Clinical and Subclinical Manifestations of Personality are Quite Different

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The focal article by Melson-Silimon et al. is timely and challenges commercial personality testing firms to demonstrate their assessments do not constitute medical examinations designed to measure mental disorder or impairment. In this commentary, we take this challenge head on by investigating the degree to which clinical measures and subclinical measures of personality used for employment screening overlap. Overall, we find little measurement-based evidence of dark-side personality and personality disorders all coexisting on the same underlying continua.

We focus on dark-side personality for two reasons. First, dark-side personality comprises the sets of interpersonal tendencies that may negatively impact job performance when people stop self-monitoring (i.e., derailers; Hogan & Hogan, 2001). Psychologists view these derailers and their tendency to affect job performance as deficiencies and excesses of FFM personality (Hogan, Hogan, & Barrett, 2007) and as *subclinical* manifestations of personality disorders (Harms, Spain, & Hannah, 2011). As such, dark-side personality is the likely candidate to bridge FFM personality and personality disorders. Second, the dark-side–personality disorder link is most relevant to Melson-Silimon et al.'s (2019) discussion of personality as it relates to discrimination under the Americans with Disabilities Act.

To begin, we conceptually aligned the subscales of the Hogan Development Survey (HDS; Hogan & Hogan, 2009) to the subscales of the Personality Inventory for DSM-5 (Krueger, Derringer, Markon, Watson, & Skodol, 2013). The HDS is a widely used measure of workplace dark-side personality. It assesses self-defeating expressions of normal personality that come and go depending on the context, as opposed to personality disorders that are enduring and

pervasive across contexts. The HDS includes 11 scales and 33 subscales aligned with Horney's (1950) three themes of flawed interpersonal styles: *moving away* – managing feelings of inadequacy by avoiding contact with others, *moving against* – managing self-doubt through dominance and intimidation, and *moving toward* – managing insecurities by building alliances to minimize threats of criticism. These interpersonal styles are often harder to notice during daily interactions (the realm of FFM personality) but become apparent and potentially impact job performance when people stop self-monitoring (e.g., when in leadership positions). The PID-5 is a clinical-oriented measure designed for abnormal personality research. It is an outgrowth of the transition to the dimensional model of personality disorders and includes 5 scales and 25 subscales. Based on subscale definitions, we could align 18 of the HDS and PID-5 subscales. The remaining subscales (e.g., PID-5 Anhedonia) had no clear counterpart on the HDS, or vice-versa.

We surveyed 550 working adults on Amazon's Mechanical Turk (MTurk) and asked participants to take four-point, Likert-type versions of the HDS and the PID-5. Participants' age was 35.5 years (*SD* = 10.4 years) on average; they were 53% Female and 71% White. We conducted parallel analyses for the 18 HDS–PID-5 conceptual pairs, both on the originally collected polytomous data (four-point Likert, from *Strongly Disagree* to *Strongly Agree*) and the dichotomized data by means of tetrachoric correlation matrices. These analyses consistently extracted at least two factors, indicating the HDS and PID-5 subscales measure distinct underlying constructs at the subscale level and should not be considered the same.

Multidimensionality makes comparing how items function using item response theory (IRT) difficult. However, 7 of the 18 subscale pairs were sufficiently unidimensional (Drasgow & Parsons, 1983; Foster, Min, & Zickar, 2017) to permit us to fit unidimensional, two-parameter

(2-PL) IRT models to our data. These sufficiently unidimensional subscale pairs had latent correlations of at least .35 (mean latent correlation = .51) and ratios of first- and second-factor proportions of variance accounted for greater than 1.75 (mean ratio = 2.40). The 2-PL[1] IRT model describes item functioning using two parameters: item difficulty (analog of the item mean in classical test theory) and item discrimination (analog of the item-total correlation in classical test theory). We dichotomized responses to all HDS and PID-5 items to be True/False and compared mean item difficulty and discrimination parameters for the HDS and the PID-5 across the seven subscale pairs. The mean item difficulty parameters were .89 Z-units higher and the mean item discrimination parameters were 2.7 times higher for the PID-5 than they were for the HDS. We present all results of the subscale alignments and IRT analyses in Table 1.

The results suggest that the HDS and PID-5 appear to function very differently even at the item level. The PID-5 items, not surprisingly for a more clinical measure, assess better at the higher end of the trait distribution and appear to separate individuals almost categorically (i.e., highly differentiable low- and high-scorers). The HDS items appear to assess better at the lower and moderate parts of the trait distribution and appear much less discrete than the PID-5 items.

