

Toward the Development of an Objective Assessment of Ego-Identity Status

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Four investigations were completed to develop a self-report measure of ego-identity status. Following James Marcia's definition of diffusion, moratorium, foreclosure, and identity achievement status, a series of Likert-type items were constructed and validated for use in the study of ego-identity formation. Convergent-divergent, concurrent, and predictive validity and test-retest reliability are documented in the reported data. Cross-sectional data suggest the measure will be sensitive to intraindividual change in identity formation. The new Objective Measure of Ego-Identity Status allows researchers to use either a "typology" or a "distribution of stage responses" in future longitudinal investigations.

INTRODUCTION

James Marcia's (1964, 1966) operationalized measure of Erikson's (1956, 1963) formulation of the identity crisis has stimulated a wide range of research in recent years (e.g., Toder and Marcia, 1973; Oshman and Manosevitz, 1974; Donovan, 1975; Schenkel, 1975; Waterman *et al.*, 1977; Munro and Adams, 1977a, 1977b). Marcia's semistructured Identity Status Interview assesses an in-

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dividual's responses to occupational, political, and religious questions, and each response dimension is scored for the presence of crisis and commitment. Four stages of development and two specific pathways have been proposed. These stages have been named diffusion, foreclosure, moratorium, and identity achievement statuses. Diffusion persons do not profess commitment to any specific occupation or ideology. Foreclosure persons have made a commitment, but in the absence of crisis. These individuals are thought to have assumed the commitments of others without a self-imposed crisis prior to the commitment decision. Moratorium persons are in a state of self-perceived crisis and are searching for commitment, while identity achievement individuals report having experienced a crisis and indicate a strong personal commitment. One proposed theoretical developmental pathway is from diffusion (the starting point for both trends) into foreclosure, while the other is into moratorium and ultimately identity achievement. Longitudinal investigations have demonstrated that over time diffusion persons are likely to move toward more advanced identity statuses (Waterman and Waterman, 1971; Waterman and Goldman, 1976).

Several notable problems exist in using the semistructured interview. First, the instrument requires a great deal of time to individually administer; this most likely accounts for the small sample sizes in some of the research using this assessment device. Second, a recent investigation by Marcia (1976) suggests the undesirable possibility that incorrect scoring can occur, which might lead to theoretically inconsistent development trends over time, e.g., identity achievement into foreclosure. But most important, Rest (1975) has argued that depicting change in the form of a "transition matrix" misrepresents the complexity of stage change, fostering the misconception that individuals move through one stage at a time. He states that "instead of asking what stage is a subject in, the question should be to what extent and under what conditions does a subject's thinking exhibit various stages of thinking?" (pp. 739-740). Therefore, future developmental research should move from assessing one stage progression at a time to what Rest (1975) calls "upward shifts in distributions of responses (increases in higher stages, decreases in lower stages)" (p. 740). Indeed, Marcia (1976) has indicated a need to change from a typology perspective to one of developmental process. Therefore, a new identity status assessment device is needed which assesses one's inclinations toward self-perceived diffusion, foreclosure, moratorium, and ego-identity achievement on occupational and ideological dimensions rather than one which classifies an individual solely into one of the four identity statuses from a static typology perspective.

Four separate investigations were undertaken to demonstrate that a valid and objective self-report measure of ego-identity status can be developed to allow future researchers to assess longitudinal change by a shift in "distribution of stage-related responses" versus a "one-step stage by stage progression." While these four studies offer a good beginning, we contend that no single study or series of studies should be perceived as the final validation evidence. Rather, the

assessment device summarized in this research report should be viewed as an important beginning toward the development of a new research tool which will allow future investigators to assess the true *complexity of stage-related changes in identity development*.

STUDY I

The basic assumption during the construction of the new ego-identity assessment device was that crisis and commitment could be equally assessed by an interview schedule (Marcia, 1966) and an objective self-report questionnaire using Likert scale items. Therefore, items were written which reflected the intent of each stage on the presence or absence of commitment and crisis. The completion of a brief pilot study led to the revision of several items and the exclusion of others. The first investigation was finally completed with items that reflected theoretically appropriate indications of crisis and commitment in the domains of occupational, religious, and political choice and activity.

