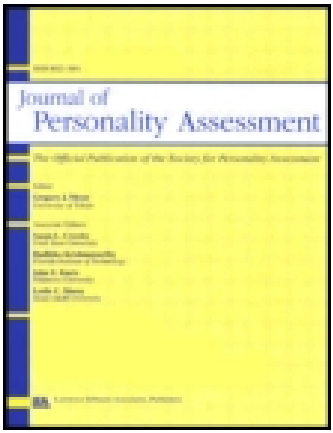

Journal of Personality Assessment

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/hjpa20

Activism and Powerful Others: Distinctions within the Concept of Internal-External Control

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Published online: 16 Nov 2010.

To cite this article: Hanna Levenson PhD (1974) Activism and Powerful Others: Distinctions within the Concept of Internal-External Control, Journal of Personality Assessment, 38:4, 377-383, DOI: 10.1080/00223891.1974.10119988

To link to this article: http://dx.doi.org/10.1080/00223891.1974.10119988

Activism and Powerful Others: Distinctions Within the Concept of Internal-External Control[1]

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Summary: Some studies report that activists are Internals, while others claim they are Externals, holding a belief in chance, fate, and powerful others. Three new scales were constructed in order to measure belief in chance (*C*) as separate from expectancy for control by powerful others (*P*), and perceived mastery over one's personal life (*I*). Two studies are reported. (1.) As predicted, responses from 96 adults indicated that only a belief in chance was differentially related to involvement and information on anti-pollution activities. (2.) In factor analyzing the responses of 329 college males to the 24 items of the new scales, three main factors were identified – *I, P,* and *C.* The validity and usefulness of the tripartite division in clarifying past findings regarding the multidimensionality of I-E were discussed.

Rotter's (1966) Internal-External (I-E) scale measures the extent to which people believe they exercise control over their lives (internally controlled) or the degree to which they feel their destinies are beyond their own control and are determined by fate, chance, or powerful others (externally controlled). However, several investigators (Gurin, Gurin, Lao, & Beattie, 1969; Lao, 1970. Mirels, 1970) have presented empirical evidence indicating that the I-E scale is not unidimensional, but can be separated into various factors: felt mastery over one's own personal life, expectancies of control over political institutions, and one's beliefs about the role of internal and external forces in the society in general. Recent reviewers (Joe, 1971; Lefcourt, 1972) of locus of control research have suggested that to be a valid instrument, the I-E scale must undergo further refinements. Such refinements hopefully would explain some of the inconsistencies found in the research literature relating locus of control expectations to behavior.

Despite the fact that over 150 studies have been published dealing with the I-E construct (Throop & MacDonald, 1971), reported results dealing with one's locus of control and certain important behavioral variables have been conflicting. For example, Gore and Rotter (1963) and Strickland (1965) found that Negro youths who engaged in social protest action held more internal control expectancies than their less active Negro peers. Results from other studies (Gurin et al., 1969; Ransford, 1968), however, have indicated that Negroes who were willing to participate in protest behavior scored the *lowest* in internal control.

In order to answer the important question as to the relationship between one's expectancies for control and participation in social action and to obtain a conceptually cleaner instrument, a revision of Rotter's I-E scale was undertaken by the present author. It was hypothesized that the reason the I-E scale does not meaningfully differentiate between those who are involved and those who are not involved is because of the broad definition of externals as those with expectancies that fate, chance, or *powerful others* will control events. Three new scales (Internal, Powerful Others, and Chance – *I, P, C*) were constructed in order to measure belief in chance expectancies as separate from a powerful others orientation. The rationale behind this tripartite differentiation stemmed from the reasoning that people who believe the world is unordered (chance) would behave and think differently from people who believe the

[1] Study I reported in this paper is based on a dissertation submitted to the faculty of Claremont Graduate School, Claremont, California, in partial fulfillment of the requirements for the PhD degree, and was supported by a Woodrow Wilson Dissertation Fellowship. A briefer version of Study I was presented at the annual convention of the American Psychological Association, Honolulu, Hawaii, September, 1972. Study II was partly supported by a grant from the Organized Research Reserve of Texas A&M University.

world is ordered but that powerful others are in control. In the latter case a potential for control exists. Furthermore, it was expected that a person who believes that chance is in control (*C* orientation) is cognitively and behaviorally different from one who feels that he himself is not in control (low *I* scale scorer). Thus, this study was undertaken to examine the validity of separating Rotter's conceptually unidimensional I-E scale into three dimensions (*I, P,* and *C*) in order to understand more fully the relationship between involvement and expectation for control.

