocial Schizotypy (with loadings from EGC and HOS), and Positive Schizotypy (characterized by loadings from FTW and DET; Van Kampen, 2006b). The reliabilities of the 12 scales, using a sample of 771 normal subjects, were found to be satisfactory, with Cronbach's alpha coefficients ranging from .77 to .91 (Van Kampen, 2006b).

CEQ. The CEQ is a brief 25-item Dutch self-report measure of fantasy proneness (Merckelbach et al., 2001). Cronbach's alpha was reported by Merckelbach in two studies to equal .72 and .76, respectively.

TS. The Dutch translation of Thalbourne's (1998) 29-item TS was found in Sample D to demonstrate a Cronbach's alpha coefficient of .86. For the original scale, a coefficient of .87 was reported. Besides the 29-item total score (indicated by TS), the TS was scored in Sample D for three other sets of items: (a) a set of 14 items, referring to the subfactor reality changes (RealCh); (b) a set of 7 items that represented the subfactor spiritual experiences (SpirEx); and (c) 17 items that were selected by Thalbourne to form part of the RTS that showed a consistency reliability of .82 (Lange et al., 2000). In Sample D, RealCh, SpirEx, and RTS had internal scale reliabilities (Cronbach's α) of .76, .71, and .81, respectively.

LSHS. The 12-item LSHS (Launay & Slade, 1981) was originally reported to demonstrate a KR20 reliability of .80. In Sample D, Cronbach's alpha reliability turned out to be .48. Hence, the reliability of the Dutch version of the LSHS proved to be unsatisfactory.

OLIFE-UE. For the 30-item Unusual Experiences scale from the OLIFE, Mason et al. (1995) reported a Cronbach's alpha coefficient of .89. In Sample D, the alpha coefficient for the Dutch translation is .85.

RESULTS

NEO-FFI and HEXACO-PI-R Correlations

Table 1 (upper part) lists the correlations between the 5DPT and the NEO-FFI. As not all participants had been asked to complete the NEO-FFI, the numbers of subjects for calculating these correlations range from 464 to 612. The correlations for the HEXACO-PI-R are given in the lower part of Table 1. It is obvious that all correlations between the respective companion scales agree with expectations. Also, the interstitial position of the 5DPT Insensitivity factor was corroborated, because 5DPT S was found to correlate to the same degree with HEXACO Honesty-Humility and HEXACO Agreeableness, the multiple correlation with these scales amounting to $r = -.63$. It is also of interest that the correlations of 5DPT N with HEXACO Emotionality, and between 5DPT S and HEXACO Agreeableness appear to be lower than the correlations for 5DPT N and 5DPT S with the NEO-FFI scales for Neuroticism and Agreeableness, as these data corroborate Lee and Ashton's (2004) assertion that HEXACO Emotionality and Agreeableness are rotational variants if compared with the FFM. Likewise in agreement with expectations are the rather high correlations of 5DPT Absorption

²Except for some data found in Sample B (see De Vries & Van Kampen, 2010), no findings have been published about the factor structure, reliability, and other psychometric details of the 5DPT. A forthcoming article will address these issues.

TABLE 1.—Correlations between the 5-Dimensional Personality Test (5DPT) and the scales of the NEO-Five-Factor Inventory (NEO-FFI) and HEXACO-Personality Inventory-Revised (HEXACO-PI-R).

Instrument	Scale	5DPT S	5DPT E	5DPT N	5DPT G	5DPT A
NEO-FFI	A	-.60**	.13**	-.13**	.10*	-.01
	E	-.05	.78**	-.37**	-.02	.02
	N	.14**	-.28**	.79**	-.02	.12**
	C	-.13**	.25**	-.28**	.56**	-.07
	O	-.01	.07	-.03	-.15**	.59**
HEXACO-PI-R	H	-.50**	-.06*	-.03	.03	.01
	A	-.51**	.10**	-.24**	-.04	.05
	X	-.08**	.73**	-.54**	-.02	.08**
	E	-.08**	-.09**	.59**	.04	.18**
	C	-.10**	.05	-.14**	.66**	.01
	C-org	-.12**	.05	-.09**	.69**	-.04
	C-per	.05	-.05	.10**	.42**	.14**
	C-dil	.00	.27**	-.29**	.30**	.03
	C-pru	-.17**	-.14**	-.14**	.38**	-.05
	O	.12**	.12**	-.08**	-.17**	.51**
	O-aes	-.03	.02	.00	-.07*	.52**
	O-cre	.14**	.25**	-.12**	-.18**	.43**
	O-inq	.04	-.02	-.14**	.00	.22**
	O-unc	.27**	.08**	.00	-.25**	.38**

Note. Bold figures indicate correlations $\leq -.30$ or $\geq .30$. S = Insensitivity; E = Extraversion; N = Neuroticism; G = Orderliness; A = Absorption; NEO-FFI: A = Agreeableness; E = Extraversion; N = Neuroticism; C = Conscientiousness; O = Openness to Experience. HEXACO-PI-R: H = Honesty-Humility; A = Agreeableness; X = Extraversion; E = Emotionality; C = Conscientiousness; C-org = Organization; C-per = Perfectionism; C-dil = Diligence; C-pru = Prudence; O = Openness to Experience; O-aes = aesthetic appreciation; O-cre = creativity; O-inq = inquisitiveness; O-unc = unconventionality.

* $p < .05$. ** $p < .01$.

with the HEXACO-PI-R Openness facets aesthetic appreciation (O-aes) and creativity (O-cre), particularly if compared with the much lower correlation between 5DPT A and HEXACO inquisitiveness (O-inq). Similarly, as anticipated, the HEXACO facets organization (C-org) and perfectionism (C-per) correlate higher with 5DPT G than HEXACO diligence (C-dil) and prudence (C-pru). Unanticipated is the rather strong negative relationship ($r = -.54$) between 5DPT N and HEXACO-PI-R Extraversion. This correlation might parallel to some extent the (weaker) correlation of 5DPT N with 5DPT E (see earlier).

