

# **CONVERGENT VALIDITY IN OBJECTIVE MEASURES OF IDENTITY STATUS: IMPLICATIONS FOR IDENTITY STATUS THEORY**

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## **ABSTRACT**

The present study was conducted to test two primary assumptions of Marcia's identity status model: (a) that measures of the identity statuses would relate to identity exploration and commitment in ways consistent with the definitions of the statuses; and (b) that status assignments made using continuous status measures would converge with those made using exploration and commitment scores. Seven hundred fifty-eight university students (174 males, 560 females, 24 not reporting gender) completed the Ego Identity Process Questionnaire, which is a measure of identity exploration and commitment, and the Extended Objective Measure of Ego Identity Status II, which provides continuous measures of each identity status. Results provided mixed support for both assumptions of the identity status model. The findings are discussed in light of recent calls for expansion of identity theory and research beyond the identity status model.

The concept of identity has been under wide conceptual and empirical study for more than half a century. Erikson (1950) introduced identity development as the primary psychosocial task of adolescence. In the years since, identity has been expanded to apply not only to adolescence but also to young adulthood (e.g., Arnett, 2000; Côté & Allahaar, 1994). The task of forming a sense of self has been widely researched in populations ranging from early adolescence to old age, with most research samples consisting of individuals between the ages of 12 and 30 (Archer, 1982; Marcia, 1993).

Theoretical advances in the field of identity have been abundant, especially in the past 15 years (Schwartz, 2001). Most of these advances have been based on Marcia's (1966) pioneering work. Marcia was the first theorist to derive an empirically measurable construct from Erikson's conceptual and clinical writings and to build a tradition of scientific research on identity. Largely because of its elegance and

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simplicity, Marcia's construct has remained timely and important for more than 35 years (Berzonsky & Adams, 1999).

Marcia's construct is based on the independent dimensions of *exploration* and *commitment*. Exploration represents the search for a revised and refined sense of self, whereas commitment represents the choice to pursue a specific set of goals, values, and beliefs. Marcia bifurcated each of these dimensions and arranged them in a perpendicular fashion, thereby creating a  $2 \times 2$  matrix. He designated each of the four cells in this matrix as an *identity status*. Each identity status represents a specific level of exploration (high or low) crossed with a specific level of commitment.

The identity statuses are *achievement*, *moratorium*, *foreclosure*, and *diffusion*. Achievement (high exploration, high commitment) represents the consolidation of a sense of self following a period of exploration. Moratorium (high exploration, low commitment) represents active exploration without commitment, and it often serves as a precursor to achievement. Foreclosure (low exploration, high commitment) represents adopting goals, values, and beliefs from parents or other authority figures without much critical thought. Diffusion (low exploration, low commitment) represents a pattern of apathy, disinterest, and lack of direction.

The identity status model is founded upon the relationships of the statuses to their component dimensions. In fact, the internal validity of the status model is dependent upon the existence of theoretically consistent relationships between each status and the underlying dimensions, exploration and commitment (e.g., a strong and positive relationship between foreclosure and commitment, and a strong and negative relationship between foreclosure and exploration). Empirical findings not consistent with the definitions of the statuses would call the model's fundamental assumptions into question, or would at least require a thorough explanation.

Identity theorists and researchers have often taken the relationships between the statuses and the underlying dimensions for granted; for example, some identity measures assign statuses explicitly based on participants' exploration and commitment scores (e.g., Balistreri, Busch-Rossnagel, & Geisinger, 1995; Grotevant & Cooper, 1981). To strengthen the scientific accuracy of these assumptions and techniques, empirical evidence that the statuses are related to exploration and commitment in ways consistent with the status model needs to be provided.

### ***Measurement Issues***

The ability of empirical evidence to support or challenge the fundamental assumptions of the identity status model is dependent upon the measurement techniques used to collect the data. Measurement in identity formation has lagged significantly behind the theoretical progress of the field (Schwartz, 2001). Most identity instruments are structured interviews or questionnaires assessing either (a) the degrees of exploration and commitment that characterize each participant or (b) the extent to which participants endorse statements characteristic of each identity status. Structured identity interviews are generally designed to classify participants into an identity status and to provide qualitative or narrative data (e.g., Lieblich & Josselson, 1994). Objective paper-and-pencil questionnaires are designed to provide identity status classifications and continuous measures either of exploration and commitment or of each identity status.

