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## ATTRIBUTED FREEDOM, LOCUS OF CONTROL AND THE STIMULUS PERSON'S INTRINSIC AND EXTRINSIC MOTIVATIONS

A Dissertation Presented

Ву

Linda Diana Crinklaw

Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

June

1974

Social Psychology

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### ATTRIBUTED FREEDOM, LOCUS OF CONTROL AND THE STIMULUS PERSON'S INTRINSIC AND EXTRINSIC MOTIVATIONS

A Dissertation

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#### ABSTRACT

Steiner (1970) proposed that people attribute outcome freedom and decision freedom to other individuals on the basis of the attractiveness (net gain) inherent in their best alternative, and the comparative attractiveness of their two available choices, respectively. The present study sought to test these hypotheses by explicitly manipulating the net gain inherent in each of the options available to a stimulus person making a choice between two job opportunities. Specific measures were designed to assess attributions to the stimulus person of outcome freedom and decision freedom. The attractiveness of the two available alternatives was assessed in several ways.

In addition, an attempt was made to assess the effects of the attractiveness of an advisor, the sex of the subjects, and the subjects' locus of control perceptions (Rotter, 1966) on attributions of outcome freedom and decision freedom, and on perceptions of the net gain inherent in each available option. In an earlier study by deCharms, Carpenter and Kuperman (1965), internals on Rotter's (1966) Locus of Control Scale attributed more freedom to another individual than did externals. Furthermore, more freedom was attributed to a stimulus person who liked rather than disliked his advisor, and to someone who really wanted to choose one option because it corresponded to his values and ideals than to an individual whose alternatives involved only extrinsic rewards. Measures of attributed freedom similar to those of deCharms, Carpenter and Kuperman (1965) were also used in the present study.

The data supported Steiner's (1970) hypotheses concerning the antecedents of attributed outcome freedom and decision freedom. New avenues of research related to attributed freedom were also suggested by these data. The attractiveness of the stimulus person's advisor influenced the attractiveness of the job option he favored, while the internality (Rotter, 1966) of the subjects did not have any such effect. There was little support for the deCharms et al finding concerning intrinsic versus extrinsic rewards and attributed freedom. Internals attributed more freedom to the stimulus person than did externals only on measures very similar to those used by deCharms et al. There was some support for the deCharms et al finding concerning the likeability of the advisor and the freedom of the stimulus person.

Furthermore, exploratory multiple regression equation analyses suggested the existence of a third dimension of freedom, in addition to outcome freedom and decision freedom, that was tentatively defined as sense of personal control freedom. These analyses also suggested a conception of all measures of attributed freedom as judgments by subjects in which they weight one, two or three of the three dimensions of attributed freedom (i.e., outcome freedom, decision freedom, sense of personal control freedom).

#### TABLE OF CONTENTS

Certific	cate of Examination iii	i
ACKNOWLI	EDGEMENTS	
ABSTRAC <sup>-</sup>		/
		V
LIST OF	TABLES	K
GENERAL	PROBLEM	1
	Empirical Evidence Related to Steiner's (1970) Theory	3
		5
	The Present Experiment	7
	Major Experimental Hypotheses	8
METHOD .		1
	General Strategy	1
	Subjects	1
	Procedure	1
	Manipulation Checks	5
	Freedom Attribution Questionnaire	7
RESULTS		1
	Strategy of Analysis	1
	Manipulation Check for Variations in the Attractiveness of Each Alternative	2
	Attributions of Decision Freedom	8
	Sex Effects, Intrinsic-Extrinsic Motivations, and Attributed Decision Freedom	0
	Attributions of Outcome Freedom	2
	Intrinsic-Extrinsic Motivations and Attributions of Outcome Freedom	6

REFERENCES

86

88

#### LIST OF TABLES

TABLE		Page
1	Manipulation Check Items: Mean Attractiveness of Options Available to Adam Conrad	
2	Manipulation Check Items: Mean Attractiveness of Options Available to Adam Conrad	
3	Attributions of Decision Freedom	
4	Sex Differences in the Attribution of Decision Freedom	
5	Attribution of Freedom to Select or Reject Specific Options	. 33
6	Impact of Variations in Job Attractiveness on Ratings of Outcome Freedom: $\frac{F}{100}$ Ratios for Data Elicited by Questions 10 to 13	. 35
7	Attribution of Freedom to Accept Law Firm Job	. 37
8	Attribution of Freedom to Refuse Legal Aid Service Job	. 38
9	Attributed Outcome Freedom, Attractiveness of Advisor and Attractiveness of Job Options	. 41
10	Composite Measure: Attributed Residual Freedom to React as Advisor Wished	. 42
11	Semantic Differential Ratings of the Legal Aid Service Job	. 47
12	Attractiveness of Legal Aid Service Job Omitting Free Response Consequences	. 48
13	Attractiveness of Legal Aid Service Job Including Free Response Consequences	. 49
14	Locus of Control and Questions Similar to deCharms, Carpenter and Kuperman (1965)	. 52
15	Agreement that Adam Conrad would feel Completely Free to make his Own Decision in the Job Matter	. 53

TABLE		Page
16	Attribution of Nonspecific Freedom Felt in Making Choice	
17	Sex Differences in the Attribution of Freedom	57
18	Attribution of a Sense of Personal Control over Future to the Stimulus Person	59
19	Attractiveness of Adam Conrad's Character	61
20	Multiple Regression Equation Analyses Data	64
21	Multiple Regression Equation Analyses Data: Decision Freedom Questions	67

#### GENERAL PROBLEM

The extent of the freedom that people attribute to themselves and to others has recently been recognized as an important issue for empirical investigation and theoretical development. Steiner (1970) has surveyed many areas of psychological literature in which the attribution of freedom is theoretically relevant. According to this review, people do not infer attitudes and dispositions from the behaviors of an individual who lacks the freedom to act in other ways. Likewise, people tend not to retaliate aggressively against an aggressor who has acted with little freedom (Steiner, 1970). People sometimes take action to relieve themselves of too much freedom (Fromm, 1941), or to achieve more freedom from noxious circumstances (Blauner, 1964; Skinner, 1971; Brehm, 1966). The consequences of attributing freedom to others, and of the perceiver's own subjective state of feeling free in a particular situation, are matters of social importance. Attributed freedom may prove to be an important concept in social, clinical, educational and personality psychology.

Steiner (1970) developed a theory of the antecedents of attributed freedom in which he made a theoretical distinction between outcome freedom and decision freedom. Skinner (1971, pp. 32, 39) in his recent book also referred to both types of freedom but did not clearly conceptualize them. According to Steiner (1970), a person has outcome freedom when he feels he can afford the costs involved in obtaining the payoffs he desires. "If costs are more critical to the individual than the outcome they promote, or if the person lacks resources to incur the

required costs" (Steiner, 1970), he will not credit himself with outcome freedom. Hence, a person will feel that he has outcome freedom if he feels he can achieve, or has achieved, results which are much more positive than the effort and sacrifices involved. A perceiver will attribute outcome freedom to another person if he feels that this individual is enjoying attractive outcomes which are not negated by the inherent costs. According to Steiner (1970), outcome freedom equals the net gain one anticipates receiving from an activity or alternative. Net gain is assumed to equal  $\leq (V \times SP)$  - Cost, where V equals the valence of an anticipated payoff and SP equals the subjective probability that the payoff will be received. The symbol,  $\leq$ , indicates the summation of the (V x SP) values from each of the expected payoffs that are inherent in an option or alternative. Cost includes anticipated expenditures of time, energy or other resources, and the payoff values of other options that must be sacrificed if one elects to pursue the activity or alternative.

Decision freedom, on the other hand, is the volition a person believes he exercises when he decides whether or not to seek a specific outcome, or to seek one outcome rather than another (Steiner, 1970). According to Steiner (1970), a person will feel he has much decision freedom if the alternatives he considers are equal in attractiveness (<u>i.e.</u> net gain). However, if one alternative is much more attractive than the other, the choice will seem to be determined by external circumstances. The person involved will believe that he has little decision freedom. Likewise, the amount of decision freedom an observer will attribute to another person will depend upon the degree of net

gain inherent in the alternatives available to him. Persons will be seen as possessing much decision freedom if their two most attractive options are viewed as approximately equal in net gain. If one of their options seems to be much better than the others, little decision freedom will be attributed by an observer to other individuals. Research that deals explicitly with outcome and decision freedoms as differentiated concepts is needed to clarify the complex problem of the subjective feeling of freedom that human beings experience and attribute to others.

