

LOCUS OF CONTROL AND POLITICAL PARTICIPATION
OF COLLEGE STUDENTS: A COMPARISON OF
UNIDIMENSIONAL AND MULTIDIMENSIONAL APPROACHES

by

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ABSTRACT

A comparison of two research instruments concerned with the "locus of control" variable, Rotter's I-E Control Scale (I-E) developed in 1966, and Coan's Personal Opinion Survey (POS) developed at The University of Arizona, was undertaken in order to see how each could predict to political participation of a newly-enfranchised college population in a Presidential Election year. The POS yielded significant correlations between its measure of "locus of control" and registration to vote, while the I-E did not predict in a statistically significant way. The different theoretical approaches of each scale are discussed, including an evaluation in light of the present data of the arguments against the usefulness of the I-E, and the need for a change in research orientation to a multidimensional approach, which the POS utilizes.

INTRODUCTION

The experience of control -- the sense that one actively chooses, successfully wills, or achieves mastery over himself and the circumstances in which he finds himself -- is obviously one of the most fundamental features of human experience. People vary considerably in the extent to which they have this experience, and each of us finds in his or her own life that it differs from one time or situation to another. The psychologist who has drawn most attention to the issue of control in the last few years is Julian B. Rotter. He has developed an "Internal-External" Locus of Control Scale (I-E), where "locus of control" is defined in terms of the person's expectancy regarding the effects of his own behavior. A person is said to display "internal" control if he perceives events as being a consequence of his own actions and therefore, under his own personal control. He is said to manifest "external" control if he regards events as being unrelated to his own efforts (Rotter, 1966). The I-E Control Scale (Rotter, Seeman, & Liverant, 1962) is a test composed of 29 forced-choice items, including six "filler" items to make the purpose of the test somewhat more ambiguous. It is a unidimensional measure and appears to be concentrated primarily in the realm of external events. According to Rotter (1966), the items deal exclusively with the person's belief about the nature of the world. The test is considered to be a measure of "generalized expectancy" about reinforcement, and

is based on Rotter's "Social Learning" theory (1954). The I-E Scale has been used extensively since its inception, and the research efforts which have used it have been reviewed elsewhere (Rotter, 1966; Lefcourt, 1966; Joe, 1971; Throop & MacDonald, 1971).

According to Richard W. Coan (n.d.) the evidence for a single broad dimension of experienced control (a "generalized expectancy") is not altogether convincing.

. . . there remains a good deal of casual evidence that people can experience control selectively If we start out with a focus on the varieties of human experience, rather than on social learning or on a particular expectancy interpretation of control, we are led to a path somewhat different from that which Rotter and his colleagues have followed. It seems clear that the experience of control embraces a wide range of phenomena that have not been covered in past attempts to construct measuring instruments.

It was for this reason that Coan undertook construction of an inventory, the Personal Opinion Survey or POS (Coan & Fairchild, in press), designed to permit more general exploration of the dimensions of experienced control. The POS differs from Rotter's I-E both in its theoretical formulations and in the methods underlying its development (cf. Fairchild, 1971; Coan & Fairchild, in press). It represents an attempt to capture more of the variation in the ways in which people experience control or the lack of it. The POS contains 120 "True-False" items deliberately varied in a number of ways; items are designed to cover many types of content: (1) external events, (2) personal characteristics, and (3) the body. The POS provides scores for the following seven factors:

1. Achievement through conscientious effort.
2. Personal confidence in ability to achieve mastery.
3. Capacity of mankind to control its destiny vs. supernatural power or fate.
4. Successful planning and organization.
5. Self-control over internal processes.
6. Control over large-scale social and political events.
7. Control in immediate social interaction.

According to Blanchard and Scarboro (1972), an "obvious implication" of Rotter's (1966) construct of internal vs. external locus of control of reinforcement is that those who see the locus of control as being internal (Internals: "I's") should take more direct action to influence their future, by attempting to control their environment, than (Externals: "E's"). Although there is some research (Gore & Rotter, 1963; Strickland, 1965) in which the I-E has been shown to be of significant value in predicting "political activism," there are also data (Rotter, Seeman, & Liverant, 1962; Erbe, 1964; Rotter, 1966; Hamsher, Geller, & Rotter, 1968; Evans & Alexander, 1970; Blanchard & Scarboro, 1972) which lend little support to the hypothesis that persons who perceive their outcomes as the result of their own action are more active in seeking to influence their environment than persons who are more "external" in their perception of the locus of control. Theoretically, it would seem that political and social participation should be one of the more clear-cut behavioral correlates of the I-E variable (Thomas, 1970; Joe, 1971).

Some researchers have offered criticisms of the present I-E construct in terms of the inherent limitations in the scale, and also recommendations as to how the scale might be modified and improved, so as to predict better to political and social behaviors. Crandall, Katkovsky, & Crandall (1965) were the first investigators to stress the importance of making distinctions in the locus of control variable. Coan (1967) has argued that the I-E Scale favors items dealing with social and political events as opposed to items regarding personal habits, traits, goals, or other interpersonal and intrapersonal concerns. He has suggested that the items on the I-E Scale may not tap all major aspects of personal control.

The data of Hersch and Scheibe (1967) suggest to them that the previously stated theoretical formulation of I-E may be too simplistic: there may be diversity in the psychological meaning of "externality." They contend that the utility of the I-E for behavioral prediction would be increased if externality were differentiated both theoretically and empirically, and they suggest that an "External" orientation might be based on either (1) physical and/or mental weakness; (2) high competition: where others' success affects the success of the individual; or (3) belief in luck, or fate.

