DEVELOPMENT AND VALIDATION OF EGO-IDENTITY STATUS [1]

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4 modes of reacting to the late adolescent identity crisis were described, measured, and validated. Criteria for inclusion in 1 of 4 identity statuses were the presence of crisis and commitment in the areas of occupation and ideology. Statuses were determined for 86 college male Ss by means of individual interviews. Performance on a stressful concept-attainment task, patterns of goal setting, authoritarianism, and vulnerability to self-esteem change were dependent variables. Ss higher in ego identity performed best on the concept-attainment task; those in the status characterized by adherence to parental wishes set goals unrealistically high and subscribed significantly more to authoritarian values. Failure of the self-esteem condition to discriminate among the statuses was attributed to unreliability in self-esteem measurement.

Ego identity and identity diffusion (Erikson, 1956, 1963) refer to polar outcomes of the hypothesized psychosocial crisis occurring in late adolescence. Erikson views this phase of the life cycle as a time of growing occupational and ideological commitment. Facing such imminent adult tasks as getting a job and becoming a citizen, the individual is required to synthesize childhood identifications in such a way that he can both establish a reciprocal relationship with his society and maintain a feeling of continuity within himself.

Previous studies have attempted to determine the extent of ego-identity achievement by means of an adjustment measure and the semantic differential technique (Bronson, 1959), a Q-sort measure of real-ideal-self discrepancy (Gruen, 1960), a measure of role variability based on adjective ranking (Block, 1961), and a questionnaire (Rasmussen,

1964). While these studies have investigated self-ratings on characteristics that should follow if ego identity has been achieved, they have not dealt explicitly with the psychosocial criteria for determining degree of ego identity, nor with testing hypotheses regarding direct behavioral consequences of ego identity.

To assess ego identity, the present study used measures and criteria congruent with Erikson's formulation of the identity crisis as a *psychosocial* task. Measures were a semi-structured interview and an incomplete-sentences blank. The interview (see Method section) was used to determine an individual's specific identity status; that is, which of four concentration points along a continuum of ego-identity achievement best characterized him. The incomplete-sentences blank served as an overall measure of identity achievement. The criteria used to establish identity status consisted of two variables, crisis and commitment, applied to occupational choice, religion, and political ideology. Crisis refers to the adolescent's period of engagement in choosing among meaningful alternatives; commitment refers to the degree of personal investment the individual exhibits.

"Identity achievement" and "identity diffusion" are polar alternatives of status inherent in Erikson's theory. According to the criteria employed in this study, an identity-achievement subject has experienced a crisis period and is committed to an occupation and ideology. He has seriously considered several

occupational choices and has made a decision on his own terms, even though his ultimate choice may be a variation of parental wishes. With respect to ideology, he seems to have reevaluated past beliefs and achieved a resolution that leaves him free to act. In general, he does not appear as if he would be overwhelmed by sudden shifts in his environment or by unexpected responsibilities.

The identity-diffusion subject may or may not have experienced a crisis period; his hallmark is a lack of commitment. He has neither decided upon an occupation nor is much concerned about it. Although he may mention a preferred occupation, he seems to have little conception of its daily routine and gives the impression that the choice could be easily abandoned should opportunities arise elsewhere. He is either uninterested in ideological matters or takes a smorgasbord approach in which one outlook seems as good to him as another and he is not averse to sampling from all.

Two additional concentration points roughly intermediate in this distribution are the moratorium and foreclosure statuses. The moratorium subject is *in* the crisis period with commitments rather vague; he is distinguished from the identity-diffusion subject by the appearance of an active struggle to make commitments. Issues often described as adolescent preoccupy him. Although his parents' wishes are still important to him, he is attempting a compromise among them, society's demands, and his own capabilities. His sometimes bewildered appearance stems from his vital concern and internal preoccupation with what occasionally appear to him to be unresolvable questions.

A foreclosure subject is distinguished by not having experienced a crisis, yet expressing commitment. It is difficult to tell where his parents' goals for him leave off and where his begin. He is becoming what others have prepared or intended him to become as a child. His beliefs (or lack of them) are virtually "the faith of his fathers living still." College experiences serve only as a confirmation of childhood beliefs. A certain rigidity characterizes his personality; one feels that if he were faced with a situation in which

parental values were nonfunctional, he would feel extremely threatened.

