Relations of Personality Traits, Character, and Narrative Identity with Emerging Adults' Identity Statuses

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Abstract

"Who am I and what is my place in the world?" Such questions about identity emerge for adolescents and continue to be important for emerging adults. Personality development is related to identity development, such that people of similar ages and in similar environments differ in their progress forming a stable identity, just as they differ in being extraverted or hopeful. Many projects center on the role of personality traits when considering relations of personality and identity development. Still, there are additional forms of personality worth considering. We considered how personality traits, character, and narrative identity were related to reported identity statuses among college adults. Two hundred eighty-eight college adults (*M* age = 18.4 years = 78.3% women) responded to personality questionnaires, identity questionnaires, and two autobiographical narrative prompts. Participants were then clustered into four identity statuses: diffusion; moratorium; foreclosure; achievement. Reported identity status was associated with individual differences in endorsed traits, endorsed character, and expressed narrative identity. Multiple personality measures were higher among endorsed achievement identity status. When considered simultaneously, trait neuroticism, the character of hope, and narrated agency were uniquely related to endorsements of identity statuses. Our findings affirmed that among adults of similar ages, operating in similar environments, and holding similar roles as students, differences in personality were related to differences in identity progress, reflected here as identity status. Findings highlight the benefits of considering multiple levels of personality for a richer view of how people within similar developmental periods might differ in identity progress.

Keywords: Identity development; Personality traits; Character; Narrative identity; Emerging adulthood

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"Who am I and what is my place in the world?" Such questions about identity emerge for adolescents and remain important for young adults (Erikson, 1968). Personality development is related to identity development, such that people of similar ages and in similar environments differ in their progress forming a stable identity, just as they differ in being extraverted or hopeful. To date, most work considering relations between personality and identity development have used traits to represent personality, yet additional measures of personality include characteristic adaptations (character) and narrative identity (McAdams & Pals, 2006). There remains space to consider how traits, character, and narrative identity are each related to identity development among people of similar ages and at similar settings. We considered ways multiple personality measures were related to identity statuses, focusing on traditional age college adults. These are young adults who are likely delaying some typical roles of adulthood (i.e., full-time employment, marriage, home ownership, childrearing) as they explore the values, roles, and goals meaningful to their lives (Arnett, 2014; Côté et al., 2006). These are people facing salient developmental tasks to form identity (Erikson, 1968). Hence, this is an ideal group to study.

Identity Development

Identity involves a complex, integrated, and (relatively) stable construction of one's sense of self; persistent over time; and reflecting self-knowledge, values, goals, and roles people adapt in the world (Erikson, 1968; Habermas & Bluck, 2000; Schwartz et al., 2005). Questions about one's identity emerge during adolescence and continue to be important for emerging adults—people approximately 18-to-29 years old in cultures like the United States (Arnett, 2014). Many young adults spend years exploring which aspects of themselves—their attitudes, their social

networks, their goals for the future, the kinds of activities they invest in—are ideal and worth embracing or committing to further. With purposeful exploration and commitment, these adults move toward a complex, integrated, and relatively stable identity that helps them navigate environments and activities successfully (Erikson, 1968; Marcia, 1966; McAdams, 2001).

There has been broad interest in identity statuses that people move between over the lifespan, often involving the major processes of identity exploration and commitment: *diffusion*, involving minimal progress on exploration or commitment; *moratorium*, involving pausing to explore or revisit aspects of identity, without much commitment at the time; *foreclosure*, involving an embrace and commitment of major domains of identity without thorough consideration of whether those elements of identity are ideal or lasting solutions for the self; and *achievement*, involving progress through both extensive exploration and commitment of identity (see Marcia, 1966). As a developmental task, the formation of an integrated identity is important for well-being and healthy functioning (Crocetti, 2017). Among emerging adults, people differ in their progress for developing identity, reflecting personality (e.g., Booker & Graci, 2021; Clancy & Dollinger, 1993; Klimstra et al., 2013; Weisskirch, 2019). We were interested in how measures of personality were related to identity statuses for young college adults.

Personality Development

Personality involves the ways people differ in their daily motives, feelings, preferences, and behaviors (McAdams & Pals, 2006). These individual differences are grounded in human evolutionary history and are important across the lifespan (McAdams & Pals, 2006). For many researchers, thoughts about personality first center on traits, such as the Big Five. Traits are important for understanding development. Still, there are additional forms of personality worth considering. McAdams and colleagues (McAdams, 1995; McAdams & Pals, 2006) have

provided a framework representing three "levels" of personality development: 1) broad, nonconditional (i.e., applicable across contexts) *traits* (e.g., extraversion, openness); 2) characteristic adaptations—or character—involving social-cognitive or motivational environmental adaptations that adjust according to time, space, and social role (e.g., gratitude, forgiveness); and 3) *narrative identity*, an internalized approach to organizing and refining an integrated life story about one's past, present, and prospective future (e.g., agency, communion). These levels of personality emerge in succession across development (see Supplemental Figure 1): traits emerge early in childhood; character emerges across childhood; and narrative identity emerges fully in adolescence. By emerging adulthood, each level of personality is relevant for forming identity (Booker et al., 2021c, 2022b; Habermas & Bluck, 2000; Fivush et al., 2017).

Broad, nonconditional, and (fairly) stable traits, like the Big Five, include dimensions of extraversion, agreeableness, conscientiousness, openness, and neuroticism (Costa & McCrae, 1992). The Big Five are well-studied and are relevant to identity development. In previous work, both high school-age adolescents and undergraduate students who endorsed identity achievement also endorsed higher levels of conscientiousness and extraversion, alongside lower levels of neuroticism (Clancy & Dollinger, 1993; Klimstra et al., 2013). Further, trait scores differed among people who report having statuses of diffusion, moratorium, and foreclosure. For example, adults in moratorium and foreclosure statuses endorsed higher neuroticism relative to peers in the achievement status, whereas peers in diffusion status endorsed lowest agreeableness relative to peers (Clancy & Dollinger, 1993). *We were interested in affirming that people would endorse differences in traits when they endorsed different identity statuses*.

Characteristic adaptations, or character, involve the ways people navigate different contexts with certain behavioral approaches, strategies, goals, and values (McAdams & Pals,

2006). We focused on a set of character "strengths", which are viewed as socially and personally desirable approaches to interacting with one's environment (Park & Peterson, 2009). We focused on five character dimensions of grit (i.e., perseverance through demanding events), gratitude (i.e., appreciation for resources and relationships), curiosity (i.e., interest in novel and demanding experiences), forgiveness (i.e., reducing negative feelings and increasing positive feelings toward transgressors), and hope (i.e., positive anticipation of possible goals; Park & Peterson, 2009). Compared to traits, there have been fewer studies directly considering how character is related with identity statuses; but evidence supports relations between character and identity. For example, grit is positively related with identity commitment among young adults (Weisskirch, 2019). A review by Villacís and colleagues (2022) revealed that among character strengths, hope and curiosity were positively related with career-based identity exploration and commitment across multiple samples of adults. *We were interested in building evidence of whether people would endorse differences in character when they endorsed different identity statuses*.

Despite its label, narrative identity is grounded in personality science. Expressions of narrative identity reflect individual differences (McAdams & McLean, 2013). Humans are natural storytellers and over time people will differ in how they tend to organize autobiographical stories, how they emphasize emotional and motivational content in their stories, and how they establish connections between their lived experiences to construct an integrated, complex life story (Booker et al., 2022c). Thus, people use their life stories partly to understand themselves and *they will differ in how they do so*. These differences are important for how people explore and commit to aspects of their constructed selves—activities that are key for identity exploration and identity commitment (McLean & Pasupathi, 2012). We focus on two dimensions of narrative identity: agency and communion. These are motivational dimensions involving the

ways people express needs to personally get ahead (i.e., assertiveness, control, self-determination) and needs to get along well with others (i.e., care, empathy, support), respectively (McAdams et al., 1996). Narrated agentic and communal goals have been positively related to longitudinal ego development among young adults (McAdams et al., 2006). Agency in college adults' narratives about high school experiences has been positively related to identity exploration (Booker et al., 2021c). Other dimensions of narrative identity have been important predictors of emerging adults' identity development during and following COVID-19 shutdowns (Booker et al., 2022b, 2024). *We were interested in testing whether people would express differences in narrative identity when they endorsed difference identity statuses*.

