

Traits and Stories: Links Between Dispositional and Narrative Features of Personality

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ABSTRACT Dispositional traits and life narratives represent two different levels of personality that have not previously been empirically linked. The current study tested five hypotheses connecting Big-Five traits to life-narrative indices of emotional tone, theme, and structure. Students (Study 1) and adults (Study 2) completed a self-report measure of the Big-Five traits and provided extended written accounts of either ten (students) or eight (adults) key life-narrative scenes, including life high points, low points, and turning points. Content analysis of the narrative data revealed that for both samples Neuroticism was positively associated with an emotionally negative life-narrative tone, Agreeableness was correlated with narrative themes of communion (e.g., friendship, caring for others), and Openness was strongly associated with the structural complexity of life narrative accounts. Contrary to prediction, however, Conscientiousness was not consistently associated with themes of agency (e.g., achievement, self-mastery) and Extraversion was unrelated to positive narrative tone. The results are discussed in the context of contemporary research

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and theorizing on the narrative study of lives and the relation of narrative research in personality to more conventional, trait-based approaches.

In an effort to organize the many different ways that personality psychologists do and might explore the multifaceted nature of human individuality, McAdams (1994, 1995, 2001a; Hooker & McAdams, in press) proposed a three-level model for personality constructs. At Level 1 reside *dispositional traits*—global, internal, and comparative dispositions that account for consistencies perceived or expected in behavior from one situation to the next and over time (e.g., Goldberg, 1990; McCrae & Costa, 1987). At Level 2, *characteristic adaptations* are contextualized facets of human individuality that speak to motivational, social-cognitive, and developmental concerns in personality. Included at this level are constructs such as current concerns and strivings, goals and motives, defensive and strategic operations, conditional patterns, and other constructs that are contextualized in time, place, or social role (e.g., Little, 1999; Mischel & Shoda, 1995). At Level 3, finally, are *integrative life stories*—internalized and evolving narratives of the self that speak to how a person understands him- or herself and his or her position in the world in broadly existential terms (Habermas & Bluck, 2000; McAdams, 1993, 2001b; Singer, 1995). If dispositional traits sketch an outline and characteristic adaptations fill in some of the details of human individuality, then internalized life stories speak to what a person's life may mean in the overall.

How are personality constructs from these three different levels related to each other? McAdams (1995) argued that there is no reason to expect strong symmetry and consistency across different levels of personality description, for people's lives are typically complex and often contradictory. Furthermore, conceptual mappings for one level (e.g., the five-factor model for Level 1) may not do justice to the indigenous features of other levels. Relations across levels, therefore, remain an open empirical question. A few recent studies have examined the question as it pertains to relations between Levels 1 and 2. For example, Roberts and Robins (2000) linked Big-Five factors and the narcissism trait to goal profiles, and Roccas, Sagiv, Schwartz, and Knafo (2002) documented associations between the five factors and value clusters. There is also an established literature showing that motives and goals (Level 2) are

positively associated with some life-narrative themes (Level 3). For example, studies have shown that individual differences in goals and motives for power are positively correlated with life-narrative themes of agency (e.g., self-mastery, influencing others, attaining victory and status), whereas motives and goals for intimacy are positively associated with life-narrative themes of interpersonal communion (e.g., love and friendship, caring for others, dialogue) (McAdams, 1982, 1984, 1985; McAdams et al., 1981; McAdams, Hoffman, Mansfield, & Day, 1996; Woike, 1995; Woike, Gersekovich, Piorkowski, & Polo, 1999; Woike & Polo, 2001). McAdams and colleagues, furthermore, have shown that high scores on generativity (a developmental concern of midlife – Level 2 – indicating a strong commitment to promoting the well-being of youth and the next generation) are consistently linked with a life-narrative format that emphasizes themes of personal destiny, redemption, and forward progress in life (McAdams & Bowman, 2001; McAdams, Diamond, de St. Aubin, & Mansfield, 1997).

Virtually nothing, however, is known about how dispositional traits (Level 1) might relate to narrative features of personality (Level 3). One reason for the absence of data in this regard may be the very different methodologies and epistemological assumptions employed by social scientists who specialize in these two respective domains of inquiry. Trait psychologists value rigorously quantitative and psychometric investigations that aim to test hypotheses with large samples, while many narrative psychologists prefer qualitative, idiographic studies that aim to discover new psycho-literary forms (e.g., Gregg, 1995; Rosenwald & Ochberg, 1992). Closer to the mainstream of psychological science, trait research follows what Bruner (1986) describes as the *paradigmatic* mode of thought and inquiry, seeking to validate clear and empirically replicable assertions about behavior. By contrast, life-story scholars often place a high premium on the subjective interpretation (hermeneutics) of the life text, as they operate in Bruner's *narrative* mode of inquiry, where stories are used, both by the investigator and the subject, to express the *lived experience* of a particular human being (Cohler, Hostetler, & Boxer, 1998).

