

Clarifying the Nature and Structure of Personality Disorder

TAKAKUNI SUZUKI and DOUGLAS B. SAMUEL

Abstract

Past research has suggested that personality disorders (PDs) are best conceptualized as a maladaptive extreme variants of the same traits that define general personality. Such a dimensional approach to PD classification has officially been included in the latest version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) as an alternative diagnostic model for PD. The current essay provides an overview of the rationale for the dimensional approach to PDs and highlights compelling directions for future research.

The classification of mental disorder is detailed in the Diagnostic and Statistical Manual of Mental Disorders—Fifth Edition (DSM-5; APA, American Psychiatric Association, 2013). Within the primary section of the DSM-5, personality disorders (PDs) are defined by 10 categorical constructs that are considered distinct from each other and from normal personality functioning. However, many in the PD field have recognized the limitations and flaws of this categorical system, such as the high co-occurrence of PD and heterogeneity within categories. As such, many scientists and practitioners have voiced the advantages offered by a dimensional approach to PD classification (e.g., Widiger & Trull, 2007; Clark, 2007).

Considering these issues, researchers have proposed alternative dimensional personality models. One prominent model with a great deal of empirical support is the Five-Factor Model (FFM), which has been suggested as a suitable that spans both normal and abnormal personality (Widiger & Trull, 2007). The FFM consists of five bipolar broad trait domains and is a popular model in general personality research (e.g., Costa & McCrae, 1992; John, Naumann, & Soto, 2008). The five domains are neuroticism (vs emotional stability), extraversion (vs detachment), openness to experience (vs closedness to experience), agreeableness (vs antagonism), and conscientiousness (vs disinhibition). The FFM has robust empirical

evidence and has been shown to account reasonably well for many other personality models (e.g., Widiger & Simonsen, 2005). The FFM has also been shown to be universal across a wide number of cultures (McCrae & Costa, 1997) and the traits exhibit test—retest stability approaching 0.70 over long periods (Ferguson, 2010). The five broad, higher order domains of the FFM can be further subdivided into related, yet distinguishable, traits that are called *facets* (Costa & McCrae, 1992; Saucier & Ostendorf, 1999). These lower order facets allow the FFM to comprehensively assess an individual's personality at the level of five broad domains and at a more precise facet level.

Over the past two decades, a great deal of research has investigated whether the existing PD categories within the DSM can be conceptualized as maladaptive, extreme versions of the FFM traits. For example, studies have collected ratings of prototypic cases of the PDs in terms of the FFM. These ratings, collected from expert researchers and practicing clinicians, show strong agreement across raters and bear out conceptual links between the FFM and PDs (Lynam & Widiger, 2001; Samuel & Widiger, 2004). In addition, a meta-analysis suggested relatively consistent and predictable correlations between self-report measures of the FFM and PDs (Samuel & Widiger, 2008). For example, the construct of borderline PD exhibited strong positive relationships with the domain of neuroticism, negative correlations with conscientiousness, and moderate negative correlations with extraversion and agreeableness.

Research has also investigated the hierarchical structure of PD symptoms and found compelling similarities to the structure of normal personality (Markon, Krueger, & Watson, 2005; O'Connor, 2005). For example, factor analyses of personality pathology typically converge on five domains that readily map onto the domains of the FFM. These studies suggest that the similar constructs underlie the FFM domains and PDs, which supports one of the assumptions of the dimensional approach to PDs. In addition to structural similarity, research using item-response theory analyses has also suggested that the distinction between normal and abnormal function is one of degree, rather than kind. Specifically, Samuel, Simms, Clark, Livesley, and Widiger (2010) examined the relationships between a measure of general personality functioning and two measures of PD and found that, consistent with their development, the general personality measure assessed the normative range of the underlying construct and PD measures provided more information at the more extreme levels. Taken together, the literature provides support for structural similarity between general personality and personality pathology as well as meaningful and predictable relationships between the constructs. As such, there is compelling support that the FFM,

which was derived from models of normative functioning, can be fruitfully applied to the conceptualization of PD.