Sample

Forty-eight participants (12 males and 36 females) from a freshman general education course at the Utah State University completed the appropriate questionnaires. These students were primarily middle class youth from rural or small town backgrounds. The majority of these students were from the academic fields of education, child development, sociology, social work, psychology, and liberal arts.

Procedure

During class period the subjects were asked to complete the Marlowe-Crowne Social Desirability Scale (Crowne and Marlowe, 1960); the Marcia (1966) Ego-Identity Incomplete Sentence Blank (EI-ISB) — an assessment device for general ego-identity achievement; and the new Objective Measure of Ego-Identity Status (OM-EIS). (The EI-ISB was chosen as the primary validation source in all four studies and was used by Marcia as the major validation measure for his ego-identity interview schedule.) The OM-EIS scale consisted of 24 total items, with 6 items reflecting each of the four stages. Each series of 6 items included statements on occupation, religion, and politics. Participants were asked to read each item and indicate to what degree the comment was similar to their own self-perceptions. Items were presented in a random arrangement across the four stages and three content areas. The Likert scale included responses of strongly agree, moderately agree, agree, disagree, moderately disagree, and

strongly disagree. The following items are examples of stage specific responses for occupational choices:

1. I haven't chosen the occupation I really want to get into, but I'm working toward becoming a _____ until something better comes along. (Diffusion)
2. My parents had it decided a long time ago what I should go into and I'm following their plans. (Foreclosure)
3. I just can't decide how capable I am as a person and what jobs I'll be right for. (Moratorium)
4. It took me awhile to figure it out, but now I really know what I want for a career. (Identity Achievement)

Results and Discussion

The convergent-divergent pattern of correlations between items within a stage (e.g., diffusion items) and their total score for each stage (e.g., all diffusion items summated) on the OM-EIS indicate each group of items are capable of discriminating between the remaining stage specific totals while loading moderately to high with their own stage item totals. Table I summarizes the range of correlations for individual items across the four stage-specific totals. In all cases the median correlation across the rows load significantly higher ($p < 0.001$) on the appropriate stage-specific total than on the remaining totals. The multitrait-multimethod matrix implied by the convergent-divergent data shows that diffusion and moratorium scales (as uncommitted statuses) shared some common variance, but little with the committed identity statuses. Further, each of the two committed identity statuses (foreclosure and identity achievement) showed little

Table I. Convergent-Divergent Correlation Ranges for Stage-Specific Items with the Total Stage Scores

Six items each in	Total scale scores			
	Diffusion	Foreclosure	Moratorium	Identity achievement
Diffusion	0.29 – 0.66	–0.26 – 0.40	0.24 – 0.50	–0.34 – –0.08
Md	0.48	0.15	0.26	–0.24
Foreclosure	0.05 – 0.40	0.44 – 0.76	–0.06 – 0.39	–0.17 – 0.26
Md	0.10	0.67	0.20	0.08
Moratorium	–0.04 – 0.57	–0.01 – 0.32	0.37 – 0.65	–0.35 – 0.18
Md	0.44	0.21	0.60	–0.27
Identity achievement	–0.42 – 0.11	–0.32 – 0.27	–0.48 – 0.12	0.38 – 0.72
Md	–0.14	0.05	0.19	0.59

Table II. Means, Standard Deviations, and Cutoff Points for the Four Ego-Identity Stage Totals on the OM-EIS^a

Identity status	Mean	Standard deviation	Cutoff
Diffusion	15.60	3.29	18.89
Foreclosure	16.25	5.22	21.47
Moratorium	16.94	3.96	20.90
Identity achievement	26.38	4.08	30.46

^a Each scale ranges from a low of 6 to a high of 36 points.

shared commonality; this follows the theoretical assumption that the two forms of commitment are separate forms of identity development.