Gurin, Gurin, Lao, & Beattie (1969) factor analyzed the responses of 1965 black students to an extended I-E Scale, and found several independent factors: (1) Control Ideology, (2) Personal Control, (3) System Modifiability, and (4) Race Ideology. Lao (1970) used the I-E in a study of competent and innovative behavior among

black college students and found three factors: (1) Personal Control, (2) Individual vs. System Blame, and (3) Discrimination Modifiability. In both of these studies, black students who blamed the social system instead of personal inadequacies for black disadvantages were more likely to take an active part in civil rights activities, to advocate collective action rather than individual action to deal with discrimination, and to take social action which differed from the position of previous generations. Gurin, et al. (1969) and Lao (1970) have argued that, unlike the belief in external forces such as chance, the belief in external forces which are reality-based such as racial discrimination (e.g., the response of "system blamers") could be motivationally positive instead of damaging for a black person, because it permits him to focus on discrimination and the way society structures his fate. Both authors have argued for distinctions within the concept of I-E Control in studies of black youth (Joe, 1971, p. 627).

Thomas (1970) demonstrated that "internal" items are more congenial to individuals holding "conservative" political views than those holding "liberal" views. He questioned the validity of I-E as a measure of a stable personality trait.

Mirels (1970), using 316 college students, did a factor analysis (varimax rotation) of their I-E scores, and found two independent factors:

Factor I: The inclination to assign more or less importance to ability and hard work vs. luck as influences which determine

personally relevant outcomes, which he called "control over own destiny" vs. "external forces."

Factor II: Acceptance or rejection of the idea that the individual citizen can exert some control over political and world affairs, which he called "Social System" vs. "Individual" as the target of control. Mirels' findings (1970, p. 228) "suggest that predictions involving the I-E Scale might profitably consider the sources and the targets of influence described by the item statements and the content domain specified," especially in studies which employ the I-E dimension as a dependent variable. Blanchard and Scarborough (1972) used the I-E Scale and Mirels' (1970) "Political Activity Factor" (Factor II) and found that neither scale had any significant value in predicting the voting behavior or political attitudes of 18- or 19-year old college students voting for the first time, or of older students who had been eligible to vote in a previous election.

Joe (1971) has extensively researched the I-E literature and notes that the results of Mirels (1970), Gurin, et al. (1969), and Lao (1970) strongly suggest the notion that the locus of control variable should be studied at a multidimensional rather than a unidimensional level. Consistent with this suggestion is the work of Thomas (1970). Joe (1971) concludes that in order to be valid, the I-E must be modified to distinguish:

1. Those aspects of a person's world view which indicate a personality trait, and

2. those which reflect societal norms. "Without this distinction, serious problems are apparently posed for I-E users," he says (Joe, 1971, p. 622).

The present research was conducted with the above suggestions in mind. The basic strategy was a comparison of a scale utilizing the unidimensional approach to locus of control: the I-E (Rotter, 1966) with one utilizing the multidimensional approach: the POS (Coan & Fairchild, in press) with regard to how well each could statistically predict to a "political participation" behavior in the natural environment. The behavior which was selected as the "criterion" for "political participation" was registration to vote in the 1972 Presidential Election. "Participation" was operationally defined as a written "yes" response to a question (on a questionnaire, see Appendix A) which asked "Are you presently registered to vote in this year's Presidential Election (Nov. 7, 1972)?" An individual's "non-participation" was operationally defined as a written "no" response to the same question.

Because the I-E Scale is based upon a reinforcement theory (Rotter, 1954), history of reinforcement for the individual's past political participation behavior had to be controlled for. This was achieved by only using data from Ss who (1) had not been eligible to register to vote in the 1968 Presidential Election, but (2) were presently eligible to register to vote in the 1972 Presidential Election. Ss who were either too old or too young to meet this age criterion were eliminated from the sample, as well as Ss who were not

eligible to register because of non-citizenship or an arrest record.

In sum, this research is essentially a replication study of the I-E's ability to predict to political participation behavior in the natural environment, and a validation study of the POS's ability to do the same: it represents a comparison of unidimensional and multidimensional approaches to the locus of control (in this case, with regard to political participation behavior), a comparison which has been suggested implicitly by the recent critical literature on the locus of control construct.

METHOD

Subjects

The Ss were 103 volunteers, undergraduate and graduate students in psychology courses at The University of Arizona Summer Session, 1972. Ss who did not meet the (previously stated) "age criterion" were eliminated from the sample. One S had an incomplete answer sheet (no PES data) and was also eliminated from the sample. The total number of Ss was 102 (85 "participators," 17 "non-participators;" 49 men, 53 women), all of whom were between the ages of 18 and 24 (mean age = 20.50 years). The Ss were, on the average, in their junior year of college.

Materials

The data were gathered from answers to a questionnaire (see Appendix A), which included the following measures:

- a. I-E Control Scale (I-E): (Rotter, Seeman, & Liverant, 1962).
- b. Personal Opinion Survey (POS): (Coan & Fairchild, in press).
- c. Political Efficacy Scale (PES): (Campbell, Gurin, & Miller, 1954). Similar to the I-E, it attempts to assess the feeling that individual political action does or can have an impact upon political processes. The scale contains four "Agree/Disagree" items which can be scored for "Internal" control.

All of the above three measures were scored for "Internal" control.

d. Questions about age, sex, educational level and ethnic background of S.

e. Questions about political behavior and attitudes of S and S's perceptions of his parents', political behaviors and attitudes:

1. Ss were asked whether or not they were presently registered to vote in the 1972 Presidential Election (a "Yes" response classified S as a political "Participant;" a "No" response classified S as a political "Non-participant").
2. Ss were asked which party they had registered with (Democratic, Republican, Independent, no preference).
3. Ss were asked whether S's father was a registered voter, which party he had registered with, and whether or not he had voted in the 1968 Presidential Election. Ss were asked the same questions regarding their mother.