DSM-5: AN ALTERNATIVE PD MODEL

Building upon the research base, a hybrid model of PD diagnosis was included within Section III (Emerging Models and Measures) of the DSM-5. The diagnosis of PD within this alternative model is based on two core criteria: Severity of impairments in self and interpersonal functioning (Criterion A) and extreme standings on one or more of 25 pathological traits (Criterion B; APA, 2013). The 25 traits within this model were developed on the basis of expert consensus and later refined using an iterative, empirical process based on a self-report inventory: the Personality Inventory for the DSM-5 (PID-5; Krueger, Derringer, Markon, Watson, & Skodol, 2012). Research has suggested that the 25 traits are organized under five broad, higher order domains to form a hierarchical structure that is extremely similar to that of the FFM (Gore & Widiger, 2013; Griffin & Samuel, 2014; Thomas, Yalch, Krueger, Wright, Markon, & Hopwood, 2013; Wright & Simms, 2014; Wright, Thomas, Hopwood, Markon, Pincus, & Krueger, 2012). Thus, the emerging consensus is that the DSM-5 Section III Trait model can be considered a version of the FFM. Along with the hybrid model, the DSM-5 Section III also lists the hypothesized traits relevant to 6 of the 10 PDs from the Section II (APA, 2013).

FUTURE DIRECTIONS

There now exists a general consensus that PDs can be described using five broad trait domains. However, the least consistent link between these structures has been for the FFM domain of openness to experience, which measures an individual's tendency to be creative, and open to feelings, artistic interests, and new ideas. Conceptually, openness to experience maps onto the PD constructs that have been labeled schizotypy, oddity, eccentric, or psychoticism. However, the empirical link lacks the consistency relative to the other four FFM domains (e.g., Samuel & Widiger, 2008; Chmielewski, Bagby, Markon, Ring, & Ryder, 2014). This domain seems to be the most inconsistent domain in general personality research, as well. For example, in the lexical tradition using factor analyses of adjectives in dictionaries related to personality, openness to example is the last of the five domains to emerge and have resulted in slightly different forms, such as Intellect and Culture, depending on the language and sample population (McCrae, 1994; Norman, 1963). Thus, it appears that the specific instantiations of openness and schizotypy

can lead to somewhat different relationships between the constructs (DeYoung, Grazioplene, & Peterson, 2012). Future research is clearly necessary to further investigate the historically inconsistent relationship.

As noted previously, traits below the five domains are typically needed to further flesh out the information provided by the higher domains. For example, an individual might be particularly high on the conscientiousness facet of orderliness (i.e., keeping one's belongings organized and tidy), but low on the facet of achievement-striving (i.e., the orientation toward pursuing goals). Indeed, multiple studies have demonstrated the utility and importance of the facets for characterizing PDs and, specifically for distinguishing between them (Axelrod, Widiger, Trull, & Corbitt, 1997; Reynolds & Clark, 2001). For example, when applying the NEO PI-R-based FFM framework to characterize antisocial PD, there is considerable variation within the domain of neuroticism. Specifically, an individual who presents with features of antisocial PD might be described by high standings on the facets of angry hostility and impulsiveness, but relatively low standings on self-consciousness and depressiveness. As such, the domain level alone would provide an incomplete picture of the individual; sacrificing valuable information. Facets also tend to have stronger relationships with specific behavioral outcomes. For example, Paunonen and Ashton (2001) found that selected five FFM facets predicted outcome behaviors, such as willingness to share money and religiosity rating, better than the FFM domains. Thus, although there is widespread acknowledgement that facets are important, there is little agreement about the specific facets that are necessary for comprehensively describing personality pathology. In contrast to the general agreement on the presence of five broad higher order domains, such a consensus is less clear at the lower order facet level.

As noted, the DSM-5 Section III PD model includes 25 traits, with between 3 and 9 assigned to each domain. Nonetheless, a variety of other facet scales exist on alternative measures of PD and normative personality. Perhaps the most prominent facet model posited for the FFM is that from the NEO Personality Inventory—Revised (Costa & McCrae, 1992), which subdivides each domain into six facets, for a total of 30. Within trait models of personality pathology, there are also a wide variety of lower order structures. The Schedule for Nonadaptive and Adaptive Personality—2 (Clark, Simms, Wu, & Casillas, 2014) has 13 lower order trait scales, the Dimensional Assessment for Personality Pathology (Livesley & Jackson, 2009) has 19 traits, and the newly developed Computer Adaptive Test of PD (Simms, Goldberg, Roberts, Watson, Welte, & Rotterman, 2011) has 33 traits. Future research that determines which specific traits are necessary for a comprehensive and efficient model of personality pathology is sorely needed. In particular, it is likely that many of the trait facets across existing

models are highly overlapping and even redundant. Clearly, delineating the optimal lower order structure of personality pathology represents a crucial research agenda within the field of PDs.