Traits, Character, and Narrative Identity are Related, Yet Distinct

As different aspects of someone's personality, it is reasonable to expect that measures of traits, character, and narrative identity will be modestly related. Indeed, this is often supported in existing work. For example, most character strengths are positively related with traits of agreeableness, extraversion, openness, and conscientiousness (e.g., Booker & Perlin, 2022; Dametto & Noronha, 2019). Similarly, narrated agency and communion are positively related with reports of these traits and with reports of character like hope (Booker et al., 2021b). Still, these different measures of personality are distinct from each other. The correlations between measures reflecting different levels of personality are often small-to-medium in size (i.e., *r*s = < |.50|, Cohen, 1988), especially when collected using different modalities (i.e., self-reports versus independently rated life stories; Booker et al., 2021a; Guo et al., 2016). Further, measures of narrative identity, like agency and communion, show unique associations with measures of functioning and well-being, beyond Big Five traits (e.g., Adler et al., 2016) and character (e.g., Booker et al., 2021b). Attempts to simultaneously consider personality across these three levels

remain rare. We were motivated to build evidence in this space by focusing on an important area of development during emerging adulthood: identity development (Erikson, 1968).

Why Focus on Personality and Identity Statuses during Emerging Adulthood?

Our current focus is on emerging adults, here, traditional age (~18-to-25-years) college adults at a residential college campus. The developmental period of emerging adulthood, fully spanning ages 18-to-29 years (Arnett, 2014), involves continued challenges for organizing a well-integrated identity continue from adolescence (Erikson, 1968). Further, college settings are key spaces for personal exploration and gradual commitment to the roles and goals that reflect one's sense of self and fit with self-views. For example, exploration involves trying different academic and professional directions (e.g., about 30% of college majors change their major at least once; National Center for Education Statistics, 2017) and different opportunities for relationships and recreation (e.g., most students try at least one extracurricular club and students report making friends readily within extracurricular clubs; Flaherty, 2023). Understanding how similar aged adults in a shared context—who still carry different traits, characteristic adaptations, and approaches to narrative identity—also differ in identity progress could be meaningful for building knowledge about personality and identity with young adult populations.

The Current Study

We tested how differences in personality measures of 1) traits, 2) character, and 3) narrative identity were related to identity statuses among emerging adults. We were motivated to replicate evidence that traits are related to identity status (e.g., Clancy & Dollinger, 1993; Klimstra et al., 2013) and expand evidence that character and narrative identity are related to identity status. We were also interested in building evidence that measures across all three levels of personality could be uniquely related to identity status. Here, we focus on four, person-level

identity statuses (Marcia, 1966) rather than variable-level reports of identity exploration and identity commitment, since a person-centered approach has the potential to provide meaningful, distinct insights (see Crocetti & Meeus, 2014). We were most interested in findings for identity achievement (i.e., higher exploration, higher commitment).

Research Question 1: **Do measures at each level of personality differ when people differ in reported identity status?**

- H1a: At the level of *traits*, self-reported extraversion and conscientiousness will be highest among people reporting identity achievement; neuroticism scores will be lowest among people reporting identity achievement.
- H1b: At the level of *character*, self-reported grit, gratitude, curiosity, forgiveness, and hope will be highest among people reporting identity achievement.
- H1c: At the level of *narrative identity*, expressed agency and communion—as rated from life stories—will be highest among people reporting identity achievement.

Research Question 2: **To what extent are measures across levels of personality uniquely related with reported identity statuses?**

- H2a: When measured simultaneously, we expected measures across personality levels of traits, character, and narrative identity to be uniquely related to identity statuses. Specifically, we expected higher scores of *traits* (except for neuroticism), *character*, and *narrative identity* to be related to greater odds of endorsing identity achievement.

Method

Participants

We recruited 289 undergraduates (*M* age = 18.39 years, SD = 1.59; 78.3% women) to participate in an online study about college experiences and adjustment. Most participants

identified as White (82.5%), followed by participants identifying as Black (5.6%), Southeast or East Asian (3.1%), Multiracial (2.4%), Latina or Latino (2.1%), Indo-Asian (0.7%), Middle Eastern (0.3%), or American Indian (0.3%). Remaining participants did not provide an indication of racial or ethnic background (3.1%). These demographics were in line with the broader demographics of the Psychology courses participants were recruited from. Most participants (92.4%) represented majors outside of Psychology (e.g., accounting, biochemistry, communication, computer science, health professions, pre-law, textile and apparel management).

Procedures

This study was part of a larger project considering self-reports of college adjustment and life stories about college adjustment experiences that was conducted during Fall 2018, before the COVID-19 pandemic, an event that had impacts on reports of character and endorsements of narrative identity between cohorts of participants (i.e., pre-COVID vs. during shutdowns) and within participants over time (e.g., Booker & Johnson, 2024; Booker et al., 2024). Current analyses were not pre-registered. Study data are available at OSF (https://osf.io/4egst/?view_only=f6e98542f7124b55a36b113b4fafdccd). Participants were recruited through an online Psychology department recruitment system (SONA) as part of an Introductory Psychology course's research exposure requirement.[1] After completing informed consent, participants completed computerized questionnaires that included identity scales, personality scales, responses to narrative prompts, and demographics. All tasks were designed to be completed in a single, one-hour session. Participants were compensated with course credit.

Materials

Identity Exploration and Commitment

[1] Participants who elected not to participate in research were given alternative activities that took similar time and effort to complete for course credit.

Participants completed the short form of the Ego Identity Process Questionnaire (Zimmerman et al., 2010). This scale included 16 items on identity exploration (8 items; sample item = "I have evaluated many ways in which I fit into my family structure") and identity commitment (8 items; sample item = "I will always vote for the same political party"). Items were completed on a 6-point Likert scale (1 = *Strongly disagree*; 6 = *Strongly agree*). We used exploration and commitment scores from this scale for cluster analyses, expecting statuses of diffusion, moratorium, foreclosure, and achievement (i.e., Marcia, 1966) to emerge.

Big Five Traits

Participants completed the Ten-Item Personality Inventory (Gosling et al., 2003). This is a brief measure of Big Five traits. Each trait was measured with two items on a 7-point Likert scale (1 = *Disagree strongly*; 7 = *Agree strongly*) and participants were asked to endorse the extent they were represented by a pair of characteristics for each item (sample item, "Open to new experiences, complex"). Internal consistencies were not conducted as each subscale included only two items; however, this measure has been shown to be highly correlated to lengthier personality scales like the Big Five Inventory (John & Srivastava, 1999), with each trait score showing large correlations with respective dimensions across scales (i.e., Openness $r = .65$ to Extraversion $r = .87$; Gosling et al., 2003). This measure has been used in studies of young adult personality and psychosocial functioning (e.g., Booker et al., 2021a; Götz et al., 2022).

Dimensions of Character

Participants reported on five dimensions of character. They completed an 8-item version of the Grit Scale (Duckworth & Quinn, 2009). This scale presented statements about persistence that participants were asked to endorse. Items were completed on a 5-point Likert scale (1 = *Not at all like me*; 5 = *Very much like me*; sample item = "Setbacks don't discourage me."). They

completed the Gratitude Questionnaire-6 (McCullough et al., 2002). This scale asked about endorsements of gratitude involving successes, relationships, and broader life standing. Items were completed on a 7-point Likert scale (1 = *Strongly disagree*; 7 = *Strongly agree*; sample item, "I have so much in life to be thankful for"). They completed the Transgression Related Interpersonal Motivations (McCullough et al., 1998). This scale collects 18 items on tendencies to respond to transgressions from others with three subscales: avoidance; benevolence; and revenge (reverse-scored). Items were completed on a 5-point Likert scale (1 = *Strongly disagree*; 5 = *Strongly agree*; sample item, "I'll make him/her pay [reverse-scored]"). A composite of forgiveness was formed by summarizing and averaging the three subscales. Participants completed the Adult Hope Scale (Snyder et al., 1991). This 12-item measure asked participants on their typical cognitive appraisals about personal capabilities to accomplish goals (agency subscale) and perceived paths to eventual success and goal attainment (pathways subscale). Items were completed on an 8-point Likert scale (1 = *Definitely false; 8 = Definitely true*; sample item, "I can think of many ways to get out of a jam"). A composite of hope was formed by summarizing and averaging the two subscales. And they completed the Curiosity and Exploration Inventory (Kashdan et al., 2009). This scale included 10 items and asked on the extent participants sought new opportunities and new insights about the world. Items were completed on a 5-point Likert scale (1 = *Very slightly or not at all*; 5 = *Extremely*; sample item, "Everywhere I go, I am out looking for new things or experiences."

