

INTERNAL-EXTERNAL CONTROL AND COMPETENT AND INNOVATIVE BEHAVIOR AMONG NEGRO COLLEGE STUDENTS¹

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A distinction was made between beliefs concerning internal-external control at the *personal* and *ideological* levels. Rationale was given to show that these should operate differently from each other and relate to different variables. The following hypotheses were derived: (1) An "internal" belief in personal control is positively related to general competence; (2) An "external" belief in ideology which blames the system for Negro disadvantages is positively related to innovative behavior; (2a) A strong belief that discrimination may be modified further enhances innovativeness among system blamers. Data on 1,493 male Negro college students in the Deep South supported the two main hypotheses and also showed that the personal and ideological control variables are independent of each other. The subhypothesis (2a) was rejected. Implications of the findings and suggestions for future research are discussed.

In recent years numerous studies have demonstrated the importance of the concept of internal-external control. Originally growing out of Rotter's social learning theory (Rotter, 1954), this concept has now proved useful in a great variety of problem areas. The two review articles on internal-external control (Lefcourt, 1966; Rotter, 1966) have shown that when a person believes that reinforcements are controlled by internal rather than external forces, he is likely to make greater attempts at mastering the environment; to be more resistant to influence attempts by others, yet more effective in attempts to influence others; to prefer high-probability choices in risk-taking behavior; to be lower in anxiety and higher in achievement orientation; to act more responsively to probability changes in the situation; to place higher value on skill-determined rewards; and to be more involved in social action.

Despite this wide range of relationships with internal-external control, some studies

have also stressed distinctions in this concept that would enhance its predictive capacities. For instance, in applying this concept to children's beliefs about academic reinforcements, Crandall, Katkovsky, and Crandall (1965) noted the importance of distinguishing different types of external environmental forces. In their view, control by other people should be separated from control by impersonal forces, since academic success and failure may have little to do with chance or luck but still be subject to external control through teachers' behaviors. They also distinguished responsibility for causing positive events from negative outcomes, since the dynamics in assuming credit for causing good things to happen may be very different from those operating in accepting blame for unpleasant consequences. These kinds of distinctions have been shown to be helpful in understanding the way children's beliefs about internal-external control affect their schoolroom attitudes and performance.

Two other distinctions have been made by Gurin, Gurin, Lao, and Beattie (1969) in studies of Negro youth. One is the difference between how much control one believes most people in society possess (Control Ideology) and how much control one personally possesses (Personal Control). Although Rotter (1966) defined internal control as an individual's beliefs that rewards follow from, or

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are contingent upon, his own behavior, the Internal-External Control of Reinforcement scale (I-E scale) developed by Rotter and others contains only a few items that relate to the personal belief. Most of the items deal with the individual's adherence to ideological beliefs about what determines success for most people in society. This self-other distinction is important in the way Negro youth think about control. Gurin et al. (1969) reported that two separate factors are generated when the responses of Negro students to internal-external control questions are factor analyzed. One, which consists of items phrased in the *first person*, is very close to the conceptual definition given by Rotter and measures the belief that one can control what happens to his *own* life. The second factor, which consists of items phrased in the *third person*, measures general or ideological beliefs about internal and external control. It is not merely that the students make this separation in their own thinking about control or reinforcements; it is also that the personal and ideological belief measures operate very differently in explaining the students' occupational aspirations. Students who have a high sense of personal control over their own lives hold higher as well as more realistic aspirations. In contrast, the students' ideological beliefs about what generally determines success and failure have nothing to do with their own aspirations.

Another distinction made in the Gurin study has to do with the motivational implications of believing in external forces which are reality based instead of predictable external forces such as fate. Most of the studies using Rotter's I-E scale have assumed it is more desirable to hold internal beliefs. Since the external forces alluded to in this scale primarily relate to chance, luck, or fate, it is understandable that the results generally support the negative consequences that are assumed to follow from externality. This does not mean that these same negative consequences would follow if questions were asked about systematic and reality-based obstacles. Instead of being damaging, it may be motivationally positive for a Negro youth to focus on discrimination and the way the social

system structures the outcomes of Negroes in the society. Results from the Gurin and Katz (1966) study of Negro youth support this point of view. Negro college students who focus on discrimination in explaining the disadvantaged position of Negro Americans not only hold somewhat higher aspirations than students who rely on internal explanations, they are also more likely to aspire for pioneering jobs which were not traditionally held by Negroes.