An important characteristic of the FFM is that the domains are explicitly bipolar (Costa & McCrae, 1992). Conceptually, this assumes that high and low standings on each trait are equally informative. Specifically, an individual can be rated on a dimension anchored by two mutually exclusive traits at each end, such as considering extraversion and introversion to be opposite ends of the same underlying spectrum. On the other hand, PD traits have typically been conceptualized as unipolar, which suggests that the spectrum ranges from possessing the pathological characteristics to other who lack the pathology. This can be conceptualized as considering only one tail of the normal curve. Taking the extraversion example, this would mean that someone who scores extremely low on extraversion scale lacks extraversion, but this has no implication on whether the individual is introverted.

The DSM-5 Section III trait model does explicitly include bipolar indicators for the trait domains (e.g., detachment vs extraversion), but not for the lower order facets. Thus, a particularly important line of future inquiry would be to determine the nature and meaning of low scores on the PID-5 scales. There are an appreciable number of advantages of bipolar conceptualization over unipolar conceptualization of constructs (e.g., Samuel, 2011). For example, by focusing on one tail of the distribution, unipolar assessment neglects the extreme cases on the other side of the distribution that could potentially be informative. In case of agreeableness, for example, although low standings on agreeableness (i.e., antagonism) have important social and interpersonal costs, it would also be important to characterize those individuals on the other end of the spectrum who might be impaired by extreme deference to others and self-sacrifice. By focusing on one side of the construct, unipolar conceptualization essentially lacks the capability of assessing the neglected side. Similarly, utilizing explicitly bipolar conceptualizations and assessments of PD traits also allows for the introduction of normative levels of the traits into clinical practice. For example, knowing a client's relative standing on conscientiousness would presumably be quite informative for treatment compliance, even if the trait level was not itself pathological.

SUMMARY AND CONCLUSIONS

In sum, despite a long history of categorical conceptualization, the field of PDs has moved boldly toward a hybrid-dimensional model that defines the disorders in part by extreme standing on traits that span normal and abnormal functioning. This is an exciting trend in the PD literature and appears to hold promise for improving the diagnosis and ultimately treatment of

these debilitating conditions. Although these have been important advances, there remain several research questions that demand answers. Such areas of research interest include the relevance of openness to experience in PD conceptualization, the specific structure of the facets, and the bipolarity of traits. Better understanding the explicit links between the general trait of openness to experience and the pathological trait of psychoticism/schizotypy will help inform possible measures that can fully span all ranges of personality. Perhaps the largest unresolved issue within the field is the refinement of the lower order facet structure. Although there is now some agreement on the hierarchical structure of personality pathology, the work on the specific facets that comprise these domains remains unsettled.

REFERENCES

- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Axelrod, S. R., Widiger, T. A., Trull, T. J., & Corbitt, E. M. (1997). Relations of five-factor model antagonism facets with personality disorder symptomatology. *Journal of Personality Assessment*, *69*, 297–313. doi:10.1207/s15327752jpa6902_4
- Chmielewski, M., Bagby, R. M., Markon, K., Ring, A. J., & Ryder, A. G. (2014). Openness to experience, intellect, schizotypal personality disorder, and psychoticism: Resolving the controversy. *Journal of Personality Disorders*, 1–17. doi:10.1521/pedi_2014_28_128
- Clark, L. A. (2007). Assessment and diagnosis of personality disorder: Perennial issues and an emerging reconceptualization. *Annual Review of Psychology*, *58*, 227–257. doi:10.1146/annurev.psych.57.102904.190200
- Clark, L. A., Simms, L. J., Wu, K. D., & Casillas, A. (2014). *Manual for the schedule for nonadaptive and adaptive personality (SNAP-2)*. Minneapolis: University of Minnesota Press.
- Costa, P. T., & McCrae, R. R. (1992). *Professional manual: revised NEO personality inventory (NEO-PI-R) and NEO five-factor inventory (NEO-FFI)*. Odessa, FL: Psychological Assessment Resources.
- DeYoung, C. G., Grazioplene, R. G., & Peterson, J. B. (2012). From madness to genius: The Openness/Intellect trait domain as a paradoxical simplex. *Journal of Research in Personality*, *46*, 63–78. doi:10.1016/j.jrp.2011.12.003
- Ferguson, C. J. (2010). A meta-analysis of normal and disordered personality across the life span. *Journal of Personality and Social Psychology*, *98*, 659–667. doi:10.1037/a0018770
- Gore, W. L., & Widiger, T. A. (2013). The DSM-5 dimensional trait model and five-factor models of general personality. *Journal of Abnormal Psychology*, *122*, 816–821. doi:10.1037/a0032822
- Griffin, S. A., & Samuel, D. B. (2014, June 2). A closer look at the lower-order structure of the Personality Inventory for DSM-5: Comparison with the five factor model.

