Beliefs about personality change and continuity

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Abstract

Lay conceptions of personality change and continuity were examined in a sample of 112 undergraduates. Participants rated their personal change over 5 years (past or future), the change they perceived to be normative over 10-year age spans between 15 and 65, their beliefs about whether personality is fixed or malleable (“lay theories”) and their beliefs about the causes of personality change and continuity. Beliefs about normative personality change generally corresponded to research evidence on adult trajectories of the Big Five factors, with some age bias, whereas recalled and anticipated personal change tended to be more positive than these norms. Participants tended to endorse environmental causes more for personality change than for continuity. Lay theories were not consistently associated with these causal beliefs, or with beliefs about personal and normative change.

Keywords: Lay theories; Stability; Traits

1. Introduction

The study of change and continuity has emerged as a fundamental topic in the psychology of personality (Caspi & Roberts, 2001; Caspi, Roberts, & Shiner, 2005). Much of this work has been animated by controversy surrounding the malleability of adult personality. On the one hand,
personality shows substantial rank-order stability, as indexed by longitudinal correlations, especially later in adulthood. On the other, there is ample evidence that the mean levels of many traits change across the life-course.

Two recent studies document mean-level changes (Roberts, Walton, & Viechtbauer, 2006; Srivastava, John, Gosling, & Potter, 2003). Despite their large methodological differences—one a meta-analysis of 92 longitudinal studies, the other a large, web-based cross-sectional study—the two studies yielded similar change trajectories for the Big Five factors. Both found that Agreeableness and Conscientiousness tend to increase with age. Emotional Stability also tended to increase, although Roberts et al. (2006) indicated that it tends to stabilize in later adulthood. Openness declined gently from age 21 to 60 in Srivastava et al. (2003), whereas Roberts et al. (2006) found it to remain stable over this period. Srivastava et al. (2003) found no overall change in Extraversion, but Roberts et al. (2006) found that two of its components changed in different ways: “social vitality” declined after adolescence whereas “social dominance” increased steeply until age 40.

Recent meta-analytic work has also clarified rank-order stability across the life-course. Roberts and DelVecchio (2000) examined stability coefficients obtained in 152 longitudinal studies and found that these coefficients increased with age. They concluded that personality does not become completely fixed at any specific age, but gradually increases in stability, reaching a peak at around age 50.

Although actual personality change and continuity have received intensive attention from researchers, there has been relatively little systematic work on laypeople’s beliefs about them. Two exceptions can be noted. Dweck and her colleagues (Dweck, 1999) have investigated people’s “lay theories” of personality, distinguishing between people who take human attributes to be fixed (“entity theorists”) and those who believe they are malleable (“incremental theorists”). These implicit person theories (IPTs) have wide-ranging motivational and social-cognitive implications (e.g., Levy, Stroessner, & Dweck, 1998). A second approach to lay conceptions of personality change and continuity has focused directly on people’s perceptions of personal change, rather than examining trait-like differences in beliefs about personality. Much of this work has investigated the ways in which people positively distinguish themselves from their past selves (Ross & Wilson, 2002) and anticipate further improvement in their future selves (Wilson & Ross, 2001). For example, Fleeson and Heckhausen (1997) found that adult participants rated their current personality higher on Agreeableness, Conscientiousness and Openness than their personality in early adulthood.

These two strands of research on lay conceptions of personality change and continuity have yielded many intriguing findings, but they are also limited. First, they have tended to focus on perceived change in participants’ individual selves, past and future (“personal personality change”), rather than on perceived changes in personality that are typical or expected across the life-course (“normative personality change”). There has been remarkably little work on people’s beliefs about the normal trajectory of personality change during adulthood. Second, research has addressed perceptions of whether and how personality changes—the main focus of work on lay theories and personal change perception, respectively—but neglected beliefs about why these changes occur, such as the causal factors that account for them. A fuller understanding of how people comprehend personality change and continuity requires an understanding of their beliefs about the explanatory sources of change and stability.
Several kinds of cause might be proposed in accounts of personality change. Change might come about because people choose to modify themselves. People embark on self-improvement campaigns, make resolutions, and deliberately expose themselves to new experiences and situations that are formative or transformative. Alternatively, change might be caused by environmental factors that are not directly chosen, such as life events or changes in life circumstances. Some personality change may be due to factors that are intrinsic to the person, such as genetic factors or inbuilt maturational tendencies. Personality change could involve the unfolding of an internal blueprint, much as caterpillars naturally develop into butterflies. These three types of causal factor readily account for personality change, but the continuity of personality also requires explanation (Caspi & Roberts, 2001) and the same types of cause might apply here as well. People might stay the same because they choose to do so, deliberately remaining “true to themselves”. They might remain stable because their physical and social environment is unchanging, so that their existing traits are reinforced and protected from disruption. Finally, personality might remain stable because of intrinsic factors that ensure stability, giving the personality an in-built consistency or momentum that resists change.

