Narrating Personality Change

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The present research investigated the longitudinal relations between personality traits and narratives. Specifically, the authors examined how individual differences in 170 college students' narratives of personality change (a) were predicted by personality traits at the beginning of college, (b) related to actual changes and perceived changes in personality traits during college, and (c) related to changes in emotional health during college. Individual differences in narratives of personality trait change told in the 4th year of college fell into 2 dimensions: affective processing, characterized by positive emotions, and exploratory processing, characterized by meaning making and causal processing. Conscientious, open, and extraverted freshmen told exploratory stories of change as seniors. Emotionally healthy freshmen told stories of change that were high in positive affect. Both positive affective and exploratory stories corresponded to change in emotional stability and conscientiousness during college above and beyond the effects of perceived changes in these traits. In addition, both positive affective and exploratory narratives corresponded to increases in emotional health during college independent of the effects of changes in personality traits. These findings improve our understanding of how individuals conceptualize their changing identity over time.

Keywords: narratives, personality change, personality development, maturity, identity

A large body of research has suggested that individuals show important personality changes during college. For example, college students become more agreeable, conscientious, emotionally stable, and open to new experiences (Robins, Fraley, Roberts, & Trzesniewski, 2001). However, modern theories speak to the importance of understanding personality as more than just a set of traits (McAdams & Pals, 2006; Roberts, Harms, Smith, Wood, & Webb, 2006). The present research goes beyond understanding the quantitative changes that occur during college by asking college students to create a narrative of how their personality changed during college.

The students in the present research narrated their personality change in the context of a longitudinal study of personality trait development during college. Their stories allowed us to address

four aims regarding how individuals create stories of change and what these stories mean. First, we explored the dimensions underlying students' narratives of personality change. The present research serves as a framework for characterizing this new type of identity narrative, which has not been empirically examined in previous research. Second, we examined whether preexisting individual differences in personality traits and emotional health prospectively shape individual differences in narrative style (McLean, Pasupathi, & Pals, 2007). Third, we addressed how individual differences in narratives capture quantitative changes in personality traits and how these differences tell a story of personality trait change beyond what is revealed by subjective ratings of personality trait change (i.e., perceived personality change). Finally, we tested whether narratives of change predict changes in emotional health above and beyond the effects of changes in personality traits.

The Narrative Approach to Personality Psychology

During young adulthood, a person's development and creation of the life story is an integral part of the process of forming adult identity. The narrative identity developed in young adulthood is not simply a reiteration of events and facts but a subjective assessment of the past that creates a meaningful self for the individual in the present (McAdams, 1996). The narratives examined in the current study are stories that young adults told in their 4th year of college describing how their personality changed during the previous 4 years. As an area of narrative research, they

are novel constructs. As a psychological phenomenon, however, they are a common part of the evaluation of many experiences. An important individual difference studied within narratives of specific events is the extent to which individuals describe the event as having changed them in some way or having helped them grow (King, Scollon, Ramsey, & Williams, 2000; Pals, 2006). Thus, although change and growth are common themes in narrative research, they have yet to be treated as an explicit topic of narration in the literature on personality development.

Two concrete individual differences—*affective processing* and *exploratory processing*—characterize the stories individuals tell about experiences that may facilitate change. Both of these individual differences are important indicators of maturity and psychological health in adulthood within a variety of narrative contexts (Baerger & McAdams, 1999; Bauer & McAdams, 2004; Blagov & Singer, 2004; King et al., 2000; McAdams, Reynolds, Lewis, Patten, & Bowman, 2001; Pals, 2006; Sutin & Robins, 2005). While participants in the current study were asked to describe patterns of change, they were not explicitly asked to describe the mechanisms underlying these patterns. Therefore, these two patterns should be present to a greater or lesser extent within the stories depending on the meaning and elaboration of the stories within the global identity of the student. The first aim of the current research was to empirically investigate the manifestation of these two narrative dimensions within stories of personality change.

Affective processing concerns the quality and quantity of the emotional content of narratives. The present study examined four types of affective processing within personality change stories: (1) positive valence, (2) negative valence, (3) redemption, and (4) contamination. Positive valence deals with the extent to which the student tells a personality change story that is largely positive in its emotional tone, whereas negative valence characterizes a narrative that is largely negative in emotional tone. It is important to note that the valence of the description of change focuses on a simple level of processing and is independent of the starting point of the narrative. That is, a person can narrate a story with positive valence that starts on a positive note. This is in contrast to more complex levels of emotional processing, characterized by redemption and contamination sequences within the narrative (McAdams et al., 2001). Redemption sequences, progressing from a negative beginning to a positive ending, or contamination sequences, passing from a positive beginning to a negative ending, are common patterns within stories of life transitions that tell of personal growth and change.

Exploratory processing is characterized by the complex, evaluative meaning making of experiences. In the current stories of personality change, two aspects of exploratory processing were examined: (1) coherence and (2) causal descriptions of change. A coherent story is one that has a clear narrative structure with a beginning, middle, and end. Coherent narratives have concrete, discernable themes and are easily understood by the reader. In addition, narrative researchers typically characterize coherent narratives as describing specific causal patterns within the story (Baerger & McAdams, 1999). To target this aspect of narrative coherence and to isolate the additional processing that goes into creating a causal narrative, in the present study we examined narratives with causal descriptions of change independently of narrative coherence. Such narratives specifically outline the per-

ceived causal mechanisms underlying any changes described in the story.