See Appendix A for a copy of the complete Questionnaire.

Procedure

E (the author) entered Summer School classrooms and administered the questionnaire on a volunteer basis. Ss were told that the purpose of the questionnaire was to gather information from students about their interests, and the interests of their parents, in the "political process" in this country. Ss were told that their participation was voluntary and that their answers were confidential. They were permitted to either (1) fill out the form immediately, or (2) take the form with them and return it to E when completed. Ss were requested to answer the questionnaire without any assistance from anyone else. E did not "interpret" the questions for Ss with regard to the wording, meaning, or intention of any test item, and

only indicated that S should reread the instructions carefully and answer the item as he or she "saw it," or "to the best of [S's] ability."

Statistical Analysis

Intercorrelations were calculated between all the variables. For the continuous variables, Pearson r 's were calculated. For correlations between continuous and dichotomous variables, point biserial r 's were calculated. For correlations between two dichotomous variables, phi coefficients were calculated. The correlations were obtained by a computerized analysis of the data at The University of Arizona Computer Center, using the "BC TRY System" developed by R. C. Tryon and D. E. Bailey (Tryon & Bailey, 1970).

Scoring and Coding

The scoring and coding system used for Ss' responses to the questionnaire items appears in Table 1.

RESULTS

The list of correlations which follows (Table 1) is of particular interest with regard to the goals of this research: their empirical and theoretical importance is dealt with in the Discussion section which follows (see Table 2 for variable names and abbreviations). The complete intercorrelation matrix between all variables (26 x 26) appears in Appendix B.

TABLE 1
Selected Correlations

| <u>Variable Names</u> | <u>r</u> | <u>df</u> | <u>p</u> |
|-----------------------|----------|-----------|----------|
| REG x IE | - .024 | 100 | > .05 |
| REG x POS 6 | + .323 | 100 | < .001 |
| M I x POS 1 | + .415 | 100 | < .001 |
| M II x POS 6 | + .709 | 100 | < .001 |
| REG x M II | + .167 | 100 | < .10 |
| IE x POS 6 | + .461 | 100 | < .001 |
| IE x PARTY | - .241 | 100 | < .02 |
| POS 1 x PARTY | - .301 | 100 | < .01 |
| POS 1 x IE | + .445 | 100 | < .001 |
| POS 4 x PARTY | - .413 | 100 | < .001 |
| POS 5 x PARTY | - .335 | 100 | < .001 |
| PES x POS 6 | + .575 | 100 | < .001 |
| PES x M II | + .512 | 100 | < .001 |
| PES x IE | + .370 | 100 | < .001 |
| PARTY x F PARTY | + .443 | 51 | < .001 |
| PARTY x M PARTY | + .365 | 51 | < .01 |
| REG x M REG | + .204 | 98 | < .05 |
| REG x F REG | + .021 | 94 | > .05 |
| SEX x POS 3 | + .204 | 100 | < .05 |
| SEX x POS 5 | + .246 | 100 | < .02 |

TABLE 2

Variable Names and Abbreviations, Correspondence with Questionnaire Items, and Scoring and Coding System for Responses to Questionnaire Items.

| <u>Variable Number and Full Name</u> | <u>Abbreviation</u> | <u>Question on Questionnaire</u> | <u>Responses and Coding System</u> | |
|--|---------------------|--------------------------------------|---|---------------|
| 1. Registration to vote | REG | 6 | Yes = 2 | No = 1 |
| 2. Sex of <u>S</u> | SEX | 2 | Male = 2 | Female = 1 |
| 3. Age of <u>S</u> | AGE | 1 | 18, 19, 20, 21, 22, 23 or 24 | |
| 4. Educational level of <u>S</u> | EDUC | 3 | Fr = 1, Jr = 3, Soph = 2, Sr = 4, Grad = 5 | |
| 5. Ethnic group of <u>S</u> | ETH | 4 | Anglo = 2 | Non-Anglo = 1 |
| 6. Party preference of <u>S</u> | PARTY | 6 | Demo = 2 | Repub = 1 |
| 7. Has <u>S</u> done campaign work? | WORK | 8 | Yes = 2 | No = 1 |
| 8. <u>S</u> 's father registered voter? | F REG | 9 | Yes = 2 | No = 1 |
| 9. Party preference of <u>S</u> 's father | F HOW | 9 | Demo = 2 | Repub = 1 |
| 10. <u>S</u> 's father voted in 1968 Presidential Election? | F 68 | 10 | Yes = 2 | No = 1 |
| 11. <u>S</u> 's mother registered voter? | M REG | 11 | Yes = 2 | No = 1 |
| 12. Party preference of <u>S</u> 's mother | M HOW | 11 | Demo = 2 | Repub = 1 |
| 13. <u>S</u> 's mother voted in 1968 Presidential Election? | M 68 | 12 | Yes = 2 | No = 1 |

TABLE 2--Continued

| Variable Number and Full Name | Abbreviation | Question on Questionnaire | Responses and Coding System |
|---|--------------|---|---|
| 14. S's parents consider it important to register and vote? | IMPORT | 14 | Yes = 2 No = 1 |
| 15. S's parents have shown interest in whether or not S intends to register and vote? | INTENT | 15 | Yes = 2 No = 1 |
| 16. Political Efficacy Scale (cf. Campbell, et al., 1954) | PES | 15, 16, 17 | Scored for total no. of "Agree" (Internal) responses. Possible score = 0, 1, 2, 3, or 4 |
| 17. I-E Control Scale (cf. Rotter, et al., 1962) | IE | <u>Part B:</u> 1-29 | Scored for "Internal" control: Possible score = from 0 through 23 |
| 18. Mirels' Factor I on I-E scale (cf. Mirels, 1970) | M I | Items 5, 10, 11, 15, 16, 18, 23, 25, 28 on I-E | Scored for "Internal" control: Possible score = from 0 through 9 |
| 19. Mirels' Factor II on I-E scale (cf. Mirels, 1970) | M II | Items 12, 17, 22, 29 on I-E | Scored for "Internal" control: Possible score = from 0 through 4 |