Objective identity measures are used more frequently than interviews and are more suitable for large samples (Schwartz, 2001). Schwartz and Dunham (2000) have classified objective identity measures into two broad categories based on the algorithms they use to assign identity statuses to participants. *Direct* measures are those that assess the degree to which participants endorse each status and assign each participant the status with the highest standard score. *Derived* measures are those that assess exploration and commitment and assign statuses by conducting median splits on the exploration and commitment scores. Each type of measure assesses identity in both ideological (e.g., politics, religion) and interpersonal (e.g., friendships, dating relationships) content areas. It is assumed that the two types of measures yield comparable data and status classifications, although this assumption has not been subjected to an empirical test.

### ***The Present Study***

Given that direct identity measures are based on status scores and that derived identity measures are based on exploration and commitment scores, a correlational study comparing direct and derived measures would provide a test of the fundamental assumptions underlying the identity status model. This study comprised such a test. The degree of consistency between the empirical results and the model's assumptions was evaluated in two ways: (a) degree of association between continuous measures of the statuses and of exploration and commitment, and (b) consistency of categorical identity status classifications between the direct and derived measures.

## METHOD

### *Participants*

Participants in this study were 758 undergraduate students (174 males, 560 females, and 24 not reporting gender) from a large public university in the southeastern United States. In terms of ethnicity, 129 participants self-reported as non-Hispanic White, 74 as non-Hispanic Black, 467 as Hispanic, and 30 as other (58 did not report ethnicity). Because it may be tempting to view the results of this study in light of the large number of Hispanics in the sample, all analyses were replicated separately for Hispanic and non-Hispanic participants. Of the 84 analyses conducted, only 2 differed significantly by ethnicity (both in agreement rates, with Hispanics higher in both cases): EIPQ overall moratorium,  $\chi^2 = 8.25, p < .001$ ; and EOM-EIS-II overall foreclosure,  $\chi^2 = 5.99, p < .001$ . The mean age of the sample was 21.3 years ( $SD = 5.2$ ), with 95% of the sample between the ages of 18 and 27. Participants were recruited from psychology classes and received course credit in exchange for their participation.

### *Measures*

One direct and one derived measure of identity were used in this study. Both measures survey four ideological and four interpersonal content domains. The analyses reported in this study, however, are restricted to the three ideological domains (politics, religion, and occupation) and the three interpersonal domains (friendships, dating relationships, and gender roles) that the two measures share in common.

*Direct measure.* The Extended Objective Measure of Ego Identity Status II (EOM-EIS-II; Bennion & Adams, 1986) contains 64 statements, 16 of which target each identity status. Participants respond to each item using a five-point Likert scale. Cronbach's alpha values for the full EOM-EIS-II scales are: Ideological Diffusion, .62; Interpersonal Diffusion, .64; Ideological Foreclosure, .75; Interpersonal Foreclosure, .80; Ideological Moratorium, .75; Interpersonal Moratorium, .58; Ideological Achievement, .62; and Interpersonal Achievement, .60 (Jones & Streitmatter, 1987). Internal consistency estimates for the shortened scales used in this study are reported in the results section.

Identity status assignments for the EOM-EIS-II are made based on a standardization procedure. Within each cluster of domains (ideological, interpersonal, and overall), each participant's scores for the four statuses are converted to standard scores. The status with the highest standard score becomes the participant's classification. Participants

whose status scores are all within one-half standard deviation of their respective means are assigned to an undifferentiated status (Jones, Akers, & White, 1994).

*Derived measure.* The Ego Identity Process Questionnaire (EIPQ; Balistreri et al., 1995) was used to identify participants' levels of exploration and commitment. The EIPQ assesses exploration and commitment within four ideological domains (politics, religion, occupation, and values) and within four interpersonal domains (friendships, dating, gender roles, and family). The measure consists of two exploration items and two commitment items per domain. Cronbach's alpha values for the full EIPQ exploration and commitment scales are .76 and .75, respectively (Balistreri et al., 1995). Psychometric properties for the ideological and interpersonal exploration and commitment scales have not been previously reported. Alpha values for the shortened scales used in this study are reported in the results section.

