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Patricia Taglione

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A STUDY OF THE RELATIONSHIP BETWEEN
LOCUS OF CONTROL AND THE USE OF "I-STATEMENTS"
(TITLE)

BY

PATRICIA TAGLIONE

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF ARTS

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

1978
YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING
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ABSTRACT

Gestalt therapy theory considers speech to be a reflection of one's personality, and consequently psychological adjustment or maladjustment is expected to be manifested in one's speech habits (Levitsky & Perls, 1970; Passons, 1975). The use of personal pronouns is an indicator of the psychological distance taken from one's own feelings and actions. Healthy speech, or speech that is integrated with one's feelings and actions, involves the use of the first person singular when referring to self. Working with people to change speech patterns (changing "it-statements" and "you-statements" to "I-statements") may help an individual integrate his speech with his feelings and actions and to assume responsibility for them. If this is true, people who frequently use "I-statements" would tend to assume responsibility for their actions more than people who do not use "I-statements" as frequently.

The literature concerning locus of control indicates that internally controlled individuals demonstrate a greater tendency to accept responsibility for their behaviors (Davis & Davis, 1972; Krovetz, 1974; Phares, Wilson, & Klyver, 1971) and are better psychologically adjusted (Phares, 1976) than externally controlled individuals. Consequently, if use of "I-statements" demonstrates a tendency to assume responsibility

for one's behavior and indicates better psychological adjustment, internally controlled individuals would be expected to use "I-statements" more frequently than externally controlled individuals.

The present study investigated the relationship between internal locus of control and the use of "I-statements." The hypothesis of this study stated that there is a positive correlation between internal locus of control and the use of "I-statements." Fifty-nine graduate and undergraduate students from Charleston, Illinois and Columbus, Ohio were administered the Rotter Internal-External Locus of Control Scale. To elicit representational personal/social, academic, and family information the subjects were then interviewed by a trained interviewer on these three topic areas. There were a total of twelve questions--four questions on each of the three topic areas. Each topic area included two positive questions and two negative questions. The percentage of "I-statements" used by each subject in response to each question was then computed. The Pearson product-moment coefficient of correlation ($r = .10$, $p = n.s.$) and the Spearman rho coefficient ($Rho = .04$, $p = n.s.$) computed for this study were non-significant, indicating no significant correlation between internal locus of control and use of "I-statements." Implications and limitations of the study were discussed.

Gestalt therapy theory considers speech to be a reflection of one's personality, and consequently psychological adjustment or maladjustment is expected to be manifested in one's speech habits (Levitsky & Perls, 1970; Passons, 1975). The use of personal pronouns is an indicator of the psychological distance taken from one's own feelings and actions. Healthy speech, or speech that is integrated with one's feelings and actions, involves the use of the first person singular when referring to self. For example, healthy speech would be indicated by the sentence "I feel bad" ("I-statement") as opposed to "It feels bad" ("it-statement") or "you feel bad" ("you-statement") when a person is referring to a bad feeling that he is experiencing. In this way the individual acknowledges personal responsibility for his behavior and feelings and makes the self the locus of responsibility, instead of placing the responsibility for the experience outside the self (Alban & Groman, 1976). Working with people to change speech patterns (changing "it-statements" and "you-statements" to "I-statements") may help an individual integrate his speech with his feelings and actions and to assume responsibility for them. If this is true, people who frequently use "I-statements" would tend to assume responsibility for

their actions more than people who do not use "I-statements" as frequently.

According to Rotter (1966), consistent individual differences exist among individuals in the degree to which they are likely to attribute personal control to reward in different kinds of learning situations. When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the individual interprets an event in this way, we psychometrically label that individual as externally controlled. If the person perceives that the event is contingent upon his own behavior or his own relative impact on the environment, we psychometrically label the person as internally controlled.

The literature concerning external and internal control or locus of control indicates that internally controlled individuals demonstrate a greater tendency to accept responsibility for their behaviors, are better psychologically adjusted than externally controlled individuals, and have certain other socially desirable variables.

Davis and Davis (1972) studied both success and failure situations and found that internally controlled individuals are more inclined to accept responsibility for their behaviors than externally controlled individuals are. Krovetz (1974) found that subjects form attributions to account for their successes and failure that are entirely congruent with their locus of control as determined by the Rotter Internal-External Locus of Control Scale (I-E Scale). Internals emphasized skill as the cause of their successes and failures and externals emphasized chance. In a study conducted by Phares, Wilson and Klyver (1971) internals were significantly less prone than externals to place blame outside themselves following failure when there were no externally distracting conditions. Thus, internals seem to take more responsibility for their behavior than externals do.

