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### Stability and change in personality and personality disorders

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#### Abstract

In this paper we review recent findings related to stability and change in personality and personality disorder. Estimates of stability vary depending on a number of methodological and substantive factors. These factors include the type of stability being examined, the type of construct being assessed, the method being used to assess personality, how participants are sampled, and developmental trends in personality stability and change. We describe current evidence about personality stability with respect to each of these factors. We conclude that current gaps in the literature can be filled by more carefully attending to factors that impact estimates of stability and change, and provide recommendations about how future research can fill those gaps.

#### Highlights

- No single estimate can be given for personality stability
- A host of methodological factors can affect personality stability
- Genetic and environmental factors impact personality stability
- Future research should have more integrative, multimethod, and frequent assessments

#### Introduction

Stability has traditionally been a defining characteristic of personality and personality disorder (hereafter, personality). However, blanket statements about personality stability is impossible because stability estimates depend on a number of important factors related to how personality and stability are conceptualized and studied (Morey & Hopwood, 2013). Overall, recent research suggests that there are both stable and dynamic aspects to personality, and this has important implications for classification and assessment. In this paper we review the literature on personality stability and change, with a particular focus on recent research, as a function of various methodological and substantive factors. We conclude with directions for further investigation.

#### **Types of Stability**

There are multiple ways to describe personality stability and change across the lifespan (De Fruyt et al., 2006). Here, we focus on the two that have been examined most often to describe the average stability and trajectory of personality over the life span (e.g., Wright et al., 2015). *Differential stability* reflects the degree to which the relative ordering of individuals maintains over time (Anusic & Schimmack, 2016), often expressed as test-retest correlation (*r*) across two assessment waves. Cohen (1988) classified correlations around .10 as small, .30 as medium, and .50 as large. Whereas differential stability indicates the degree to which different people experience more or less change relative to one another, *absolute change* reflects the degree to which a personality characteristic decreases or increases among all people in a population, on average (Wagner et al., 2016). The simplest estimate of absolute change is the standardized mean-level difference across two assessments (Cohen's *d*). Cohen classified *d* values of .20 (meaning that two means differed by .20 standard deviations) as small, .50 as medium, and .80 as large.

#### Constructs

Personality has been most commonly conceptualized in mental health research for the past few decades by the *Diagnostic Statistical Manual of Mental Disorders* (DSM-5, American Psychiatric Association, 2013). In this model, symptoms are organized into ten polythetic categories that are thought to reference underlying personality features. In contrast, personality researchers tend to conceptualize personality using dimensional traits. Evidence tends to favor dimensional trait models of personality for capturing the structure, course, and correlates of personality pathology (Few et al., 2015; Sharp et al., 2015; Suzuki, Samuel, Pahlen, & Krueger, 2015; Tyrer, Reed, & Crawford, 2015). As a result, there is currently a transition in diagnostic practice from categories to evidence-based traits (Kotov et al., 2017; Krueger & Markon, 2014).

Estimates of stability depend in part on whether the focus is on categorical disorders or dimensional traits. With regard to differential stability, longitudinal research suggests that traits (Roberts & Del Vecchio, 2000) are more stable than disorders (Morey & Hopwood, 2012; Reichborn-Kennerud et al., 2015), which typically show differential stabilities in the range of other mental disorders (Durbin & Klein, 2006; Lovibond, 1998). For example, in the Collaborative Longitudinal Personality Disorders study (CLPS) Hopwood et al. (2013) found that 10-year rank order stabilities tend to be in the range of r = . 60-.90 for traits and r = .25-.65 for personality disorders.

With respect to absolute stability, one of the more interesting recent findings has been the observation of relatively dramatic decreases in personality symptoms in clinical samples. For instance, Grilo et al. (2004) reported that more than half of the patients in CLPS had remitted from their index diagnosis within two years, and Zanarini, Frankenburg, Reich, & Fitzmaurice (2010) found that 93% of the patients in the Mclean Study of Adult Development (MSAD) had remitted from borderline personality disorder in ten years. This research challenges longstanding assumptions that personality symptoms are highly stable, and provides hope for people with personality diagnoses But it also stands in marked

contrast to research on basic traits, which show relative absolute stability at brief intervals despite agenormative changes across longer intervals (Roberts, Walton, & Viechtbauer, 2006).

