



Two further problems with Trait Theory

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We present two illustrations highlighting erroneous conclusions that follow from an uncritical acceptance of Trait Theory. First, a size analogy demonstrates how, by focusing on shared variance among variables, researchers may ignore important unique variance and interactions among personality facets. Second, Trait Theory, when combined with the self-report theory of item responding, leads to faulty conclusions about faking when using personality assessment for personnel selection. We conclude by discussing implications of these illustrations for reactions to our article (Hogan & Foster, 2016) and for the field of Personality Psychology.

Keywords: personality, faking, Trait Theory

We appreciate the thoughtful reactions to our paper “Rethinking Personality” (Hogan & Foster, 2016). Candid theoretical discussions are valuable, but they are also rare in Personality Psychology. The responses to our paper largely focused on our criticisms of Trait Theory and the field’s tendency to use traits for both descriptive and explanatory purposes. We attempt to expand the discussion using two illustrations that highlight further limitations of traits.

The size analogy

People who teach statistics often use height and weight to illustrate correlations. On average, taller people weigh more. Correlations between height and weight (.40 - .70) are typically similar to correlations between the facets that make up personality factors. For example, DeYoung, Quilty, and Peterson (2007) report correlations between two sub-factors of each component of the Five Factor Model (FFM) using data from the NEO-PI-R (Costa & McCrae, 1992) and AB5C-IPIP (Goldberg, 1999). These correlations ranged from .51 to .64 – comparable to height and weight.

Given the correlation between height and weight, it would be easy to treat them as a factor. We could call the factor “size,” and then assign people scores for size; furthermore, most people would understand the meaning of a size factor more easily than personality factors like Neuroticism and Conscientiousness. When we describe someone as big, large, small, little, etc., we are describing that person in terms of an imaginary size factor. So why not combine height and weight into one variable? First, when we refer to a person’s size, we often follow up by mentioning height and weight. Most people intuitively understand the difference between height and weight, even though they are highly correlated. Second, if we want to predict perfor-

mance on a physical ability task, we often want to know people’s height and weight, not just their size. As a construct, size is less than the sum of its parts.

Now consider Conscientiousness. DeYoung et al. (2007) describe two sub-factors of Conscientiousness: Industriousness and Orderliness. Industriousness includes Purposefulness, Efficiency, Achievement Striving, and Self-Discipline. Orderliness includes Orderliness, Order, and Perfectionism. Although measures of these components are highly correlated, Industriousness concerns accomplishment at work while Orderliness concerns a preference for structure and order. One can interpret the correlational results in terms of one factor or two correlated sub-factors.

We find the latter interpretation more informative, but Trait Theory focuses on the former. When there is shared variance between constructs, Trait Theory teaches students to look for the underlying trait that causes it. But this search for underlying traits can be harmful in two ways. It not only masks potentially useful information at the facet-level, but the psychological differences between components of a factor are often the most useful information we can derive from the factor. In other words, focusing on general traits not only discards information, but may also ignore useful questions about why facets predict different outcomes.

For example, when examining the links between people’s size and health, one useful metric is Body Mass Index (BMI; see CDC, 2015). Higher BMI results reflect more body mass relative to one’s height. Although based on height and weight, the value of BMI is in what is left after controlling for the shared variance between the two. In other words, the most important information is found in the outliers – people whose height and weight are atypical.

Again, consider Conscientiousness. Research consistently shows that combinations of personality facets from different factors are more predictive than scales (e.g., Hogan & Roberts, 1996; Tett, Steele, & Beauregard, 2003). However, even within the same factor, Judge, Rodell, Klinger, Simon, and Crawford (2013) report that all six

facets of Conscientiousness on the NEO predicted overall job performance, with correlations ranging from $\rho = .11$ (Order) to $\rho = .23$ (Achievement Striving) – lower than the correlation for the overall scale ($\rho = .26$). This indicates that a linear combination of Conscientiousness facets is more predictive than any single facet, a finding that supports the notion that the trait Conscientiousness drives prediction.

But what if the two most predictive facets (Achievement Striving and Dutifulness) interact? If high scores for Achievement Striving and low scores for Dutifulness is fundamentally different from low scores on Achievement Striving and high scores on Dutifulness, we ought not to treat both as only manifestations of the same higher order trait. When computing scores on Conscientiousness, the two combinations would produce similar scores. Instead, if we think of scores as reflecting motivated self-presentations, we see that high scores for Achievement Striving are clearly different from high scores on Dutifulness. Again, the most interesting information is in the outliers – people whose scores do not fit the typical pattern of correlations between the constructs.