The current investigation seeks to bridge the gap between these two approaches by exploring relations between Level 1 traits and Level 3 life narratives in samples of college students and adults. Like trait studies, the current investigation employs sample sizes that are

large enough and scoring procedures that are objective enough to test hypotheses about how traits relate to other phenomena. Like narrative studies, the investigators have collected a substantial amount of rich and highly personal life-story data from each subject, providing a small narrative case study for each participant in the study. The written narratives are coded for content themes and then related to scores on a self-report measure of the Big-Five traits (John & Srivastava, 1999). The investigation tests five simple hypotheses—one for each of the Big-Five traits—drawn from a reading of the trait and life-narrative literatures.

The first two hypotheses link the traits of Extraversion (*E*) and Neuroticism (*N*) to what McAdams (1993) termed narrative *tone*. Every story has a characteristic emotional tone, ranging most simply from extreme positivity (happiness, joy, optimism—think comedy) to extreme negativity (despair, fear, pessimism—think tragedy). In a parallel fashion, a number of researchers have provided data to support the argument that positive affectivity and negative affectivity form the emotional cores of *E* and *N*, respectively (e.g., Watson & Clark, 1984, 1997). For the current study, then, the first hypothesis is that *E* should be positively associated with a positive affective tone in life-narrative accounts; the second hypothesis is that *N* should be associated with a negative life-narrative tone.

Hypotheses 3 and 4 link the traits of Conscientiousness (*C*) and Agreeableness (*A*) to what McAdams (1985) termed a narrative's *thematic lines*. Whereas tone refers to the overall emotional feel of a story, theme gets to the issue of plot and movement—how characters act to accomplish their intentions. According to Bruner (1986) a story is fundamentally about the “vicissitudes of intention” organized in time (p. 17). Characters' intentional acts spread out over time to make the story's plot. Thematic lines refer to what kinds of intentions characters display—that is, what they are trying to get, achieve, or avoid. In life stories, two general thematic lines are what Bakan (1966) called *agency* and *communion* (McAdams, 1985). Agency encompasses characters' intentional movements toward self-mastery, self-control, achievement, and power. Communion encompasses love, intimacy, care, and the sense of being part of a community. In a parallel fashion, *C* and *A* may be viewed as orthogonal constructs comprising an interpersonal circumplex for Level 1 traits, with *C* predicting behavior suggestive of self-control and achievement (Barrick & Mount, 1991; Hogan, Hogan, &

Roberts, 1996) and *A* linked, at least in theory, to warm and caring behavior (Graziano & Eisenberg, 1997). Therefore, the third hypothesis is that *C* should be positively associated with narrative themes of agency; the fourth is that *A* should be associated with narrative themes of communion.

Hypothesis 5 is about Openness to Experience (*O*) and the concept of narrative *complexity* (McAdams, 1985). Simple stories contain few characters, straightforward plots, and clear resolutions; complex stories may have a multitude of characters and interwoven plots, and they may suggest multiple meanings and ambiguous resolutions. Among the different aspects of *O*, researchers have identified dimensions of cognitive and emotional complexity (McCrae & Costa, 1997). Persons high in *O* are described as original, imaginative, and complex. McCrae and Costa (1980) found that *O* was positively associated, furthermore, with higher stages of ego development, which also indicate higher levels of cognitive complexity (Loevinger, 1976). McAdams (1985) showed that adults with high levels of ego development expressed a greater number of generic plots in their life stories compared to those scoring low in ego development. Therefore, this study's fifth hypothesis is that *O* should be positively associated with the structural complexity of life-story accounts.

The five hypotheses are tested in two parallel studies. In the first study, 125 college students provide detailed narrative accounts of ten significant moments or scenes in their life stories, such as life-narrative high points, low points, turning points, important childhood scenes, and scenes of moral decision making. The accounts are scored for indices of emotional tone, thematic lines, and narrative complexity, and these scores are correlated with self-report Big Five traits. The second study follows a similar procedure with a sample of 51 adults, who provide comparably detailed accounts of eight significant life-narrative scenes.

Study 1

METHOD

Sample and Overall Procedure

A total of 125 undergraduate students enrolled in two personality psychology courses at Northwestern University in the fall of 1997

participated in the study for extra course credit. Participants ranged in age from 18 to 24 years ($M = 19.8$ years). The sample included 89 women, 35 men, and 1 respondent who did not indicate gender. In terms of race/ethnicity, 66% listed white, 22% Asian American, 6% African American, 3% Hispanic, and 3% "other."

The participants each completed a booklet of measures and questionnaires, requiring between 3 and 6 hours of time. Each student took the booklet home and completed the materials in his or her free time, returning the booklets to the course teaching assistants at the end of a 2-week period. Included in the booklet were the Big Five Inventory (BFI: John & Srivastava, 1999) and instructions for describing 10 life-narrative scenes.

Measuring Traits: The BFI. The BFI is a 44-item self-report rating scale designed to measure each of the five broad traits commonly subsumed under the Big Five framework (John & Srivastava, 1999). The five trait names are Extraversion/Introversion (*E*), Neuroticism (*N*), Conscientiousness (*C*), Agreeableness (*A*), and Openness to Experience (*O*). Each of the test items is keyed to one of the five traits. For example, the items "is talkative" and "generates a lot of enthusiasm" are keyed to *E*. For each of the items, the respondent rates the extent to which he or she agrees that "I see myself as someone who" is well characterized by that item, using a 5-point rating scale. For the scale, a rating of 1 corresponds to *disagree strongly*, 2 is *disagree a little*, 3 is *neither agree nor disagree*, 4 is *agree a little*, and 5 is *agree strongly*. Total scores are calculated by adding up the ratings for each of the items included for a given trait, including reverse scoring for items that are keyed in the opposite direction to the trait's designated name (e.g., "is reserved" for *E*).

