



Undergraduate Researcher Article

The extent of personality change: Rank order consistency, mean level change, individual level change, and ipsative stability

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An individual's traits do not necessarily remain at a fixed strength throughout their lifespan. Consequently, contemporary psychologists debate the extent to which personality changes over time. Focusing on contemporary literature, this essay uses trait consistency to address personality changes and is divided into four comprehensive definitions of personality continuity or change: rank order consistency, mean level change, individual level change, and ipsative stability. Both rank order consistency and mean level change, appeared to consistently increase and develop in relation to the population across the adult lifespan. Both the magnitude of individual level change and ipsative stability exhibited predictable consistency in relation to maturity development rather than age.

Personality essentially relies on enduring patterns of emotional, cognitive, and behavioural tendencies, known as personality traits (Morf & Ayduk, 2005; Roberts, Walton, & Viechtbauer, 2006). While personality traits are enduring, they do not necessarily remain at a fixed strength throughout their lifespan (Ashton, 2007). Consequently, contemporary psychologists debate the extent to which personality changes over time (Fraley & Roberts, 2005). Trait consistency is used to address personality changes and may be divided into four comprehensive definitions: rank order consistency, mean level change, individual level change, and ipsative stability (Ashton, 2007; Caspi, Roberts, & Shiner, 2005; Roberts, Caspi, & Moffitt, 2001; Roberts et al., 2006). The present essay will focus on contemporary literature regarding these four definitions, to determine the extent to which personality changes throughout the adult lifespan.

Personality may be conceived as a distribution of behaviours encompassing both average tendencies referred to as traits, and psychological processes concerning characteristic responses (Morf & Ayduk, 2005). Knowledge of personality in childhood is both limited and tentative due to the difficulty in collecting accurate and reliable information from infants and children (Ashton, 2007). Consequently, this essay will focus on literature regarding personality change throughout the adult lifespan.

Rank order consistency and mean level change refer to population-level phenomena related to change. Specifically, rank order consistency refers to individuals' relative placement within a population (Roberts et al., 2001; Roberts et al., 2006). It assesses whether people show uniform changes in personality levels (Ashton, 2007). Rank order consistency is most often indexed by way of test-retest correlations on specific trait dimensions (Roberts et al., 2001). Mean level change is commonly associated with normative change in personality and refers to increases and decreases in the average trait level of a population (Ashton, 2007; Roberts et al., 2006). Mean level change is typically indexed by way of longitudinal research studies, whereby researchers collect information from the same cohort on two or more separate occasions to determine systematic changes (Ashton, 2007).

Alternately, individual level change and ipsative stability relate to whether an individual remains unchanged overtime (Roberts & DelVecchio, 2000). Individual level change refers to the magnitude of change exhibited by individuals on any given trait (Roberts et al., 2001). Ipsative stability focuses on multiple trait dimensions within an individual, often referred to as a personality profile. Specifically, it denotes the change in this profile for each individual across time (Roberts et al., 2001). Most research related to ipsative stability employs Q-sort methods, which calculate correlations for each individual at two separate times, across hierarchically sorted characteristic traits (Caspi & Roberts, 2001).

Rank Order Consistency

Two dominant, contradictory perspectives are relevant to the rank order consistency of personality. First, the classical or essentialist trait perspective suggests that personality traits assume a model of intrinsic maturation throughout adulthood and are fundamentally independent of environmental factors (e.g., as in the five-factor theory of personality; Costa & McCrae, 1988). Consequently, individuals are said to reach a point of predictable stability in adulthood, which continues throughout their lifespan (Ashton, 2007; Costa & McCrae, 2006; McCrae et al., 2000). According to McCrae & Costa (1994), findings from trait longitudinal studies continually yield high test-retest correlations throughout adulthood, typically ranging from .60 to .80, which is indicative of stability (Costa & McCrae, 2006; Roberts et al., 2001; Roberts et al., 2006). Furthermore, in Costa and McCrae's (1988) study, in which the 1000 participants were aged from 21 to 96 years, self-

report data (S Data) and spouse informant report data (I Data) were collected. Personality was found to be equally stable for males and females over the age 30 and for all participants in the adult age range (average correlations were over .70). As a result, data supported the view that personality is unchanging once an individual reaches approximately 30 years of age.