Two studies were conducted to ascertain the validity of the separation of locus of control into the *I, P,* and *C* dimensions. The first study focuses on involvement and control expectancies, and the second focuses on the factor structure of the new scales with the hypothesis that the items on the new scales would cluster into the meaningful dimensions of personal, powerful others, and chance control.

Study I

Method

Subjects

The *S*s were 96 male and female adults in a Southwestern metropolitan area. One third of the *S*s were selected randomly from the membership list of a local anti-pollution group. Another third were selected from those people who had been sent a letter of notification about the group but who decided not to join, and the final third had not been notified of the group and were not members. This selection procedure was (*a*) to ensure that *S*s would represent various degrees of involvement with the topic of environmental degradation, and (*b*) to use *S*'s joining as a behavioral indication of his amount of concern about environmental matters.

A series of scales were administered to each *S* during an individual interview session. Included were the *I, P,* and *C* scales, an Involvement Activities Checklist, and a measure of knowledge about pollution.

Instruments

I, P, C scales. Each of the *I, P,* and *C* scales consists of eight items in a Likert format (possible range on each scale, 0-48). These are presented to the *S* as a unified attitude scale of 24 items (See Table 1). The scales are comprised of several items adapted from Rotter's I-E scale and a set of statements written specifically for the new scales.

The items on the *I, P,* and *C* scales differ from Rotter's I-E scale in four important ways. (*a*) Instead of a forced-choice format, a Likert 6-point scale was used so that the three scales are statistically independent of one another. (*b*) On the *I, P,* and *C* scales a personal-ideological distinction has been made. All the statements are phrased so as to pertain only to the *S* himself. They measure the degree to which an individual feels he has control over what happens to him, not what he feels is the case for "people in general." (*c*) No reference is made in the items which would assume the modifiability of the specific issues. These latter two factors of personal versus ideological control and system modifiability were found by Gurin et al. (1969) to be contaminating factors in Rotter's I-E scale. (*d*) The *I, P,* and *C* scales have a high degree of parallelism in content among each triad.

Item analyses with several pretest groups indicated that all of the items significantly distinguished between high and low scorers for each of the three scales. Correlations between the Marlowe-Crowne Social Desirability Scale (1964) and each of the items were all very near 0.00, the highest being only +.19.

In Table 1 each item is presented along with its correlation to its total scale score. It can be seen that these are fairly high and consistent. The letter preceeding the item indicates the scale to which it belongs.

Internal consistency estimates are only moderately high, but since the items sample from a variety of situations, this is to be expected. These correlations compare favorably with those obtained by Rotter (1966) for the I-E scale. Kuder-Richardson reliabilities (coefficient alpha) yielded $r = .64$ for the I scale, .77 for the *P* scale, and .78 for the *C* scale. Split-half reliabilities (Spearman-Brown) were: $r = .62$ (*I* scale), .66 (*P* scale), and .64 (*C* scale).

Test-retest reliabilities for a one-week period were: *rs* = .64, .74, and .78. Means for the second administration of the scales were not significantly different from those of the first administration.

Involvement and information. The Involvement Checklist is a self-report measure listing a series of 15 activities. The *S* checks those things he has done to express his concern over environmental problems (range, 0-15). The measure of knowledge used was a multiple-choice test, the Test of National Environment, designed and used by the CBS television network in a national survey (range, 0-108).

Results and Discussion

Evidence bearing on the division of control into the *I, P,* and *C* components included the following four areas:

1. Mean differences indicated that the *I* scale (M = 35.48) was significantly different from both the *P* (M = 16.65) and *C* (M = 13.94) scales ($t = 12.41, p < .001$; $t = 13.28, p < .001$). The high mean *I* scale score seems quite consistent with past findings using Rotter's I-E scale, in which most *S*s were overwhelmingly internally oriented. Differences between scores on the *P* and *C* scales were significant only for male *S*s ($M_{diff} = 4.31, p < .001$). A 2 x 2 (Sex X Membership) factorial design indicated that males scored significantly higher on the *P* scale (M = 18.85) than did females (M = 14.64; $F = 4.86, p < .05$).

