is an Agreeableness-bloated<sup>8</sup> assessment of the personality space that fails to adequately capture the network of relations among personality constructs at different hierarchical levels.

### **CONCLUSION**

These problems (and others highlighted in this issue) reinforce that HEXACO-PM is not a good representation of the personality construct space; HEXACO-PI is not an instrument we currently have confidence in.

### **HEXACO, Dark Personalities, and Brunswik Symmetry**

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Abstract: The authors have laid out a number of reasons for favoring the HEXACO model over the Five-Factor model. We add that, in terms of compatibility with the Dark Tetrad model, the HEXACO is clearly superior. Whereas the Five-Factor Model shows a motley pattern of linkages, the H-H factor provides a parsimonious higher-level construct that subsumes established 'dark' personalities. Thus they dovetail nicely—another advantage of the HEXACO. We couch this advantage in terms of the Brunswik Symmetry principle: Associations between measures must be evaluated at the same level of analysis. © 2020 European Association of Personality Psychology

We applaud the authors for the programmatic fashion in which they developed and validated the HEXACO. This six-factor model of personality has proved to be a valuable practical tool as well as a challenge to Big Five advocates. Of special note is the authors' introduction of a new factor —Honesty-Humility (H-H). Its addition has led to a reconsideration of how the earlier five factors should be oriented in personality space.

We have a special interest in the H-H factor because of its relevance to so-called 'dark' personalities: that is, narcissism, Machiavellianism, psychopathy, and sadism (e.g. Paulhus, 2014). To anticipate, we believe that H-H subsumes but does not preclude the latter.

# OVERARCHING PERSONALITY CONSTRUCTS VERSUS LOWER LEVEL TRAITS

The trade-off between broad-band and narrower, high fidelity measures has been acknowledged throughout the history of personality assessment (e.g. Paunonen et al., 1999; Wiggins, 1973). Although narrower measures provide more precise measurement, inventories of broad-band measures have dominated empirical research because of their comprehensiveness and efficiency: among these are Eysenck's PEN, the Big Five, and the HEXACO.

Acknowledging differing levels of analysis has an important corollary called *Brunswik Symmetry* (e.g. Figueredo et al., 2015). In brief, the principle holds that associations between two psychological measures (e.g. Pearson correlations) are impaired if they fall at different levels of the hierarchy. That principle is especially important in personality measurement because the construct hierarchy can be tapped at any one of a number of levels (see Ashton et al., 2004; Saucier & Ostendorf, 1999).

In Point 4 of the target article, the authors agree that the HEXACO factors should not be used when researchers are interested in a specific trait. In Point 5, the authors do not specifically apply that argument to the dark personalities. Instead, they express concern about researchers who tack the dark variables on to the Big Five. For various reasons—Brunswik Symmetry being paramount—we strongly agree with that concern. We do not agree, however, with the converse argument: that, with the advent of H-H, dark variables are now superfluous (Hodson et al., 2018).

The Brunswik principle also implies that constructs such as Agreeableness or H-H cannot act as a core or mediator for lower level traits. The shell cannot mediate its constituents: its meaning is distilled from them. Mediators must operate at the same level of analysis as the variables they mediate (Figueredo et al., 2015).

# THE ORIGIN AND ADVANTAGES OF STUDYING THE DARK TETRAD (D4)

Whereas broad personality factors such as the H-H emerge from comprehensive lexical analyses, lower level traits such as the D4 originate in focused investigations of variables showing convergence of self-report, observer-report, and

<sup>&</sup>lt;sup>8</sup>Ashton and Lee describe bloated specifics as arising "only when lots of nearly redundant variables are included in a factor analysis" (p. 29). They assert that HH is not a bloated specific because its factor loadings are consistent in magnitude to that of the remaining factors. However, Cattell (1978, p. 319) correctly notes that "artificially high intercorrelations [among items or subtests] and spurious claims to high broad factor loadings are often due to making up highly similar items which introduce an undetected 'bloated specific'."

behavioral modes of measurement. In each case, its validity has been buttressed by psychometric, laboratory, I-O, and clinical research. The subclinical variants have shown remarkable parallels to their clinical—forensic counterparts. In short, Ashton and Lee are incorrect when declaring that there is no empirical basis for focusing on the three (now four) constructs. Although others have been nominated, these four have the strongest theoretical and empirical basis (Paulhus et al., 2020).