TABLE 2--Continued

| <u>Variable Number and Full Name</u> | <u>Abbreviation</u> | <u>Question on Questionnaire</u> | <u>Responses and Coding System</u> |
|--|--|--------------------------------------|--|
| | <u>Personal Opinion Survey Factor*</u> | <u>Part C</u> | <u>Scored for "Internal" control: Possible score =</u> |
| 20. | 1 | POS 1 | 0 - 12 |
| 21. | 2 | POS 2 | 0 - 16 |
| 22. | 3 | POS 3 | 0 - 17 |
| 23. | 4 | POS 4 | 0 - 22 |
| 24. | 5 | POS 5 | 0 - 19 |
| 25. | 6 | POS 6 | 0 - 20 |
| 26. | 7 | POS 7 | 0 - 14 |

*(cf. Fairchild, 1971)

DISCUSSION

As previously mentioned, this research involves a comparison of unidimensional (I-E) and multidimensional (POS) approaches to the locus of control variable, with regard to their respective abilities to predict statistically to "political participation" behavior in the natural environment. Since the I-E Control Scale (Rotter, et al., 1962) failed to predict statistically to the self-report of political participation behavior ($r = -.024$; $df = 100$; $p > .05$), and the Personal Opinion Survey (Coan & Fairchild, in press) did predict statistically ($r = +.323$; $df = 100$; $p < .001$) to the self-report of the same behavior, it appears that suggestions (cf. Joe, 1971) that the locus of control variable be studied at a multidimensional rather than a unidimensional level are warranted, and that a scale (the POS) has been devised which is capable of predicting statistically to political participation behaviors while working from a multi-dimensional theory-base.

There are data which indicate that Mirels' (1970) two "independent" factors from the I-E Scale are quite similar to two of the POS factors, in terms of how Ss respond to them:

| Mirels' factor | POS factor | r |
|--|--|------------------------------------|
| M I: "Inclination to assign more or less importance to ability and hard work vs. luck as influences which determine personally relevant outcomes." | POS 1: "Achievement through conscientious effort." | +0.415; (df = 100; p < .001) |
| M II: "Acceptance or rejection of the idea that the individual citizen can exert some control over political and world affairs." | POS 6: "Control over large-scale social and political events." | +0.709 (df = 100; p < .001) |

Relevant to this latter finding (M II and POS 6) is the fact that M II approached significance ($r = +.167$; $df = 100$; $p < .10$) in its ability to predict to political-participation behavior. Mirels' research (1970) "was carried out in an attempt to clarify the factor structure of the I-E Scale, with the anticipation that subsets of items, should they be found to cluster meaningfully, might be employed separately as subscales to enhance the prediction of various attitudinal and behavioral variables" (1970, p. 226). Blanchard and Scarborough (1972) found Mirels' (1970) "Political Activity Factor" (M II) to be of no predictive value with regard to voting behavior or political activities of 18- or 19-year old college students voting for the first time, "casting some doubt on its meaning" (p. 530). However, those four items on the I-E Scale came close to significant prediction to the political participation behavior ($p < .10$), while the I-E as a whole (23 items) predicted negatively and non-significantly to the same behavior. The fact that M II is highly related to POS 6 ($r = +.709$; $p < .001$), and POS 6 predicts significantly to the self-report of the political participation behavior ($r = +.323$; $p < .001$),

suggests to the author that Rotter's attempts (1966) at measuring a hypothesized "generalized expectancy" and further attempts to relate this expectancy to political-participation behavior have not taken into account the varieties of human behavior and experience, and the situation-specific nature of the relationship between the locus of control variable and behavior in the natural environment; the author feels that the POS has taken this into account with its theoretical orientation of the multidimensionality of behavior. It should be kept in mind, however, that the I-E (and the Mirels factors) states its questions in the third person, whereas some of the POS questions are stated in the first person; therefore, although the S may be answering questions of similar content on the two scales, the wording, scope and intention of the I-E and POS questions are different, and therefore any correlations between the two scales must be interpreted in light of this difference in item construction and rationale.

The relationship between the I-E and POS 6 ($r = +.461$; $df = 100$; $p < .001$) tends to support the general observation that the I-E's questions focus mainly upon the individual's perceptions of social and political situations in the external environment. As mentioned, Coan (1967) has suggested that the items on the I-E scale may not tap all major aspects of personal control and that "the experience of control embraces a wide range of phenomena that have not been covered in past attempts to construct measuring instruments" (Coan, n.d.).

The finding that Republicans have I-E scores which are significantly more "Internal" than the I-E scores of Democrats ($r = -.241$; $df = 100$; $p < .02$), that Republicans report significantly more control on POS 1 than do Democrats ($r = -.301$; $df = 100$; $p < .01$), and the relationship between scores on the I-E and POS 1 ($r = +.445$; $df = 100$; $p < .001$), all corroborate the conclusion of Thomas (1970) that the I-E contains an inherent ideological bias toward "Conservatism."