This study is concerned with these last two distinctions and explores in greater depth the meaning for Negro college males of holding a strong sense of personal control but focusing on external forces in explaining success and failure for Negroes in this society.

Following the literature on the role of internal control in motivation and behavior, it is expected that a heightened sense of personal control among college students will relate positively to indicators of general competency in the traditional achievement area. What differs in the specific hypotheses presented in this paper is the fact that these relationships are predicted only for the personal but *not* the ideological measures of internal control.

A different set of behaviors is expected to follow from the students' beliefs about the role of internal and external forces in explaining the status of Negroes in the society. Indeed, how students think about the causes of Negro disadvantage may be quite irrelevant for the way they perform and how they judge their own potential in traditional achievement situations. Instead, southern Negro students who actually focus on discrimination as a structural determinant of Negroes' success and failure show an unconventional stance about the race situation. One would expect this kind of unconventionality to characterize the system-blaming students in other arenas of life as well, especially in their efforts to bring about changes in the social system. They are students who should prefer collective instead of individual betterment strategies for solving racial disadvantage and who should be more engaged in social action themselves. In contrast, students who focus on a traditional Protestant Ethic type of explanation in ex-

plaining Negro disadvantage are much more likely to approach what ought to be done about the race situation in a traditional manner as well. They are likely to favor self-improvement approaches and keep themselves uninvolved in collective protest and social action.

It is also possible, however, that the meaning of individual versus system blame may depend on how much the students feel that discrimination can be modified. The behavior of any person who faces a major barrier will be determined to a great extent by whether he believes there is a good chance of altering the obstacles. If he believes the obstacle is modifiable, he is likely to try to overcome it; if not, he may work around it. Students who believe that discrimination is highly modifiable are likely to translate their unconventional ideas, as represented by belief in system blame, into actual innovative³ action to confront discrimination directly. Students who feel that discrimination stands little chance of being modified, and yet agree that discrimination is at the root of Negro disadvantage, are more likely to feel frustrated, desperate, and give up. Therefore, beliefs about modifiability of discrimination will greatly influence the behavior of students who blame the system. In contrast, these beliefs about modifiability of discrimination should make little, if any, difference in the behavior of students who believe that the major obstacles lie within themselves and that discrimination has little to do with Negroes' success and failure.

Thus we arrive at the following specific hypotheses to be tested. (1) Personal control is positively related to general competence of a traditional achievement nature; (2) Individual-system blame as an ideology in explaining Negro disadvantages is related to innovative behavior, with system blamers likely to be more innovative than individual blamers; (2a) A strong belief in the modifiability of discrimination further enhances innovativeness among system blamers but has no effect among students who focus on individual explanations for Negro disadvantages.

³The word "innovative" is used throughout this study to characterize behaviors that introduce something new and that attempt to make changes.

METHOD

Subjects

The data in this article came from a study conducted by the Survey Research Center at the University of Michigan under the direction of Patricia Gurin and Daniel Katz (1966). The study was carried out in cooperation with 10 Negro colleges in the Deep South. All the students present on the day when the questionnaires were administered were used as subjects. From this total subject pool, data on 50 males and 50 females from each class level at each school were randomly selected. Since prior analyses of the female students' expectancy patterns showed numerous differences from the males, this article presents data on the male students only. Among these males, some subjects were further discarded,⁴ leaving an analysis sample of 1,493 male students.

Procedure

The design of the study was both cross-sectional and longitudinal. In the cross-sectional study an extensive set of questionnaires, lasting approximately 3 hours, was given to all students. In the longitudinal study, freshman students were tested when they first entered college and again at the end of their freshman year. Data on the students' entrance test scores and grade point averages in the colleges were obtained from the college administrations. The questionnaire data included a broad range of information on the students' background, college experience, general attitudes, future life plans, motivational patterns, and an anagrams test. Also included was an extended I-E scale which consisted of all but two items in the original Rotter I-E scale (excluded because they had the lowest biserial item correlations as reported by Rotter in 1966), three items from the Personal Efficacy scale developed by the Survey Research Center at the University of Michigan, and 14 Rotter-type items written specifically about the race situation.

