This paper reviews the author's research on the role of certain aspects of alienation in education. The first part of the paper discusses similarities between anomie and locus of reinforcement control, as they assess the normlessness and powerlessness aspects of alienation. The second part reports results from studies attempting to modify one's feelings of normlessness and powerlessness. The third part reports results from a study testing the hypothesis that feeling of anomie and external control relate negatively to attitude and information concerning birth control. The research results offer some support for the hypothesis that psychological anomie and loss of control as two aspects of alienation are related to one's views regarding socially relevant issues. The study also supports the notion that in order to reach educational goals involving socially relevant issues, it may be important to understand the normlessness and powerlessness aspects of alienation, and the means by which they can be modified. (Author)
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Alienation and Education

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The present paper reviews mostly the author's research on the role of certain aspects of alienation in education. The first part of the paper discusses similarities between anomie (Srole, 1956) and locus of reinforcement control (Rotter, 1966; Nowicki, 1971), as they assess the normlessness and powerlessness aspects of alienation. The similarities are presented in terms of conceptual relationships, statistical relationships, and relationships to antecedents.

The second part reports research results from studies attempting to modify one’s feelings of normlessness and powerlessness.

The third part reports results from a study testing the hypothesis that feelings of normlessness (anomie) and powerlessness (external control) relate negatively to attitude and information concerning birth control.

In the present paper psychological anomie and belief in external reinforcement control are viewed as aspects of alienation. Struening and Richardson (1965) have shown in a factor analytic study that Srole's Anomie Scale items had the highest loadings on a factor identified as Alienation via Rejection. The items in that factor represented feelings of uncertainty and pessimism, distrust bordering on suspicion, extreme pessimism about the future, cynicism about the motives of others, etc.

In his 1962 writings Rotter recognized a close relationship between
external control and alienation. Jersild (1955) has written that external control gives rise to meaninglessness and despair in the classroom. Jackson (1965) sees external control as giving rise to feelings of alienation in the classroom. Seeman (1959) in reviewing the literature on alienation has recognized that the term has been used alternatively to represent, among other meanings, the concepts of powerlessness, meaninglessness, and normlessness.

Wolfe (1966) has reported positive correlations between external control and anomie ranging from .42 to .49 for three different samples of adults.

Finally, the fact that several of the participants on the present panel are discussing locus of reinforcement control under the general topic of alienation lends additional conceptual support to the notion that the concepts are related.

In 1966, Lefcourt hypothesized that poverty, and racial and cultural barriers may be looked upon as antecedents of external control. The present writer has shown support for the hypothesis that interference in the development of social interest in the Adlerian sense (Adler, 1939) is an important antecedent of anomie (Reimanis, 1965, 1966, 1974a) and external control (Reimanis, 1970, ...). In the same way anomie was shown to have predictable correlations with conflict resolution in Erikson's stages of psycho-social development (Reimanis, 1974b).

Conceptually, both anomie and locus of reinforcement control appear to be educationally relevant variables. It is difficult to see how individuals, guided by feelings of meaninglessness, normlessness, and powerlessness, would be involved in planning for education as part of
their preparation for the future. If one feels that his actions are not really related to what happens to him, and if one feels he and others lead a relatively meaningless and normless existence, education may appear as an alien and useless institution.

Anomie, using Srole's scale, has been shown to be an important correlate of education for all of the populations sampled by the present writer (Reimanis, 1965, 1966, 1967). The significant correlations have ranged between -.22 and -.56. In one study, using a population with an average age of 63.52 years (Reimanis, 1961) where the initial correlation between education and anomie was -.46, a rather important correlation (-.37) still remained after a series of other variables, such as age, social affiliation, social participation, and number of close friends were partialled out.

Coleman et al. (1966) have shown the relevance of locus of reinforcement control in public education. The Rotter scale (1966) of locus of reinforcement control has not yielded consistent and significant correlations with grade-point averages in college students. However, the present writer has found relationship between the scale and college drop-out rate, and a series of instructor and student variables, such as course evaluation, instructor evaluation, perception of structure in the class, and interest and attitude change in the class (Reimanis, 1970a, 1972). Other researchers have found significant relationships between school achievement and locus of control using other scales with college males (Nowicki, 1971), and high school and elementary school students (Chance, 1965; Nowicki and Roundtree, 1971; Reimanis, 1973a).
It has been partly with these kinds of research findings in mind that the author's college undertook the experimentation with experiential-cognitive workshop and counselling sessions with the goal to increase internal control, future planning skills and more meaningful orientation to education. Past reports (Reimanis, 1969, 1970b, 1971a, 1971b, 1973b) have supported the predictions that internal control counselling sessions, as well as achievement motivation training sessions are followed immediately as well as on a longer term basis by increase in internal reinforcement control (Rotter scale), persistence in staying in college, and grade-point-average. Similar results were obtained with a small sample of first and third graders using different scales and conducting counselling sessions with teachers. As yet unpublished data using the Nowicki-Strickland scale (1971) also showed a highly significant increase in internality over a four-month period ($M_1 = 9.70, M_2 = 11.98, t = 3.89, p < .001, N=46$) in a group of problem junior high school students who participated in an integrated education project. As a part of the project they were spending one half of each school day in personal growth type education setting.