As the NEO-FFI, because of its relationship with the lexical Big Five, might be considered to encompass the total personality sphere, it was also of interest to study to what extent the 5DPT is capable of predicting scores on the NEO-FFI. The same question applies with respect to the 5DPT's capability to predict the HEXACO-PI-R scores, as the HEXACO-PI-R was also intended to measure all the replicable factors within the personality sphere. Multiple regression analyses of each NEO-FFI scale on the five 5DPT scales produced the following multiple rs (from high to low): .80 for Neuroticism, .80 for Extraversion, .67 for Conscientiousness, .61 for Agreeableness, and .61 for Openness to Experience. Apparently, the FFM dimensions are relatively well covered by the 5DPT factors. However, compared with the FFM dimensions Neuroticism and Extraversion, the coverage of the dimensions Conscientiousness, Agreeableness, and Openness to Experience is much less impressive. Conducting multiple regression analyses of each HEXACO-PI-R scale on the five scales of the 5DPT, a high multiple correlation of $r = .79$ was found for HEXACO-PI-R Extraversion, whereas the remaining multiple rs turned out to be .69 for Conscientiousness, .64 for Emotionality, .57 for Openness to Experience, .54 for Agreeableness,

and .52 for Honesty-Humility. Once more, the lower rs for HEXACO-PI-R Emotionality and Agreeableness in comparison with the rs for FFM Neuroticism and Agreeableness are in agreement with their rotational positions. Likewise, the finding that the coverage of the HEXACO-PI-R Honesty-Humility and Agreeableness scales by the 5DPT proved to be less than the coverage of NEO-FFI Agreeableness primarily reflects the interstitial position of 5DPT S.

Given the various r values, we can conclude that the 5DPT seems to offer a relatively comprehensive account of an individual's typical behavior if the FFM/B5M is selected to represent the total personality sphere (all $rs \geq .60$). In the case of the HEXACO model, the comprehensiveness of the 5DPT factors mainly relates to the dimensions Extraversion, Conscientiousness, and Emotionality, and only marginally ($r < .60$) to Openness to Experience, Agreeableness, and Honesty-Humility.

As the FFM/B5M and HEXACO models both claim to be reasonably comprehensive, the issue at stake is which of the two models must be preferred in a comparison of the 5DPT with the results obtained in lexical studies. As we see later, there are reasons to believe that the contents of the HEXACO Honesty dimension are actually subsumed within the Big Five Agreeableness factor. Hence, the addition of a sixth dimension, Honesty-Humility, to the Big Five is likely to be unjustified. Therefore, in choosing between both models, we opted for the B5M/FFM as the model that best provides a comprehensive and organizing framework for all the descriptive trait terms listed in the personality lexicon.

With the B5M/FFM as a reference model, the overall relationship between the 5DPT and the NEO-FFI was investigated by applying dimensionality tests for canonical correlation analysis. These tests demonstrated the existence of five significant canonical dimensions ($p < .001$). The first dimension, most strongly influenced by 5DPT N (.71) and NEO-FFI-N (.63), but also by 5DPT E and NEO-FFI-E (both $-.53$), was characterized by a canonical correlation of .82. For the second dimension, represented by NEO-FFI-E (1.06), 5DPT E (.86), NEO-FFI-N (.85), and 5DPT N (.75), the canonical correlation was .71. For the third dimension, loaded by NEO-FFI-C (.65), 5DPT G (.65), NEO-FFI-A ($-.64$) and 5DPT S (.61), a canonical correlation of .64 was obtained. The fourth dimension, with a canonical correlation of .61, was characterized by loadings of NEO-FFI-C (.80), 5DPT S ($-.70$), NEO-FFI-A (.69), and 5DPT G (.65). Finally, the fifth dimension, loaded by NEO-FFI-O (.92) and 5DPT A (.88), showed a canonical correlation of .58. Interestingly, the first, second, third, and fourth canonical dimensions refer to fusion factors within the 5DPT factor space. Squaring and adding up the canonical correlations, we can conclude that the 5DPT and the FFM/B5M share 45.9% of the total variance defined by these tests; that is, the 5DPT model shares about half of the variance of the FFM/B5M if the latter model is considered to represent the total personality sphere.

Correlations with SSQ, CEQ, Transliminality, LSHS, and OLIFE-UE

Table 2 lists the correlations between the 5DPT and the SSQ, CEQ, LSHS, and OLIFE-UE, as well as the four measures (TS, RealCh, SpirEx, and RTS) that are associated with Thalbourne's TS. It can be seen that the Asocial Schizotypy scales EGC (egocentrism) and HOS (hostility), as expected, correlate most

TABLE 2.—Correlations between the 5-Dimensional Personality Test (5DPT) and Schizotypic Syndrome Questionnaire (SSQ), Creative Experiences Questionnaire (CEQ), Transliminality (sub)scales, Launay–Slade Hallucination Scale (LSHS), and OLIFE–Unusual Experiences (UE).

Sample	Instrument	Scale	5DPT S	5DPT E	5DPT N	5DPT G	5DPT A
C	SSQ	SAN	.23**	–.51**	.57**	.01	.11
		AIS	.38**	–.49**	.50**	.11	.08
		AFF	.40**	–.29**	.60**	–.01	.17*
		APA	.39**	–.31**	.60**	–.23**	.16*
		ALN	.33**	–.26**	.57**	–.06	.29**
		FTW	.30**	.01	.31**	–.14*	.44**
		EGC	.62**	–.11	.32**	–.02	.12
		SUS	.45**	–.26**	.52**	.09	.16*
		HOS	.61**	–.19**	.45**	.00	.13
		CDR	.33**	–.23**	.57**	–.06	.10
		PER	.30**	–.12	.38**	.01	.29**
		DET	.30**	–.07	.36**	–.03	.39**
		CEQ	.23**	–.03	.32**	–.05	.50**
A	SSQ	FTW	.26**	–.01	.18**	–.15**	.47**
		PER	.15**	–.06	.31**	–.02	.39**
		DET	.19**	.06	.22**	–.10*	.46**
D	CEQ		.20**	.10**	.24**	–.06	.64**
		TS	.13	.02	.32**	–.05	.58**
		RealCh	.12	.00	.32**	.00	.62**
		SpirEx	.07	.03	.23*	.01	.40**
	RTS		.07	.01	.32**	–.06	.62**
		LSHS	.22*	–.08	.34**	–.15	.31**
	OLIFE	UE	.06	.00	.31**	–.13	.56**

Note. Bold figures indicate correlations $\leq -.30$ or $\geq .30$. S = Insensitivity; E = Extraversion; N = Neuroticism; G = Orderliness; A = Absorption; SSQ = social anxiety; AIS = active isolation; AFF = affective flattening; APA = apathy; ALN = alienation; FTW = fantasy world; EGC = egocentrism; SUS = suspicion; HOS = hostility; CDR = cognitive derailment; PER = perceptual disturbances; DET = delusional thinking; TS = Transliminality Scale; RealCh = reality changes; SpirEx = spiritual experiences; RTS = Revised Transliminality Scale.