Independent Variables

The major independent variables were taken from a factor analysis of this extended I-E scale.⁵ These are all expectancy variables which measure the individuals' beliefs in internal-external control. The first factor, Personal Control, is composed of five items all phrased in terms of the first person. It measures the degree to which an individual feels he has control over what happens to him. An example is: (a) When

⁴Some male subjects were found to have extremely high scores on the Response Set, Lie, or Defensiveness scales included in the questionnaire. Since the distribution of their scores on the three independent variables did not differ much from that for the total male sample, these subjects were excluded from the final analysis.

⁵Results of the factor analysis, including factor loadings, are presented in Gurin et al. (1969).

TABLE 1
COMPOSITION AND NUMBER OF STUDENTS IN
EACH CELL OF THE FACTORIAL DESIGN

| Cell | Composition of each cell | | | No. stu- dents in each cell |
|------|--------------------------|---------------------|---------------------------------|-----------------------------------|
| | Personal control | Individual blame | Discrimination modifiability | |
| 1 | High | High | High | 84 |
| 2 | High | High | Low | 44 |
| 3 | High | Low ^a | High | 45 |
| 4 | High | Low | Low | 39 |
| 5 | Low | High | High | 58 |
| 6 | Low | High | Low | 38 |
| 7 | Low | Low | High | 46 |
| 8 | Low | Low | Low | 77 |

Note.—Low individual blame = high system blame.

I make plans, I am almost certain that I can make them work. (b) It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

The second factor, Individual-System Blame, is composed of four items dealing with ideological beliefs about how discrimination works. The internal end attributes failure among Negroes to some internal lack on the part of Negroes as a group; the external end attributes it to some systematic obstacles resulting from discrimination and segregation. An example is: (a) Many Negroes who don't do well in life do have good training but the opportunities just always go to whites. (b) Negroes may not have the same opportunities as whites but many Negroes haven't prepared themselves enough to make use of the opportunities that come their way.

The third factor, Discrimination Modifiability, is composed of three items measuring the degree to which the individual believes that racial discrimination can be modified. The internal end represents a belief that discrimination can be wiped out; the external end represents a belief that discrimination cannot be eliminated. An example is: (a) Racial discrimination is here to stay. (b) People may be prejudiced but it's possible for American society to completely rid itself of open discrimination.

Dependent Variables

There are two types of dependent variables: one concerns general competent behavior, the other concerns innovative behavior.

Measures of competence. Since the sample was made up of college students, the measures of competence are drawn from the academic area where students traditionally show their competence. The competence measures are divided into the following three groups: (a) performance measures—entrance test scores; grade point averages (all transformed into the 4-point system), and actual scores on an anagrams test; (b) academic confidence—self-confidence in the highest grade the student believed he could get, and relative confidence in how well he

could do when compared with other students in his college class; (c) educational expectations and aspirations—how certain the student was of finishing college, and how certain he was in going on to graduate or professional school.

Measures of innovativeness. These measures are drawn from the social areas where innovativeness is most likely to be manifested. These measures are also divided into two groups: (a) actual participation in civil rights activities—frequency of participation in civil rights activities in the past 2 or 3 years, and the various degrees of involvement in these activities; (b) preference for social action strategies—preference for individual versus collective type of action in overcoming discrimination, and preference for negotiation versus protest type of action in solving racial problems.

RESULTS

Since the aim of this study was to find out how these expectancy variables work in conjunction with each other and whether they interact in explaining competence and innovativeness, a multiple analysis of variance technique, allowing for unequal cell frequencies, was employed. The interrelationships of the three independent variables are small (Personal Control and Individual-System Blame = .042; Personal Control and Discrimination Modifiability = .124; Individual-System Blame and Discrimination Modifiability = .100); therefore this technique can be safely used. In order to deal with a reasonable number of cells, the distributions of all the independent variables were cut in thirds and the high and low groups on each variable were used. Thus the final analysis strategy was a $2 \times 2 \times 2$ factorial design. Both the cell composition of this design and the number of students in each of the eight cells are presented in Table 1.

