

**BELIEF IN A DIFFICULT WORLD:
THE PSYCHOLOGICAL ADJUSTMENT
COMPONENT OF INTERNAL-EXTERNAL
LOCUS OF CONTROL**

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ABSTRACT

Factor analytic studies of Rotter's I-E Scale suggest that locus of control is multidimensional, though little has been done to advance theory by making specialized predictions based on the separate dimensions. Lefcourt noted a paradox in the observation that externals are statistically higher in anxiety and other psychopathological indicators, given their perceived inability to change their negative circumstances. It was hypothesized that this paradox could be resolved by examining the relationships of the locus of control factors to measures of psychological adjustment. More particularly, it was predicted that Belief in a Difficult World — a factor identified by Collins — would bear a significant relationship to the adjustment measures since this factor appeared to reflect a sense of alienation and fatalism. Collins' Difficult World factor and other factors were clearly identified in the present study. Adjustment measures included anxiety, depression, anomia, and self-esteem. As predicted, Belief in a Difficult World was substantially correlated with these measures, as was total score, whereas correlations of the other factors ranged from near zero to moderate in magnitude.

The locus of control construct emerged from the work of Rotter and his associates in the context of social learning theory (Rotter, 1954, 1966; Rotter, Chance, & Phares, 1972; James, 1957; Phares, 1957). As formulated by Rotter (1966) a person may be located on a bipolar dimension of internal versus external control orientation depending upon the degree to which the generalized expectancy of control reinforcement is perceived as contingent upon one's own behavior (internal orientation) as opposed to forces beyond one's control (external orientation). "Generalized expectancy" refers to the relative pervasiveness of control orientation, implying a reasonably stable characteristic in people without denying that situation-specific perceptions may often occur which are uncharacteristic of such a general tendency. Though this construct was not developed as a

measure of psychological adjustment, positive relationships have frequently been reported between externality and depression (e.g., Abromowitz, 1969), anxiety (e.g., Ray & Katahn, 1968), and self-esteem (e.g., Fleming & Watts, 1980). Lefcourt (1976) noted an apparent paradox in the fact that one who perceives little or no responsibility for one's situation — i.e., an external — should feel anxious or depressed about events beyond one's personal control. Lefcourt asked: "Indeed, why should a person experience anxiety if his world is already perceived as unpredictable and uncontrollable?" (1976, p. 86). He further stated that: "It may be concluded then that there is enough convergence of theoretical and empirical data to support the assumption of correlation between locus of control and psychopathology. What is missing are the factual details that are needed to fill in the gaps related to specific questions of how and why" (p. 95).

A plausible explanation for Lefcourt's paradox may be found in the multi-dimensional nature of locus of control. Levenson (1972) constructed multi-dimensional scales to measure three aspects of control orientation: internality (*I*), or a belief in personal control; chance (*C*), representing a belief in chance or fate; and powerful others (*P*), a belief that control lies in the hands of other people. In a psychiatric sample she found that paranoids and undifferentiated schizophrenics had higher scores than neurotics on the two external scales, *C* and *P* (Levenson, 1973). Other studies with the *I*, *C*, and *P* scales are reviewed by Levenson (1981), including results for alcoholics and prisoners.

While Levenson's work has made an important contribution to the understanding of locus of control and its relationship to psychopathology, it does not explain the relationship between psychological adjustment and the Rotter Scale as such. Rotter's (1966) I-E Scale is still the most commonly used measure of locus of control as a bipolar trait, but there is considerable evidence for its multi-dimensionality (e.g., Gurin, Gurin, Lao, & Beattie, 1969; Joe & Jahn, 1973; Mirels, 1970; see also reviews by Lefcourt, 1976; Phares, 1976; and Rotter, 1975, critical discussion of measurement issues). Collins (1974) argued convincingly that problems arose with the Rotter Scale because of its forced-choice format which requires respondents to pick one statement each from 23 pairs of I-E propositions; this forced-choice procedure might obscure potentially relevant factors from emerging if subjects are in fact responding to more than one stimulus construct. By converting each of 23 item pairs to 46 independent statements to be rated as Likert scale items, Collins obtained four bipolar (internal-external) factors which he identified as: Belief in a Difficult World, a Just World, a Predictable World, and a Politically Responsive World. A person endorsing Difficult World items "believes that his environment is composed of difficult, complicated, and unsolvable tasks . . . not to be equated with an unlawful world ruled by Lady Luck" (Collins, 1974, p. 385). This type of lack of control would seem to be related to such negative affective states as depression and alienation. A person who scores externally on the Difficult World factor believes that positive actions to change existing circumstances are futile and doomed to failure. Such a person may have learned not to try to attempt changing negative conditions. Seligman's (1975) learned helplessness construct or Beck's (1967, 1976) cognitive theory of depression provide potential theoretical frameworks for exploring this form of externality.