* $p < .05$. ** $p < .01$.

highly with 5DPT S. However, the remaining SSQ scales, apart from SAN (social anxiety) and possibly PER (perceptual disturbances) and DET (delusional thinking; see Sample A), also correlate rather strongly with 5DPT S. Likewise, as anticipated, the Negative SSQ scales SAN (social anxiety) and AIS (active isolation) correlate most highly with 5DPT E. The third highest negative correlation between APA (apathy) and 5DPT E is also understandable. 5DPT N appears to be substantially correlated with Negative Schizotypy. This time, the highest correlations hold for affective flattening (AFF), apathy (APA), social anxiety (SAN), alienation (ALN), and cognitive derailment (CDR). As expected, 5DPT Absorption is most highly correlated with living in a fantasy world (FTW) and delusional thinking (DET). However, the correlation between 5DPT A and perceptual disturbances (PER) appears to be rather low, at least in Sample C. In Sample A, a somewhat stronger correlation occurred. It is of interest that the correlations between FTW and DET (and PER in Sample A), on the one hand, and 5DPT A, on the other hand, exceed the ones for these SSQ scales with 5DPT S, E, and N, thus demonstrating the greater influence of Absorption in the determination of positive symptoms. Nevertheless, 5DPT N, at least in Sample C, also correlates with FTW, PER, and DET, which agrees with the previously mentioned impact of emotional factors on the development of psychotic symptoms. Finally, as expected, no substantial correlations were found between the various SSQ scales and 5DPT G. It is also clear from Table 2 that the CEQ, the four transliminality-related measures, the LSHS, and the OLIFE–UE scale all correlate, as expected,

with 5DPT A, with values ranging from $r = .31$ for LSHS to $r = .64$ for CEQ (in Sample A). However, correlations with 5DPT N are also apparent, although these correlations, apart from the one with LSHS,³ are substantially lower. The finding that the correlation of 5DPT A with reality changes exceeds the one with spiritual experiences is also in line with expectations.

DISCUSSION

The moderate to strong correlations mentioned in this article between the 5DPT, on the one hand, and the NEO–FFI (Costa & McCrae, 1992) and HEXACO–PI–R (De Vries et al., 2008), on the other, provide solid evidence for the congruent or convergent validity of the 5DPT. As such, they add to similar evidence obtained in previous studies for the S, E, N, and G scales of the 3DPT (Van Kampen, 1993) and 4DPT (Van Kampen, 1997), the predecessors of the current instrument, using, for instance, the NEO–PI and Goldberg’s set of unipolar Big Five markers as validation criteria. The highest correlations for the 5DPT, ranging from $r = .73$ to $r = .79$, are for those pairs of scales that share the same trait label (Extraversion, Neuroticism). However, for the remaining scale pairs, the correlations are often also substantial, ranging from $r = .56$ to $r = .60$ (absolute values) for the NEO–FFI and from $r = .51$ to $r = .66$ for the HEXACO–PI–R (Honesty included). As the 5DPT Absorption scale formed no part of the 3DPT and the 4DPT, we can especially note the convergent correlations between 5DPT A and the NEO–FFI and HEXACO–PI–R Openness to Experience scales. Moreover, the correlations with the HEXACO–PI–R Openness facets creativity and aesthetic appreciation add further credence to the validity of the Absorption scale, because of their similarity with the FFM Openness facets fantasy (O1) and aesthetics (O2) that were already known to correlate with Tellegen’s Absorption construct (see, e.g., Glisky et al., 1991). However, as the two last-mentioned correlations agree with theory-based expectations, they actually support the construct validity of the 5DPT A scale, rather than the congruent or convergent validity. Likewise, the comparatively high correlations between 5DPT G and the HEXACO–PI–R Conscientiousness facet scales organization and perfectionism were expected because of previous descriptions of the pre-unipolar depressive personality by Tellegen (1961) and empirical data by Hewitt et al. (1996).

Evidence supporting the construct validity of the 5DPT was also obtained by correlating the 5DPT with the SSQ (Van Kampen, 2006b), the CEQ (Merckelbach et al., 2001), the TS (Thalbourne, 1998), the RTS (Lange et al., 2000), TS-related scales to measure reality changes (RealCh) and spiritual experiences (SpirEx), the LSHS (Launay & Slade, 1981), and the OLIFE–UE scale (Mason et al., 1995). Given the fact that the schizoid, schizotypal, or preschizophrenic personality has been reported to exhibit features that resemble high positions on 5DPT S, N, and A, and low positions on E (see, e.g., Bleuler, 1972; Ross et al., 2002; Slater, 1953), as well as the observation that the SSQ breaks down into the correlated factors Negative Schizotypy, Asocial Schizotypy, and Positive Schizotypy (Van Kampen, 2006b), it was reassuring to see that 5DPT S turned out to correlate rather substantially with SSQ Egocentrism and

³Correcting the Dutch LSHS for its low Cronbach’s alpha reliability (see earlier), the correlations with 5DPT A and 5DPT N rise to $r = .45$ and $r = .49$, respectively.

Hostility (two scales that measure Asocial Schizotypy); low 5DPT E with SSQ Active Isolation and Social Anxiety (both loading on Negative Schizotypy); 5DPT N with particularly SSQ Affective Flattening and Apathy (also loading on Negative Schizotypy); and 5DPT A, albeit not very high, with SSQ Living in a Fantasy World and Delusional Thinking (both loading on Positive Schizotypy).