Identity status classifications for the EIPQ are assigned based on a median split procedure. For each cluster of domains, median splits are conducted on both the exploration and commitment scales. Participants above the median on both exploration and commitment are assigned to the achieved status. Participants above the median on exploration and below the median on commitment are assigned to the moratorium status. Participants below the median on exploration and above the median on commitment are assigned to the foreclosed status. Participants below the median on both exploration and commitment are assigned to the diffused status.

### *Procedure*

Questionnaire packets containing the EIPQ and the EOM-EIS-II were distributed to participants in class. Participants completed the measures at home over the weekend and returned them to their instructor the following week.

## RESULTS

### *Data Analysis Plan*

The analyses for this study are reported in three parts: psychometric analyses, tests of relationships among continuous identity measures, and tests of comparability in status assignments. Because of the large sample size, the Type I error risk was set at  $\alpha = .001$  for all tests of significance.

Psychometric analyses are reported as internal reliability coefficients (Cronbach's alpha) computed on the ideological, interpersonal, and overall scales from the EIPQ and the EOM-EIS-II. To test the hypothesis that the identity statuses would relate to exploration and commitment in ways consistent with the status model, a correlation matrix among the EIPQ and EOM-EIS-II scales, reported separately by domain cluster (ideological, interpersonal, and overall), was computed.

The hypothesis that identity status assignments would be consistent between the EIPQ and the EOM-EIS-II was tested in three steps. First, identity status assignments for the two measures were cross-tabulated (omitting participants assigned to the "undifferentiated" status by the EOM-EIS-II), and the rates of agreement between measures were calculated for each status. Second, one-way analyses of variance (ANOVAs) were conducted on the continuous variables from each measure by the status classifications generated by the other (e.g., EIPQ exploration and commitment scores by EOM-EIS-II status assignments). Third, discriminant function analyses were conducted to ascertain how accurately status assignments generated by each measure could be predicted by the continuous variables from the other. All analyses were conducted separately by domain cluster (ideological, interpersonal, overall).

### *Psychometric Analyses*

Cronbach's alpha values were computed for the shortened (three-domain) ideological, interpersonal, and overall scales from the EIPQ and the EOM-EIS-II. Alpha values for the ideological and interpersonal scales ranged from .49 to .74, with a median alpha of .59. Alpha values for the overall scales ranged from .65 to .82, with a median alpha of .68.

### *Correlations Between the EIPQ and EOM-EIS-II Scales*

Table 1 displays the correlations among the EIPQ and EOM-EIS-II scales. Considering only correlations of at least moderate strength (i.e., absolute values of .25 or greater), consistent patterns of relationships between the statuses and the underlying dimensions emerged across the three sets of domains. Diffusion was negatively related to commitment but not to exploration. Foreclosure was negatively related to exploration but was not related to commitment. Moratorium was negatively related to commitment but was not related to exploration. Achievement was positively related to commitment and less strongly related to exploration. With regard to relationships among the EOM-

Table 1

Correlation Matrix for the EIPQ and EOM-EIS-II Scales

Scale	Commitment	Diffusion	Foreclosure	Moratorium	Achievement
Exploration					
Ideological	-.14*	-.18*	-.34*	.10	.24*
Interpersonal	-.26*	-.12	-.13*	.21*	.13*
Overall	-.22*	-.19*	-.26*	.17*	.25*
Commitment					
Ideological		-.33*	.08	-.46*	.29*
Interpersonal		-.29*	.10	-.41*	.38*
Overall		-.35*	.09	-.49*	.38*
Diffusion					
Ideological			.18*	.52*	-.31*
Interpersonal			.16*	.35*	-.43*
Overall			.25*	.52*	-.42*
Foreclosure					
Ideological				.18*	-.12*
Interpersonal				.12	.06
Overall				.22*	-.06
Moratorium					
Ideological					-.29*
Interpersonal					-.21*
Overall					-.26*

\* $p < .001$ 

EIS-II status measures, diffusion and moratorium were strongly related to one another. Achievement and diffusion, which are conceptualized as opposites in the Marcia model (i.e., high versus low levels on both exploration and commitment) were negatively related to one another. Foreclosure and moratorium, which are also conceptualized as opposites in the identity status model, were weakly and positively related to one another.