2. Correlations among the three scales indicated that the *P* and *C* scales correlated moderately with each other ($r = .59, p < .01$) and both were negatively related to the *I* scale (*rs* = --.14, --.17, *ns*). Such a finding is not surprising since both the *P* and *C* scales reflect a belief in a nonpersonal locus of control. Correlations between the *I, P,* and *C* scales and such demographic factors as age and education were low and nonsignificant.

3. To examine the relationship between control and involvement given that *S*s already thought that pollution was an important issue, a 2 x 3 (Sex X *C*) factorial analysis was computed on members' scores on the Involvement Checklist. Although there were no main effects, there was a significant interaction ($F = 5.35, p < .02$). While the *C* scale had no effect on involvement for a female member, males who believed that chance did not control their lives were involved in significantly more activities (M = 11.3) than those who perceived that chance had more control (M = 6.0; $F = 5.76, p < .02$). No significant results relating the *I* and *P* scales to involvement were found. Similarly, male nonmembers scored significantly higher on the *C* scale (M = 16.20) than did male members (M = 11.44; $F = 4.18, p < .05$). There were no significant differences between members and nonmembers on the *I* or the *P* scales.

It thus may be reasoned that expectations of control by powerful others or low expectations for control by self do not diminish involvement because the potentials for control still exist. For the high chance believer, however, there would be no such hope of control, and so high *C* scale scorers should be less involved.

4. The previous analyses dealt with differences between *I, P,* and *C* scales in their relationship to involvement. In order to demonstrate the meaningfulness of the tripartite division, differential findings in areas other than involvement were also tested. The I-E control dimension was validated in part by how well it related to amounts of information in a hospital setting (Seeman & Evans, 1962); the more externally oriented the patients were, the lower they scored on an objective test about their illness. The rationale behind this finding was that people who were internally oriented would attempt to control their environment through knowledge.

A similar validation procedure was therefore used to see if *S*s who believed that chance controlled their lives had significantly less amounts of information on matters of pollution than did the low *C* scorers. To hold constant the effect of membership on one's amount of knowledge, all *S*s in these analyses were members of the environmental group. Consistent with the findings for involvement and locus of control orientations, the 2 x 3

(Sex X *C*) factorial analysis of the CBS test scores revealed no main effects, but the interaction was highly significant ($F = 9.57$, $p < .001$). Males who believed that chance or fate controlled their lives had significantly less information ($M = 62.00$) than did those who felt that that chance did not control their lives ($M = 92.00$). *P* and *I* scale scores, however, had no significant relationship to amounts of information.

In relation to each other and to other measures, the *I* and *C* scales operate differently. If the two scales were actually measuring opposite ends of the same continuum (as is explicit in Rotter's I-E scale), then those who felt they were in control should behave very much like those who felt that chance was not in control.

Although the *P* and *C* scales were correlated with each other, they behaved very differently for males in their relationship to involvement and information. It appears these orientations are tapping quite different beliefs and therefore should not be grouped together under the rubric of external control.

Considering the present results, it is not surprising that researchers like Gurin et al. (1969) and Ransford (1968) found that activism was related to externality. However, this activism was not the result of frustrated fatalism, as several researchers have assumed (e.g., Rotter, 1971), but stemmed from a belief in the power of other people. It is therefore thought that the new *I, P,* and *C* scales are a more appropriate measure of locus of control that should help clarify some of the contradictory findings relating I-E scale scores to behavior.

The dilemma in which Rotter (1971) found himself in trying to account for increases in externality scores on his scale with increases in student activism can now be examined in view of the present findings. Students who felt that they were being manipulated by the "system" or powerful others within the administration would probably score high on Rotter's I-E scale (i.e., Externals). Their activism, however, like that of the black militants, was really not an expression of frustrated fatalism, but rather a reflection of instrumental attempts to effect change. On the revised *I, P,* and *C* scales, such students would be expected to score high on the *P* dimension.

