

Good Choices, Poor Choices: Relationship Between the Quality of Identity Commitments and Psychosocial Functioning

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Abstract

Research indicates making identity commitments on the part of emerging adults is associated with a wide range of psychosocial benefits. Data from a large research collaborative were used to evaluate hypotheses drawn from eudaimonic identity theory that the benefits of commitment are attributable to the quality of the commitments held. Findings from a study with 9,650 students attending 30 colleges and universities replicated previous research indicating the benefits of identity commitments with respect to subjective well-being, psychological well-being, self-esteem, an internal locus of control; and reduced likelihood of symptoms of general anxiety, social anxiety, and depression. However, when a measure of the quality of identity commitments was added to the analyses, results indicated that commitment quality accounted almost entirely for the associations of identity commitments with psychosocial functioning. Identity commitments of low quality were found to be associated with psychological costs rather than benefits. Implications for helping emerging adults distinguish better identity choices are discussed.

Keywords

identity, well-being, eudaimonism, commitment

Erikson (1968) focused theoretical attention on the important role played by a sense of personal identity with respect to successful psychosocial functioning. Identity formation is viewed as the primary developmental task in the transition from adolescence to adulthood, with the greatest proportion of developmental changes occurring during the years identified as emerging adulthood (Waterman, 1993a). During this period, developing individuals have increased opportunities for exploring possibilities pertaining to work, relationships, and ideological worldviews, such as religious and political beliefs. Due to globalization processes, emerging adulthood as a distinct stage of life is becoming more universal (Arnett, 2002). Within industrial nations, individuals obtaining postsecondary education are likely to encounter a broader range of options compared to those who do not (Marcia, Waterman, Matteson, Archer, & Orlofsky, 1993).

With respect to psychosocial functioning, one of the most reliable sets of research findings on identity pertains to the association of identity commitments with subjective and psychological well-being, self-esteem, an internal locus of control, and related variables (Kroger & Marcia, 2011; Marcia et al., 1993). Likewise, empirical evidence indicates that identity commitments are negatively related to indices of psychological

problems such as anxiety and depression. In developing eudaimonic identity theory, Waterman (1992, 2007, 2011) proposed that the quality of identity commitments accounts for the relationships observed such that only commitments to personally expressive and self-concordant goals, values, and beliefs are associated with positive psychosocial functioning; nonexpressive commitments (i.e., commitments of low quality) are likely to be associated with psychological costs rather than benefits.

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The research reported here evaluates a series of hypotheses drawn from eudaimonic identity theory pertaining to the relationship of identity to psychosocial functioning, using a sample of college-attending emerging adults.

Exploration and Commitment as Predictors of Psychosocial Functioning

The original empirical work investigating the relationship of identity to psychosocial functioning involved Marcia's identity status paradigm (Marcia, 1966, 1967, 1980). Building on Erikson's pioneering work, Marcia identified the dimensions of *exploration* and *commitment* as central processes through which individuals form a sense of personal identity. Exploration refers to active consideration of alternative identity possibilities prior to committing to one or more of these possibilities. Commitment refers to forming a strong investment in a specific set of goals, values, and beliefs that then provide a sense of direction to one's personal future.

Within the identity status paradigm, exploration and commitment are used to derive four identity statuses. *Identity achievement* refers to having explored alternatives prior to committing to one or more of these alternatives. *Moratorium* involves active exploration, with commitments not yet established. *Foreclosure* refers to enacting identity commitments without much exploration of alternative possibilities, typically through a process of identification with parents or other adult authorities. *Identity diffusion* is characterized by the absence of identity commitments and a lack of interest in forming them. Individuals in the diffused status may or may not have explored alternatives; however, if exploration did occur, it was likely to have been haphazard and ineffective (Schwartz, Côté, & Arnett, 2005).

Studies based upon the identity status paradigm indicate that emerging adults in the achieved and foreclosed statuses fare better on indices of positive and negative psychosocial functioning compared to those in the moratorium and diffused statuses. Statuses characterized by identity commitments are generally associated with higher levels of subjective well-being (Hofer, Kärtner, Chasiotis, Busch, & Kiessling, 2007; Waterman, 2007), psychological well-being (Abu-Rayya, 2006; Waterman, 2007), self-esteem (Basak & Ghosh, 2008; Schwartz, 2007), autonomy/internal locus of control (Adams & Shea, 1979; Schwartz, 2007), ego development (Adams & Fitch, 1981, 1982), and purpose in life (Côté & Schwartz, 2002); and lower levels of anxiety (Marcia, 1967; Schwartz et al., 2011) and neuroticism (Clancy & Dollinger, 1993). Comparisons of respondents in the achieved and foreclosed statuses have yielded equivocal results, with identity achievers scoring better on some measures and foreclosures scoring better on others (Kroger & Marcia, 2011).