The BFI was designed "to address the need for a short instrument measuring the prototypical components of the Big Five that are common across studies" (John & Srivastava, 1999, p. 114). Unlike the longer NEO-PI-R (Costa & McCrae, 1992), the BFI does not provide subscale scores for components or facets of the five broad trait dimensions. John and Srivastava (1999) report alpha reliabilities for the independent scales of the BFI in the $+.75$ to $+.90$ range and 3-month, test-retest reliabilities between $+.80$ and $+.90$. Validity evidence includes substantial convergent and divergent relations with other Big-Five instruments as well as with peer ratings.

Life stories: Sampling 10 scenes. In McAdams's (1985) life-story model of identity, a person's life story is conceived as a broad and integrative narrative of the self that includes both a reconstruction of the past and anticipation of the future. As such, a life story may be seen through the lenses of broad life chapters, more focused key scenes, main characters, important settings, and imagined future scenarios (for a parallel approach

to research on autobiographical memory, see Conway & Pleydell-Pearce, 2000). In the current study, the investigators focused exclusively on key scenes or personal episodes from the past that stand out as especially vivid or important. Although key autobiographical scenes do not capture the full scope of what constitutes a person's overall life story, they have proven to be especially useful in revealing some of the main images and themes that characterize a life story (McAdams, 1985; Tomkins, 1979). To underscore the importance of well-remembered and vivid scenes in life narrative, personality researchers have described them variously as *self-defining memories* (Singer & Salovey, 1993), *prototypical scenes* (Schultz, 2003), and *nuclear episodes* (McAdams, 1985).

The respondents wrote two to three paragraph accounts for each of 10 life-story scenes: life-story high point, low point, turning point, scene of continuity, earliest memory, important childhood scene, important adolescent scene, morality scene, decision scene, and a scene involving goals.¹ Modeled after McAdams's (1993) life-story interview, the 10 scenes cover the entire life course and psychosocial issues that commonly arise in modern life (e.g., making important life decisions, setting life goals). Employing the logic of aggregation (Epstein, 1979) to enhance reliability of narrative assessments, the study obtained total scores for various themes summed across the 10 individual scenes.

Coding scenes. Independent coders rated each of the scene narratives for (1) emotional tone (positive vs. negative), (2) thematic lines (agency and communion), and (3) narrative complexity.

Following McAdams, Reynolds, Lewis, Patten, and Bowman (2001), emotional tone was first assessed through a five-point rating of each scene, running from a rating of 1 for *very unhappy story* to a rating of 5 for *very happy story*. Interscorer reliability was $r = +.89$. Following McAdams et al. (1997), emotional tone was also assessed by coding each story for the presence or absence of two positive affects (joy and excitement) and two negative affects (sadness and fear). Reliabilities were $+.81$ for joy, $+.77$ for excitement, $+.88$ for sadness, and $+.81$ for fear for two independent coders.

Agency and communion themes were assessed according to a validated coding procedure developed in McAdams et al. (1996). The coders assessed the presence or absence in each scene of four agency themes—achievement/responsibility, power/impact, self-mastery, and status/victory—and four themes of communion—love/friendship, dialogue, caring/

1. A full description of the story-writing procedure, called Guided Autobiography, may be downloaded from the Foley Center for the Study of Lives Web site: <http://www.sesp.northwestern.edu/foley/>.

help, and unity/togetherness.² Coding reliability for total agency (summed across the four themes and 10 scenes for each subject) was $+.83$; for total communion, reliability was $+.88$ for two independent coders.

Narrative complexity was assessed through an adaptation of the *conceptual/integrative complexity* scoring procedure developed by Suedfeld, Tetlock, and Streufert (1992). The procedure, often used in the coding of political rhetoric (e.g., Tetlock, 1984), assesses the extent to which a verbal or written account shows differentiation and integration of thought. In the current study, a single trained coder (with $r > +.80$ for agreement with expert coding of practice stories) coded each scene for complexity on a 5-point scale. To reflect the content of personal stories, the coder reinterpreted differentiation to focus on the extent to which the writer incorporated multiple points of view (e.g., role taking), mixed motivations (e.g., doing a single thing for many conflicting reasons), complex emotional experiences (e.g., mixing opposite emotions in the same moment), and contradictory aspects of self. With 1 as the default score (indicating no differentiation or integration), a score of 2 denoted some evidence for differentiation as described above; 3 indicated two or more clearly differentiated points of view, two or more conflicting motivational sources, two or more opposing emotional states, or the articulation of two or more clearly distinguished aspects of selfhood; "4" indicated any attempt, even partial or unsuccessful, to resolve or integrate two or more perspectives, motivations, emotional states, or aspects of self; and "5" indicated a successful or harmonious integration of differentiated perspectives, motivations, states, or self-aspects. The coder adopted a conservative approach, typically settling for the lower score in ambiguous situations. Consequently, scores of "4" and "5" were very rare.