Concerning psychological adjustment, externals have scored higher on measures of neuroticism, such as the Eysenck Personality Inventory (Feather, 1967a; Lichtenstein & Keutzer, 1967; Platt, Pomeranz, & Eisenman, 1971; Shriberg, 1972). Externals have also been found to be less adjusted than internals on projective measures (Hersch & Scheibe, 1967; Johnson, Ackerman, Frank, & Fionda, 1968), rating scales (Erikson & Roberts, 1971) and the Cornell Index (Platt & Eisenman, 1968).

Internality has been associated with greater ego-strength, as measured by Barron's (1953) Ego-Strength Scale (Shybut, 1970; Snow & Held, 1973), the Id-Ego-Superego Test (Bortner, 1964) and the K Scale of the MMPI (Burnes, Brown, & Keating, 1971; Goss & Morosko, 1970). Internals have higher self-esteem (Fitch, 1970), greater self-acceptance (Burnes, Brown, & Keating, 1971; Hersch & Scheibe, 1967), more positive self-images (Midlarsky, 1971; Wall, 1970) and less discrepancy between self- and ideal-self descriptions (Hersch & Scheibe, 1967) than externals. Warehime and Foulds (1971) reported a relationship between internality and self-actualization with female subjects. On the Adjective Checklist, internals are more likely to describe themselves as active, striving, achieving, powerful, independent, and effective (Hersch & Scheibe, 1967).

There is also evidence to support the belief that externals have greater anxiety than internals do (Bowers, 1968; Goss & Morosko, 1970; Hersch & Scheibe, 1967; Hountras & Scharf, 1970; Levenson, 1973; Lichtenstein & Keutzer, 1967; Platt & Eisenman, 1968; Powell & Vega, 1972; Ray & Katahn, 1968; Snow & Held, 1973; Strassberg, 1973; Watson, 1967), although some studies have failed to verify this (Berman & Hays, 1973; Gold, 1968; Phares, Ritchie, & Davis, 1968). Studies by Butterfield (1964) and Feather (1967b) suggest that externals manifest debilitating anxiety while not exhibiting much in the way of facilitating anxiety. Even though Watson (1967) found that

externals have more debilitating anxiety, he found no difference between internals and externals in facilitating anxiety. In a study of Houston (1972) internally controlled and externally controlled subjects did not differ in reports of anxiety in stressful situation, but internally controlled subjects did show greater physiological responses indicative of anxiety than do externally controlled subjects.

Internality seems to be associated with a tendency to use repression and denial as defenses against anxiety (Wennerholm, 1974). Internals appear to forget or ignore failures on a task or other negative feedback (Gale, 1969). The works of Burnes, Brown, and Keating (1971) and Hersch and Scheibe (1967) both suggest that internals less often admit to difficulties or inadequacies. However, they may experience more guilt (Johnson, Ackerman, Frank, & Fionda, 1968) and be more self-evaluative (Jones & Shrauger, 1968). Turner (1971) has also reported a tendency for internals to use denial and repression in the resolution of conflicts. On a measure of repression-sensitization, internals tend to be "repressors" while externals tend to be "sensitizers" (Altrocchi, Palmer, Hellman, & Davis, 1968; Schriberg, 1972; Tolor & Reznikoff, 1967).

Efran (1963), Lipp, Kolstoe, James, and Randall (1968), and Phares, Ritchie, and Davis (1968) found that

an external belief system seems to allow a greater willingness to admit threatening stimuli to awareness or to report such awareness. Externality appears to be associated with a tendency to present oneself as anxious and in need of help. For example, Burnes, Brown, and Keating (1971), Goss and Morosko (1970), and Snow and Held (1973) found a significant positive correlation between externality and scores on the F scale of the MMPI. In the study of Phares, Ritchie, and Davis (1968) it was expected that externals would have less need to deny unfavorable personal information and would, therefore, recall more of the unfavorable data, even though under much less personally threatening circumstances, internals were found to recall information better than externals (Phares, 1968; Seeman, 1963; Seeman & Evans, 1962). As expected, externals were able to recall more of the unfavorable data (Phares, Ritchie, & Davis, 1968). Burnes, Brown, and Keating (1971) found a significant negative correlation between externality and scores on the MMPI Hysteria Scale (often considered a measure of denial). A person may describe himself as an external even though he acts as an internal, as a defense against threatened loss of self-esteem from possible failure experiences. This "defensive externality" (Davis, 1970) may be seen as a form of rationalization in which the individual avoids responsibility

for the failures or negative reinforcements which he anticipates (Phares, Ritchie, & Davis, 1968). Self-esteem is maintained by projecting blame for one's failure onto external sources (Hamsher, Geller, & Rotter, 1968; Davis, 1970; Rotter, 1966). Other studies have suggested that externals may employ the defenses of projection (Turner, 1971) and escapism (Baker, 1971) more frequently than do internals.

