INTERNAL-EXTERNAL LOCUS OF
CONTROL AND PERCEPTION
OF AUTHORITY FIGURES

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The personality construct Internal-External Locus of Reinforcement Control has proven useful in the description and prediction of behavior. An important consideration regarding the Locus of Control construct is the individual's characteristic interactions with his environment. Previous research has provided relatively straightforward evidence indicating Internals are more effective in their goal directed activities than Externals. Previous research has also indicated a relationship between I-E orientations and perceptions of parents. Since other authority figures such as teachers share many things in common with parents, it was expected that I-E orientation would be related to perceptions of authority figures other than parents. The purpose of the present study was to explore Internals' and Externals' characteristic perceptions of authority figures.

On the basis of five hypotheses regarding Internals' and Externals' perceptions of authority figures, a 54-item Authority Figure Perception (AFP) Scale was constructed. The AFP Scales and Rotter's (1966) I-E Scale were administered to

76 male, preparatory high school students. As hypothesized, Internals perceived authority figures as (a) more encouraging of constructive environmental manipulations ($p < .05$), (b) more supportive when difficulties are encountered ($p < .005$), (c) having more predictable standards ($p < .001$), and (d) acting more upon issue-oriented reason ($p < .005$). However, the hypothesis that Internals would perceive authority figures as significantly more positively reinforcing was not supported ($p > .05$). The total AFP scores indicate that, compared to Externals, Internals have generally more positive perceptions of authority figures ($p < .001$). It was also found that as age increased in the current sample, the tendency to perceive authority figures as positively reinforcing ($r = .25$, $p < .05$) or as having predictable standards ($r = .23$, $p < .05$) decreased. Finally, I-E orientations did not correlate significantly with age.

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FIGURES

The four major components of Rotter's (1962) Social Learning Theory are Expectancy of Reinforcement, Reward Value, the Situation, and Behavior Potential. According to Social Learning Theory, behavior potential in a particular situation is a function of both expectancy and reward value. Thus, in a particular situation, when expectancy and reward value are high, behavior potential is high. On the other hand, when expectancy and reward value are low, behavior potential is low.

The Social Learning Theory component, expectancy, has received a great deal of attention in the past decade. The development of expectancies depends upon reinforcements being perceived as contingent upon particular behaviors. When an individual perceives reinforcement as contingent upon a behavior, an expectancy is strengthened for that behavior. Reinforcements which are not perceived as contingent upon behaviors do not strengthen expectancies. Expectancies

generalize to situations which the individual perceives as similar to the original behavior-reinforcement sequence. Since individuals' reinforcement histories are likely to differ, generalized expectancy strength varies across individuals and is a useful construct for personality description.

Rotter (1966) has labeled the generalized expectancy construct, Internal-External Locus of Control of Reinforcement (I-E). Internals are described as having developed a strong tendency to perceive cause and effect relationships between their behavior and contingent reinforcements. On the other hand, Externals perceive reinforcements as following behavior but they do not perceive them as contingent upon their behavior. Externals commonly attribute the occurrence of reinforcement to luck, chance, or fate.

Several measures of Internal-External Locus of Control have been developed. Perhaps the most important measure is Rotter's (1966) I-E scale. The test is scored in the External direction; in other words, the higher the score the more External the individual. Crandall, Katkovsky and Preston (1962) developed the Intellectual Achievement Responsibility (IAR) scale for children. The IAR, unlike other measures of Locus of Control, indicates a child's willingness to accept

responsibility for both positive and negative achievement related reinforcements. The reader is referred to Throop and MacDonald's (1969) bibliography for a listing of additional I-E measures.

Rotter (1966) believes that the most important evidence supporting the construct validity of various I-E measures pertains to the individual's characteristic approach toward his environment. Research indicates that compared to Externals, Internals engage in more reinforcement related information gathering activities (Seeman, 1963), more goal directed activities (Strickland, 1965), and are more successful in their efforts to obtain reinforcements (McGhee, 1963). Since authority figures, parents or other adults are frequently present when children engage in information seeking activities, goal directed activities, or reinforcement seeking activities, Internals should perceive these authority figures in a more positive light than Externals. An important variable for study then is Internals' and Externals' characteristic perceptions of authority figures, since perception is the foundation for interpersonal interaction.

The first authority figures an individual confronts are his parents. The individual's perception of his parents as authority figures are probably generalized to other authority

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figures. Examining parent-child interactions and adult-parent perceptions should provide insight into the possible differences between Internals and Externals in their perceptions of authority figures.

