

Identity Centrality and Psychosocial Functioning: A Person-Centered Approach

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Abstract

There has been increased recognition that identity operates within several “components” and that not every component is likely to be equally central to one’s sense of self. The aim of the current study was to determine the extent to which identity components (i.e., personal, relational, collective, and public) are differentially central to emerging adults’ identity. We used a two-step cluster analytic procedure to identify distinct clusters and determine how these configurations might differ in relation to psychosocial functioning (i.e., well-being, externalizing and internalizing symptoms, illicit drug use, risky sex, and impaired driving). The sample consisted of 8,309 college students (72.8% female; $M_{\text{age}} = 19.94$ years, 18–29, $SD = 2.01$) from 30 U.S. colleges and universities. Analyses identified six unique clusters based on the centrality of the four identity components. The findings indicated that a more well-rounded identity was associated with the most favorable psychosocial functioning. Results are discussed in terms of important directions for identity research and practical implications.

Keywords

identity, psychosocial functioning, cluster analysis, identity centrality, college

In recent decades, the transition to adulthood has become more individualized, with young people largely expected to find their own way into adulthood (Côté & Bynner, 2008). These changes have led to the lengthening of the transition into adult roles—a period that can be characterized as *emerging adulthood* (Arnett, 2000). This shift is, in part, a consequence of recent social-structural changes in Western societies, including the transition from a manufacturing to a technologically based economy that has placed an increased premium on a college education. The college environment is not only essential for acquiring the necessary postsecondary education and advanced credentials, but it also exposes emerging adults to a range of academic courses, social influences, and lifestyle choices (Montgomery & Côté, 2003). As a result, identity development, which generally begins in adolescence, continues to be a central developmental task in emerging adulthood (Arnett, 2004), with the college environment serving as a natural laboratory for working out identity issues.

Although some emerging adults are able to capitalize on the increased independence and prospects offered by this extended moratorium, others experience a sense of confusion and distress related to their lack of direction and sense of self and identity (Côté, 2000; Luyckx et al., 2008). As a coping mechanism, emerging adults may be drawn to substance use or unsafe sexual behavior (Arnett, 2004). Indeed, relative to

other periods of the life span, emerging adulthood is characterized by the highest rates of engagement in health risk behaviors (Chou et al., 2005). Thus, emerging adulthood has been conceptualized as a time of divergent psychosocial pathways, with identity playing a critical role in which way a given individual will go (Arnett, 2000). Consistent with this conceptualization, empirical evidence has emphasized the role that identity plays in promoting well-being and protecting against

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negative psychosocial functioning (for a review, see Schwartz, Zamboanga, Luyckx, Meca, & Ritchie, 2013).

Given the theoretical and empirical links between identity and psychosocial functioning, several scholars have highlighted the critical need for developing identity-focused interventions for emerging adults (e.g., Meca et al., 2014; Schwartz, 2005). However, it is important for interventions to first acknowledge that identity consists of the confluence of various components and that not every component is likely to be an equally central aspect of an individual's sense of self (Brittian et al., 2013; Cheek & Briggs, 1982). Whether a well-rounded integrated identity is necessary for healthy development has remained an empirical question that will help inform the next generation of identity-focused interventions. Using person-centered analyses in the current study, we sought to (a) identify whether various clusters of identity centrality would emerge and (b) whether these clusters would be differentially associated with positive and negative psychosocial functioning and health risk behaviors.

Identity and Models of Identity Development

At the most fundamental level, identity refers to response to the question "Who am I?" (Vignoles, Schwartz, & Luyckx, 2011). A person's answer can draw on an unlimited number of characteristics or identity domains. As a way of organizing these various domains, Sedikides and Brewer (2001) developed a hierarchy composed of three distinct components: personal, relational, and collective. *Personal identity* includes domains that refer to one's goals, values, beliefs, and life story. *Relational identity* encompasses domains that emphasize one's role in relation to other people. *Collective identity* refers to domains indexing identification with groups and social categories such as ethnicity and religion. Extending this model, Cheek, Cheek, Grimes, and Tropp (2014) have identified one's *public identity*,¹ or a focus on public self-monitoring and impression management (Cheek & Briggs, 1982), as an additional component. These components are reflected in both the *content* of one's identity and *process* taken in developing a coherent sense of self. Whereas identity *content* refers to the specific domains (e.g., ethnic and religious) that comprise an individual's identity (Cheek & Briggs, 1982), identity *process* refers to the mechanisms (e.g., exploration and commitment) by which these components become part of an individual's identity (Vignoles et al., 2011). Thus, identity *content* refers to the "what" of identity, whereas *process* refers to the "how it is done."

Identity Centrality

Although the *content* of an individual's identity holds multiple components, not every component is likely to be perceived as equally important to the individual. Identity centrality refers to the enduring relative importance an individual ascribes to a particular identity component or domain (Stryker & Serpe, 1994). We contend that those components or specific domains an individual finds central to his or her identity will be integrated into that individual's sense of self. Consistently,

empirical evidence has supported the positive role of centrality in the successful development of personal (Berzonsky, Macek, & Nurmi, 2003) and ethnic (Brittian et al., 2013) identity. Taken as a whole, identity centrality serves as a method by which researchers may capture the *content* of an individual's identity.

Theoretical Approaches Toward Identity and Identity Integration

As previously specified, whether optimal identity development requires integration of various key identity components (i.e., personal, relational, collective, and perhaps public) remains an open question. Many approaches to personal identity trace their roots to Erikson's (1950) model of psychosocial development, but relational and collective identity models are more likely to be derived from social identity theories grounded largely in the work of Tajfel and Turner (1986). To provide a more complete conceptualization, we provide a brief review of both of these broad theoretical perspectives and their perspectives on identity integration (see Schwartz, Luyckx, & Vignoles, 2011, for a comprehensive review). In addition, we provide a review of public identity.