RESULTS

Table 1 provides descriptive statistics for the main variables in Study 1. Big-Five trait scores for *E* (Extraversion), *N* (Neuroticism), *C* (Conscientiousness), *A* (Agreeableness), and *O* (Openness to Experience) appear as the mean item score for the given scale (ranging hypothetically from 1.0 to 5.0). In this college sample, mean trait scores ranged from a low of 3.30 for *E* to a high of 3.92 for *O*. All

2. The coding scheme for agency and communion schemes follows the validated system employed in McAdams et al. (1996), with a few modifications to broaden the thematic categories for agency. The most recent version of the coding system can be downloaded from the Foley Center for the Study of Lives Web site: <http://www.sesp.northwestern.edu/foley/>.

Table 1
Descriptive Statistics for Main Variables in Study 1

	Range	Mean	SD
Traits			
<i>E</i> : Extraversion	1.13–5.00	3.30	0.99
<i>N</i> : Neuroticism	1.25–5.00	3.18	0.84
<i>C</i> : Conscientiousness	1.67–5.00	3.69	0.80
<i>A</i> : Agreeableness	1.78–5.00	3.91	0.67
<i>O</i> : Openness	1.50–5.00	3.92	0.71
Narrative Tone			
Overall emotional tone	2.40–3.90	3.05	0.32
Joy	0–8	3.30	1.71
Excitement	0–5	1.27	1.19
Sadness-distress	0–7	2.56	1.38
Fear-anxiety	0–7	1.83	1.45
Thematic Lines: Agency (total)			
Achievement/responsibility	0–7	2.15	1.31
Power/impact	0–5	1.19	1.10
Self-mastery	0–6	1.47	1.20
Status/victory	0–4	1.18	0.98
Thematic Lines: Communion (total)			
Love/friendship	0–7	2.12	1.50
Dialogue	0–9	2.92	1.88
Caring/help	0–6	1.18	1.26
Unity/togetherness	0–3	0.77	0.80
Narrative Complexity	1.00–3.30	1.37	0.36

narrative scores in Table 1 are summed across the 10 different scenes. Overall emotional tone, therefore, appears as the mean of the independent 5-point ratings (1 = *very unhappy story*; 5 = *very happy story*) for each of the subject’s 10 scenes. Scores for joy, excitement, sadness, and fear appear as the number of scenes (ranging hypothetically from 0 to 10) in which the given affect appears, ranging in the case of joy, for example, from 0 to 8 scenes. Similarly, agency and communion theme scores appear as the number of scenes containing the given theme, with the four agency themes and the four communion scenes summing respectively to provide total agency and communion scores. For narrative (conceptual/integrative) complexity, scores appear as the mean score per scene (ranging hypotheti-

Table 2
Intercorrelations of Narrative Indices in Study 1

	2	3	4	5	6	7	8
1. Emotional tone	.48***	.08	-.13	-.10	.33***	.14	.05
2. Joy		.25**	.05	-.01	.22*	.19*	.15
3. Excitement			.17	.18*	.01	-.01	.18*
4. Sadness/distress				.19*	-.04	.15	.21*
5. Fear/anxiety					.08	.21*	.12
6. Agency (total)						.26**	.28**
7. Communion (total)							.32***
8. Complexity							

* $p < .05$. ** $p < .01$. *** $p < .001$.

cally from 1.0 to 5.0). As can be seen in Table 1, complexity scores tended to be rather low, ranging from 1.0 to 3.3, with a mean of 1.37. Almost three fourths (74.7%) of the nearly 1250 individual life-story scenes scored 1 for complexity.

As displayed in Table 2, the five different narrative indices of the emotional quality of scenes (overall emotional tone, joy, excitement, sadness/distress, and fear/anxiety) showed some significant intercorrelations. Most significantly, the overall 5-point rating of how happy the story was perceived to be (overall emotional tone) was strongly and positively associated with verbal expressions indicative of joy. Joy and excitement indices were also positively associated with each other, but overall emotional tone ratings were not related to excitement. Sadness/distress and fear/anxiety scores were positively associated with each other, but neither was related to overall emotional tone. Somewhat surprisingly, total agency and communion scores were positively correlated with each other ($r = +.26$, $p < .01$), and both were also positively correlated with conceptual/integrative complexity ($r = +.28$, $p < .01$ for agency; $r = +.32$, $p < .001$ for communion). Students who wrote more complex narratives incorporating multiple points of view and identity facets also tended to incorporate a greater number of self-oriented agency themes (e.g., achievement, status) and other-oriented communion themes (e.g., love, togetherness), compared to students who wrote narratives judged to be less conceptually complex.