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According to Collins, Belief in a Just World characterizes people who, near the internal terminus of the scale, believe in justice and equity in the world. The Predictable World factor is strongly characterized at the external pole by a belief in luck or fate, and at the internal pole by lack of such a belief. The Politically Responsive World factor contained items pertaining to the individual's ability to cope with government, change the political system, the possibility of preventing wars, and the like. The degree to which this factor and the Just and Predictable World factors should be related to mental health is less clear than is the case with the Difficult World factor. Conceivably one could view the world as unjust, unpredictable, and unresponsive in the main, yet maintain a positive outlook precisely because these things are beyond immediate control, per Lefcourt's paradox. One who scores on the external end of any of these factors might or might not feel depressed, anxious, or alienated, depending, perhaps, on more complicated factors in the individual's psychological makeup or circumstances. Since for many situations externality may represent a realistic mode of functioning, psychological well-being may not depend on a particular internal-external orientation, at least as regards the latter three factors.

Collins also considered that, though four interpretable factors were identified, there was still a "common thread" of generalized expectancy present, as indicated by loadings of most variables on the largest unrotated factor. Collins' study has been replicated by Duffy, Shiflett, & Downey (1977) for a group of Army reservists; four of their five factors resembled the Collins' factors, while a fifth appeared to measure a Friendly versus Unfriendly World.

The purpose of the present study was to relate Collins' factors of locus of control to several measures of personal adjustment. From the above considerations it was hypothesized that internality would be associated with a greater degree of psychological health on the Difficult World factor. The finding that factors other than Difficult World were unrelated, or were less strongly related, to the adjustment measures might then be interpreted as a resolution of the paradox raised by Lefcourt.

METHOD

SUBJECTS

Subjects were 148 female and 111 male participants for class credit in first-year psychology courses at California State University, Northridge. The median age was 19.0; 82% were white non-Hispanic. Each attended two sessions of one hour duration as part of a research program for examining the relationships between a number of self-administered, self-report measures of personality.

TESTS AND FORMS

Participants completed a personal data form stating sex, age, estimated grade-point average (GPA), and other kinds of background information. The Marlowe-Crowne Scale (Crowne & Marlowe, 1964) was administered to ascertain whether the locus of control factors and other measures were correlated to any extent with social desirability. Thorndike's (1942) Vocabulary Test, the McClosky-Schaar (1965) Anomy Scale, Bendig's (1956) short form of Taylor's

(1953) Manifest Anxiety Scale, Beck's (1967) Depression Inventory, the Rosenberg (1965) Self-Esteem Scale, and an extended version of Janis and Field's (1959) Feelings of Inadequacy Scale, were also administered. The latter was developed as a multidimensional measure of self-esteem by Fleming and Courtney (in press), who identified five factors as: Self-Regard (a general self-worth dimension, similar to Rosenberg's, 1965, construct), Social Confidence, School Abilities, Physical Appearance, and Physical Abilities. The non-adjustment measures were included to partially assess the discriminant validity of the factor scales. To be useful a factor should not be too highly correlated with logically distinguished constructs.

Collins' (1974) modifications to the Rotter Scale were used in the present study to measure locus of control. A six-point agreement format was used, varying the order of the items at random.

RESULTS

FACTOR ANALYSIS AND INTERPRETATION

Four factors were extracted via principal axis factor analysis with squared-multiple correlations as initial communality estimates. There were 15 eigenvalues greater than one, but the correct number of factors using Cattell's (1966) scree test was four. The 10 largest eigenvalues were: 6.04, 3.48, 2.41, 2.00, 1.69, 1.52, 1.48, 1.46, 1.36, and 1.27. The four factors were transformed by direct oblimin with the obliquity parameter set to zero. The percentage of total variance accounted for by the common factors was 30.3%, which is comparable to Collins' 29%.