Composite reliability (internal consistency) for each of the four identity statuses was computed through the use of Cronbach's alpha (1951) using the appropriate formula for summing raw item scores (Armor, 1974, p. 22, equation 7). Internal consistency for each of the diffusion, foreclosure, moratorium, and identity achievement scales were significant. These coefficient alphas were 0.68, 0.76, 0.67, and 0.67, respectively.

In the new OM-EIS scale each subject can be given an overall stage type category (similar to the score derived by Marcia's interview schedule), as well as individual stage scores to measure distribution changes for individuals or groups over time. (In Study I only categories will be considered, while distribution scores will be discussed later). To arrive at a single stage score a mean and standard deviation were derived on each stage scale (see Table II for these statistics) and each person's scores were compared to cutoff points using the following rules for defining the overall stage type:

1. Individuals with scores falling one standard deviation above the mean on a given scale were scored as being in that identity status if all remaining scores fell below that cutoff.
2. Individuals with scores falling less than 1 standard deviation above the mean on all four measures were scored as moratorium (while arbitrarily decided, such a low profile was assumed to reflect a unique form of crisis).
3. Individuals with more than one score above the standard deviation cutoff were scored as persons in transition and given a "transition stage" typology, e.g., diffusion-moratorium, diffusion-foreclosure, etc.

Using these rules, the 48 participants' scored responses to the OM-EIS resulted in 1 diffusion, 3 diffusion-foreclosure, 4 diffusion-moratorium, 3 foreclosure, 3 foreclosure-moratorium, 25 moratorium, no moratorium-achievement or diffusion-achievement, and 9 identity achievement status persons. As expected, no diffusion-achievement or foreclosure-achievement categories were noted, suggesting the instrument is unlikely to discriminate theoretically incon-

sistent categories of persons. In most samples of previous research an approximate average of 35% of the college samples have been found to be in moratorium, while these data report 52% in the same category. This finding suggests that (a) criterion 2 in the scoring rules may be categorizing persons as moratorium who fit the category as well as individuals who reflect a response style of avoiding scale extremes, or (b) this criterion may actually be more objective than that utilized by the Marcia interview schedule and thus be more likely to identify moratorium subjects from the remaining identity status categories. Given that the moratorium status subjects, on the average, performed as expected on the Marcia Incomplete Sentence Blank (EI-ISB) we have no reason to assume the former (a) over the latter (b).

Predictive validity was assessed by comparing the identity status groups on the Marcia Incomplete Sentence Blank. Given the rather small number of cases in the transition groups, categories were collapsed to compare diffusion ($N = 8$), foreclosure ($N = 6$), moratorium ($N = 25$), and identity achievement ($N = 9$) statuses. A one-way analysis of variance revealed an overall significant difference, $F(3, 47) = 2.74, p < 0.05$, on the attainment of ego-identity achievement. Individual comparisons using a multiple range test revealed the diffusion status persons ($M = 33.87$) were significantly less committed than the identity achievement ($M = 38.89$) status persons to an overall ego identity. No significant differences were observed between the diffusion and identity achievement statuses when each of these statuses were compared separately with the foreclosure ($M = 35.50$) and moratorium ($M = 36.68$) status groups. Therefore, the multiple range tests suggested that moratorium and foreclosure statuses fell in the appropriate theoretical position between the diffusion and achievement status and reflect the same outcome reported by Marcia (1966) in the development of his semistructured interview assessment device. Furthermore, an interrater reliability check on the scoring of the ISB indicated a high concurrence ($r = 0.94$) in scoring, eliminating the suggestion that individual differences between the statuses may be due to incorrect scoring of the incomplete sentence blank responses.

Finally, an assessment of possible social desirability effects was completed. The correlation between the Marlowe-Crowne scale and the diffusion ($r = 0.08$), foreclosure ($r = 0.08$), moratorium ($r = 0.01$), and identity achievement ($r = 0.02$) scales were not significant (all $ps > 0.10$). Therefore, no evidence was found to suggest that identity scores measured by the OM-EIS are confounded with social desirability response tendencies.