#### *Convergence of Identity Status Classifications Between the EIPQ and the EOM-EIS-II*

*Agreement in identity status assignments.* Identity status assignments from the EIPQ and the EOM-EIS-II were cross-tabulated to

ascertain the extent of agreement between the two measures (see Table 2). The agreement rates between the two measures were fairly low, with percentages ranging from 29% to 54%. In the summaries that follow, agreement and disagreement rates are averaged across the three domain clusters (ideological, interpersonal, and overall).

Participants assigned to the diffused status on the EIPQ had a 40% chance of also being classified as diffused on the EOM-EIS-II and were almost as likely to be categorized as foreclosed. Participants assigned to the foreclosed status on the EIPQ had only a 32% chance of also being assigned to foreclosure on the EOM-EIS-II, with most (55%) of the disagreements involving assignment to achievement on the EOM-EIS-II. Participants classified as moratorium on the EIPQ had a 49% chance of also being placed in moratorium on the EOM-EIS-II, with classification discrepancies fairly evenly distributed among the other

Table 2

Cross-Tabulation of Identity Status Assignments Between the EIPQ and the EOM-EIS-II

EIPQ Status Assignments	EOM-EIS-II Status Assignments			
	Diffusion	Foreclosure	Moratorium	Achievement
<b>Diffusion</b>				
Ideological	34	38	26	9
Interpersonal	55	32	23	10
Overall	60	44	27	15
<b>Foreclosure</b>				
Ideological	46	78	11	71
Interpersonal	56	53	21	90
Overall	41	62	15	72
<b>Moratorium</b>				
Ideological	48	25	73	42
Interpersonal	42	33	84	37
Overall	46	29	87	28
<b>Achievement</b>				
Ideological	37	42	32	121
Interpersonal	33	38	30	94
Overall	25	32	23	95

three statuses (diffusion, 41%; foreclosure, 26%; and achievement, 32%). Participants designated as identity achieved on the EIPQ had a 51% chance of also being assigned to achievement on the EOM-EIS-II, with disagreements in classification fairly evenly distributed among the other three statuses (diffusion, 33%; foreclosure, 38%; and moratorium, 29%). Agreement rates for EOM-EIS-II status assignments, given EIPQ status assignments, differed significantly among the foreclosed, diffused, and moratorium statuses. Considering status pairs that were closest to one another in terms of agreement rates and in ascending order of percent agreement, significant differences emerged between the foreclosed and diffused statuses,  $\chi^2(1) = 9.31, p < .001$ , and between the diffused and moratorium statuses,  $\chi^2(1) = 8.61, p < .001$ . Agreement rates between the moratorium and achieved statuses were not significantly different from one another.

With regard to the EOM-EIS-II, participants classified as diffused had only a 29% chance of also being classified as diffused on the EIPQ, with classification discrepancies primarily involving assignment to the foreclosed (38%) and moratorium (36%) statuses. Participants classified as foreclosed on the EOM-EIS-II had a 38% chance of also being classified as foreclosed on the EIPQ, with disagreements primarily involving assignment to the diffused and achieved statuses (36% each). Participants assigned to moratorium on the EOM-EIS-II had a 54% chance of also being assigned to moratorium on the EIPQ, with disagreements in classification primarily involving assignment to the diffused (37%) and achieved (41%) statuses. Participants assigned to achievement on the EOM-EIS-II had a 45% chance of also being assigned to achievement on the EIPQ, with the majority (63%) of discrepancies in classification involving assignment to the foreclosed status on the EIPQ. Agreement rates for EIPQ status assignments, given EOM-EIS-II status assignments, differed significantly between all pairs of statuses. Considering pairs that were closest in terms of agreement rates and in ascending order of percent agreement, significant differences emerged between the diffused and foreclosed statuses,  $\chi^2(1) = 10.01, p < .001$ , between the foreclosed and achieved statuses,  $\chi^2(1) = 6.22, p < .001$ , and between the achieved and moratorium statuses,  $\chi^2(1) = 7.83, p < .001$ .

*Differences in each measure's continuous scores by the other measure's status categorizations.* A series of one-way ANOVAs were conducted on the EOM-EIS-II continuous scores by EIPQ status classifications, and vice versa. All analyses were replicated across the three domain clusters.