A number of people have suggested the possibility that there may be externals who verbalize an external orientation (Phares, Ritchie, & Davis, 1968; Rotter, 1966), but who, when placed in structured performance situations, behave more like internals. In an informal survey of studies carried out by Phares, Ritchie, and Davis (1968), between 14 percent and 26 percent of the externals behaved more like internals as evidenced by nontest behavioral data or performances equal to or superior to the mean of internals. The results of a study by Davis (1970) suggest that "defensive external " subjects, that is subjects who have an external score on the I-E Scale and a high score on an action-taking questionnaire, will behave more like internals in situations in which overt action by each individual might lead to reinforcement.

Hochreich (1968) has argued that subjects who score high in externality but low in trust may be espousing a characteristic verbal defense. These would be people who are ambitious but who habitually utilize blame projection to account for failure and in that sense can be regarded as defensive externals. Hamsher, Geller, and Rotter (1968) found that externality in males correlates significantly with lack of trust. Externals were found to show a proclivity for violating experimental instructions while internals did not in a study by Miller and Minton (1969). Low-trust externals as compared to high-trust externals behaved in a manner similar to the way internals have been shown to behave in a study by Hochreich (1968). This finding was true only for males, however. In a later study by Hochreich (1968) it was found that defensive externals attributed less responsibility to story heroes under failure conditions than congruent externals and internals. This difference was most pronounced when failure occurred in achievement situations. Again, these findings were true for males but not for females. Also, in agreement with findings by Hersch and Scheibe (1967), male externals were found to say more unfavorable things about themselves than male internals, and male defensive externals represented an extreme subgroup within the larger group of male externals.

The belief that externals have a greater willingness to admit threatening stimuli to awareness and use less denial than internals suggest the defensive potential that an external locus of control affords by attributing the cause of things to forces outside one's control (Phares, 1976). Further evidence of the defensive potential that an external belief system offers is demonstrated in studies by Phares (1971) and Phares and Lamiell (1974). In the first study by Phares (1971) externals, more than internals, devalued the tests on which they failed. In the second study (Phares and Lamiell, 1974) externals preferred subtests that provided them a kind of built-in rationalization for any subsequent failure.

In some ways the greater willingness of externals to pay attention to threatening material seems to suggest less defensiveness on their part. However, the evidence generally suggest that maladjustment is related to a tendency to respond to threatening stimuli. Thus, people who are open about their anxieties, fears, or pathologies are more likely to show up in psychiatric populations or to be otherwise regarded as anxious or maladjusted. The use of a more denying approach seems to characterize the less anxious or better adjusted individual. In the repression-sensitization literature, repression or denial is generally related to

better adjustment. This would be consistent with better adjustment in internals (Phares, 1976).

In addition, although internals seem to use more repression and denial of their anxiety, they are more likely to engage in action-oriented solutions to problems and to exhibit constructive reactions to frustration (Butterfield, 1964; Gale, 1969; Phares, Ritchie, & Davis, 1968). On the other hand, while externals may be more willing to admit anxiety, they are more likely to engage in self-defeating behavior, passivity, and non-constructive frustration reactions (Butterfield, 1964; Rotter, 1966).

There is also data to support the belief that schizophrenics are more externally oriented than the normal population (Cromwell, Rosenthal, Shakow, & Zahn, 1961; Harrow & Ferrante, 1969; Smith, Pryer, & Distefano, 1971). Shybut (1968) found that long-term, severely disturbed patients were significantly more external than short-term moderately disturbed individuals. In a study by Lottman and DeWolfe (1972) process schizophrenics were more external than reactive schizophrenics. Fontana, Klein, Lewis, and Levine (1968) found that schizophrenic patients who wished to impress others that they were healthy were more internal than those who wanted to convince others that they were "sick." Phares (1976) maintains that extreme pathology is related to greater externality.

Williams and Nickels (1969) reported that externality is related to suicide-proneness, while Goss and Morosko (1970) and Snow and Held (1973) report a relationship between externaltiy and high scores on self-report measures of depression. Abramowitz (1969) found that externals report more feelings of depression and anger.

Investigating affective states, Warehime and Woodson (1971) found that internals reported significantly more positive affective states than externals. In a study by Williams and Vantress (1969) a low but positive relationship was found between externality and hostility in college students.

Harrow and Ferrante (1968) found that a group of hypomanic patients were extremely internal when admitted to the hospital. In studies by Distefano, Pryer, and Garrison (1972) and Goss and Morosko (1970) an alcoholic sample produced I-E scores that were significantly more internal than Rotter's (1966) general norms. The results of Berzins and Ross' study (1973) showed that opiate users achieved significantly more internal I-E scores than the comparison group of college students. On the other hand, Palmer (1971) found that hospitalized alcoholics were more external than other psychiatric patients and the alcoholics whose scores were most internal in the study by Goss and Morosko (1970) reported the least anxiety,

depression, and clinical pathology as measured by the MMPI. The results of the studies by Berzins and Ross (1973), Distefano, Pryer, and Carrison (1972), Goss and Morosko (1970), and Harrow and Ferrante (1968) may suggest that these subjects have an unrealistic degree of confidence in their ability to cope successfully with environmental difficulties, by the use of alcohol, drugs, or other means.