Expressions of Narrative Identity

Participants responded to two narrative prompts: one about a self-defining memory that highlights how they view and understand themselves (Singer & Salovey, 1993); and another

about their experience transitioning to their current college (Booker et al., 2022d). The self-defining memory prompt asked for a memory with the following attributes:

> It is at least one year old; it is a memory from your life that you remembered very clearly and that still feels important to you even as you think about it; it is a memory about an important enduring theme, issue, or conflict from your life; it is a memory that helps explain who you are as an individual and might be the memory you would tell someone else if you wanted them to understand you in a profound way; it is a memory linked to other similar memories that share the same theme or concern; It may be a memory that is positive or negative, or both, in how it makes you feel.

The college transition narrative prompt asked participants to:

> Please reflect back on how the college transition has been for you (or how the transition was if you feel as if it is more distant now). Describe your experience in a few sentences. What are the first things that come to mind about that experience? How do you understand that transition, reflecting on it now? Is there any lesson or "bottom line" you take away from the transition experience, or that experience to date? What are your thoughts and feelings about the college transition?

Each provided narrative was manually rated for expressions of agency and communion, based on coding schemes from Grysman et al. (2016). Agency was rated globally on a 0-to-3 scale, where scores of 0 reflected life stories grounded in helplessness and aimlessness for the narrator, whereas scores of 3 indicated clear mentions of assertiveness and self-actualization by the narrator, as well as mentions of ways the narrator continued to show enduring agentic values and reasoning in their lives. An example narrative rated for a higher expression of agency is below:

> Transitioning to college has been a great experience. Now away from the pressures of family and society to be what was expected of me, I can focus on myself. College is the perfect opportunity to look in the mirror and say, "I don't really know you, but I'd like to." My life in college allows me to learn who I am and what is best for me, not just what everyone else wants. I can take the time to find what I enjoy and what I am passionate about. Classes are for learning new things, not just the GPA. College has given me more opportunities and resources to be independent and help improve my mental health.

Communion was rated globally on a 0-to-3 scale, where scores of 0 reflected life stories that did not include mentions of direct interactions with others in one's lived experiences, whereas scores of 3 indicated explicit mentions of involvement with others, as well as explicit mentions of the

importance of one's relationship(s) with others, including mentions of a relationship growing stronger, enduring feelings of love or care, and/or mentions of social support or empathy with others. An example narrative rated for a higher expression of communion is below:

> I have a sister with a relatively severe case of cerebral palsy […] Before college I hadn't given much thought to comparing her lifestyle to mine. I came back home from being at college for a while. My parents left town for a couple days and left me at home to take care of my sister for a few days. On my last night of taking care of my sister, after getting her out of bed every morning, taking her to the bathroom overtime she had to go, making her every meal and putting her to bed and started thinking about a few things. I realized taking care of people is what I want to do with my life. It makes me feel good. I am someone who would do anything for my family.

Separate coding teams of two- to three-individuals were trained to conduct each coding approach. After training, coding teams built interrater reliability by coding 50 narratives from each narrative prompt and holding consensus meetings to determine initial agreement in narrative codes and to resolve disagreements through discussion. Once reliable as a team (ICC $\geq$ .80), individual team members were assigned a set of remaining narratives to code independently. We did not expect narrative features of agency or communion to differ within this single time point (i.e., Booker et, 2021a). Mean scores of agency and communion were used.

Analytical Plan

We used SPSS 29.0 (IBM Corp, 2023) for analyses.

We first conducted correlation analyses among all collected measures. Because gender socialization is related to personality (e.g., Booker & Graci, 2021), preliminary analyses included independent-samples *t*-tests for gender differences. For data preparation, we formed identity statuses by using *k*-means cluster analysis. We had an *a priori* expectation that four clusters would be supported and fit Marcia's (1966) four identity statuses. We recognize that other person-centered analytical tests, like latent profile analysis, have strengths for identifying increasingly nuanced groups through different models and greater ability to model and allow

interpretation of a larger number of parameters (Sinha et al., 2022). However, LPA also has higher demands on power, and our sample size of 289 was below recommended minimal sample sizes of 300 or ideally 500 participants for this type of analysis (Sinha et al., 2022). Cluster analysis has limitations that include greater sensitivity to outliers and constraints when modeling large numbers of parameters (Ketchen & Shook, 1996). However, cluster analyses can be conducted successfully with subgroups representing 30 or more cases (Dalmaijer et al., 2022) and with models involving a modest number of parameters. Because we were interested in two model parameters (i.e., identity exploration, identity commitment) and expected a set of *a priori*, well-populated cluster formations to emerge, we selected this approach.

For Research Question 1 we used MANCOVA. We tested whether each personality measure differed across the four identity statuses. For Research Question 2, we used multinomial logistic regression. We tested whether each personality measure, considered simultaneously, was uniquely related with the odds of endorsing certain identity statuses.

Results

Preliminary Analyses

Descriptive statistics (i.e., means, standard deviations, inter-item/interrater reliabilities) of study variables are presented in Table 1. Bivariate correlation point estimates are presented in Table 1. Correlations with bootstrapped, 95% confidence intervals are presented in Supplemental Table 1, addressing preliminary concerns of discriminant validity (i.e., evidence of correlations larger than $r > |.70|$; $r^2 > .49$; see Rönkkö & Cho, 2022) for measures between different levels of personality. Correlation 95% confidence interval boundaries did not reach this threshold.

Most correlations among the five trait measures, among the five character measures, and between the two narrative identity measures were significant. Multiple correlations between

different levels of personality measures were also significant. For example, trait conscientiousness was positively correlated with most character measures, excluding forgiveness, and with both narrated agency and narrated communion. Neuroticism was negatively relatively correlated with all reports of character but was not significantly correlated with narrative identity measures. Hope was significantly correlated with every other personality measures. Conscientiousness, gratitude, hope, and agency were positively correlated with identity exploration and identity commitment.

Independent samples *t*-tests revealed gender differences in trait agreeableness ($t(283) = -2.14$, $d = -.31$, $p = .033$), characteristics of curiosity ($t(284) = 2.11$, $d = .30$, $p = .036$) and gratitude ($t(284) = -2.55$, $d = .37$, $p = .011$), and narrative communion ($t(281) = -2.58$, $d = -.37$, $p = .010$). Women endorsed higher agreeableness and curiosity and expressed more narrated communion. Men endorsed greater curiosity. Gender was kept as a covariate in hypotheses tests.

Data Preparation for Identity Statuses

We used *k*-means cluster analysis to form four profiles representing identity statuses, using reports of identity exploration and identity commitment. We expected clusters resembling Marcia's (1966) four identity statuses (i.e., diffusion; foreclosure; moratorium; achievement). Each cluster was well-populated and standardized cluster scores fit Marcia's conceptualization. *Foreclosure* was the largest cluster (29.9%; *M* exploration = -.71; *M* commitment = .51), followed by *moratorium* (27.8%; *M* exploration = .48; *M* commitment = -.66), *achievement* (23.8%; *M* exploration = 1.10; *M* commitment = .99), and *diffusion* (18.5%; *M* exploration = -1.00; *M* commitment = -1.15). Given the possibility of other relevant identity status solutions (see Crocetti, & Meeus, 2014), we used a two-step cluster analysis to allow the automatic comparison of multiple identity status solutions, and compared evidence of solution fit (i.e.,

lower BIC values indicating greater fit given model complexity). Supplemental Table 2 presents model comparisons. The four-cluster solution showed best fit (i.e., lowest BIC). The ratio of cluster distances—a measure of separation between clusters—was also higher for the four-cluster solution (2.23) compared to neighboring solutions (3-cluster ratio of cluster distances: 1.54; 5-cluster ratio of cluster distances: 1.31). We used the four-cluster solution for hypotheses tests.

Hypothesis Tests

Research Question 1: Do measures at each level of personality differ when people differ in reported identity status?

Using MANCOVA, we tested whether there were mean differences in personality measures between endorsed identity statuses. Gender was entered as a covariate. Multivariate effects were supported for both identity status (Wilks' $\Lambda = .67$, $F(36, 745.97) = 3.10$, $\eta^2 = .13$, $p < .001$) and for gender (Wilks' $\Lambda = .85$, $F(12, 259.00) = 3.70$, $\eta^2 = .15$, $p < .001$). Univariate effects are presented in Table 2. We present the findings and pairwise comparisons below.