Katkovsky, Crandall and Good (1967) using the Intellectual Achievement Responsibility Scales, observations of parent-child interactions, and the Parental Reaction Questionnaire investigated parental behavior associated with their children's reinforcement-control orientations. The authors reasoned that parental initiation and encouragement of their children's achievement behaviors should foster internal orientations. They also reasoned that when children encounter difficulty in their autonomous achievement activities, parental reactions which are warm and supportive foster internal orientations. On the other hand, parental reactions which are basically impatient and rejecting foster external orientations because "the child is apt to feel threatened, respond defensively, and attribute the error to an external source rather than himself." A similar external defensive reaction was also believed to result from the parents' general reinforcement biases.

In other words, it was hypothesized that the parents of Externals would favor negative reinforcements while parents of Internals would favor positive reinforcements. In the Parental Reaction Questionnaire, fathers of Internals indicated they reacted positively when their children engaged in achievement behaviors, while the fathers of Externals tended to respond to their children's achievement behaviors in a significantly more rejecting manner. The authors also observed that mothers of Internals tended to respond to their children in a significantly more nurturing, warm, supportive, and affectionate manner than mothers of Externals. Maternal affection was significantly related to the children's willingness to accept blame for failure. Mothers of Internals tended to use significantly more positive reinforcement than mothers of Externals.

Crowell (1963) found that adult perceptions of high maternal protectiveness were associated with External orientations. These findings appear to contradict the Katkovsky, et al.'s (1967) findings that maternal supportiveness and nurturance are associated with Internal orientations. MacDonald (1971), however, in a factor analysis of college students' responses to the Perceived Parenting Questionnaire,

found that nurturance was associated with warmth, while protectiveness was associated with control. MacDonald's (1971) findings suggest that parents who are perceived as actively restricting the child's autonomous behaviors also restrict the child's development of perceptions that his behaviors are responsible for their effects. Davis and Phares (1969) reasoned that college students' perceptions of their parents on an autonomy granting versus autonomy restricting continuum should be related to the student's control orientations. The authors found mixed support for their hypothesis. They found that perception of parents as "hostile controlling" was associated with an External orientation. On the other hand, Internal students tended to perceive their parents as significantly more "positively involved". These results suggest that the parents of Internals are perceived as controlling, but in a manner which differs from parents of Externally oriented students.

Baumrind's (1968) description of authoritarian and authoritative parental control styles helps clarify the relationship between perceived parental-control and locus of control orientation:

The authoritarian parent as she is generally described in the literature attempts to shape, control, and evaluate the behavior and attitudes of the child in accordance with a set standard of conduct, usually an absolute standard, theologically motivated and formulated by a higher authority. She values obedience as a virtue and favors punitive, forceful measures to curb selfwill at points where the child's actions or beliefs conflict with that she thinks is right conduct....She does not encourage verbal give or take, believing that the child should accept her word for what is right.

The authoritative parent as she appears in my studies also attempts to direct the child's activities but in a rational, issue-oriented manner. She encourages verbal give and take, and shares with the child the reasoning behind her policy. She values both expressive and instrumental attributes, both autonomous selfwill and disciplined conformity. Therefore, she exerts firm control at points of parent-child divergence, but does not hem the child in with restrictions. The authoritative parent affirms the child's present qualities, but also sets standards for future conduct. She uses reason as well as power to achieve her objectives. She does not base her decisions on group consensus or the individual child's desires; but also, does not regard herself as infallible or divinely inspired (p.263).

It is reasonable to assume that Internals, as well as Externals, perceive their parents as exerting significant efforts to control their activities. Perceived parental-control style may be related to Internal or External control orientations. Internals may perceive parental control as based upon reason and characteristically arising from parental concern for the individual in a particular situation. Externals, however, may perceive parental controls as

characteristically arising from predetermined attitudes and beliefs and, thus, void of situational considerations and reason.

There are two studies which relate Baumrind's conception of parental control techniques to Internal-External Locus of Control. Baumrind indicates that there is more verbal give and take between the parent and child under authoritative conditions than authoritarian conditions. Children with authoritative parents would be expected to be more verbally fluent than children with authoritarian parents due to their different reinforcement histories. Using similar reasoning to develop their hypothesis, Brecker and Denmark (1969) demonstrated that Internals are more verbally fluent than Externals. Perhaps more closely related to Baumrind's description of authoritarian parents is Tolar and Jalowiec's (1968) finding that college students who perceive their parents to exercise authoritarian control (as measured by the Parental Attitude Research Instrument) tend to be externalizers, ($r=.24$, $p<.05$).