Neo-Eriksonian perspectives on identity development. In his life span theory of identity development, Erikson posited healthy identity development as involving the integration of multiple identity domains into a cohesive sense of self (Grotevant, 1987; Syed, 2010). Indeed, according to Erikson (1950), identity develops in a dynamic manner involving synthesis (i.e., coherent and internally consistent sense of self) and confusion (i.e., a fragmented or piecemeal sense of self). Although Erikson provided groundwork for conceptualizing identity, his writings were primarily theoretical and clinically oriented, leaving others to develop concrete and empirically testable operational definitions (Côté, 1993). The most prominent such model is Marcia's identity status paradigm (Kroger & Marcia, 2011), which hypothesizes identity development as the intersection of two identity *processes*—exploration (i.e., active consideration of various identity alternatives) and commitment (i.e., selection and adherence to one or more identity alternatives). Within Marcia's status paradigm, establishing identity commitments following a stage of exploration is assumed to lead to a feeling of having an integrated sense of self (Côté & Levine, 2002).

Social identity traditions. The study of social identity grew out of criticisms of the prevailing approaches of the mid-1970s focusing on identity as an individual construction. Social identity theory (SIT) instead focused on collective identifications, wherein individuals formed identities based on their attachments to social groups (Spears, 2011). Social identity is the product of (a) social categorization and knowledge of one's group memberships and (b) emotional evaluation of the significance of those memberships (Tajfel & Turner, 1986). Similar to SIT, Self-categorization theory (SCT) was developed from

the work of Turner, Hogg, Oakes, Reicher, and Wetherell (1987) as a broader theory of the self, more closely focused on the cognitive processes involved in self-categorization. In addition, SCT makes a greater distinction between personal and group identity by conceptualizing the self as existing within a hierarchical structure that extends from personal identification to broader superordinate groups (e.g., racial and religious groups). In addition, this hierarchy extends horizontally, as individuals may hold different personal and social selves that are contextually contingent (Spears, 2011). Although SIT and SCT acknowledge that an individual possesses multiple identities, neither of these approaches specifies how these multiple identities change or whether they should be integrated.

Public identity. Although SIT and SCT are rooted in the concept of categorization, the concept of a public identity is focused on one's image as presented through social roles and relationships (Cheek, Cheek, Grimes, & Tropp, 2014). Theoretically, the concept of public identity draws on William James's (1890) "social me," which emphasizes one's popularity or social reputation as derived from interpersonal relationships. Individuals who emphasize a public identity are thus focused on their physical appearance, mannerisms, and making a good impression on others (Cheeks & Briggs, 1982). Public identity corresponds to what Leary and Allen (2011) have referred to as self-presentation or impression management—focusing on how people attempt (consciously or otherwise) to make themselves look better in the eyes of others. Although Cheek and colleagues (2014) have empirically differentiated public identity from other identity components, no hypothesis has been advanced regarding whether public identity can be or should be integrated into a cohesive self.

The Present Study

Despite their emphasis on integration, neo-Eriksonian perspectives have largely focused on personal identity. On the other hand, the social identity tradition has focused largely on collective identification and has paid relatively little attention to personal self-definitions (Vignoles et al., 2011). In addition, few studies have sought to evaluate the role of public identity in general identity development. As a whole, few studies have examined the relationships between and among various identity domains or broader identity components (Syed, 2010). Those studies that have examined links across identity components or domains have done so around *endorsement*, rather than *importance or centrality*, of each component. Furthermore, it may be possible to consider a domain to be central but still not have done much identity work in that area. The primary aim of the current study is to determine whether distinct patterns of identity centrality could be identified and, in turn, the relationship between these clusters and psychosocial functioning.

Toward this end, in the current study, we employed a person-centered approach to identify unique clusters of individuals with similar patterns of identity centrality (Scholte, van Lieshout, de Wit, & van Aken, 2005). Specifically, we

used a two-step process cluster analysis that has been used in other identity-related studies (e.g., Luyckx et al., 2008; Schwartz et al., 2011). Because we expected observed variables to have direct relationships among themselves, we used cluster analysis rather than latent class analysis, which makes the assumption that the observed variables are independent from one another (Muthén, 2001). We conducted the study using a college sample, given that the college experience serves as a natural laboratory for working out identity issues (Montgomery & Côté, 2003).

As a result of the emphasis on identity integration within neo-Eriksonian identity theories (Grotevant, 1987), we hypothesized one cluster that would be high on all four identity components and one that would be low on all four components. However, it is important to note that the public identity component has been found to be reflective of a poorly organized identity structure where the person is overly concerned with others' opinions (Berzonsky et al., 2003). Thus, we also hypothesized a more adaptive identity centrality cluster defined by a strong focus on personal, relational, and collective identity components but lower focus on public identity. Given the scarcity of prior empirical evidence and the seemingly limitless permutations that could emerge among identity centrality components, we did not advance any additional hypotheses regarding additional clusters or patterns of differences across clusters.

It should be noted that identity centrality is predominately a measure of identity *content* and does not imply that specific component has been *processed*. For example, someone may find their ethnicity to be a central part of their identity but may not have come to terms with the meaning and significance of their ethnicity. That being said, given prior empirical evidence indicating the role identity centrality has in promoting identity processes (Berzonsky et al., 2003; Brittan et al., 2013), and the critical role successful identity development has in promoting psychosocial functioning (Schwartz et al., 2013), we examined whether differences emerged across centrality clusters in terms of personal and domain-specific identity processes or development. Personal identity development was evaluated using Luyckx et al.'s (2008) integrative model: *exploration in breadth* (sorting through identity alternatives), *exploration in depth* (thinking about commitments one has enacted), *commitment making* (selecting one or more alternatives), *identification with commitment* (incorporating life choices into one's identity), and *ruminative exploration* (obsessive worrying over whether one is following the correct path). We hypothesized that clusters marked by high personal identity centrality would be associated with high levels of commitment and adaptive exploration (i.e., exploration in breadth and in depth) and low ruminative exploration. Regarding domain-specific identity development processes, we examined three collective domains: ethnic, U.S., and religious identity. We hypothesized that clusters marked by high collective identity centrality would be associated with high endorsement of ethnic, U.S., and religious identity.