Berzins and Ross (1973) suggest the following:

" . . . the present study . . . suggests that internal control can additionally be conceptualized as a consequence or by-product of substance abuse. Perhaps a term such as 'pseudo-internality' should be used to distinguish drug-engendered internality from its conventional, socially learned counterpart" (pp. 89-90).

Although there are some contradictory findings, the majority of the data based findings suggests that internal beliefs are associated with better adjustment, whether the criterion is anxiety or membership in a psychiatric category (Phares, 1976).

Several personality variables have been associated with internally oriented persons. It has been found that internally oriented subjects are superior in cognitive processing (DuCette & Wolk, 1973; Phares, 1968; Ude & Vogler, 1969), are more personally effective than externals (Brown & Strickland, 1972; Felton, 1971; Hersch & Scheibe, 1967; Phares, 1965; and Phares, Ritchie, & Davis, 1968),

are more inclined to help another person in a face-to-face context even when they can expect little material gain for doing so (Midlarsky, 1971; Midlarsky & Midlarsky, 1973), see not only themselves but also others as being responsible for their own circumstances (Phares & Lamiell, 1975 and Phares & Wilson, 1972), prefer to attain skill-achievement outcomes or attach greater value to them than chance activities or goals (Gold, 1967; Julian & Katz, 1968; Lefcourt, Lewis, & Silverman, 1968; Rotter & Mulry, 1965; Rychman, Rodda, & Stone, 1971; Rychman, Stone, & Elam, 1971), adjust aspirations upward after success and downward after failure (Battel & Rotter, 1963; Feather, 1968; Lefcourt Ladwig, 1965), and experience greater satisfaction than externals following success on very difficult tasks and are more threatened than externals by failure on very easy tasks (Karabenick, 1972).

There is also evidence to support the beliefs that internally oriented subjects attempt to gain more control over their life situations than externals do (Seeman & Evans, 1962), are more knowledgeable, at least in terms of personally relevant information, pay more attention to relevant cues in the situation than externals do (Seeman, 1966, 1967), and exert greater effort in controlling themselves than externally oriented subjects (James, Woodruff, & Werner, 1965; MacDonald, 1970; Straits & Sechrest, 1963).

The results of studies by Biondo and MacDonald (1971), Crowne and Liverant (1963), Doctor (1971), Getter (1966), Gore (1962), Hjelle and Clouser (1970), Jones and Shrauger (1968), Lefcourt (1967) Ritchie and Phares (1969), Ryckman, Rodda, and Sherman (1972), Snyder and Larson (1972), Strickland (1970), suggest that externals appear readily persuasible, conforming to what they believe is expected of them, and accepting of information or other sources of influence and that internals conform or move their attitudes in the direction of the applied persuasion less often than externals do. When internals do conform it appears to be on the basis of the merits of the message. According to these studies, majorities, peer influence, prestige of communicators, or the social reinforcements available in the situation all affect internals to a much lesser extent than they affect externals. These studies also suggest that there may be an active resistance to influence, particularly subtle influence, on the part of internals (Phares, 1976). In a study by Sherman (1973) internals showed greater attitude change following the writing of counterattitudinal messages, while externals showed the greatest change after reading the persuasive message. Perhaps when induced to behave in a manner that produced cognitive dissonance, internals felt a greater responsibility for their behavior and thus exhibited greater attitude change as a way of reducing cognitive dissonance. However,

since externals believed their behavior was induced by forces outside themselves, little dissonance and little consequent attitude change occurred (Phares, 1976).

Internal beliefs have been associated with cautious and less risky behavior (Julian, Lichtman, & Ryckman, 1968; Liverant & Scodel, 1960) participation in socio-political action (Gore & Rotter, 1963; Rosen & Salling, 1971; Strickland, 1965), academic achievement in children (Brown & Strickland, 1972; Buck & Austrin, 1970; Cellura, 1963; Chance, 1965; Clifford & Cleary, 1972; Lessing, 1969; McGhee & Crandall, 1968; Messer, 1972; Shaw & Uhl, 1971; Solomon, Houlihan, Busse, & Parelus, 1971), and willingness to delay gratification (Bialer, 1961; Mischel, Zeiss, Zeiss, 1974; Walls Smith, 1970). However, these findings are questionable since there are studies that have reported contradictory findings concerning the cautious and less risky behavior of internals (Baron, 1968; Joe, 1971; Strickland, Lewicki, Katz, 1966). There are also studies that failed to support the findings relating internal locus of control with participation in socio-political action (Evans & Alexander, 1970; Geller & Howard, 1972; Gootnick, 1973; Hamsher, Geller, & Rotter, 1968), academic achievement (Eisenman & Platt, 1968, Hjelle, 1970; Katz, 1967; Warehime, 1972), and willingness to delay gratification (Walls & Miller, 1970; Zytoskee, Strickland, & Watson, 1971).