Another possible antecedent of Internal-External control orientations which may lead to different perceptions of authority figures is suggested by Rotter (1966):

One obvious antecedent worthy of study would be the consistency of discipline and treatment by the parents. Clearly it would be expected that unpredictable parents would encourage the development of attitudes of External control (p.24).

Davis and Phares (1969) and MacDonald (1971) have obtained results which support Rotter's contention. Davis, et al. (1969) administered the Children's Reports of Behavior Inventory to college students. They found that Externals perceived their parents as more inconsistent and lax in their disciplinary practices. Similarly, MacDonald found that predictability of maternal standards was related to Internal orientations, especially in males. Finally, in support of Katkovsky, et al.'s (1968) findings, MacDonald found that maternal achievement pressure was related to Internal orientations and Davis and Phares (1969) found that rejection and withdrawal of relations were associated with External orientations.

The studies dealt with so far suggest that Internals and Externals have experienced dissimilar interactions with their parents. These studies also support the assumption that different parent-child interactions result in different perceptions of parental figures. Two studies examining Internals' and Externals' perceptions of authority structures suggest that they generalize their respective parental perceptions to

these authority structures.

Wood, Wilson, Jessor and Bogan (1966) studied juvenile delinquents' definitions of a correctional institution:

Within this framework, three aspects of the definitional process seemed particularly relevant; namely, the inmates' definitions of the institution (1) as an opportunity structure, (2) as an authority structure and (3) as a predictable environment where future events are contingent on one's behavior (pp.795-796).

The authors constructed a 36-item questionnaire to measure the delinquent's definitions of the institution as an "opportunity structure" and/or "authority structure". Rotter's I-E Scale was also administered. The correlation between the questionnaire and the I-E Scale was .40 ($p < .01$). Internals tended significantly more than Externals to define the institution as providing opportunities to develop positive self identity, to learn how to function within the legal confines of society, and to learn vocational and educational skills. Internals also perceived the institution's authority figures as more reasonable and sympathetic. Kish, Kristen and Uecker (1971) studied mental patients' perceptions of their Veterans Administration Hospitals' wards. The authors administered the I-E Scale and the Social Atmosphere Scale and concluded:

The Internals tend to perceive the social atmosphere of their wards as being more emotionally supportive, practically oriented, fostering of affiliative social interactions, orderly and neat, fostering involvement, clear regarding what is expected of the patient and allowing more autonomy (p.287).

The foregoing discussion suggests that Internals and Externals differ, along several dimensions, in their perception of authority figures. Specifically it is hypothesized that:

- I. Internals tend to perceive authority figures as encouraging constructive environmental manipulations while Externals tend to perceive authority figures as restricting constructive environmental manipulations.
- II. When there is difficulty manipulating their environments, Internals tend to perceive relevant authority figures as sources of support while Externals perceive relevant authority figures as sources of criticism and rejection.
- III. Internals tend to perceive authority figures as positive reinforcers while Externals perceive authority figures as negative reinforcers.
- IV. Internals tend to perceive authority figures as having predictable standards while Externals perceive authority figures as capricious.

V. When under the influence of authority figures, Internals tend to perceive them as acting upon issue oriented reason while Externals tend to perceive them as acting upon predetermined and arbitrary standards.

Method

Subjects

The subjects (Ss) were high school students at the all male Saint Mark's School in Dallas, Texas. Saint Mark's is a private school which charges approximately \$2,000 per academic year. Before admission, prospective students are screened for academic potential. The Ss of the present study constitute a sample of high school students who are above average both financially and academically.

Originally, it had been planned to use the entire junior class. However, due to the lateness of the school year and class responsibilities, the juniors could not participate. The Ss were obtained from P.E. classes and consisted of 33 freshmen, 24 sophomores, 10 juniors and 9 seniors who ranged in age from 14 to 18. A freshman, sophomore and two seniors refused to complete the measuring instruments.

Measuring Instruments

In order to measure the Ss' perceptions of authority figures, a 54-item Authority Figure Perception (AFP) Scale (See Appendix A) was constructed. The hypotheses were used as guidelines for constructing the AFP Scale items. The AFP contained 12 items to test hypothesis I, 12 items to test hypothesis II, 12 items to test hypothesis III, 8 items to test hypothesis IV and 10 items to test hypothesis V. Each item consisted of two statements, one of which reflected a positive perception of authority figures, and the other of which reflected a negative perception. The S was required to choose one of the two statements as best representing his perception of authority figures. In order to measure the Ss' locus of control orientation, Rotter's I-E Scale was administered.