Although much of the early identity research focused on comparing status categories, there has been a recent shift toward examining the unique contributions that exploration and commitment make to positive and negative psychosocial functioning. Findings from these studies parallel those obtained

using the identity status categories. Higher commitment is associated with higher self-esteem (Luyckx, Schwartz, Goossens, & Pollock, 2008; Luyckx, Schwartz, Soenens, Vansteenkiste, & Goossens, 2010) and autonomy/internal locus of control (Luyckx, Vansteenkiste, Goossens, & Duriez, 2009; Luyckx et al., 2010), and lower scores on measures of anxiety (Crocetti, Klimstra, Keijsers, Hale, & Meeus, 2009; Crocetti, Rubini, & Meeus, 2008) and depression (Crocetti et al., 2008; Luyckx et al., 2008, 2010; Schwartz, Zamboanga, Weisskirch, & Rodriguez, 2009). Identity exploration generally accounts for less variability in positive and negative psychosocial functioning than does commitment—perhaps because exploration may be experienced positively by some people but negatively by others (Berman, Schwartz, Kurtines, & Berman, 2001; Luyckx, Schwartz, Berzonsky, et al., 2008).

Eudaimonic Identity Theory: The Role of Identity Commitment Quality

In developing eudaimonic identity theory, Waterman (1992, 1993b, 2008, 2011) raised two questions relevant to relations between identity and psychosocial functioning: (a) When considering potential identity elements to which one could commit (e.g., various career options, religious beliefs), are some choices "better" than others? and (b) If so, how might those better options become recognized? Drawing on the Aristotelian concept of happiness as eudaimonia (Aristotle, 4th century B.C.E./1985), Waterman proposed a third dimension of identity functioning (in addition to exploration and commitment)—*feelings of personal expressiveness (eudaimonia)*—to reflect the quality of the identity commitments being enacted (Waterman, 1990, 1993b). Eudaimonia is the subjective state experienced when one engages in activities that promote development of personal potentials and pursues intrinsic, self-concordant goals (Sheldon, 2002; Waterman, 1993c, Waterman, Schwartz, & Conti, 2008). Accordingly, "better" identity choices, when adopted, represent a path to self-realization and constitute higher quality identity commitments. Eudaimonic identity commitments have the following characteristics:

- (a) They entail the development of the person's latent talents;
- (b) They are intrinsically motivating, enacted for the sake of the activities themselves rather than for external rewards which may or may not also be present;
- (c) They provide a sense of direction, purpose, and meaning to life;
- (d) They require dedicated effort for their implementation; and
- (e) They are experienced as being personally expressive.

Recent studies linking eudaimonic functioning to positive and negative psychosocial variables among emerging adult samples (Waterman, 2007; Waterman et al., 2010) suggest that involvement in identity-related, personally expressive activities is associated with more favorable outcomes. Specifically, eudaimonia is predictive of greater levels of subjective well-being

and psychological well-being, optimism, self-esteem, and internal locus of control, as well as lower scores on measures of general anxiety, social anxiety, and depressive symptoms (Waterman, 2007; Waterman et al., 2010).

The idea that identity choices may differ in quality, with some choices being objectively better than others in terms of promoting well-being, allows for a reframing of the relations between identity variables and psychosocial functioning. Whereas extant literature indicates the benefits associated with enacting identity commitments, on the basis of eudaimonic identity theory, we propose that those benefits are specific to instances in which high-quality commitments have been established. Supporting this supposition, Soenens, Berzonsky, Dunkel, Papini, and Vansteenkiste (2011), drawing upon self-determination theory, examined the role of commitment quality in terms of autonomous and controlled motivation associated with identity commitments. Autonomous (self-determined) motives were positively related to adjustment even after taking into account the strength of identity commitments, whereas controlled (extrinsically driven) motives were found to adversely impact adjustment.

In the present study, consistent with eudaimonic identity theory, the dimension of quality of commitments was defined in terms of the presence of commitments that were perceived to reflect personal potentials and that were experienced as personally expressive. The dimension of commitment, as originally formulated by Marcia (1966), will refer to the presence or absence of identity commitments without consideration of their quality.

The Design of the Present Research

Data for the current study were generated by a multisite collaborative involving researchers at 30 colleges and universities across the United States. The primary goal of the collaborative was to create a large data set from a geographically and demographically diverse sample of emerging adults regarding a wide range of variables including, but not limited to, measures of identity and psychosocial functioning. The instruments administered included measures of identity exploration, the presence of identity commitments, and the quality of identity commitments, as well as measures of positive and negative psychosocial functioning including subjective well-being, psychological well-being, self-esteem, internal locus of control, and the presence of symptoms pertaining to general anxiety, social anxiety, and depression.

As the literature review indicates, two research strategies have been used to evaluate relations between defining dimensions of identity (i.e., exploration, commitment, and quality of commitments) and indices of positive and negative psychosocial functioning. The initial approach involved comparing respondents across the identity statuses. More recent studies have examined the associations of the identity dimensions as continuous variables with positive and negative psychosocial functioning. Both strategies were utilized in the current study. This allowed us to (a) ascertain the replicability of results in the

current study with respect to previous findings derived from each research strategy and (b) to examine the consistency of the results concerning the role of commitment quality across the two different analytic methods.