The finding that Republicans experience significantly more control on POS 4 than do Democrats ($r = -.413$; $df = 100$; $p < .001$) could be a function of what appears to be the generally superior planning and organization of the Republican Party in 1972; or, it could also be interpreted along the lines of Thomas (1970) as being a function of the ideological system of persons who tend to be Republicans: greater tendencies toward "conservatism" and allegiance to the "Protestant ethic" (or "work ethic"). The same interpretation of "conservatism" could explain the finding that Republicans experience significantly more control on POS 5 than do Democrats ($r = -.335$; $df = 100$; $p < .001$).

The PES (Campbell, et al., 1954) was significantly related to POS 6 ($r = +.575$; $df = 100$; $p < .001$), Mirels II ($r = +.512$; $df = 100$; $p < .001$), and the I-E ($r = +.370$; $df = 100$; $p < .001$). Thomas (1970) obtained a correlation of $+0.44$ ($p < .01$) between the I-E and PES with 30 "Liberal youths." The reliability of all these data is limited since the PES only contains four items. It appears

that the item content of the PES is generally similar to that of POS 6 and some of the I-E items, specifically those in Mirels II.

There were data on "parent-child" relationships which were statistically significant, but which add no new information to our present data and theories about parental influence on political behavior. Ss' political party preference and Ss' reported party preference of Ss' fathers were statistically related ($r = +.443$; $df = 51$; $p < .001$), as were Ss' party preference and Ss' reported party preference of Ss' mothers ($r = +.365$; $df = 51$; $p < .01$). Whether or not S reported that he had registered to vote was statistically related to S's report of whether S's mother was a registered voter ($r = +.204$; $df = 98$; $p < .05$); however, S's self-report of registration was not related to S's report of whether S's father was a registered voter ($r = +.021$; $df = 94$; $p < .05$).

Sex differences in POS scores have been discussed at length elsewhere (Coan, n.d.), but some data in this area are of interest: it was found in this study that men experience significantly more control than women on POS 3 ($r = +.204$; $df = 100$; $p < .05$) and on POS 5 ($r = +.246$; $df = 100$; $p < .02$). These data corroborate past findings by Coan and their empirical and theoretical importance has been discussed by him (Coan, n.d.).

The results of this study lead the author to the following general conclusions:

1. The empirical and theoretical utility of the Personal Opinion Survey has been demonstrated, giving support to both its underlying

multidimensional theory and its importance as a research instrument which can predict significantly to political-participation behavior.

2. The differential usefulness of the POS and the I-E corroborates the work of Joe (1971), who advocates the move toward a multidimensional approach, and casts some doubt upon the usefulness of the I-E in its ability to predict to political-participation behavior.

3. There are data which tend to support the work of Thomas (1970) on the inherent "conservative" bias in the I-E; and the work of Mirels (1970), who attempted to clarify the factor structure of the I-E and claims to have discovered two independent factors in the scale.

4. There are data which tend to support "general" theories about the relationship between registration and voting behavior of parents and children.

5. There are data which corroborate findings of Coan (n.d.) dealing with sex differences in POS response patterns.

SUMMARY

The comparison of the unidimensional and multidimensional approaches to locus of control, as suggested by the critical literature, has been empirically and theoretically fruitful. The Personal Opinion Survey (Coan & Fairchild, in press) has been shown to be statistically superior to the I-E (Rotter, et al., 1962) in its ability to predict to self-report of political participation behavior. This research suggests, as does the work of Crandall, et al. (1965), Hersch & Scheibe (1967), Gurin, et al. (1969), Joe (1971) and others, that the behavioral prediction of the I-E would be increased if distinctions were made in the locus of control variable, especially with regard to the psychological meaning of "externality."

More research needs to be conducted with the POS in investigation of the situation-specific nature of locus of control expectancies. Other sorts of behaviors in varied environments should be the target of new research efforts. The advantage of the multidimensional approach is that it can, hopefully, clarify some of these situation-specific relationships, and isolate some meaningful behavioral correlates of the locus of control construct. The findings suggest that the instrument has potential usefulness in investigation of many varied areas of human behavior and experience, and hopes that researchers whose interests are in this direction will continue to use the instrument productively.

APPENDIX A

QUESTIONNAIRE

PART A: INTRODUCTION

The purpose of this part of the questionnaire is to gather information from students about their interests, and the interests of their parents, in the "political process" in this country. Some of these questions may be more difficult to answer than others, but please answer each question as honestly and as best you can. Remember, your answers are confidential and we will not know which student has filled out any particular questionnaire.

Thank you for your participation and cooperation.

PART A: INSTRUCTIONS

Please write the letter which corresponds to your response in the blank space to the left of the number for that question.

- ___ 1. What is your age?
- | | |
|--|-------------------------------|
| a. 16 | g. 21 |
| b. 17; <u>will</u> be 18 by Nov. 7, 1972 | h. 22 |
| c. 17; <u>will not</u> be 18 by Nov. 7, 1972 | i. 23 |
| d. 18 | j. 24 |
| e. 19 | k. 25 |
| f. 20 | l. Over 25 (specify) _____ |
- ___ 2. What is your sex?
- | | |
|---------|-----------|
| a. Male | b. Female |
|---------|-----------|
- ___ 3. What year are you in college?
- | | | |
|--------------|-----------|--------------------------|
| a. Freshman | c. Junior | e. Other (specify) _____ |
| b. Sophomore | d. Senior | |
- ___ 4. Which ethnic group are you a member of?
- | | |
|------------|--------------------------|
| a. Anglo | d. American Indian |
| b. Black | e. Oriental |
| c. Chicano | f. Other (specify) _____ |
- ___ 5. Have you ever been eligible (that is, old enough) to vote in a Presidential Election prior to the one coming up in November, 1972?
- | | |
|--------|-------|
| a. Yes | b. No |
|--------|-------|

If you answered "Yes" to this question (#5), please answer the following questions:

- a. What year were you eligible? (specify) _____
- b. Did you vote? YES NO (circle one) _____
- c. For whom? (specify) _____

6. Are you presently registered to vote in this year's Presidential Election (Nov. 7, 1972)?
- Yes, I am presently registered.
 - No, I am not presently registered.