Procedure

The Ss read and listened to modified I-E Scale instructions (See Appendix B). The scales were administered in a single session. Half the Ss took the I-E Scale first, and half the Ss took the AFP Scales first. The I-E Scale was scored in an External direction and the AFP Scales were scored in a negative direction, i.e. high scores represented an externalizing orientation and a negative view of authority

figures respectively. The number of grade levels and the small number of Ss in the junior and senior grades warranted inspection of the data by several means. The sample was considered as a whole and also split into three groups by grade level: 9th graders, 10th graders, and 11th and 12th graders together. For each analysis, the appropriate group was divided into Internals, Middles and Externals based on the Ss' I-E scores. Rank ordering the scores from the highest to lowest the Externals were defined as the highest 1/3 of the distribution, the Middles were defined as the middle 1/3 of the distribution, and the Internals were defined as the lowest 1/3 of the distribution. When ties occurred in the labeling process, the Ss were labeled by an arbitrary random decision process. The groups were then analyzed with simple analyses of variance for each hypothesis using the I-E scores as the independent measure and the AFP Scale scores as the dependent measures.

Since there was some variability in the Ss' ages, developmental trends were investigated by calculating correlations between age and the scores on the measuring instruments.

Results

The total sample's means and standard deviations on the I-E and AFP scales are presented in Table I. The simple analyses of variance revealed several significant relationships between I-E orientations and perceptions of authority figures. The Encouraging v. Discouraging AFP scale evidenced significant effects related to reinforcement control orientation, $F(2,69) = 3.8, p < .05$. A series of Newman-Keuls tests reveal 2 significant differences. These differences were between External and Internal means ($p < .05$) and the External and Middle means ($p < .05$). Compared to Externals, Internals and Middles perceived authority figures as significantly more encouraging of constructive environmental manipulations.

The Supportive v. Rejecting AFP scale evidenced highly significant effects related to I-E orientation, $F(2,69) = 5.8, p < .005$. A series of Newman-Keuls tests revealed 2 significant differences. These differences were between the External and Internal means ($p < .01$) and the External and Middle means ($p < .01$). Thus, Internals and Middles tend to view authority figures as significantly more supportive when they experience difficulty manipulating their environments than Externals.

TABLE I

Means and Standard Deviations of the Total Sample

Measuring Instruments	Internals (n=24)		Middles (n=24)		Externals (n=24)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
I-E Scale	7.50	2.37	11.46	.77	15.33	1.86
<u>AFP Scales</u>						
Encouraging v. Discouraging	4.04	1.99	4.21	2.57	5.67	2.12
Supportive v. Rejecting	5.46	1.64	6.00	1.56	7.13	1.96
Positive v. Negative	3.54	2.34	3.62	2.18	4.37	2.14
Predictable v. Capricious	2.38	1.74	3.50	1.41	4.29	1.55
Issue-Oriented v. Arbitrary	3.62	1.74	4.38	1.64	5.50	1.64
Total	19.21	6.91	21.50	5.34	26.96	6.97

The Positive v. Negative Reinforcer AFP scale did not evidence significant effects related to I-E orientations, $F(2,69) = 0.9, p > .05$. In the total sample, an individual's I-E orientation did not affect his perception of authority figures as being mainly positively or negatively reinforcing.

The Predictable v. Capricious AFP scale evidenced highly significant effects related to I-E orientation, $F(2,69) = 9, p < .001$. A series of Newman-Keuls tests revealed 2 significant differences. These differences were between the Internal and External means ($p < .01$) and the Internal and Middle means ($p < .05$). Compared to Middles and Externals, Internals perceive authority figures as having significantly more predictable standards.

The Issue-Oriented v. Arbitrary AFP scale also evidenced highly significant effects related to I-E orientation, $F(2,69) = 7.6, p < .005$. A series of Newman-Keuls tests revealed 2 significant differences. These differences were between the External and Internal means ($p < .01$) and the External and Middle means ($p < .05$). Compared to Externals, Internals and Middles perceive authority figures as acting significantly more upon issue-oriented reason than arbitrary standards.

The total AFP scores evidenced highly significant effects related to I-E orientations, $F(2,69) = 9.1, p < .01$. A series of Newman-Keuls tests revealed 2 significant differences. The differences were between the External and Internal means ($p < .01$) and between the External and Middle means ($p < .01$). Middles and Internals perceive authority figures in a generally more positive light than do Externals.