There were mean-level differences in trait measures of extraversion, conscientiousness, neuroticism, and openness, given identity status. Effect sizes were small (i.e., $\eta^2 \leq .05$) to medium (i.e., $\eta^2 \leq .13$). See also Supplemental Figure 2. Participants with *achievement* and *foreclosure* statuses reported highest levels of extraversion and had significantly higher extraversion than peers in moratorium and diffusion status ([pairwise comparison] *p*s = .010 - .045). Participants with *achievement* and *moratorium* statuses reported the highest conscientiousness and participants with *diffusion* status reported lower conscientiousness than all other peers (*p*s ≤ .001 - .032). Participants with *diffusion* status reported higher neuroticism than participants with *moratorium* status ($p = .002$). Participants with *achievement* and *foreclosure*

statuses reported higher levels of openness than participants with either *moratorium* or *diffusion* statuses ($ps \leq .001$ - $.004$).

There were mean-level differences in characteristics of grit, gratitude, hope, and curiosity, given identity status. Effect sizes were medium-sized for significant associations. See Supplemental Figure 3. Participants with *achievement* and *moratorium* statuses reported highest levels of grit, and participants with *diffusion* status reported lower grit than all other peers ($ps \leq .001$ - $.021$). Participants with *diffusion* status reported lower gratitude than all other peers ($ps \leq .001$ - $.007$). Participants with *achievement* status reported higher hope than all other peers ($ps < .001$), and participants with *diffusion* status reported lower hope than all other peers ($ps \leq .001$ - $.017$). Participants with *achievement* and *foreclosure* statuses reported higher curiosity than peers with *moratorium* and *diffusion* statuses ($ps \leq .001$ - $.014$).

There were mean-level differences in narrated agency, given identity status. The effect size was medium. See Supplemental Figure 4. Participants with *achievement* status had higher expressions of agency than participants with *moratorium* ($p = .020$) and *diffusion* ($p < .001$) statuses, whereas participants with *foreclosure* status had higher expressions of agency than participants with *diffusion* status ($p = .002$).

Overall, reported identity statuses were related to differences in traits, character, and narrative identity. Notably, identity achievement was associated with lower scores of neuroticism and with higher scores of extraversion, conscientiousness, openness, grit, hope, and agency. The direction of these findings fit with our expectations. We note that we did not find support for curiosity, gratitude, forgiveness, or communion as related with identity achievement status.

Research Question 2: To what extent are measures across levels of personality uniquely related with reported identity statuses?

Using multinominal logistic regression, we tested whether measures of personality traits, character, and narrative identity were uniquely related to endorsements of identity statuses. All personality measures were entered as simultaneous independent variables. Gender was entered as a covariate. The inclusion of model effects significantly improved model fit, given the increase in model complexity ($\Delta df = 39$, $\Delta\chi^2 = 110.03$, $p < .001$). The model showed acceptable overall goodness of fit ($\chi^2(783) = 776.79$, $p = .556$; $R^2 = .33$). Three dimensions of personality had significant likelihood ratio tests or indicators of explaining significant model variance: trait *neuroticism*; character *hope*; and narrated *agency*. We focus on the findings involving these three independent variables below, considering findings with 1) achievement, 2) foreclosure, and then 3) moratorium as the reference identity statuses. Supplemental Figure 5 presents the odds ratio confidence intervals for these three effects given multiple identity status reference comparisons.

***Achievement* as the Reference Status**. Higher scores of hope were associated with greater odds of *achievement* status over *foreclosure* status (Odds Ratio [O.R.] 95% CI: .210, .680). Higher scores in neuroticism (O.R. 95% CI: .470, .864), hope (O.R. 95% CI: .195, .682), and *agency* (O.R. 95% CI: .178, .915) were each associated with greater odds of *achievement* status over *moratorium* status. Lastly, higher scores in agency were associated with greater odds of *achievement* status over *diffusion* status (O.R. 95% CI: .108, .700).

Foreclosure as the Reference Status. Higher scores in neuroticism were associated with greater odds of *foreclosure* status over *moratorium* status (O.R. 95% CI: .553, .962). Higher scores of agency were associated with greater odds of *foreclosure* status over *diffusion* status (O.R. 95% CI: .154, .848).

Moratorium as the Reference Status. Higher scores in neuroticism were associated with greater odds of *diffusion* status over *moratorium* status (O.R. 95% CI: 1.007, 1.940).

Overall, there was evidence that specific trait, character, and narrative identity measures were uniquely related with identity status.

Discussion

We tested the relations of three levels of personality (i.e., traits, character, narrative identity) with emerging adults' reported identity statuses. Broadly, we found that placement in traditional identity statuses (Marcia, 1966) coincided with differences in multiple measures of personality, representing traits, character, and narrative identity (Research Question 1). We also found that, when considered simultaneously, specific personality measures, representing each level of personality, were uniquely related to identity status reports (Research Question 2).

Identity Statuses were Related to Individual Differences in Personality Measures

Within similar developmental periods, people should differ on progress or standing in identity development, partly due to personality differences (e.g., Clancy & Dollinger, 1993; Klimstra et al., 2013; McLean & Pasupathi, 2012). Emerging adulthood is a period of heightened identity exploration and gradual commitment (i.e., Arnett, 2014; Erikson, 1968), and the full-time college setting is an environment that encourages extensive identity exploration with gradual movement toward commitment (Côté et al., 2006). Our findings affirmed that among people of *similar ages* in *similar environments* with *similar roles*, differences in personality were related to differences in identity, reflected here as endorsed identity status (Marcia, 1966).

Participants reporting identity achievement—with greater progress in both exploration and commitment—also had higher scores for certain dimensions of traits (i.e., extraversion, conscientiousness, openness), character (i.e., hope, grit), and narrative identity (i.e., agency), adding to existing consensus on the ways personality and identity are related for emerging adults (Booker et al., 2021c; Clancy & Dollinger, 1993; Klimstra et al., 2013; McAdams et al., 2006;

Weisskirch, 2019). There was specificity in the kinds of measures associated with personal exploration and an embrace of personal roles, values, and goals—these measures of personality better fit with typical behaviors centered on personal understanding and success. And our findings fit with arguments from multiple teams that markers of "agentic personality," including individual differences relevant to mastery, autonomy, and assertiveness motivations are key for identity development among emerging adults (e.g., Gebauer et al., 2013; Schwartz et al., 2005). Neuroticism, hope, and agency are closely related to themes of self-control, mastery, and self-actualization (e.g., Booker et al., 2021bc; Guo et al., 2016; McAdams et al., 1995, 2006).

In contrast to most measures, agreeableness, forgiveness, and communion—three *interpersonal* aspects of personality—were not closely related to identity. These domains of personality may be more relevant for the development of *social* group identities, such as racial identity or religious identity development (i.e., Booker & Johnson, 2022; Leach et al., 2011). That is, the ways people tend to respond to social opportunities in a constructive fashion, emphasize their bonds with others, and successfully resolve conflicts that tend to arise in close relationships may be more likely to progress through important questions of "what is my place in my group(s)?" and "do I need to reconsider my membership further?" (see Tajfel & Turner, 1979). We argue that a focused consideration of multiple social identities alongside consideration of multiple domains of personality would be an important future direction in clarifying the interrelations between identity and multiple levels of personality across adulthood.

Across our measures of traits, character, and narrative identity, there were multiple, modest correlations between different personality measures. This fits with broader arguments that these different measures and modalities of studying individual differences (i.e., self-reports, independent ratings of life stories) reflect some common aspects of personality. Yet, findings

that 1) these measures are only moderately related with each other and 2) multiple measures show uniquely relations with identity statuses reinforces that measures across different levels of personality are capturing distinct individual differences (McAdams & Pals, 2006)—that there is value in considering these different measures simultaneously for a more holistic view.