#### Empirical Evidence Related to Steiner's (1970) Theory

In three studies, Steiner, Rotermund and Talaber (in press) found that people attributed more real choice to a stimulus person when the alternatives available to him were approximately equal in attractiveness, <u>i.e.</u>, net gain, than when one option implied much more net gain than did the other. Harvey and his associates (Harvey and Johnston, 1971; Jellison and Harvey, in press; Harvey and Harris, in press) obtained very similar findings when the costs of the stimulus person's options, although ignored by the experimenters, were actually constant. These studies provide support for Steiner's (1970) construct, decision freedom. The amount of choice attributed by perceivers to another person is an inverse function of the discrepancy between the net gains of the two alternatives available to them.

Other research suggests that people sometimes attribute more freedom when available alternatives are unequal in attractiveness, rather than equal. Kruglanski and Cohen (1973) found that subjects attributed more freedom to a person who had written a proattitudinal

essay than to one whose essay was counterattitudinal. Bringle, Lehtinen and Steiner (1973) reported that more freedom was attributed to a rewarding agent who administered rewards that were not costly to himself than to an agent who administered rewards that were costly.

Together these two studies suggest that people who engage in behavior that is personally attractive to themselves are judged to be more free than those whose actions are less personally satisfying. These findings may be interpreted to say that the more attractive an individual is believed to find his activity, relative to other options, the greater freedom he is believed to experience. Such a conclusion contradicts Steiner's (1970) theory concerning the conditions under which maximum decision freedom is attributed, but is consistent with his description of the circumstances that favor the attribution of outcome freedom. According to Steiner (1970), an individual should seem to enjoy high outcome freedom when the valence of his chosen activity is high and the option he foregoes is not very attractive.

It should be noted that the studies cited in the previous paragraph examined attributions that were elicited after the stimulus person had made his choice and engaged in this preferred activity. Under these circumstances, it is reasonable to surmise that the subjects evaluated this person's freedom to do what he had, in fact, done (outcome freedom) rather than his initial freedom to choose between alternative activities (decision freedom). As Gerard (1967) has demonstrated, after a choice has been made, attention tends to be focused on the chosen alternative.

The research by Steiner, Rotermund and Talaber (in press) and

by Harvey and his associates (Harvey and Johnston, 1971; Jellison and Harvey, in press; Harvey and Harris, in press) that has supported Steiner's theory of decision freedom differs markedly from the studies by Kruglanski and Cohen (1973) and by Bringle, Lehtinen and Steiner (1973). The Steiner, Rotermund and Talaber (in press) study and those of Harvey examined attributions that were made before the stimulus person had reached his decision, and both asked their subjects questions concerning the amount of real choice available to that person. It seems probable that subjects who are asked explicit questions concerning decision freedom before a decision is reached render judgments that reflect their appraisals of decision freedom. However, subjects who are asked non-explicit questions and/or are asked questions after the stimulus person has reached his decision are likely to respond in terms of outcome freedom. The experiments of Kruglanski and Cohen (1973) and Bringle, Lehtinen and Steiner (1973) may fit into this second category.

A major aim of the present study was to investigate the impact of asking subjects various kinds of questions concerning the freedom of a stimulus person. Although all questions were asked before the stimulus person reached his decision, some were designed to elicit attributions of decision freedom, others dealt explicitly with freedom to accept specific options (outcome freedom), and still others may be interpreted as having called for either kind of attribution.

#### Other Variables

Steiner's (1970) formula is necessarily abstract. It does not provide a detailed description of the kinds of payoffs or costs that

may affect attributed freedom, nor does it deal with the effects of the observer's own dispositional qualities on the way he evaluates payoffs and costs. A study by deCharms, Carpenter and Kuperman (1965) suggests a technique for exploring some of these issues.

In the deCharms study, subjects read short vignettes in which one person was asked by another to do a task beyond the call of duty. A reward was promised to the stimulus person for his compliance. For example, an army private was asked by his commanding officer to stand extra guard duty in exchange for a few days leave. The stimulus person either liked or disliked the agent requesting the favor. The agent was an individual, a small group, or a large organization. In some cases, the stimulus person was described as having a genuine desire to do what he was asked to do even before receiving the request, and in other cases he was not so described. This study conceptualized the former stimulus person as being prompted by intrinsic motivation, whereas the latter had only extrinsic reasons for complying. The subjects were not told whether or not the stimulus person complied with the request. They were asked to indicate the extent to which he felt like an Origin or a Pawn, and to judge the amount of freedom he experienced. The subjects also responded to the Rotter (1966) Locus of Control (I-E) Scale.

Subjects who were internal, as determined by this I-E Scale, viewed the stimulus persons as being more free than did the subjects who were external. Stimulus persons were judged to be more free when the request came from a liked source, rather than a disliked one, and when the source was a small group rather than either an individual, or a large group. Finally, the stimulus person who was described as

genuinely wanting to do what he was asked to do (intrinsic motivation) was judged the most free of all.

Because deCharms, Carpenter and Kuperman (1965) did not obtain their subjects' evaluations of valences, probabilities or costs, their study cannot be related very directly to Steiner's (1970) theory. However, their findings suggest that either intrinsic and extrinsic motivation affects the terms in Steiner's equations, or that this variable has effects that cannot be subsumed by that formulation. The same uncertainties exist concerning the effects of variations in the source of the request, and in the locus of control perceptions of the subjects. Moreover, it is unclear whether the subjects in this study were responding in terms of decision freedom or outcome freedom, or some mixture of the two.

#### The Present Experiment

The present research involved an approximate replication of the deCharms, Carpenter and Kuperman (1965) study, but obtained evidence concerning valences, probabilities and costs that permitted a more detailed analysis of the effects of the manipulations. It provided data to determine whether or not (1) the intrinsic versus extrinsic character of motivation affects attributions of freedom when the net gains are held constant, (2) the attractiveness of the agent requesting compliance affects the net gains inherent in the two available alternatives, and (3) the locus of control perception of a subject, as indicated by the I-E Scale, influences his evaluation of valences, costs and probabilities. In addition, the interpretation placed by subjects on different types of freedom questions was investigated.

#### Major Experimental Hypotheses

Steiner's (1970) theory predicts that a stimulus person's outcome freedom is greater the more attractive is his best available or chosen option, <u>i.e.</u>, the larger the net gain as defined by  $\leq (V \times SP)$  - Cost. The above formula should predict the amount of freedom which perceivers will attribute to a stimulus person when test items elicit judgments of outcome freedom.

#### Hypothesis I

When a perceiver judges how free a stimulus person feels to accept a given option, he will attribute more of such freedom (i.e., outcome freedom), the greater the net gain there is inherent in the particular option being considered.

#### Hypothesis II

When a perceiver judges how free a stimulus person feels <u>to</u>

<u>reject a given option</u>, he will attribute more of such freedom, the less

the net gain there is inherent in the particular option being considered.

Furthermore, Steiner's (1970) theory predicts that more freedom of choice (the psychological judgment related to decision freedom) will be attributed to a stimulus person the more equal in net gain are his two alternatives.

#### Hypothesis III

When a perceiver judges the extent of choice a stimulus person has, more of such decision freedom will be attributed, the more equal in attractiveness or net gain are his two options.

#### Hypothesis IV

The less the difference in the attractiveness of the two options available to a stimulus person, the greater the amount of decision freedom (extent of choice) attributed to this individual.

Another major purpose of the experiment was to replicate the findings of deCharms, Carpenter and Kuperman (1965) while manipulating and assessing the beliefs of the subjects concerning the outcome freedom and decision freedom enjoyed by the stimulus person. In this way, it would be possible to determine whether or not the attractiveness of an agent requesting compliance and the locus of control perceptions of perceivers affect the attributed net gain inherent in the options. Furthermore, these findings would help identify the kind of freedom (i.e., outcome freedom or decision freedom) that the subjects attributed in the deCharms, Carpenter and Kuperman (1965) study.

