An objective measure of Erikson's ego-identity construct is being developed. The total scale includes seven relatively independent subscales designed to reflect the residuals (part conflicts) of Erikson's psychosocial stages of development. An initial item pool of 194 items has been reduced to 113 items by means of judgemental and statistical analyses. Internal consistency of the total scale is acceptable (Alpha .91, N = 94, and Alpha .836, N = 120 at different administrations). Internal consistency for all but two subscales (3 and 6) is also acceptable (Hoyt range is .69 to .84). Test-retest reliability is .72 for the total scale. Significant correlations in predicted directions are achieved with measures of anxiety, self-esteem, ego-control, and social desirability. Construct validation is quite promising thus far, and additional analyses with a large group of young adult subjects are also being performed.

(Author)
Presentation Summary

An Objective Instrument for Assessment
of Erikson's Developmental Conflicts

Joseph C. Speisman, Kathleen M. White, Daryl Costos,
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1 This report is part of a larger study of young adult family relationships funded by the National Institute of Mental Health (MH 31719). Our thanks go to Robert Kelly for his assistance with computer analyses.
Abstract

An objective measure of Erikson's ego-identity construct is being developed. The total scale includes seven relatively independent subscales designed to reflect the residuals (part conflicts) of Erikson's psychosocial stages of development. An initial item pool of 194 items has been reduced to 113 items by means of judgemental and statistical analyses. Internal consistency of the total scale is acceptable (Alpha .91 N = 94, and Alpha .836 N = 120 at different administrations). Internal consistency for all but 2 subscales (3 and 6) is also acceptable (Hoyt range is .69 to .84). Test-retest reliability is .72 for the total scale. Significant correlations in predicted directions are achieved with measures of anxiety, self-esteem, ego-control, and social desirability. Construct validation is quite promising thus far, and additional analyses with a larger group of young adult subjects are also being performed.
Assessment of Eriksonian Conflicts

An Objective Instrument for Assessment of Erikson's Developmental Conflicts

There have been numerous attempts to operationalize and measure Erikson's concept of ego identity. In his review of the state of research on ego-identity Bourne (1978, I & II) indicates that almost all measurement has been done by one of three types of procedures: (1) self-descriptive Q sorts, (2) self-report questionnaires, or (3) semistructured interviews. By far the most heavily used is a semistructured interview developed by Marcia (1966) to measure his conception of identity-statuses. Useful and interesting results have been generated by the Marcia interview (e.g., Orlofsky et al., 1973; Podd, 1972; Schenkel, 1974; Watermann, 1970) and by the Q sort approach (e.g., Block, 1961; Heilbrun, 1964; Gruen, 1960; and Hauser, 1971) but earlier efforts to construct a reliable and valid self-report questionnaire (e.g., Dignan, 1965; Rasmussen, 1964; Simmons, 1970) have, for a variety of reasons, not provided the instrument of choice. Thus, there is no scale being extensively used in research that represents the virtues of objective test construction. While the Marcia interview has demonstrable value in research, it, of course, does not possess those strengths attributed to objective instruments and is further limited because it provides a discrete "status" scored for identity achievement (or moratorium, foreclosure or diffusion). Thus, the researcher using this instrument is, on formal grounds, limited to data analysis at nominal or, at best, ordinal level. In addition, there are conceptual and methodological difficulties when one approaches a developmental conception using discrete
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categorizations rather than continuous measurement. An effort is underway to
develop a scale that is objective and that will provide a developmental index
of identity. In order to try to adhere to Erikson's epigenetic principle
(Erikson, 1968) the construction of the measure follows Erikson's (1956)
description of the derivatives of the psychosocial stages that precede identity
development (the childhood stages I-IV) and the three stages (stages VI-VIII)
that are the precursors of the psychosocial stages of adulthood. These deri-
vatives, called part conflicts by Gallatin (1975), constitute the horizontal
(row V) in Erikson's epigenetic chart (1968). These conflicts are thought
to reflect the derivatives of the relative achievement or failure, during the
struggle for identity, of the preceding childhood stages and of the potential
for confusion in the succeeding psychosocial stages of adulthood. Only
Rasmussen (1964) used a similar approach in the development of his scale which
sought to assess the relationship of psychosocial effectiveness to identity.
However, he employed the part-conflicts only for the first four psychosocial
stages and did not include the final stage of development.