Limitations, Strengths, and Future Directions

Our project includes multiple limitations in its design and execution. Our measures of identity development and personality differences were limited to a single, concurrent point of collection. Thus, we make no arguments on whether one domain may be causing or predicting differences in the other. We also limited focus to a single measure of broad identity development and did not include measures on specific domains of identity (i.e., gender, racial, ethnic, sexual, religious). Further, we were unable to account for the many important and intersecting identities people bring to daily life. Our sample was overly homogenous. We had a predominantly White and predominantly female sample. Previous work highlights broad similarity in mean scores of personality (i.e., traits, character, narrative identity) and the direction of relations between personality measures and other psychological constructs (e.g., well-being) across emerging adults from different ethnic groups (e.g., Booker et al., 2021a, 2022bc). Still, gender—as seen here and elsewhere—is related to differences in both personality (e.g., women are higher in gratitude, forgiveness, and narrated communion on average; Booker et al., 2021ab; Booker & Graci, 2021; Grysman et al., 2016) and identity development (e.g., emerging adult women endorse more global identity progress than men and genderqueer peers in recent studies; Booker et al., 2022b). Further, research using lenses of intersectionality (see Cole, 2009) have highlighted the distinct experiences and psychological outcomes that are likely for people with different profiles of social identities (e.g., the experiences of Black women will be qualitatively

distinct from the experiences of both Black men and White women; the experiences of Latina lesbian women will be qualitatively distinct from the experiences of Latina straight women, which will be qualitatively distinct from the experiences of Latina women embracing singlehood). We recognize that we are missing opportunities for nuanced and representative insights in this project given the limited representation of multiple social identities and groups. This sample was representative of the department and university where recruitment occurred but limits our ability to generalize findings to other populations of college going adults. Generalizability is also limited given our focus on college students. We were interested in this population, as the college setting is a critical space for identity development (Côté et al., 2006) and we were interested in personality differences among people of similar ages, roles, and settings. Still, we did not account for the many other roles and settings emerging adults may operate in. While previous work has shown that many aspects of personality are endorsed and expressed similarly among groups of both college- and community-recruited emerging adults (i.e., Booker et al., 2021a), a minority of young U.S. adults are full-time college students (Irwin et al., 2021). Thus, there are important questions about how representative these findings would be for young adults operating in other settings and with other roles and obligations—spaces where character and narrative identity may appreciably differ (McAdams & Pals, 2006). We also note that there are recent concerns from other research teams about the use of the Grit Scale we used and worries about construct validity with emerging adult samples (Fosnacht et al., 2019). Because internal consistency was acceptable for grit in this project ($\omega = .85$), we kept this measure. We also note that there are conceptual challenges to the use of the Adult Hope Scale, which has a strong cognitive emphasis but little emotional emphasis (Edwards et al., 2025;

Feldman & Jazaieri, 2024). We believed there is still value in using this scale but recognize other measures that also address typical feelings of hope will benefit future research.

We note that the ways we conceptualize and operationalize personality and identity status in this project, while grounded in existing theories that have empirical support, are not the only constructive approaches for these domains of psychological science. There are other views of personality that speak to the ways characteristic adaptions involve cognitive, behavioral, motivational, and dispositional elements; making the boundaries we presented between traits, character, and narrative identity less pronounced (Fowers et al., 2021). Also, there are different approaches to conceptualizing identity development and progression. Luyckx and colleagues (2006) presented progress through identity statuses emphasizing cycles of identity formation and evaluation, with adolescents and adults using multiple forms of identity exploration and identity commitment to move between work for new identity content and maintenance as appropriate across the lifespan. Work by Crocetti (Crocetti et al., 2008), Meeus (Meeus et al., 2010), and colleagues shifted the focus from Marcia's (1966) assumption of a starting status of identity diffusion—with minimal exploration and commitment—to a starting point of identity commitment. Adolescents and adults are argued to begin with some understanding and view of current identity that may then be reconsidered (challenged) given later experiences, resulting in ongoing identity exploration. With updated satisfaction in identity, commitment is again achieved until such time that that reconsideration is needed again. Hence there might be multiple "forms" and multiple "rounds" of moratorium status that people move through for identity. These and other frameworks emphasize identity *recycling*—returning to identity statuses heavy in exploration when current identity is unsatisfactory. Recycling is a lifespan process considered normative by identity scholars (Parham, 1989). We appreciate that these additional views of

personality and identity could also be relevant to the current work. We add that our concurrent study design did not provide opportunities to consider identity recycling *within* adults.

Despite limitations, our project benefited from the use of multiple personality measures across multiple modalities (i.e., self-reports, independent ratings).

There is room to improve future research designs. This work deserves replication with larger and more representative populations, including adults representing the full lifespan. More work is needed to better study personality and identity among historically excluded racial, ethnic, gender, and sexual populations—clarifying areas of generalizability and nuance across populations (i.e., Booker et al., 2022a; Syed, 2021). In addition, considering more dimensions of both personality and identity development will provide more comprehensive, thorough views of the interrelations between these major areas of development. Further, while snapshots of these interrelations are encouraging, more longitudinal work is needed—work that can clarify the stability and lability within these areas of development, as well as possible predictive and cross-lagged associations among these constructs.

Conclusions

We considered relations between identity statuses (i.e., diffusion, moratorium, foreclosure, achievement) and multiple levels of personality (i.e., traits, character, narrative identity) among college adults. We replicated and extended previous evidence that multiple personality measures are associated with identity status. We affirmed that identity achievement is related to highest endorsements and expressions of multiple traits, characteristics, and forms of narrative identity. We also found that three personality measures—neuroticism, hope, and agency—were uniquely related with identity status when personality measures were considered simultaneously. These items were each relevant to the ways people navigate self-actualization—

these agentic demands may be particularly relevant for identity progress in early adulthood. Questions remain on the ways multiple levels of personality may be relevant within specific aspects of identity (i.e., gender, racial, sexual, religious), and we argue for an extension of this work with more diverse populations.

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Table 1

Study Variable Descriptive Statistics and Bivariate Correlations

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. Gender															
Trait Measures															
2. Extraversion	-.01														
3. Agreeableness	**.13**	.00													
4. Conscientiousness	.07	.02	**.21**												
5. Neuroticism	**.20**	**-.18**	**-.17**	**-.25**											
6. Openness	-.01	**.30**	**.16**	**.18**	**-.19**										
Character Measures															
7. Grit	.02	**.20**	.09	**.42**	**-.25**	**.18**									
8. Gratitude	**.15**	**.20**	**.32**	**.37**	**-.29**	**.22**	**.40**								
9. Forgiveness	-.08	.05	**.22**	.04	**-.22**	.05	**.14**	**.31**							
10. Hope	.02	**.27**	**.15**	**.49**	**-.33**	**.34**	**.53**	**.58**	**.20**						
11. Curiosity	**-.12**	**.30**	**.13**	**.23**	**-.29**	**.48**	**.31**	**.31**	.11	**.55**					
Narrative Identity Measures															
12. Agency	-.01	-.08	.07	**.16**	-.04	.05	**.13**	.09	.04	**.18**	.10				
13. Communion	**.15**	.06	.04	**.16**	.00	.01	.06	**.23**	.02	**.15**	-.04	**.14**			
Identity Reports															
14. Identity Exploration	.03	.04	.10	**.29**	-.11	.09	**.31**	**.18**	-.06	**.29**	.07	**.12**	.05		
15. Identity Commitment	-.10	.10	**.15**	**.15**	.01	**.27**	.09	**.18**	.05	**.33**	**.32**	**.20**	**.21**	**.21**	
M	--	4.39	5.04	5.65	3.35	5.21	2.72	6.00	3.33	6.05	4.89	1.30	1.34	3.89	4.08
SD	--	1.53	1.06	1.08	1.41	1.01	.54	.90	.79	1.03	1.06	.50	.73	.71	.81
ω	--	--	--	--	--	--	.85	.89	.93	.90	.91	.98	.88	.68	.68

Note. Bolded values were correlations at the $\alpha = .05$ level. For Gender, women received the higher value. Skewness ≤ 1.1 for all variables. Given only two items for each facet of the Ten-Item Personality Inventory, internal consistency was not calculated for Big Five trait measures.

Table 2

MANCOVA Between-Subjects Effects of Identity Status and Sex

	Identity Status			Gender		
	F	*p*	Partial η^2	*F*	*p*	Partial η^2
Trait Measures						
Extraversion	**3.63**	**.013**	**.04**	.05	.828	.00
Agreeableness	1.62	.186	.02	**3.91**	**.049**	**.01**
Conscientiousness	**6.38**	**.000**	**.07**	2.17	.142	.04
Neuroticism	**3.32**	**.020**	**.04**	**11.59**	**.000**	**.03**
Openness	**8.23**	**.000**	**.08**	.12	.726	.00
Character Measures						
Grit	**6.60**	**.000**	**.07**	.37	.541	.00
Gratitude	**5.76**	**.000**	**.06**	**7.02**	**.009**	**.03**
Forgiveness	.67	.574	.01	2.07	.151	.01
Hope	**13.50**	**.000**	**.13**	.15	.696	.00
Curiosity	**9.37**	**.000**	**.09**	3.08	.080	.01
Narrative Identity Measures						
Agency	**5.63**	**.000**	**.06**	.04	.846	.00
Communion	2.43	.066	.03	**6.39**	**.012**	**.02**

Note. Bolded values were significant at the $\alpha = .05$ level.