Predicting Individual Differences in Narratives of Personality Change

Individual narratives represent emergent aspects of personality that are dependent on individuals' internal characteristics and life experiences (McLean et al., 2007). Recent research has revealed a number of relationships between narrative processes and other individual differences. For example, individual differences in narrative tone, coded from college students' accounts of important life events, are positively associated with emotional stability, conscientiousness, and agreeableness (McAdams et al., 2004). Prospectively, coping openness in women at age 21 years predicts narrating difficult life experiences in an open, complex manner at age 52 years (Pals, 2006). A central aim of the current research was to further our understanding of the longitudinal relationship between individual differences and narrative identity by examining whether personality traits and emotional health in the 1st year of college predict narrative variables assessed at the end of college.

We expected emotional stability and agreeableness to facilitate the interpretation of life events in a positive manner. Cross-sectional evidence supports this supposition, as individual differences in narrative tone across a number of studies related to both emotional stability and agreeableness as well as to conscientiousness and openness to experience (McAdams et al., 2004; McLean & Pratt, 2006; Pennebaker & King, 1999).

Conscientiousness and openness to experience were expected to predict exploratory narrative processing. Conscientiousness should facilitate the narration of a clear and well-organized story, while openness should foster the meaning-making process necessary to the creation of causal connections within the narrative structure. Past research has supported the expectation that openness to experience would relate to exploratory processing given that, as described above, coping openness has predicted narrating open, complex narratives (Pals, 2006). In addition, openness to experiences has been related to coherence in narratives of psychotherapy (Adler, Wagner, & McAdams, 2007).

Finally, we expected that indexes of healthy psychological functioning would predict positive affective processing of stories of change. As all aspects of an individual help shape the narrative structure (McLean et al., 2007), positive psychological health at the beginning of college should provide a template for the development of a positively valenced story of change.

Narrative Processes as Indicators of Change in Personality Traits

Narratives encompass a complex, dynamic view of self that blends many aspects of a person, from traits to unique, individual experiences. As such, individual differences in narratives of personality change should capture subtleties of personality change not captured by more traditional assessments of personality traits. Narratives of personality change likely incorporate both the perception of the affective quality of change and the impact of the many factors that contribute to personality change by exploring the meaning of these experiences. Because of the incorporation of the many mechanisms of change within the narrative construction of the personality change

story, both affective and exploratory narrative processes are expected to correspond to quantitative personality trait change during college.

In addition, given the nuance of the narrative of change, we contend that narrative descriptions of personality change and quantitative ratings of perceived change already shown to predict patterns of personality trait change (Robins, Noftle, Trzesniewski, & Roberts, 2005) are substantively different ways of understanding perceived changes in personality. Although both approaches can provide important information about personality, the narrative construction of identity encompasses a more complex, dynamic view of self than does a simple, single-item measure of perceived personality trait change. Therefore, we expected that narratives of personality change during college would correspond to actual changes in personality traits above and beyond self-ratings of perceived change on the same traits.

As to trait-level expectations, both affective and exploratory processes are important indicators of maturity within narratives (King et al., 2000; Pals, 2006). One of the central tenets of personality development is that normative changes in personality traits are in the direction of greater maturity (Roberts & Wood, 2006). For example, the increases in conscientiousness, agreeableness, emotional stability, and openness seen during the college years can be said to be in the direction of greater maturity. It is our contention that the creation of a positive and coherent identity narrative will coincide with just such patterns of mature personality trait development.

Narrative Processes as Indicators of Change in Psychological Health

The final aim of the present research was to show that both affective and exploratory processing correspond not only to changes in personality traits but also to increases in emotional health. Past research has provided both cross-sectional and longitudinal evidence for the relationship between emotional health and both affective (Blagov & Singer, 2004; King et al., 2000; McAdams et al., 2001; Sutin & Robins, 2005) and exploratory (Baerger & McAdams, 1999; Bauer & McAdams, 2004; King et al., 2000) narrative processes.

The relationship of narrative processing to emotional health is expected to exist independently of the effects of changes in personality traits. Big Five traits are related to a number of indexes of psychological health (DeNeve & Cooper, 1998; Steel, Schmidt, & Shultz, 2008). However, narratives provide unique insight into an individual and capture a depth and quality of personality that may be not be captured by traditional measures of personality trait change. Narratives, by being an emergent property of overall identity, serve as a unique synthesis of the individual's current psychological functioning and should, as such, have a unique relationship to patterns of change in psychological health. Preliminary evidence supports the incremental validity of narratives beyond other indicators of psychological health (Adler, Kissel, & McAdams, 2006; Bauer, McAdams, & Sakaeda, 2005a, 2005b). The present study builds on these findings by examining the relationship of narratives to change in emotional health while controlling for co-occurring changes in Big Five personality traits.

Method

Participants

The data for the current study came from the Longitudinal Study of Personality and Self-Esteem Development, an ongoing study of a cohort of individuals who entered the University of California at Berkeley in 1992 (see Robins et al., 2001; Robins et al., 2005; Robins & Pals, 2002). Participants completed a packet of questionnaires three times during the 1st year of college and again annually over the next 3 years. In the study, 508 individuals participated in the first assessment and 303 individuals participated in the last assessment.