Understanding people’s beliefs about the nature, extent and causes of personality change and continuity is potentially important for several reasons. First, it may illuminate processes involved in age-based stereotyping. Older adults are commonly perceived as warm but incompetent (Fiske, Cuddy, Glick, & Xu, 2002), for instance, and beliefs about how and why personality changes with age may clarify the basis for these perceptions. Second, apparently abstract beliefs about personality change have been shown to have substantial implications for social perception more generally. Research on IPTs, for example, has shown that beliefs about the malleability of personality are associated with prejudice, moral judgement, and social identity (e.g., Dweck, 1999). Third, beliefs about personality change may influence or constrain actual change. For example, entity theorists not only perceive less personality change in themselves over the university years, but also undergo less actual change (Robins, Noffle, Trzesniewski, & Roberts, 2005). People who believe that personality change is slow, negative or due exclusively to intrinsic factors beyond their control may be less apt than others to deal actively with life challenges and to respond to clinical interventions.

The present study aimed to examine laypeople’s beliefs about personality in a relatively comprehensive way, incorporating previous work on lay theories and personal change perception but adding an original focus on beliefs about normative personality change and a preliminary investigation of beliefs about the causes of change and continuity. Beliefs about change and continuity were examined both in relation to mean-level change and absolute (or rank-order) stability, and new measures of the three proposed kinds of causes of change and continuity were trialed.

Where normative personality change was concerned, we predicted that perceived changes in the Big Five factors across adulthood would be consistent with those obtained in research on actual mean-level change (Roberts et al., 2006; Srivastava et al., 2003), and that the perceived degree of absolute change would be greater in early adulthood than later adulthood, consistent with research on rank-order stability (Roberts & DelVecchio, 2000). Where personal personality change was concerned, we predicted that people would rate their present self more positively than their past self and their future self more positively still, as in previous research (Fleeson & Heckhausen, 1997; Wilson & Ross, 2001). In addition, we predicted that people would perceive less absolute personality change from present to future self than past to present self, again consistent with evidence of increasing rank-order stability of personality with age. With respect to lay theories,
we predicted that entity theorists would perceive less absolute normative and personal change than incremental theorists. Our analysis of the causes of personality change and continuity were largely exploratory. However, we were especially interested in whether different kinds of cause were judged to be more plausible explanations for change or continuity, and whether particular kinds of cause were associated with beliefs about the degree to which personality does in fact change (i.e., “lay theories”).

2. Method

2.1. Participants

One hundred and twelve undergraduate psychology students, 88 women and 24 men, participated in the study as a course requirement. No participants had received coursework on issues of personality change and continuity. Their mean age was 22.4 years ($SD = 4.4$).

2.2. Materials

Participants completed a questionnaire containing two trait rating tasks and two self-report scales.

Personal change trait ratings. Participants rated themselves on a randomly ordered list of 50 five factor model markers (McCrae & Costa, 1985). Ten traits (5 high, 5 low) were sampled from each factor. Self-ratings were made relative to either the participant’s “past self” (“how you were 5 years ago”) or “future self” (“how you will be 5 years in the future”), and were rated from 1 (much more like me [5 years ago/in 5 years]) to 5 (much more like me now). Scores for each factor were calculated by summing traits high on the factor and subtracting traits low on the factor.

Implicit person theory scale. The 8-item IPT scale developed by Levy et al. (1998) was administered to participants. The scale contains 8 items, 4 of which are reverse scored, that are rated from 1 (strongly disagree) to 6 (strongly agree). Ratings were summed so that high scores indicated beliefs that personality is fixed. Internal consistency was strong ($\alpha = 0.86$).

Normative change trait ratings. Participants rated the same 50 traits used in the personal change ratings on the extent to which they were more characteristic of people at two ages separated by 10 years. Five versions of the task were constructed, representing the age spans 15–25, 25–35, 35–45, 45–55 and 55–65. Participants rated all traits on a scale of 1 (e.g., much more like 35 year olds) to 5 (e.g., much more like 45 year olds), with 3 indicating no change (no difference). Scores on each personality factor were constructed by combining the 10 relevant trait ratings as for the personal change ratings.