If you answered "Yes" to this question (#6), please answer the following questions:

- What state are you registered in? (specify) _____
- How are you registered (which party?) _____

If you answered "No" to question #6 (that is, if you are not presently registered to vote), please answer the following question:

7. Answer either "A" or "B" as it applies to you:

- I have not registered to vote as of now, and do not intend to register.
- I have not registered to vote as of now, but I do intend to register before the Election is held (November 7, 1972).

If you answered "A" to this question (#7), please answer the following question:

The reason I do not intend to register is: (circle one)

- It's a waste of time.
- I can do more good by not voting.
- Legal restrictions (felony; non-citizen; underage).
- Other reason (specify) _____

8. Are you now, or have you been, working for a Presidential candidate in an organized capacity?
- Yes
 - No

If you answered "Yes" to this question (#8), please answer the following question:

What candidate did you work for? (specify) _____

9. Is your father a registered voter?
- Yes
 - No
 - I don't know

If you answered "Yes" to this question (#9), please answer the following question:

How is your father registered (which party)? (specify) _____

___ 10. Did your father vote in the last Presidential Election?
(Nixon vs. Humphrey, 1968).
a. Yes b. No c. I don't know

___ 11. Is your mother a registered voter?
a. Yes b. No c. I don't know

If you answered "Yes" to this question (#11), please
answer the following question:

How is your mother registered (which party)?
(specify) _____

___ 12. Did your mother vote in the last Presidential Election?
(1968)
a. Yes b. No c. I don't know

___ 13. Do your parents consider it important to register and
vote?
a. Yes b. No c. I don't know

___ 14. Have your parents shown interest in whether or not you
intend to register and vote in this November's
Presidential Election?
a. Yes b. No

For each of the following 4 questions (# 15-18), please indicate either "AGREE" or "DISAGREE" by writing an "A" or a "D" on the blank space to the left of the number for that question.

- ___ 15. I don't think public officials care much about what people like me think. (Agree or Disagree)
- ___ 16. Voting is the only way that people like me can have any say about how the government runs things. (Agree or Disagree)
- ___ 17. People like me don't have any say about what the government does. (Agree or Disagree)
- ___ 18. Sometimes politics and government seem so complicated that a person like me can't really understand what's going on. (Agree or Disagree)

PART B

For the "Instructions" and items of the I-E Control Scale, see Rotter (1966).

PART C

For the "Instructions" and items of the Personal Opinion Survey, see Fairchild (1971).

APPENDIX B

CORRELATION MATRIX

TABLE B-1

Intercorrelations Between All Variables

| | REG | SEX | AGE | EDUC | ETH | PARTY | WORK | FREG | FHOW | F68 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| REG | 1.000 | .009 | -.080 | .095 | -.059 | 0.000 | .090 | .021 | .138 | .059 |
| SEX | .009 | 1.000 | .103 | -.111 | -.013 | -.058 | .008 | .037 | .075 | .064 |
| AGE | -.080 | .103 | 1.000 | .579 | .165 | -.107 | -.056 | .168 | -.169 | .083 |
| EDUC | .095 | -.111 | .579 | 1.000 | .117 | .107 | -.002 | .085 | -.144 | .076 |
| ETH | -.059 | -.013 | .165 | .117 | 1.000 | -.047 | .067 | .085 | -.159 | .262 |
| PARTY | 0.000 | -.058 | -.107 | .107 | -.047 | 1.000 | .007 | .056 | .143 | -.058 |
| WORK | .090 | .008 | -.056 | -.002 | .067 | .007 | 1.000 | -.186 | -.051 | -.122 |
| FREG | .021 | .037 | .168 | .085 | .085 | .056 | -.186 | 1.000 | 0.000 | .541 |
| FHOW | .138 | .075 | -.169 | -.144 | -.159 | .143 | -.051 | 0.000 | 1.000 | .052 |
| F68 | .059 | .064 | .083 | .076 | .262 | -.058 | -.122 | .541 | .052 | 1.000 |
| MREG | .204 | .127 | .137 | .121 | .245 | .053 | .068 | .246 | .141 | .346 |
| MHOW | .054 | .098 | -.230 | -.100 | -.111 | .365 | .051 | .030 | .568 | -.050 |
| M68 | .174 | .161 | .146 | .151 | .412 | -.011 | .076 | .107 | .114 | .510 |
| IMPORT | .144 | .035 | .079 | .136 | .406 | .056 | -.184 | .418 | .148 | .517 |
| INTENT | .038 | -.069 | .035 | .079 | .061 | .053 | .137 | .050 | -.163 | .059 |
| PES | .115 | -.221 | -.188 | .028 | .046 | -.171 | .103 | -.120 | .182 | .031 |
| IETOT | -.024 | .039 | .144 | .095 | .164 | -.241 | -.066 | .068 | -.068 | .123 |
| M I | -.111 | .052 | .179 | .112 | .033 | -.263 | -.016 | .038 | -.148 | .089 |
| M II | .167 | -.147 | -.063 | .069 | .164 | -.082 | -.040 | .018 | .089 | .212 |
| POS1 | .155 | -.135 | -.079 | .080 | .013 | -.301 | .003 | .128 | -.052 | .029 |
| POS2 | .079 | .172 | -.068 | .031 | -.068 | -.111 | -.161 | .027 | .030 | .020 |
| POS3 | -.024 | .204 | .107 | -.007 | .130 | -.107 | -.104 | .065 | -.001 | .078 |
| POS4 | -.002 | -.107 | .045 | .027 | .230 | -.413 | -.082 | .149 | -.240 | .075 |
| POS5 | .008 | .246 | .130 | .061 | .127 | -.335 | -.130 | -.014 | -.024 | -.054 |
| POS6 | .323 | -.144 | -.073 | .109 | .310 | -.080 | .074 | .010 | -.002 | .257 |
| POS7 | -.001 | -.124 | .001 | .057 | .047 | -.270 | .060 | .188 | -.076 | .054 |