Data analysis in the current study was performed on a subsample of 61 male and 109 female participants who completed personality trait measures in both Year 1 and Year 4 and who supplied narrative responses in Year 4. This subsample of participants was highly diverse in terms of ethnicity (45% Asian, 33% Caucasian, 8% Chicano/Latino, 2% African American, 12% missing/other/multiracial) and had an average age of 18.25 years in Year 1 ($SD = 0.43$). The subsample did not differ significantly from the rest of the sample on Year 1 socioeconomic status, age, extraversion, agreeableness, emotional stability, or openness to experience. The subsample did have higher levels of conscientiousness, $F(1, 487) = 8.31$, $p < .05$.

Measures

Table 1 shows descriptive statistics and alpha reliabilities for all study variables.

Table 1
Descriptive Statistics and Reliability of Measures (N = 170)

Variable	M	SD	α^a
Narrative processes			
Positive valence	2.55	0.64	.95
Negative valence	1.46	0.64	.94
Contamination	0.10	0.30	.62
Redemption	0.17	0.57	.92
Causal	2.74	0.96	.95
Coherence	3.42	0.86	.81
Personality traits			
Year 1 emotional stability	3.04	0.70	.84
Year 4 emotional stability	3.29	0.69	.85
Year 1 conscientiousness	3.54	0.56	.81
Year 4 conscientiousness	3.69	0.63	.83
Year 1 openness	3.64	0.58	.77
Year 4 openness	3.71	0.57	.75
Year 1 agreeableness	3.59	0.52	.76
Year 4 agreeableness	3.82	0.53	.77
Year 1 extraversion	3.45	0.64	.83
Year 4 extraversion	3.46	0.60	.82
Perceived personality trait change			
Emotional stability	3.37	1.01	
Conscientiousness	3.49	0.89	
Openness	3.62	0.95	
Agreeableness	3.39	0.96	
Extraversion	3.64	0.99	
Emotional health			
Year 1	0.00	4.14	.86
Year 4	0.00	4.12	.86

[a] Alpha reliability estimates were computed across coders for narrative processes and across items for all other variables.

Coding Individual Differences in Narratives of Personality Change

In Year 4, participants were given half a standard 8.5 in. × 11 in. sheet of paper to respond in writing to the following questions: "How have you changed since you entered college? How has your personality changed?" Two undergraduate research assistants were trained to code the narrative responses by coding five difficult life event narratives on each of the dimensions described below. Each of these difficult life event narratives was from a unique sample independent of the current sample. Each practice narrative had previously been coded by a number of well-trained undergraduates as part of a prior research study conducted by Jennifer Lodi-Smith. After coding the practice narratives, the undergraduates met with Lodi-Smith to discuss their discrepancies with each other and with the prior ratings. The two undergraduate research assistants then proceeded to code 15 more practice narratives to establish a familiarity with the coding dimensions. When they began coding the personality change narratives, the coders again met with Lodi-Smith after finishing their first five narratives to discuss any additional issues or concerns. Both coders maintained contact with Lodi-Smith throughout the coding process to facilitate troubleshooting. The coders did not have contact with each other about manuscript coding after the discussion of the first practice narratives.

Positive/negative valence. Positive and negative valence were rated separately on a 1–3 scale, with 1 (*no positive/negative* change) indicating no change, 2 (*some positive/negative* change) indicating some positive (or negative) valence, and 3 (*clear positive/negative* change) indicating clear positive (or negative) valence.

Redemption/contamination. Redemption and contamination sequences were coded according to instructions from the manuals *Coding Narrative Accounts of Autobiographical Scenes for Redemption Sequences* (McAdams, 1999) and *Contamination Sequence Coding Guidelines* (McAdams, 1998), respectively.

Coherence. Coherence was rated on a 1–5 scale, with 1 (*Not Coherent*) indicating a completely unclear and incoherent narrative and 5 (*Very Coherent*) indicating a fully developed and clear narrative structure.

Causal description of change. The extent of any causal description of change was rated on a 1–5 scale. Narratives receiving a 1 (*Not at all clear what caused event*) had no clear description of what caused any change described, and narratives receiving a 5 (*Clear sense of what caused the event with full elaboration*) stated both a cause for change and a full elaboration of the process through which change came about.

Personality Traits

Big Five personality traits. The Big Five traits were assessed using the 60-item NEO-Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992). Items were rated on a 5-point scale ranging from 1 (*not very true of me*) to 5 (*very true of me*). The NEO-FFI was administered at the beginning of the 1st semester and at the end of the 4th year.

Personality trait change. As in prior research (Robins et al., 2005), personality change was operationalized as the standardized residual computed by regressing Year 4 personality traits on Year 1 personality traits. These residual change scores provide an index of the magnitude and direction of personality trait change for each Big Five domain.

Perceived personality trait change. At the end of the 4th year, participants rated the extent to which they felt they had changed on each of the Big Five personality traits since entering college, using a scale ranging from 1 (*decreased*) to 3 (*stayed the same*) to 5 (*increased*; Robins et al., 2005).

Emotional Health

Following the approach of Robins and Beer (2001), we computed emotional health as a linear combination of standardized scores of the following scales: the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the Overall Life Satisfaction Scale (Campbell, Converse, & Rodgers, 1976), the Adjustment to College Scale (Aspinwall & Taylor, 1992), the Center for Epidemiological Studies Depression Scale (Radloff, 1977), and the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). The composite emotional health index was computed separately at Year 1 and Year 4. To assess change over time, we regressed Year 4 emotional health onto Year 1 emotional health and saved the standardized residual.