In summary, the literature suggests that not only is internal locus of control associated with taking responsibility for one's actions and better psychological adjustment, but it is also associated with many socially desirable personality variables (Phares, 1976).

"I" language is a Gestalt therapy technique for increasing a client's responsibility and involvement (Levitsky and Perls, 1970). Rather than using the third person to refer to one's body or one's acts, the client is asked to restate his comment in the first person. For example, "It is trembling" becomes "I am trembling" (Bornstein, 1974).

The use of "I" language and self-reference affect statements was investigated by Alban and Groban (1976). They found that negative stress interacting with medium level anxiety neurotics significantly increased distantiation (use of pronouns other than "I" when the speaker is referring to self) above baseline. Alban and Groman (1976) maintain that according to Gestalt therapy theory, pronoun usage is an indicator of the psychological distance taken from one's own feelings and actions. When a person's speech is distantiated, he is placing the locus of responsibility of experience outside the self, and this is unhealthy.

Bornstein (1974) proposed a technique that combines the behavioral technique of induced anxiety with the Gestalt use of "I" language to help clients who are unable to define what's bothering them. He stated that "I" language-induced anxiety has been effective in overcoming some

initial locks to diagnosis and therapy, and he cited two case studies to support this.

A number of studies have found that different techniques on the part of the interviewer have increased subject's use of self-reference affect, that is, statements beginning with first person pronouns and referring to feelings or emotions. Merbaum (1963) found that use of reflection was more effective in conditioning both positive and negative affective self-reference statements than noncommittal or mild positive treatment. In a study by Merbaum and Southwell (1965) paraphrasing (rephrasing the feeling expressed by the subject) produced a greater number of self-reference affect statements than echoing (rephrasing the content expressed by the subject) or using a non-affect control condition. Interpretation by the interviewer of the subject's statements produced more self-reference affect on the part of the subject than use of restatement in a study by Auerswald (1974). Use of the words "Uh-Hmm" and paraphrasing (supplying a synonym for feeling words) by the interviewer resulted in the highest number of self-reference affect statements by the subject in Hoffnung's (1969) study. Powell (1968) found that open self-disclosure by the interviewer produced a greater number of self-reference affect statements (whether expressing positive or

negative affect) on the part of the subject. When subjects were reinforced for using self-reference statements of positive affect in a study by Dicken and Fordham (1967), the number of these self-reference statements of positive affect increased. Salzinger and Pisoni (1960) also found that verbal reinforcement by the interviewer increased the frequency of the uttering of affect statements by the subject. When teenagers were exposed to a model using self-reference affect statements, the number of these statements increased significantly, but they did not increase in a control group that was not exposed to the model (Myrick, 1969). Barnabei (1974) found no significant increase in the use of self-reference affect statements by subjects when open-ended probing, confrontation or reflection was used indiscriminately.

Thus, the literature suggests that "I" language is indicative of healthy psychological adjustment and can be effective in therapy. Although many techniques have been used by interviewers to increase the number of self-reference affect statements produced by the client, there is still doubt as to which one elicits self-reference affect statements more frequently.

To date, there has been no research done attempting to relate the use of "I-statements" to locus of control. The literature concerning locus of control indicates that internally controlled individuals demonstrate a greater tendency to accept responsibility for their behaviors than

do externally controlled individuals, are better psychologically adjusted, and manifest certain other socially desirable personality variables. If internally controlled individuals are found to use more "I-statements" than externally controlled individuals, the Gestalt therapy theory that "I-statements" are indicative of a tendency to accept responsibility for one's actions and feelings and are indicative of better psychological adjustment can be supported. Thus, the theoretical hypothesis of this experiment states that there is a positive correlation between the frequency of the use of "I-statements" and internal locus of control.

Method

Subjects

The subjects were fifty-nine undergraduate and graduate students who volunteered for this experiment. Twenty-seven were from Charleston, Illinois (twenty females and seven males) and thirty-two were from Columbus, Ohio (twelve females and twenty males). The subjects ranged in age from 18 to 25.

The experimenter solicited subjects from psychology classes at Eastern Illinois University by going into the classes, giving a brief description of the experiment (see Appendix A), and asking for volunteers. To increase sample size, a reasonable similar population was solicited from the student government office at Ohio State University.