The development of a new scale: The results of two completed studies and
the preliminary results of a third major study employing the new instrument
are to be reported. Following the logic of the theoretical relationship be-
tween the part conflicts and the development of identity outlined briefly
above, items were written to reflect the seven conflicts. The labels for the
conflicts together with the seven psychosocial stages from which they derive
(Erikson, 1968) are as follows:

1. Temporal perspective vs. Time confusion (Trust vs. Mistrust)
2. Self certainty vs. Self consciousness (Autonomy vs. Shame and doubt)
3. Role experimentation vs. Role fixation (Initiative vs. Guilt)
4. Apprenticeship vs. Work paralysis (Industry vs. Inferiority)
5. Sexual polarization vs. Bisexual confusion (Intimacy vs. Isolation)
6. Leader and followership vs. Authority confusion
7. Ideological commitment vs. Confusion of values (Integrity vs. Despair)

A total of 194 items were written or derived from other tests using Erikson's descriptions and the somewhat more operational definitions of Gallatin (1975) as theoretical criteria. The items were then submitted to a judgemental analysis by personality graduate students. Because of conceptual ambiguity the student judges were provided with quotations from Erikson (1968) and Gallatin (1975) describing part conflicts 2, 3, and 4 and were asked to locate randomly sorted items on one of two adjacent scales. The criterion for acceptance was unanimous choice of 4 judges and 35 of the original 93 items in these subscales were deleted. Since problem of overlap in subscales 1, 5, 6, and 7 was considered less obvious, the items written for these scales were subjected to a simpler procedure in which 2 judges were asked to rate the relevance of each item to the scale descriptions. Items were retained if they were accorded a rating of 4 or 5 on a 5-point scale by both judges. Thirty-one items from these 4 subscales were deleted. Of the original 194 items, 66 were rejected leaving a 128-item pool. The 7 subscales contained varying numbers of items ranging from 10 to 30. Sixty-nine items are written in a positive scoring direction and 59 in a negative direction.
Study I was undertaken to provide (1) a statistical item analysis, (2) estimates of reliability (internal consistency), and (3) an initial effort at construct validation. The 128-item scale was administered to 94 members of an introductory psychology class who were satisfying a course requirement (Lane, 1978). The sample consisted of 40 males and 54 females; the modal age was 18, 7 subjects were younger than 18 and 4 were older than 20.

An item analysis was performed, and 15 items were deleted because they did not meet the criteria of a minimum point biserial coefficient of .35 with the subscale and .25 with the total scale. The resulting 113-item scale was then used in all analyses.

In order to begin the long process of validation several scales representing constructs that may be said to have an assumed relationship with identity were also administered. These scales are: The Taylor Manifest Anxiety Scale (Taylor, 1953), assumed to be negatively related; the Rotter Internal External Control Scale (Rotter, 1966) which should provide a positive relationship between internality and identity; and the Rosenberg Self-Esteem Scale (Rosenberg, 1965) which was also predicted to be positively related. The Crowne-Marlowe Social Desirability Scale (1964) was administered to determine the degree of relationship with the experimental scale, although prediction in this instance is difficult. One of Erikson's central constructs for identity is that the individual, both consciously and unconsciously, be in tune with his or her culture and recognized by the culture to have such a social place. Thus to the extent that Crowne-Marlowe reflects a cultural
conformity there should be a positive relationship between the two scales. It was therefore decided that a low positive correlation should be expected between the two scales and that such a relationship would have to be examined in the context of reliability and validity coefficients derived from other relationships. Since a group intelligence scale was not readily available, the student subject's total grade-point average was used as a reflection of consistent intellectual performance; the expectation was a zero order relationship between the GPA and the Identity Scale.

The resulting Pearson Product-Moment correlation coefficient is $r = .114$ between a 10-point grade scale (i.e. A, A-, B+, B, etc.) and the Identity Scale. The results of other analyses are presented in Table 1. The estimates of subscale internal consistency are within acceptable limits with the exception of scales 3 and 4. The Alpha value for the total scale is .91, also quite acceptable.

The relationships with the Taylor Manifest Anxiety Scale is negative as predicted. All values are negative, and all but number 3 are significant; the subscale range is from $-1.68$ (scale 3, NS) to $-.742$ (scale number 2), and the total identity scale is $-.714$. The identity scale results when compared with the Rosenberg Self-Esteem Scale are similar except in the expected positive direction. The two subscales (numbers 3 and 6) with the lowest reliability values are the only two that are not significantly related to the Rosenberg and the total identity score achieves an $r$ of .509.

The relationship with the Rotter Internal/External scale is less clear-cut. All values are in the expected direction, 3 subscales are significantly
related and the value of -.374 with the total is significant. However, 5 of the subscale values are less than .30. This is very similar to the result obtained by Simmons who compared his Identity Status Questionnaire with the Rotter measure.

The results obtained with the Crowne-Marlowe Social Desirability Scale present some difficulties. With the exception of subscales 3 and 6, significant relationships are obtained. The values of the correlation between the total identity score and Crowne-Marlowe is .449. While a positive relationship can be predicted, lower coefficients would provide a more satisfactory result.

Study 2 was conducted with 51 different undergraduate students from the same course population as Study 1. This study provided a test-retest result and correlations with another identity questionnaire constructed by Simmons (1970). The 113-item questionnaire was administered at time 1, and a randomly resorted form was administered 3 weeks later. The test-retest correlations are satisfactory. The total scale value is .76 and six of the seven subscales range between .72 and .885. The aberrant and, as yet, not comprehensible value is an r of .276 for subscale 2 from time 1 to time 2.