- Personality Disorders: Theory, Research, and Treatment* Advance online publication. doi:10.1037/per0000074
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy. In O. P. John, R. W. Robins & L. A. Pervin (Eds.), *Handbook of personality* (3rd ed., pp. 114–158). New York, NY: Guilford.
- Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. V. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine*, *42*, 1879–1890. doi:10.1017/S0033291711002674
- Livesley, W. J., & Jackson, D. N. (2009). *Dimensional assessment of personality pathology—basic questionnaire*. Port Huron, MI: Sigma Assessment Systems.
- Lynam, D. R., & Widiger, T. A. (2001). Using the five-factor model to represent the DSM-IV personality disorders: An expert consensus approach. *Journal of Abnormal Psychology*, *110*, 401–412. doi:10.1037/0021-843X.110.3.401
- Markon, K. E., 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. doi:10.1037/0022-3514.88.1.139
- McCrae, R. R. (1994). Openness to experience: Expanding the boundaries of Factor V. *European Journal of Personality*, *8*, 251–272. doi:10.1002/per.2410080404
- McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, *52*, 509–516. doi:10.1037/0003-066X.52.5.509
- Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. *The Journal of Abnormal and Social Psychology*, *66*, 574–583. doi:10.1037/h0040291
- O'Connor, B. P. (2005). A search for consensus on the dimensional structure of personality disorders. *Journal of Clinical Psychology*, *61*, 323–345. doi:10.1002/Jclp.20017
- Paunonen, S. V., & Ashton, M. C. (2001). Big five factors and facets and the prediction of behavior. *Journal of personality and social psychology*, *81*, 524. doi:10.1037/0022-3514.81.3.524
- Reynolds, S. K., & Clark, L. A. (2001). Predicting dimensions of personality disorder from domains and facets of the Five-Factor Model. *Journal of Personality*, *69*, 199–222. doi:10.1111/1467-6494.00142
- Samuel, D. B. (2011). Assessing personality in the DSM-5: The utility of bipolar constructs. *Journal of Personality Assessment*, *93*, 390–397. doi:10.1080/00223891.2011.577476
- Samuel, D. B., Simms, L. J., Clark, L. A., Livesley, W. J., & Widiger, T. A. (2010). An item response theory integration of normal and abnormal personality scales. *Personality Disorders: Theory, Research, and Treatment*, *1*, 5–21. doi:10.1037/a0018136
- Samuel, D. B., & Widiger, T. A. (2004). Clinicians' personality descriptions of prototypic personality disorders. *Journal of Personality Disorders*, *18*, 286–308. doi:10.1521/pedi.18.3.286.35446
- 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. doi:10.1016/j.cpr.2008.07.002

- Saucier, G., & Ostendorf, F. (1999). Hierarchical subcomponents of the Big Five personality factors: A cross-language replication. *Journal of Personality and Social Psychology, 76*, 613–627. doi:10.1037/0022-3514.76.4.613
- Simms, L. J., Goldberg, L. R., Roberts, J. E., Watson, D., Welte, J., & Rotterman, J. H. (2011). Computerized adaptive assessment of personality disorder: Introducing the CAT-PD project. *Journal of Personality Assessment, 93*, 380–389. doi:10.1080/00223891.2011.577475
- Thomas, K. M., Yalch, M. M., Krueger, R. F., Wright, A. G., Markon, K. E., & Hopwood, C. J. (2013). The convergent structure of DSM-5 personality trait facets and five-factor model trait domains. *Assessment, 20*, 308–311. doi:10.1177/1073191112457589
- Widiger, T. A., & Simonsen, E. (2005). Alternative dimensional models of personality disorder: Finding a common ground. *Journal of Personality Disorders, 19*, 110–130. doi:10.1521/pedi.19.2.110.62628
- Widiger, T. A., & Trull, T. J. (2007). Plate tectonics in the classification of personality disorder: Shifting to a dimensional model. *American Psychologist, 62*, 71–83. doi:10.1037/0003-066X.62.2.71
- Wright, A. G. C., & Simms, L. J. (2014). On the structure of personality disorder traits: Conjoint analyses of the CAT-PD, PID-5, and NEO-PI-3 trait models. *Personality Disorders: Theory, Research, and Treatment, 5*, 43–54. doi:10.1037/per0000037
- Wright, A. G., Thomas, K. M., Hopwood, C. J., Markon, K. E., Pincus, A. L., & Krueger, R. F. (2012). The hierarchical structure of DSM-5 pathological personality traits. *Journal of Abnormal Psychology, 121*, 951–957. doi:10.1037/a0027669