Causes of personality change and continuity scale. Participants completed a new 30-item scale assessing beliefs about possible causes of personality change (15 items) or continuity (15 items) during the age span about which they made their normative change ratings. Three cause types were each assessed by 5 change and 5 stability items. These types represented choice (intentional efforts to change (e.g., “When personality change occurs in people between age 35 and 45, it is because at this age they decide to live life in new ways”)) or remain stable (e.g., “… they choose to remain the same”), environmental (life events or circumstances as causes of change (e.g., “…
they experience changing life circumstances’’) or continuity (e.g., ‘‘. . . they have a stable environment that keeps them from changing’’) and intrinsic (inherent sources of change (e.g., ‘‘. . . their personality is unfolding according to an innate program’’) or stability (e.g., ‘‘. . . they have an intrinsic tendency not to change’’) causes. Items were rated from 1 (strongly disagree) to 6 (strongly agree), and subscales were constructed by taking the mean of the relevant items.

2.3. Design and procedure

All participants completed the four measures in the fixed order above. They were randomly assigned to the past or future version of the personal change rating task (ns = 56) and to one of the five age spans for the normative trait rating task (ns = 21–24). They completed the questionnaire in small groups in a supervised classroom setting.

3. Results

3.1. Mean-level normative change

Perceived changes in each of the Big Five factors during each age span were assessed by summing ratings of the 5 traits high on each factor and subtracting the ratings of the 5 traits low on the factor. Positive scores indicate perceived increases in the factor with age, and negative scores indicate perceived decreases. Mean levels of change are presented in Table 1, which also indicates that the perceived changes for each factor differed significantly between age spans. There were no significant gender differences on these change scores, or on the personal change, IPT and causes of change and continuity measures presented below.

Table 1’s data are shown graphically in Fig. 1, which presents implied trajectories of the five factors constructed by cumulating the perceived changes over the five age spans. The factors appear to have distinct mean-level change trajectories. Emotional Stability rises steadily towards a plateau in late middle age, with a similar but less steeply rising pattern observed for Agreeableness. Conscientiousness increases steeply to age 45 and then declines. Extraversion and Openness both decline steadily after early adulthood. Given that all five factors are scored in a socially desirable direction (Haslam, Bain, & Neal, 2004), a “desirability index” was constructed by

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<td>Mean normative change scores for the five personality factors as a function of age span</td>
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<tr>
<td>Agreeableness</td>
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<td>Conscientiousness</td>
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<td>Emotional Stability</td>
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* p < .05.  
** p < .001.
summing the change scores across factors. The value of this index is +15.08 in the 15–25 age span, within which most participants fell, remains positive but much weaker for the 25–35 (+3.77) and 35–45 (+3.65) spans, and indicates undesirable overall change in personality in later adulthood (45–55 = 2.32; 55–65 = 9.43). These differences are significant ($F(4, 107) = 17.75, p < .001$). Thus, personality is judged to “improve” until about age 45, and then to decline in an accelerating fashion.

3.2. Absolute normative change

Absolute perceived normative change within each 10-year age span was assessed by summing the absolute deviations of trait ratings from 3 (no difference) across the 50 traits (Robins et al., 2005). Ratings of 2 or 4 received a score of 1 and ratings of 1 or 5 a score of 2, so the maximum possible change score was 100. Mean scores are presented in Fig. 2, which indicates that consistent with prediction, absolute personality change is believed to decline through adulthood, with a small and statistically unreliable rise in the decade prior to retirement. Age-span differences in the change score were significant ($F(4, 107) = 3.80, p < .01$). The IPT scale correlated negatively with the score ($r = -.20, p < .05$), indicating that entity theorists believed that less normative personality change occurs than incremental theorists, as predicted.

Fig. 2. Mean magnitude of normative personality change as a function of age span.
3.3. Mean-level personal change

Perceived personal changes on each of the five factors were calculated by combining the 10 relevant traits as for the normative change ratings. Positive values indicated increases in a factor over time. Mean changes in the past to present and present to future conditions are presented in Table 2, which reports one-sample *t*-tests for the difference in each mean change score from zero and independent samples *t*-tests for differences in scores between conditions. Participants judged themselves to have increased on all five factors in the past 5 years, and anticipated that they would increase on three factors (Conscientiousness, Extraversion and Emotional Stability) in the next 5 years. Consistent with prediction, that is, personal change from past to present and present to future is judged to be in a positive direction. Although the changes are generally smaller in magnitude in the present to future condition, they do not differ reliably for any factor, indicating the judged personality change is approximately linear from past to future within the 10-year window. When a desirability index is constructed, its value is +11.96 for the past to present condition and +8.75 for the present to future condition, values that do not differ (*t*(110) = 1.13, *ns*).