The same brief description was given (see Appendix A) and volunteers were requested.

Apparatus

The Rotter Internal-External Locus of Control Scale is a 29-item, forced choice scale developed by Rotter (1966) to assess the individual's locus of control expectancies. Six filler items are included to make the purpose of the test somewhat ambiguous. The remaining 23 items are keyed in the external direction, so the score is the total number of external choices (Wennerholm, 1974).

Item analysis and factor analysis have shown that the I-E Scale has a high internal consistency for an additive scale. Also, test-retest reliability of the 29-item scale is consistent and acceptable varying between .49 and .83 depending upon the time interval and the sample involved. In support of its criterion oriented validity, the I-E Scale correlates with other measures of assessing the same variable, such as questionnaires, Likert scales, interviews, and ratings from a story-completion technique. In addition, the I-E Scale correlated with behavior criteria, that is, differences in behavior for individuals above and below the median of the scale were able to be predicted from scores on the I-E Scale.

The discriminant validity of the Rotter Internal-External Control Scale was shown by its low relationships with intelligence and political liberalness (Rotter, 1966). However Cone (1971) found significant correlations between I-E Scale scores and Edwards Social Desirability Scale scores. Joe (1972) reported data to indicate that thirteen of the internal alternatives on the I-E Scale were judged by subjects as significantly more socially desirable than the corresponding external statements. Thus, the I-E Scale is probably not entirely free from the effects of social desirability.

Also, Nowicki and Duke (1974) maintain that the Rotter I-E Scale is inappropriate for noncollege populations. This is due to the idea that the scale is difficult to read and has a forced-choice format.

Although the Rotter Internal-External Locus of Control Scale has its limitations, it has been so widely used, especially with college populations, that the scale is very much a known quantity as compared to more recent versions. Also, the volume of validity data for the I-E Scale is unsurpassed by the volume of data for other scales designed to measure internal-external locus of control (Phares, 1976). It is for these reasons and the fact that the subjects in this experiment consisted of college students that the Rotter Internal-External Locus of Control Scale was chosen for use in this experiment.

Procedure

Fifty-nine undergraduate and graduate students from Charleston, Illinois and Columbus, Ohio were subjects for this experiment. The experimenter solicited subjects from psychology classes at Eastern Illinois University by going into the classes, giving a brief description of the experiment (see Appendix A), and asking for volunteers. To increase sample size, a reasonable similar population was solicited from the student government office at Ohio State University. The same brief description was given (see Appendix A) and volunteers were requested.

Each subject was administered the Rotter Internal-External Locus of Control Scale (I-E Scale) and then interviewed a week later to control for a sensitization testing effect.

To elicit a representative sample of pronoun usage an interview situation was used. The subjects were interviewed by one of four trained female interviewers on the following three topic areas: academic (A), family (F), and personal/social (PS). On each topic there were four questions. Two of the questions on each topic were positive in nature and the other two were designed to focus on negative content. For selection of the positive and negative questions, eight raters (four graduate students in

clinical psychology and four psychology professors) rated three 16-question sets of stress questions as to their negative-positive impact on a student. A Likert Scale was provided with 1 being least positive or negative, 5 being most positive or negative, and 3 being neutral. For each set the two questions with the highest negative rating and the two questions with the highest positive rating were selected as interview questions. The mean ranks for each of the two questions selected from each category (A+, A-, F+, F-, P/S+, P/S-) were 4.4, 4.4, 4.4, 4.8, 4.0, 3.8, 5.0, 4.4, 3.9, 4.5, +.5, and 4.1 respectively).

The same order of questions was used for each subject (A+, PS-, F+, A-, PS+, F-, A-, PS+, F-, A+, PS-, F+). The interview was started with a positive academic questions and was ended with a positive family question. This was done in order to start and end the interview with a non-threatening question. The academic topic was thought to be the most neutral topic area and thus was chosen to begin the interview in a non-threatening, neutral way.

These instructions were given to the subjects before the interview: "In order to match your interview with your test, please give me the same initials that you put on your questionnaire. The purpose of this experiment is to investigate the reactions of college students to various situations. It is important to provide an answer for every question. Your answers will be tape recorded so I won't have to write them down. There are no right or wrong answers, and I

won't be discussing your responses with you. For each question let me know when you have completed your response. Do you have any questions?" At the end of the interview the subjects were debriefed as to the purpose of the experiment and asked not to divulge what had happened during the experiment until the results were made public by the experimenter.

