Whole Trait Theory: An integrative approach to examining personality structure and process☆

Eranda Jayawickreme*, Corinne E. Zachry, William Fleeson

Wake Forest University, United States of America

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ABSTRACT

Whole Trait Theory (WTT) was developed as an integrative model of traits that incorporates mechanisms of differential reaction to situations. Providing an explanatory account to the Big 5 (defined in terms of density distributions of personality states) creates two parts to traits, an explanatory part and a descriptive part. WTT proposes that the explanatory side of traits consists of social-cognitive mechanisms. These two parts of traits should be recognized as distinct entities that are nevertheless joined into whole traits. This review provides an overview of WTT, discusses new directions for considering WTT in personality development, the possible application of WTT to non-Big 5 traits, and possibilities for interventions based on insights from WTT.

The main purpose of this review is to provide an introductory overview of Whole Trait Theory (WTT; Fleeson & Jayawickreme, 2015; Jayawickreme & Fleeson, 2017). WTT is an approach to personality that provides a unique account of how traits translate into daily behavior that explains both personality structure and process. Specifically, WTT distinguishes between the descriptive and explanatory aspects of traits as separate aspects of the *whole* trait. The explanatory aspect of a trait involves the cognitive–affective–motivational system that shape information processing in specific situations and, subsequently cause the patterns of emotion and behavior captured by the descriptive aspect of the trait. The descriptive aspect of traits is defined here as momentary enactments of a specific personality trait density distributions of those personality states over time or. By integrating both the social-cognitive and trait approaches, WTT unites two basic approaches to personality into a single model.

Traits have been defined in many ways in the history of personality (Fleeson, 2017). Two prominent views define traits as 1) descriptions of people's thoughts, feeling and behaviors; and as 2) explanations for why people think, feel and act the way they do. In this article, we provide an account of how these approaches are integrated in WTT. We then discuss WTT in relation to developmental mechanisms and its potential application to non-Big Five traits and highlight some possibilities for interventions.

1. Whole Trait Theory as an integrative account of trait and social cognitive approaches to personality

WTT proposes breaking apart traits into two elements with the goal of integrating two central approaches to personality—the social cognitive approach and the trait approach. Both approaches have independently made important advances in understanding personality (Fleeson & Jayawickreme, 2018). The social cognitive approach has at its foundation the insight that behavior appears to be inconsistent (Cervone, 2005; Hartshorne & May, 1928; Mischel, 1968; Mischel & Peake, 1982). Given this apparent inconsistency, social-cognitive variables would be a better indicator of individual differences, as opposed to describing individuals with broad trait terms. In other words, individuals will differ in the encodings of situations, in their expectancies, competencies, self-regulatory plans, and goals (Allport, 1937; Mischel, 1973; Mischel & Shoda, 1995). These social-cognitive variables are responsible for behavior, and given that these variables are presumably highly sensitive to situations, it would follow that behavior should be highly sensitive to situations.

The trait approach, as instantiated in the Big 5 model of personality (Ashton & Lee, 2009; Costa & McCrae, 2006; DeYoung, Weisberg, Quilty, & Peterson, 2013; Goldberg, 1992; Johnson, 1997; Perugini & Gallucci, 1997), has a substantive research base in providing evidence for the existence of traits and identifying their content. Traits can be organized into a hierarchical structure, with the "Big Five" traits

(extraversion, agreeableness, conscientiousness, emotional stability, and intellect) at a middle hierarchical level (John, Naumann, & Soto, 2008). Given the hierarchical nature of the Big 5, these trait descriptions are relatively rich (e.g. a conscientious individual is careful, thorough, diligent, responsible, organized, and not careless, lazy, sloppy, nor reckless). Evidence for the Big 5 includes strong cross-questionnaire (Costa & McCrae, 2006) and cross-cultural replicability (Saucier, 2009). Observers agree about Big 5 levels of targets (Vazire, 2010), and traits have been implicated in important life outcomes (Duckworth, Weir, Tsukayama, & Kwok, 2012; Ozer & Benet-Martínez, 2006; Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007).

However, while traits are great describers of individual differences, there has long been a call to explain the origins of traits, how they operate, and how they produce differences in behavior. Trait approaches have historically been mostly a theoretical and non-explanatory (Cramer et al., 2012; Hampson, 2012), and have focused on describing the *what*, but for the most part have not attempted to explain the *why* or *how* (see Depue & Collins, 1999; DeYoung, 2010; DeYoung et al., 2010; Eysenck, 1997; Gray, 1981; see also DeYoung, 2015 and Read et al., 2010 for exceptions to this). Moreover, while traits do a reasonable job of describing behavior and identity, they do not provide a full account of how individual differences in traits are manifest in behaviors (Kandler, Zimmermann, & McAdams, 2014; McAdams & Pals, 2006). Many studies have shown specific behavioral correlates of traits, but a conceptual account of how a trait label translates into accounts of daily behavior is wanting. For example, it is not known what describing someone as extraverted means for how extraverted he or she is in daily life and how much he or she deviates from his or her overall extraversion standing.