Hypotheses

Hypothesis 1: Emerging adults in the identity achieved and foreclosed statuses would score significantly higher on measures of positive psychosocial functioning, and lower on measures of negative psychosocial functioning, in comparison to emerging adults in the moratorium and identity diffused statuses.

Hypothesis 2: Both identity commitments and quality of commitments would be strongly associated with psychosocial functioning variables—positively correlated with positive psychosocial functioning and negatively related to negative psychosocial functioning. In comparison to identity commitment, quality of commitment would have significantly stronger relationships with psychosocial functioning. Identity exploration would be less strongly associated with psychosocial functioning than either commitment or the quality of commitments.

Hypothesis 3: With quality of identity commitments used as a control variable, differences between identity statuses (defined in terms of exploration and commitment) with respect to positive and negative psychosocial functioning should be substantially reduced, perhaps to nonsignificance.

Hypothesis 4: We expected that, in an initial regression model, significant variability with respect to positive and negative psychosocial functioning would be explained by exploration and commitment. However, going beyond prior studies, we predicted, on the basis of eudaimonic identity theory, that when quality of commitments is added to the model, it would be strongly predictive of positive and negative psychosocial functioning, and that the contributions made by exploration and commitment would be reduced to nonsignificance.

Hypothesis 5: Given the importance attributed to quality of identity commitments within eudaimonic identity theory, it was predicted that emerging adults in the identity achieved and foreclosed statuses with low-quality commitments would score significantly poorer on measures of positive and negative psychosocial functioning than would the rest of the sample (including respondents in the moratorium and diffused statuses).

Method

Participants

Data for the present analyses were collected as part of the Multi-Site University Study of Identity and Culture (MUSIC). The sample was comprised of 9,650 students enrolled at 30 colleges and universities around the United States. The sample was composed of 2,504 (26%) males, 6,756 (70%) females, and

390 participants who did not indicate their gender. The percentage breakdown by year in school was 34% freshmen, 23% sophomores, 22% juniors, 14% seniors, and 9% graduate and other students. The average participant age was 20.40 ($SD = 3.44$ years). The sample was ethnically diverse: 63% White, 10% Black, 16% Hispanic, 10% Asian, 1% Middle Eastern, and less than 1% other ethnicities.

Procedures

Participants were recruited from courses in several disciplines, including psychology, family studies, sociology, education, business, and human nutrition. All were asked to complete a confidential online survey. Students received course grade or research requirement credits for their participation. All data were collected online at a website maintained by the MUSIC collaborative. Respondents were asked to check a box to indicate informed consent and were then presented with the questionnaires. Approximately 85% of the students logging onto the study website completed all sections of the protocol.

Instruments

All measures were self-report. Unless otherwise specified, each was responded to using a 5-point Likert-type scale ranging from 0 (*strongly disagree*) to 4 (*strongly agree*). All α coefficients reported here were calculated using the present sample.

Identity exploration and *identity commitment* were assessed using subscales from the *Dimensions of Identity Development scale* (DIDS; Luyckx, Schwartz, Berzonsky, et al., 2008). All the DIDS items refer to future goals and plans. *Exploration in breadth* is a 5-item ($\alpha = .84$) scale from the DIDS that corresponds to Marcia's conception of exploration. This dimension reflects the consideration of a relatively broad array of potential identity choices in the process of forming a personal sense of identity. Such exploration in breadth may be ongoing or may have occurred in the past. Identity commitment was assessed using two DIDS scales. The *commitment making* subscale, composed of 5 items, is similar to Marcia's conception of commitment, referring to having made clear identity choices regarding important areas of life. The 5-item *identification with commitment* subscale refers to the extent to which respondents feel certain about their choices, and identify with and have internalized the content of identity elements they have selected. Given the strong correlations between these two scales ($r = .86$), they were summed to generate a composite 10-item ($\alpha = .96$) identity commitment scale.

Quality of identity commitments was assessed using the *Questionnaire for Eudaimonic Well-Being* (QEWB; Waterman et al., 2010). With its foundations in eudaimonic identity theory, the QEWB was developed to measure the extent to which respondents engage in personally salient activities that reflect high-quality identity commitments. The instrument is comprised of 21 items ($\alpha = .86$) covering the range of characteristics associated with eudaimonic commitments, including the development of personal potentials; intrinsic motivation, the presence of a sense of direction, purpose, and meaning in

life; expenditure of dedicated effort; and experiences of personal expressiveness (Waterman, 2008).

Seven instruments were employed to measure psychosocial functioning:

Subjective Well-Being was assessed using the *Satisfaction with Life Scale* (Pavot & Diener, 1993), which consists of five statements ($\alpha = .87$) reflecting feeling contented and pleased about how one's life has turned out.

Psychological Well-Being was assessed using the 18-item version of the *Scales for Psychological Well-Being* (Ryff & Keyes, 1995). This instrument is composed of six 3-item subscales used to assess the dimensions of Psychological Well-Being identified by Ryff (1989): autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. A composite score for Psychological Well-Being, is created by summing across the 18 items ($\alpha = .81$).