Second, the radical contextual perspective dictates personality traits should continue to yield low test-retest correlations, as personality is fluid throughout the human lifespan (Costa & McCrae, 2006, Roberts et al., 2006). These models emphasise transactions between traits and the environment, where personality continually changes in some manner throughout adulthood (Costa & McCrae, 2006; Roberts et al., 2001; Roberts et al., 2006). However, contemporary findings do not necessarily support this view. Hampson and Goldberg (2006) investigated relationships between childhood personality traits assessed by I Data and similar traits assessed by S Data 40 years later. Findings indicated considerably higher test-retest stability at midlife than in childhood. Rank order consistency increased from stability correlations of .36 to .55 in childhood, to .70 to .79 after 40 years. Findings from Roberts and DelVecchio (2000) which employed meta-analysis from 152 longitudinal studies also showed that personality traits become increasingly stable over the life course. Test-retest correlations demonstrated trait consistency; they increased from .31 in childhood, to .54 during college years, to .64 at age 30. Correlations reached a plateau at approximately .74 between ages 50 and 70. Both findings indicate that rank order consistency is fundamentally linear (Roberts & DelVecchio, 2000; Roberts et al., 2006). It may then be seen that personality continues to develop (rather than radically change), throughout the adult lifespan, though more conservatively and tending to plateau, after the age of 50 (Roberts et al., 2001).

Mean Level Change

Two separate, opposing views may also be presented in relation to mean level changes in personality. One view dictates that personality traits do not demonstrate mean level changes after adulthood is reached (e.g., Costa & McCrae, 2006). According to McCrae and Costa (1994), findings of trait longitudinal studies consistently dictate that until the age 30, mean levels of personality traits change with development. However, by age 30, they argued that adulthood is reached, at which point stability characterises the five factors of personality: openness to experience, conscientiousness, extroversion,

agreeableness and neuroticism. McCrae and Costa (1994) attributed subtle changes to decline in activity levels and mental diseases, such as dementia. McCrae et al. (2000) analysed NEO Five-Factor Inventory scores for men and women aged 14 to 50 and over. Five separate cultural samples were utilised, including German, British, Spanish, Czech, and Turkish samples. Results indicated significant cross-cultural declines in neuroticism, extroversion, and openness to experiences, and increases in conscientiousness and agreeableness, up to the age of 30. After age 30, rates of change declined. Therefore, it is possible to advocate that significant mean level change of personality does not exist after adulthood.

An opposing view emphasises mean level changes throughout the human lifespan (Costa & McCrae, 2006). Helson, Kwan, John, and Jones (2002) reviewed large studies of mean level change, including both cross-sectional and cross-cohort longitudinal research. Findings suggested a positive relationship between age and high scores on traits such as conscientiousness, agreeableness, and norm-adherences. In contrast, a negative relationship was observed between age and social vitality. Helson et al. (2002) argued that this provided evidence for personality systematically changing throughout adulthood. Systematic change was replicated with considerable consistency across genders, cohorts, and nationalities. Additionally, they suggested that theories of universal biological maturation do not successfully resolve observed variability or eliminate the effects of all environment factors. Consequently, Helson et al. attributed their findings to accumulating life experience, and consequent conscious reflection and adaptation.