3.4. Absolute personal change

The magnitude of perceived or anticipated personality change, independent of its direction, was assessed by the same procedure as for the normative change ratings. Mean change magnitude in the past to present and present to future conditions were 30.36 and 24.95, respectively, indicating greater judged change in the past 5 years. This predicted difference was significant (*t*(110) = 1.94, one-tailed *p* < .05). However, contrary to our predictions change magnitude was uncorrelated with the IPT scale either within each condition (*r* = .19 and -.04, *ns*) or in the sample as a whole (*r* = -.09, *ns*). Entity theorists were no less likely to perceive or anticipate change in their own personalities than incremental theorists.

3.5. Causes of personality change and continuity

Internal consistencies of the Environmental Change (α = 0.81), Intrinsic Change (α = 0.76), Environmental Stability (α = 0.78) and Intrinsic Stability (α = 0.80) subscales of the new measure were all satisfactory or strong. However, both Choice subscales (Change α = 0.59; Stability

Table 2
Mean personal change scores (past to present or present to future) for the five personality factors

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<th>Past to present</th>
<th>Present to future</th>
<th>Difference</th>
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<tr>
<td></td>
<td>Mean change</td>
<td><em>t</em>(55)</td>
<td>Mean change</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>1.64</td>
<td>3.78**</td>
<td>0.61</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>2.57</td>
<td>4.21**</td>
<td>2.66</td>
</tr>
<tr>
<td>Extraversion</td>
<td>2.89</td>
<td>4.58**</td>
<td>2.13</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>3.34</td>
<td>5.57**</td>
<td>2.77</td>
</tr>
<tr>
<td>Openness</td>
<td>1.52</td>
<td>3.37**</td>
<td>0.59</td>
</tr>
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*p* < .05.

**p* < .001.
\( \alpha = 0.58 \) were inadequate and were consequently dropped from further analysis. Correlations among the remaining subscales were statistically unreliable or weak, with modest associations obtained between the two environmental subscales \((r = .23, p < .05)\) and the two personality stability subscales \((r = .21, p < .05)\).

As Fig. 3 shows, mean scores for the retained subscales indicated that participants agreed more strongly with Environmental causes than with Intrinsic causes for personality change \((4.34 \text{ vs. } 3.24; t(111) = 10.29, p < .001)\) but found Environmental and Intrinsic causes for continuity to be equally credible \((3.67 \text{ vs. } 3.61; t(111) = 0.64, ns)\). A repeated-measures ANOVA showed a main effect favouring Environmental over Intrinsic causes \((F(1,110) = 56.81, p < .001)\), but also an interaction showing that this preference occurred only when personality change was to be explained \((F(1,110) = 66.53, p < .001)\). Environmental causes were endorsed more for explaining change \((t(111) = 7.10, p < .001)\), and Intrinsic causes more for explaining continuity \((t(111) = 3.60, p < .01)\). There were no differences in endorsed causes for change and stability as a function of age span \((all F(1,110) < 1, ns)\).

The IPT scale was correlated with the four causes of personality change and continuity subscales, yielding a single significant correlation. Entity theorists were no more or less likely to endorse Environmental or Intrinsic reasons for personality change \((rs = -.01 \text{ and } -.10, ns)\) or Environmental reasons for continuity \((r = -.11, ns)\), but they were more apt to endorse intrinsic reasons for continuity \((r = .37, p < .01)\).

4. Discussion

Our findings indicate that our participants’ beliefs about the direction of normative adult personality change were reasonably accurate, although our measures do not allow us to assess whether their beliefs about its magnitude were also accurate. As in Srivastava et al.’s (2003) cross-sectional study and Roberts et al.’s (2006) meta-analysis, they believed that Agreeableness tends to increase until it stabilizes in later adulthood. Similarly, their judgment that Emotional Stability tends to increase in a decelerating manner accords with Roberts et al. (2006) and with the rising pattern that Srivastava et al. (2003) obtained for women. Our participants agreed with
both studies that Conscientiousness tends to rise with age, although they believed it starts to decline after age 45 whereas the research evidence indicates continuing increases. Their belief that Openness declines linearly with age matched Srivastava et al.’s (2003) finding, but sharply differed from Roberts et al.’s (2006) finding of increases until age 55. Finally, their belief that Extraversion declines steeply with age did not accord with Srivastava et al. (2003) or with Roberts et al.’s (2006) evidence of increases in social dominance, although it was consistent with the latter’s finding of decreases in social vitality.