The Simmons Identity Achievement Scale (1970) was derived from Marcia's Ego Identity Incomplete Sentences Blank (1966) and follows the approach taken by Marcia of categorizing identity achievement or diffusion. The comparison between the Simmons and the scale being developed resulted in positive and significant correlations for the total score (r = .74) and for subscales 1 (.6), 2 (.68), 4 (.46), and 7 (.55). Subscales 3, 5, and 6 were not significant.
A slightly modified version of the instrument has also been administered to 350 young adults (ages 22 through 29) as part of a larger study of intergenerational relationships. While results are, as yet, entirely preliminary, the reliability values hold up (the total score Alpha is .836), with some improvement in subscales 3 and 6. This study will provide analyses of relationships with interview measures of parental relationships, of intimacy, of occupation, and of religious or philosophical values. Also comparisons will be made with Loevinger's (1970) Ego Development measure with a series of other paper and pencil tests as well as a relatively comprehensive demographic survey.

Summary

The scale has acceptable levels of internal consistency for 5 of the 7 subscales and for the total scale. Test-retest reliability is also quite adequate. Results provide a zero order correlation with intellectual performance, a negative relationship with anxiety, positive relationships with Rotter's internality, Rosenberg's self-esteem scale, and with an independent measure of identity. Despite a somewhat troublesome low positive correlation with the Crowne-Marlow Social Desirability Scale construct validation is considered to be making acceptable progress.
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References


Heilbrun, A. B. Conformity to masculinity-femininity stereotypes and ego identity in adolescents. Psychological Reports, 1961, 14, 351-357.


TABLE 1

CORRELATION COEFFICIENTS COMPUTED BETWEEN SCORES ON THE 113 ITEM EGO IDENTITY SCALE, ITS SEVEN SUB-SCALES, A MEASURE OF SOCIAL DESIRABILITY AND SCORES ON FOUR RELEVANT PERSONALITY MEASURES (INCLUDING LEVELS OF SIGNIFICANCE FOR A TWO-TAILED TEST) AND HOYT ESTIMATES OF RELIABILITY (N=94 COLLEGE SS, df=92)

<table>
<thead>
<tr>
<th>PART CONFLICT</th>
<th>NO. OF ITEMS</th>
<th>TAYLOR MANIFEST ANXIETY SCALE</th>
<th>INTERNAL CONTROL SCALE</th>
<th>MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE</th>
<th>ROSENBERG SELF-ESTEEM SCALE</th>
<th>HOYT EST. OF RELIABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporal Perspective vs. Time Confusion</td>
<td>18</td>
<td>-0.574*</td>
<td>-0.311*</td>
<td>+0.508*</td>
<td>+0.396*</td>
<td>0.76</td>
</tr>
<tr>
<td>Self-certainty vs. Self-consciousness</td>
<td>24</td>
<td>-0.742*</td>
<td>-0.404*</td>
<td>+0.340*</td>
<td>+0.595*</td>
<td>0.84</td>
</tr>
<tr>
<td>Role-experimentation vs. Role-fixation</td>
<td>12</td>
<td>-0.168 NS</td>
<td>-0.190 NS</td>
<td>+0.040 NS</td>
<td>+0.160 NS</td>
<td>0.44</td>
</tr>
<tr>
<td>Apprenticeship vs. Work Paralysis</td>
<td>16</td>
<td>-0.460*</td>
<td>-0.187 NS</td>
<td>+0.372*</td>
<td>+0.270**</td>
<td>0.69</td>
</tr>
<tr>
<td>Sexual Polarization vs. Bisexual Confusion</td>
<td>18</td>
<td>-0.379*</td>
<td>-0.123 NS</td>
<td>+0.282*</td>
<td>+0.286*</td>
<td>0.76</td>
</tr>
<tr>
<td>Leader-and followership vs. Authority Confusion</td>
<td>12</td>
<td>-0.205***</td>
<td>-0.125 NS</td>
<td>+0.154 NS</td>
<td>+0.081 NS</td>
<td>0.40</td>
</tr>
<tr>
<td>Ideological Commitment vs. Confusion of Values</td>
<td>13</td>
<td>-0.441*</td>
<td>-0.244***</td>
<td>+0.260**</td>
<td>+0.267**</td>
<td>0.73</td>
</tr>
<tr>
<td>Total Scale Identity vs. Identity Confusion</td>
<td>13</td>
<td>-0.714*</td>
<td>-0.374*</td>
<td>+0.449*</td>
<td>+0.509*</td>
<td>0.91</td>
</tr>
<tr>
<td>Social Desirability Scale</td>
<td>33</td>
<td>-0.398*</td>
<td>-0.353*</td>
<td>1.000</td>
<td>+0.374*</td>
<td></td>
</tr>
</tbody>
</table>

* = p < .01 ** = p < .02 *** = p < .05 NS = non-significant