A number of significant intercorrelations among the Big-Five trait scales were also revealed. *E* was positively associated with *O* ($r =$

Table 3
 Correlations Between Big Five traits and Narrative Indices for Study 1
 ($n = 125$ Students)

	<i>Traits</i>				
	<i>E</i>	<i>N</i>	<i>C</i>	<i>A</i>	<i>O</i>
<i>Narrative Indices</i>					
Emotional tone	.06	-.30**	.31***	.33***	.04
Joy	.15	-.15	.23**	.24**	.04
Excitement	.02	.07	.03	.13	-.02
Sadness-distress	.10	.18*	-.01	-.13	.02
Fear-anxiety	-.06	.08	.02	.03	-.18*
Agency (total)	.14	-.19*	.19*	.07	.02
Achievement/respons.	.05	-.12	.31***	.22*	.01
Power/impact	-.05	-.11	.01	-.07	.00
Self-mastery	.11	-.05	-.06	.04	.02
Status/victory	.19*	-.11	.09	-.10	.01
Communion (total)	.24**	-.14	.14	.22*	.09
Love/friendship	.17	-.09	.13	.21*	.08
Dialogue	.10	.01	.13	.04	.11
Caring/help	.18*	-.13	.02	.12	-.04
Unity/togetherness	.22*	-.26**	.06	.28**	.06
Narrative complexity	.24**	-.16	.04	.03	.52***

* $p < .05$. ** $p < .01$. *** $p < .001$.

+ .31, $p < .001$). *N* was negatively associated with both *C* ($r = -.31$, $p < .001$) and *A* ($r = -.28$, $p < .01$). *C* and *A* were positively associated with each other ($r = .21$, $p < .05$). Although the Big Five traits are often viewed to be orthogonal factors, many studies show the kind of modest but significant correlations among the scale scores that were obtained here (John & Srivastava, 1999).

Results speaking to the study’s five main hypotheses appear in Table 3, which shows correlations between the Big Five traits on the one hand and narrative measures of tone, theme, and complexity on the other. The first two hypotheses linked *E* and *N* to positive and negative emotional tone, respectively. Contrary to prediction, no support was found for a relation between *E* and positive narrative tone. The correlations revealed that extraverted students were no

more or less likely than their introverted peers to construct narratives of autobiographical scenes that were judged to be especially happy or to include emotional expressions of joy or excitement. Support was obtained, however, for the second hypothesis, linking *N* to negative tone. *N* was significantly negatively associated with emotional tone ratings, suggesting that more anxious and neurotic students tended to construct stories that were judged by raters to be less happy, compared to those students lower in Neuroticism ($r = -.30, p < .01$). *N* was also positively associated with expressions of sadness/distress in life-narrative accounts ($r = +.18, p < .05$), but not with expressions of fear/anxiety ($r = +.08, NS$).

With respect to the other Big Five traits, both *C* and *A* were positively and significantly associated with overall emotional tone and with the expression of joy in life-narrative accounts. Although not predicted, highly conscientious and agreeable students tended to tell happier stories about themselves, compared to less conscientious and agreeable students. *O* was unrelated to narrative tone, except for a small but significant negative correlation with fear/anxiety.

Hypotheses 3 and 4 linked *C* and *A* to agency and communion themes, respectively. Both hypotheses received support, albeit equivocal. The predicted positive correlation between *C* and overall agency was significant, but not especially robust ($r = +.19, p < .05$). The positive association between *C* and agency was completely driven by the agency theme of achievement/responsibility, which showed a relatively high correlation with *C* ($r = +.31, p < .001$). The three other agency themes, however, were unrelated to *C*. Therefore, students high in *C* tended to construct autobiographical scenes that emphasized their instrumental achievements and school/career responsibilities to a greater extent than did students low in *C*. But students high in *C* were no more likely than those scoring low to emphasize the agentic themes of power/impact, status/victory, and self-mastery. With respect to the fourth hypothesis, *A* was positively associated with the overall communion score ($r = +.22, p < .05$) and with the individual communion themes of love/friendship and unity/togetherness. *A* was unrelated, however, to the communion themes of dialogue and caring/help.

Agency and communion themes also showed unexpected significant relationships with other traits. Overall agency was negatively associated with *N* ($r = -.19, p < .05$). Overall communion was positively associated with *E* ($r = +.24, p < .01$). These unpredicted

relationships were of the approximate same magnitude as those that were predicted for *C* and *A*. In sum, more conscientious and less neurotic students tended to express a greater number of agency themes in life narratives compared to less conscientious and more neurotic students. Likewise, more agreeable and extraverted students tended to emphasize communal themes in life-narrative accounts to a greater extent than did less agreeable and more introverted students.

The strongest evidence for a link between traits and stories appeared for the fifth hypothesis, linking *O* and narrative complexity. The correlation between Openness to Experience and the ratings of conceptual/integrative complexity in narrated scenes was strikingly high, $r = +.52$, $p < .001$. Those students who described themselves on the BFI as especially innovative and imaginative (high *O*) were much more likely than those scoring low in *O* to construct complex narrative accounts incorporating multiple points of view, mixed motivations, ambivalent emotional stances, and/or discordant aspects of self. As hypothesized, then, *O* strongly predicted the structural complexity of narrative accounts. In addition, complexity was also positively associated with *E*.