STUDY II

Muuss (1975) has suggested that subjects scoring in the identity achievement category on the Marcia instruments would also be the highest in self-acceptance because they had passed through a period of questioning and had made

their own commitments, while at the same time becoming aware of their capacities. Further, Marcia (1966) found that foreclosure subjects scored highest in authoritarianism. Related to the Foreclosure personality is the aspect of "being set in one's ways without any personal searching", or as Muuss (1975) has stated, being inflexible or rigid. Therefore, a second study was completed to assess the relationship between the OM-EIS and measures of self-acceptance, authoritarianism and rigidity. Further, a second test of the relation between OM-EIS and EI-ISB scores was completed.

Sample

Fifty females and 26 males from psychology and education classes at the University of Nebraska at Omaha completed the questionnaires. The participants ranged in age from 17-51 years, with the modal age in the mid-twenties. Students were primarily middle-class with Catholic and Protestant backgrounds. The majority of students were from the academic fields of psychology, education, and nursing.

Procedure

During class periods the subjects were asked to complete the OM-EIS, the Marcia (1966) Ego-Identity Incomplete Sentence Blank, the California F-Scale (Adorno *et al.*, 1950), the Phillips (1951) Self-Acceptance Scale, and the Wesley (1953) Rigidity Scale.

Adorno *et al.* (1950) reported that the F-Scale maintains reliability in the 0.90 range (page 257) while other investigations have shown that the scale is correlated with such behaviors as misanthropy (Sullivan and Adelson, 1954), dogmatism (Rokeach, 1954), religious conventionalism, authoritarianism, masculine facade, and moralistic control (O'Neil and Levinson, 1954). Further, the F-Scale has been shown to maintain concurrent validity with other self-report measures of authoritarianism (e.g., Webster *et al.*, 1955). The Self-Acceptance Scale has reported test-retest reliability in the 0.80s (Phillips, 1951) and has acceptable concurrent validity (Omwake, 1954) with the Scale for Self-Acceptance and Acceptance of Others by Berger (1952). Finally, the Wesley (1953) Rigidity Scale has no reported reliability index, but has been shown to be predictive of perseveration of response during a concept formation task.

Results and Discussion

The OM-EIS was scored in the same manner described in the first study. Participants scored in the following categories: 2 diffusion, 3 diffusion-fore-

Table III. Mean Comparisons on Ego-Identity Status Categories^a

	Diffusion		Foreclosure		Moratorium		Identity achievement		Other	
	<i>M</i>	<i>sd</i>	<i>M</i>	<i>sd</i>	<i>M</i>	<i>sd</i>	<i>M</i>	<i>sd</i>	<i>M</i>	<i>sd</i>
Marcia ISB	34.6 _a	4.17	37.1 _{ab}	1.51	38.2 _b	3.24	38.0 _b	3.86	37.8 _{ab}	3.77
F Authoritarian	59.1 _b	9.97	55.4 _b	9.04	44.2 _a	11.32	36.6 _a	13.16	48.5 _{ab}	9.98
Social acceptance ^b	66.7 _{bc}	9.07	72.9 _c	16.97	57.9 _{ab}	12.05	52.0 _a	15.43	71.5 _{bc}	16.82
Rigidity	11.8 _{bc}	2.61	10.3 _{ab}	3.37	10.0 _{ab}	2.97	8.1 _a	4.04	14.3 _c	2.06

^aSimple effects were assessed with a multiple range test. Means sharing a common subscript across rows are not significantly different from each other, while means with a different superscript are significantly different at the 0.05 level or better.

^bThe social acceptance scale is reverse weighted — low scores imply high self-acceptance.

closure, 5 diffusion-moratorium, 10 foreclosure, 2 foreclosure-moratorium, 40 moratorium, 1 moratorium-achievement, and 9 identity achievement. According to the established scoring criteria, 4 subjects were unclassifiable. Once again, the eight categories were collapsed to compare diffusion ($n = 10$), foreclosure ($n = 12$), moratorium ($n = 40$), achievement ($n = 10$), and others ($n = 4$). Four one-way analyses of variance were obtained between the OM-EIS and the dependent measures.