Table 3

Multinomial Logistic Regression Likelihood Ratio Tests of Personality Measures for Identity Statuses

Effect	χ^2	*df*	*p*
Gender	4.78	3	.188
Trait Measures			
Extraversion	5.48	3	.140
Agreeableness	4.90	3	.180
Conscientiousness	2.21	3	.530
Neuroticism	**10.37**	**3**	**.016**
Openness	4.57	3	.206
Character Measures			
Grit	5.50	3	.139
Gratitude	5.42	3	.144
Forgiveness	2.21	3	.529
Hope	**14.29**	**3**	**.003**
Curiosity	2.97	3	.393
Narrative Identity Measures			
Agency	**10.17**	**3**	**.017**
Communion	2.91	3	.406

Note. Bolded values were significant at the $\alpha = .05$ level.

Supplemental Table 1

Correlation Analyses of Personality Measures with Point Estimates and 95% Confidence Intervals

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	.12
Trait Measures												
1. Extraversion	--	.00	.02	**-.18**	**.30**	**.20**	**.20**	.05	**.27**	**.30**	-.08	.06
2. Agreeableness	[-.13, .12]	--	**.21**	**-.17**	**.16**	.09	**.32**	**.22**	**.15**	**.13**	.07	.04
3. Conscientiousness	[-.09, .13]	[.09, .33]	--	**-.25**	**.18**	**.42**	**.37**	.04	**.49**	**.23**	**.16**	**.16**
4. Neuroticism	[-.30, -.06]	[-.30, -.05]	[-.35, -.14]	--	**-.19**	**-.25**	**-.29**	**-.22**	**-.33**	**-.29**	-.04	.00
5. Openness	[.18, .41]	[.04, .28]	[.06, .31]	[-.30, -.07]	--	**.18**	**.22**	.05	**.34**	**.48**	.05	.01
Character Measures												
6. Grit	[.08, .31]	[-.02, .21]	[.31, .52]	[-.37, -.13]	[.05, .29]	--	**.40**	**.14**	**.53**	**.31**	**.13**	.06
7. Gratitude	[.09, .30]	[.21, .43]	[.25, .47]	[-.40, -.16]	[.11, .33]	[.30, .50]	--	**.31**	**.58**	**.31**	.09	**.23**
8. Forgiveness	[-.09, .17]	[.11, .34]	[-.07, .16]	[-.33, -.11]	[-.07, .16]	[.01, .26]	[.21, .40]	--				
9. Hope	[.15, .37]	[.02, .28]	[.38, .59]	[-.43, -.20]	[.23, .45]	[.44, .62]	[.47, .67]	[.06, .21]	--	**.55**	**.18**	**.15**
10. Curiosity	[.20, .41]	[.02, .24]	[.12, .33]	[-.40, -.16]	[.38, .58]	[.20, .40]	[.20, .41]	[-.01, .23]	[.47, .63]	--	.10	-.04
Narrative Identity Measures												
11. Agency	[-.20, .05]	[-.05, .20]	[.04, .29]	[-.17, .09]	[-.06, .15]	[.01, .26]	[-.04, .22]	[-.09, .16]	[.05, .31]	[-.02, .23]	--	**.14**
12. Communion	[-.05, .16]	[-.07, .14]	[.05, .28]	[-.12, .11]	[-.10, .12]	[-.05, .18]	[.13, .33]	[-.09, .14]	[.04, .26]	[-.16, .07]	[.03, .25]	--

Note. Point estimates are presented above the diagonal. 95% confidence intervals are presented below the diagonal. Bold point estimates are significant at the $\alpha = .05$ level. Significant correlations involve confidence intervals that do not include the value zero.

Supplemental Table 2

Model Comparisons of Two-Step Cluster Analysis

	Auto-Clustering			
Number of Clusters	Schwarz's Bayesian Criterion (BIC)	BIC Change[a]	Ratio of BIC Changes[b]	Ratio of Distance Measures[c]
1	411.425			
2	326.238	-85.187	1.000	1.448
3	274.360	-51.878	.609	1.538
4	248.521	-25.839	.303	2.228
5	249.350	.829	-.010	1.312
6	255.349	6.000	-.070	1.140
7	263.380	8.031	-.094	1.485
8	276.155	12.775	-.150	1.038
9	289.285	13.130	-.154	1.065
10	302.986	13.702	-.161	1.067
11	317.242	14.256	-.167	1.385
12	333.803	16.561	-.194	1.168
13	351.224	17.421	-.205	1.086
14	369.051	17.827	-.209	1.033
15	387.029	17.978	-.211	1.795

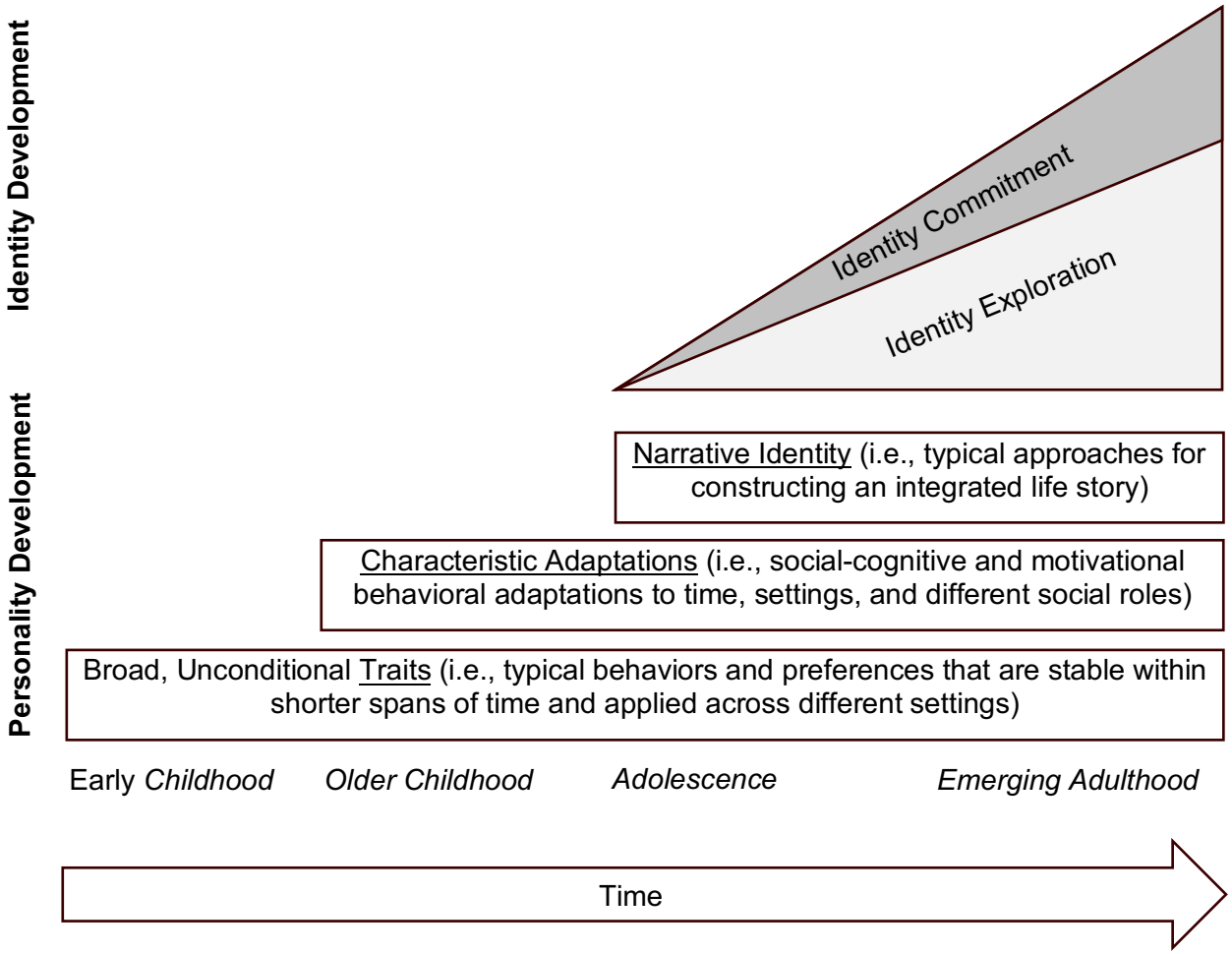
a. The changes are from the previous number of clusters in the table.

b. The ratios of changes are relative to the change for the two cluster solution.

c. The ratios of distance measures are based on the current number of clusters against the previous number of clusters.