Age and gender showed a small number of relations with the variables in Study 1. In this restricted age range for college undergraduates, age was negatively associated with *E* ($r = -.25$, $p < .01$) and with references to joy in narrative scenes ($r = -.29$, $p < .001$). No gender differences were found for Big Five traits. Women's narratives showed higher levels of overall communion ($t(117) = 2.12$, $p < .05$) and higher levels of the individual communion theme of dialogue ($t(117) = 2.94$, $p < .01$). Women's narratives also showed a greater number of sadness-distress expressions, $t(117) = 1.99$, $p < .05$. Finally, story length (the number of words per scene) showed no significant correlations with any of the demographic or Big Five variables, though it was positively associated with thematic measures of communion ($r = +.39$, $p < .001$) and narrative complexity ($r = +.20$, $p < .05$).

In sum, Study 1 provided strong support for the hypothesis linking *O* to narrative complexity and modest support for the predicted linkages of *N* to negative narrative tone, *C* to agency themes (mainly themes concerning achievement and responsibility), and *A* to communion themes. No support, however, was garnered for the hypothesized relationship between *E* and positive narrative tone. Women told more communal stories than did men, mainly via

the communion theme of dialogue, and their stories tended to have more references to feelings of sadness.

Study 2

METHOD

With very few changes, Study 2 replicated with a sample of adults the procedure employed with students in the first study. The sample for Study 2 consisted of 51 community adults (mean age = 51.7 years, $SD = 10.0$ years) who were contacted for the study in 1998 by virtue of their having previously participated in interview studies conducted by the first author at Northwestern University between the years 1990 and 1996. For the whole sample, 70% were women, 80% listed their racial classification as “white” (18% African American, 2% Asian American), and 80% held college degrees. Median household income for the sample was \$55,000 in 1997. All participants were paid for their participation in the study.

As in Study 1, the participants completed the BFI to measure Big Five traits, and they completed the same kind of autobiographical narrative exercise. Instead of describing 10 scenes, however, the adults in Sample 2 described eight: high point, low point, turning point, earliest memory, childhood memory, adolescent memory, morality scene, and decision scene. The two scenes from Study 1 that were not used in the Study 2 protocol were the continuity scene and the goal scene.

The eight scenes were scored for narrative tone, thematic lines, and narrative complexity according to the same coding procedures employed in Study 1. For each coding scheme, one coder who had established reliability for Study 1 did the scoring of the narratives for Study 2. The coder was blind to all identifying information for the participants.

RESULTS

With respect to the trait and narrative variables, the sample of adults in Study 2 differed from the students in Study 1 in a number of ways. The adults scored significantly higher on the trait of Conscientiousness (C) and significantly lower on the trait of Neuroticism (N), compared to the students in Study 1: $t(174) = 4.327, p < .001$ for C ; and $t(174) = -3.177, p < .001$ for N . Comparing summary scores on the same eight scenes used for both Study 1 and Study 2, the students scored significantly higher on communion themes: $t(158) = 5.59, p < .001$. No mean differences, however, were found for overall emotional tone, agency themes, or integrative complexity.

Within the adult sample, correlations were computed between various demographic variables and the study's main psychological variables. For the adults, age was positively associated with the traits of Agreeableness (*A*) ($r = +.57, p < .001$) and Openness (*O*) ($r = .35, p < .05$) and negatively associated with Neuroticism (*N*) ($r = -.34, p < .05$). Age was also strongly positively associated with total agency themes ($r = +.51, p < .001$), including the individual theme scores for status/victory ($r = +.41, p < .01$) and achievement/responsibility ($r = +.34, p < .05$). Overall, older adults described themselves as friendlier and less anxious in trait terms and they recounted important experiences in their lives that tended to highlight recognized accomplishment to a greater extent than did younger adults. Looking at family income and education level, however, yielded only one significant relationship: family income was positively associated with the trait of Conscientiousness (*C*) ($r = +.29, p < .05$). Only one gender difference was found. As in Study 1, women scored significantly higher than men on the narrative index of sadness, $t(49) = 2.48, p < .05$.

Table 4 shows the correlations between traits and stories for Study 2. As in Study 1, no support was found for the hypothesized positive association between Extraversion (*E*) and narrative tone. *E* was, however, positively associated with communion, replicating an unpredicted finding from Study 1. The correlation between *N* and overall emotional tone ratings was in the predicted negative direction, but just short of statistical significance ($r = -.27, p = .07$). Supporting the predicted association between *N* and negative emotional tone, though, was a reasonably strong positive correlation between *N* and sadness/distress ($r = +.37, p < .01$). Other associations between traits on the one hand and narrative tone variables on the other were nonsignificant, except for an unexpected positive association between *C* and fear/anxiety. The positive associations between emotional tone and the traits of *A* and *C* obtained in Study 1 were not replicated for Study 2, but the correlations were again positive and relatively close to significant: $r = +.24$ in both cases, $p = .10$.