Given that the interrater reliability on the EI-ISB reached an acceptable level ($r = 0.96$), a one-way analysis of variance was completed on the five identity status categories for that measure, $F(4, 75) = 2.51, p < 0.05$. As Table III indicates, identity achievement persons were significantly higher on overall identity than diffusion subjects. Moreover, in this investigation foreclosure, moratorium, and achievement status subjects were found to score approximately the same. These findings are generally in line with Marcia's theoretical expectations.

As stated previously, one could theoretically expect subjects in the foreclosure status to score significantly higher than the remaining identity status groups on the authoritarianism measure. The results partially support this assumption, $F(4, 75) = 7.60, p < 0.001$. Foreclosure persons were more authoritarian than moratorium and achievement individuals, but did not differ significantly from diffusion subjects. Perhaps the diffusion group, on the average, was heading toward a foreclosed identity.

Muuss's (1975) theoretical position that identity achievement persons should show high self-acceptance was supported, $F(4, 75) = 5.15, p < 0.01$. As can be noted in Table III, the identity achievement group mean was significantly different from that of either the diffusion or foreclosure group. Furthermore, moratorium individuals had self-acceptance scores similar to the identity achievement persons. This may suggest that moratorium individuals in this study were close to establishing ego identity.

The final analysis of variance compared rigidity scores for each of the five categories. A lack of personal searching and inflexibility are thought to be characteristic of the foreclosure group; in contrast, the identity achievement group have supposedly resolved their own values by considering other alternatives which have either been accepted or rejected (Muuss, 1975). Mean comparisons in Table III support this assumption, $F(4, 75) = 3.51, p < 0.05$. The mean for the foreclosure group was considerably higher than the mean for the identity achievement category, although not significantly ($p > 0.05$).

STUDY III

Marcia's (1966) original validation of the Ego-Identity Interview was completed with male subjects. In the present study, male and female subjects were both used to check for possible sex differences. Also, this investigation was em-

ployed to assess the ability of the OM-EIS to detect the complexity of stage change. Rest (1975) suggests that a typology perspective misconstrues developmental change. Instead, Rest views stage development as a series of transcending developmental changes in distributions of responses over time. In general, then, one would expect younger students to report less commitment and fewer crises (i.e., diffusion or moratorium), while older subjects would report more commitment (i.e., foreclosure or achievement).

Sample

Eighty-eight males and 84 females from the Department of Natural Resources (physical sciences) and Family and Human Development (social sciences) at Utah State University were sampled. Participants were drawn from large class sections that contained freshmen through senior students in both the social sciences and physical sciences.

Procedure

Subjects were asked to complete the OM-EIS and the Marcia (1966) Ego-Identity Incomplete Sentence Blank (ISB) during class period.

Results and Discussion

Interrater reliability between two independent raters for the ISB was $r = 0.97$. Once again the OM-EIS was scored as described in Study I. All transition groups were collapsed into the four main statuses. These categories included diffusion (22), foreclosure (19), moratorium (110), and achievement (19) statuses. Two of the subjects were unclassifiable according to set criteria.

A two-way analysis of variance was completed on the ISB scores, with sex of the subject and OM-EIS Identity status ratings as the independent variables. There was a significant main effect for the OM-EIS, $F(4, 171) = 2.40, p < 0.05$. Students categorized as diffused by the OM-EIS scored lower than achieved students on the ISB, and foreclosure and moratorium status students scored in between the former two identity status groups. A main effect for sex did *not* emerge. Further, the interaction between sex and the OM-EIS identity statuses was not significant. These data provide additional support for the validation of the OM-EIS, while also indicating the utility of the OM-EIS for both sexes.

A second series of analyses was completed on these data to investigate the ability of the OM-EIS scales to detect theoretically consistent developmental trends in stage sequence changes in ego-identity formation. Separate one-way ANOVAs were completed on three age category comparisons on the four identity status scales for each sex. Three age categories were determined by compar-

ing males ($M = 21.2$ years, $sd = 2.9$) and females ($M = 20.1$ years, $sd = 2.5$) who were 1 standard deviation above or below the mean with the in-between age group.