Finally, we explored how the centrality clusters related to positive and negative psychosocial functioning and to health

risk behaviors. Positive psychosocial functioning was measured using three distinct aspects of well-being: (a) subjective well-being (self-esteem and life satisfaction; Pavot & Diener, 1993), (b) psychological well-being (ability to address and master life tasks; Ryff & Keyes, 1995), and (c) eudaimonic well-being (identification and development of unique potentials; Waterman et al., 2010). To assess negative psychosocial functioning, we evaluated differences across clusters on internalizing symptoms (symptoms of depression, general anxiety, and social anxiety), externalizing problems (rule breaking, physical aggression, and social aggression), and risk-taking behaviors (illicit drug use, impaired driving, and unsafe sexual behaviors). Consistent with the Eriksonian perspective, we predicted that the more adaptive and well-rounded (i.e., high on personal, relational, and collective components) centrality clusters would be linked with the most adaptive psychosocial functioning.

Method

Participants

The present sample is a subset of participants from the Multi-Site University Study of Identity and Culture (see Castillo & Schwartz, 2013). Because we sought to examine identity processes in emerging adults, only participants between the ages of 18 and 29 were included in the present analyses. The sample for the present analyses was comprised of 8,309 students (72.8% female; $M_{\text{age}} = 19.94$ years, $SD = 2.01$; ethnicity: 62% White, 14% Hispanic, 13% Asian, 8% Black, and 3% other races/ethnicities; annual reported family income: 19.5% below US\$30,000, 18.8% US\$30,000–50,000, 32.8% US\$50,000–100,000, 29% above US\$100,000) from 30 colleges and universities around the United States (8 Southeast, 4 Northeast, 7 Midwest, 3 Southwest, and 8 West).

Procedures

Data were collected between September 2008 and October 2009 from sites selected to provide a diverse representation of colleges and universities in various regions of the United States. Participants were recruited through printed or e-mailed announcements sent to students attending classes in the disciplines of psychology, sociology, business, family studies, education, and human nutrition. Interested students were directed to a website and asked to read a consent document and confirm their participation. Participants received research/course credits or were entered into a raffle for a prize drawing. The full survey was divided into six separate web pages to allow participants to save their work and resume later. Eighty-five percent of participants submitted all six pages.

Measures

Unless otherwise specified, 5-point Likert-type scales were used for all study measures, with response options ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Alpha coefficients presented are from the current sample.

Identity centrality. The 35-item Aspects of Identity Questionnaire-IV (AIQ-IV; Cheek, Smith, & Tropp, 2002), using a 5-point Likert-type scale ranging from *not important* to *extremely important to my sense of who I am*, was used to assess personal, relational, collective, and public identity centrality. The AIQ-IV consists of 10 items for *personal* ($\alpha = .85$; sample item: “My personal values and moral standards”), 10 items for *relational* ($\alpha = .90$; sample item: “Having close bonds with other people”), 8 items for *collective* ($\alpha = .73$; sample item: “My race or ethnic background”), and 7 items for *public identity centrality* ($\alpha = .83$; sample item: “My popularity with other people”).

Identity development. Personal identity development was assessed using the 25-item Dimensions of Identity Development Scale (Luyckx et al., 2008). Each dimension was assessed using 5 items: *commitment making* ($\alpha = .92$; sample item: “I have a clear view of my future”), *identification with commitment* ($\alpha = .93$; sample item: “I value my plans for the future very much”), *exploration in breadth* ($\alpha = .84$; sample item: “I think a lot about how I see my future”), *exploration in depth* ($\alpha = .80$; sample item: “I think a lot about the future plans I strive for”), and *ruminative exploration* ($\alpha = .84$; sample item: “I worry about what I want to do with my future”).

Ethnic identity was evaluated using the 12-item ($\alpha = .91$; sample item: “I have a clear sense of my ethnic background and what it means for me”) Multi-Group Ethnic Identity Measure (MEIM; Phinney, 1992), one of the most commonly used ethnic identity instruments (Phinney & Ong, 2007). *U.S. identity* was measured using the 12-item ($\alpha = .90$; sample item: “I understand pretty well what being American means to me”) American Identity Measure (AIM; Schwartz et al., 2012). *Religious identity* was measured using the 7-item ($\alpha = .95$; sample item: “I participate in activities from my religion, such as special food, music, or customs”) Religious Identity Measure² (RIM; *Unpublished*). Both the AIM and RIM are adapted versions of MEIM with “the United States” and “my religion” inserted in place of “my ethnic group.” Although the MEIM and AIM both have subscales assessing exploration and commitment, given the high correlation between both exploration and commitment within each measure, and given the fact that the RIM solely captures the process of commitment, we used total scores representing commitment in these respective domains.

Positive psychosocial functioning. *Self-esteem* was assessed using the 10-item ($\alpha = .89$, sample item: “I take a positive attitude toward myself”) Rosenberg (1965) Self-Esteem Scale. *Life satisfaction* was assessed using the 5-item Satisfaction with Life Scale (Pavot & Diener, 1993), answered on a 6-point Likert-type scale ($\alpha = .87$, sample item: “The conditions of my life are excellent”). *Psychological well-being* was measured using the 18-item Scales of Psychological Well-Being (Ryff & Keyes, 1995), which uses a 6-point Likert-type scale ($\alpha = .83$, sample item: “I like most aspects of my personality”). *Eudaimonic well-being* was measured using

the 21-item ($\alpha = .87$, sample item: "I believe I have discovered who I really am") Questionnaire for Eudaimonic Well-Being (Waterman et al., 2010).