Previous studies have found ego identity to be related to "certainty of self-conception" and "temporal stability of self-rating" (Bronson, 1959), extent of a subject's acceptance of a false personality sketch of himself (Gruen, 1960), anxiety (Block, 1961), and sociometric ratings of adjustment (Rasmussen, 1964). Two themes predominate in these studies: a variability-stability dimension of self-concept, and overall adjustment. In general, subjects who have achieved ego identity seem less confused in self-definition and are freer from anxiety.

Four task variables were used to validate the newly constructed identity statuses: a concept-attainment task administered under stressful conditions, a level of aspiration measure yielding goal-setting patterns, a measure of authoritarianism, and a measure of stability of self-esteem in the face of invalidating information.

The hypotheses investigated were these:

1. Subjects high in ego identity (i.e., identity-achievement status) will receive significantly lower (better) scores on the stressful concept-attainment task than subjects lower in ego identity. Subjects who have achieved an ego identity, with the internal locus of self-definition which that implies, will be less vulnerable to the stress conditions of evaluation apprehension and oversolicitousness (see Method section).

2. Subjects high in ego identity will set goals more realistically than subjects low in ego identity on a level of aspiration measure. The increment to overall ego strength following identity achievement should be reflected in the ego function of reality testing.

3. Subjects in the foreclosure status will endorse "authoritarian submission and conventionality" items to a greater extent than subjects in the other statuses.

4. There will be a significant positive relationship between ego identity measures and a measure of self-esteem.

5. Subjects high in ego identity will change less in self-esteem when given false information about their personalities than subjects low in ego identity.

6. There will be a significant relationship between the two measures of ego identity: the identity-status interview and the incomplete-sentences blank.

METHOD

Subjects

Subjects were 86 males enrolled in psychology, religion, and history courses at Hiram College.

Confederate Experimenters

Due to the possibility of contamination by subject intercommunication on a small campus, the study employed 10 confederate (task) experimenters who administered the concept-attainment task in one 12-hour period to all subjects. These task experimenters, 7 males and 3 females, were members of the author's class in psychological testing and had taken three or more courses in psychology. They had previously assisted in a pilot study and had been checked twice by the author on their experimental procedure. The use of a sample of experimenters, none of whom were aware of the subjects' standings on crucial independent variables, also has advantages in terms of minimizing the effects of experimenter bias (Rosenthal, 1964).

Identity status. Identity status was established by means of a 15–30 minute semistructured interview. All interviews followed the same outline, although deviations from the standard form were permitted in order to explore some areas more thoroughly. In most cases, the criteria for terminating an interview involved the completion of the prescribed questions as well as some feeling of certainty on the interviewer's part that the individual had provided *enough information to be categorized.* Interviews were tape-recorded and then replayed for judging. Hence, each interview was heard at least twice, usually three or four times.

A scoring manual (Marcia, 1964) was constructed using both theoretical criteria from Erikson and empirical criteria from a pilot study. Each subject was evaluated in terms of presence or absence of crisis as well as degree of commitment for three areas: occupation, religion, and politics—the latter two combined in a general measure of ideology. The interview judge familiarized himself with the descriptions of the statuses provided in the manual and sorted each interview into that pattern which it most closely resembled. *Analysis of interjudge reliability* for the identity statuses of 20 randomly selected subjects among three judges yielded an average percentage of agreement of 75. One of the judges was essentially untrained, having been given only the scoring manual and the 20 taped interviews.

A sample question in the occupational area was:

How willing do you think you'd be to give up going into _____ if something better came along?

Examples of typical answers for the four statuses were:

[Identity achievement] Well, I might, but I doubt it. I can't see what "something better" would be for me.

[Moratorium] I guess if I knew for sure I could answer that better. It would have to be *something in the general area*—something related.

[Foreclosure] Not very willing. It's what I've always wanted to do. The folks are happy with it and so am I.