The EIPQ ideological, interpersonal, and overall exploration scores differed significantly by their respective EOM-EIS-II status categories: ideological,  $F(3, 733) = 35.51, p < .001$ ; interpersonal,  $F(3, 729) = 14.28, p < .001$ ; overall,  $F(3, 723) = 30.25, p < .001$ . For all three domain clusters, Tukey's least significant difference tests revealed that exploration scores were greater in moratorium and achieved participants than in diffused and foreclosed participants. Additionally, ideological exploration scores were significantly higher in diffused than foreclosed participants, and interpersonal exploration scores were significantly higher in moratorium than achieved participants. These patterns of differences generalized across the three domain clusters.

The EIPQ ideological, interpersonal, and overall commitment scores differed significantly by their respective EOM-EIS-II status categories: ideological,  $F(3, 732) = 48.13, p < .001$ ; interpersonal,  $F(3, 729) = 54.92, p < .001$ ; and overall,  $F(3, 719) = 57.74, p < .001$ . For all three domain clusters, commitment scores differed significantly between all pairs of statuses. In ascending order of mean commitment score, the EOM-EIS-II statuses were ordered as follows: moratorium, diffused, foreclosed, and achieved.

The EOM-EIS-II ideological, interpersonal, and overall diffusion scores differed significantly by their respective EIPQ status categories: ideological,  $F(3, 759) = 23.77, p < .001$ ; interpersonal,  $F(3, 754) = 19.91, p < .001$ ; and overall,  $F(3, 737) = 33.08, p < .001$ . For all three clusters, diffusion scores were highest in individuals classified as diffused and lowest in individuals classified as achieved. Overall diffusion scores were significantly higher in individuals categorized as moratorium than in individuals classified as foreclosed. For the ideological and interpersonal domain clusters, mean diffusion scores did not differ significantly between the foreclosed and moratorium statuses.

The EOM-EIS-II ideological and overall foreclosure scores differed significantly by their respective EIPQ status categories: ideological,  $F(3, 757) = 25.13, p < .001$ ; overall,  $F(3, 751) = 13.52, p < .001$ . For both clusters, foreclosure scores were significantly higher in the foreclosed and diffused statuses than in the moratorium and achieved statuses. The diffused and foreclosed statuses, and the moratorium and achieved statuses, did not differ significantly in terms of foreclosure scores. Interpersonal foreclosure scores did not differ significantly by EIPQ interpersonal status classification.

The EOM-EIS-II ideological, interpersonal, and overall moratorium scores differed significantly by their respective EIPQ status classifications: ideological,  $F(3, 756) = 44.05, p < .001$ ; interpersonal,  $F(3, 759) = 37.79, p < .001$ ; and overall,  $F(3, 758) = 31.26, p < .001$ . In all three

domain clusters, moratorium scores were lowest in the foreclosed and achieved statuses (which were not significantly different from one another in any cluster) and highest in the moratorium status. In the interpersonal and overall clusters only, moratorium scores were significantly higher in individuals classified into moratorium than in those classified into diffusion.

The EOM-EIS-II ideological, interpersonal, and overall achievement scores differed significantly by their respective EIPQ status classifications: ideological,  $F(3, 757) = 26.22, p < .001$ ; interpersonal,  $F(3, 758) = 31.26, p < .001$ ; and overall,  $F(3, 750) = 34.68, p < .001$ . In the interpersonal and overall domain clusters, achievement scores differed significantly among all pairs of statuses (in the ideological cluster, the moratorium and foreclosed statuses were not significantly different from one another). In order of increasing mean achievement scores, the EIPQ statuses were ordered as follows: diffused, moratorium, foreclosed, and achieved.

*Predicting each measure's status classifications by the other's continuous variables.* Discriminant function analyses were conducted on the EIPQ status classifications by the EOM-EIS-II continuous variables, and vice versa. When EIPQ exploration and commitment scores were used to predict EOM-EIS-II status assignments, 44% of cases were correctly classified (ideological, 43%; interpersonal, 42%; overall, 45%). Across domain clusters, participants assigned to the moratorium or achieved statuses were significantly more likely to be correctly classified (54% each) than were participants assigned to the diffused or foreclosed statuses (30% and 29%, respectively),  $\chi^2(1) = 20.50, p < .001$ . Diffused participants were likely to be misclassified as foreclosed or moratorium, whereas foreclosed participants were likely to be misclassified as diffused or achieved.