Recent unpublished results from an achievement motivation training course over two week-ends have also shown a decrease in anomie for a group of adults. Using the Srole scale the decrease was from a mean of 7.50 to 5.65 ($t = 3.21, p < .01, N = 20$).

Results from a third, as yet unpublished study, assessing the effects of TORI (Gibb, 1972) community building techniques on anomie showed no significant overall changes. However, looking at individual items, on item three, "Nowadays a person has to live pretty much for today and let tomorrow take care of itself", there was a significant increase on that
item ($\bar{u}_1 = 2.35, \bar{u}_2 = 2.78, t = 2.26 p< .05 \ N = 28$). One of the main themes in the TONI workshop was to focus on the group's life, "here and now." This type of an attitude could have affected one's answers on the anomie scale.

The last part of this paper presents results from a study testing certain hypotheses derived from anomie and locus of control theories regarding attitudes and information about birth control or population control. The study was also conducted to yield data that may be helpful in developing more effective ways to transmit information about birth control.

Assuming that the externally controlled individual is guided by the notion that chance, luck, and powerful others determine what actually happens to the world and the people in it, it was hypothesized that external control correlates negatively with knowledge about birth control and attitude toward birth control. That is, if one feels powerless to deal with population control issues, he may find information on the topic useless and irrelevant and his attitude may take on a "don't really care" type of view.

A similar relationship was predicted between the two variables and anomie. If one perceives meaninglessness and normlessness in the society, knowledge and attitudes regarding society's future plans, its survival or non-survival may appear as irrelevant issues.

A number of secondary predictions were hypothesized, tested, and their results are presented. A detailed development of such hypotheses, however, is not presented at this point.

Method

Subjects were college freshmen and sophomores; forty-seven females
and sixty-nine males. The students were enrolled in a one-credit-hour required health education class which provided a superficial coverage of issues surrounding birth control. The Ns vary somewhat throughout the result section since not all subjects completed all parts of the questionnaire.

The questionnaire consisted of an Information section about birth control, Srole's Anomie Scale (Srole, 1956) an Attitude toward birth control scale, the Nowicki-Strickland (Nowicki, 1971) locus of control scale, Rotter's (Rotter, 1966) Internality-Externality Scale, and other items such as parents' education, number of siblings, age, and an item regarding the person's view on whether or not his attitude toward birth control was strongly influenced by religious beliefs.

The Information about birth control section assessed one's familiarity with birth control techniques through a matching test. Recognition of terms, knowledge regarding use, and effectiveness were assessed for: diaphragm, condom, jelly or cream, the pill, intrauterine devices, rhythm method, coitus interruptus, and douche. This measure was developed for the present study.

Attitude toward birth control was assessed using a scale developed by Wang and Thurstone. Shaw and Wright (1967), reviewing the reliability and validity data for the Thurstone-type scale conclude that it has adequate validity (mainly content validity) and reliability (rs = .62 to .93). The authors also conclude that even though the scale was first developed a number of years ago, none of its items appear dated.

The questionnaire was administered to the students during the last two weeks of classes.
Results

Table 1 presents descriptive data for males and females of the variables studied. Significant t-values ($p < 0.05$) indicated male-female differences on information, anomie, and Rotter's scale. Thus, the data analyses were carried out separately for males and females.

Table 1

Mean Scores and Standard Deviations for Males and Females on Information, Attitude, Anomie, Parents' Education, and the Two Locus of Control Scales

<table>
<thead>
<tr>
<th>Variable</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Information (number of errors)</td>
<td>8.30</td>
<td>5.01</td>
</tr>
<tr>
<td>Attitude</td>
<td>7.37</td>
<td>1.00</td>
</tr>
<tr>
<td>Anomie (range 5-25)</td>
<td>9.51</td>
<td>3.04</td>
</tr>
<tr>
<td>Father's education in years</td>
<td>13.21</td>
<td>2.29</td>
</tr>
<tr>
<td>Mother's education in years</td>
<td>12.40</td>
<td>2.41</td>
</tr>
<tr>
<td>Locus of control: Rotter</td>
<td>11.91</td>
<td>3.81</td>
</tr>
<tr>
<td>Novicki-Strickland</td>
<td>15.39</td>
<td>3.41</td>
</tr>
</tbody>
</table>

There were six female and ten male students who indicated that their attitude toward birth control is strongly influenced by religious beliefs. The data on these students were excluded from analyses involving attitudes. The assumption was that other than personality factors were affecting the attitudes of such students and the results may thereby confounded. For the males, for example, eight of the ten students had attitude scores below the median for the total male sample.
Table 2 presents correlation coefficients between the variables assessed for the female sample.