[Identity diffusion] Oh sure. If something better came along, I'd change just like that.

A sample question in the religious area was:

Have you ever had any doubts about your religious beliefs?

[Identity achievement] Yeah, I even started *wondering whether or not there was a god.* I've pretty much resolved that now, though. The way it seems to me is . . . .

[Moratorium] Yes, I guess I'm going through that now. I just don't see how there can be a god and yet so much evil in the world or . . . .

[Foreclosure] No, not really, our family is pretty much in agreement on these things.

[Identity diffusion] Oh, I don't know. I guess so. Everyone goes through some sort of stage like that. But it really doesn't bother me much. I figure one's about as good as the other!

Overall ego identity. The Ego Identity Incomplete Sentences Blank (EI-ISB) is a 23-item semistructured projective test requiring the subject to complete a sentence "expressing his real feelings" having been given a leading phrase. Stems were selected and a scoring manual designed (Marcia, 1964) according to behaviors which Erikson (1956) relates to the achievement of ego identity. Empirical criteria were gathered during a pilot study. Each item was scored 3, 2, or 1 and item scores summed to yield an overall ego-identity score. Two typical stems were: If one commits oneself _____, and, When I let myself go I_____. Scoring criteria for the latter stem are:

3—Nondisastrous self-abandonment. Luxuriating in physical release. For example, have a good time and do not worry about others' thoughts and standards, enjoy almost anything that has laughter and some physical activity involved, enjoy myself more.

2—Cautiousness, don't know quite what will happen, have to be careful. Defensive or trivial. *For example, never know exactly what I will say or do, sleep,* might be surprised since I don't remember letting myself go.

1—Goes all to pieces, dangerous, self-destructive, better not to. For example, think I talk too much about myself and my personal interests, tend to become too loud when sober and too

melodramatic when drunk, sometimes say things I later regret.

Analysis of interscorer reliability for 20 protocols among three judges yielded an average item-by-item correlation of $\bar{r} = .76$, an average total score correlation of $\bar{r} = .73$, and an average percentage of agreement of 74.

Measures of Task Variables

Concept Attainment Task performance. The Concept Attainment Task (CAT) developed by Bruner, Goodnow, and Austin (1956) and modified by Weick (1964), requires the subject to arrive at a certain combination of attributes of cards. The subject may eliminate certain attributes by asking whether a card is positive or negative for the concept and he may guess the concept at any time. He is penalized 5 points for every request, 10 points for every guess, and 5 points for every 30 seconds that passes before he attains the concept. Level of aspiration was obtained by informing the subject of his previous time and asking him to estimate his time on the next problem.

Quality of performance on the CAT was assessed by the following measures: overall CAT scores (points for time plus points for requests and guesses), points for time alone, points for requests and guesses alone, number of "give-ups" (problems which the subject refused to complete). The main level of aspiration measure was attainment discrepancy or D score, the algebraic average of the differences between a subject's stated expectancy for a problem and his immediately preceding performance on a similar problem.

A combination of two stress conditions (stress defined here as externally imposed conditions which tend to impair performance) were used: evaluation apprehension and oversolicitousness. Evaluation apprehension refers to a subject's feeling that his standing on highly valued personal characteristics is to be exposed. The characteristic chosen for this study was intellectual competence, unquestionably salient for college students. Oversolicitousness was chosen as a logical complement to evaluation apprehension. It was assumed that unnecessary reassurance would validate and, hence, augment whatever anxiety the subject was experiencing.

Pilot study data indicated that the stress conditions were effective. Using the same task experimenters as in the final study, 56 subjects (27 males and 29 females) took the CAT under stress and nonstress (i.e., stress omitted) conditions. Each experimenter ran about 3 stress and 3 nonstress subjects. Stressed subjects performed significantly more poorly than nonstressed ones ($t = 2.61$, $df = 54$, $p < .02$).

Self-esteem change and authoritarianism. The Self-Esteem Questionnaire (SEQ-F) is a 20-item test developed by deCharms and Rosenbaum (1960) on which the subject indicates his degree of endorsement of statements concerning general feelings of self-confidence and worthiness.