Self-Esteem was assessed using the *Rosenberg Self-Esteem Scale* (Rosenberg, 1986) consisting of 10 items ($\alpha = .88$) that provide an overall evaluative assessment of how respondents think of themselves.

Internal Locus of Control was assessed using Côté's (1997) adaptation of Rotter's (1969) *Locus of Control Scale*. This adaptation consists of 5 items ($\alpha = .63$) and uses a Likert-type scale format in place of the ipsative format used in the original version.

Symptoms of General Anxiety were assessed using an adapted version of the *Beck Anxiety Inventory* (Beck, Epstein, Brown, & Steer, 1988). This version is comprised of 18 items ($\alpha = .95$) referring to whether various symptoms of anxiety were experienced during the week prior to assessment.

Social Anxiety Aymptoms were assessed using 19 items ($\alpha = .94$) from the *Social Interaction Anxiety Scale* (Hable, Hewitt, Norton, & Asmundson, 1997). These items assess feelings of fear, hesitation, and self-criticism experienced in social situations.

Depressive Symptoms were assessed using the *Center for Epidemiologic Studies Depression Scale* (CES-D; Radloff, 1977). The CES-D is composed of 20 items ($\alpha = .86$) tapping the occurrence of various symptoms of depression during the past week.

Results

The Relation of the Identity Statuses to Psychosocial Functioning Variables

To examine Hypothesis 1, the first step in the analytic plan was to replicate, using the current sample, differences in positive and negative psychosocial functioning among respondents in the four identity statuses. Assignment to the identity status categories was based upon tertiary splits, such that those in the achieved status were in the highest third with respect to both exploration and commitment; those in the moratorium status

Table 1. Mean Scores of Respondents in Each Identity Status on Measures of Positive and Negative Psychosocial Functioning.

Measure	Identity Status				F Value	Partial η^2
	Diffusion (n = 2,233)	Foreclosure (n = 589)	Moratorium (n = 1,560)	Achievement (n = 1,778)		
Subjective well-being	18.22 _a (5.62)	21.94 _b (5.22)	19.29 _c (5.41)	21.99 _b (5.23)	192.26*	.08
Psychological well-being	72.48 _a (11.78)	83.58 _b (10.15)	79.29 _c (9.75)	83.14 _b (10.71)	332.37*	.14
Self-esteem	34.18 _a (6.62)	40.19 _b (6.85)	36.29 _c (7.37)	39.65 _b (7.26)	260.75*	.11
Internal locus of control	16.25 _a (3.08)	17.88 _b (3.18)	17.28 _c (2.96)	18.43 _d (3.40)	145.00*	.07
General anxiety	44.65 _a (15.46)	37.26 _b (15.30)	42.86 _c (15.66)	40.39 _d (18.49)	61.62*	.03
Social anxiety	53.04 _a (12.53)	45.82 _b (14.63)	51.79 _c (15.02)	47.43 _b (16.39)	86.89*	.04
Depression	55.96 _a (11.74)	50.96 _b (12.12)	55.76 _a (11.73)	54.14 _c (14.72)	51.21*	.02

Note. Means sharing the same subscript are not significantly different from each other.

* $p < .001$.

were in the highest third with respect to exploration and the lowest third on commitment; those in the foreclosed status were in the lowest third with respect to exploration and the highest third on commitment, and those in the diffused status were in the lowest third with respect to both dimensions. The use of tertiary splits with only respondents in the top and bottom thirds on both dimensions included in the analyses results in the creation of identity status groups composed of prototypic exemplars for the various statuses. This reduces the error variance in analysis of variance (ANOVA) compared to analyses with respondents whose status assignments might otherwise be ambiguous are included.¹

Because we used a complex sampling strategy, with participants nested within sites, pairwise comparisons were conducted using the sandwich covariance estimator (Kauerman & Carroll, 2001), which corrects estimates and their standard errors for the effects of multilevel nesting. Omnibus statistics (F and η^2) were not adjusted for nesting. However, intraclass correlation values, which indicate the amount of variability in each variable that is due to between-site differences (Raudenbush & Bryk, 2002), were less than .05 for all study variables—suggesting that difference in results between unilevel and multilevel analyses was likely quite small.

Table 1 presents the means for the four status groups on the four variables representing positive psychosocial functioning and the three variables representing negative psychosocial functioning, along with the results of the associated ANOVAs.

Significant differences ($p < .001$, in all instances) among the identity statuses were found for all outcome measures. As expected, respondents in the two statuses characterized by high levels of identity commitment—achievement and foreclosure—reported the highest scores on positive psychosocial functioning and lowest scores on negative psychosocial functioning in comparison to respondents in the diffused and moratorium statuses. These results replicate the findings of prior studies regarding these relationships. The effect size values indicated that 2–14% of the variance in these outcomes was explained by identity status assignment, with higher percentages obtained for the measures of positive psychosocial functioning.