The interviewers for this study were trained to criterion to insure standardized procedures. Since various studies have been done connecting the activity of the interviewer with increases in self-reference affect (Auerswald, 1974; Dicken & Fordham, 1967; Hoffnung, 1969; Merbaum, 1963; Merbaum & Southwell, 1965; Myrick, 1969; Powell, 1968; Salzinger & Pisoni, 1960), that is, statements in which the subject describes his feeling or temperament and in which he uses the pronouns--I, me, we, or us, the interviewers for this study used no interpretation, probing, paraphrasing, reflecting, or other verbal and nonverbal signs of acceptance or approval, such as head nodding or "Um-Hmm." The question was stated and if the subject hesitated or asked a question of the interviewer, the interviewer simply repeated the question for the subject. This was to control for the influence of the interviewer on the subject's use of "I-statements."

Each interview was tape recorded. The rules for dividing interviews into sentences according to Auld and White (1956) were used. Because the number of sentences varied in response to each question, in order to make appropriate comparisons an "I-statement" ratio was calculated for each question (the total number of "I-statements," that is, statements in which "I" is the subject of the main clause, over the total number of sentences with and without "I-statements") based on the "distantiation ratio" calculated in the study by Alban and Groman (1976).

Results

A Pearson product-moment coefficient of correlation was computed for scores on the Rotter Internal-External Locus of Control Scale (Rotter I-E Scale) and percentage of "I-statements" used by each subject. The coefficient of correlation was non-significant ($r = .10$, $p = n.s.$). There also appeared to be no significant trends (see Table 1). In addition, a Spearman rho coefficient of correlation was computed to further determine any significant correlations between scores on the I-E Scale and percentage of "I-statements." The Spearman rho coefficient was also non-significant ($Rho = .04$, $p = n.s.$). (See Table 2).

The mean number of percentage of "I-statements" was 70 with a standard deviation of 18 for the group.

Table 1

PEARSON PRODUCT-MOMENT CORRELATIONS FOR ROTTER I-E
SCORES AND PERCENTAGE OF "I-STATEMENTS" (N=59)

Total Percentage of "I-statements"	.10
Positive Questions	.00
Negative Questions	.18
Family Questions	.05
Academic Questions	.11
Personal/Social Questions	.08

Note: Based on percentage of "I-statements" used in
response to these questions.

Table 2

SPEARMAN RHO CORRELATIONS FOR ROTTER I-E SCORES
AND PERCENTAGE OF "I-STATEMENTS" (N=59)

Total Percentage of "I-statements"	-.04
Positive Questions	-.03
Negative Questions	.09
Family Questions	-.01
Academic Questions	.07
Personal/Social Questions	-.02

Note: Based on percentage of "I-statements" used in response to these questions.

Discussion

The purpose of this study was to investigate the relationship between internal locus of control and use of "I-statements." Since no significant correlation was found, the hypothesis was not supported. The results of this study may have been limited by the instrument used to assess locus of control, the Rotter Internal-External Locus of Control Scale. Since the I-E Scale is not free from social desirability (Cone, 1971) and since thirteen of the internal alternatives on the Scale have been judged to be more socially desirable than the corresponding external statements (Joe, 1972), it is possible that subjects may have chosen items considered internally oriented simply because they appeared more socially desirable, not because they really believed the items to be true. This could mean that there were subjects who scored as internals on the Rotter Scale, but would have scored as externals if they had selected items according to their beliefs rather than according to what they felt were socially desirable choices.

Also, the forced-choice format of the Rotter I-E Scale may have affected the results. Kleiber, Veldman, and Menaker (1973) found that when the twenty-three statement pairs of the I-E Scale were administered to two hundred nineteen undergraduates as forty-six separate items with a Likert-type format the originally paired items were relatively uncorrelated. Thus, subjects who scored in the external

direction or in the internal direction on the I-E Scale may not have been as external or as internal as their scores indicated. For example, a subject may have chosen the external item of a pair, because he felt that it was more true than the internal item of that pair. However, he may have felt that the internal item was true, also. The scoring method of the Rotter I-E Scale does not take this factor into account. The subject would simply be given a point for endorsing the external item and the fact that he also believed the internal item to be true to a certain degree would not be scored. Therefore, subjects may not have been as externally or as internally controlled as their score on the I-E Scale may lead one to believe.

The theory of "defensive externals" may have had an influence on the Rotter I-E scores in this study. According to Phares (1976) this theory states that there are externals who verbalize an external orientations, but who, when placed in structured performance situations, behave more like internals. This would mean that there may have been subjects in this study who scored in the external direction on the I-E Scale, but act as internals in their behavior, and thus should have been considered as internally controlled instead of externally controlled.