It is also apparent that the dimensions S and N are most influential, at least in the sense that these personality factors were found to correlate with all 12 SSQ scales. Some of these correlations were anticipated as well, notably the rather modest correlations between 5DPT N and the positive symptom scales Living in a Fantasy World, Delusional Thinking, and Perceptual Disturbances in Sample C. Moreover, the correlations between S and these positive symptom scales are not surprising, as patients with schizophrenia, in comparison to controls, were found by Lysaker, Wilt, Plascak-Hallberg, Brenner, and Clements (2003) to have higher average levels of FFM Neuroticism and lower levels of FFM Agreeableness and Extraversion—the patient subgroups with elevated Neuroticism or low Agreeableness in turn demonstrating higher levels of positive symptoms.

Positive correlations with 5DPT Absorption, usually accompanied by moderate correlations with 5DPT N, were also found in the case of the remaining previously mentioned instruments that measure such features as fantasy proneness (CEQ), susceptibility to different states of consciousness (TS and RTS), reality changes (RealCh), prehallucinatory experiences (LSHS), and positive schizotypy (OLIFE-UE). Also lending support to the construct validity of the 5DPT, the Absorption scale turned out to be slightly more strongly related to reality changes than to spiritual experiences.

Of the previously mentioned correlations, those of the 5DPT with the NEO-FFI and the HEXACO-PI-R deserve further comment. Besides demonstrating the validity of the 5DPT scales, the correlations with the NEO-FFI and the HEXACO-PI-R shed light on the comprehensiveness of the 5DPT model. After all, the NEO-FFI and the HEXACO-PI-R were specifically constructed to capture the variance associated with the major replicable factors within the total personality sphere (see, e.g., Ashton, Lee, Perugini, et al., 2004; McCrae & Costa, 1985).

However, to really answer the question to which extent the 5DPT is comprehensive, we must first consider the claim, put forward by Ashton and collaborators, that the HEXACO model, due to the addition of Honesty–Humility, provides a more exhaustive framework for classifying personality traits, if compared with the B5M. To investigate this claim, it is important to note that the contents of the HEXACO Honesty dimension are believed by several investigators to be subsumed within the Big Five or FFM Agreeableness factor (see, e.g., DeYoung, Quilty, & Peterson, 2007; Widiger & Mullins-Sweatt, 2009). Even according to Ashton and Lee (2005), there are two facets of FFM Agreeableness—straightforwardness and modesty—that show a clear conceptual correspondence with Honesty, and also appear to be substantially correlated with that dimension. Yet, the hypothesis that Honesty forms part of Agreeableness was rejected by Ashton and Lee (2005), as they could demonstrate that Saucier's (1994) Mini-Marker Agreeableness scale and Goldberg's (1999) IPIP Agreeableness scale—two scales that were specifically constructed to measure Big Five (and not FFM) Agreeableness—resulted in much lower correlations with Honesty, the two Big Five measures moreover not showing overlap regarding content with straightforwardness and modesty. Hence,

the FFM Agreeableness construct was believed to be atypical and to correspond to a blend of two roughly independent factors, HEXACO Honesty and B5M Agreeableness. This conclusion, however, seems unjustified. Of course, Ashton and Lee (2005) are right in claiming that Saucier's (1994) Mini-Marker Agreeableness scale finds its origin in Goldberg's (1990) psych-olexical study of 479 quite common trait terms, and that this particular set of variables was not found by Ashton, Lee, Perugini, et al. (2004) to result in a sixth dimension, interpreted as Honesty–Humility. However, in a reanalysis by Ashton, Lee, and Goldberg (2004) of the full set of 1,710 English trait terms, of which the 479 terms formed part, all six HEXACO dimensions could be recovered. This evidence suggests that a five-factor solution would probably have resulted in the extraction of a broader Agreeableness factor that also includes features related to Honesty.

The use of the IPIP Agreeableness scale can also be criticized by noting that, instead of this scale, the Abridged Big Five Circumplex scales from the IPIP (AB5C–IPIP), also developed by Goldberg (1999), might have been selected by Ashton and Lee (2005) to measure Agreeableness (and the remaining Big Five factors). In doing so, attention would have been paid to the facet-level structure within the Big Five, and thus to the possibility of assessing the Big Five Agreeableness facets understanding, warmth, morality, pleasantness, empathy, cooperation, sympathy, tenderness, and nurturance separately. Together with the six NEO-PI-R Agreeableness facets, these facets were found by DeYoung et al. (2007) to define two correlated aspect factors, compassion and politeness, of which the politeness factor was most distinctively loaded by the AB5C facets cooperation and morality, as well as by the NEO-PI-R facets straightforwardness, compliance, and modesty. Hence, it seems completely understandable that DeYoung et al. commented that Ashton and Lee's "assertion that the NEO-PI-R is unlike other Big Five measures, in containing content that could be included in their Honesty–Humility factor, may be unfounded" (p. 885).

We can thus adhere to the traditional Big Five model with two aspect dimensions within Agreeableness, rather than resorting to the HEXACO model with its added dimension Honesty–Humility.⁴ The suggestion, therefore, by Ashton and Lee (2005) of splitting the (interstitial) NEO-PI-R Agreeableness factor into two orthogonal dimensions that coincide with HEXACO Honesty and HEXACO Agreeableness must be refuted, just as the proposal by De Vries (see De Vries & Van Kampen, 2010) for a similar split in 5DPT S.