Bivariate Correlations for Exploration, Commitment, and Quality of Commitment With Psychosocial Functioning Variables

Next, Hypothesis 2 was investigated using zero-order correlations to identify the relationship between the three dimensions of identity functioning and the measures of positive and negative psychosocial functioning. Whereas the analyses involving the identity statuses included only prototypic exemplars of respondents in the various statuses, the correlational analyses included all participants in the study. For Hypothesis 2, we predicted that the indices of identity commitment and quality of identity commitments would be strongly related to measures of psychosocial functioning, that quality of identity commitment would be more strongly related to such functioning in comparison to identity commitment, and that identity exploration would be less strongly related to such measures than either identity commitment or the quality of commitments. All parts of Hypothesis 2 were supported. Table 2 presents the correlations of the three defining dimensions of identity with each of the outcome variables employed here. Except as noted below, all correlations were significant at or below the .001 level.

Exploration. Exploration in breadth was significantly and positively correlated with both commitment (.28) and commitment quality (.23), as well as with subjective well-being, PWB, self-esteem, internal locus of control, and depression. These correlations ranged in strength from .08 ($p < .01$) to .28, indicating that in no instance did this dimension account for more than 8% of the variability in the psychosocial functioning measures.

Commitment. A strong, positive correlation ($r = .53$) was found between commitment and commitment quality. Correlations of commitment with positive psychosocial functioning variables were all significant and ranged from .34 to .39. Correlations with negative psychosocial functioning variables were all significant and ranged from $-.12$ to $-.23$. Thus, commitment accounted for between 1% and 15% of the variability in the psychosocial functioning measures, with stronger associations observed for indices of positive functioning.

Table 2. Correlations of Exploration, Commitment, and Commitment Quality With Measures of Positive and Negative Psychosocial Functioning.

Variable	2	3	4	5	6	7	8	9	10
1. Exploration	.30***	.24***	.22***	.12***	.13***	.21***	.01	.06***	-.03*
2. Identity commitments	—	.54***	.37***	.36***	.40***	.30***	-.16***	-.12***	-.22***
3. Commitment quality		—	.65***	.48***	.65***	.41***	-.37***	-.32***	-.43***
4. Psychological well-being			—	.60***	.63***	.24***	-.46***	-.42***	-.48***
5. Subjective well-being				—	.55***	.21***	-.35***	-.29***	-.33***
6. Self-esteem					—	.23***	-.53***	-.48***	-.52***
7. Internal locus of control						—	-.04**	.04*	-.06***
8. General anxiety							—	.82***	.45***
9. Depression								—	.46***
10. Social anxiety									—

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

Table 3. Adjusted Mean Scores of Respondents in Each Identity Status on Measures of Positive and Negative Psychosocial functioning, Controlling for Quality of Commitment.

Measure	Identity Status				F value	Partial η^2
	Diffusion ($n = 2,233$)	Foreclosure ($n = 589$)	Moratorium ($n = 1,560$)	Achievement ($n = 1,778$)		
Subjective well-being	19.52 _a (4.93)	20.18 _b (4.93)	19.02 _{a,c} (4.82)	20.35 _b (4.90)	11.47*	.04
Psychological well-being	76.46 _a (9.15)	79.16 _b (8.63)	79.56 _b (7.71)	78.26 _c (8.83)	24.87*	.02
Self-esteem	37.27 _a (4.88)	38.42 _b (5.30)	36.81 _a (5.93)	37.42 _{a,c} (5.84)	9.35*	.01
Internal locus of control	17.22 _a (2.66)	17.36 _{a,c} (2.82)	17.72 _{b,c} (2.82)	18.17 _b (3.19)	22.93*	.02
General anxiety	41.13 _a (14.92)	39.71 _a (14.73)	43.02 _{a,b} (14.93)	43.99 _b (17.40)	15.98*	.01
Social anxiety	49.51 _{a,b} (12.17)	47.84 _a (13.80)	51.18 _{a,b} (13.74)	50.46 _b (15.19)	8.43*	.01
Depression	53.99 _{a,b} (11.66)	52.63 _a (11.83)	56.48 _b (11.23)	57.17 _b (13.92)	32.64*	.02

Note. Means sharing the same subscript are not significantly different from each other.

* $p < .001$.

Quality of Commitments. The correlations of quality of commitments with positive psychosocial functioning variables were all significant and ranged from .40 to .66. The correlations with negative psychosocial functioning variables were all significant and ranged from $-.33$ to $-.43$. Therefore, quality of commitment accounted for between 10% and 44% of the variability in positive and negative psychosocial functioning measures.

Pearson-Filon t -tests (Kenny, 1987) comparing the strength of the correlations of commitment and commitment quality with corresponding outcome variables revealed that, in every instance, the correlations for commitment quality were significantly stronger (psychological well-being, $t = 37.18$; subjective well-being for life satisfaction, $t = 14.03$; self-esteem, $t = 33.24$; internal locus of control, $t = 12.35$; general anxiety, $t = -23.11$, depression, $t = -21.62$; social anxiety, $t = -23.72$; all $ps < .001$). Commitment quality thus accounted for substantially more variability in each of the outcome variables in comparison to commitment presence in and of itself. In addition, Pearson-Filon t -tests to compare the strength of correlations involving identity exploration with those for identity commitment or quality of commitments found exploration less strongly associated with all measures of psychosocial functioning than either of the commitment dimensions.