Relationship between Personal Control and Competence

It was hypothesized that students with high personal control would perform better, have higher confidence, and hold higher educational expectations and aspirations. In general, these hypotheses were supported. The cell means for measures of competence are presented in Table 2.

Academic performance results. On all three measures of academic performance, Personal Control stands out as the single most significant predictor. There was no interaction

TABLE 2
CELL MEANS OF MEASURES OF COMPETENCE

| Measures of competence | Cell means | | | | | | | |
|--|-------------------------|--------|---------|--------|----------------------|--------|---------|--------|
| | High personal control | | | | Low personal control | | | |
| | Individual ^a | | System | | Individual | | System | |
| | High DM | Low DM | High DM | Low DM | High DM | Low DM | High DM | Low DM |
| Performance measures | | | | | | | | |
| Entrance test scores | 5.35 | 5.75 | 5.38 | 5.78 | 3.61 | 4.63 | 3.36 | 4.55 |
| Grade point averages | 1.93 | 2.02 | 1.80 | 1.97 | 1.67 | 1.77 | 1.72 | 1.87 |
| Anagram performance | 37.57 | 40.27 | 35.54 | 44.64 | 31.74 | 35.91 | 33.17 | 35.73 |
| Academic confidence | | | | | | | | |
| Self-confidence in own grades | 7.05 | 6.98 | 6.69 | 6.85 | 6.06 | 6.80 | 6.26 | 6.33 |
| Relative confidence in self vs. others | 3.67 | 3.39 | 3.62 | 3.72 | 3.40 | 3.47 | 3.61 | 3.51 |
| Educational expectations and aspirations | | | | | | | | |
| Certainty of finishing college | 4.40 | 4.30 | 4.49 | 4.51 | 4.24 | 4.11 | 4.26 | 4.13 |
| Certainty of pursuing further education | 4.68 | 4.64 | 4.73 | 4.31 | 4.12 | 4.34 | 4.20 | 4.12 |

Note.—On all measures of competence, a higher cell mean represents a higher level of competence.

^a Individual = high individual blame; system = high system blame; DM = discrimination modifiability.

effect on any measure. For test scores, students who had higher Personal Control obtained higher entrance test scores when compared to those who had lower Personal Control ($F = 18.87$, $df = 1/214$, $p < .01$). The relationship between Personal Control and grade point averages was similar; students with higher Personal Control obtained higher grades ($F = 4.67$, $df = 1/309$, $p < .05$). Although the results on anagrams test performance were slightly different from the preceding sets of results, the dominant effect of Personal Control was still apparent, with the direction still the same ($F = 12.42$, $df = 1/347$, $p < .001$). In addition to Personal Control, Discrimination Modifiability was also related to anagrams performance, although the effect was not as strong as that of Personal Control ($F = 5.74$, $df = 1/347$, $p < .05$). Those who saw little chance of modifying the discrimination situation performed better on anagrams.

Academic confidence results. The dominant influence of Personal Control was also clear in the students' academic self-confidence ($F = 12.83$, $df = 1/423$, $p < .01$). Those who felt they had more Personal Control were also more confident they could get higher grades in the coming year. The results also

indicated a significant first order interaction between Personal Control and Individual-System Blame ($F = 4.42$, $df = 1/423$, $p < .05$). The cell means in Table 2 suggest that Personal Control really conditions how the Individual-System Blame factor operates. Among students who possessed a higher degree of Personal Control, those who had a stronger belief in Individual Blame had more confidence in their grades. On the other hand, among students who did not have much Personal Control, there was little difference between system blamers and individual blamers. Results on the measure of how the student felt he would perform in comparison to other students produced no significant main effect or interaction effect. Still there was a slight tendency for those who had a high sense of Personal Control to feel that they could do better than others.