With the Big Five now selected to capture the main dimensions underlying the personality lexicon, and knowing that the NEO-FFI at least approximately represents the Big Five structure, we also attempted to give a more definitive answer to the question as to what degree the 5DPT appears to be comprehensive. As stated in the "Results" section, multiple regression analyses of each NEO-FFI dimension on the five scales of the 5DPT yielded *r* values of .80 for Neuroticism, .80 for Extraversion, .67 for Conscientiousness, .61 for Agreeableness, and .61

⁴The HEXACO model is also defended by Lee and Ashton (2005) by pointing to evidence that Honesty–Humility is able to increment the amount of variance explained by the FFM/B5M in traits like psychopathy and Machiavellianism (see also De Vries & Van Kampen, 2010). However, as Ashton and Lee (2008) have to admit, a similar situation arises if a subfactor of Agreeableness, defined by straightforwardness and modesty, is given attention.

for Openness to Experience. It is clear, therefore, that the FFM dimensions Neuroticism and Extraversion appear to be relatively well-covered by the 5DPT factors. However, the degree of correspondence with the FFM dimensions Conscientiousness, Agreeableness, and Openness to Experience is less impressive, so we might expect that the overall correspondence between the 5DPT and the NEO–FFI is rather modest. Selecting the Big Five as the most appropriate model to describe the main dimensions underlying the personality lexicon, the general relationship between the 5DPT and the NEO–FFI was investigated by applying dimensionality tests for canonical correlation analysis. The data observed in these analyses demonstrated that both instruments on average shared only a moderate amount of variance, thus again corroborating the finding that the 5DPT model and the B5M/FFM do not coincide completely.

Three 5DPT scales, Insensitivity, Absorption, and Orderliness, show only moderate correlations ($r \leq .60$) with their companion NEO–FFI scales. In view of the fact that the 5DPT model was constructed to give a comprehensive account of the main vulnerability factors for psychopathology, the differences between the 5DPT and the NEO–FFI are likely to reflect the influence of clinical data and theory in the selection of 5DPT items. Hence, we might expect that the 5DPT scales for S, A, and G manifest stronger relationships with abnormal personality than the FFM dimensions Agreeableness, Openness, and Conscientiousness. Evidence supporting this possibility in relation to S and G can be derived from a study by Coolidge et al. (2008), in which the 5DPT was correlated with the Coolidge Axis II Inventory (CATI; Coolidge & Merwin, 1992). In that study, all correlations of S and G with the 10 CATI *DSM-IV* personality disorder scales turned out to exceed the mean personality disorder correlations for the corresponding FFM scales listed by Saulsman and Page (2004). However, similar findings occur if the correlations for 5DPT E and N are compared with the mean personality disorder correlation for FFM Extraversion and Neuroticism. Although again demonstrating the greater predictive strength of the 5DPT, these latter results are unexpected, as the 5DPT scales for E and N correlate rather strongly with their FFM counterparts.

Whereas the validity findings presented in this article attest to a rather intimate relationship among 5DPT A and fantasy proneness, positive symptoms of schizotypy, and reality changes, FFM Openness to Experience has usually been observed to show little relationship with the cognitive and perceptual aberrations that are seen in schizotypal personality disorder and in psychosis (see, e.g., Samuel & Widiger, 2008). This rather consistent finding is striking, as the remaining FFM dimensions have all been reported to correlate with disordered personality.

To account for this phenomenon, several hypotheses were formulated, including our own prediction (see Van Kampen, 2009) that it is not the total Openness to Experience construct that must be emphasized, but rather the Openness facets O1 (openness to fantasy), O2 (openness to aesthetics), and O3 (openness to feelings) that correlate with Tellegen's Absorption dimension. Quite another solution rests on the recognition that McCrae and Costa's (1985) original conceptualization of Openness was very much influenced by Coan's (1974) description of the optimal personality, "a formulation that is quite inconsistent with a maladaptive variant of high openness" (Samuel & Widiger, 2008, p. 1339).

Investigators following this view have usually tried to delineate a factor associated with the perceptual aberrations and cog-

nitive distortions that characterize *DSM-IV* Cluster A personality disorders, thereby apparently assuming that a maladaptive version of O primarily relates to these aberrant features. Such a fifth dimension, called Peculiarity, is, for instance, proposed in a study by Tackett, Silberschmidt, Krueger, and Sponheim (2008). However, in a study by Watson, Clark, and Chmielewski (2008), this factor, now labeled Oddity, was actually found to supplement the usual FFM dimensions. Although perhaps reflecting a statistical artifact (see Widiger, 2010), this finding could also be interpreted as a further indication that FFM Openness, unlike 5DPT Absorption, does not correlate with positive schizotypy. Moreover, if maladaptive Openness is defined in terms of the aberrant perceptions and beliefs of the schizotype, the focus is on features that—in contrast with the characteristics representing 5DPT A—do not coincide with the normal pole of Eysenck's normality versus psychosis continuum. Thus, whereas the 5DPT model only includes normal dimensions of personality, the model proposed by Tackett et al. (2008) and similar models consists of a mix of four normal factors and one dimension of aberrant personality functioning.

Perhaps, the only possibility to rescue the total domain of FFM Openness to Experience as a dimension of clinical relevance is to determine the underlying factor structure of dysfunctional qualities that are selected for their correlation with O, followed by an examination of the resultant factors with the aim of identifying an entirely new class of potential personality disorders in addition to the current set of Axis II disorders. Such a procedure seems defensible as the most frequently given Axis II diagnosis still remains Not Otherwise Specified. Following this theory, Piedmont, Sherman, Sherman, Dy-Liacco, and Williams (2009), administering to a sample of students a 125-item inventory for the measurement of O-related dysfunctional qualities, as well as other instruments, including the Schedule for Non-adaptive and Adaptive Personality (SNAP) developed by Clark (1993), could demonstrate the existence of four factors, of which two—Odd and Eccentric and Unrestricted Self—correlated positively with O, and two—Rigid and Superficial—correlated negatively. As, however, these maladaptive factors have still not led (and perhaps cannot lead) to the formulation of new diagnostic syndromes, the results presented by Piedmont et al. (2009) can only be considered to be highly speculative. In contrast, meaningful results are obtained in relation to the current set of personality disorders, as at least the Odd and Eccentric factor was observed to correlate rather strongly with the SNAP Axis II Schizotypal Personality Disorder scale. In addition, the Odd and Eccentric dimension showed a substantial correlation with the SNAP scale Eccentric Perceptions. Although Piedmont et al. did not discuss the reasons for these relationships other than in terms of the total O score, their data actually demonstrate a somewhat higher correlation between Odd and Eccentric and O2 (openness to aesthetics) than observed for the total O scale. Hence, the results found by Piedmont et al. do at least partially corroborate our view of emphasizing only particular facets of O in the derivation of a normal dimension of personality that both underlies and has an intrinsic relationship with the emergence of psychotic-like and psychotic symptoms.