The Relation of the Identity Statuses to Psychosocial Functioning, Controlling for Commitment Quality

If commitment quality, rather than commitment itself, is largely responsible for the more favorable psychosocial functioning of individuals in the achieved and foreclosed statuses then, as specified in Hypothesis 3, ANOVA comparisons by identity status, controlling for commitment quality, should reduce or eliminate the differences observed among the statuses. Table 3 presents the means on the various positive and negative psychosocial functioning measures for the four identity statuses after statistically controlling for commitment quality, along with the results of the associated ANOVAs. Whereas significant differences continued to be observed on all seven measures, the effect sizes were reduced to 0–2% for all outcome measures. Thus, under the most stringent definition of each of the identity statuses—that is, using only prototypic exemplars of each identity status, partialing out the contribution of commitment quality resulted in removing almost all of the differences among the statuses with respect to positive and negative psychosocial functioning. The very large size of the sample likely explains why these small differences reached statistical significance.

Table 4. Multiple Regression Analyses Involving Exploration, Commitment, and Commitment Quality as Predictors of Positive and Negative Psychosocial Functioning.

Outcomes	SWB		PWB		SE		ILC		GA		SA		Dep	
Model predictors	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Age	-.06**	-.10***	.04**	-.02	.04**	-.02	.03	.00	-.04**	.00	-.06***	-.02*	-.07***	-.04**
Gender	.06***	.04**	.12***	.08***	.03*	-.01	.04**	.02	.04*	.06***	-.03	.00	.02	.03**
Exploration	.00	-.03**	.12***	.06***	.02	-.04***	.13***	.11***	.05***	.09***	.03	.07***	.10***	.12***
Commitment	.36***	.15***	.33***	.01	.39***	.07***	.26***	.09***	-.17***	.04**	-.22***	.00	-.14***	.01
Commitment quality		.42***		.63***		.63***		.34***		-.42***		-.44***		-.28**
ΔR^2	.14***	.12***	.17***	.30***	.16***	.27***	.11***	.08***	.03***	.12***	.05***	.14***	.03***	.10***

Note. SWB = Subjective Well-Being, PWB = Psychological Well-Being, SE = Self-Esteem, ILC = Internal Locus of Control, GA = General Anxiety, SA = Social Anxiety, Dep = Depression.

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

Multivariate Multiple Regression Analyses Using Exploration, Commitment, and Quality of Commitments as Predictors of Psychosocial Functioning

The next step in the analytic plan involved examining the relative strength of associations of the identity processes and psychosocial functioning variables through the use of multivariate multiple regression. Multivariate multiple regression was conducted as path analysis using an algorithm analogous to hierarchical regression analysis (i.e., all predictors were allowed to predict all outcome variables). We did this so that we would be able to ascertain the decrease in the contributions of exploration and commitment to each of the outcome variables once commitment quality was added as a predictor. In the first iteration of the model, age, gender, exploration, and commitment were entered as predictors. In the second iteration, quality of commitment was added to the analysis as a predictor. These analyses were conducted using Mplus release 5.0 (Muthén & Muthén, 2007), and using a sandwich estimator (Kauerman & Carroll, 2001) to adjust parameter estimates and standard errors for the effects of multilevel nesting (i.e., participants within data collection sites).

For Hypothesis 4, it was predicted that when only the dimensions of exploration and commitment were considered, commitment would explain significant and extensive variability in the outcome measures, whereas exploration would account for minimal additional variability. However, when quality of commitment was added to the analysis, we expected it would not only increase the overall level of variability explained but would substantially reduce the variability attributed to commitment. Both parts of Hypothesis 4 were supported by the results of these analyses.

Table 4 contains the values of ΔR^2 and β for both iterations of the multivariate multiple regression model. When age, gender, exploration, and commitment were considered, these variables accounted for between 3% and 17% of the variability in the psychosocial functioning indices. Commitment was the strongest of these predictors and was significant for all seven of the outcomes examined. Exploration in breadth was a significant predictor of four of these outcomes. In Model 2, with quality of commitment added to the equation, the increase in proportion of variability explained ranged from 8% to 30%. The contribution

of commitment decreased in Model 2 in every instance, and for two outcome variables (PWB and social anxiety), commitment was reduced to nonsignificance as a predictor.

The value of ΔR^2 when a predictor is entered into a regression equation last represents the unique variability explained (UVE) by that predictor. In comparison to the UVEs of 8–30% found for commitment quality, the corresponding UVE values for exploration and commitment were all near or below 1%. Thus, when using continuous measures of the identity dimensions, the relative contribution of commitment quality to psychosocial functioning variables was considerably greater than those made by either exploration or commitment. Moreover, when the three defining dimensions of identity functioning are considered together, commitment only negligibly contributed to the outcomes.