In addition, in deCharms, Carpenter and Kuperman (1965), the subjects judged the freedom of stimulus persons who were asked by another individual to perform a given favor. The freedom attributed by the perceivers in that study may have been influenced by the existence of this advisor. Therefore, another purpose of the present study was to determine whether or not the absence of an advisor results in differences in the freedom attributed to a stimulus person by the subjects in comparison to that attributed when a liked or disliked counsellor exists. Likewise, perceivers may judge the attractiveness of the two options differently when no advisor is present than when a counsellor is liked or disliked by the stimulus person. This variation in the

decisional context of the stimulus person was necessary to test the generalizability of the findings of deCharms, Carpenter and Kuperman (1965) to situations in which perceivers judge the freedom of stimulus persons who have no advisors. No specific predictions were made concerning the possible effects of an advisor.

#### METHOD

#### General Strategy

In this experiment the attractiveness of the agent requesting a favor, the degree of similarity in the attractiveness of the two available alternatives and the type of rewards inherent in each, the sex of the subjects and their locus of control tendencies (I-E) were varied in a 3 x 5 x 2 x 2 independent groups design.

#### Subjects

The subjects were 306 students from undergraduate psychology classes at the University of Massachusetts. The sample was composed of 155 males and 151 females. Most of the subjects were given extra points to be added to their final psychology course grades for their participation in this experiment. One sixth of the male subjects and a few female subjects were given \$1.00 rather than extra points for participating in this experiment.

#### Procedure

The subjects, in mixed sex groups of from two to eight people, read a short vignette and then responded to a questionnaire. In the printed instructions that accompanied the sheet containing the stimulus materials, the subjects were simply told to read the story that followed and then to answer a series of questions as carefully as possible.

They were told not to change any answers in Part A of the questionnaire once they began Part B. Part A of the questionnaire dealt exclusively with measures of the attractiveness of the two options considered by the stimulus person in the story. The first page of Part B dealt

largely with attributions of outcome freedom to the stimulus person. At the end of this page the subjects read another instruction requesting them not to change their answers on that page once they turned to later questions in Part B. After finishing the questionnaire, the subjects completed Rotter's (1966) Locus of Control Scale (I-E). The complete experiment lasted about forty minutes.

In the short story read by the subjects, a young law student, Adam Conrad, had two possible job opportunities, a position in a legal aid service and a job in a large law firm. In the two experimental conditions, he was asked by a professor to select the legal aid service job. Adam Conrad either liked or disliked the professor who requested this favor. In the control condition no one requested anything from the student. He simply had to choose between the two job opportunities to plan his own future. Therefore, in the stimulus materials there were three levels related to the agent requesting the favor—liked agent, no agent, disliked agent.

The attractiveness of the two job options was also varied in the vignette read by the subjects. In the first three conditions, one job alternative was pictured as much better than the other. Hence, according to Steiner's (1970) theory, the stimulus person would have had little decision freedom. In the last two conditions both jobs were described as equally attractive, and thus these situations were, theoretically, high in decision freedom. In the first condition, Adam Conrad liked the legal aid service job much more than the law firm

<sup>&</sup>lt;sup>1</sup>See Appendix A for actual instructions and vignettes.

position because the former job had better extrinsic payoffs (good salary, wide variety of cases, valuable experience, four-week vacation, chance to meet important people) than the latter job in the law firm (few challenging cases, hard work on routine matters, others taking credit for his work, less salary, shorter vacation, few promotions within the firm). In the second condition, Adam Conrad also liked the legal aid service job much better than the law firm position. majority of the benefits of the legal aid service job (chance to do what Adam Conrad really would like to do, chance to serve his fellow human beings and his country in a way that matched his own personal values and ideals, chance to be the kind of person he really felt he was, good salary, three-week vacation) were closely related to the values and sense of personal identity of the stimulus person. The law firm job had similar extrinsic disadvantages in Condition 2 and in Condition 1. In the third condition, Adam Conrad liked the law firm job (good salary, four-week vacation, challenging cases, promotion likely, high status and security) much better than the legal aid alternative (low salary, one-week vacation, little free time, routine cases, difficulty getting another good job next year). Both job options were described in extrinsic terms. Hence, in these first three conditions, the two job choices were very dissimilar in attractiveness and their inherent extrinsic and intrinsic rewards were varied.

In the fourth and fifth conditions, Adam Conrad was described as liking both job alternatives equally well. In Condition 4, both the legal aid service job (valuable experience, wide variety of cases, good salary, long vacation, chance to meet important people) and the

law firm alternative (equal vacation and salary, challenging cases to build his career, high status and security, promotion likely) had many extrinsic benefits. In Condition 5, the law firm job was described in a manner similar to that of Condition 4. However, three of the benefits of the legal aid service alternative (chance to do what Adam Conrad really would like to do, chance to serve his fellow human beings and his country in a way that matched his own personal values and ideals, chance to be the kind of person he really felt he was, good salary, three-week vacation) were closely related to the values and sense of personal identity of the stimulus person.

Thus, in the short vignette read by the subjects, the agent requesting the favor and the job choice situation were varied in the following manner:

#### Agent

- (1) Liked
- (2) None (Control)
- (3) Disliked

#### Job Attractiveness Conditions

- (1) Dissimilar in Attractiveness Likes legal aid service job more than law firm job because of extrinsic rewards.
- (2) Dissimilar in Attractiveness Likes legal aid service job more than law firm job because of intrinsic rewards.
- (3) Dissimilar in Attractiveness Likes law firm job more than legal aid job because of extrinsic rewards.
- (4) Similar in Attractiveness Likes legal aid job because of extrinsic rewards as much as the law firm job with its extrinsic rewards.
- (5) Similar in Attractiveness Likes legal aid job because of intrinsic rewards as much as the law firm job with its extrinsic rewards.

#### Manipulation Checks<sup>2</sup>

The first four items in the questionnaire that followed the short vignette read by the subjects assessed their perceptions of the attractiveness to the stimulus person of the legal aid service job and the law firm position. The subjects rated the job in the legal aid service and in the law firm, and the action of actually choosing the job in the legal aid service and in the law firm on the following five semantic differential scales: good-bad, sick-healthy, wise-unwise, pleasant-unpleasant, useless-useful. The ratings on these five scales were summed for each of the preceding four concepts: the two jobs and the acts of choosing each. This procedure provided two estimations of the net gain inherent in each of the two job alternatives available to the stimulus person.

The fifth and sixth questions provided two other estimations of the attractiveness of the legal aid service position. Five consequences of choosing this job, derived from the information in the original vignette, were listed for the subjects. On a scale of 1 to 10 chances out of 10, the subjects indicated beside each item, how likely to actually occur, in Adam Conrad's opinion, would be each of these consequences (i.e., 1/10, 7/10, 10/10). Then, the subjects were encouraged to list any other consequences they believed Adam Conrad would consider when thinking about the legal aid service job. The probabilities that these new consequences would occur, in Adam Conrad's opinion, were then listed by the subjects on the same scale of from

<sup>&</sup>lt;sup>2</sup>See Appendix A for actual questionnaire.

1 to 10 chances out of 10. The subjects then evaluated, from Adam Conrad's point of view, each of the consequences of the legal aid service job in order to assess their valences on a scale ranging from Good (+3) to Bad (-3). To calculate the net gain inherent in the legal aid service job, the valence of each consequence was then multiplied by its subjective probability. Then, these values from all the consequences of the legal aid service job were summed together. calculation is similar to Steiner's (1970) formula for net gain, \$(V x SP) - Cost, except that, in the present calculation, the costs were also multiplied by their own subjective probabilities. To avoid possible negative numbers, a value of +25 was then added to the legal aid service net gain score of each subject. Therefore, the formula for net gain used in the present investigation was  $\chi$ [(V x SP)] -  $\chi$ [(Cost x SP)] + 25. One estimation of the attractiveness of the legal aid job included only the five consequences listed for the subjects in the questionnaire. A second estimation included these five consequences and any other consequences listed by the subjects.