Conversely, while social-cognitive approaches suggest an explanation for personality variables, they have not yet explicitly identified the individual differences the theories should be used to explain. Whatever ways people turn out to differ, social-cognitive approaches argue that the causes of those differences will be social cognitive mechanisms such as encodings, expectancies, and self-regulatory plans. For social-cognitive approaches to be truly comprehensive, they require a descriptive account of personality to explain (Baumert & Schmitt, 2009). WTT aims to correct for the weaknesses of each of these perspectives by combining these two seemingly opposing traditions into a single unified view that embraces *both* within-person variability *and* consistency, as will be described below.

2. The descriptive aspect of the trait

Fleeson's program of research (Fleeson, 2001, 2004) has built on key insights from Allport (1937; 1968), Epstein (1979) and Buss and Craik (1983). As Mischel (1968) noted in his critique of trait psychology, people do in fact routinely vary on a given dimension of behavior. However, their range of behavior is also centered on different portions of that dimension, and differences between individuals' centers remains highly stable over the long-term. Thus, while people vary substantially in their behavior across different situations, their typical or average behavior remains highly consistent from week to week.

Importantly, this resolution of the person-situation debate is premised on a reconceptualization of traits as *density distributions of trait-relevant behaviors or states* (Fleeson, 2001), as well as a more precise understanding of behavioral consistency (Fleeson & Noftle, 2009). Specifically, at the single-behavior level, the predictive power of behavioral consistency is equal in magnitude to the predictive power of situational factors. However, at the level of trait-relevant behaviors averaged within persons, behavior is shown to be highly consistent. Examining people's behavior in terms of a *distribution* provides one way to grasp this concept in a single idea: each person has a wide distribution of behaviors, which allows him or her to adjust to the situation, but different people have different locations of their distributions and those locations stay consistent. Thus, when it comes to single,

short-term manifestations of behaviors (e.g. how a person acts for 15 min), traits are about as powerful as situations – no more and no less powerful – in determining single behaviors. When it comes to larger behavioral episodes or time courses (e.g. how a person acts for a day), traits are extremely powerful in predicting how a person will act.

Having a specific trait level at a descriptive level consists in part of behaving in a trait-relevant manner (e.g., talkative, bold, and assertive for extraversion) more or less often than others who possess other levels. Thus, personality traits are stable in the sense that there is reliable between-person variation in the aggregate over time, and flexible in the sense that there is also substantial within-person variation in an individual's behavior depending on situational cues. While most peoples' distributions of these personality states are very wide, their distributions can occupy different locations on the dimension. Further, distributions can also be differentiated by variance, and degree of skewness or kurtosis. The location of the distribution can be represented by a distribution's mean or median. These central points seem to show remarkable consistency from week to week, with correlations around 0.9 (Fleeson, 2004).

The density-distribution approach therefore provides a resolution to the person-situation debate by incorporating empirical evidence from both sides of the debate into a new understanding of personality traits (Fleeson, 2004; Jayawickreme, Meindl, Helzer, Furr, & Fleeson, 2014). The evidence for the existence and impact broad traits is conclusive, and the density distributions model settles concerns over within-person variability by integrating the evidence for situationism and traits into a single account of traits. As a demonstration, while each individual varies considerably in his or her behavior, each individual also has a central point or tendency around which he or she varies. By splitting the data in half, it is possible to calculate two central tendencies for each individual and then correlate them (Fleeson, 2001). The extremely high resulting correlations mean that differences between individuals in their average tendencies are highly stable and highly predictable. Thus, personality differences show up in averages, as opposed to in qualitative differences in the single behaviors they enact (Jayawickreme et al., 2014). In other words, stable individual differences exist and matter.

However, once we accept that traits are real descriptions of how people act, *these traits need to be constituted by mechanisms capable of discriminating between situations to explain an individual's behavioral variability*. WTT proposes that social-cognitive processes can explain density distributions of states. This is because social-cognitive mechanisms can explain both the considerable within-person variation in personality states, and the between-person variation in parameters of distributions.

3. Core principles of WTT

WTT makes the following five primary points (Fleeson & Jayawickreme, 2015, p. 83–84):

1) The *descriptive side of traits is best defined as density distributions of states* (Baird, Le, & Lucas, 2006; Church et al., 2013; Fleeson, 2001, 2012; Fleeson & Wilt, 2010; Judge, Simon, Hurst, & Kelley, 2013). Summary descriptions of behavior provided by Big 5 are incomplete, as they do not indicate what people with a given trait level looked like in regard to that trait's manifestation in daily life (Allemand & Mehl, 2017). The density distributions approach argues that individuals can be described in terms of distributions of personality states. These distributions are wide because people change their personality from moment to moment in meaningful ways (Lievens et al., in press); but the distributions differ between individuals in their location, size, and shape. This description of individuals focuses the description on how people act rather than on the trait label.

2) *An explanatory account of the Big 5 is needed.* WTT begins with the Big 5 and the corresponding descriptive account, and seeks an