Results

Individual Differences in Narrating Personality Change

The present study was the first of its kind to examine individual differences in narrative processing within stories of personality change. To provide grounding within past research concerning narratives of difficult life events, we examined the narrative dimensions closely for overlap and redundancy. As shown in Table 2, several of the narrative variables were significantly intercorrelated. We ran a

Table 2
Intercorrelations and Factor Loadings of Narrative Processes (N = 170)

Narrative processes	1	2	3	4	5	6
1. Positive valence	—					
2. Negative valence	−.85*	—				
3. Contamination	−.35*	.43*	—			
4. Redemption	.07	.03	.14	—		
5. Causal	.15	−.06	.03	.31*	—	
6. Coherence	.31*	−.22*	−.16*	.22*	.53*	—
Factor loadings						
Affective processing	**.85**	**−.99**	**−.44**	−.04	.03	.20
Exploratory processing	.28	−.04	.02	**.39**	**.79**	**.66**

Note. Values in bold indicate that these narrative processes were used to create the higher order processing variable.
* $p < .05$.

maximum likelihood factor analysis with varimax rotation to determine whether the ratings of personality change narratives could be accounted for by fewer dimensions. The factor analysis yielded the two expected factors—affective processing and exploratory processing. The composition of these factors was somewhat unique to narratives of personality change, as redemption sequences were more strongly associated with exploratory rather than affective processing. Specifically, affective processing was characterized by telling stories with a high degree of positive valence and low levels of negative valence and contamination. Redemption sequences combined with narrative coherence and causal descriptions of change to produce the exploratory processing factor. Composite scores were computed as the mean of the standardized variables that loaded on each factor. Affective processing and exploratory processing were not significantly correlated ($r = .14$, $p > .05$). Table 3 provides examples of affective processing and exploratory processing in personality change narratives.

Predicting Individual Differences in Narratives of Personality Change

Personality traits during the 1st year of college predicted exploratory processing in the change narratives. As expected, students who were conscientious ($r = .25$, $p < .05$) and open to experience ($r = .18$, $p < .05$) in their 1st year of college wrote

Table 3

Examples of Affective Processing and Exploratory Processing in Narratives of Personality Trait Change

Process	Score	Sample narrative
Affective processing	High	I have expanded my views on "life[,]" liberty and justice. I understand the difference between the way things are and the way they should be. I also understand the obstacles before me that have always been there, and what I need to do to overcome them.
	Low	I'm not quite as peppy and energetic and happy as I used to be. I never used to be prone to depression but lately, compounded with many incredible experiences traveling and studying abroad last year, I am quieter, more introspective, and more easily drawn towards sadness. I am encouraged at my ability to get through things, but sad that I feel I'm not as innocent and blindly optimistic and idealistic as I used to be. I am confused at the future and feel by turns optimistic and then hopeless as to where I am going.
Exploratory processing	High	. . . I used to be ultra competitive, but so many people at Berkeley are so competitive, I tried not to be so concerned about how I did in comparison to others. I'm much happier when I focus on doing my best, rather than on how I do in comparison to others . . . .
	Low	View of self—about the same personality—more tolerant, talkative

stories indicative of exploring the nature and causes of their personality change. In addition, extraverted ($r = .15$, $p < .05$) students wrote exploratory stories of narrative change. Surprisingly, antecedent personality traits did not predict affective narrative processing. However, as expected, emotional health during the 1st year of college was positively associated with affective processing ($r = .18$, $p < .05$) but was unrelated to exploratory processing ($r = .06$, $p > .05$).

Narrative Processes as Indicators of Change in Personality Traits

We next examined whether narrative processing was related to change in personality during college. Both affective and exploratory narrative processes corresponded to increases in emotional stability and conscientiousness (see Table 4). These results are consistent with our expectation that narrative processes would correspond to normative patterns of personality trait change. However, narrative processes did not correspond to increases in agreeableness and openness, which also normatively increase during college.

As hypothesized, these effects held after controlling for ratings of perceived changes in personality (see Table 4). Additionally, narrative processes did not account for the relationship between perceived personality trait change and actual personality trait change. Therefore, narrative processes and perceived personality trait change capture unique aspects of the personality change experience.

It is important to interpret the effects reported in Table 4 with regard to normative developmental trends for each trait (e.g., Roberts, Walton, & Viechtbauer, 2006). For example, if our hypothesis is valid, and given that emotional stability and conscientiousness increase over time, then individuals who tell stories high in affective or exploratory processing should increase more on emotional stability and conscientiousness over time in comparison to people whose narratives are low on these processes. However, correlation coefficients do not provide sufficient information to evaluate whether this is the case.

To illustrate the patterns of relationships between narrative processes and change in emotional stability and conscientiousness, we created three groups from each narrative variable: high (people who were more than half a standard deviation above the mean on the process), medium (people who were within half a standard deviation of the mean on the process), and low (people who were more than half a standard deviation below the mean on the process).