When EOM-EIS-II status scores were used to predict EIPQ status assignments, 45% of cases were correctly classified (ideological, 46%; interpersonal, 41%; overall, 48%). Participants assigned to the diffused status were significantly more likely to be classified correctly (53%) than were participants assigned to either the achieved status (43%),  $\chi^2(1) = 8.23, p < .001$ , or the foreclosed status (39%),  $\chi^2(1) = 23.40, p < .001$ . Participants assigned to the moratorium status were more likely to be classified correctly (49%) than were participants assigned to the foreclosed status,  $\chi^2(1) = 15.17, p < .001$ . Foreclosed participants were likely to be misclassified as diffused or achieved, whereas achieved participants were likely to be misclassified as foreclosed.

## DISCUSSION

This study was conducted to assess the relationship of identity status to its component dimensions, exploration and commitment. The assumptions underlying the status model are that (a) the identity statuses should relate to exploration and commitment in ways consistent with the conceptual definitions of the statuses, and (b) status assignment procedures using exploration and commitment scores should yield results equivalent to those produced by algorithms using direct status measures. Much of the work based on identity status has built upon these core assumptions, either directly or indirectly.

In the present study, mixed support was obtained for these assumptions. The results of the one-way ANOVAs were consistent with identity status theory. The correlational analyses supported some aspects of the status model but did not support others. The low levels of agreement and inaccuracy of prediction in the classification analyses did not support the status model and raised some important questions about the relationships of the statuses to their underlying dimensions. Each of these sets of results is discussed in more detail below.

The one-way ANOVAs offered the most support for the status model's assumptions. Exploration scores were lowest in the direct statuses defined by low levels of exploration and were highest in the statuses defined by high levels of exploration. Commitment scores differed among all four statuses, with commitment scores lower in the statuses defined by low levels of commitment than in those defined by high levels of commitment. Moreover, as expected, the moratorium status was associated with the lowest levels of commitment.

The ANOVA results for the continuous status scores were also consistent with identity status theory. Each status measure's scores were highest in the corresponding derived status category and were lowest in the status defined by opposing levels of exploration and commitment (e.g., achievement scores were lowest in the diffused status, and foreclosure scores were lowest in the moratorium status). For each status measure, placing the derived status classifications in order of ascending means yields a similar pattern: opposing status, adjacent statuses, and corresponding status.

With regard to associations between continuous measures of identity status and of its underlying dimensions, some of the expected associations were found, whereas others were not. Diffusion, for example, was negatively related to commitment but not to exploration. Foreclosure was negatively related to exploration but was unrelated to commitment. Moratorium was negatively related to commitment but was not

related to exploration. Achievement was positively related to commitment but was only weakly related to exploration. For each status, then, one of the definitional assumptions was supported, while the other was not.

In terms of convergence in status classifications, agreement rates between the direct and derived status assignment methods were often less than 50 percent. Rates of disagreement were generally higher in the statuses characterized by low levels of exploration than in the statuses characterized by higher exploration levels. This same pattern was observed when agreement rates were examined given direct status classifications and when they were examined given derived status classifications. Incompatibilities in status assignments between the two algorithms tended to involve assignment to "adjacent" statuses (i.e., those sharing similar levels of exploration or commitment, such as foreclosure and diffusion). The fact that disagreements involving non-adjacent statuses (e.g., diffusion and achievement) were fairly uncommon suggests that the direct and derived strategies were at least somewhat convergent. One might assume, then, that measurement error was largely responsible for the relative lack of convergent validity between the two status assignment methods.

However, the significant differences in agreement rates between the "low-exploring" and "high-exploring" statuses may suggest the presence of meaningful differences between the two sets of statuses. Further, the incompatibilities observed in predicting direct status classifications from measures of exploration and commitment appeared to be qualitatively different from the incompatibilities observed in predicting derived status categorizations from continuous status measures. Put together, these incompatibilities may have theoretically useful implications.