Readers interested in the lengthy historical background of each tetrad member are directed to Jones and Paulhus (2009) for Machiavellianism; Campbell and Miller (2011) for narcissism; Lebreton and colleagues (2006) for psychopathy; and Foulkes (2019) for subclinical sadism. The substantial overlap in these literatures—as well as their measures—had originally spurred Paulhus and Williams to investigate the similarities and differences. Possible differentiation required simultaneous measurement and extensive research—soon forthcoming (Furnham et al., 2013). Interestingly, the bottom-up and top-down investigations were occurring at about the same time. Emergence of the H-H factor was soon accompanied by the revelation that it subsumed the Dark Triad (Lee & Ashton, 2004).

### THE HEXACO VERSUS FIVE-FACTOR MODELS

Several studies have sought to locate the dark constellation in overarching personality space. Under the assumption that the Five-Factor Model was exhaustive, some have attempted to project dark variables onto that structure. Unfortunately, that mapping task proved messy: for example, psychopathy has been linked to all five (Paulhus & Williams, 2002), Machiavellianism to neuroticism and low agreeableness (DeShong et al., 2015; Jakobwitz & Egan, 2006). By contrast,

narcissism has its strongest associations with extraversion and openness (Book et al., 2016; O'Boyle et al., 2015).

By contrast, the six-factor solution offered by the HEXACO model provides a clear pattern with all four variables aligning with the H-H factor (Book et al., 2016; Meere & Egan, 2017; Johnson et al., 2019; Međedović & Petrović, 2015; Zettler et al., 2020). This parsimony offers more theoretical and empirical clarity than the scattered links with the Five-Factor Model.

In fact, Hodson et al. (2018) have shown that the first latent factor of the Dark Triad lines up with the latent factor of H-H. The authors went further to argue that researchers should simply use the (reversed) H-H scale instead of the triad. Clearly, that recommendation went too far, but the correspondence of latent factors is evidence that the higher-level H-H subsumes the lower-level Dark Tetrad (and more).

The authors agree that the facets chosen for H-H were somewhat arbitrary (Point 4). Nonetheless, most resemble reverse-keyed versions of tetrad traits, which are firmly rooted in empirical traditions. Thus, in most cases, links with other constructs are more easily interpreted using tetrad traits than the H-H facets.

In sum, the D4 and HEXACO models are not in competition but are complementary. The HEXACO model helps integrate dark personalities into personality space, whereas the tetrad traits provide well-defined lower-level traits falling neatly under H-H. Overall, we are sympatico with the authors' favoring of their six-factor HEXACO model over the Five-Factor Model. In terms of compatibility with the Dark Triad and Tetrad constellations, the HEXACO is clearly superior. In promoting the HEXACO in previous writings, it is unfortunate that the authors expressed disdain for the dark personality distinctions (Hodson et al., 2018, pp. 127–128). Au contraire, we feel that they dovetail nicely—another argument favoring the HEXACO over the Five-Factor Model.

## Why ... the HEXACO Model Should Be Preferred as a Basic Personality Structure

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Abstract: I argue that personality structure should be grounded in psycholexical studies as this provides a most solid foundation. Personality structure should be factorially simple and should be distinguished from personality content. In turn, both should not be given per se explanatory status and should be distinguished from personality processes. Based on these considerations and the theoretical and empirical arguments put forward by Ashton and Lee, I agree with them that one should prefer the HEXACO model as a basic personality structure. © 2020 European Association of Personality Psychology

## WHY PERSONALITY STRUCTURE SHOULD BE GROUNDED IN PSYCHOLEXICAL STUDIES ...

Ashton and Lee (2020a) highlight that their proposed HEXACO personality structure is well-grounded in

psycholexical studies. In one of their last points (14), they briefly explain why it matters. My only disagreement with them is that it should have been the first point, just to signal how fundamental is this issue. First, a psycholexical study defines a broad set of features (e.g. personality-descriptive