Negative psychosocial functioning. Negative psychosocial functioning was assessed in terms of internalizing (depressive symptoms, general anxiety, and social anxiety) and externalizing (rule-breaking, social aggression, and physical aggression) symptoms. *Depressive symptoms* were assessed using the 20-item Center for Epidemiological Studies Depression Scale (Radloff, 1977). The items are responded to using 4-point scales ranging from 1 = *seldom* to 4 = *most of the time* ($\alpha = .86$, sample item: "I felt like crying this week"). *General anxiety* symptoms during the previous week were assessed using an 18-item version of the Beck Anxiety Inventory (Beck, Epstein, Brown, & Steer, 1988) adapted for use with nonclinical populations ($\alpha = .95$, sample item: "I have been worrying a lot this week"). *Social anxiety* symptoms were assessed using the 19-item ($\alpha = .94$, sample item: "I am tense in a group") Social Interaction Anxiety Scale (Mattick & Clarke, 1998).

Externalizing symptoms were assessed using the Subtypes of Antisocial Behavior Questionnaire (Burt & Donnellan, 2009), a 32-item instrument that assesses three subtypes of antisocial behavior. Participants were asked to rate their engagement in *rule breaking* (11 items, $\alpha = .86$; sample item: "Stole things from a store"), *social aggression* (11 items, $\alpha = .86$; sample item: "Intentionally damaged someone's reputation"), and *physical aggression* (10 items, $\alpha = .86$; sample item: "Got into physical fights").

Health risk behaviors. *Illicit drug use, impaired driving, and unsafe sexual behaviors* were assessed using a modified version of the Youth Risk Behavior Surveillance Survey (Eaton et al., 2008). Each item asked participants to indicate their frequency of engagement in a specific risky behavior during the 30 days prior to assessment. Participants were asked about illicit drug (i.e., marijuana, hard drugs, inhalants, injecting drugs, and misuse of prescription drugs), impaired driving (i.e., drunk/drugged driving or riding with a driver who was drunk or high), and unsafe sexual behaviors (i.e., casual sex, unprotected sex, and sex while drunk/high). The response scale consisted of five choices: 0 (*never*), 1 (*once/twice*), 2 (*3–5 times*), 3 (*6–10 times*), and 4 (*more than 10 times*). Because count variables do not lend themselves to simple analysis, we dichotomized each behavior (i.e., illicit drug use, impaired driving, and unsafe sexual behavior) according to whether or not the participant had engaged in that behavior during the month prior to assessment.

Results

Creation of the Identity Centrality Clusters

Using SPSS (version 22.00, IBM Corp., 2011) and Ginkgo Software (version 1.4; De Caceres, Oliva, Font, & Vives, 2007), we followed a two-step process to create the identity

centrality clusters (Gore, 2000). In the first step, hierarchical cluster analysis was carried out in SPSS using Ward's method and squared Euclidean distances (Steinley & Brusco, 2007). In the second step, cluster centers from the hierarchical analysis were used as nonrandom starting points in an iterative k -means clustering procedure conducted in Ginkgo (Breckenridge, 2000). Prior to creating the clusters however, the four identity component centrality scores were standardized using z -scores. In addition, given that outliers can lead to spurious results in hierarchical cluster analysis (Everitt, Landau, Leese, & Stahl, 2011), the data were also screened for outliers. Results indicated 134 univariate outliers (i.e., values more than 3 SD below or above the mean) and 28 multivariate outliers (i.e., individuals with Mahalanobis D^2 values of .001 or less). These 162 cases were not included in the clustering analysis, leaving a final sample size of 8,309 participants.

We considered solutions with two to eight clusters and compared the solutions using multiple criteria: the very sensitive variance ratio criterion known as the Calinski-Harabasz index (CH; Steinley, 2006), the Davies-Bouldin criterion (DB; Davies & Bouldin, 1979) which focuses on dissimilarity between clusters, and the variance explained in the indicator variables (adjusted R^2 ; Milligan & Cooper, 1985). For the CH and DB indices, lower values represent a better fitting model. As displayed in Table 1, the CH indicated that the two-, three-, or six-cluster solution provided the best fit. The DB criteria indicated that the six- and two-cluster solution provided the best fit. Inspection of explained variance indicated that the two-, three-, and four-cluster solution did not explain sufficient variance (<50%) in the indicator variables. Taken together, the three clustering criteria suggested that a six-cluster solution would provide the most parsimonious and meaningful representation of the data.

To conduct a double cross-validation procedure (Breckenridge, 2000), we randomly split the sample into two halves, and the full two-step procedure was applied to each half-sample. Participants within each half-sample were assigned to new clusters based on the final centroids from the other half-sample. We compared the two solutions within each half-sample by estimating the partition congruence using a variety of criteria described by Severiano, Carriço, Robinson, Ramirez, and Pinto (2011) and an online tool available at <http://darwin.phyloviz.net/ComparingPartitions>. Using 95% confidence intervals of the congruence estimates based on bootstrapping using the jackknife method between .95 and .99, all criteria pointed to a stable and replicable six-cluster solution.

Table 2 presents the final six-cluster solution. Each cluster's mean z -scores indicate how far that cluster deviates from the total sample average score and from the other clusters (Scholte et al., 2005), and may thus be interpreted as indices of effect size. Of the six clusters, one was characterized by high centrality across all identity components (Engaged/Public, $n = 1,356$, 16.3%); one by low centrality across all identity components (Disengaged, $n = 901$, 10.7%); one by moderately high levels of personal, relational, and collective identity centrality and low levels of public identity centrality (Fully Engaged,

Table 1. Cluster Fit Criteria.

Clusters	CH-Pseudo	Davies-Bouldin	R^2			
			Personal Centrality (%)	Relational Centrality (%)	Collective Centrality (%)	Public Centrality (%)
2	13,931.56	1.331	42	46	26	31
3	12,960.59	1.444	55	58	43	37
4	11,866.89	1.508	61	65	52	42
5	11,691.94	1.370	61	63	57	56
6	12,902.44	1.275	63	67	63	63
7	12,520.32	1.347	64	65	67	68
8	12,560.53	1.355	68	70	68	69

Table 2. Mean Standardized Scores for Identity Centrality by Identity Centrality Clusters.