With the findings and theory presented in this article or elsewhere (Coolidge et al., 2008; San Martini, Di Pomponio, Dentale, & Van Kampen, 2010; Van Kampen, 2009), the 5DPT appears to be a valid instrument for the measurement of five clinically relevant and theory-informed personality dimensions that appear to predispose individuals to the development of

various clinical syndromes. As such, these factors are believed to create a personality taxonomy of clinical interest, much in line with the current focus on continua that might bridge the traditional divisions between normal and disordered personality, or even between disordered personality and Axis I psychopathology (see, e.g., Widiger & Samuel, 2005). Moreover, the emphasis of the 5DPT model on a general causative theory in which the dimensions S, E, N, G, and A are embedded compares favorably with the essentially descriptive taxonomy of phenotypic personality attributes advocated by the proponents of the B5M. Nevertheless, if the 5DPT is at stake, it is all too obvious that the theory behind the five factors leaves much to be desired. This holds not only regarding the nomological networks in which the dimensions Insensitivity, Orderliness, and Absorption are embedded, but even with respect to E and N (Amelang & Ullwer, 1991). In this respect, the 5DPT model must still await definite confirmation.

ACKNOWLEDGMENTS

Reprints of the (Dutch or English) 5DPT and permission for research use can be obtained from the author.

I thank the following general practitioners for their cooperation: H. W. A. J. Garretsen, M. Günther, and A. F. J. Scholtens (Amsterdam); C. J. H. Broekmeulen (Den Bosch); H. A. Dirkse and A. J. Luiten (The Hague); J. L. Krom (Den Helder); J. P. Dijkmans, D. J. C. Heijl, V. J. G. M. de Kort, and I. Smeele (Eindhoven); J. Bolt (Ermelo); H. M. Dethmers and A. J. T. Ellenbroek (Groningen); S. F. J. J. van den Brand, B. W. M. van den Brand-Valkenburg, and M. G. G. Weyts (Heerlen); W. C. J. Hanssen (Kerkrade); J. J. M. van der Werf (Laren); S. Kort (Leeuwarden); P. A. M. J. van Abel (Nijmegen); M. Rodrigues-de Miranda, and G. Schneider (Reusel); and J. J. Groeneveld (Zutphen).

REFERENCES

- Amelang, M., & Ullwer, U. (1991). Correlations between psychometric measures and psychophysiological as well as experimental variables in studies of Extraversion and Neuroticism. In J. Strelau & A. Angleitner (Eds.), *Explorations in temperament: International perspectives on theory and measurement* (pp. 297–315). London, UK: Plenum.
- Ashton, M. C., & Lee, K. (2005). Honesty–Humility, the Big Five, and the Five-factor model. *Journal of Personality*, 73, 1321–1353.
- Ashton, M. C., & Lee, K. (2008). The prediction of Honesty–Humility-related criteria by the HEXACO and Five-factor models of personality. *Journal of Research in Personality*, 42, 1216–1228.
- Ashton, M. C., Lee, K., & Goldberg, L. R. (2004). A hierarchical analysis of 1,710 English personality-descriptive adjectives. *Journal of Personality and Social Psychology*, 87, 707–721.
- Ashton, M. C., Lee, K., Perugini, M., Szarota, P., De Vries, R. E., Di Blas, L., . . . De Raad, B. (2004). A six-factor structure of personality-descriptive adjectives: Solutions from psycholexical studies in seven languages. *Journal of Personality and Social Psychology*, 86, 356–366.
- Bleuler, M. (1972). *Die schizophrenen Geistesstörungen im Lichte langjähriger Kranken- und Familiengeschichten* [The schizophrenic disorders in the light of long-term patient and family histories]. Stuttgart, Germany: Thieme.
- Cardno, A. G., Rijdsdijk, F. V., Sham, P. C., Murray, R. M., & McGuffin, P. (2002). A twin study of genetic relationships between psychotic symptoms. *American Journal of Psychiatry*, 159, 539–545.
- Clark, L. A. (1993). *Schedule for Nonadaptive and Adaptive Personality: Manual for administration, scoring, and interpretation*. Minneapolis: University of Minnesota Press.
- Coan, R. W. (1974). *The optimal personality*. New York, NY: Columbia University Press.
- Coolidge, F. L., & Merwin, M. M. (1992). Reliability and validity of the Coolidge Axis II Inventory: A new inventory for the assessment of personality disorders. *Journal of Personality Assessment*, 59, 223–238.
- Coolidge, F. L., Segal, D. L., Cahill, B. S., & Archuleta, J. L. (2008). A new five factor model of psychopathology: Preliminary psychometric characteristics of the five-dimensional personality test (5DPT). *Personality and Individual Differences*, 44, 1326–1334.
- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.
- De Vries, R. E., Lee, K., & Ashton, M. C. (2008). The Dutch HEXACO Personality Inventory: Psychometric properties, self–other agreement, and relations with psychopathy among low and high acquaintanceship dyads. *Journal of Personality Assessment*, 90, 142–151.
- De Vries, R. E., & Van Kampen, D. (2010). The HEXACO and 5DPT models of personality: A comparison and their relationships with psychopathy, egoism, pretentiousness, immorality, and Machiavellianism. *Journal of Personality Disorders*, 24, 244–257.
- DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, 93, 880–896.
- Eysenck, H. J. (1952). Schizothymia-cyclothymia as a dimension of personality: II. Experimental. *Journal of Personality*, 20, 345–384.
- Eysenck, H. J. (1970). A dimensional system of psychodiagnostics. In A. R. Maher (Ed.), *New approaches to personality classification and psychodiagnostics* (pp. 169–207). New York, NY: Columbia University Press.
- Eysenck, H. J. (1991). Dimensions of personality: 16, 5 or 3?—Criteria for a taxonomic paradigm. *Personality and Individual Differences*, 12, 773–790.
- Eysenck, H. J. (1994a). The Big Five or Giant Three: Criteria for a paradigm. In C. F. Halverson, G. A. Kohnstamm, & R. P. Martin (Eds.), *The developing structure of temperament and personality from infancy to adulthood* (pp. 37–51). Hillsdale, NJ: Erlbaum.
- Eysenck, H. J. (1994b). The importance of theory in the taxonomy of personality. In B. De Raad, W. K. B. Hofstee, & G. L. Van Heck (Eds.), *Personality psychology in Europe* (Vol. 5, pp. 6–13). Tilburg, The Netherlands: Tilburg University Press.
- Eysenck, H. J., & Eysenck, S. B. G. (1969). *Personality structure and measurement*. London, UK: Routledge & Kegan Paul.
- Eysenck, H. J., & Eysenck, S. B. G. (1976). *Psychoticism as a dimension of personality*. London, UK: Hodder & Stoughton.
- Eysenck, S. B. G., & Eysenck, H. J. (1975). *Manual of the Eysenck Personality Questionnaire*. London, UK: Hodder & Stoughton.
- Fleck, J. I., Green, D. L., Stevenson, J. L., Payne, L., Bowden, E. M., Jung-Beeman, M., & Kounios, J. (2008). The transliminal brain at rest: Baseline EEG, unusual experiences, and access to unconscious mental activity. *Cortex*, 44, 1353–1363.
- Freeman, D., & Garety, P. A. (2003). Connecting neurosis and psychosis: The direct influence of emotion on delusions and hallucinations. *Behavioral Research and Therapy*, 41, 923–947.
- Glisky, M. L., Tataryn, D. J., Tobias, B. A., Kihlstrom, J. F., & McConkey, K. M. (1991). Absorption, openness to experience, and hypnotizability. *Journal of Personality and Social Psychology*, 60, 263–272.
- Goldberg, L. R. (1990). An alternative “description of personality”: The Big Five factor structure. *Journal of Personality and Social Psychology*, 59, 1216–1229.
- Goldberg, L. R. (1992). The development of markers for the Big Five factor structure. *Psychological Assessment*, 4, 26–42.
- Goldberg, L. R. (1999). A broad-bandwidth, public-domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. Deary, F. de Fruyt, & F. Ostendorf (Eds.), *Personality psychology in Europe* (Vol. 7, pp. 7–28). Tilburg, The Netherlands: Tilburg University Press.
- Heston, L. L. (1970). The genetics of schizophrenic and schizoid disease. *Science*, 167, 249–256.
- Hewitt, P. L., Flett, G. L., & Ediger, E. (1996). Perfectionism and depression: Longitudinal assessment of a specific vulnerability hypothesis. *Journal of Abnormal Psychology*, 105, 276–280.