#### Sampling

These dramatic and swift changes in absolute levels of symptoms were observed in studies that sampled participants on the basis of meeting diagnostic criteria, typically as they presented in acute stress in a hospital. Given this research design, some of these observed changes could be a function of regression to the mean, the impacts of interventions, and other factors associated with sampling (Widiger, 2005). It follows that absolute stability estimates might be somewhat higher in naturalistic studies, consistent with findings from basic personality research.

#### Assessment

Three issues related to how personality and PD are assessed can affect stability estimates: the distribution of variables, type of assessment method, and timescale.

First, personality can either be conceptualized categorically, such that people are classified as either having or not having a disorder, or continuously, such that every person has some level of a trait. Markon, Chmielewski, and Miller (2011) found that continuous variables are substantially more reliable and valid than categorical variables. It follows that estimates of the differential and absolute stability of personality disorder tend to be higher when they are treated as continuous symptom counts rather than diagnostic categories (Samuel et al., 2011).

Second, whereas questionnaires are the most common method for assessing personality in basic personality research, diagnostic interviews are popular in clinical studies. Research comparing these methods generally finds that questionnaires produce relatively higher stability estimates than diagnostic interviews. For instance, in the CLPS study, Samuel et al. (2011) found that the 2-year differential stability was r = .69 for a questionnaire measure and r = .60 for an interview, whereas the absolute change was d = .21 for the questionnaire and d = .30 for the interview. Third, stability estimates tend to be higher if participants are sampled at briefer intervals, because personality is more likely to change over the course of many years than it is over the course of a few days (Fraley & Roberts, 2005; Kandler et al., 2010; Wright & Simms, 2016). At the same time, there are assessment tools available for the assessment of personality variables at intervals as brief as single interactions (Ebner-Preimer et al., 2015; Sadikaj, Russell, Moskowitz, & Paris, 2010) or even seconds within interactions (Sadler et al., 2009). Contemporary personality research that samples behavior across different timescales has led to a reconceptualization of personality variables as dimensions along which people can vary, rather than stable features of individual differences (Hopwood et al., 2015; Wright & Simms, 2016). This reconceptualization suggests that stability estimates need to be qualified by an understanding of the timescale being considered.

#### Development

Personality is not equally stable at all stages of the lifespan. Longitudinal research suggests that differential stability increases throughout the adult lifespan (Briley & Tucker-Drob, 2014; Roberts & DelVecchio, 2000). Absolute levels of personality also mature as a function of development, with the most pronounced changes occurring during the transition from early adulthood to middle adulthood, Specifically, most people tend to become less prone to negative emotions, more responsible and more agreeable during early and middle adulthood (Bleidorn, 2015; Roberts, Caspi, & Moffitt, 2001).

These developmental patterns have three important implications for interpreting personality stability. First, personality stability will vary according to the age range of a given sample. Second, it is important for researchers to avoid collapsing individuals across wide age ranges in longitudinal personality studies, because this will tend to conflate personality stability with developmental processes. Finally, these patterns provide insights into relative risk for symptoms across the life course. The typical finding that rates of personality disorder are highest in young adults and decline over time (APA, 2013) is likely related to the fact that young adulthood is a time or relative instability and immaturity in underlying personality traits.

#### Influences on stability and change

Descriptive trends prompt questions about what factors influence personality stability and change. The fact that people follow a somewhat similar trajectory of trait levels across the life course suggests common factors across individuals. Behavioral genetic research suggests roles for both heredity and environment in personality stability and change (Bleidorn et al., 2009; Briley & Tucker-Drob, 2014; Hopwood et al., 2011; Reichborn-Kiennerud, 2015). That is, humans are probably predisposed by genetic factors to stay stable and change in certain ways across the life course. At the same time, people will select into environments that differentially affect how their personalities manifest over time. The specific kinds of environmental factors that might impact personality change has been a significant topic of recent interest (Bleidorn, Hopwood, & Lucas, in press; Specht et al., 2014). One particularly interesting recent finding is that psychotherapy can have a relatively large impact in reducing absolute levels of both normal traits (Roberts et al., 2017) and personality symptoms (Cristea et al., 2017). Research suggests that people may even be able to change their personalities through volition and practice (Hudson & Fraley, 2015). However, more work is needed on identifying factors that impact personality stability and change.