Educational expectations and aspirations. On the measure dealing with educational expectations, the results showed that Personal Control had a significant main effect ($F = 17.30$, $df = 1/423$, $p < .001$). Those who felt they had greater Personal Control were also more certain they would finish college. Discrimination Modifiability also had a significant main effect, although it was of less

TABLE 3
CELL MEANS OF MEASURES OF INNOVATIVENESS

| Measures of innovativeness | Cell means | | | | | | | |
|---|-------------------------|--------|---------|--------|----------------------|--------|---------|--------|
| | High personal control | | | | Low personal control | | | |
| | Individual ^a | | System | | Individual | | System | |
| | High DM | Low DM | High DM | Low DM | High DM | Low DM | High DM | Low DM |
| Actual participation in civil rights activities | | | | | | | | |
| Frequency of participation | 1.41 | 1.41 | 1.56 | 1.54 | 1.40 | 1.51 | 1.52 | 1.58 |
| Degrees of involvement | 2.57 | 2.74 | 3.00 | 3.00 | 2.81 | 2.77 | 3.36 | 3.41 |
| Preference for social action strategies | | | | | | | | |
| Individual vs. collective action | 1.83 | 1.79 | 2.67 | 2.34 | 1.96 | 1.68 | 2.52 | 2.35 |
| Negotiation vs. protest action | 2.24 | 2.72 | 2.91 | 2.90 | 2.56 | 2.51 | 3.07 | 3.25 |

Note.—On measures of innovativeness, a higher cell mean represents a higher degree of participation and involvement in civil rights activities, and a greater preference for collective, protest action.

^a Individual = high individual blame; system = high system blame; DM = discrimination modifiability.

magnitude than that of Personal Control ($F = 4.18$, $df = 1/423$, $p < .05$). The cell means in Table 2 show that there was actually not much difference between the four pairs of cells which differed only on Discrimination Modifiability. However, it is interesting to note that unlike previous trends where perception of low modifiability goes with higher competence, here it is those who perceived high modifiability who were more confident. Individual-System Blame had no significant main effect, but the means show clearly that certainty of finishing college was not a linear function of internality, as one might expect from the two significant main effects. Results on educational aspiration dealing with how certain the student felt in pursuing further education again showed a simple and clear significant main effect of Personal Control ($F = 9.22$; $df = 1/423$, $p < .01$). High Personal Control goes with higher certainty of wanting to go on to graduate school or some kind of professional school.

Relationship between Individual-System Blame and Innovativeness

It was hypothesized that students who blame the system instead of personal inadequacies of Negroes in accounting for Negro disadvantage would be more innovative by (a) taking a more active part in the civil rights activities, and (b) taking a social action

stance that differs from the position of previous generations, especially advocating collective action rather than self-betterment approaches. These hypotheses were supported. The cell means on measures of innovativeness are presented in Table 3.

Participation in civil rights activities. Results on the frequency of participation showed a single significant Individual-System Blame effect ($F = 6.66$, $df = 1/422$, $p < .05$). Those who attributed the problems of Negroes to discriminatory practices of the system tend to participate more in civil rights activities. Results using the various degrees of involvement in civil rights showed the same relationship. Individual-System Blame was the only significant factor ($F = 5.18$, $df = 1/380$, $p < .05$): system blamers had a higher degree of involvement and commitment in civil rights activities.

Preference for social action strategies. Individual-System Blame was the only decisive factor in explaining who favored individual versus collective approaches in the civil rights movement ($F = 56.30$, $df = 1/418$, $p < .001$). System blamers favored collective action and individual blamers favored individual action. On the measure of preference for protest action or negotiation, the results were complicated. Still, Individual-System Blame stood out as the most significant predictor ($F = 41.18$, $df = 1/423$, $p < .001$), system

blamers always preferred protest action, while individual blamers always preferred negotiation. Discrimination Modifiability had the next most significant effect ($F = 12.60$, $df = 1/423$, $p < .001$). Personal Control also had a small but significant effect ($F = 4.41$, $df = 1/423$, $p < .05$). The significant second-order interaction ($F = 4.01$, $df = 1/423$, $p < .05$) contributed to an understanding of how each individual main effect works. Table 3 suggests one way we can interpret the findings. When system blamers had high Personal Control, Discrimination Modifiability bore no relationship with preference for type of action; but when system blamers had low Personal Control, a low degree of Discrimination Modifiability tended to make them favor protest type action. When individual blamers had high Personal Control, believing that discrimination was not modifiable encouraged positive attitudes about protest action; in contrast, for individual blamers who had low Personal Control there was no relationship between Discrimination Modifiability and type of action preferred.