- Hoekstra, H. A., Ormel, J., & De Fruyt, F. (1996). *NEO-PI-R—NEO-FFI: Big Five persoonlijkheidsvragenlijsten, Handleiding* [NEO-PI-R—NEO-FFI: Big Five personality inventories, Manual]. Lisse, The Netherlands: Swets & Zeitlinger.
- Kendler, K. S., & Gardner, C. O. (1997). The risk for psychiatric disorders in relatives of schizophrenic and control probands: A comparison of three independent studies. *Psychological Medicine*, 27, 411–419.
- Lange, R., Thalbourne, M. A., Houran, J., & Storm, L. (2000). The Revised Transliminality Scale: Reliability and validity data from a Rasch top-down purification procedure. *Consciousness and Cognition*, 9, 591–617.
- Lauer, C. J., Bronisch, T., Kainz, M., Schreiber, W., Holsboer, F., & Krieg, J. C. (1997). Pre-morbid psychometric profile of subjects at high familial risk for affective disorder. *Psychological Medicine*, 27, 355–362.
- Launay, G., & Slade, P. D. (1981). The measurement of hallucinatory predisposition in male and female prisoners. *Personality and Individual Differences*, 2, 221–234.
- Lee, K., & Ashton, M. C. (2004). Psychometric properties of the HEXACO Personality Inventory. *Multivariate Behavioral Research*, 39, 329–358.
- Lee, K., & Ashton, M. C. (2005). Psychopathy, Machiavellianism, and Narcissism in the Five-factor model and the HEXACO model of personality structure. *Personality and Individual Differences*, 38, 1571–1582.
- Lynn, S. J., & Rhue, J. W. (1988). Fantasy proneness: Hypnosis, developmental antecedents, and psychopathology. *American Psychologist*, 43, 35–44.
- Lysaker, P. H., Wilt, M. A., Plascak-Hallberg, C. D., Brenner, C. A., & Clements, C. A. (2003). Personality dimensions in schizophrenia: Associations with symptoms and coping. *Journal of Nervous and Mental Disease*, 191, 80–86.
- Maier, W., Hallmayer, J., Minges, J., & Lichtermann, D. (1990). Affective and schizoaffective disorders: Similarities and differences. In A. Marneros & M. T. Tsuang (Eds.), *Morbid risks in relatives of affective, schizoaffective, and schizophrenic patients: Results of a family study* (pp. 201–207). New York, NY: Springer Verlag.
- Maier, W., Lichtermann, D., Minges, J., & Heun, R. (1992). Personality traits in subjects at risk for unipolar major depression: A family study perspective. *Journal of Affective Disorders*, 24, 153–163.
- Markon, K., Krueger, R. F., & Watson, D. (2005). Delineating the structure of normal and abnormal personality: An integrative hierarchical approach. *Journal of Personality and Social Psychology*, 88, 139–157.
- Mason, O., Claridge, G., & Jackson, M. (1995). New scales for the assessment of schizotypy. *Personality and Individual Differences*, 1, 7–13.
- McCrae, R. R., & Costa, P. T. (1985). Updating Norman's "adequate taxonomy": Intelligence and personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology*, 49, 710–721.
- Merckelbach, H., Horselenberg, R., & Muris, P. (2001). The Creative Experiences Questionnaire (CEQ): A brief self-report measure of fantasy proneness. *Personality and Individual Differences*, 31, 987–995.
- Mooradian, T. A., & Nezlek, J. B. (1996). Comparing the NEO-FFI and Saucier's minimarkers as measures of the Big Five. *Personality and Individual Differences*, 21, 213–215.
- Ott, U., Reuter, M., Hennig, J., & Vaitl, D. (2005). Evidence for a common biological basis of the absorption trait, hallucinogen effects, and positive symptoms: Epistasis between 5-HT2a and COMT polymorphisms. *American Journal of Medical Genetics Part B*, 137B, 29–32.
- Piedmont, R. L., Sherman, M. F., Sherman, N. C., Dy-Liaccio, G. S., & Williams, J. E. (2009). Using the five-factor model to identify a new personality disorder domain: The case for experiential permeability. *Journal of Personality and Social Psychology*, 96, 1245–1258.
- Ross, S. R., Lutz, C. J., & Bailly, S. E. (2002). Positive and negative symptoms of schizotypy and the five-factor model: A domain and facet level analysis. *Journal of Personality Assessment*, 79, 53–72.
- Sakai, Y., Akiyama, T., Kawamura, Y., Matsumoto, S., Tominaga, M., Kurabayashi, L., . . . Akiskal, H. (2009). Temperament and melancholic type: Path analysis of a prospective study of depressive mood change in a nonclinical population. *Psychopathology*, 42, 249–256.
- Samuel, D. B., & Widiger, T. A. (2008). A meta-analytic review of the relationships between the five-factor model and DSM-IV–TR personality disorders: A facet level analysis. *Clinical Psychology Review*, 28, 1326–1342.