In addition, statements reflecting authoritarian submission and conventionality, taken from the California F Scale (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), which were originally filler items, are used here as a dependent variable. The SEQ-F was administered twice, the first time in a classroom setting, the second, during the experimental situation following an invalidated self-definition.

The treatment condition of "invalidated self-definition" (ISD) followed the CAT and directly preceded the second administration of SEQ-F. It consisted of giving the subject false information concerning the relationship between his alleged self-evaluation and his actual personality.

Procedure

Following is the experimental procedure: Subjects completed the EI-ISB and SEQ-F in class. Each subject was interviewed to determine his identity status. (This interviewing period lasted about 2 months.) On the day of the experiment, each subject went through the following conditions: (*a*) Administration of the CAT under stress by the task experimenter. *Evaluation apprehension* was created by the task experimenter's saying:

> By the way, I thought you might be interested to know that this test is related to tests of intelligence [2] and that it's been found to be one of the best single predictors of success in college. So of course, you'll want to do your very best.

Oversolicitousness was created during CAT performance by the task experimenter's hovering over the subject, asking him if he were comfortable, advising him not to "tense up," not to "make it harder on yourself." (*b*) Following the CAT, the subject was seated in the author's office where he was given either a positive or negative (randomly assigned) invalidated self-definition. The subject found the experimenter intently scanning a data sheet and was told:

> I've been looking over some of the data and it seems that while you consider yourself less [more] mature than other subjects, you actually come out as being more [less] mature. Is there any way you can account for this discrepancy? [Pause for the subject's response.] This seems to hold up also for self-confidence. It seems that you consider yourself as having less [more] self-confidence than other subjects, yet you actually come out having more [less].

(*c*) The subject was then sent to another room where he took the SEQ-F for the second time. The following day, each subject received a postcard from the experimenter explaining the false information.

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[2] In fact, intelligence test scores gleaned from the subjects' college files did correlate significantly with CAT performance ($r = .55$, $df = 82$, $p < .0005$). However, no significant relationship was found between intelligence and identity status.

TABLE 1

DIFFERENCES BETWEEN IDENTITY STATUSES IN CAT PERFORMANCE

	N	M time	SD	M requests + guesses	SD	M overall score	SD	t
Identity status								
Identity achievement (A)	18	18.17	7.94	599.17	186.63	791.94	244.15	
Moratorium (B)	22	24.50	15.77	807.14	495.58	1024.82	612.04	
Foreclosure (C)	23	34.20	13.84	875.82	285.44	1147.83	407.98	
Identity diffusion (D)	21	29.73	18.52	767.38	266.43	1078.57	352.38	
Groups compared								
Time								
A versus D								2.39*
A versus B + C + D								2.41**
A versus C								2.90***
A + B + D versus C								2.24*
Requests + guesses								
A versus D								2.19*
A versus B + C + D								2.28*
A versus C								3.47***
A + B + D versus C								1.69
Overall score								
A versus D								3.47***
A versus B + C + D								2.45**
A versus C								3.19***
A + B + D versus C								1.63

* $p \leq .05$.
** $p \leq .02$.
*** $p \leq .01$.

RESULTS

Performance on CAT

The relationship between the identity statuses and CAT performance was investigated by means of individual t tests. These are found in Table 1 and support the hypothesis of significant differences in CAT performance between subjects high and low in ego identity.

For all three indices of CAT performance identity-achievement subjects perform significantly [3] better than identity-diffusion subjects (p's ranging from .01 to .05), and identity-

[3] All significance levels for t tests are based on two-tailed tests.

achievement subjects perform significantly better than the other three statuses combined (p's ranging from .02 to .05).

Data involving the number of problems on which the subjects in the different identity statuses gave up are presented in Table 2.

Comparing identity-achievement subjects with other subjects, significantly fewer instances of giving up on CAT problems are found for the identity-achievement subjects. This, together with the previous findings concerning the relationship between identity status and CAT performance under stress, provides substantial confirmation of Hypothesis 1.