Figure 1 provides a clear picture of the relationship between affective processing and both emotional stability and conscientiousness: Students who wrote stories of personality change high in affective processing increased on emotional stability and conscientiousness, while students who wrote stories of personality change low in affective processing showed little change in emotional stability and decreased in conscientiousness in opposition to normative patterns of development. Students who wrote stories of personality change with moderate levels of affective processing showed some increase in emotional stability, though it was not as pronounced as with those high in affective processing. Moderate affective processing was related to a trajectory for conscientiousness similar to that for those who were high in affective processing, though at lower mean levels of conscientiousness.

Table 4

Zero-Order and Partial Correlations Among Personality Trait Change, Narrative Processes, and Perceived Personality Trait Change (N = 170)

Variable	Emotional stability	Conscientiousness	Openness	Agreeableness	Extraversion
Affective processing					
Zero order	.28*	.25*	.03	.04	.14
Partialed for perceived change	.21*	.23*	.01	.00	.07
Exploratory processing					
Zero order	.17*	.20*	.12	.14	−.04
Partialed for perceived change	.11	.16*	.10	.13	−.09
Perceived change					
Zero order	.33*	.27*	.09	.16*	.24*
Partialed for affective processing	.28*	.25*	.09	.21*	.15*
Partialed for exploratory processing	.31*	.25*	.07	.25*	.14

Note. No partial correlations were significantly different from their associated zero-order correlations.
* $p < .05$.

Although all students increased in emotional stability, the most substantial increases were present in students who explored the meaning of their personality change. In addition, students whose stories explored the meaning of their personality change increased in conscientiousness during college, whereas students whose stories did not contain exploration or contained only moderate levels of exploration remained relatively stable in this trait, as shown in Figure 2.

Narrative Processes as Indicators of Change in Emotional Health

As shown in Table 5, both affective and exploratory processes were associated with increases in emotional health during college. As hypothesized, these effects were independent of the effects of personality trait change. In addition, narrative processes did not account for the relationship between personality trait change and emotional health, suggesting that narrative processes and person-

ality trait change correspond to unique aspects of emotional health development.

Using the tripartite split of the narrative processing variables, we found that students who wrote stories of personality change that were high in affective processing increased in emotional health, whereas students who wrote stories of personality change with moderate and low levels of affective processing decreased in emotional health, as shown in Figure 3. Figure 4 illustrates that students who explored their personality change increased in emotional health during college, whereas students whose stories did not contain exploration decreased in emotional health. Students with moderate levels of exploratory processing had relatively stable levels of emotional health during college.

Discussion

The present study investigated longitudinal relations among personality traits, emotional health, and narratives of personality
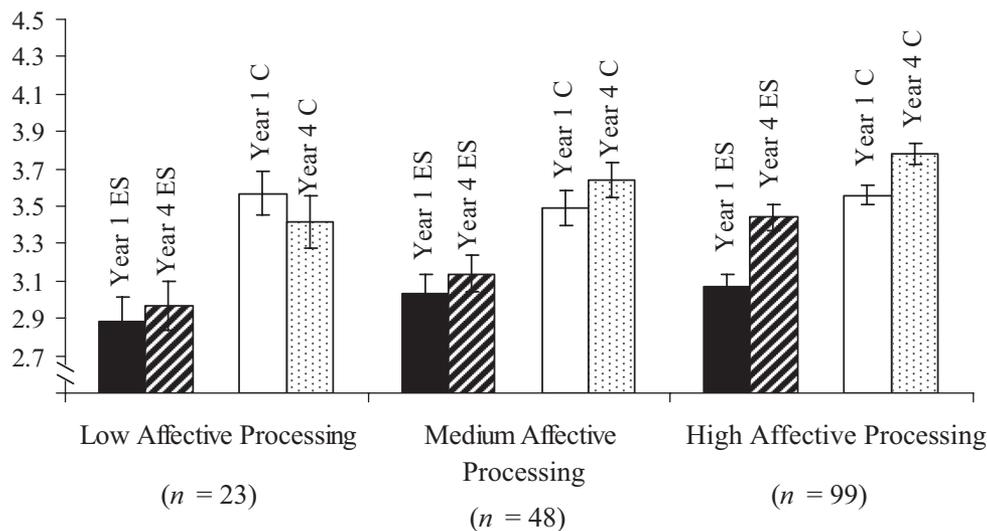

Figure 1. Changes in emotional stability (ES) and conscientiousness (C) at different levels of affective processing. Error bars reflect the standard error of the mean for each group.
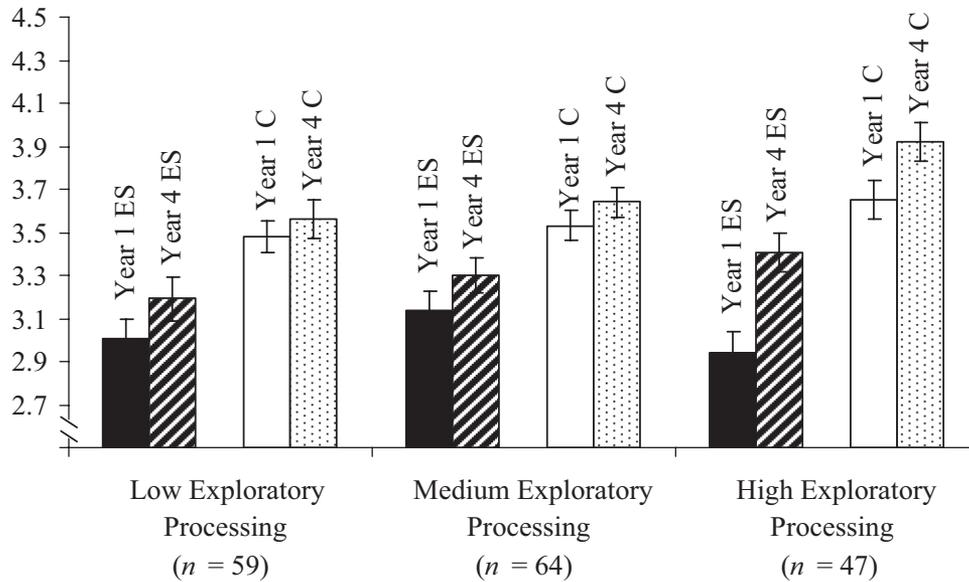
Figure 2. Changes in emotional stability (ES) and conscientiousness (C) at different levels of exploratory processing. Error bars reflect the standard error of the mean for each group.