Questions 7 and 8 elicited information concerning the attractiveness of the law firm job. The subjects estimated the subjective probabilities, in Adam Conrad's opinion, of the five consequences of this job option listed for them. Then they listed any other consequences they believed Adam Conrad would have considered and estimated their subjective probabilities. The valences of each of the consequences, in Adam Conrad's opinion, were estimated on the scale ranging from

 $<sup>^3\</sup>mathrm{In}$  one of the five job attractiveness conditions, six consequences of the law firm job were listed for the subjects.

Good (+3) to Bad (-3). Then, the two measures of net gain inherent in the law firm job were calculated in a similar manner to that for the legal aid service position. These first eight questions comprised Part A of the questionnaire.

#### Freedom Attribution Questionnaire

Part B of the questionnaire included two items designed to assess the subjects' perceptions of the decision freedom enjoyed by the stimulus person. In response to Question 14, the subjects judged to what extent Adam Conrad would feel that his choice was dictated by the circumstances that existed for him. The subjects responded on a seven point scale ranging from (1) Very much dictated by circumstances to (7) Not at all dictated by circumstances. In response to Question 15, the subjects decided how much real choice Adam Conrad would feel he actually had in making his decision between the two job options. The seven point scale ranged from (1) Very little real choice to (7) Very much real choice. This item was similar to the question used in Steiner, Rotermund and Talaber (in press) to measure the decision freedom attributed to a stimulus person.

Part B of the questionnaire also dealt with attributions of outcome freedom to Adam Conrad, and with attributions of intrinsic versus extrinsic motivation, of a sense of personal control over his future and of a sense of being pressured in the choice situation. The questionnaire also included semantic differential ratings of the attractiveness of Adam Conrad, and items similar to those used by deCharms, Carpenter and Kuperman (1965) to assess freedom attributions.

The ninth question asked subjects how free Adam Conrad would feel in making his choice between the two job alternatives. In response to Questions 10 and 11, the subjects indicated how free Adam Conrad would feel to accept the job as a member of the legal aid service and as a junior partner in the large law firm. Questions 12 and 13 concerned how free Adam Conrad would feel to refuse each of the two job alternatives. The subjects responded to each of these five questions on seven point scales ranging from (1) Very Unfree to (7) Very Free. As previously stated, at the end of these five questions, the subjects read an instruction asking them not to change any of these answers once they turned to the following pages of the questionnaire. Questions 10 through 13 were designed to assess the outcome freedom attributed by the perceivers to the stimulus person. The interpretation likely to be placed by the subjects on Question 9 was considered to be a matter for empirical investigation.

Questions 16, 17 and 23 concerned attributions to Adam Conrad of intrinsic versus extrinsic motivations and of a sense of personal control over his own future. The subjects expressed the extent of their agreement or disagreement with the statements that Adam Conrad's personal traits and values had a lot to do with the way he judged his alternatives (Question 16) and would likely determine his choice between the two job alternatives (Question 17). Question 23 asked subjects to agree or disagree with the statement that Adam Conrad was a man who set his own goals and determined how to achieve his own ends. These three questions were answered on seven point scales ranging from (1) Disagree to (7) Agree. The greater the agreement with the statements of

Questions 16 and 17, the more the subjects attributed intrinsic motivation to the stimulus person. The greater their agreement with the statement in Question 23, the more the subjects attributed a sense of personal control over his own future and an internal ideology (Rotter, 1966) to the stimulus person.

Questions 18, 19 and 20 were items similar to those used by deCharms, Carpenter and Kuperman (1965). The original questions were altered to refer only to the predecisional state of the stimulus person rather than also to his feelings of freedom while performing the requested favor. The subjects agreed or disagreed with the statements that Adam Conrad would feel that many decisions were being made for him by other people (Question 18) and that Adam Conrad, in this situation, would feel that other people and events were arbitrarily controlling him like a pawn (Question 19). The seven point scales on which the subjects responded to these questions were labelled (1) Agree and (7) Disagree. In response to Question 20, the subjects expressed their belief in the statement that Adam Conrad would feel that he was completely free to make his own decision on this job matter. This seven point scale ranged from (1) Disagree to (7) Agree. The higher the values selected by the subjects on these items, the more freedom was attributed to the stimulus person, according to the interpretation of these items by deCharms, Carpenter and Kuperman (1965).

Questions 21 and 22 attempted to assess attributions to Adam Conrad of general discomfort with the choice situation. The subjects responded on two seven point scales, ranging from (1) Agree to (7) Disagree, to the statements that Adam Conrad would feel that he was

being coerced into making a particular decision on this job matter (Question 21) and that Adam Conrad would have a feeling of being pressured into making up his mind on this job matter (Question 22).

Finally, the subjects evaluated the personal attractiveness of Adam Conrad on six seven point bipolar trait scales. The trait pairs were good-bad, likeable-unlikeable, wise-foolish, kind-cruel, honest-dishonest, and friendly-unfriendly. The scales ranged from 7 for the positive adjective of each pair to 1 for the negative trait in each pair. The trait attributions were then summed to provide a measure of Adam Conrad's overall attractiveness.

As stated previously, after completing the questionnaire, the subjects filled out Rotter's (1966) Locus of Control Scale (I-E).

#### RESULTS

#### Strategy of Analysis

The data were subjected to four major sets of analyses. The main analysis was an overall  $3 \times 5 \times 2$  (Attractiveness of the Agent Advocating Alternative x Attractiveness of Job Options Variations xSex) independent groups analysis of variance. The three dissimilar attractiveness of job options conditions (Conditions 1, 2 and 3) were included in a 3  $\times$  3  $\times$  2 (Attractiveness of the Agent  $\times$  Dissimilar Attractiveness of Job Options Variations x Sex) Anova. The two similar attractiveness of job options conditions (Conditions 4 and 5) were analyzed in a 3  $\times$  2  $\times$  2 (Attractiveness of the Agent  $\times$  Similar Attractiveness of Job Options Variations x Sex) Anova. These latter two analyses of variance were performed to detect significant effects and interactions that were not revealed in the overall Anova. Finally, an overall 3 x 5 x 2 x 2 (Attractiveness of the Agent x Attractiveness of Job Options Variations x Sex x Locus of Control Perceptions) Anova was performed on all the data to clarify the impact of I-E on the other findings.

Locus of control tendencies were determined by rank ordering the male and female I-E scores and splitting this distribution at the median (see Appendix B for the medians, means and standard deviations of these distributions). Both male and female subjects having a score of 11 or higher were categorized as externals while those with lower scores were classified as internals.

### Manipulation Check for Variations in the Attractiveness of Each Alternative

A three-way (Attractiveness of the Agent x Attractiveness of the Job Options Variations x Sex) independent groups Anova was performed on the eight measures dealing with the attractiveness of the two job options presented to the stimulus person. The means for these eight measures are presented in Tables 1 and 2. The Attractiveness of Job Options Variations effect was significant on each of these measures (see Appendix C for complete details). As intended, the legal aid service job was viewed as more attractive to Adam Conrad than the law firm job in Dissimilar Attractiveness Conditions 1 and 2. The law firm position was judged more attractive to the stimulus person than the legal aid job in Dissimilar Attractiveness Condition 3. These two jobs were seen as much more nearly equal in attractiveness in the similar attractiveness conditions, Conditions 4 and 5, than in Conditions 1, 2 and 3. This total pattern was exactly as intended, and was replicated on each of the four measures of the attractiveness of the two job opportunities.

Separate Anovas were performed on the dissimilar attractiveness conditions and on the similar attractiveness conditions. As expected, the legal aid job in Condition 3 was always rated as much less attractive than it was in Conditions 1 and 2. The law firm job was viewed as much more attractive to the stimulus person by the subjects in Condition 3 than by the perceivers in Conditions 1 and 2. The data presented in Tables 1 and 2 indicate that this intended pattern was replicated on all relevant measures.