Although Study 1 found a modest positive association between *C* and themes of agency, Study 2 failed to replicate that predicted relationship. *C* was unrelated to total agency and to each of the four agency themes. Like Study 1, however, the predicted positive association between Agreeableness (*A*) and communion was again

Table 4
 Correlations Between Big Five traits and Narrative Indices for Study 2
 ($n = 51$ Adults)

	<i>Traits</i>				
	<i>E</i>	<i>N</i>	<i>C</i>	<i>A</i>	<i>O</i>
<i>Narrative Indices</i>					
Emotional tone	.10	-.27	.24	.24	.22
Joy	.06	-.08	.08	.19	.21
Excitement	.18	.09	.14	-.02	.18
Sadness-distress	-.02	.37**	-.25	-.02	.15
Fear-anxiety	-.02	-.06	.34*	.06	.04
Agency (total)	-.16	-.15	-.02	.44***	.16
Achievement/respons.	.16	-.13	.22	.50***	.04
Power/impact	.07	-.09	-.11	.09	.04
Self-mastery	-.10	-.15	-.17	-.06	.17
Status/victory	.22	-.19	.00	.27	.21
Communion (total)	.31*	-.30*	-.08	.42**	-.02
Love/friendship	.21	-.32*	.04	.28*	.11
Dialogue	.12	-.10	-.01	.15	.03
Caring/help	.22	-.17	-.25	.35*	-.07
Unity/togetherness	.12	-.02	.09	.10	-.15
Narrative complexity	-.13	-.00	.01	.05	.46***

* $p < .05$. ** $p < .01$. *** $p < .001$.

found: $r = +.42$, $p < .01$. *A* was significantly associated with the individual communion themes of love/friendship and caring/help. Unexpectedly, however, *A* was also strongly positively associated with agency ($r = +.44$, $p < .001$). The positive association between *A* and overall agency appeared to be mainly driven by the agency theme of achievement/responsibility.

The strongest association between traits and narratives was found again for the trait of *O*. As predicted, *O* was significantly positively correlated with conceptual/integrative complexity, $r = .46$, $p < .001$. Adults who rated themselves as especially innovative and imaginative constructed self-defining life episodes that incorporated multiple perspectives, motivations, and self-aspects to a greater extent than did adults scoring low on *O*. Narrative complexity was not significantly correlated with any other traits. Finally story length was unrelated to traits and narrative themes.

In sum, Study 2 provided modest support for the hypothesized linkage between *N* and negative narrative tone and relatively strong support for the predicted association between *A* and communion themes. Strong evidence was again obtained for a link between *O* and conceptual/integrative complexity in life narratives. No support, however, was found for hypotheses linking *E* to positive narrative tone and linking *C* to agency themes in life narratives. But *E* was positively associated with communion themes, an unpredicted finding that was also obtained in Study 1.

DISCUSSION

The results of two studies, collecting extensive life-narrative accounts from both students and community adults, showed that dispositional traits and life stories are sometimes related to each other in predictable ways, and sometimes not. Overall, the traits of *O*, *A*, and *N* showed consistent and predicted relations to narrative themes, whereas *C* and *E* did not.

The strongest evidence for a linkage between traits and stories came from the association between the trait of Openness to Experience and life-narrative complexity. Individuals high in *O* were much more likely than those scoring lower to construct life-narrative scenes that were rated as more structurally complex. The researchers adopted the coding scheme for conceptual/integrative complexity (Suedfeld et al., 1992) to assess the extent to which a life-narrative account contained multiple points of view, mixed emotions and motivations, and/or differentiated self-images. People who are high in *O* are typically described as innovative, nonconventional, and cognitively complex (McCrae & Costa, 1997). Correspondingly, their life-narrative accounts showed more conceptual differentiation and integration than did the more straightforward and single-minded narratives provided by individuals low in *O*. The results suggest that *O* is an especially important trait for the development of life narrative. As the most cognitively oriented of the Big Five traits, *O* may be better positioned than other trait variables to exert a deep and lasting impact on how people make sense of their lives in narrative. People high in Openness to Experience may be predisposed to encode and to remember clearly events in their lives that incorporate complexity, challenge, and change. They may highlight

epiphanies, dramatic transformation, and unexpected plot turns, whereas individuals low in *O* may highlight personal episodes that anchor them to secure bases and predictable plot sequences, that affirm personal continuity rather than change, and that move the protagonist inexorably and reliably toward desired and away from undesired life outcomes (McAdams, 1993; Pillemer, 1998).

The hypothesis linking *A* to communion themes received good support in both studies. Warm and caring individuals described important events in their lives in ways that highlighted the communal themes of love/friendship, caring and helping others, and unity/togetherness. Evidence for the relationship appeared stronger among adults than among students, but even among students the association reached statistical significance. The result is reminiscent of the consistent finding in the TAT literature showing that high intimacy motivation is associated with communal themes in life narratives (e.g., McAdams, 1982, 1985; McAdams et al., 1996; Woike et al., 1999). It is not clear, however, if intimacy motivation, assessed on the TAT, is positively associated with *A*. In general, research with TAT-based implicit motives has failed to show substantial correlations to self-report indices of corresponding psychological constructs (Winter, John, Stewart, Klohnen, & Duncan, 1998).

The hypothesis linking *N* to negative narrative tone found qualified support in both studies. Highly neurotic students were more likely than their more emotionally stable counterparts to recount life-narrative scenes that were rated by scorers as less emotionally positive and as containing more indications of sadness/distress. Highly neurotic adults also showed more sadness images compared to more emotionally stable adults, and the relation between *N* and negative emotional tone ratings among adults was in the predicted direction, though just short of statistical significance. Although the relation between *N* and negative narrative tone received overall support, *N* was not related to the ratings of fear/anxiety in life narratives. This is surprising given the strong loading of anxiety on the *N* scale. The reason behind the failure to confirm this aspect of the second hypothesis may be the relative crudeness of the fear/anxiety measure for narratives. For example, the measure scored examples of terror and extreme fear in the same manner it scored examples of mild nervousness. Any mention of fear or anxiety received a single point. A more differentiated rating scheme might have yielded the expected result.