The 9th grade's means and standard deviations on the I-E and AFP scales are presented in Table II. The simple analyses of variance computed for the 9th grade group revealed that I-E orientation was significantly related to the perception of authority figures as Supportive v. Rejecting, $F(2,29) = 4.2, p < .025$. A series of Newman-Keuls tests revealed only one significant difference. This difference was between the External and Internal means ($p < .05$). Compared to Externals, 9th grade Internals perceive authority figures as significantly more supportive when difficulty is encountered manipulating their environments.

There were no other significant relationships found between I-E orientations and perceptions of authority figures for the 9th grade group considered alone. A simple analysis

TABLE II
Means and Standard Deviations of the 9th Grade

Measuring Instruments	Internals (n=10)		Middles (n=11)		Externals (n=11)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
I-E Scale	7.80	2.50	11.09	.30	14.73	2.05
<u>AFP Scales</u>						
Encouraging v. Discouraging	4.20	3.01	3.91	1.81	5.64	1.80
Supportive v. Rejecting	4.50	1.35	5.36	1.69	6.45	1.57
Positive v. Negative	3.60	2.55	2.63	1.69	2.91	2.12
Predictable v. Capricious	2.60	2.01	3.45	1.37	3.36	1.57
Issue-Oriented v. Arbitrary	3.50	2.12	4.73	1.68	5.27	1.62
Total	18.40	7.85	20.00	4.73	23.64	5.87

of variance revealed that I-E orientations were not significantly related to the Encouraging v. Discouraging AFP scale, $F(2,29) = 1.8, p > .05$. Scores on the Positive v. Negative Reinforcer AFP scale were not significantly related to I-E orientations, $F(2,29) = 0.6, p > .05$. Scores on the Predictable v. Capricious AFP scale were not significantly related to I-E orientations, $F(2,29) = 0.8, p > .05$. Scores on the Issue-Oriented v. Arbitrary AFP scale also were not significantly related to I-E orientations for the 9th grade sample, $F(2,29) = 2.6, p > .05$. Finally, the total AFP scores were not significantly related to I-E orientations, $F(2,29) = 2.00, p > .05$.

The 10th grade's means and standard deviations on the I-E and AFP Scales are presented in Table III. The simple analyses of variance computed for the 10th grade group revealed that I-E orientation was significantly related to scores on the Predictable v. Capricious AFP scale, $F(2,20) = 17.4, p < .001$. A series of Newman-Keuls tests revealed that there were 2 significant differences. These differences were between the External and Internal means ($p < .01$) and the Middle and Internal means ($p < .05$). Compared to 10th grade Externals and Middles, Internals perceive authority figures as having

TABLE III

Means and Standard Deviations of the 10th Grade

Measuring Instruments	Internals (n=8)		Middles (n=8)		Externals (n=7)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
I-E Scale	7.78	1.28	11.87	.83	15.86	1.95
<u>AFP Scales</u>						
Encouraging v. Discouraging	4.00	2.20	4.00	2.39	4.57	1.72
Supportive v. Rejecting	6.25	1.75	6.13	1.36	7.14	1.95
Positive v. Negative	3.50	2.45	5.50	2.20	4.70	1.98
Predictable v. Capricious	1.50	.93	3.75	1.28	5.00	1.29
Issue-Oriented v. Arbitrary	3.25	1.39	4.00	2.07	5.29	1.11
Total	18.50	6.52	23.37	6.37	26.71	5.68

more predictable standards.

There were no other significant relationships found between I-E orientations and perceptions of authority figures for the 10th grade group considered alone. The 10th grade's perceptions of authority figures as being basically encouraging or discouraging of constructive environmental manipulations were not significantly related to their I-E orientations, $F(2,20) = 0.2, p > .05$. The 10th grade sample's perceptions of authority figures as being supportive or rejecting when difficulty is encountered in manipulating their environments were not significantly related to their I-E orientations, $F(2,20) = 0.7, p > .05$. Similarly, the 10th graders' perceptions of authority figures as positive or negative reinforcers were not significantly related to their I-E orientations, $F(2,20) = 1.6, p > .05$. Also, I-E orientations of the 10th graders were not significantly related to their perceptions of authority figures as acting upon issue-oriented reasons or arbitrary standards, $F(2,20) = 3.1, p > .05$. Finally, the total AFP Scale scores, representing the 10th graders' general positive or negative view of authority figures were not significantly related to their I-E orientations, $F(2,20) = 3.3, p > .05$.