Identity Centrality	Fully Engaged	Low Collective/Public	Engaged/Public	Disengaged	Low Collective	Low Personal/Relational
Personal identity	0.59 (.51)	-0.03 (.61)	0.87 (.52)	-1.54 (.62)	0.42 (.54)	-0.48 (.50)
Relational identity	0.54 (.51)	-0.12 (.62)	0.84 (.47)	-1.55 (.57)	0.62 (.49)	-0.50 (.52)
Collective identity	0.64 (.56)	-0.98 (.61)	1.27 (.62)	-0.64 (.67)	-0.54 (.58)	0.20 (.55)
Public identity	-0.45 (.58)	-1.00 (.62)	1.18 (.58)	-0.84 (.69)	0.66 (.56)	0.17 (.56)

Note. Standard deviations presented in parentheses.

$n = 1,432$, 17.2%); one by low levels of collective and public centrality and moderate levels of personal and relational centrality (Low Collective/Public, $n = 1,276$, 15.6%); one by moderately high levels of personal, relational, and public centrality and low levels of collective centrality (Low Collective, $n = 1,598$, 19.2%); and one by moderately low personal and relational identity centrality and moderate public and collective identity centrality (Low Personal/Relational, $n = 1,746$, 21%).

Descriptive Statistics of Derived Clusters

Having established and replicated the identified cluster solution, for purposes of contextualizing the clusters, we examined the extent to which the clusters would differ by gender, ethnicity, age, and income. Significant gender differences emerged in cluster membership, $\chi^2(5, N = 8,259) = 204.17, p < .001$, Cramér's $V = .16$. As displayed in Table 3, a greater percentage of women than men were classified into the Fully Engaged, Low Collective/Public, and Low Collective clusters. A greater proportion of men than women were classified into the Disengaged and Low Personal/Relational clusters. Moreover, significant ethnic differences emerged in cluster membership, $\chi^2(15, N = 8,119) = 283.90, p < .001$, Cramér's $V = .09$. Specifically, with the exception of Asians, who were the least represented group in the Fully Engaged cluster, clusters marked by high collective identity centrality (i.e., Fully Engaged, Engaged/Public, and Low Personal/Relational) were characterized by an overrepresentation of minority groups. Likewise, the Disengaged cluster was marked by an overrepresentation of minority groups. On the other hand, with the exception of the Disengaged cluster, results indicated that White participants tended to be overrepresented in clusters marked by low levels of collective identity (i.e., Low Collective/Public and Low Collective). Finally, to identify

differences across early, middle, and later emerging adulthood, we classified individuals into three age-groups (18–21, 22–24, and 25–29) and conducted a χ^2 analysis. Results indicated a significant yet small difference, $\chi^2(10, N = 8,280) = 19.769, p < .032$, Cramér's $V = .035$. Specifically, there was a greater number of 24- to 29-year-olds in the Low Collective/Public and Low Collective clusters. Similarly, results indicated a significant yet small difference across self-reported income, $\chi^2(15, N = 8,082) = 53,166, p < .001$, Cramér's $V = .047$. Pairwise comparisons indicated participants with a family income below US\$30 K were overrepresented in the Low Collective/Public cluster while participants earning over US\$50 K were overrepresented in the Low Collective cluster. Despite these significant differences in age and income, given the small effect size, results are likely due to the large sample size.

Evaluation of Identity Centrality Clusters

The next step of analysis was aimed at comparing identity development, positive and negative psychosocial functioning, and health risk behaviors across clusters. All analyses were conducted using structural equation modeling in Mplus, with a sandwich covariance estimator (Kauermann & Carroll, 2001) to adjust standard errors for model parameters to account for the nesting of participants within data collection sites. For each domain (i.e., identity development, positive and negative psychosocial functioning, and health risk behaviors) where significant results emerged, follow-up pairwise comparisons were conducted whereby each identity centrality cluster was used as a reference group and the other clusters were dummy coded. Model fit was evaluated using the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). According to values suggested by Kline

Table 3. Gender and Ethnicity by Identity Centrality Cluster.

	Fully Engaged (%)	Low Collective/Public (%)	Engaged/Public (%)	Disengaged (%)	Low Collective (%)	Low Personal/Relational (%)
Gender						
Male	10.9 _b	13.2 _b	15.5 _a	16.0 _a	17.8 _b	26.5 _b
Female	19.6 _a	16.2 _a	16.6 _a	8.9 _b	19.8 _a	18.9 _a
Ethnicity						
Black	20.9 _a	12.5 _{c,b}	19.5 _a	14.3 _a	8.6 _c	24.2 _{a,b}
White	16.4 _b	17.5 _a	14.3 _b	9.7 _b	23.0 _a	19.1 _c
Asian	13.6 _b	8.6 _b	19.8 _a	13.9 _a	16.6 _b	27.5 _a
Hispanic	21.8 _a	15.1 _{c,a}	19.6 _a	10.3 _{a,b}	12.0 _c	21.3 _{b,c}
Age						
19–21	17.1 _a	15.0 _b	16.4 _a	10.8 _a	19.6 _a	21.2 _a
22–24	17.9 _a	16.2 _{a,b}	17.0 _a	11.2 _a	16.3 _b	21.4 _a
24–29	17.1 _a	21.3 _a	13.9 _a	10.0 _a	21.6 _{a,b}	16.1 _a
Income						
Below 30K	17.1 _a	17.8 _a	15.4 _a	12.9 _a	16.7 _b	20.0 _a
30–50K	18.1 _a	15.6 _{a,b}	16.8 _a	11.3 _{a,b}	15.7 _b	22.5 _a
50–100K	17.2 _a	15.6 _{a,b}	16.4 _a	9.6 _b	20.7 _a	20.6 _a
Above 100K	16.4 _a	13.9 _b	16.4 _a	10.2 _{a,b}	22.1 _a	21.0 _a

Note. Means that do not share a subscript in common differ by at least $p < .001$.