Gurin et al. (1969) factor-analyzed the I-E scale and found that the system-blame dimension was related to participation in civil rights activities; students who blamed the system had engaged in many civil rights activities such as demonstrations, picketing, and boycotting. This factor is somewhat similar to the *P* dimension developed for this present study. In contrast, Gurin and her colleagues found that responses to the personal control dimension were unrelated to social action. Similarly, in the present study, responses to the *I* scale were found to be unrelated to involvement in pollution activities. Gurin concluded that she obtained such results because her subjects were Negroes in a white society. The data from the present research with white, middle-class subjects indicate that the conclusions might be more far-reaching than previously thought.

The absence of significant relationships between the *C* scale and other variables for females demands further attention. Silvern and Nakamura (1971) found that while externality was correlated with social-political views and activity for males, females' I-E scores were *unrelated* to views or to action. MacDonald's (1972) results indicate that locus of control scale scores were significantly related to endorsement of the Protestant Ethic for males only. Such differences in these and other studies are probably related to the cultural roles assigned to each sex. For women, the belief in chance or fate might be a reassuring, almost realistic expectation reflecting an acceptance of a passive role in society. More work is needed in this area to clarify such sex differences and to understand their ramifications.

Study II

Method

The *I, P,* and *C* scales were administered to 329 male undergraduate students enrolled in an introductory chemistry

Table 1

Factor Analysis of *I*, *P*, and *C* Scales

Scale	*r* Total Scale Score	Item No.	Factor I: Powerful Others Control Factor II: Internal Control Factor III: Chance Control	Varimax Rotation Factors		
				I	II	III
P	.61	3.	I feel like what happens in my life is mostly determined by powerful people.	.70	−.10	.00
P	.59	13.	People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.	.62	−.05	.24
P	.70	11.	My life is chiefly controlled by powerful others.	.62	−.20	.21
P	.77	15.	Getting what I want requires pleasing those people above me.	.33	−.03	.02
I	.53	19.	I am usually able to protect my personal interests.	−.25	.64	−.12
I	.52	23.	My life is determined by my own actions.	.06	.64	−.01
I	.67	18.	I can pretty much determine what will happen in my life.	−.14	.61	−.16
I	.64	5.	When I make plans, I am almost certain to make them work.	−.08	.51	−.05
I	.43	21.	When I get what I want, it's usually because I worked hard for it.	−.15	.43	.03
C	.60	2.	To a great extent my life is controlled by accidental happenings.	.03	−.05	.66
C	.51	6.	Often there is no chance of protecting my personal interest from bad luck happenings.	.11	−.14	.62
C	.70	7.	When I get what I want, it's usually because I'm lucky.	.11	−.12	.56
C	.68	14.	It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	.36	−.07	.52
C	.72	16.	Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.	−.00	.12	.49
C	.64	10.	I have often found that what is going to happen will happen.	.28	.13	.48

Table 1 (cont'd)

Factor Analysis of *I, P,* and *C* Scales

Scale	*r* Total Scale Score	Item No.	Factor I: Powerful Others Control Factor II: Internal Control Factor III: Chance Control	Varimax Rotation Factors		
				I	II	III
C	.63	12.	Whether or not I get into a car accident is mostly a matter of luck.	.11	–.13	.44
I	.56	4.	Whether or not I get into a car accident depends mostly on how good a driver I am. ..	.05	.14	–.21
I	.56	9.	How many friends I have depends on how nice a person I am.	–.04	.13	.20
P	.75	8.	Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.	.19	.02	.13
P	.47	17.	If important people were to decide they didn't like me, I probably wouldn't make many friends.	.06	–.04	.14
C	.59	24.	It's chiefly a matter of fate whether or not I have a few friends or many friends.	.13	–.07	–.05
I	.38	1.	Whether or not I get to be a leader depends mostly on my ability.	.12	–.08	–.04
P	.60	22.	In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.	.16	–.05	.03
P	.43	20.	Whether or not I get into a car accident depends mostly on the other driver.....	.35	.39	.12

course at Texas A&M University. Responses to the 24 items were subjected to a principle component factor analysis with squared multiple correlations in the diagonals. The components were rotated to an orthogonal simple structure using Kaiser's (1958) Varimax method. The minimum eigenvalue was set at 1.0.