Belief in a Difficult World. For interpretive purposes an item was assigned to a factor based on its largest absolute loading greater than .30. A Difficult World (*DW*) factor clearly emerged with 8 of Collins' 11 *DW* items loading on this factor. Largest loadings from this group were: "Many times I feel that I have little influence over the things that happen to me," .59; "By taking an active part in political and social affairs the people can control world events," -.54; and "Sometimes I can't understand how teachers arrive at the grades they give," .44.

Four additional items loaded on this factor which were not definers in the Collins paper. All of these had to do with school. These items were: "The idea that teachers are unfair is nonsense," -.53; "Many times exam questions tend to be so unrelated to course work that studying is really useless," .45; "In the case of the well-prepared student there is rarely if ever such a thing as an unfair test," -.42; and "Most students don't realize the extent to which their grades are influenced by accidental happenings," .34.

It does not seem surprising that such school-related items contributed to *DW* for a college sample. It is not clear, however, why these items were salient for the present group, but not for Collins' undergraduates. Perhaps the fact that most of our participants were in their first year made a difference, as the freshman year is indeed the most difficult for students.

Belief in a Just World. A Just World (*JW*) factor was identified having six definers, five of which were also salient in the Collins study. (A seventh item was

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dropped to improve reliability; see below.) Five items which loaded on this factor in the Collins study did not load here, however. Items with the largest loadings were: "People are lonely because they don't try to be friendly," .53; "People who can't get others to like them don't understand how to get along with others," .44; and "Most misfortunes are the result of lack of ability, ignorance, laziness, or all three," .40.

Belief in a Predictable World. This factor (*PrW*) was defined by six of the seven items identified in the Collins study, plus two others that were identified by Collins as *JW* items. The latter two were: "What happens to me is my own doing," .44; and "In the case of the well-prepared student there is rarely, if ever, such a thing as an unfair test," .34. The content of these items seems consistent with the *PrW* as well as the *JW* construct; these items were not split between these two factors in either study, however.

Largest loadings on *PrW* were: "Becoming a success is a matter of hard work, luck has little or nothing to do with it," .71; "Getting people to do the right thing depends upon ability; luck has little or nothing to do with it," .62; and "There is really no such thing as luck," .58.

Belief in a Politically Responsive World. Collins' Politically Responsive World (*PolW*) factor was very closely identified in the present study with seven of his eight items loading on it. An additional item was also salient here ("There will always be wars, no matter how hard people try to prevent them," .33), but one item was deleted due to lack of reliability (see below). The largest loadings were: "This world is run by the few people in power, and there is not much the little guy can do about it," .70; "The average citizen can have little influence in government decision," .62; and "By taking an active part in political and social affairs the people can control world events," -.60.

Summary. The four factors identified here were interpreted as being very similar to those in the Collins study. Most of the same items loaded on *DW* as well as four school-related items, also interpreted as contributing to the Difficult World construct. There were fewer salient loadings on *JW*, with two of the Collins *JW* items loading on *PrW*. Otherwise, the pattern of *PrW* loadings was very close to that reported by Collins, as was the pattern for *PolW*.

FACTOR SCALES

Scales were formed by summation of the items saturating the appropriate factors. Three items (one each from *DW*, *JW*, and *PolW*) were eliminated due to low item-total correlations. Scale correlations and internal consistency coefficients are presented in Table 1. Except for the rather low value of coefficient alpha for the *JW* scale, reliabilities appear acceptable. With the exception of *DW* with *PolW*, scale intercorrelations were not substantial.

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TABLE 1
Scale Intercorrelations and Internal Consistency Coefficients

Scales	Scales				Total
	I.	II.	III.	IV.	
I. Difficult World	.77				
II. Just World	-.03	.59			
III. Predictable World	.28	.24	.73		
IV. Politically Responsive World	.44	.05	.14	.78	
Total Scale (46 items)	.77	.33	.63	.63	.82

Note: Diagonal entries contain coefficient alpha.