(2006), good model fit is represented as $CFI \geq .95$, $RMSEA \leq .05$, and $SRMR \leq .06$; and adequate fit is represented as $CFI \geq .90$, $RMSEA \leq .08$, and $SRMR \leq .08$.

Identity Development by Identity Centrality Cluster Membership

Our first step of cluster validation was to examine the extent to which the identity centrality clusters differentiate across indicators of personal and domain-specific identity development. For purposes of simplicity, and as a way of reducing multicollinearity, we used a latent variable for the two personal identity commitment variables and a second latent variable for the two adaptive exploration variables. Ruminative exploration was retained as an observed variable. The resulting model was associated with good fit: $\chi^2(23) = 403.355$, $p < .001$; $CFI = .989$; $RMSEA = .045$; $SRMR = .014$. As displayed in Table 4, pairwise comparisons indicated that commitment was highest in the Fully Engaged and Engaged/Public clusters and lowest in the Disengaged cluster, whereas adaptive exploration was highest in the Engaged/Public cluster and lowest in the Disengaged. Ruminative exploration was lowest in the Fully Engaged and Low Collective/Public clusters and equally high across all other clusters. Regarding domain-specific identity development, the Fully Engaged cluster was characterized by the highest levels of ethnic and U.S. identity. For ethnic identity, the Disengaged cluster, followed by the Low Personal/Relational cluster, was associated with the lowest scores, whereas the Disengaged and Low Collective/Public clusters were associated with lowest scores on U.S. identity. Finally, religious identity was highest in the Engaged/Public and the Fully Engaged clusters, and lowest in the Low Collective/Public, Low Collective, and Disengaged clusters.

Psychosocial Functioning by Identity Centrality Cluster Membership

Next, we created latent factors for well-being, internalizing symptoms, and externalizing symptoms. The model for these latent variables was associated with adequate fit: $\chi^2(81) = 2,227.135$, $p < .001$; $CFI = .922$; $RMSEA = .059$; $SRMR = .042$. Pairwise comparisons indicated that positive psychosocial functioning was highest in the Fully Engaged (followed by the Engaged/Public) cluster and lowest in the Disengaged cluster. Internalizing symptoms were lowest in the Fully Engaged and Low Collective/Public clusters and were highest in the Disengaged cluster. Externalizing symptoms were lowest in the Low Collective/Public (followed by the Fully Engaged) cluster and highest in the Disengaged cluster.

Health Risk Behaviors by Identity Centrality Cluster Membership

Given that health risk behavior outcomes were entered as observed variables, the model with these outcomes was saturated. As shown in Table 4, pairwise logistic comparisons indicated that the Fully Engaged, Engaged/Public, and the Low Personal/Relational clusters were associated with lowest prevalence of unsafe sexual behaviors. The Fully Engaged and Low Collective/Public clusters were associated with the lowest risk for impaired driving. The Fully Engaged cluster, followed by the Engaged/Public cluster, was also associated with the lowest prevalence of illicit drug use. The Disengaged cluster was marked by the highest prevalence of all of the health risk behaviors. A subsequent analysis was conducted evaluating differences in prevalence of “harder” drug use (excluding marijuana) across clusters. This additional analysis was undertaken for two reasons: (a) the relatively high

Table 4. Psychosocial Functioning by Identity Centrality Clusters.

	Fully Engaged	Low Collective/Public	Engaged/Public	Disengaged	Low Collective	Low Personal/Relational
Identity development						
Personal identity						
Commitment	0.243 _a	-0.093 _c	0.268 _a	-0.358 _d	-0.026 _b	-0.133 _c
Exploration	0.131 _b	-0.125 _c	0.306 _a	-0.434 _d	0.114 _b	-0.135 _c
Ruminative exploration	2.980 _a	3.002 _a	3.214 _b	3.182 _b	3.200 _b	3.222 _b
Domain-specific identity						
Ethnic identity	3.321 _a	3.284 _b	3.242 _c	2.872 _e	3.341 _c	3.110 _d
American identity	4.140 _b	3.536 _d	4.304 _a	3.578 _d	3.550 _d	3.840 _c
Religious identity	2.290 _a	1.858 _c	2.295 _a	1.843 _c	1.812 _c	2.057 _b
Positive functioning	0.324 _a	0.101 _c	0.156 _b	-0.533 _f	0.058 _d	-0.243 _e
Negative functioning						
Internalizing symptoms	-0.148 _a	-0.125 _a	0.019 _c	0.273 _e	-0.033 _b	-0.089 _d
Externalizing symptoms	-0.169 _a	-0.181 _a	0.019 _c	0.469 _e	-0.109 _b	0.146 _d
Health risk behaviors ^a						
Unsafe Sexual behaviors	46.10% _a	52.30% _{b,c}	47.60% _a	54.50% _c	54.30% _c	49.70% _{a,b}
Impaired driving	24.90% _a	26.70% _a	33.70% _b	44.60% _d	34.60% _b	39.50% _c
Illicit drug use	14.40% _a	22.30% _c	18.80% _b	31.90% _e	26.10% _d	24.10% _{c,d}
Excluding marijuana	3.50% _a	6.10% _b	4.80% _{a,b}	18.80% _d	7.30% _{b,c}	8.80% _c

Note. Means that do not share a subscript in common differ by at least $p < .001$.

^aFor interpretation, percentages of participants who have engaged in behavior in last 30 days are presented for all Health Risk Behaviors.

prevalence rate of marijuana use in the last 30 days (20.6%) could potentially mask theoretically meaningful differences and (b) the risks associated with marijuana use are less severe than other more “hard drugs” (Nutt, King, Phillips, & Independent Scientific Committee on Drugs, 2010). Although the pattern of findings was similar to that observed when marijuana use was included, two notable differences emerged. Specifically, there were no significant differences between the rates among the Low Collective/Public, Engaged/Public, and Low Collective clusters; and participants in the Disengaged cluster were twice as likely as those in the next highest cluster to engage in illicit drug use.