Conclusion

The results of this investigation indicate that a subclinical measure of personality

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[1] The *Strongly Agree* category had very low endorsement frequencies for some PID-5 items but functioned well for the HDS items, which led to our decision to dichotomize our data (cf. Toland, 2013; Lecointe, 1995). However, we also fit graded response models (GRM; Samejima, 1969) to the polytomous data and found similar relationships between mean discrimination and difficulty parameters for the HDS and the PID-5.

dysfunction shows little overlap with a clinical measure of personality dysfunction. Simply put, the HDS is not a clinical measure of personality and cannot assess mental disorder or impairment. Rather, it is better suited for measuring individual differences in everyday behavioral tendencies associated with poor managerial performance and career derailment (Hogan & Hogan, 2001). Thus, while the concerns raised by Melson-Silimon et al. may be relevant to other measures of personality, particularly clinical measures of personality (e.g., the MMPI), they do not appear to be relevant to the HDS.

References

Drasgow, F., & Parsons, C. K. (1983). Application of unidimensional item response theory models to multidimensional data. *Applied Psychological Measurement*, *7*(2), 189-199.

Foster, G. C., Min, H., & Zickar, M. J. (2017). Review of item response theory practices in organizational research: Lessons learned and paths forward. *Organizational Research Methods*, *20*(3), 465-486.

Harms, P. D., Spain, S. M., & Hannah, S. T. (2011). Leader development and the dark side of personality. *Leadership Quarterly*, *22*(3),495-509.

Hogan, R., & Hogan, J. (2001). Assessing leadership: A view from the dark side. *International Journal of Selection and Assessment*, *9*(1/2), 40-51).

Hogan, R., & Hogan J. (2009). *Hogan Development Survey manual* (2nd ed.). Tulsa, OK: Author.

Hogan, R., Hogan, J., & Barrett, P. (2008). Good judgment: The intersection of intelligence and personality. In O. Y. Chebykin, G. Bedney, & W. Karwowski (Eds.), *Ergonomics and psychology: Developments in theory and practice* (pp. 357–375). London, United Kingdom: CRC Press.

Horney, K. (1950). *Neurosis and human growth*. New York, NY: Norton.

Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine*, *42*(9), 1879-1890.

Lecointe, D. A. (1995). How the collapsing of categories impacts the item information function in polytomous item response theory. Retrieved from https://files.eric.ed.gov/fulltext/ED386469.pdf

Melson-Silimon, A., Harris, A. M., Shoenfelt, E. L., Miller, J. D., & Carter, N. T. (2019). Personality testing and the Americans with Disabilities Act: Cause for concern as normal and abnormal personality models are integrated. *Industrial and Organizational Psychology*, *12*(1).

Samejima, F. (1969). Estimation of latent ability using a response pattern of graded scores. *Psychometrika Monograph Supplement*, 34(4, Pt. 2), 100.

Toland, M. D. (2014). Practical guide to conducting an item response theory analysis. *Journal of Early Adolescence*, *34*(1), 120-151.

Table 1.
Mean Item Difficulty and Discrimination Parameters

HDS Subscale	PID-5 Subscale	Mean *b*		Mean *a*	
		PID-5	HDS	PID-5	HDS
Fearful	Anxiousness				
Self-display	Attention Seeking	1.14	0.48	2.91	1.66
Tough	Callousness				
Distractible	Distractibility				
Eccentric	Eccentricity	0.87	0.74	3.21	0.98
Volatile	Emotional Lability	1.07	0.53	2.99	1.02
Fantasized Talent	Grandiosity				
Irritated	Hostility	1.10	-0.03	2.37	0.84
Impulsive	Impulsivity	1.30	0.37	4.13	1.37
Unsocial	Intimacy Avoidance				
Manipulative	Manipulativeness				
Special Sensitivity	Perceptual Dysregulation				
Perfectionistic	Rigid Perfectionism				
Risky	Risk Taking				
Conforming	Submissiveness	0.40	-0.58	2.38	0.74
Mistrusting	Suspiciousness				
Special Sensitivity	Unusual Beliefs				
Introverted	Withdrawal	0.42	-1.43	3.16	1.70

Note. $N = 550$. Mean *b* – Average IRT-derived item difficulty parameter; Mean *a* – Average IRT-derived item discrimination parameter. We provide data for all subscale pairs sufficiently unidimensional to permit 2-PL models.