TABLE 2

NUMBER OF CAT PROBLEMS ON WHICH SUBJECTS IN EACH IDENTITY STATUS GAVE UP

	Identity status				
	Identity achievement	Moratorium	Foreclosure	Identity diffusion	All other
Give-ups	1	7	13	11	31
Completions	107	125	131	109	365
	$\chi^2 = 8.93$*				$\chi^2 = 5.69$**

* $p < .05$.
** $p < .02$.

An interesting supplementary finding is that moratorium subjects were significantly more variable in overall CAT scores than subjects in the other three statuses combined ($F_{max} = 2.62$, $df = 21/61$, $p < .05$; see McNemar, 1955, pp. 244–247).

Correlations between all three CAT performance measures and the EI-ISB, while in the expected direction, failed to reach significance. The Pearson r between overall CAT performance and EI-ISB scores was $-.14$ ($df = 82$).

Level of Aspiration

The D, or attainment discrepancy score, reflects the difference between a subject's aspirations and his actual performance. An overall positive D score means that the subject tends to set his goals higher than his attainment; a negative D score means the opposite.

Inspection of original data revealed that no status obtained a negative average D score, the range being from 3.60 for identity achievement to 5.06 for foreclosure. Analysis of variance indicates a significant difference among statuses in D score ($F = 5.10$, $df = 3/80$, $p < .01$). The t tests presented in Table 3 show the foreclosure subjects exhibiting higher D scores than identity-achievement subjects ($t = 3.35$, $df = 38$, $p < .01$) and higher D scores than the other statuses combined ($t = 3.70$, $df = 82$, $p < .001$). It appears that foreclosure subjects tend to maintain high goals in spite of failure.

TABLE 3

DIFFERENCES IN D SCORE BETWEEN IDENTITY STATUSES

	N	M	SD	t
Identity status				
Identity achievement (A)	18	3.60	.80	
Moratorium (B)	22	4.11	.72	
Foreclosure (C)	23	5.06	1.65	
Identity diffusion (D)	21	3.91	1.49	
Groups compared				
C versus A				3.35*
C versus A + B + D				3.70**
B versus A				1.90
C + B + D versus A				.57

* $p \leq .01$.
** $p \leq .001$.

TABLE 4

DIFFERENCES IN F SCORES BETWEEN IDENTITY STATUSES

	N	M	SD	t
Identity status				
Identity achievement (A)	18	34.28	8.99	
Moratorium (B)	23	37.57	8.05	
Foreclosure (C)	24	45.17	9.01	
Identity diffusion (D)	21	38.67	10.19	
Groups compared				
C versus A				3.88*
C versus A + B + D				3.75*
D versus A				.44
B versus A				1.20

* $p \leq .001$.

Authoritarian Submission and Conventionality (F)

The t tests presented in Table 4 show that foreclosure subjects received significantly higher F scores than identity-achievement subjects ($t = 3.88$, $df = 38$, $p < .001$) and also significantly higher F scores than the other statuses combined ($t = 3.75$, $df = 82$, $p < .001$).

Self-Esteem

The significant relationship found here was between EI-ISB scores and the initial SEQ ($r = .26$, $df = 84$, $p < .01$). No significant differences among identity statuses for SEQ were found ($F = .66$, $df = 3/82$, ns). In addition, self-esteem appeared to be unrelated to authoritarian submission and conventionality ($r = -.03$, $df = 84$, ns) and to CAT performance ($r = -.03$, $df = 82$, ns).

Change in SEQ following ISD

Although differences in the expected direction were found (i.e., identity achievement changed less than identity diffusion), these were not significant ($t = 1.39$, $df = 37$, $p < .20$). Observer ratings of subjects' reactions to the invalidated self-definition indicated that this treatment condition was effective. The failure to obtain significant results may have been due to unreliability in the self-esteem measure engendered by the 2-month span between the first and second administration. There was a tendency for foreclosure subjects given negative informa-

TABLE 5
DIFFERENCES BETWEEN IDENTITY STATUSES
IN EI-ISB SCORES

	N	M	SD	t
Identity status				
Identity achievement (A)	18	48.28	5.10	
Moratorium (B)	23	48.09	4.23	
Foreclosure (C)	24	46.17	4.62	
Identity diffusion (D)	21	43.33	3.52	
Groups compared				
A versus C				1.37
B versus C				1.41
B versus D				3.94*
A versus D				3.89*
A + C + B versus D				3.61*

* $p \leq .001$.

tion to show a greater decrease in self-esteem than identity-achievement subjects under similar conditions ($t = 2.60$, $df = 19$, $p < .02$).