Results and Discussion

The Varimax rotation yielded seven factors accounting for a total of 52.3% of the variance. (The eigenvalues for these factors are 4.0, 2.3, 1.5, 1.3, 1.2, 1.2, 1.0.) Table 1 presents the loadings for each item on the first three factors, arranged in descending order.

The first factor (*P*), accounting for 16.8% of the total variance, is comprised entirely of *P* scale items. The items loading on this factor pertain to the power of other people over the individual. The second factor (*I*), accounting for 9.7% of the variance, is comprised entirely of *I* scale items. These statements emphasize the competency of the individual in planning and having his hard work rewarded. The third factor (*C*), accounting for 6.4% of

the variance, contains entirely *C* scale items, all pertaining to a belief in fate or chance happenings. Seventeen of the 24 items load on these first three factors. The remaining seven items load on Factors IV-VII, resulting in one or two item specific factors.

It appears that this Varimax rotation approaches the ideal simple structure, since there is almost *no* overlap of the items on the *I, P,* and *C* factors. The one exception is Item 20 which has equally high loadings on Factors I, II, and IV. Furthermore, 22 of the 24 items load greater than ± .35 on one and only one of the seven factors! Three-quarters of the statements load greater than ± .50.

Conclusions

The refinement of the I-E scale into the three orientations of internal, powerful others, and chance appears justified by the present data. The three predicted factors of *I, P,* and *C* emerged in factor analysis, and scores on the *I, P,* and *C* scales were differentially associated with such variables as involvement and information. Furthermore, items referring to system control and to modifiability have been omitted on the new *I, P,* and *C* scales, thereby eliminating some of the confounding variables found in other studies. Conceptually and empirically, the tripartite division of expectancies for control adds to the usefulness of the locus of control dimension.

REFERENCES

Gore, P. M., & Rotter, J. B. A personality correlate of social action. *Journal of Personality,* 1963, *31,* 58-64.

Gurin, P., Gurin, G., Lao, R., & Beattie, M. Internal-external control in the motivational dynamics of Negro youth. *Journal of Social Issues,* 1969, *25*(3), 29-53.

Joe, V. C. Review of the internal-external control construct as a personality variable. *Psychological Reports,* 1971, *28,* 619-640.

Kaiser, H. F. The Varimax criterion for analytic rotation in factor analysis. *Psychometrika,* 1958, *23,* 187-200.

Lao, R. C. Internal-external control and competent and innovative behavior among Negro college students. *Journal of Personality and Social Psychology,* 1970, *14,* 263-270.

Lefcourt, H. M. Internal versus external control of reinforcement revisited: Recent developments. In B. A. Maher (Ed.), *Progress in experimental personality research.* Vol. 6. New York: Academic Press, 1972.

MacDonald, A. P. More on the Protestant Ethic. *Journal of Consulting and Clinical Psychology,* 1972, *39,* 116-122.

Mirels, H. L. Dimensions of internal versus external control. *Journal of Consulting and Clinical Psychology,* 1970, *34,* 226-228.

Ransford, H. K. Isolation, powerlessness, and violence: A study of attitudes and participation in the Watts riot. *American Journal of Sociology,* 1968, *73,* 581-591.

Rotter, J. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs,* 1966, *80*(1, Whole No. 609).

Rotter, J. External and internal control. *Psychology Today,* 1971, *5*(1), 37-42.

Seeman, M., & Evans, J. Alienation and learning in a hospital setting. *American Sociological Review,* 1962, *27,* 772-782.

Silvern, L. E., & Nakamura, C. Y. Powerlessness, social-political action, social-political views. *Journal of Social Issues,* 1971, *27*(4), 137-157.

Strickland, B. R. The prediction of social action from a dimension of internal-external control. *Journal of Social Psychology,* 1965, *66,* 353-358.

Throop, W., & MacDonald, A. P. Internal-external locus of control: A bibliography. *Psychological Reports,* 1971, *(28,* Monograph Suppl. 1), 175-190.

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Received: March 12, 1973