Manipulation Check Items: Mean Attractiveness of Options Available to Adam Conrad

TABLE 1

Attractiveness of Job Options Variations 1 2 3 Intended Attractiveness LAE> LFE LAI > LFE LFE > LAE LAE=LFE LAI=LFE Question 1 31.59 31.97 14.55 31.48 31.61 Semantic Differential-Legal Aid Job<sup>b</sup> p < .001 Question 2 14.47 14.35 31.75 31.63 31.15 Semantic Differential-Law p < .001 Firm Job Question 3 31.49 31.60 13.38 30.95 30.66 Semantic Differential-Choosing p < .001Legal Aid Job Question 4 14.43 14.38 31.68 31.03 30.72 Semantic Differential-Choosing p < .001 Law Firm Job

<sup>&</sup>lt;sup>a</sup>LA = Legal Aid Service Job

LF = Law Firm Job

I = Intrinsic Rewards
E = Extrinsic Rewards

<sup>&</sup>lt;sup>b</sup>The higher the mean, the greater the attributed attractiveness.

TABLE 2

#### Manipulation Check Items: Mean Attractiveness of Options Available to Adam Conrad

	Attra	ctiveness	of Job Optio	ons Variat	ions
Intended	1	2	3	4	5
Attractiveness	LAE>LFE <sup>a</sup>	LAI > LFE	LFE > LAE	LAE=LFE	LAI=LFE
Questions 5 & 6 Legal Aid Job	36.79	36.76	15.99	36.42	34.45
(Steiner's Formula) <sup>b</sup>		<u>p &lt; .001</u>		<u>p</u> <	.001
Questions 7 & 8 Law Firm Job	15.89	15.75	36.03	36.08	35.60
(Steiner's Formula)	<del></del>	<u>p</u> <.001			
Questions 5 & 6 Legal Aid Job	37.11	37.60	16.11	36.65	35.04
(Steiner's Formula including free response)	-	<u>p</u> <.001		<u>p</u> < .	.011
Questions 7 & 8 Law Firm Job	15.86	15.77	36.49	36.36	35.50
(Steiner's Formula including free response)		<u>p</u> <.001			

aLA = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards
E = Extrinsic Rewards

<sup>&</sup>lt;sup>b</sup>The higher the mean, the greater the attributed attractiveness.

Since the legal aid job and the law firm job were described as equally attractive to Adam Conrad in Conditions 4 and 5, no significant Similar Attractiveness Variations effects were expected in the Anova on the two similar attractiveness conditions. As indicated in Table 1, the subjects in Condition 4 rated the extrinsically rewarding legal aid job as being just as attractive to the stimulus person as did the perceivers in Condition 5. These latter subjects rated the intrinsically rewarding legal aid job. The judgments were made on semantic differential scales. However, the data in Table 2 indicate that the extrinsically rewarding legal aid job was seen as more attractive to the stimulus person than the intrinsically rewarding legal aid job, when calculations based on Steiner's (1970) formula were used as the index. The law firm job was also seen as slightly less attractive in Condition 5 than in Condition 4 on these measures based on Steiner's (1970) formula, although the Similar Attractiveness Variations effect did not attain significance. Thus, there is some evidence that the attractiveness of the stimulus person's job choices in Condition 5 was viewed as slightly less than in Condition 4.

The data on these eight manipulation check questions also indicated that the female subjects generally believed that Adam Conrad considered his two job options as somewhat more attractive than did the male subjects (see Appendix C for details). On three of the four measures concerning the evaluation of the legal aid service job, this Sex effect reached significance. In the two similar attractiveness conditions (Conditions 4 and 5), this Sex effect was significant in the Anova on the one evaluation of the legal aid job in which the

general Sex effect did not attain significance. Likewise, in the Anova on the similar attractiveness conditions, Conditions 4 and 5, on three of the four evaluations of the law firm job, a similar Sex effect was also significant. The data clearly indicate that the females in the two similar attractiveness conditions (Conditions 4 and 5) generally viewed the law firm job as slightly more attractive to Adam Conrad than did the males. Likewise, in all five conditions the females generally viewed the legal aid service job as slightly more attractive to Adam Conrad than did the males. Basically, the females believed that Adam Conrad had more glorious prospects for his future life than did the males. Thus, although the manipulation of attractiveness worked as intended in this study, the males and females did respond somewhat differently to the stimulus materials.

The similarity in the attractiveness of the two job options was also assessed in another manner. A calculation was made for each subject of the absolute difference between the net gain inherent in each of the two job options derived from the formula,  $\sum (\text{valences } x \text{ subjective probabilities})] - \sum ((\text{costs } x \text{ subjective probabilities}))] + 25$ , and including the consequences added by the subject (Quantitative Decision Freedom Measure). The Attractiveness of Job Options Variations effect ( $\underline{F} = 167.96$ ,  $\underline{df} = 4/276$ ,  $\underline{p} < .001$ ) was highly significant on this measure. The attractiveness of the job options variation means for this measure are presented in the third row of data in Table 3. As indicated by these data, the attractiveness of the two options was seen as much more dissimilar in the three dissimilar attractiveness

TABLE 3
Attributions of Decision Freedom

Intended Degree	Attra	activeness	of Job Opt	ions Varia	tions
of Similarity of Attractiveness of Job Options	1 Low	2 Low	3 Low	4 High	5 High
Question 14 Choice not dictated by	2.82	2.63	2.50	3.47	3.41
circums tances a			<u>p</u> <.001		
Question 15 Amount of real choice <sup>a</sup>	4.80	4.42	4.27	5.22	4.92
real choice			<u>p</u> < .011		
Quantitative Decision Freedom Measure based on Steiner's Theory	21.52	22.11	20.38	2.04 <u>P</u> <	3.13
			p<.001		

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed decision freedom.

<sup>&</sup>lt;sup>b</sup>The higher the mean, the lower the quantitative decision freedom.

conditions. Hence, the subjects perceived the attractiveness of the two job options available to the stimulus person as intended.

### Attributions of Decision Freedom<sup>4</sup>

The manipulations of this study created three conditions in which the two job options of the stimulus person were dissimilar in attractiveness and two conditions in which the two choices were similar in attractiveness.

It was predicted that a perceiver attributes more choice (decision freedom) to a stimulus person when two of his alternatives are similar rather than dissimilar in attractiveness (Hypothesis III). Questions 14 and 15 were designed to assess the decision freedom attributed to the stimulus person by the subjects. As predicted, the Attractiveness of the Job Options Variations effect was significant on both questions. The subjects' mean evaluations of the extent to which Adam Conrad felt that his choice was dictated by circumstances ( $\underline{F}$  = 4.61,  $\underline{df}$  = 4/274,  $\underline{p}$  < .001) and of the degree to which Adam Conrad had real choice ( $\underline{F}$  = 3.34,  $\underline{df}$  = 4/274,  $\underline{p}$  < .011) are presented in Table 3. More decision freedom (less circumstantial coercion and more real choice) was attributed to the stimulus person by the subjects in the similar attractiveness conditions (Conditions 4 and 5) than by those in the dissimilar attractiveness variations. These data strongly support Hypothesis III.

It was also predicted that a significant linear relationship exists between the decision freedom (choice) attributed to a stimulus

<sup>&</sup>lt;sup>4</sup>See Appendix D for additional details.

person and the degree to which he is believed to view his two major options as equal in attractiveness (Quantitative Decision Freedom Measure) (Hypothesis IV). Consequently, the responses of the subjects to the decision freedom items, Questions 14 and 15, were correlated with the quantitative decision freedom measure based on Steiner's (1970) formula (see Table 3). The responses of all the subjects to Question 14 (decision freedom) correlated -.185 ( $\underline{df}$  = 300,  $\underline{p}$  <.01) with the quantitative decision freedom measure (inequality in job attractiveness ratings). Hence, more freedom of choice was attributed to the stimulus person by the subjects, the more equal in attractiveness they perceived his two alternatives.

The responses to Question 15 did not correlate significantly with the quantitative decision freedom measure. Likewise, the responses of the subjects in the similar attractiveness conditions (Conditions 4 and 5) to Questions 14 and 15 did not correlate significantly with the quantitative decision freedom measure. The analysis of variance results, previously reported, indicated that Question 14 was a somewhat more sensitive measure of attributed decision freedom than Question 15. Furthermore, in the two similar attractiveness conditions, the correlations may have been insignificant because the ranges of scores on the quantitative decision freedom measure and on Questions 14 and 15 were considerably restricted (McNemar, 1969, p. 162). Likewise, the small range of scores on the decision freedom item, Question 14, may account for the very small, although significant, correlation between this measure and the quantitative decision freedom measure.