An additional step in this analysis was to examine whether the models predicting subjective well-being, PWB, self-esteem, internal locus of control, general anxiety, social anxiety, and depressive symptoms were equivalent across gender, across ethnicity, and across socioeconomic status (SES) as indexed by family income. To conduct these comparisons, we compared a model with all path coefficients constrained to be equal across gender, ethnicity, or SES against a model with all path coefficients free to vary across these variables. The null hypothesis of invariance would be rejected if two or more of the following three conditions were met: $\Delta\chi^2$ significant at $p < .05$ (Byrne, 2009), comparative fit index (ΔCFI) $> .01$ (Cheung & Rensvold, 2002), and non-normed fit index ($\Delta NNFI$) $> .02$ (Vandenberg & Lance (2000)). Results indicate that the findings for adding commitment quality were equivalent across gender, $\Delta\chi^2(28) = 120.98$, $p < .001$; $\Delta CFI = .004$; $\Delta NNFI = .015$, across ethnicity, $\Delta\chi^2(84) = 181.17$, $p < .001$; $\Delta CFI = .004$; $\Delta NNFI = .010$, and across SES, $\Delta\chi^2(84) = 113.14$, $p < .02$; $\Delta CFI = .001$; $\Delta NNFI = .003$.

Comparisons of Identity Achievers and Foreclosures with Low-Quality Commitments Against the Remainder of the Sample Assigned to Identity Statuses

To evaluate Hypothesis 5, a final set of analyses was conducted involving t -test comparisons of respondents in the identity

Table 5. Means and *T*-Test Comparisons for Identity Achievers and Foreclosures With Low Quality of Commitments on Measures of Positive and Negative Psychosocial Functioning.

Variable	Identity		<i>t</i> -Value	Foreclosures/Low-Quality		<i>t</i> -Value
	Achievers/Low-Quality Commitments (<i>n</i> = 206)	Remainder of Sample ^a (<i>n</i> = 5,430)		Commitments (<i>n</i> = 49)	Remainder of Sample ^a (<i>n</i> = 5,528)	
Subjective well-being	20.55 (6.35)	20.41 (5.64)	0.31	19.71 (6.20)	20.42 (5.66)	0.87
Psychological well-being	79.38 (12.71)	80.14 (11.61)	0.80	79.41 (14.71)	80.12 (11.61)	0.32
Self-esteem	34.39 (8.29)	37.69 (7.50)	5.16***	35.74 (8.69)	37.62 (7.53)	1.64
Internal locus of control	15.89 (3.99)	17.61 (3.30)	5.61***	14.93 (3.95)	17.59 (3.31)	4.80***
General anxiety	50.54 (15.27)	41.44 (16.59)	6.42***	42.97 (16.62)	41.63 (16.61)	0.49
Social anxiety	55.55 (14.17)	49.32 (14.84)	4.74***	51.73 (13.99)	49.44 (14.86)	0.99
Depression	59.38 (13.19)	54.41 (12.80)	4.17***	53.19 (13.28)	53.19 (13.28)	0.63

Note. ^aSample includes those respondents assigned to an identity status.

****p* < .001.

achievement and foreclosure statuses whose quality of commitments were in the lowest third of the distribution of QEWB scores against the remainder of participants who were classified into an identity status. The results of these analyses are presented in Table 5. For respondents in the achieved status with low scores on quality of commitments, consistent with Hypothesis 5, means on self-esteem, $t(5,570) = 5.16, p < .001$, Cohen's $d = .44$, and internal locus of control, $t(5,453) = 5.61, p < .001$, Cohen's $d = .52$, fell significantly below the averages for the remainder of participants classified into any of the identity statuses. Correspondingly, means on the three measures of negative psychosocial functioning were significantly higher for achieved emerging adults with low-quality commitments than for the remainder of participants classified into identity statuses: general anxiety, $t(124) = 6.42, p < .001$, Cohen's $d = .55$; social anxiety, $t(124) = 4.74, p < .001$, Cohen's $d = .42$; and depression, $t(5,455) = 4.16, p < .001$, Cohen's $d = .39$. The same pattern was observed for respondents in the foreclosure status with low scores on quality of commitments, but the differences were statistically significant in only one instance—internal locus of control, $t(5,453) = 4.80, p < .001$, Cohen's $d = .80$. It should be noted that the sample size for foreclosures with low-quality commitments was small ($n = 47$)—and this may have prevented some comparisons from reaching significance. In short, the presence of low-quality identity commitments is associated with costs, rather than benefits, when considering psychosocial functioning. This effect appears stronger for identity commitments achieved after exploration than for those developed through a process of identification with significant others.

Discussion

The analyses reported here evaluated the extent to which identity exploration, identity commitment, and commitment quality contribute to positive psychosocial functioning and are protective against negative functioning among emerging adults. The findings provide support for the supposition, drawn from eudaimonic identity theory, that it is the quality of the identity commitments present—rather than the presence of commitments in and of

themselves—that is predictive of positive and negative psychosocial functioning. Consistent with prior research, when only exploration and the presence of commitments were included in the analyses, commitment accounted for significant variability in measures of psychosocial functioning. Such replications were found for both the use of identity statuses as predictors and with the dimensions of exploration and commitment employed as continuous measures. However, when the measure of commitment quality was added to these analyses, it was found to account for the largest proportion of variability in the psychosocial outcome measures, with the contribution of commitment presence reduced to or near nonsignificance. Further, when the psychosocial functioning of emerging adult respondents in the achieved and foreclosed statuses with poor quality identity commitments were compared to other respondents, their scores were below the overall means—and in some instances significantly lower.