SUMMARY AND DISCUSSION

Not only did we find clear support for the expected competent behavior from students with high Personal Control, we also found that the ideology measure—Individual-System Blame—was not related to competence. Discrimination Modifiability was related to some competent behaviors, but the direction was inconsistent. In contrast, Individual-System Blame was the only predictor of innovative behavior in the social action arena. The other two expectancy variables—Personal Control and Discrimination Modifiability—bore little or no relationship to how innovative a student is.

It was also suggested that the relationship between System Blame and innovativeness would depend on how much students feel discrimination is modifiable. However, the results in Table 3 do not support this kind of interaction. One possible explanation for this may be due to the nature of the population. It seems logical that belief in some degree of discrimination modifiability was necessary to motivate these students to go to college at all. This point becomes even more clear when

we take into account that these students are from the Deep South, from very poor families, and that their parents have had little education. In other words, there is a floor effect for this group of college students with respect to their perception of the degree of Discrimination Modifiability. Therefore, within this rather high expectancy group, the students who see more difficulty may put more effort in the fight against discrimination. The interaction expected may still work among the majority of the Negro population where expectancies may not be as high as in this college group.

Patterns of Internal-External Control

A belief in internal or external control at the personal level operates very much as the generalized expectancy of control has been presumed to operate in the literature. To have a sense of internality regarding one's own life situation has been shown to be desirable, and results reported here indicate that it is also good for Negro students. It should be emphasized again that the "internals" in past studies using Rotter's I-E scale are those who believe in a sense of greater control without distinguishing the personal and ideological differences (indeed since there are more items on ideological belief than on personal belief in the I-E scale, they are more likely to be internal at the ideological level rather than at the personal level). Yet the results are compatible to our findings, using only the Personal Control factor among Negroes. The reason for this is probably because whites show a much higher relationship between personal and ideological beliefs than do Negroes. For without the same experiences of discrimination and racial prejudice, whites are less likely to perceive an inconsistency between cultural beliefs and what works for themselves. Nevertheless the author feels that sharpening the internal-external control concept by making this personal-ideological distinction may enhance its predictive capacities for all populations.

On the other hand, the rather common assumption in the literature that it is also good to believe that internal forces are generally important determinants of success in this culture is not supported by the present data.

Results presented in this paper support and add meaning to the exception of this common assumption which was first discussed in the Gurin study of Negro youth. It seems very clear that it is *not* always desirable for Negro youth to believe in internal control, particularly when the sense of control deals with success and failure for Negroes themselves. Instead, Negro students who can focus on system obstacles seem to have a more realistic assessment of the situation, to have a higher level of sophistication in distinguishing between cultural and personal limitations, and thus are more likely to choose innovative roles in the areas of occupation as well as social action.

The present results are additive, instead of interactive. Internality in a personal sense relates to competent behavior in the academic domain; externality in an ideological sense relates to innovative behavior in the social arena. The personal and the ideological variables are not only independent in a correlational sense ($r = .124$), but they are also independent in the sense that neither affects how the other operates. These two expectancy variables should be used together if we hope to increase both competent and innovative behavior.

Admitting that this is a desirable goal, how can these expectancies be developed? We expect the socialization of these two expectancies to differ in many ways. The line of research by Rotter and his colleagues (James & Rotter, 1958; Rotter, Liverant, & Crowne, 1961) suggests that more experience with skill-based reinforcements leads to higher expectancies. This is also true of the series of experimental research by Feather (1966, 1968; Feather & Saville, 1967). G. Gurin's (1968) survey study of a large sample of high school dropouts undergoing job retraining also supports this finding. Still, there is no reason to believe these kinds of success experiences will affect the ideological sense of control. Instead, educational and training pro-

grams probably need to deal directly with the distinction between cultural and personal limitations to indicate that things are beginning to change and that chances are improving. This is important if positive action instead of further frustration is to follow. Future research along this line is certainly needed.

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