TABLE B-1--Continued

| | MREG | MHOW | M68 | IMPORT | INTENT | PES | IETOT | M I | M II | POS1 |
|--------|-------|-------|-------|--------|--------|-------|-------|-------|-------|-------|
| REG | .204 | .054 | .174 | .144 | .038 | .115 | -.024 | -.111 | .167 | .155 |
| SEX | .127 | .098 | .161 | .035 | -.069 | -.221 | .039 | .052 | -.147 | -.135 |
| AGE | .137 | -.230 | .146 | .079 | .035 | -.188 | .144 | .179 | -.063 | -.079 |
| EDUC | .121 | -.100 | .151 | .136 | .079 | .028 | .095 | .112 | .069 | .080 |
| ETH | .245 | -.111 | .412 | .406 | .061 | .046 | .164 | .033 | .164 | .013 |
| PARTY | .053 | .365 | -.011 | .056 | .053 | -.171 | -.241 | -.263 | -.082 | -.301 |
| WORK | .068 | .051 | .076 | -.184 | .137 | .103 | -.066 | -.016 | -.040 | .003 |
| FREG | .246 | .030 | .107 | .418 | .050 | -.120 | .068 | .038 | .018 | .128 |
| FHOW | .141 | .568 | .114 | .148 | -.163 | .082 | -.068 | -.148 | .089 | -.052 |
| F68 | .346 | -.050 | .510 | .517 | .059 | .031 | .123 | .089 | .212 | .029 |
| MREG | 1.000 | 0.000 | .826 | .436 | .137 | .115 | .037 | -.029 | .050 | .023 |
| MHOW | 0.000 | 1.000 | -.037 | .129 | .085 | .085 | -.043 | -.077 | .075 | -.148 |
| M68 | .826 | -.037 | 1.000 | .435 | .117 | .163 | .082 | -.043 | .169 | .001 |
| IMPORT | .436 | .129 | .435 | 1.000 | .170 | .201 | .136 | .019 | .198 | .138 |
| INTENT | .137 | .085 | .117 | .170 | 1.000 | .206 | .114 | .109 | .007 | .053 |
| PES | .115 | .085 | .163 | .201 | .206 | 1.000 | .370 | .217 | .512 | .151 |
| IETOT | .037 | -.043 | .082 | .136 | .114 | .370 | 1.000 | .823 | .638 | .445 |
| M I | -.029 | -.077 | -.043 | .019 | .109 | .217 | .823 | 1.000 | .291 | .415 |
| M II | .050 | .075 | .169 | .198 | .007 | .512 | .638 | .291 | 1.000 | .185 |
| POS1 | .023 | -.148 | .001 | .138 | .053 | .151 | .445 | .415 | .185 | 1.000 |
| POS2 | .098 | .061 | .051 | .122 | -.064 | .129 | .333 | .283 | .239 | .329 |
| POS3 | .050 | -.056 | .043 | .233 | .080 | -.073 | .213 | .126 | .088 | .055 |
| POS4 | .069 | -.212 | .062 | .158 | .125 | .044 | .205 | .211 | .104 | .278 |
| POS5 | .018 | -.148 | .046 | .164 | .009 | .095 | .287 | .247 | .158 | .317 |
| POS6 | .087 | .029 | .229 | .375 | .149 | .575 | .461 | .154 | .709 | .236 |
| POS7 | .191 | -.187 | .139 | .273 | .159 | .368 | .294 | .213 | .306 | .355 |

TABLE B-1--Continued

| | POS2 | POS3 | POS4 | POS5 | POS6 | POS7 |
|--------|-------|-------|-------|-------|-------|-------|
| REG | .079 | -.024 | -.002 | .008 | .323 | -.001 |
| SEX | .172 | .204 | -.107 | .246 | -.144 | -.124 |
| AGE | -.068 | .107 | .045 | .130 | -.073 | .001 |
| EDUC | .031 | -.007 | .027 | .061 | .109 | .057 |
| ETH | -.068 | .130 | .230 | .127 | .310 | .047 |
| PARTY | -.111 | -.107 | -.413 | -.335 | -.080 | -.270 |
| WORK | -.161 | -.104 | -.082 | -.130 | .074 | .060 |
| FREG | .027 | .065 | .149 | -.014 | .010 | .188 |
| FHOW | .030 | -.001 | -.240 | -.024 | -.002 | -.076 |
| F68 | .020 | .078 | .075 | -.054 | .257 | .054 |
| MREG | .098 | .050 | .069 | .018 | .087 | .191 |
| MHOW | .061 | -.056 | -.212 | -.148 | .029 | -.187 |
| M68 | .051 | .043 | .062 | .046 | .229 | .139 |
| IMPORT | .122 | .233 | .158 | .164 | .375 | .273 |
| INTENT | -.064 | .080 | .125 | .009 | .149 | .159 |
| PES | .129 | -.073 | .044 | .095 | .575 | .368 |
| IETOT | .333 | .213 | .205 | .287 | .461 | .294 |
| M I | .283 | .126 | .211 | .247 | .154 | .213 |
| M II | .239 | .088 | .104 | .158 | .709 | .306 |
| POS1 | .329 | .055 | .278 | .317 | .236 | .355 |
| POS2 | 1.000 | .001 | .115 | .474 | .196 | .297 |
| POS3 | .001 | 1.000 | .059 | .026 | .010 | -.060 |
| POS4 | .115 | .059 | 1.000 | .337 | .122 | .290 |
| POS5 | .474 | .026 | .337 | 1.000 | .163 | .358 |
| POS6 | .196 | .010 | .122 | .163 | 1.000 | .371 |
| POS7 | .297 | -.060 | .290 | .358 | .371 | 1.000 |