The findings reported here provide the basis for a more nuanced perspective on the tasks that emerging adults need to address to increase the prospect for well-being. Considering the quality of identity commitments formed during emerging adulthood adds importance to the decisions being made. As part of eudaimonic identity theory, Waterman (2011) identified four steps in the process of establishing quality commitments: (a) the identification of personal potentials, broadly conceived, (b) devoting dedicated effort to transforming latent potentials into actual skills, (c) identifying self-concordant goals for the expression of those skills, and (d) finding opportunities afforded within one's societal context for the pursuit of such goals or, alternatively, changing contexts so as to increase such opportunities. The difficulties encountered by emerging adults in their efforts to successfully negotiate these steps should not be underestimated. However, evidence from the current study, the study conducted by Soenens et al. (2011), and other identity research indicates that either not forming intrinsically motivated identity commitments (identity diffusion) or forming nonexpressive commitments that are lacking in intrinsic motivation appear to substantially reduce the likelihood of positive psychosocial functioning. On a more positive note, there are numerous domains of identity concern in which it is possible

to develop meaningful, quality commitments, including but not limited to career, love relationships, ideological worldviews regarding religion or politics, parenting, and recreational activities. It is possible that success in forming quality commitments in any subset of such domains may serve as a sufficient foundation for subsequent well-being.

The present findings have important implications for counselors, educators, and others to whom emerging adults may turn when seeking guidance in addressing identity issues. For example, students often enter college with career aspirations heavily influenced by parental expectations with a specific focus on pragmatic considerations. Our findings suggest that emerging adults would benefit from an environment supportive of the recognition of the importance of the fit between talents and personal interests, including associated feelings of personal expressiveness. Similarly, when considering values, beliefs, and/or the nature of personal relationships being sought, emerging adults would be well advised to develop an increased awareness of those possibilities that are intuitively satisfying rather than focusing attention on the anticipated reactions that particular choices may evoke from others.

Strengths and Limitations of the Present Study

Among the methodological strengths of this research was the large, diverse sample of college and university students. The sample size made it possible to employ tertiary splits of continuous measures for the creation of the identity status and quality of commitment categories, rather than the more commonly used median splits. By excluding respondents in the middle range on the measures, who may have been difficult to classify into a status category (Jones, Akers, & White, 1994), it was possible to create groups that better represent the prototypic exemplars of the statuses, thus reducing the influence of error variance.

The size and diversity of the sample also allowed us to test for the equivalence of the models relating to the relative contributions of exploration, commitment, and the quality of commitments across gender, ethnicity, and SES. The finding of invariance suggests considerable generalizability of our results across social groups.

In addition to these strengths, some limitations of this research warrant mention. The data were cross-sectional and correlational, limiting our ability to draw inferences about causality and temporal ordering. Within eudaimonic identity theory and other theories of identity, a recursive relationship is generally assumed between identity and psychosocial functioning (see Luyckx, Goossens, & Soenens, 2006, for supportive empirical evidence). It is also possible that common method variance may have inflated the magnitude of the findings observed, given that all measures were self-report (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, such effects would likely have affected all three identity processes under study—exploration, commitment, and commitment quality—making it less likely to have influenced the differential pattern of results obtained when comparing

relationships to psychosocial functioning with and without commitment quality in the analyses.

The emerging adults providing data in this study were all in the process of continuing their education. Within this sample, the findings appear generalizable across gender, ethnicity, and SES. However, we do not know whether the findings observed here will generalize to individuals of comparable ages who do not go to college. Based upon theory, we would anticipate that the quality of identity commitments would bear a similar relationship with well-being irrespective of whether emerging adults do or not pursue further education. However, the opportunities for exploration of potential identity alternatives are likely more limited among those who not attend college, thus reducing the likelihood of exposure to possibilities that could serve as the basis for quality commitments. The implications of this potentially limited array of opportunities for well-being deserve research attention.

Despite these limitations, the present study provided evidence for the importance of commitment quality vis-à-vis identity development and psychosocial adjustment. Whereas the focus of identity research has traditionally been on the importance of forming identity commitments during emerging adulthood, the present findings suggest that far greater attention should be directed toward distinguishing between better and poorer identity choices. Indeed, the quality of the identity commitments formed carries the greatest implications for well-being and other aspects of positive and negative psychosocial functioning. Beyond efforts to replicate such outcomes with nonstudent samples, future research should be directed toward identifying additional variables characterizing better identity options and elaborating on the processes involved in making better identity choices.

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Note

1. The analyses involving identity status assignments were also run using median splits. The results in all instances were similar to those involving tertiary splits, though some effect sizes were somewhat larger when using tertiary splits. Results of the median split analyses are available from the first author upon request.

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