The discrepancies between the research evidence and our participants’ beliefs are generally subtle. In part, they may reflect the participants’ youth. Some discrepancies between their perceptions and the research evidence arguably reflect a relatively positive impression of younger people, or age-bias. Openness and Extraversion are both positively evaluated and participants believed that younger people tend to have more of them, contrary to the research. Similarly, although our participants acknowledged increases in Conscientiousness, they perceived a decline in later adulthood that is not empirically supported. However, the discrepancies between our participants’ beliefs and the research data may have alternative explanations. For example, their perception of age-related declines in Openness may accurately reflect the cross-sectional evidence (Srivastava et al., 2003), even if they do not accurately reflect the longitudinal increases found by Roberts et al. (2006). Moreover, previous research has shown high levels of agreement in beliefs about personality change among young and older adults (Heckhausen, Dixon, & Baltes, 1989).

Our findings concerning personal change were consistent with previous work. The tendency to perceive and anticipate consistent positive change in the self (Wilson & Ross, 2001) was clearly evident. Participants believed that in the previous 5 years they had undergone change in a desirable direction on all five personality factors, and predicted that they would change positively in the next 5 years, although this change was statistically reliable only for three factors. Interestingly, the overwhelmingly positive direction of personal change conflicts with the changes that are perceived as normative for people in the participants’ modal age group (15–25). Participants believed that they were increasing in Extraversion, but that people in their age group tend to decrease. Similarly, people judged that they were becoming more open while believing that in their age group Openness tends to be stable or in decline. These discrepancies between perceived personal and normative change may reflect the well-established phenomenon of self-enhancement (Alicke, Klotz, Breitenbecher, Yurak, & Vredenburg, 1995).

Basic findings related to rank-order stability were consistent with expectation. Participants believed that normative personality change tends to be greater earlier in the adult years, declining steadily until a small and statistically unreliable increase from 55 to 65. Similarly, participants believed they had changed more in the previous five years than they would in the next five. Whether this finding reflects the normative expectation of reduced change with age, or their uncertainty about their personal future, is unclear.

Our finding that entity theorists were no more likely than incremental theorists to perceive past or future change in their personalities was inconsistent with previous work. Robins et al. (2005) found that incremental theorists perceived significantly less absolute past change in their personalities than entity theorists. However the magnitude of this association ($r = .21$) was almost identical to the nonsignificant association obtained in the present study ($r = .19$), suggesting that the discrepancy reflects the greater statistical power of Robins et al.’s study. Indeed, the present study’s modest sample size limits its capacity to detect small to moderate effects. Our finding that
incremental theorists did not predict less future change than entity theorists \( (r = .04) \) suggests that entity theories may not constrain people’s predictions of their future personality change, even if they correlate with perceptions of past change (Robins et al., 2005). However, entity theories were associated, as predicted, with perceptions of lesser normative personality change, the first time this correlation has been demonstrated.

Our attempt to develop new measures of beliefs about personality change and continuity was partially successful. This attempt was motivated by the exclusive focus of lay theories research on beliefs about the likelihood of personality change (i.e., whether or how much it occurs) to the neglect of beliefs about its causes (i.e., why personality does or does not change). Four of the six new measures reached acceptable levels of reliability, and may therefore be useful for future research. These measures reflected intrinsic versus environmental causes. Environmental causes were generally favoured, and they were seen as especially credible for explaining personality change. Intrinsic and environmental causes were seen as equally credible explanations for continuity, and intrinsic causes were judged to be more suitable for explaining continuity than change.

Our findings also indicated that lay theories are generally independent of beliefs about the sources of personality change and continuity. Interestingly, incremental theorists did not find reasons for personality change to be more plausible than did entity theorists. Neither did entity theorists find all reasons for continuity to be more plausible. Instead, entity theorists tended to believe that the stability of personality is specifically due to intrinsic factors. This finding is consistent with Bastian and Haslam’s (2006) claim that entity theories are associated with a broader set of “essentialist” beliefs, according to which personal attributes are perceived as fixed, inherent, and biologically based. By implication, holding an entity theory involves not only believing that personality is stable, but also tending to believe that its stability is grounded in intrinsic factors.

5. Conclusion

The present study replicated previous research on people’s perception of changes in their own personalities, but supplemented this work by addressing beliefs about normative change and by examining for the first time beliefs about the causes of personality change and continuity. Our participants appeared to have well-organized and generally accurate perceptions of normative change coexisting with self-enhancing perceptions of personal change. Beliefs about the nature and extent of normative and personal change were only weakly associated with lay theories concerning the fixity or malleability of personality. Causal beliefs were associated with these theories in theoretically important ways, and different beliefs were considered plausible for explaining personality change and continuity. The generalisability of our findings cannot be assumed, and the present study should be replicated with a sample of more diverse age and background, and more balanced gender composition. However, it points to several directions in which the further study of lay conceptions of personality change and continuity might develop.

References