The 11th and 12th grade I-E and AFP scale means and standard deviations are presented in Table IV. There were no significant effects on AFP scales, related to I-E orientation for the 11th and 12th grade group. The simple analysis of variance computed on the Encouraging v. Discouraging AFP scale produced an $F(2,14) = 1.6, p > .05$. The Supportive v. Rejecting AFP scale did not show significant effects related to I-E orientations, $F(2,14) = 2.5, p > .05$. The Positive v. Negative Reinforcer AFP scale did not evidence significant effects related to I-E orientation, $F(2,14) = 1.1, p > .05$. The Predictable v. Capricious AFP scale did not evidence significant effects related to I-E orientations, $F(2,14) = 0.9, p > .05$. The Issue-Oriented v. Arbitrary Standard AFP scale did not evidence significant effects related to I-E orientations, $F(2,14) = 0.8, p > .05$. And, finally, the total AFP scores were not significantly related to I-E orientations, $F(2,14) = 2.2, p > .05$.

The correlation between age and I-E orientations was not significant. The Positive v. Negative Reinforcer scale correlated significantly with age ($r = .25, p < .05$) as did the Predictable v. Capricious scales ($r = .23, p < .05$). There were no other AFP scales which correlated significantly with age.

TABLE IV

Means and Standard Deviations for 11th and 12th Grade Group

Measuring Instruments	Internals (n=6)		Middles (n=5)		Externals (n=6)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
I-E Scale	6.67	3.33	14.60	.54	15.67	.82
<u>AFP Scales</u>						
Encouraging v. Discouraging	4.50	2.67	4.60	2.51	6.83	2.48
Supportive v. Rejecting	6.00	1.27	7.40	1.14	8.17	2.32
Positive v. Negative	3.50	2.26	4.20	1.48	5.50	2.88
Predictable v. Capricious	3.17	1.83	4.00	2.35	4.50	1.05
Issue-Oriented v. Arbitrary	4.33	1.51	4.80	1.30	5.67	2.34
Total	21.50	6.72	25.00	6.67	30.67	9.00

Discussion

The results of this study indicate that for the total sample I-E orientations are strongly related to the perception of authority figures. Specifically, compared to Middles and Externals, Internals perceive authority figures as having more predictable standards. Compared to Externals, Internals and Middles have significant tendencies to perceive authority figures as (a) more encouraging of constructive environmental manipulations, (b) more supportive when difficulties are encountered manipulating their environments, and (c) acting more upon issue-oriented reasons. There was also a significant tendency for Internals and Middles to perceive authority figures in a generally more positive manner than Externals.

Since Internals and Externals have different perceptions of authority figures, it is likely that they react differently toward teachers, professors and others who have authority over them. Individuals who perceive teachers in a generally positive light, as expecting constructive achievement activity and as having predictable standards, are likely to respond eagerly to the teachers' demands for academic achievement. Also, individuals who perceive teachers as generally supportive are

more likely to turn to them for help when they experience difficulty with their assignments and thus learn more effective means of goal attainment. On the other hand, individuals will tend to avoid teachers if they perceive them in a generally negative light, as discouraging constructive achievement activities, as rejecting when help is needed, and as having unpredictable standards. It is logical to assume that a general avoidance response to teachers will partially account for less effective school performance. For example, McGhee (1968) studied 923 3rd, 4th, 5th, 8th and 12th grade students. He found that Internal girls had higher achievement test scores and grade point averages than External girls. He also found that Internal boys achieved higher grade point averages than External boys.

As individuals mature, their selection of positive reinforcements and corresponding goal directed behavior become increasingly independent of authority figures. Increasing independence results in an increased probability of conflicts arising between an individual and authority figures. An individual's reaction to conflicts with authority figures is logically related to his perception of authority figures' propensity to be guided by issue-oriented reason. Individuals who perceive authority figures as reacting to conflicts in a

rather arbitrary manner are likely to make few attempts to rationally support their position to those in authority. On the other hand, individuals who perceive authority figures as responding to issue-oriented reason are likely to present evidence supporting their point of view. For example, Strickland (1965) found that Negroes who were civil rights activists had significantly more Internal reinforcement orientations than did Negro non-activists.

The exploratory portion of the study provided several interesting results. The absence of a significant correlation between the I-E orientations and age suggests that I-E orientations do not change over the age range of the present sample. It was also found that the perception of authority figures as positively reinforcing and as having predictable standards decreases with age. Ausubel (1954) comments that a major difficulty faced by the adolescent is the disparity between the demands placed upon him and the status he is accorded. In other words, the adolescent is expected to act like an adult but given the status of a child. It is likely that, as the adolescent matures, these disparities become more acute resulting in an increasingly negative perception of authority figures.

Appendix A

Note - a subject's score was obtained by counting the number of underlined statements he x'ed out.