- San Martini, P., Di Pomponio, I., Dentale, F., & Van Kampen, D. (2010). Psychometric properties of the Italian version of the Five-Dimensional Personality Test (5DPT). *Bollettino di Psicologia Applicata*, 261/262, 105–115.
- Saucier, G. (1994). Mini-markers: A brief version of Goldberg's unipolar Big Five markers. *Journal of Personality Assessment*, 63, 506–516.
- Saucier, G., & Goldberg, L. R. (1996). The language of personality: Lexical perspectives on the Five-factor model. In J. S. Wiggins (Ed.), *The Five-factor model of personality: Theoretical perspectives* (pp. 21–50). New York, NY: Guilford.
- Saulsman, L. M., & Page, E. C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. *Clinical Psychological Review*, 23, 1055–1085.
- Slater, E. (1953). *Psychotic and neurotic illnesses in twins*. London, UK: Her Majesty's Stationery Office.
- Tackett, J. L., Silberschmidt, A. L., Krueger, R. F., & Sponheim, S. R. (2008). A dimensional model of personality disorder: Incorporating DSM cluster A characteristics. *Journal of Abnormal Psychology*, 117, 454–459.
- Tellegen, A., & Atkinson, G. (1974). Openness to absorbing and self-altering experiences ("Absorption"), a trait related to hypnotic susceptibility. *Journal of Abnormal Psychology*, 83, 268–277.
- Tellenbach, R. (1961). *Melancholie: Zur Problemgeschichte, Typologie, Pathogenese und Klinik* [Melancholy: History of the concept, typology, pathogenesis, and clinical aspects]. Berlin, Germany: Springer.
- Thalbourne, M. A. (1998). Transliminality: Further correlates and a short measure. *Journal of the American Society for Psychical Research*, 92, 402–419.
- Van Kampen, D. (1993). The 3DPT dimensions S, E, and N: A critical evaluation of Eysenck's psychoticism model. *European Journal of Personality*, 7, 65–105.
- Van Kampen, D. (1996). The theory behind psychoticism: A reply to Eysenck. *European Journal of Personality*, 10, 57–60.
- Van Kampen, D. (1997). Orderliness as a major dimension of personality: From 3DPT to 4DPT. *European Journal of Personality*, 11, 211–242.
- Van Kampen, D. (2000). Idiographic complexity and the common personality dimensions Insensitivity, Extraversion, Neuroticism, and Orderliness. *European Journal of Personality*, 14, 217–243.
- Van Kampen, D. (2005). Pathways to schizophrenic psychosis: A LISREL-tested model of the unfolding of the schizophrenic prodrome. *Journal of Clinical Psychology*, 61, 909–938.
- Van Kampen, D. (2006a). The Dutch DAPP-BQ: Improvements, lower- and higher-order dimensions, and relationship with the 5DPT. *Journal of Personality Disorders*, 20, 81–101.
- Van Kampen, D. (2006b). The Schizotypic Syndrome Questionnaire (SSQ): Psychometrics, validation and norms. *Schizophrenia Research*, 84, 305–322.
- Van Kampen, D. (2009). Personality and psychopathology: A theory-based revision of Eysenck's PEN model. *Clinical Practice and Epidemiology in Mental Health*, 5, 9–21.
- Van Kampen, D., Maurer, K., An der Heiden, W., & Häfner, H. (2009). Prodromal unfolding: The validation of the Schizotypic Syndrome Questionnaire model in a sample of first-episode schizophrenic patients. *Early Intervention in Psychiatry*, 3, 137–150.
- Watson, D. (2001). Dissociation of the night: Individual differences in sleep-related experiences and their relation to dissociation and schizotypy. *Journal of Abnormal Psychology*, 110, 526–535.
- Watson, D., Clark, L. A., & Chmielewski, M. (2008). Structures of personality and their relevance to psychopathology: II. Further articulation of a comprehensive unified trait structure. *Journal of Personality*, 76, 1545–1585.
- Widiger, T. A. (2010). Cluster A personality symptomatology in youth. *Journal of Psychopathology and Behavioral Assessment*, 32, 551–556.
- Widiger, T. A., & Mullins-Sweatt, S. N. (2009). Five-factor model of personality disorder: A proposal for DSM-V. *Annual Review of Clinical Psychology*, 5, 197–220.
- Widiger, T. A., & Samuel, D. B. (2005). Diagnostic categories or dimensions? A question for the Diagnostic and Statistical Manual of Mental Disorders—5th edition. *Journal of Abnormal Psychology*, 114, 494–504.
- Woods, S. W., Miller, T. J., & McGlashan, T. H. (2001). The "prodromal" patient: Both symptomatic and at-risk. *CNS Spectrums*, 6, 223–232.