Although only marginally significant, the results were consistently in the expected direction. The younger males were more diffused, $F(2, 84) = 1.94$, $p < 0.10$, and foreclosed, $F(2, 84) = 2.24$, $p < 0.10$, than the two older age group comparisons. Conversely, the oldest male group was more likely than the two younger groups to be in a state of moratorium, $F(2, 84) = 4.84$, $p < 0.01$, or identity achievement, $F(2, 84) = 3.42$, $p < 0.04$. No significant age effects were observed on the female sample for any of the four OM-EIS scales; however, the mean differences were once again in the direction reported for the male sample. These findings are consistent with previous ego-identity developmental research which indicates males are ontogenically more accelerated than females in their identity formation.

These data tentatively support the assumption that the OM-EIS scales are sensitive to the assessment of development in stage sequences over time, where diffusion and foreclosure scores decrease and moratorium and achievement scores increase with age. It must be cautioned, however, that these data were cross-sectional, and to ideally assess intraindividual change in identity formation longitudinal data are needed.

STUDY IV

The final investigation was primarily completed to make a direct comparison between the OM-EIS and the Marcia interview. In addition, further reliability and validity data were gathered on the OM-EIS.

Sample and Procedure

Fifty-four male and female college students in the sophomore, junior, and senior classes at Utah State University were interviewed. These students were randomly drawn from university rosters, with students participating from eight academic fields in five colleges. An additional 26 students at the same institution were administered the OM-EIS twice in a five-day period.

During a private interview each participant responded to the Marcia interview, incomplete sentence blank (IS B) and the OM-FIS.

Results and Discussion

Interrater reliability between two independent raters on the ISB reached an acceptable level of significance, $r = 0.85$, $p < 0.01$. Interrater agreement for

Table IV. Comparison of the Four Identity Statuses Measured by the Marcia Interview Schedule on the OM-EIS Subscale-Status Scores^a

Interview status subjects	OM-EIS status score							
	Diffusion ^b		Foreclosure ^c		Moratorium ^d		Achievement ^e	
	\bar{x}	sd	\bar{x}	sd	\bar{x}	sd	\bar{x}	sd
Diffusion	21.75 _a	6.3	11.00 _{ab}	3.2	16.50 _{ab}	4.0	24.00	3.9
Foreclosure	15.50 _{bc}	3.2	16.69 _c	4.4	13.94 _b	1.9	27.49	3.1
Moratorium	17.73 _{ab}	4.1	14.14 _b	4.1	16.78 _a	2.2	26.00	3.6
Achievement	13.67 _c	4.4	10.75 _a	2.4	14.42 _b	3.1	28.75	2.3

^aSimple effects were assessed with a multiple range test. Means sharing a common subscript across rows are not significantly different from each other, while means with a different superscript are significantly different at the 0.05 level or better.

^b $F(3, 50) = 5.07, p < 0.01$.

^c $F(3, 50) = 5.27, p < 0.01$.

^d $F(3, 50) = 4.85, p < 0.01$.

^e $F(3, 50) \leq 1, ns$.

the overall identity statuses on the Marcia interview reached an 85% level, with all differences compromised. A one-way ANOVA on the four identity statuses from the Marcia interview on the ISB, $F(3, 50) = 13.55, p < 0.001$, revealed diffused students were the least committed and achieved students the most committed to a stable identity. A similar finding was found on the comparison between the OM-EIS statuses and the ISB scores. Test-retest reliability was moderate to high (all $ps < 0.001$) on all four subscales of diffusion, $r = 0.84$, foreclosure, $r = 0.93$, moratorium, $r = 0.71$, and achievement statuses, $r = 0.78$.