Note: With 100 degrees of freedom (df): at $p < .05$, $r = .195$;
 $p < .01$, $r = .254$; $p < .001$, $r = .321$. With 50 df: at
 $p < .05$, $r = .273$; $p < .01$, $r = .354$; $p < .001$, $r = .443$.

TABLE B-2

Matched N's for Intercorrelations Between All Variables

| | REG | SEX | AGE | EDUC | ETH | PARTY | WORK | FREG | FHOW | F68 |
|--------|-----|-----|-----|------|-----|-------|------|------|------|-----|
| REG | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| SEX | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| AGE | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| EDUC | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| ETH | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| PARTY | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 59 | 53 | 57 |
| WORK | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| FREG | 96 | 96 | 96 | 96 | 96 | 59 | 96 | 96 | 78 | 89 |
| FHOW | 78 | 78 | 78 | 78 | 78 | 53 | 78 | 78 | 78 | 72 |
| F68 | 90 | 90 | 90 | 90 | 90 | 57 | 90 | 89 | 72 | 90 |
| MREG | 100 | 100 | 100 | 100 | 100 | 61 | 100 | 95 | 77 | 89 |
| MHOW | 76 | 76 | 76 | 76 | 76 | 53 | 76 | 72 | 69 | 67 |
| M68 | 95 | 95 | 95 | 95 | 95 | 59 | 95 | 89 | 72 | 89 |
| IMPORT | 93 | 93 | 93 | 93 | 93 | 59 | 93 | 89 | 73 | 85 |
| INTENT | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| PES | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| IETOT | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| M I | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| M II | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| POS1 | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| POS2 | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| POS3 | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| POS4 | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| POS5 | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| POS6 | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |
| POS7 | 102 | 102 | 102 | 102 | 102 | 63 | 102 | 96 | 78 | 90 |

TABLE B-2--Continued

| | MREG | MHOW | M68 | IMPORT | INTENT | PES | IETOT | M I | M II | POS1 |
|--------|------|------|-----|--------|--------|-----|-------|-----|------|------|
| REG | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| SEX | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| AGE | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| EDUC | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| ETH | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| PARTY | 61 | 53 | 59 | 59 | 63 | 63 | 63 | 63 | 63 | 63 |
| WORK | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| FREG | 95 | 72 | 89 | 89 | 96 | 96 | 96 | 96 | 96 | 96 |
| FHOW | 77 | 69 | 72 | 73 | 78 | 78 | 78 | 78 | 78 | 78 |
| F68 | 89 | 67 | 89 | 85 | 90 | 90 | 90 | 90 | 90 | 90 |
| MREG | 100 | 76 | 94 | 92 | 100 | 100 | 100 | 100 | 100 | 100 |
| MHOW | 76 | 76 | 71 | 71 | 76 | 76 | 76 | 76 | 76 | 76 |
| M68 | 94 | 71 | 95 | 89 | 95 | 95 | 95 | 95 | 95 | 95 |
| IMPORT | 92 | 71 | 89 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| INTENT | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| PES | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| IETOT | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| M I | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| M II | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS1 | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS2 | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS3 | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS4 | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS5 | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS6 | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS7 | 100 | 76 | 95 | 93 | 102 | 102 | 102 | 102 | 102 | 102 |

TABLE B-2--Continued

| | POS2 | POS3 | POS4 | POS5 | POS6 | POS7 |
|--------|------|------|------|------|------|------|
| REG | 102 | 102 | 102 | 102 | 102 | 102 |
| SEX | 102 | 102 | 102 | 102 | 102 | 102 |
| AGE | 102 | 102 | 102 | 102 | 102 | 102 |
| EDUC | 102 | 102 | 102 | 102 | 102 | 102 |
| ETH | 102 | 102 | 102 | 102 | 102 | 102 |
| PARTY | 63 | 63 | 63 | 63 | 63 | 63 |
| WORK | 102 | 102 | 102 | 102 | 102 | 102 |
| FREG | 96 | 96 | 96 | 96 | 96 | 96 |
| FHOW | 78 | 78 | 78 | 78 | 78 | 78 |
| F68 | 90 | 90 | 90 | 90 | 90 | 90 |
| MREG | 100 | 100 | 100 | 100 | 100 | 100 |
| MHOW | 76 | 76 | 76 | 76 | 76 | 76 |
| M68 | 95 | 95 | 95 | 95 | 95 | 95 |
| IMPORT | 93 | 93 | 93 | 93 | 93 | 93 |
| INTENT | 102 | 102 | 102 | 102 | 102 | 102 |
| PES | 102 | 102 | 102 | 102 | 102 | 102 |
| IETOT | 102 | 102 | 102 | 102 | 102 | 102 |
| M I | 102 | 102 | 102 | 102 | 102 | 102 |
| M II | 102 | 102 | 102 | 102 | 102 | 102 |
| POS1 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS2 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS3 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS4 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS5 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS6 | 102 | 102 | 102 | 102 | 102 | 102 |
| POS7 | 102 | 102 | 102 | 102 | 102 | 102 |

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