FURTHER READING

- Widiger, T. A., & Costa, P. T. (Eds.) (2013). *Personality disorders and the five-factor model of personality* (3rd ed.). Washington, DC: American Psychological Association 10.1037/13939-000

TAKAKUNI SUZUKI SHORT BIOGRAPHY

Takakuni Suzuki is a graduate student in Clinical Psychology at Purdue University. He received his BS degrees in Psychology and Physiology from Michigan State University and an MS degree in Psychology from Villanova University.

DOUGLAS B. SAMUEL SHORT BIOGRAPHY

Douglas B. Samuel is an Assistant Professor of Clinical Psychology at Purdue University. He obtained his BA in Psychology from Indiana University and his PhD from the University of Kentucky. Following his clinical internship, he completed postdoctoral fellowship through the Yale School

of Medicine and the Department of Veteran's Affairs. Dr. Samuel's primary research interests are in the development of dimensional trait models of personality disorder and their application in clinical practice. He currently serves as an associate editor of the journal *Assessment*.

RELATED ESSAYS

What Is Neuroticism, and Can We Treat It? (*Psychology*), Amantia Ametaj *et al.*

Aggression and Victimization (*Psychology*), Sheri Bauman and Aryn Taylor

Genetics and the Life Course (*Sociology*), Evan Charney

Peers and Adolescent Risk Taking (*Psychology*), Jason Chein

Delusions (*Psychology*), Max Coltheart

Misinformation and How to Correct It (*Psychology*), John Cook *et al.*

Problems Attract Problems: A Network Perspective on Mental Disorders (*Psychology*), Angélique Cramer and Denny Borsboom

Expertise (*Sociology*), Gil Eyal

Controlling the Influence of Stereotypes on One's Thoughts (*Psychology*), Patrick S. Forscher and Patricia G. Devine

Emerging Evidence of Addiction in Problematic Eating Behavior (*Psychology*), Ashley Gearhardt *et al.*

Depression (*Psychology*), Ian H. Gotlib and Daniella J. Furman

Positive Emotion Disturbance (*Psychology*), June Gruber and John Purcell

Family Relationships and Development (*Psychology*), Joan E. Grusec

Insomnia and Sleep Disorders (*Psychology*), Elizabeth C. Mason and Allison G. Harvey

Mental Imagery in Psychological Disorders (*Psychology*), Emily A. Holmes *et al.*

Normal Negative Emotions and Mental Disorders (*Sociology*), Allan V. Horwitz

Dissociation and Dissociative Identity Disorder (DID) (*Psychology*), Rafaële J. C. Huntjens and Martin J. Dorahy

Computer Technology and Children's Mental Health (*Psychology*), Philip C. Kendall *et al.*

Cultural Neuroscience: Connecting Culture, Brain, and Genes (*Psychology*), Shinobu Kitayama and Sarah Huff

Mechanisms of Fear Reducation (*Psychology*), Cynthia L. Lancaster and Marie-H. Monfils

Understanding Risk-Taking Behavior: Insights from Evolutionary Psychology (*Psychology*), Karin Machluf and David F. Bjorklund

Evolutionary Perspectives on Animal and Human Personality (*Anthropology*), Joseph H. Manson and Lynn A. Fairbanks

Disorders of Consciousness (*Psychology*), Martin M. Monti

Social Classification (*Sociology*), Elizabeth G. Pontikes

Cognitive Remediation in Schizophrenia (*Psychology*), Clare Reeder and Til Wykes

Cognitive Bias Modification in Mental (*Psychology*), Meg M. Reuland *et al.*

Born This Way: Thinking Sociologically about Essentialism (*Sociology*), Kristen Schilt

Taking Personality to the Next Level: What Does It Mean to Know a Person? (*Psychology*), Simine Vazire and Robert Wilson

A Gene-Environment Approach to Understanding Youth Antisocial Behavior (*Psychology*), Rebecca Waller *et al.*

Crime and the Life Course (*Sociology*), Mark Warr and Carmen Gutierrez

Rumination (*Psychology*), Edward R. Watkins

Emotion Regulation (*Psychology*), Pree Zarolia *et al.*