Roberts et al. (2006) employed a meta-analytic database of 92 longitudinal studies to determine mean level change in six personality traits. Participants ranged from the age of 10 to 101 years of age. Trait categories were a modified version of the Big Five taxonomy of personality traits. Findings demonstrated increases in social dominance, conscientiousness, and emotional stability. Rates of social vitality and openness increased in adolescence, but declined in old age. Agreeableness changed only in old age. According to the authors, all six trait domains demonstrated statistically significant changes beyond the age of 30, with four of the six also demonstrating statistically significant changes in middle or old age. Roberts et al. also demonstrated that personality traits changed most significantly during the ages of 20 to 40, indicating development occurs well into adulthood. It may, therefore, be suggested that cumulative mean level changes in personality occur across the entire adult lifespan, most prevalently in young

adulthood. Overall, evidence may be seen to advocate mean level changes across the entire adult lifespan, though not necessarily in a linear fashion.

Individual Level Change

Reliable research regarding individual level change of personality traits is limited, as it is often conducted using difference scores or residual change scores, which may be attributed to regression to the mean (Roberts et al., 2001). However, research by Robins, Fraley, Roberts, and Trzesniewski (2001) and Roberts et al. (2001) employed the Reliable Change Index (RCI). Scores on the RCI greater than 1.96 or less than -1.96 are alleged to be unlikely to occur without true change (Roberts et al., 2001). Robins et al. (2001) examined personality change in a sample of young men and women throughout four college years. The mean inter-correlation was .20 initially, while after four years it was .24. Consequently, the authors argued that although young adolescence is a time of considerable environmental disturbance, it does not appear to induce dramatic changes in individual levels of personality. Roberts et al. (2001) conducted a longitudinal study with participants aged 18 to 26 classified as young adults. Using the RCI to determine individual level change, findings showed that during the eight years of young adolescence most people demonstrated reliable change on one or two personality traits. Furthermore, Roberts et al. demonstrated that maturity is linearly related to levels of individual change: adolescents who reported higher maturity demonstrated less change over time, compared with adolescents who reported lower maturity. It may be argued that individual levels of personality are stable in relation to age. Conflicting results may be attributed to, the lack of consideration of maturity as a measurement of change. However, across significant time periods maturity appears to be linearly related to changes, in individual level personality. Consequently, it may be seen that individual level changes in personality are related to individual development towards maturity rather than age (Terracciano, Costa, & McCrae, 2006).

Ispative Stability

Research relating to ispative stability is also extremely limited (Caspi & Roberts, 2001). Block's (1971) study (as cited in Caspi & Roberts, 2001;

Roberts et al., 2001) reported average Q-correlations between early and late adolescence that exceeded .70. Those between late adolescence and adulthood exceeded .50. However, many individuals exhibited very low Q-correlations, indicating significant changes or transformations in the individuals' personality profiles. Robins et al. (2001) study also examined ipsative stability, of which moderate levels were found. As most individuals demonstrated significant change on at least one of the five trait dimensions, the authors suggested that it is not surprising that approximately 50 percent of the sample showed change in their trait profile over the four year college period. Roberts et al. (2001) also demonstrated that people who rated profiles high on measures of constraint and social closeness and low on negative emotionality, demonstrated higher levels of ipsative consistency between adolescence and adulthood. Such profiles were considered synonymous with their definition of maturity. Therefore, from the research presented, it may be said that ipsative stability is notably consistent across time, relative to the initial profile of an individual.

Conclusions

In summary, both individual (rank order consistency) and average trait levels (mean level change), appear to consistently increase and develop in relation to the population, across the adult lifespan. Individual continuity appears to reach a plateau at age 50, while average trait levels experience heightened significant development between ages 20 and 40. Additionally, the magnitude of change exhibited by individuals on specific traits (individual level change) and the stability of each individual's personality profile (ipsative stability) both exhibited predictable consistency, in relation to maturity development rather than age. Future studies may examine other facets of age, including social and psychological age, to better determine developmental processes which determine consistency (Roberts & DelVecchio, 2000). It may also be noted that studies used a range of trait dimensions and scales. By standardising one set of trait inventories, the consistency of findings and comparability of results may be increased (Ashton, 2007). As changes were exhibited by individuals on at least one trait dimension, underlying developmental processes and reasons may be explored (Robins et al., 2001; Costa & McCrae, 2006).

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