change. Four main findings emerged. First, narratives of personality change were characterized by both affective and exploratory processes. Second, narrative processes were, in part, emergent from preexisting personality characteristics of the narrator. Third, affective and exploratory narrative processes were associated with normative patterns of personality trait development during the college years, above and beyond subjective ratings of personality trait change. Finally, affective and exploratory narrative processes were associated with increases in emotional health, independent of the effects of personality trait development.

Individual Differences in Narrating Personality Change

Although narrative researchers have explored patterns of growth and change in the stories people tell about their important life experiences, the current study was the first large-scale study to ask participants to tell stories explicitly describing changes in their personality. Thus, the present research investigated how commonly researched processes characteristic of healthy narrative identity were expressed within these narratives. Maximum likelihood factor analysis revealed two orthogonal factors underlying the narrative features coded in the current study: (1) affective processing including positive valence, negative valence, and contamination sequences and (2) exploratory processing including redemption sequences, coherent structure, and causal descriptions of change. These factors highlight two important aspects of narrative processing of personality change: emotional quality and cognitive elaboration. Although these two processes have been generated in past research based on theoretical conceptualizations (e.g., Bauer & McAdams, 2004), the inductive generation of these processes was a unique aspect of the current study. Establishing these factors with bottom-up rather than a priori techniques lends credence to the importance of such processes within narrative research.

One surprising finding in the examination of these processes was that the emotional process of redemption loaded on the exploratory processing factor. There are several possible reasons for this pattern. First, redemption was developed as a construct within narratives of difficult life experiences and characterized one type of emotional processing (McAdams et al., 2001). However, redemption has inherent within it a quality of growth and complexity rather than simple emotional processing. The complexity of this processing likely contributed to its more exploratory quality in the current narratives. As the sample exploratory narrative in Table 3 describes, a change from a negative starting point to a positive ending point establishes a framework for an examination of the underlying cause of that change. Next, in American culture the dominant narrative is a redemptive narrative (McAdams, 2005). As such, the redemptive narrative should be particularly easy for many of the students in our sample to coherently narrate. Finally, it may also be the case that the student raters found redemptive narrative particularly coherent, thus driving the correspondence between these two aspects of narratives of personality change.

Predicting Individual Differences in Narratives of Personality Change

The present results suggest that preexisting individual differences shape the development of the individual narrative (McLean et al., 2007) and point to a number of initial conclusions about the mechanisms underlying the creation of narratives. First, the finding that conscientiousness predicts exploratory processing is consistent with current conceptualizations of conscientiousness. Specifically, the organizational nature of conscientious individuals may contribute to the ability and desire to create more coherent narratives. Next, as in past research, openness predicted exploration. This relationship has been detailed in previous research (Pals, 2006) and is likely due to the willingness of such individuals to

Table 5

Zero-Order and Partial Correlations Among Personality Trait Change, Narrative Processes, and Change in Emotional Health (N = 170)

Variable	Emotional health
Affective processing	
Zero order	.34*
Partialed for personality trait change	.23*
Exploratory processing	
Zero order	.23*
Partialed for personality trait change	.14
Change in emotional stability	
Zero order	.64*
Partialed for affective processing	.61*
Partialed for exploratory processing	.63*
Change in conscientiousness	
Zero order	.36*
Partialed for affective processing	.30*
Partialed for exploratory processing	.33*
Change in agreeableness	
Zero order	.37*
Partialed for affective processing	.38*
Partialed for exploratory processing	.35*
Change in openness	
Zero order	.23*
Partialed for affective processing	.23*
Partialed for exploratory processing	.21*
Change in extraversion	
Zero order	.28*
Partialed for affective processing	.25*
Partialed for exploratory processing	.30*

Note. No partial correlations were significantly different from their associated zero-order correlations.
* $p < .05$.

spend time reflecting on the content and meaning of their lives. Finally, we were surprised by the finding that extraverted individuals told more exploratory narratives. People who are extraverted tell personal stories more often (McLean & Pasupathi, 2006). It may be that through multiple retellings of their stories extraverted individuals are readily able and willing to create more coherent narratives.

The present findings also point to the importance of emotional health for the creation of a positive story of personality change during college. Emotional health at the beginning of college likely provided a positive base on which a student could develop a story of personality change characterized by high levels of positive affect.