Discussion

The primary aim of this study was to determine whether a well-rounded or balanced identity is essential for healthy development. Toward this end, we used person-centered techniques to evaluate whether identity components are differentially central to emerging adults' identity, and how these configurations differ in terms of identity development and psychosocial functioning. The two-step cluster analytic procedure identified six unique and relatively equal in size clusters based on the centrality of four identity components (i.e., personal, relational, collective, and public) in emerging adults' lives. Consistent with our hypotheses, two of these clusters appeared to be polar opposites: one defined by attention to all identity components (Engaged/Public) and another defined by the relative absence of focus on any identity component (Disengaged). Also consistent with our hypothesis, an optimal cluster was extracted defined by a strong focus on personal, relational, and collective identity components combined with lack of interest in public identity (Fully Engaged). We also extracted three additional

clusters (Low Collective/Public, Low Collective, and Low Personal/Relational). These findings indicate that individuals may adopt various identity configurations (Schachter, 2004). As per many neo-Eriksonian theories (Grotevant, 1987; Tajfel & Turner, 1986), our findings indicate that a more well-rounded identity was associated with high psychosocial functioning.

Identity Centrality Clusters

Consistent with our hypothesis, our analyses produced a cluster marked by a lack of identity centrality across all components. Participants in the Disengaged cluster reported the lowest levels of personal and domain-specific identity development. Individuals in this cluster appear uninterested in any identity component and have not engaged in much identity work. In addition, the Disengaged cluster was associated with the lowest level of well-being, the highest levels of internalizing and externalizing symptoms, and the highest prevalence of risky behaviors. Given the critical role of identity during emerging adulthood, it is likely that individuals in the Disengaged cluster are struggling to find their own way into adulthood (Arnett, 2000; Schwartz, Côté, & Arnett, 2005). Although this was the smallest cluster (10.7%), this finding emphasizes the importance for implementing identity-focused interventions. For some, the availability of multiple choices, combined with the pressure of personal responsibility, makes the experience of emerging adulthood overwhelming, and may lead to increases in symptoms of anxiety and depression and predispose some individuals to high risk behavior (Arnett, 2000).

On the other side of the spectrum, results suggested that the Fully Engaged and Engaged/Public clusters were associated with the highest scores on indicators of successful personal and domain-specific identity development. However, the Engaged/

Public cluster had significantly higher levels of adaptive and ruminative exploration relative to the Fully Engaged cluster. Given that ruminative exploration is likely to result in discarding commitments and in reductions in well-being (Crocetti, Klimstra, Keijsers, Hale, & Meeus, 2009), it is not surprising that the Fully Engaged reported higher well-being and endorsed lower negative psychosocial functioning than the Engaged/Public cluster. Consistent with our hypotheses and previous empirical work (Berzonsky et al., 2003), the difference between these clusters may indicate that including a focus on public aspects of the self (e.g., impressions on others) may encourage maladaptive identity exploration. Studies have found situation-specific approaches to identity to be ineffective because individuals must consistently modify their sense of self to make a positive impression on others (Berzonsky and Ferrari, 2009). Thus, the Engaged/Public configuration may represent a cluster marked by an interest in pleasing others, perhaps leading these individuals' identities to remain in context flux and potentially inhibiting the development of an integrated identity. Future studies should further evaluate the relationship between the public identity component, as defined by Cheek and Briggs (1982), and psychosocial functioning.

Similar to the Fully Engaged cluster, the Low Collective cluster was marked by a focus on all components except collective identity. The Low Collective cluster was associated with comparatively low levels of commitment processes and domain specific identity development and slightly elevated levels of adaptive and ruminative exploration. Erikson's (1968) psychosocial approach proposes that identity emerges at the intersection between the individual and society. Similarly, SITs focus on the role of group identification in providing individuals with a distinct and meaningful identity and maintain that people derive well-being from membership in social groups (Tajfel & Turner, 1986). Thus, individuals who solely focus on their personal identity development and do not focus on where they fit within society or attend to the groups to which they belong may be hindering their identity development. Nevertheless, the Low Collective cluster was generally similar, although to a lesser degree, to the Fully Engaged and Engaged/Public clusters on both positive and negative psychosocial functioning.

The Low Collective/Public cluster was defined by a lack of focus on collective and public identity and a slightly below-average focus on personal and relational components. The Low Collective/Public cluster was associated with low levels of commitment and adaptive exploration, but also with the lowest levels of ruminative exploration. In addition, although we hypothesized that clusters marked by low identity centrality would be indicative of poor psychosocial functioning, our results did not necessarily support this prediction. Instead, findings seemed to parallel the "carefree diffused" status extracted and defined by Luyckx et al. (2008). Specifically, although individuals within this cluster were marked by a lack of engagement or interest in personal identity work, they also scored low on ratings of anxiety and symptoms of depression. A lack of interest in personal identity development, coupled

with a lack of a concern for group identity components, may leave these individuals feeling less pressured to develop their identity and free of the confusion and distress associated with identity exploration. That being said, the Low Collective/Public cluster was associated with comparatively well-being.

As a whole, the Low Collective and Low Collective/Public clusters highlight the importance of implementing person-centered approaches. Specifically, while a variable-centered approach would have likely indicated that collective identity is associated with overall healthy psychosocial development, the current findings indicate that a collective identity orientation may not be a necessary condition for healthy psychosocial functioning so long as individuals are able to derive a sense of self from other identity components. That being said, it is important to note that the Fully Engaged configuration was still associated with the most favorable psychosocial outcomes. Longitudinal studies are necessary to evaluate whether a focus on collective identity, in conjunction with other identity components, is necessary for healthy psychosocial functioning.