A comparison of the subjects' identity status on the Marcia interview and the OM-EIS suggest a similar but not identical congruence on identity status scores. Out of 7 students scored as diffusion on the OM-EIS, 5 were in the uncommitted statuses on the Marcia interview. Of the 7 foreclosure students on the OM-EIS 5 were scored as foreclosed on the Marcia measure. Sixteen of the 31 subjects in the moratorium status were scored in the same category status, while 7 of the 9 identity achievement students were scored in committed statuses between the two measures. Further, the discrepancy between the two measures in the moratorium category was primarily accounted for by the fact that many of the unmatched category placements resulted from subjects being scored in diffusion transition (diffusion-moratorium) status by the OM-EIS and moratorium by Marcia's interview. A close examination of the interview data suggested that many of these students were actually in transition from diffusion to moratorium. Collectively, however, these data suggest a relatively close parallel in scoring outcome between the two techniques. However, discrepancies observed between the OM-EIS and the Marcia interview schedule suggest that the OM-EIS is either

(a) questionable as a tool in discriminating between identity diffusion and moratorium or (b) due to its sensitivity in identifying transition statuses (e.g., diffusion-moratorium) does not show an exact one-to-one correspondence with the Marcia interview schedule.

Finally, comparisons between the four identity statuses derived from the Marcia interview and the full scores from the OM-EIS subscales were completed (see Table IV). As measured by the Marcia interview, achievement and foreclosure students held significantly lower OM-EIS diffusion scores than moratorium or diffusion students. Furthermore, foreclosure students held significantly higher OM-EIS foreclosure scores than diffusion achievement or moratorium participants. Also, diffusion and moratorium students scored higher on the moratorium subscale than the foreclosure or achievement subjects. No significant effect was found on the OM-EIS achievement subscale, although the mean differences were in the general expected direction with uncommitted students scoring lower than committed subjects.

CONCLUSION

Collectively, these four investigations offer evidence for a relative degree of concurrent and predictive validity for the new OM-EIS scales. In comparison to Marcia's interview scale the new scale has been validated with both male and female samples. In addition, test-retest reliability data has been provided for each subscale. The new instrument offers the advantage of methodological control for potential rater bias and possible interviewer effects on participant response. Further, the scale provides the researcher with an option of a typology measure or an assessment of subscale distributions on the stages of identity status originally advanced by Marcia. The latter advantage offers future researchers the possibility of documenting the complexity of intraindividual change in ego-identity formation.

While the OM-EIS is not to be seen as a total replacement for Marcia's interview measure, larger scaled survey studies can now be undertaken using multivariate research techniques such as path analysis or multiple regression to examine and build complex theoretical models on antecedents to the identity formation process when the OM-EIS is used.

Because no single investigation should be viewed as the final statement on measurement validation, this scale must be seen as an evolving experimental research scale. Three problems yet to be addressed in the development of the OM-EIS scale should be noted. First is the issue of the unclassifiable students. Table III suggests that these students are similar to those of foreclosure and moratorium status in their ISB scores. They fall in the middle range of the statuses on authoritarianism, but have relatively low self-reported self-acceptance. Furthermore these students were found to hold the highest rigidity scores. It

is possible that these students are partially diffused and moving into foreclosure and might be considered a special case of diffusion-foreclosure. However, until further work is completed to verify this assumption, unclassified students should be considered as a special group. Second, the initial development of identity achievement has been based upon a total integrated perspective which collapses the dimensions of commitment toward occupation, religion, and politics. While the data in these four investigations suggest these dimensions are highly correlated, it must be noted that one may have an occupational commitment without an accompanying political or religious commitment. Therefore, future attempts will be undertaken to extend these subscale dimensions to include more than two items per dimension, so that subscale dimension comparisons are possible within each of the four identity statuses. Once again, however, we caution against such practice until additional validation efforts are completed on these experimental research scales.

A third problem which might be addressed by future investigation is increasing the capacity of the OM-EIS to discriminate moratorium and diffusion subjects as classified by Marcia's interview. As it stands, the OM-EIS appears to best distinguish achievers and/or foreclosures from moratoriums-diffusions as a group. If, alternatively, the results are due indeed to the fact that numerous subjects were in transition from diffusion to moratorium, then a cross-validated study on an independent population, comparing the OM-EIS with Marcia's interview, should evince greater discrimination between diffusions and moratoriums.

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