Considering the link between emotional health and affective narrative processing observed in both the current and past research, it was surprising that emotional stability did not predict narrative processes. This may be due, in part, to the malleability of emotional stability during the college years. The college years are times of great change in personality and in identity. The relative prospective independence of personality traits and narrative processes could reflect that some personality traits at the beginning of college may have minimal influence on the identity of college students 4 years later and thus may not be crucial to the creation of identity narratives at the end of college. The more established identity structures of individuals past emerging adulthood (Arnett, 2000) would allow the past self to be more congruent with the present self and, therefore, to more directly impact the creation of narrative identity.

Narrative Processes and Change in Personality Traits and Psychological Health

The current study suggests that narratives capture some of the personality trait change an individual experiences above and beyond perceived trait changes. Specifically, as predicted, both narrative processes were associated with increases in conscientiousness and emotional stability above and beyond perceived changes in these traits. These findings provide an important framework for understanding how individuals tell stories of personality change. Both narrative processes examined in the present research are indicative of a healthy and mature narrative identity (Baerger & McAdams, 1999; Bauer & McAdams, 2004; Blagov & Singer, 2004; King et al., 2000; McAdams et al., 2001; Pals, 2006; Sutin & Robins, 2005). In the current study, individuals who told stories of personality change that were characterized by these mature narrative processes showed maturity in their personality trait development as well (Roberts & Wood, 2006). Specifically, individuals who told stories of personality change that were high in affective and exploratory narrative processing had normative patterns of personality trait development with increases in both conscientiousness and emotional stability. Although the design of the present study cannot conclusively speak to the underlying causality of these patterns, these patterns are consistent with findings that mature narrative processes longitudinally predict greater maturity in middle-age women (Pals, 2006).

One pattern in particular stands out as characteristic of the overriding presence of maturity in narrative and personality. Specifically, conscientiousness predicted higher levels of exploratory processing, and exploratory processing corresponded to increases in conscientiousness during college. These patterns point to a trajectory wherein conscientious individuals tell narratives that are coherent and causal. The creation of such narratives may provide a narrative identity structure through which experiences can be filtered, allowing for greater personality trait maturity to follow. By having a coherent sense of the causes underlying personality change, individuals may have a scaffold on which to further develop a continually more mature personality system. Similarly, increasing stability over time may help provide a strong foundation for this scaffold, thereby allowing further development of the coherent, positively valenced narrative. This proposed process is best illustrated through the narrative of a young woman who increased in conscientiousness during college and wrote an exploratory, positive story of this change:

> I feel that I have changed a lot since entering college. The four years at [the University of California, Berkeley] have really enriched my intellectual, social, and individual life. I view myself as a more optimistic person in terms of school, work, and life in general. My personality has not changed much, but my perception of life has changed. I feel that whatever goals I set, I will try my best to attain [them].

This narrative also highlights the finding that narrative processes in stories of change and perceived changes in personality traits were independent of each other in their relationship to quantitative indexes of personality trait change. Clearly, narratives
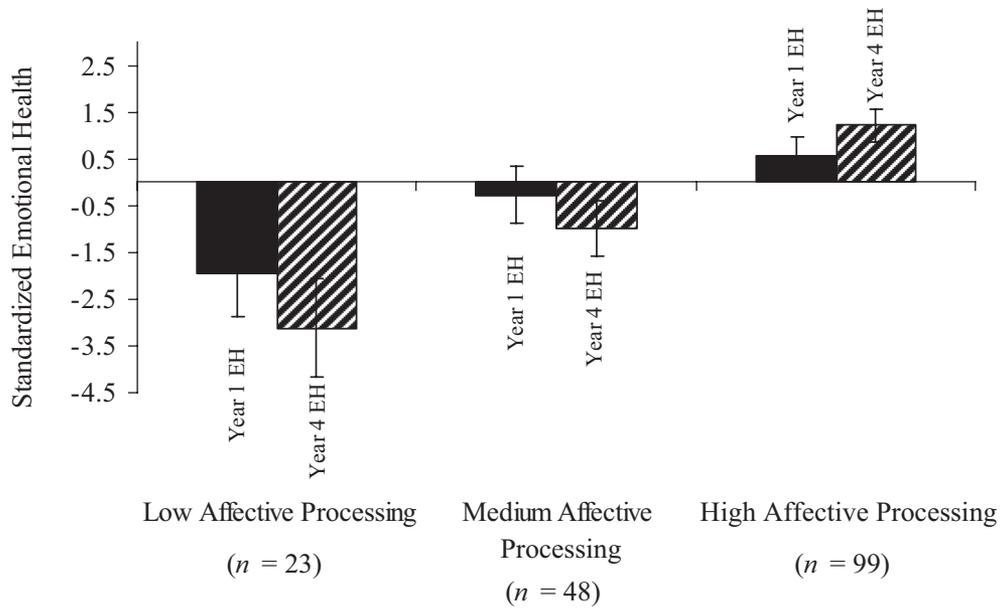
Figure 3. Changes in emotional health (EH) at different levels of affective processing. Error bars reflect the standard error of the mean for each group.

of change are capturing a different part of the change experience than are explicit evaluations of perceived change. We can draw a parallel between these two different evaluations of change and research on memory where perceived trait change captures the semantic aspects of the memory for change while narratives capture the episodic memories of these changes.