Finally, the Low Personal/Relational cluster, the largest cluster (21%), was typified by a low orientation toward personal and relational components and a slightly above average orientation toward collective and public identity components. Overall, the Low Personal/Relational cluster was similar to (albeit somewhat more moderate than) the Disengaged cluster. A focus solely on collective and public identities, to the exclusion of personal and relational identity, appears to be detrimental to positive psychosocial functioning during emerging adulthood. This finding yet again emphasizes the unique contributions of implementing person-centered analyses. Specifically, our results indicate not only that personal and relational identity orientations are associated with healthy psychosocial functioning but also that these components serve as a necessary condition for healthy development. Without a personal identity serving to guide them, emerging adults may be unable to focus on where they fit within society. Indeed, despite the moderate focus on collective identity, the Low Personal/Relational cluster was associated with low ethnic identity and with moderate U.S. and religious identity development. Coupled with the need to maintain a positive public impression, these individuals may succumb to maladaptive identity exploration or may evidence a reluctance to confront and deal with identity conflicts (Berzonsky et al., 2003). In turn, they are likely to experience a sense of anomie and confusion related to the lack of direction in their lives (Luyckx et al., 2008) and may turn to risky behavior to relieve this stress and confusion.

Limitations and Future Directions

The current results should be interpreted in light of several limitations. First, cluster analysis, as a data-driven procedure, must be interpreted in the context of the sample composition. Given that the current sample was not randomly selected, was comprised solely of college students, and was disproportionately female, appropriate caution must be taken when generalizing the results of the current study to other populations of interest.

That being said, a person-centered approach provided findings that may not have become apparent using a variable-centered approach. Second, the cross-sectional design used in this study limits not only what conclusions can be drawn but also what questions can be asked. Identity is a developmental process and therefore is likely to develop unevenly across identity components. Although one identity component may not be central to an individual's sense of self at a particular moment (Goossens, 2001), it may be at a later time. To date, no study has evaluated the developmental trajectory of identity centrality across the various identity components. Thus, we do not presently know the extent to which college students change in terms of their identity profiles as a result of attending university, or whether these profiles are more stable and characterological. Future studies should employ longitudinal designs to evaluate whether and how individuals' identity centrality changes over time and how these patterns relate to psychosocial functioning.

In addition, it is critical to note key limitations with the AIQ. In particular, the AIQ measures which components are central to an individual's sense of identity. Thus, although our findings indicate that a well-rounded focus on key identity components is associated with healthy psychosocial functioning, we were not able to identify whether or not these components must be integrated into a cohesive whole. For example, although personal and collective identity components may be central to an individual's sense of self, this does not imply these components have been integrated. As noted by Syed (2010), some individuals may develop an integrated sense of self, whereas for others, identity components may not fit together or may operate largely independently. Identity integration, however, cannot be evaluated solely through quantitative means. Instead, mixed-method methodology is required to shed light on the importance of integration. Finally, it is important to note that, within a given identity component (e.g., collective identity), individuals may place unequal weight across identity domains (e.g., ethnic and U.S. identity; Brittan et al., 2013). Thus, it may be more appropriate for future studies to examine domain-specific identity centrality as opposed to centrality across broader components.

Practical and Clinical Implications

Beyond their theoretical implications, the present findings have important implications for clinicians and counselors, particularly for those in university counseling settings. The present findings suggest that, although not all identity components may be particularly central for everyone, individuals who are able to devote attention to personal, relational, and collective components appear to be the most well-adjusted. However, only 17% of emerging adults in the sample could be classified into the Fully Engaged cluster. Consistent with the identity literature, these findings further support the need for developing interventions that can encourage identity work in emerging adults. However, a recent review (Eichas, Meca, Montgomery, & Kurtines, 2014) identified only a handful of identity-focused interventions designed for emerging adults.

Schwartz, Montgomery, and Kurtines (2005) were among the first to design strategies for promoting personal identity development among emerging adults. Using a group-based empowerment approach, Schwartz et al. (2005) used cognitive- and emotion-focused strategies to target self-construction (i.e., critical evaluation of identity alternatives) and self-discovery (i.e., the feeling that an identity alternative resonates with one's true self). Specifically, group work consisted of activities focused on identifying, critically evaluating, and exploring feelings associated with identity-related life choices. Building on these strategies, Berman, Kennerley, and Kennerley (2008) and Meca et al. (2014) found that identity-focused interventions were associated with positive identity development. However, these interventions have focused solely on personal identity. Results from the current study emphasize the need for the next generation of intervention to target multiple components of identity and to develop strategies focused on identity integration.

Conclusions

Despite its limitations, the current study represents a step forward in examining identity as a multifaceted construct. By mapping individual differences in relative centrality across four broad components of identity, the current study further represents an important advance in moving toward a more complete understanding of identity development. It is hoped that this study will stimulate the identity literature to incorporate the various levels of identity and to examine the relative centrality of these components.

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Notes

1. Originally coined as Social Identity by Cheek and Briggs (1982). For purposes of conceptual and theoretical clarity, the term has been renamed as public identity given its specific focus on impression management and public self-monitoring.
2. Psychometric evaluation of the Religious Identity Measure in this study's sample indicated configural (same measurement model fits well across groups), metric (equal loadings), and scalar (equal intercepts) invariance between religious and nonreligious identifications (i.e., no religion, agnostic, and atheist). We also proceeded to evaluate difference across all major religious and nonreligious identifications (i.e., Protestant, Assemblies of God, Roman Catholic, Orthodox Catholic, Jewish, Mormon, Muslim, Hindu, Buddhist, no religion, agnostic, and atheist). In this complex multigroup analysis, results provided evidence for configural invariance and supported partial metric and scalar invariance. More specifically, while there was a significant decline in model

fit after imposing metric and scalar constraints, no single factor loading or intercept were found to vary across religious identifications, allowing us to safely retain all items.

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