I. Encouraging vs. Discouraging Constructive Environmental Manipulations.

- 1.a. Many employers encourage their employees to modify well established procedures in order to increase efficiency.
- b. In order to decrease the possibility of mistakes, many employers encourage their employees to rigidly follow well established procedures.

- 6.a. The economic policies of the United States are designed to "keep people in their proper places".
- b. There are unlimited opportunities for upward mobility in the United States.

- 11.a. High school administrators usually encourage teachers to develop effective teaching methods.
- b. Unfortunately, most high school administrators show little concern for teachers' teaching methods.

- 16.a. Most politicians are in favor of peaceful minority group demonstrations.
- b. Most politicians discourage even peaceful minority group demonstrations.

- 21.a. Many high school teachers design their assignments to help prepare their students for college.
- b. Few high school teachers really try to prepare their students for college studies.

- 25.a. The problem with the people in power is that they try to restrict the activities of the individual.
- b. Fortunately, the people with power encourage individuals to become actively involved in their community.

- 30.a. Most teachers generally agree that "good writers are born not made".
- b. Most teachers encourage their students to practice writing in order to develop effective writing styles.

- 35.a. Most politicians would prefer that people did not vote until they were 21 years old.
- b. Most politicians favor giving the vote to 18 year olds.
- 40.a. Many teachers are obviously pleased with students who use novel methods to complete assignments.
- b. Most teachers require their students to adopt a standard procedure for completing assignments.
- 45.a. Many army officers encourage qualified enlisted men to attend Officers Candidate School.
- b. Many officers discourage enlisted men who wish to attend Officers Candidate School.
- 49.a. Many politicians would be pleased if the general public left politics to the politicians.
- b. Many politicians are pleased when the general public gets involved in political issues.
- 52.a. Most teachers encourage students to learn more about course material than is contained in textbooks and lectures.
- b. Many teachers feel that students do not need to supplement course material.

II. Supporting vs. Rejecting When Difficulty Encountered.

- 2.a. Luckily, most teachers are more than willing to help students who are having difficulty with their school work.
- b. Unfortunately, most teachers "look down their noses" at students who have difficulty with their school work.
- 7.a. Most employers feel there is little to be learned from mistakes and are willing to fire or at least reprimand employees who have fouled up several assignments.
- b. Most employers feel that people learn from their mistakes and are eager to help their employees who find certain assignments difficult.

- 12. a. Most high school principals would prefer that unwed mothers not be allowed to attend regular classes.
- b. Most principals would encourage unwed mothers to finish high school in regular classes.

- 17. a. Most politicians feel that the primary function of prisons should be rehabilitation.
- b. Most politicians feel that the primary function of prisons should be to remove criminals from society.

- 22. a. One of the worst things a job applicant could admit to is having undergone psychiatric treatment.
- b. Most employers have no qualms about hiring former psychiatric patients.

- 26. a. Few policemen would encourage a former juvenile delinquent to consider a career in police work.
- b. Policemen generally agree that a reformed juvenile delinquent would make a good policeman.

- 31. a. An employer would probably hesitate to promote a member of Alcoholics Anonymous to a position of great responsibility.
- b. Most employers would not think twice about promoting a member of Alcoholics Anonymous to a position of great responsibility.

- 36. a. Regardless of his prison behavior, an ex-convict would have trouble getting his prison warden to recommend him for a job.
- b. Most wardens support job-placement services for rehabilitated criminals.

- 41. a. When you don't understand a class assignment, it is generally best to ask another student for advice rather than asking the teacher.
- b. On difficult class assignments, students should turn to their teachers for assistance.

- 46. a. When an employee has difficulty meeting a deadline, most employers are willing to extend the deadline.
- b. An employee is likely to be criticized for not meeting a deadline.

- 50.a. Most high school principals would welcome the opportunity to have a former drug user involved in their drug education program.
 - b. Most high school principals would reject the idea of involving a former drug user in a drug education program.
-
- 53.a. Many employers are willing to hire ex-convicts.
 - b. Few employers are willing to hire ex-convicts.

III. Positive vs. Negative Reinforcers.

- 3.a. The problem with most professors is that they are unfriendly toward students.
 - b. Many professors make an effort to be nice to students.
-
- 8.a. In most cases, it is best to avoid social contact with your boss.
 - b. Most employers are pleasant to talk to at parties and other social gatherings.
-
- 13.a. Most employers would rather compliment their employees than chew them out.
 - b. Unfortunately, many employers ignore their employees until they make a mistake.
-
- 18.a. Many teachers are so sarcastic I try to avoid them.
 - b. It is pleasant to have a coke with a teacher.
-
- 23.a. Most teachers usually don't care if their courses are boring.
 - b. Many teachers try to make their lectures interesting.
-
- 27.a. Most policemen enjoy giving tickets, even for a minor offense.
 - b. Most policemen would give a warning ticket for a minor offense.
-
- 32.a. The laws in this country make it difficult for a person to stay out of trouble.
 - b. It is easy for a person to abide by the laws of this country.