No relationship was found between EI-ISB scores and self-esteem change ($r = .001$, $df = 84$, ns).

EI-ISB Scores and Identity Status

Two techniques were employed to assess the relationship between overall ego identity as measured by EI-ISB and identity status. These were an analysis of variance among the four statuses ($F = 5.42$, $df = 3/82$, $p < .01$), and t tests among the individual statuses. The latter are found in Table 5.

Identity-achievement subjects received significantly higher EI-ISB scores than did identity-diffusion subjects ($t = 3.89$, $df = 37$, $p < .001$), and the first three identity statuses taken together received significantly higher EI-ISB scores than did identity diffusion ($t = 3.62$, $df = 84$, $p < .001$). Thus, the distinctive group with respect to EI-ISB scores appears to be identity diffusion. These findings lend some support to the hypothesized relationship between overall ego identity and identity status.

DISCUSSION

Of the two approaches to the measurement of ego identity, the interview, based on individual styles, was more successful than the incomplete-sentences test, which treated ego identity as a simple linear quality.

Particularly interesting was the relation-

ship between such apparently diverse areas as performance in a cognitive task and commitment to an occupation and ideology. The interview and the CAT tapped two prime spheres of ego function: the intrapsychic, seen on the CAT which required the individual to moderate between pressing internal stimuli (stress-produced anxiety) and external demands (completion of the task), and the psychosocial, seen in the interview which evaluated the meshing of the individual's needs and capabilities with society's rewards and demands. The relationship between these two spheres contributes validity to both the identity statuses and to the generality of the construct, ego.

No confirmation of the hypothesis relating ego identity to resistance to change in self-esteem was obtained, possibly because the length of time between the first and second SEQ administration was 2 months. The variability in subjects' self-esteem over this period of time may have obscured differences due to treatment alone.

Following are experimentally derived profiles of each status:

1. Identity achievement. This group scored highest on an independent measure of ego identity and performed better than other statuses on a stressful concept attainment task—persevering longer on problems and maintaining a realistic level of aspiration. They subscribed somewhat less than other statuses to authoritarian values and their self-esteem was a little less vulnerable to negative information.

2. Moratorium. The distinguishing features of this group were its variability in CAT performance and its resemblance on other measures to identity achievement.

3. Foreclosure. This status' most outstanding characteristic was its endorsement of authoritarian values such as obedience, strong leadership, and respect for authority. Self-esteem was vulnerable to negative information and foreclosure subjects performed more poorly on a stressful concept-attainment task than did identity-achievement subjects. In addition, their response to failure on this task was unrealistic, maintaining, rather than moderating, unattained high goals. This behavior pattern is referred to by Rotter

(1954) as "low freedom of movement [and is associated with] the achievement of superiority through identification [pp. 196–197]"—an apt description for one who is becoming his parents' alter ego.

4. Identity diffusion. While this status was originally considered the anchor point for high-low comparisons with identity achievement, it occupied this position only in terms of EI-ISB scores. CAT performance was uniformly poorer than that of identity achievement, although not the lowest among the statuses. The identity-diffuse individuals to which Erikson refers and identity-diffusion subjects in this study may be rather different with respect to extent of psychopathology. A "playboy" type of identity diffusion may exist at one end of a continuum and a schizoid personality type at the other end. The former would more often be found functioning reasonably well on a college campus. While having tapped a rather complete range of adjustment in the other statuses, the extent of disturbance of an extreme identity diffusion would have precluded his inclusion in our sample. Hence, it is the foreclosure, and not the identity-diffusion, subject who occupies the lowest position on most task variables.

In conclusion, the main contribution of this study lies in the development, measurement, and partial validation of the identity statuses as individual styles of coping with the psychosocial task of forming an ego identity.

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