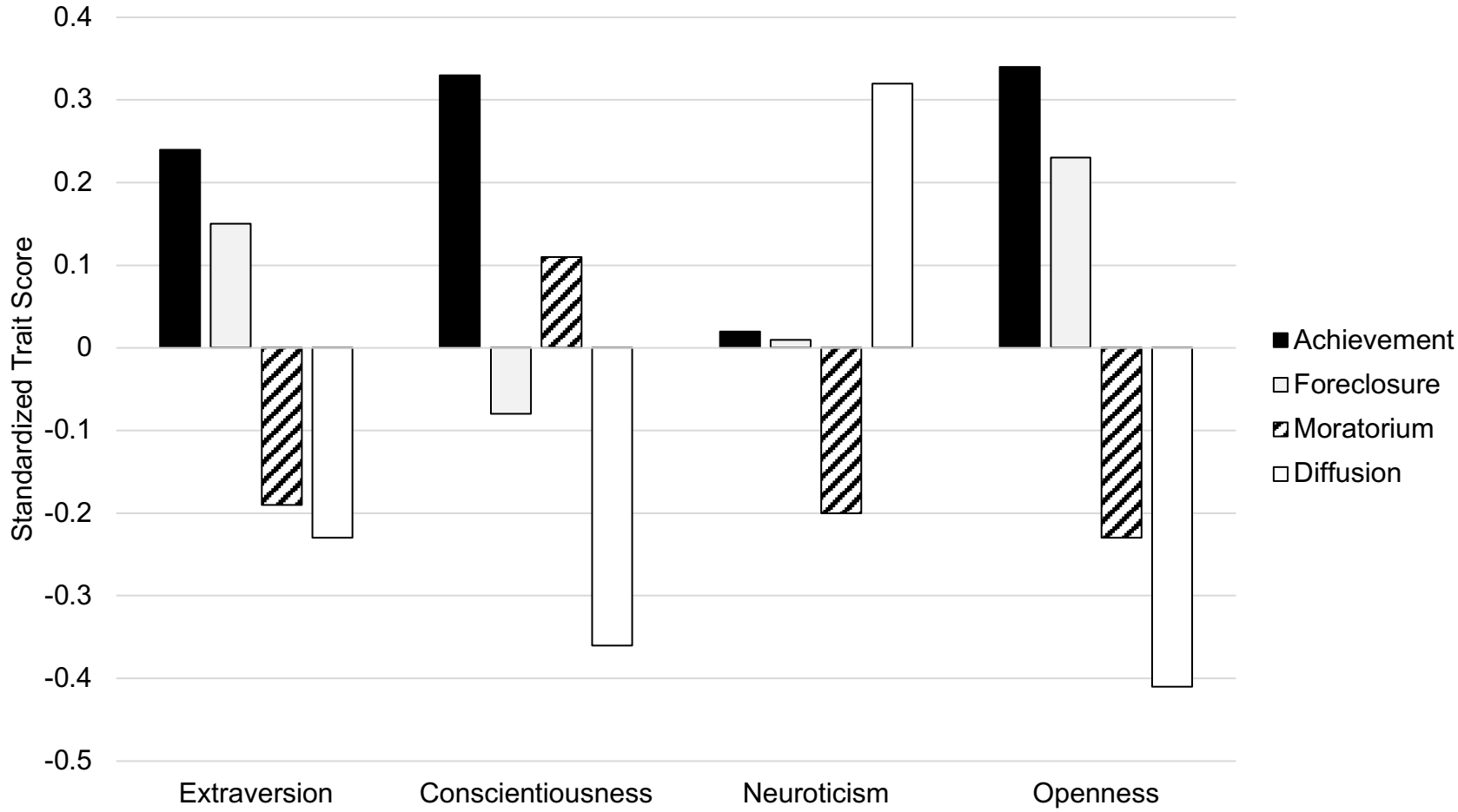
Supplemental Figure 1

Conceptual Model of Personality Development and Identity Development from Childhood to Emerging Adulthood



Supplemental Figure 2

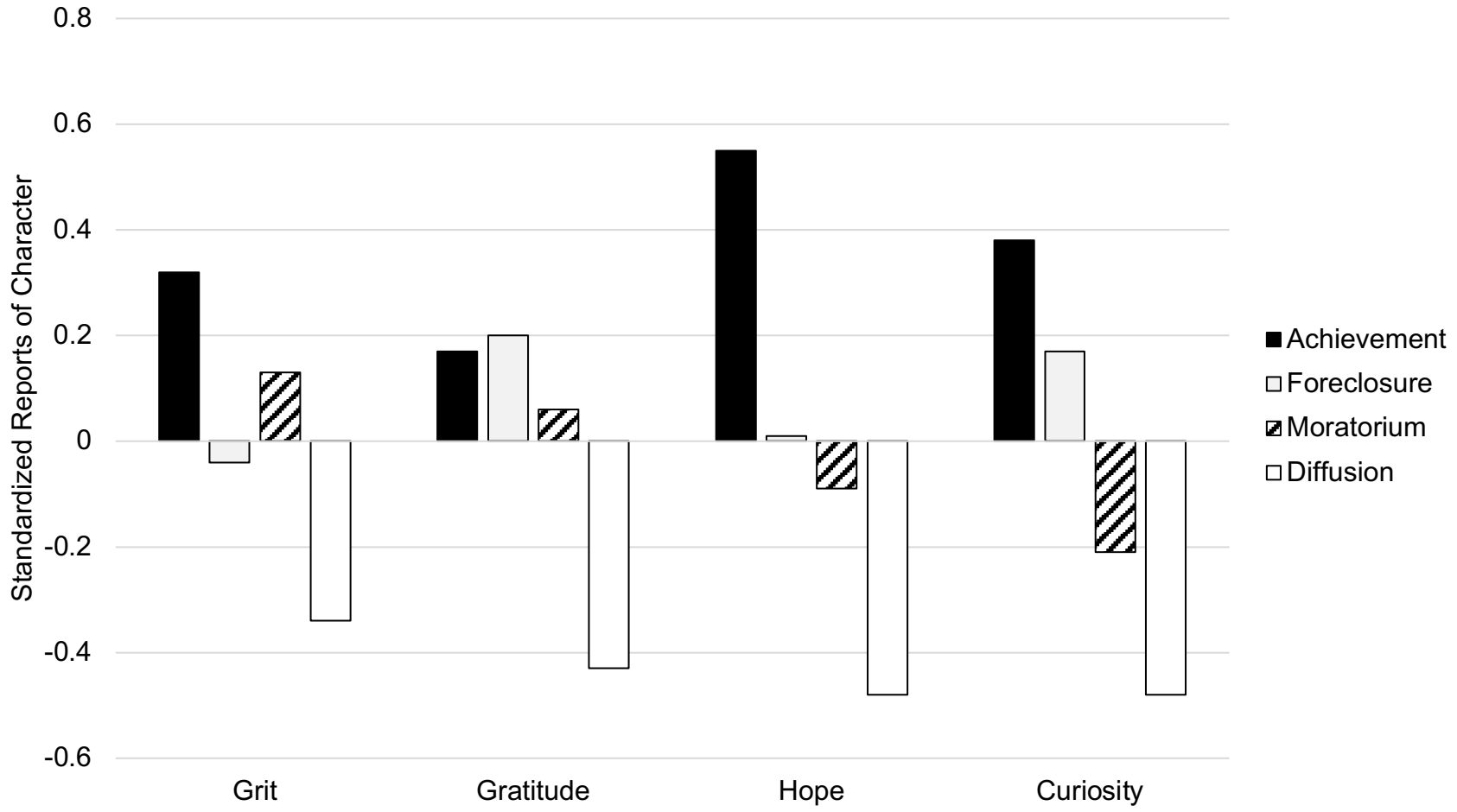
Identity Status Centers and Reported Personality Traits



Note. Agreeableness did not show a significant association with identity statuses and is not included here.