- 37.a. Most principals spend too much time punishing their students.
- b. Most principals are obviously proud of their students.
- 42.a. Too much punishment takes place in high schools today.
- b. Most students enjoy their years in high school.
- 47.a. Many professors would rather give good grades than poor grades.
- b. Most professors would rather give poor grades than good grades.
- 51.a. Most policemen chose their jobs because they like to punish people.
- b. Policemen are motivated to choose their jobs because they believe in law and order.
- 54.a. Army officers are generally liked by their men.
- b. Enlisted men avoid their commanding officers when possible.

IV. Predictable vs. Unpredictable Standards.

- 4.a. When it comes to grades, most teachers are hard to figure out.
- b. Most teachers are clear regarding the work they expect for a student to earn a course grade of "A".
- 9.a. Most congressmen show consistency in their votes on political issues.
- b. Examining a congressman's voting history is no help when you are trying to predict how he will vote in the future.
- 14.a. You can be sure that you will get a ticket if a policeman sees you run a red light.
- b. If a policeman sees you run a red light, whether or not you get a ticket will depend on what kind of mood he is in.
- 19.a. Principals are inconsistent in their disciplinary practices.
- b. Principals are consistent in their disciplinary practices.

- 28.a. The best way to stay out of trouble in class is to save misbehavior for days when your teacher is feeling well.
- b. Unfortunately for high school students, they can be certain they will be punished if they misbehave in class.

- 33.a. A policeman is more likely to give a ticket to a shabily dressed person than to a well dressed person.
- b. Policemen give tickets to speeders, regardless of what they look like.

- 38.a. Even though an employer criticizes an employee on a particular day, there are other days when identical performances are acceptable.
- b. When an employer criticizes an employee's performance, the employee should take this warning seriously.

- 43.a. Employers often give raises to workers, regardless of their performance.
- b. It is a rare occasion when an employer gives a raise to a poor worker.

V. Acting Upon Issue Oriented Reason vs. Arbitrary Rule.

- 5.a. Most teachers will extend the deadline for a term paper if your excuse is reasonable.
- b. Unfortunately, most teachers won't listen to your reasons for turning in a late paper.

- 10.a. Many principals punish misbehaving students without considering the reasons for their misbehavior.
- b. Most principals investigate the circumstances preceding misbehavior in order to discipline effectively.

- 15.a. Most of the rules a high school student must obey are designed to make sure the student knows who is in control.
- b. High school rules are inforced in order to help the school provide an adequate learning environment.

20. a. Many traffic court judges refuse to grant poor people's reasonable requests for fine reductions.
b. If requested to do so, many traffic court judges will reduce fines they levy on poor people.
24. a. Most policemen will enforce laws which are outdated.
b. Most policemen overlook violations of outdated laws.
29. a. After making a mistake, the best thing for an enlisted man to tell his commanding officer is "I have no excuse Sir!"
b. Most commanding officers are interested in an enlisted man's reason for making a mistake.
34. a. Most army officers would agree that regardless of the situation, an enlisted man should obey the army's rules and regulations.
b. When appropriate, many army officers will bend the rules in order to protect a worthy enlisted man.
39. a. Regardless of his personal opinion of a proposed Bill, most congressmen will vote with the majority of his party.
b. If a congressman does not like a proposed Bill, he probably won't hesitate to vote against it.
44. a. Most teachers realize that students are tired toward the end of the school day and allow more misbehavior than during the morning classes.
b. Most teachers fail to consider mitigating circumstances when they discipline students.
48. In a city with a law against using sirens, an ambulance driver with a dying passenger
a. probably won't be ticketed by a policeman.
b. can be almost certain he will be ticketed by a policeman.

Appendix E

The directions for the subjects were presented as follows:

You are about to take two tests. One is a questionnaire to find out the way in which certain important events in our society affect different people. The other is a questionnaire to find out how students feel about certain important people. Please answer the items on page one before continuing to page two and so on.

Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you are concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers. Put an X over the letter of the statement with which you most agree. Do not open the booklet until you are told to do so.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice.

In some instances, you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

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