Finally, individuals who increased in emotional health during college also tended to tell more positively valenced stories of personality change and to engage in greater exploration of the meaning and cause of their personality changes. This latter finding may reflect internal or

environmental changes that contributed to the need to create a causal context for stories of change. These changes may also show that individuals who narrate their identity in a positively valenced and exploratory fashion have learned to have a healthy perception of their lives. All of the effects of narratives on change in emotional health were independent of the effects of personality trait change. These findings parallel those of recent research suggesting that individual differences in narrative processing predict maturity and psychological health above and beyond the effects of personality traits (Adler et al., 2006; Bauer et al., 2005a, 2005b).
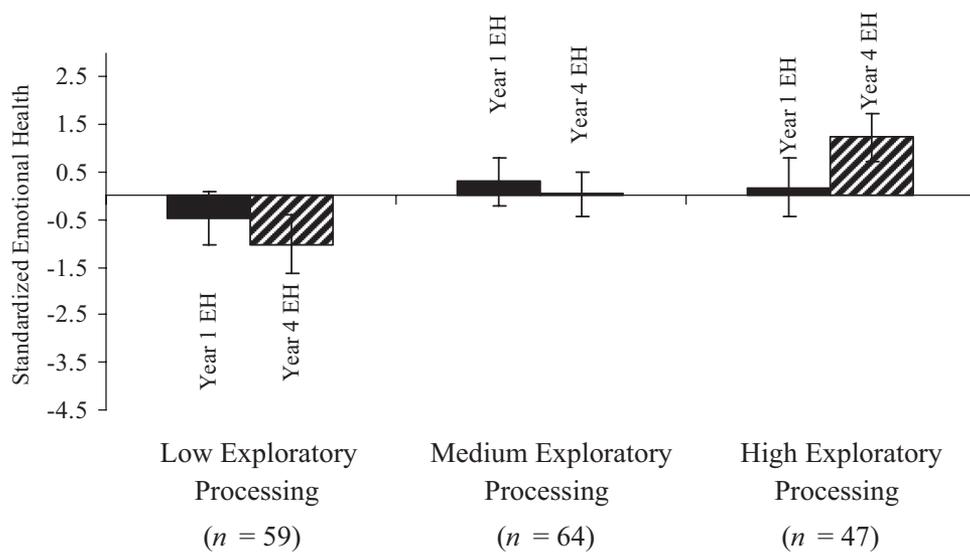
Figure 4. Changes in emotional health (EH) at different levels of exploratory processing. Error bars reflect the standard error of the mean for each group.

The most important conclusion that we can draw from the pattern of findings described here is that no domain of personality exists in a vacuum. To gain a complete understanding of the complexity of any individual's personality and psychological health, we must examine multiple aspects of personality simultaneously.

Limitations, Future Directions, and Conclusions

Several limitations should be considered when interpreting the present findings. First, the fact that the association between narrative processing and personality trait change was independent of perceived change could reflect the simplicity of the perceived measure of change available in the present study and not actual phenomenological differences in the two types of characterizations of the change experience. Second, the longitudinal nature of the present research should be extended. The narratives of personality change were collected simultaneously with the final personality trait and emotional health ratings. Thus, while the narratives described change over the course of college, the patterns themselves cannot be used to predict future patterns of change.

Finally, the current sample lacks broad generalizability. Future research should extend the current investigation to different age groups facing different identity challenges. Studying the personality change narratives of people within other transitional life experiences such as entering and leaving the workforce or beginning a family will improve our understanding of narrative processing and its relation to personality change, as well as provide insight into the experiences of individuals within these contexts.

Although overarching theories of personality have acknowledged the importance of the personal narrative to personality psychology (McAdams, 1996; McAdams & Pals, 2006; Roberts, Harms, et al., 2006), in practice, the difficulty of understanding identity through narratives has been likened to trying to decode the human genome with a hand calculator (Hogan, 2005). We are not quite so pessimistic in our assessment of the ease of conducting narrative research, but its relative difficulty compared with basic questionnaire assessment does present some challenges to attempting to integrate a narrative approach into a program of research. However, the consequence of narratives to understanding mature patterns of change in the brief qualitative responses of 170 college students hints at the vast resource generally untapped by the majority of personality research. It is, therefore, our hope that the findings of this study will drive researchers in the future to use the hand calculator of narrative to gain a deeper understanding of the person as a whole.

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The Publications and Communications Board of the American Psychological Association announces the appointment of 4 new editors for 6-year terms beginning in 2010. As of January 1, 2009, manuscripts should be directed as follows:

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- *Journal of Family Psychology* (http://www.apa.org/journals/fam), **Nadine Kaslow, PhD,** Department of Psychiatry and Behavioral Sciences, Grady Health System, 80 Jesse Hill Jr. Drive, SE, Atlanta, GA 30303.
- *Journal of Experimental Psychology: Animal Behavior Processes* (http://www.apa.org/journals/xan), **Anthony Dickinson, PhD,** Department of Experimental Psychology, University of Cambridge, Downing Street, Cambridge CB2 3EB, United Kingdom
- *Journal of Personality and Social Psychology: Personality Processes and Individual Differences* (http://www.apa.org/journals/psp), **Laura A. King, PhD,** Department of Psychological Sciences, University of Missouri, McAlester Hall, Columbia, MO 65211.

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