When the relationships between attributed decision freedom

(Questions 14 and 15) and the quantitative decision freedom measure were plotted on graphs, there was no evidence of curvilinearity. The data in this study support Steiner's (1970) contention that more decision freedom (choice) is attributed to a stimulus person, the more equal in attractiveness are his alternatives (Hypotheses III and IV), at least within situations in which one alternative is quite attractive to the stimulus person.

## Sex Effects, Intrinsic-Extrinsic Motivations, and Attributed Decision Freedom

There was also a significant Sex effect on both measures of attributed decision freedom, Questions 14 and 15. As indicated by the data in Table 4, the females attributed more decision freedom to the stimulus person on both measures than did the males.

The means for the males and females on the quantitative decision freedom measure are also presented in Table 4. The Sex effect ( $\underline{F}$  = 5.30,  $\underline{df}$  = 1/276,  $\underline{p}$  <.022) was also significant on this measure. The females generally perceived the alternatives presented to the stimulus person as differing more in attractiveness than did the males. However, the females attributed more decision freedom in response to Questions 14 and 15 than did the males. According to Steiner's (1970) theory, the females, who viewed the two options as differing more in attractiveness than did the males, should have believed that the stimulus person had less decision freedom than did the males. Thus, the decision freedom attributed to a stimulus person, in this study, was not determined completely by the absolute difference in the attractiveness of the stimulus person's options as determined by Steiner's (1970) formula.

TABLE 4

Sex Differences in the Attribution of Decision Freedom

	Se	x	
Question	Male	Female	<u>F</u> Ratio
14-Choice not dictated by circumstances a	2.71	3.24	$\frac{F}{df} = 8.66,$ $\frac{D}{P} < .004$
15-Amount of real choice <sup>a</sup>	4.55	4.92	$\frac{F}{df} = 4.09,$ $\frac{g}{p} = 1/274,$ $\frac{g}{p} < .044$
Quantitative Decision Freedom Measure based on Steiner's Theory <sup>b</sup>	12.67	14.71	$\frac{F}{df} = 5.30,$ $\frac{F}{df} = 1/276,$ $\frac{F}{2} < .022$

 $<sup>^{\</sup>mathrm{a}}\mathrm{The}$  higher the mean, the greater the attributed decision freedom.

<sup>&</sup>lt;sup>b</sup>The higher the mean, the lower the quantitative decision freedom.

This finding was further supported by another difference in the data from the attribution of decision freedom questions, Questions 14 and 15, and in the data from the quantitative decision freedom measure. As is evident in Table 3, the two alternatives presented to the stimulus person were seen as less similar in attractiveness, and hence, as less equal, in the similar attractiveness condition in which the legal aid job was described as intrinsically rewarding (Condition 5) than in the similar attractiveness variation with the extrinsically appealing legal aid service position (Condition 4) (F = 6.39, df = 1/113, However, the two questions designed to measure attributions p < .013). of decision freedom, Questions 14 and 15, yielded no such difference in the actual decision freedom attributed to the stimulus person in the Similar Attractiveness Conditions 4 and 5. Thus, there are important contradictions between the data produced by the quantitative decision freedom measure and the measures of attributed decision freedom.

### Attributions of Outcome Freedom<sup>5</sup>

It was predicted that more freedom to accept a given option (<u>i.e.</u>, outcome freedom) would be attributed to the stimulus person, the greater the attractiveness of the particular alternative (Hypothesis I). Furthermore, more freedom to reject a given option would be attributed to a stimulus person, the less the attractiveness of the particular alternative (Hypothesis II). Questions 10 through 13 were designed to test these predictions. The attractiveness of the job options variation means are presented in Table 5 and the F ratios for

<sup>&</sup>lt;sup>5</sup>See Appendix E for correlational data.

TABLE 5

Attribution of Freedom to Select or Reject Specific Options a

Attractiveness of Job Options Variations 3 Manipulated 5 LAE>LFE LFE>LAE Attractiveness LAE=LFE LAI=LFE QUESTION 10-Freedom to 5.49 5.45 3.70 4.98 4.87 accept legal aid service job p < .001 11-Freedom to 3.71 3.72 5.07 5.26 accept law <u>p</u>∠.027 firm job p < .001 12-Freedom to 3.62 3.30 4.20 4.23 3.67 refuse legal aid service job p < .025 13-Freedom to 5.00 4.97 2.98 4.08 4.12 refuse law

p <.001

firm job

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

bLA = Legal Aid Service Job

LF = Law Firm Job

I = Intrinsic Rewards
E = Extrinsic Rewards

the significant effects are presented in Table 6.

Table 5 indicates that when the two options available to Adam Conrad were unequal in attractiveness (Conditions 1, 2 and 3), he was uniformly judged to have had much freedom to accept the more attractive choice and to reject the less attractive alternative. Furthermore, when both job options were highly attractive to the stimulus person (Conditions 4 and 5), he was viewed as feeling very free and equally free to accept both choices and as feeling equally free but somewhat less free to reject both choices. These data provide strong support for Hypotheses I and II.

Inspection of the data in Table 5 also suggests a peculiar and potentially important pattern. Adam Conrad was viewed as feeling somewhat less free to accept the attractive legal aid job when it was paired with an attractive option (Conditions 4 and 5) than when it was paired with a less attractive option (Conditions 1 and 2). However, approximately as much freedom to accept the law firm job was attributed when it was paired with an attractive option (Conditions 4 and 5) as when it was paired with a less attractive option (Condition 3). Although the data are contradictory, it may be that attributed freedom to accept an option is not completely determined by the attractiveness of that particular alternative. More research is needed to determine how the attractiveness of the alternative with which option X is paired influences outcome freedom to pursue alternative X.

TABLE 6

Impact of Variations in Job Attractiveness on Ratings of Outcome Freedom: F Ratios for Data Elicited by Questions 10 to 13

	Overall Effect of Attractiveness of Job Options Variations	Effect Across Dissimilar Job Attractiveness Conditions (Conditions 1, 2 and 3)	Effect Across Similar Job Attractiveness Conditions (Conditions 4 and 5)
Question 10- Freedom to accept legal aid job	$\frac{F}{df} = 13.00,$ $\frac{F}{df} = 4/274,$ $\frac{F}{D} < .001$	$\frac{F}{df} = 25.14,$ $\frac{df}{P} < .001$	$\frac{F}{\frac{df}{df}} = \frac{1}{113},$ $\frac{p}{<}.71$
Question 11- Freedom to accept law firm job	$\frac{F}{df} = 11.77,$ $\frac{df}{p} < .001$	F = 11.88, $df = 2/163,$ $p < .001$	$\frac{F}{df} = 5.01,$ $\frac{df}{p} < .027$
Question 12- Freedom to refuse legal aid job	$\frac{F}{df} = 3.34,$ $\frac{F}{D} < .01$	$\frac{F}{df} = 3.79,$ $\frac{g}{p} < .025$	$\frac{F}{df} = 4.95,$ $\frac{df}{P} < .028$
Question 13- Freedom to refuse law firm job	$\frac{F}{df} = 13.63,$ $\frac{D}{e} = 4/274,$	$\frac{f}{df} = 28.67,$ $\frac{df}{p} < .001$	$\frac{F}{df} = .04,$ $\frac{df}{P} < .84$

# Intrinsic-Extrinsic Motivations and Attributions of Outcome Freedom

Inspection of Table 5 indicates another potentially important pattern. When the two job options were about equal in attractiveness, Adam Conrad's freedom to accept the law firm job (Question 11) and to reject the legal aid job (Question 12) were judged to be higher when the legal aid service job yielded him extrinsic rewards (Condition 4) than when it entailed important intrinsic benefits (Condition 5). There was a Similar Attractiveness of Job Options Variations x Sex interaction on both Question 11 ( $\underline{F} = 4.20$ ,  $\underline{df} = 1/113$ ,  $\underline{p} < .043$ ) and on Question 12 ( $\underline{F} = 4.75$ ,  $\underline{df} = 1/113$ ,  $\underline{p} < .031$ ). These means are presented in Tables 7 and 8.