What if faking is not real?

The term self-report is used to describe the data provided when people answer questions about themselves. However, we should not assume that their answers are empirically true statements about them. Such an assumption creates two problems. First, consider such items as “I am the life of the party,” and “I feel at ease with people.” There is no way to determine the true value of people’s responses to these items. The responses consist of pieces of behavior whose meaning must be determined empirically using other kinds of data. Second, what does it mean when people don’t answer the same question the same way twice? Trait Theory argues that such differences are either error, true score changes, or faking. We can assess error using reliability estimates, and we can reduce error by writing clear items that are highly correlated. That leaves us with true score changes or faking.

Faking research usually focuses on high-stakes situations where people’s scores matter more. So aside from error, when scores are inconsistent between Time 1 and Time 2, Trait Theory tells us the person must be lying. This means that it is a lie to strongly agree with an item in a high-stakes situation but only to agree with it in a low-stakes situation. Trait Theory can only conclude that (a) some people fake and some do not; and (b) when people do fake, sometimes it is conscious and sometimes it is not.

Furthermore, most faking research occurs in employment contexts. If people report having more positive attributes when applying for a job than when taking an assessment for other reasons, they are faking. Whether they are doing it deliberately or not, they are misrepresenting their true selves. But this is not the case for other selection measures. When applicants seek help creating a resume and highlight experiences and skills they don’t ordinarily talk about, it is just good business practice. The same is true for taking a course on how to interview, asking help from others who can provide information about a job, or studying a training guide to improve one’s GRE scores.

But when applicants try to present themselves in a positive manner on a *personality assessment*, Trait Theory concludes they are lying.

We believe that trying to present oneself in a way that better reflects the characteristics needed to perform a job is common to all selection methods. In fact, it is surprising not to find larger personality differences in high-stakes versus low-stakes situations. Although people are generally consistent in how they present themselves across settings, that does not mean they are incapable of presenting themselves and/or behaving differently in different contexts.

Trait Theory tells us that score differences (beyond error) across occasions mean people are sometimes lying, even if they are not trying to. In contrast, if we regard responding to questionnaire items as simply another form of motivated self-presentation, we can begin to ask more interesting questions. For example: Why do some individuals, when trying to improve their scores on a personality assessment, actually present themselves as a worse fit for the job (Hogan, Barrett, & Hogan, 2007)? Are such differences specific to only applicant situations? Do these score differences predict behavioral differences once a person has started the job and, if so, for how long?

Conclusions

We agree with DeYoung (2017) that traits themselves are not a problem. As Shchebetenko (2017) notes, “trait theories remain...viable for the prediction of behavior and life outcome perspectives” (p. 11). Researchers have found that FFM scores predict a range of critical life outcomes. However, it is not a theory that causes prediction, but rather a theory’s job to explain it. Prediction is not explanation, and traits lead to logical problems when used for explanation. Furthermore, we do not “conclude that both neuroticism and current personality psychology are meaningless” (Jeronimus & Riese, 2017, p. 20). We are, in fact, big fans of Personality Psychology. But we do not believe personality can only be explained, and should only be explored, in terms of factor-level traits.

For example, Judge et al. (2013) found that Extraversion predicted overall job performance ($\rho = .20$). But facet-level results show that out of six facets, only four predicted contextual performance: Activity ($\rho = .16$), Assertiveness ($\rho = .11$), Gregariousness ($\rho = .11$), and Positive Emotions ($\rho = .20$). Based on these results, one could argue that Extraversion predicts contextual performance. Or one could argue that only Activity, Assertiveness, Gregariousness, and Positive Emotions predict contextual performance. The latter statement is not only more accurate and meaningful, it also leads to more interesting questions about why each facet is predictive. Although facet-level research is not incompatible with Trait Theory, Trait Theory itself seems to discourage such research.

Nor is it correct to conclude that criticizing traits also dismisses efforts to explore the underlying causes of personality. Perhaps researchers will map the FFM to the human genome someday. But to date, research has produced such conclusions as “These results add to the growing body of literature indicating that important variation in personality occurs at the facet-level which may be overshadowed by aggregating to the trait level” (Briley & Tucker-

Drop, 2011, p. 743). Maybe the answer is not to look for the genetic and environmental causes of scores on the FFM, but to look for the genetic and environmental factors that drive us to get along with others, acquire status and resources, and make sense out of our lives and political environments (Hogan, 1983).

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Received March 14, 2017
Accepted March 14, 2017