#### **Directions for Further Research**

Gaps in this review reflect important areas for continued research. In general, it would be useful for researchers to evaluate different types of stability in longitudinal studies. Of particular interest is research on individual-level stability, the degree to which some individuals change more or in different ways than others (e.g., Schwaba & Bleidorn, in press). Moving forward, sampling issues need to be considered more carefully as well, particularly in clinical studies of personality stability, to avoid confounding personality stability with regression to the mean and other issues. More attention is needed to measuring personality development across the lifespan. The issue of personality disorder assessment prior to adulthood (Fonagy et al., 2015; Newton-Howes, Clark, & Channen, 2015; Winsper, Marwaha, Lereva, & Thompson, 2015) and in aging adults (Kandler, Kornadt, Hagemeyer, & Neyer, 2015; Cooper, Balsis, & Oltmanns, 2014; Wagner, Ram, Smith, & Gerstorf, 2016) have received significant attention in recent research. This is a trend that should continue to establish a better understanding of personality stability and change across the life course.

The field would benefit from the increased use of multiple assessment methods in order to decouple measurement issues from stability estimates. Beyond the focus on interviews in PD research and questionnaires in normal trait research, there has been relatively little stability research using informant-reports, behavioral observations, stimulus-attribution procedures, or other methods (e.g., DeFife, Goldberg, & Westen, 2015; Wright & Hopwood, 2016). Researchers also need to think more carefully about how the same dimension can be more or less stable across different levels of time. For instance, the same individual could have a general tendency to be agreeable which increases during the transition to adulthood and then stabilizes. At the same time, that person could be more or less agreeable one day to the next, or one moment to the next. From this perspective, it doesn't make sense to ask a general question about the stability of agreeableness; instead this issue needs to be studied at different time scales, to elucidate the mechanisms that impact personality-relevant behavior.

It would be useful to measure aspects of the environment that might influence personality stability with more frequency and precision, given that very little is known about how environment impacts personality stability and change at this point. Discrete life events (Bleidorn et al., in press), slow transitions (Roberts et al., 2017), or recurrent daily experiences (Wright, Hopwood, & Simms, 2015) may trigger change in personality. A crucial question concerns the timing with which changes unfold in response to such experiences. Prospective studies with multiple and frequent assessments are needed to examine when and how personality changes in the context of various environmental changes. Finally, the ways in which personality trait, personality disorder, and other psychopathology variables are similar or different in terms of stability and change are not well understood. Recent work suggests that these different aspects of personality can be integrated as varieties in a common empirical hierarchy of traits (Krueger & Markon, 2014; Mõttus et al., 2017). This has led to calls to reconceptualize PD and other forms of psychopathology using hierarchical models of personality structure (Kotov et al., 2017). This kind of integration leads to questions about how PD, psychopathology, and traits might differ from one another temporally (Ebner-Priemer et al., 2015; Fleeson & Jayawickreme, 2015). Stability has been posited as one key distinguishing factor between general dispositions and psychiatric symptoms (Morey et al., 2012). To the extent that symptoms reflect maladaptive behaviors which are likely to promote instability in behavior and the environment, and which individuals are likely to try to improve, they may be less stable than personality dispositions (Wright et al., 2016). However, significant improvements in the conceptualization and assessment of personality and PD are needed to be able to tease these different aspects of behavior apart from one another.

#### Conclusion

In summary, no single answer can be given to the question, "how stable is personality"? Beyond the fact that there are multiple kinds of stability, personality traits tend to be more stable than symptoms, questionnaires tend to be more stable than interviews, older people have more stable personalities than younger people, and people who are sampled at their low point in life tend to improve more than otherwise, among other factors. In this review, we have highlighted major influences on estimates of personality stability and change and offered directions for future research. Existing work suggests that researchers and clinicians should consider and integrate both stable and dynamic elements of personality. Future studies on personality stability and change should attend carefully to the methodological issues raised in this review to afford new insights regarding the underlying mechanisms of personality and psychopathology.

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