According to the data in Table 7, the females' perceptions of the freedom of the stimulus person to accept the law firm job were unaffected by the intrinsic <u>versus</u> extrinsic character of the payoffs offered by the option with which the law firm job was paired. However, the males believed that Adam Conrad felt more freedom to accept the law firm job when the benefits of the legal aid alternative were described in extrinsic (Condition 4) rather than in intrinsic (Condition 5) terms.

The data in Table 8 indicate that the males attributed much less freedom to Adam Conrad to refuse the legal aid job when it involved intrinsic (Condition 5) rather than extrinsic (Condition 4) rewards. The females, however, attributed equal freedom to reject the legal aid service job regardless of the nature of its appeal.

Thus, on two of the four questions designed to measure outcome freedom attributions, the males were sensitive to differences in the

TABLE 7

Attribution of Freedom to Accept Law Firm  ${\sf Job}^a$ (Similarity of Job Attractiveness Variations x Sex)

Similarity of Job Attractiveness Variations

Sex	Condition 4 LAE=LFE <sup>b</sup>	Condition 5 LAI=LFE
Male	5.39	4.25
Female	5.10	5.03

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

bLA = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards E = Extrinsic Rewards

TABLE 8 Attribution of Freedom to Refuse Legal Aid Service Job<sup>a</sup>

### Similarity of Job Attractiveness Variations

Sex	Condition 4 LAE=LFE <sup>b</sup>	Condition 5 LAE=LFE
Male	4.49	3.28
Female	3.93	4.10

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

bLA = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards

E = Extrinsic Rewards

type of rewards inherent in the two job options, when and only when, both choices were highly attractive. On both questions, the males reacted as if the intrinsically rewarding job was a better choice ( $\underline{i}.\underline{e}.$ , one was less free to reject this option and less free to select its alternative). These findings contradict the results of deCharms, Carpenter and Kuperman (1965). In the latter study, subjects of both sexes generally attributed more freedom to the stimulus person with the intrinsically rewarding choice than to the individuals with the extrinsically appealing option.

In the present study, the influence of the type of reward inherent in a job option on the outcome freedom attributed by the males occurred even though the males did not attribute greater overall attractiveness to the intrinsically rewarding choice. Thus, intrinsic-extrinsic motivations affected the outcome freedom attributed to the stimulus person by the males, when both job choices were highly attractive, but did not affect their judgments of the expected net gain inherent in each of the stimulus person's options.

Attributions of Outcome Freedom and the Attractiveness of the Agent Requesting the Favor

DeCharms, Carpenter and Kuperman (1965) reported that more freedom was attributed to a stimulus person when the person requesting the favor was liked rather than disliked. The data in the present study provide some support for this finding. The relevant means are

<sup>&</sup>lt;sup>6</sup>In that study, however, the task with intrinsic rewards was viewed by the subjects as more attractive to the stimulus person than the task with extrinsic rewards.

summarized in Table 9. The fifth row of data in this table presents a composite measure derived by adding together the freedom attributed to the stimulus person to accept the legal aid job (Question 10) and to reject the law firm job (Question 13) (as recommended by the advisor) and by subtracting from this total the freedom attributed to the stimulus person to accept the law firm job (Question 11) and to reject the legal aid service job (Question 12) (actions contrary to the advisor's desires). To avoid negative numbers, 12 was then added to the score of each subject. A 3  $\times$  5  $\times$  2 (Affect towards Advisor  $\times$  Attractiveness of Job Options Variations  $\times$  Sex) Anova was performed on these data.

The Affect effect ( $\underline{F}=5.82$ ,  $\underline{df}=2/274$ ,  $\underline{p}<.004$ ) was significant on this measure. More residual freedom was attributed to the stimulus person to treat the two job choices as his advisor wished when this advisor was liked rather than when he was disliked or when no advisor existed. Furthermore, more residual freedom was attributed to Adam Conrad to react to the two jobs in the manner desired by the disliked advisor than was attributed when no advisor existed. Thus, according to the composite index, even a disliked advisor was judged to increase Adam Conrad's freedom to accept the recommended alternative, and/or to decrease his freedom to accept the non-recommended choice.

The Affect x Sex interaction ( $\underline{F}$  = 4.34,  $\underline{df}$  = 2/274,  $\underline{p}$  < .015) was also significant on this measure. These means are presented in Table 10. Inspection of the data in this table indicates that the trend apparent in the significant main Affect effect, just presented, held only for males. Male subjects attributed more residual freedom

TABLE 9

Attributed Outcome Freedom, Attractiveness of Advisor and Attractiveness of Job Options

Likeability of Advisor

	LIKE	Lineability of Advisor					
Question	Liked	No Advisor	Disliked	<u>F</u> Ratio			
10-Freedom to accept legal aid job <sup>a</sup>	5.01	4.81	4.88	$\frac{F}{\frac{df}{df}} = .40$ $\frac{p}{2} < .70$			
11-Freedom to accept law firm job <sup>a</sup>	4.08	4.79	4.58	$\frac{F}{df} = 4.87,$ $\frac{F}{D} = \frac{2}{274},$ $\frac{F}{D} < .008$			
12-Freedom to refuse legal aid job <sup>a</sup>	3.41	4.06	3.96	$\frac{F}{df} = 4.36,$ $\frac{F}{D} = \frac{2}{274},$			
13-Freedom to refuse law firm job <sup>a</sup>	4.38	3.89	4.37	$\frac{F}{df} = 2.88,$ $\frac{g}{p} < .058$			
Composite Measure (Residual Freedom) (Q10 + Q13) - (Q11 + Q12)a	13.84	11.85	12.73	$\frac{F}{df} = 5.82,$ $\frac{df}{p} < .004$			
2-Semantic differential- law firm job <sup>b</sup>	25.24	24.96	23.90	$\frac{F}{df} = 4.13,$ $\frac{F}{D} = \frac{2}{274},$ $\frac{F}{D} < .017$			
5&6-Attractiveness of legal aid job Steiner's Formula, including free responseb	33.19	32.87	31.59	$\frac{F}{df} = 5.10,$ $\frac{g}{p} < .007$			

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

<sup>&</sup>lt;sup>b</sup>The higher the mean, the greater the attributed attractiveness.

TABLE 10

Composite Measure: Attributed Residual Freedom to React as Advisor Wished

(Affect towards Advisor x Sex)<sup>a</sup>

Likeability		Sex
of Advisor	Male	Female
Liked	14.04	13.65
No Agent	10.76	12.94
Disliked	13.27	12.18

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed residual freedom to do what the advisor wished.

to Adam Conrad to do what his advisor wanted when this individual was likeable, less of such freedom when this person was disliked and least residual freedom to react in the same ways to the job choices when no advisor existed. The females, however, assigned least residual freedom to the stimulus person to do what his advisor wanted when this individual was disliked and somewhat more residual freedom to react to the alternatives in a similar manner when no advisor existed. Like the males, the females also assigned most residual freedom to the stimulus person to do what the likeable advisor requested. 7

There were a number of significant Affect effects on the four outcome freedom questions that comprised the composite measure of attributed residual outcome freedom. The overall Affect effect was not significant when the subjects judged how free Adam Conrad felt to accept the legal aid service job (Question 10). However, a complex Affect x Sex interaction ( $\underline{F}=3.18$ ,  $\underline{df}=2/274$ ,  $\underline{p}<.043$ ) did attain significance in the responses to this question. Nevertheless, the patterns of the males and females differed somewhat from the male and female patterns on the composite measure, already reported. The Affect effect was significant on the other three components of the composite measure. Adam Conrad was judged to have felt less freedom to accept the law firm job ( $\underline{F}=4.87$ ,  $\underline{df}=2/274$ ,  $\underline{p}<.008$ ) (Question 11) and to have felt less freedom to reject the legal aid job ( $\underline{F}=4.36$ ,  $\underline{df}=2/274$ ,  $\underline{p}<.014$ ) (Question 12) ( $\underline{i}.\underline{e}.$ , to act contrary to his

<sup>&</sup>lt;sup>7</sup>See Appendix F for details concerning a significant Attractiveness of Job Options Variations effect on this composite measure.