### Table 2

**Intercorrelations for the Female Sample**
*(Ns vary between 40 and 47)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Information (errors)</td>
<td>+.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attitude</td>
<td></td>
<td>+.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Anomie</td>
<td></td>
<td></td>
<td>+.43**</td>
<td>-.13</td>
<td>-.22</td>
</tr>
<tr>
<td>4. Rotter's scale</td>
<td></td>
<td></td>
<td></td>
<td>-.29*</td>
<td>-.39**</td>
</tr>
<tr>
<td>(scored in direction of internality)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+.42**</td>
</tr>
<tr>
<td>5. Nowicki-Strickland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05

** p < .01

The results in Table 2 offer some support for the main hypotheses. Anomie had a significant positive correlation with the number of errors on the birth control Information test. It may be noted that in this instance the two measures were structurally quite different and, thus, the relationship cannot be explained on basis of response style. In the same way, the table shows support for the hypothesis that internal control is related to Attitude toward birth control. The relationship was significant for the Rotter scale, but not for the Nowicki-Strickland scale. The main differences between the two scales are that the content of the Rotter scale deals mainly with general events and situations, whereas the Nowicki-Strickland scale has more items that are school related. The other difference is that on the Rotter scale the respondent
makes a choice between the two items, while on the Nowicki-Strickland scale the respondent indicates agreement or disagreement with the items.

The results, as presented in Table 2, did not support the prediction that locus of control is related to Information about birth control.

The table also shows expected significant interrelationships between anomie and the two locus of control scales. From data, not included in the table, mother's education had a significant negative correlation \((-0.39, p < 0.01)\) with number of errors on the Information about birth control test, suggesting home influence on this variable. No other correlations between mother's and father's education were significant.

Table 3 suggests that the area of birth control may be less relevant for males than it was for females.

Table 3

Intercorrelations for the Male Sample
(Ns vary between 58 and 69)

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Information (errors)</td>
<td>-0.14</td>
<td>-0.06</td>
<td>+0.00</td>
<td>-0.04</td>
<td></td>
</tr>
<tr>
<td>2. Attitude</td>
<td></td>
<td>-0.02</td>
<td>+0.07</td>
<td>+0.19</td>
<td></td>
</tr>
<tr>
<td>3. Anomie</td>
<td></td>
<td></td>
<td>-0.27*</td>
<td>-0.34**</td>
<td></td>
</tr>
<tr>
<td>4. Rotter's scale (scored in direction of internality)</td>
<td></td>
<td></td>
<td></td>
<td>+0.26*</td>
<td></td>
</tr>
<tr>
<td>5. Nowicki-Strickland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.05
** p < 0.01

The main hypotheses were not supported by the male sample. It will be recalled from Table 1 that males had significantly more errors on the Information test. The only significant correlations from Table 3 indicate that there was some consistency in the measuring techniques.
That is, as expected, there were significant interrelationships between anomie and the two measures of locus of control.

Consistent with previous findings, the Rotter scale showed no significant correlations with grade-point average for the combined sample of students \( (r = +.06) \), while the Howicki-Strickland scale had a significant relationship with grades \( (r = +.28) \). Anomie had a non-significant \(-.11\) correlation with grades.

Since the Thurston-type scoring (assigning different weights for each item) of the attitude scale was not re-validated for the present population, a second set of analyses were carried out by scoring the scale items equally in terms of agreement or disagreement with positive or negative attitude items. The two ways of scoring the scale had an intercorrelation coefficient of \(+.72\) and the results in terms of support for the hypotheses were the same.

Conclusion

The study offered some support for the hypotheses that psychological anomie and locus of control as two aspects of alienation (normlessness and powerlessness) are related to one's views regarding socially relevant issues. For the female sample anomie was related negatively to one's knowledge about birth control, and internal locus of control was related positively to one's attitude toward birth control. The study also supported the notion that in order to reach educational goals involving socially relevant issues, it may be important to understand the normlessness and powerlessness aspects of alienation, and means by which they can be modified.
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