Since the average percentage of "I-statements" used by each subject was 70%, it is possible that the stem of the

question "What would your reaction be if . . . " elicited more "I-statements" than a subject would typically use if that stem were not used. It was originally thought that this stem would be more neutral than a stem that contained the pronoun "you" or the word "feeling" as in the stem "How would you feel . . . " used by Alban and Groman (1976) in their study. It was believed that the pronoun "you" would be more inclined to elicit the pronoun "I" from the subject since the two are direct opposites in contrast to use of the possessive adjective your. Also, the use of self-reference pronouns, especially "I" and "we" have been connected with feelings and affect in the literature concerning self-reference affect. Thus, it was felt that use of the word "feeling" or "affect" in the stem might elicit more "I-statements" from the subject. However, the possessive adjective "your" may have been close enough to the word "you" to elicit "I" responses.

The specific content of the questions used in this study may have had an effect on the results. The subject may have been able to readily identify with some of the questions as having recently happened to him or as having strong possibilities of happening to him in the near future. On the other hand, there may have been other questions to which the subject could not identify with at all, because he could not conceive of those situations happening to him.

Kanfer (1960) found that in a psychiatric interview any topic of great emotional impact that was anxiety-arousing and represented immediate and realistic problems in the subject's current interpersonal setting produced a higher verbal rate in subjects than a topic not immediately related to the subject's present emotional problems. Thus, it is possible that the relationship of a question to a subject's present experiences may have had an effect on the subject's use of "I-statements." Since 70% of the statements elicited from subjects were "I-statements," the majority of subjects may have identified with many of the questions and thus used more "I-statements" because the questions were related to their immediate situation, or the majority of subjects may have not been able to identify with many of the questions and thus used more "I-statements" because the questions were not related to their immediate situation and therefore, were not threatening to them. This last theory would agree with studies by Hastorf, Schneider, and Polefka (1970), Kite (1964), Shaver (1970), and Streufert and Streufert (1969) that people are more inclined to assume responsibility in positive situations than in negative (or threatening) situations. It would also agree with the study by Alban and Groman (1976) in which distantiation was found in mildly neurotic subjects under stress. Because of a lack of

identifying with the negative situations posed by the negative questions in this study, the subjects may not have been under any stress in replying to the negative questions and thus no distantiation (non-use of "I-statements" when referring to self) was found.

The order in which the questions were presented to the subjects may have influenced the use of "I-statements." This particular order may have elicited more "I-statements" from subjects than if another order had been used. For example, the positive academic question "What would your reaction be if you get the highest grade in the class on a test?" may have created a positive feeling in the subject which may have affected his responses to one or two questions following it. Thus, the use or non-use of "I-statements" in the following question could have been a response to this positive feeling instead of to the content of the following question.

Another factor which may have influenced the results of this study was the number of questions used to elicit a sample of speech behavior in subjects. Twelve questions may not have been enough questions to obtain a reliable representative sample of speech behavior in subjects.

The fact that some of the subjects were from Charleston, Illinois and some of the subjects were from Columbus, Ohio may have also affected the findings of this

study. There may have been differences between the two groups, and when these two groups were considered as one population, the differences may have confounded the results.

From the results of this study, one can conclude that there is no significant correlation between internal locus of control and use of "I-statements" with the sample tested. However, due to the limitations discussed previously, a similar study is suggested using a different device to assess locus of control. Another modification of this study which would help to increase the reliability and representativeness of the sample of speech behavior elicited and which would help to control for the influence of question order would be to use more interview questions and to randomize the order of these questions. The effect that different question stems have on the use of "I-statements" is another variable that needs to be investigated, along with the effect of sex on locus of control. It would be interesting to use a total female population, since the theory of defensive externality has not been shown to be as prominent in females as in males (Hamsher, Geller, & Rotter, 1968; Hochreich, 1968; Hochreich, 1973).

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APPENDIX A

Statement Used in Soliciting Volunteers

"I am a graduate student in clinical psychology, and I need volunteers to participate in a research project for my thesis. It would only involve taking a short written test and being interviewed, which all together should take about twenty to twenty-five minutes. Because of the nature of the experiment, I can't tell you anything more at this time, but if you're interested, the results of the experiment will be available to you."

APPENDIX B

INTERVIEW QUESTIONS

1. What would your reaction be if you graduate with a 4.00 average?
2. What would your reaction be if a good friend tells you that he/she can't trust you anymore?
3. What would your reaction be if your parents ask for your advice on something?
4. What would your reaction be if you flunk out of school?
5. What would your reaction be if someone comes up to you at a party and tells you that he/she has been wanting to meet you because he/she has heard so many nice things about you?
6. What would your reaction be if your family is killed in a car accident?
7. What would your reaction be if you are caught cheating on a test?
8. What would your reaction be if a good friend tells you how much he/she really values your friendship?
9. What would your reaction be if you learn that your father has become an alcoholic and beats your mother when he's drunk?
10. What would your reaction be if you get the highest grade in the class on a test?
11. What would your reaction be if your boyfriend/girlfriend breaks up with you?
12. What would your reaction be if your parents tell you how proud they are of you?