Supplemental Figure 3

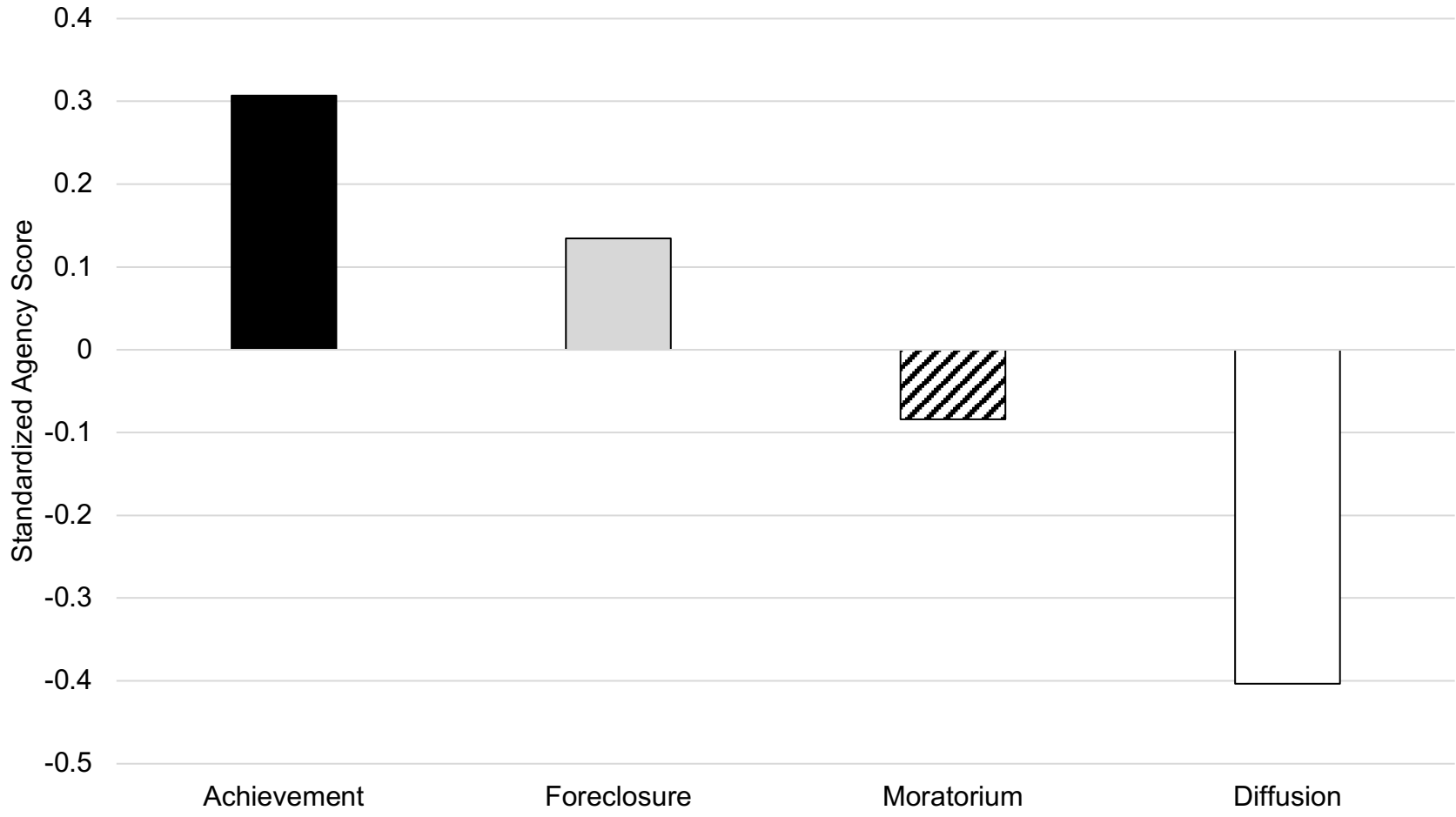
Identity Status Centers and Reported Character Strengths



Note. Forgiveness did not show a significant association with identity statuses and is not included here.

Supplemental Figure 4

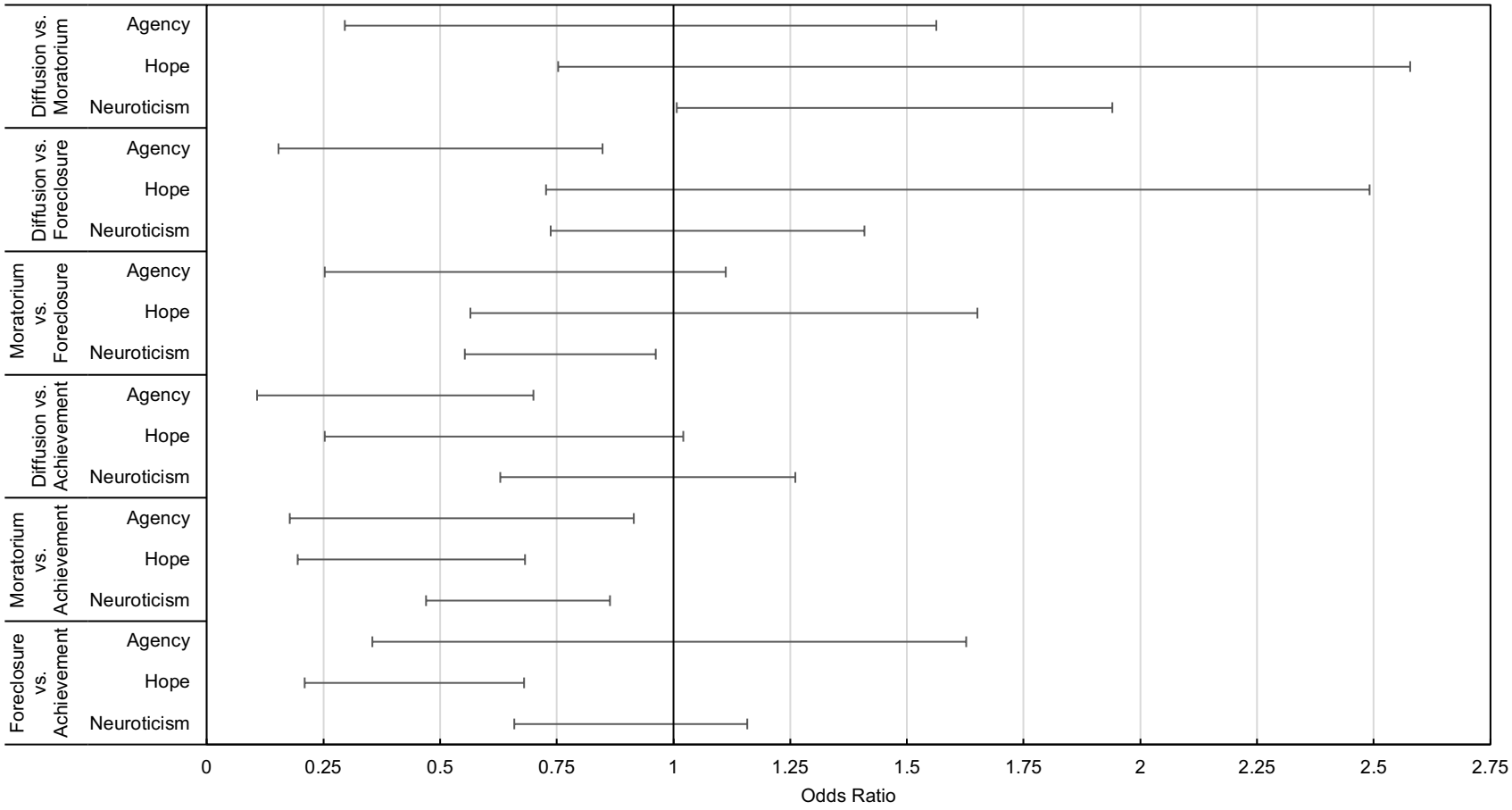
Identity Status Centers and Scores of Expressed Narrative Agency



Note. Narrated communion did not show a significant association with identity statuses and is not included here.

Supplemental Figure 5

Odds Ratio 95% Confidence Intervals for Placement in Identity Statuses given Neuroticism, Hope, and Agency



Note. Only model effects with significant likelihood ratio estimates are shown here. Confidence intervals that did not include the value of 1 were considered significant at the $\alpha = .05$ level. The second class listed in each instance is the reference class. For example, for Diffusion vs. Moratorium, the moratorium class is the reference class.