Contrary to prediction, *C* was not consistently associated with agency themes in life narratives. Because conscientious individuals are typically described as self-directed and achievement-oriented, it was expected that their life-narrative accounts would contain a greater number of agency themes than the life-narrative accounts of less conscientious individuals. Modest support for the hypothesis was obtained in Study 1, wherein *C* was related to the agency theme of achievement/responsibility. But no support for the hypothesis was found among the adults in Study 2. The coding system employed for agency incorporates ideas that would seem to be related to *C* (e.g., achievement/responsibility) as well as those that appear to be more strongly linked thematically to ideas such as power, dominance, and influence (McAdams et al., 1996). It would appear that the tremendous thematic breadth of agency, incorporating both socially conformist (achievement/responsibility) and strongly individualistic (self-mastery, power/impact) ideas, works against any straightforward association with any particular Big Five trait, *C* included. Aspects of agency, for example, may be thematically linked to *E* (urgency, social dominance) and perhaps even low-*A* (aggressiveness); yet the results showed that these traits did not line up with corresponding agency themes, either. Indeed, the positive correlation between agency and *A* in Study 2 is especially surprising in this regard. That unpredicted association was largely due to the strong positive relation between *A* and the agency theme of achievement/responsibility. Warm and caring adults were more likely to describe experiences in which they achieved instrumental goals and took on new responsibilities. The same association did not prevail, however, in Study 1.

No evidence was found for the hypothesis linking *E* to positive narrative tone. Despite the consistent finding in trait-based research of a positive association between *E* and positive emotional experiences (e.g., Watson & Clark, 1997), the results from the current investigation revealed that extraverts were no more likely than introverts to recount significant scenes in their life stories that are affectively positive and filled with the emotions of joy and excitement. The BFI includes *E* items that capture the surgent, approach-oriented aspects of *E* as well as *E*'s tendency toward sociability. It is, nonetheless, possible that the use of a different measure of Extraversion (e.g., the NEO-PI-R) might reveal the expected result. Then again, it may simply be the case that *E* and life narratives do

not match up with each other very well, at least as far as positive affectivity is concerned. Though not hypothesized, *E* did relate positively in both studies to communion themes. The association makes good sense in that extraverted individuals are seen to be more gregarious and sociable than introverted individuals and perhaps more likely, therefore, to highlight communal themes of friendship, love, and togetherness in their self-defining life stories.

The current investigation rests on the proposition that narrative approaches to personality may complement more conventional trait- and motive-based approaches. The same proposition undergirded Nasby and Read's (1997) in-depth case study of Dodge Morgan, in which the two researchers explicitly compared and contrasted the Big Five model for traits and the life-story model of identity. In McAdams's three-tiered view of personality, dispositional traits (Level 1) sketch an outline of human individuality; characteristic adaptations (Level 2) fill in some of the motivational, social-cognitive, and developmental details; and life narratives (Level 3) speak to how the person integrates and makes sense of his or her overall life in time. The current investigation examines empirical connections between Levels 1 and 3 in this scheme. However, the results of the study should not be interpreted to suggest that one level can be reduced to another. For example, communion themes in life stories (Level 3) are not the same thing as the trait Agreeableness (Level 1). Showing that the two are correlated with each other does not suggest that life-story formats offer an alternative way to measure the trait of Agreeableness. Given how labor intensive and time consuming life-narrative research can be, an investigator would be foolish to invest effort in developing narrative measures of dispositional traits, when self-report scales like the BFI and NEO-PI-R already serve the scientific community very well. Narrative indices like communion themes and ratings of narrative tone and complexity are not proxies for dispositional traits. Instead, they aim to measure narrative features of personality itself. From this point of view, the characteristic images, themes, plots, and settings that comprise a person's life story are legitimate aspects of personality in and of themselves. Like traits and motives, they speak to socially consequential individual differences between people (McAdams, 2001a). But the differences they portray are differences in how people make sense of their lives through narrative—differences in narrative identity.

From the standpoint of traits, the major limitation in the current investigation is the reliance on a simple and undifferentiated measure of the Big Five dimensions. The BFI does not provide enough nuance to examine the subtraits or facets of a particular Big Five dimension. Future research might examine more nuanced relations between narrative themes and particular facets of the Big Five, such as those measured on the NEO-PI (Costa & McCrae, 1992). From the standpoint of life narratives, the current investigation could be critiqued for focusing on but a few aspects of narratives, failing to account for personal and social change, and neglecting the critical issues of culture and social context. Nonetheless, the investigation did document an empirical connection that heretofore has not been documented in the research literature. The results showed that certain Big Five traits are meaningfully related to certain indices of tone, theme, and structure in life narratives. Future research on dispositional and narrative features of personality might explore these relations further and elaborate in more detail and with more sophistication the complex interplay of traits and stories in human personality.

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