CORRELATIONS WITH INDIVIDUAL DIFFERENCE MEASURES

The correlations of the factor scales and the individual difference variables are displayed in Table 2. In evaluating these results it should be remembered that for a moderately large sample ($n = 259$ here), a correlation as low as .15 is significant for a one-tailed test at $\alpha = .01$. To be of practical significance in evaluating the hypothesis that the Difficult World is related to psychological adjustment, correlations of at least .20 and preferably .30 or greater should be obtained. From Table 2 it can be seen that this hypothesis is confirmed; the lowest (absolute) correlation between adjustment and Difficult World is .22, with the remaining coefficients ranging from .24 to .40. These are all in the predicted direction such that externality is negatively related to adjustment. Though there is a tendency for externality to mirror the same pattern on *PolW* as on *DW*, the *PolW* correlations are much lower. With the exception of a few small but significant differences, the *JW* and *PrW* scales appear to be unrelated to these adjustment variables.

Correlations of the factor scales with social desirability seem moderate and acceptable. Scale correlations with the non-adjustment variables are generally small, which should also be expected.

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TABLE 2

Correlations of Locus of Control Scales
with Individual Difference Variables

Variables	Scales				Total
	I. Difficult World	II. Just World	III. Predict- able World	IV. Politically Responsive World	
STATUS					
Age	-.14*	-.00	-.04	-.06	-.12*
Sex ^a	-.01	-.23***	.01	-.02	-.06
Birth order	-.09	-.06	-.03	-.04	-.05
Number of sibs	-.12*	-.06	-.07	-.08	-.10
ACHIEVEMENT/ INTELLECT					
Reported GPA	-.12*	-.06	-.04	-.04	-.14*
Vocabulary	-.11*	.04	-.02	-.04	-.08
SOCIAL DESIRABILITY					
	-.24***	.06	-.20***	-.13*	-.24***
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Self-Esteem Scales ^b					
Self-Regard	-.40***	.02	-.18**	-.19***	-.34***
Social Confidence	-.34***	.01	-.17**	-.22***	-.31***
School Abilities	-.40***	-.02	.07	-.25***	-.32***
Physical Appearance	-.22***	-.08	-.10	-.21***	-.24***
Physical Abilities	-.25***	-.02	-.10	-.07	-.19***
Rosenberg Self-Esteem	-.40***	.04	-.15**	-.20***	-.34***
Anxiety	.40***	-.02	.17**	.24***	.36***
Depression	.24***	-.04	.10	.16**	.22***
Anomy	.39***	-.12*	.07	.25***	.31***

Note. Significance tests are one-tailed.

^aFemales were arbitrarily assigned the lower nominal code for the sex variable.

^bFleming and Courtney (in press) Self-Rating Scales.

*p < .05 **p < .01 ***p < .001

DISCUSSION

A number of studies have found the Rotter Scale to be multidimensional. In the present study four factors were found using Collins' (1974) expansion of this scale. These factors corresponded closely to those discussed by Collins. As predicted, the Belief in a Difficult World factor was more highly associated with the adjustment measures than were the others. Thus, the paradoxical relationship of Rotter's (1966) locus of control with such measures of personal adjustment appears to be due primarily to this component.

Although the need for multidimensional measures of locus of control seems well-established, additional research is needed to further clarify the relationships between these dimensions and measures of adjustment and psychopathology. We suggest that future efforts take place on two fronts: the refinement of measures and the study of special populations. The relationships of Levenson's *I*, *C*, and *P* scales (discussed earlier) to the Rotter Scale seem unclear (Hall, Joesting, & Woods, 1977; Levenson, 1972, 1981), for example. Part of the problem with these studies has been the use of the total score for the Rotter Scale, rather than the separate factors, such as Difficult World. More work on the convergent and discriminant validity of the Collins Scales is called for and a multitrait-multimethod treatment (Campbell & Fiske, 1959) would be valuable if different measures of each could be found. Assessment of group differences for the Collins Scales in clinical populations should show substantial differences in degree of externality for Belief in a Difficult World for certain groups, such as depressives and alcoholics, when compared to control or norming groups. Such group differences should not be expected on the other scales, however.

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