Errors in predicting direct status classifications from measures of exploration and commitment were similar to the incompatibilities between direct and derived status assignments. Classifications were significantly more accurate for those participants assigned to achievement or moratorium than for those assigned to diffusion or foreclosure. The lower levels of classification agreement in foreclosure and diffusion may reflect greater diversity of presentation in these statuses than in moratorium and achievement. Some identity theorists (e.g., Archer & Waterman, 1990; Marcia, 1989) have attempted to capture the diversity of diffusions and foreclosures by delineating subcategories of these statuses. Most prominently, diffusion has been divided into "adaptive" and "playboy" types (Marcia, 1989), and foreclosure has been separated into "firm" and "developmental" types (Archer & Waterman, 1990; Kro-

ger, 1995). Diffusion encompasses both those individuals who have yet to begin identity exploration or who have abandoned previously held commitments and those who are characteristically apathetic and non-committal. Similarly, foreclosure incorporates both those persons who hold parentally sponsored and as-yet unchallenged viewpoints and those typically distinguished by rigidity, inflexibility, and authoritarianism. Because of such variations within the diffused and foreclosed statuses, the simple combination of exploration and commitment may not be sufficient to capture the subtleties of these statuses (cf. Schwartz, 2001). Lesser degrees of variability in the moratorium and achieved statuses may have contributed to the higher agreement levels for these statuses.

The classification errors incurred in predicting derived status classifications from continuous status measures reflect an effect of commitment rather than of exploration. The statuses low in commitment (i.e., diffusion and moratorium) showed higher rates of classification agreement than did the high-commitment statuses, foreclosure and achievement. This could indicate that the continuous status measures, and perhaps the statuses themselves, are more strongly aligned in terms of commitment than in terms of exploration. The high positive correlations between the moratorium and diffusion scales, and the negative correlations between the diffusion and achievement scales, appear to support this contention. The measures of statuses adjacent in terms of commitment but differing in exploration (i.e., diffusion and foreclosure; moratorium and achievement) were unrelated to one another, suggesting that exploration is not a strong differentiating variable. In fact, when post hoc regressions were conducted on the EIPQ exploration and commitment scores by the four EOM-EIS-II status scores, substantially more variance was explained in commitment (29.6%) than in exploration (20.6%), averaged across the three domain clusters. When the statuses and their underlying dimensions are measured independently, the status measures are more strongly related to commitment than to exploration.

Perhaps it is the relative stability of commitments, compared to fluctuations in exploration, that partially accounts for the greater salience of commitment vis-à-vis the statuses. Within the status model, exploration has been viewed as a process, and it may therefore be more malleable and changeable than commitment (Grotevant, 1987). In contrast, commitments are conceptualized as an outcome of the identity formation process and are taken to reflect an individual's allegiance to his/her current identity (Bosma, 1992). As such, they are expected to be relatively stable over time.

The lack of significant correlations between moratorium and exploration, and between foreclosure and commitment, may call into question some of the fundamental assumptions of the identity status model. The moratorium status, often thought of as the state of active exploration, appears from these results to more strongly reflect the absence of commitment. Similarly, whereas foreclosure has been traditionally defined in terms of strong commitments, the current findings portray it primarily as the absence of exploration. The assumption that moratorium represents a way station to achievement, and the assumption that foreclosure represents the most strongly held commitments, were not supported by the results of this study.

From the present results, it appears that the validity of some of the core assumptions of the Marcia model is somewhat tenuous. A number of researchers (e.g., Adams, 1997; Côté & Levine, 1988; van Hoof, 1999) have suggested that the status model's lack of a process focus and internal-consistency problems, among other issues, demonstrate the need for the study of identity to extend and expand beyond the status model. Although the critiques calling for extension and expansion beyond identity status have generally been theoretical in nature, the present study has generated empirical findings in support of those critiques. It is clear that identity status has facilitated considerable breakthroughs in the study of identity and will continue to be useful, but primarily in combination with more recently proposed models (see Berzonsky & Adams, 1999; Schwartz, 2001; Schwartz & Montgomery, 2002). As its critics have long asserted, identity status may not be adequate as a stand-alone model.

Limitations of the present study primarily concern issues of measurement error. It is not known, for example, the extent to which the lack of significant correlations between foreclosure and commitment, and between moratorium and exploration, are due to imprecision in both the EIPQ and the EOM-EIS-II. The use of shortened scales (i.e., including only domains that the two measures share in common) has the effect of lowering internal consistency estimates and introducing additional measurement error (Rosenthal & Rosnow, 1991). Although most of the findings replicated across the ideological, interpersonal, and overall domain clusters, measurement error cannot be discounted as a potential explanation for the lack of more substantial support for the primary assumptions of the identity status model. It may be advisable for future research to utilize structural equation modeling or other advanced statistical techniques that attenuate the effects of measurement error.

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