<sup>&</sup>lt;sup>8</sup>See Appendix F for further details.

advisor's wishes) when he liked the person counselling him than when he disliked this individual or when no such person existed. The subjects tended to make little distinction on these two measures between the absence of any advisor and the presence of a disliked counsellor.  $^9$  Thus, the stimulus person was generally viewed as feeling freer to rebel against someone he disliked than against someone he liked. The Affect effect on the measure concerning Adam Conrad's freedom to reject the law firm job (Question 13) was only of borderline significance ( $\underline{F} = 2.88$ ,  $\underline{df} = 2/274$ ,  $\underline{p} < .058$ ) and revealed no differentiation on the part of the subjects between the attributions of freedom to do what a liked or disliked advisor wished ( $\underline{i}.\underline{e}.$ , to reject the law firm job). According to these data, the stimulus person was perceived to feel freer to reject an option when pressured to do so by anyone, regardless of his likeability, than when no such pressure occurred.

These results do provide some support for the deCharms, Carpenter and Kuperman (1965) finding. In the present study, the stimulus person was viewed as feeling less free to refuse to do what a liked advisor wished versus a disliked counsellor, and as feeling more residual freedom (composite measure) to do what a liked rather than a disliked advisor recommended. Little differentiation was made between a disliked advisor and a no advisor situation for the two individual measures dealing with freedom to refuse to follow advice (Questions 11 and 12). According to the composite measure of residual freedom to do what was advised, the stimulus person was viewed as feeling freer to make such recommended choices when the advisor was

<sup>&</sup>lt;sup>9</sup>See Appendix F for further details.

disliked rather than non-existent. The Affect x Sex interaction on the composite measure and, to some extent, on the responses of the subjects to Question 10, freedom to accept the legal aid job (see Appendix F), indicated that this tendency was predominantly a male pattern.

## Attractiveness of the Advisor and Attractiveness of the Job Options

One of the purposes of this study was to determine whether variations in the likeability of the advisor and in his absence or presence in the choice situation would influence judgments of the way in which the stimulus person viewed his alternatives. The final two rows of means in Table 9 report data concerning the attributed attractiveness of the two job options. These two Affect effects were the only overall Affect effects to attain significance on the eight measures of the net gains inherent in the two job options. Furthermore, these Affect effects occurred on two different types of measures, one for each of the two job options. Given the fact that the attractiveness of the advisor only influenced one of the four measures of the net gain inherent in the law firm job, the significant Affect effect ( $\underline{F} = 4.13$ ,  $\underline{df} = 2/274$ ,  $\underline{p} < .017$ ) on the semantic differential evaluation of the law firm job (see Table 9) was probably a chance finding.

There were, however, significant Affect x Attractiveness of the Job Options Variations interactions on three of the four measures of the attractiveness of the legal aid job, in addition to the significant overall Affect effect  $(\underline{F}=5.10,\underline{df}=2/274,\underline{p}<.007)^{10}$ 

 $<sup>^{10}</sup>$ See Appendix G for further details.

presented in Table 9. These interaction means are presented in Tables 11, 12 and 13 ( $\underline{F} = 1.98$ ,  $\underline{df} = 8/274$ ,  $\underline{p} < .048$ ;  $\underline{F} = 2.13$ , df = 8/274, p < .034; F = 2.52, df = 8/274, p < .012 respectively). Generally, the position of the means for the No Agent condition, relative to the means of the other two agent conditions varied greatly. The legal aid service job was considered to be more attractive to the stimulus person when he liked rather than disliked the person advising him to select this job option in three of the five conditions in Table 11, in four of the five conditions in Table 12 and in all five conditions in Table 13. Although the differences are small and in some cases inconsistent, the data in Tables 11, 12 and 13 generally indicate that the attractiveness of the advisor affected judgments of the attractiveness of the job option he favored. The stimulus person who liked his advisor was believed to like more the advisor's job preference (i.e., legal aid service job) than the individual who disliked his counsellor.

Furthermore, an overall Affect x Attractiveness of the Job Options Variations interaction ( $\underline{F}$  = 2.51,  $\underline{df}$  = 8/276,  $\underline{p}$  < .012) also attained significance on the quantitative measure of decision freedom based on Steiner's formula. This interaction likely resulted from the differences in attributed net gains in the legal aid service job evaluations when the advisor was liked versus disliked by the stimulus person. Thus, the attractiveness of the advisor did influence, to a small extent, the subjects' views of how attractive the stimulus person

 $<sup>^{11}</sup>$ See Appendix G for further details.

TABLE 11 Semantic Differential Ratings of the Legal Aid Service Joba (Attractiveness of Agent x Attractiveness of Job Options Variations)

Attractiveness of Job Options Variations

Agent	1 LAE > LFE <sup>b</sup>	2 LAI > LFE	3 LFE > LAE	4 LAE=LFE	5 LAI=LFE
Liked	31.76	32.05	15.65	32.33	31.95
None (Control)	30.15	32.20	14.70	31.50	30.85
Disliked	32.85	31.65	13.30	30.62	32.00

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed attractiveness.

bLA = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards

E = Extrinsic Rewards

TABLE 12

Attractiveness of Legal Aid Service Job

Omitting Free Response Consequences [(valences x subjective probabilities)] a

(Attractiveness of Agent x Attractiveness of Job Options Variations)

Attractiveness of Job Options Variations

Agent	1 LAE>LFE <sup>b</sup>	2 LAI > LFE	3 LFE > LAE	4 LAE=LFE	5 LAI=LFE
Liked	36.67	36.74	16.06	36.85	35.41
None (Control)	36.12	36.81	17.49	35.88	34.76
Disliked	37.58	36.73	14.42	36.50	33.13

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed attractiveness.

bLA = Legal Aid Service Job

LF = Law Firm Job

I = Intrinsic Rewards
E = Extrinsic Rewards

TABLE 13

Attractiveness of Legal Aid Service Job

Including Free Response Consequences [(valences x subjective probabilities) - (costs x subjective probabilities)] a

(Attractiveness of Agent x Attractiveness of Job Options Variations)

Attractiveness of Job Options Variations

Agent	1 LAE > LFE <sup>b</sup>	2 LAI > LFE	3 LFE>LAE	4 LAE=LFE	5 LAI=LFE
Liked	37.51	38.12	15.98	37.67	36.09
None (Control)	36.42	37.68	18.83	36.05	35.39
Disliked ·	37.38	36.99	13.53	36.21	33.58

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed attractiveness.

bLA = Legal Aid Service Job

LF = Law Firm Job

I = Intrinsic Rewards

E = Extrinsic Rewards

would find the recommended job option ( $\underline{i}.\underline{e}.$ , legal aid service job).

# Attributions of Outcome and Decision Freedom and Locus of Control (I-E)

DeCharms, Carpenter and Kuperman (1965) reported that internals on Rotter's (1966) Locus of Control Scale attributed more freedom to a stimulus person than did externals. In the present study, there were no significant main I-E effects on the four outcome freedom questions (Items 10 through 13) or on the two decision freedom questions (Items 14 and 15). There were two significant complex interactions involving I-E when the subjects judged Adam Conrad's freedom to accept the law firm job (Question 11). Nevertheless, there was no tendency for internals of either sex to assign more freedom than did externals in these interactions (see Appendix H for additional details). However, there was some support for the finding of deCharms, Carpenter and Kuperman (1965) concerning I-E and attributed freedom in the responses of the subjects to other measures used in this study, as will be reported later.

#### Questions Based on deCharms, Carpenter and Kuperman (1965)

Since one of the purposes of this study was to replicate the deCharms, Carpenter and Kuperman (1965) findings concerning attractiveness of the advisor, locus of control and intrinsic versus extrinsic rewards, it was essential to include measures worded similarly to those employed in the earlier study. 12 Questions 18, 19 and 20 were

<sup>12</sup>Two of deCharms' items referred by name to the agent requesting the favor. The questions in the present study referred more generally to "other people" and "events".

modelled after those of deCharms, Carpenter and Kuperman (1965). Two of these items, Questions 18 and 19, were <u>indirect</u> in that the words <u>free</u> or <u>freedom</u> were never specifically used. Question 20, agreement that Adam Conrad would feel completely free to make his own decision in the job matter, was a <u>direct</u> freedom question (used the word <u>free</u>) which did not refer to the choice of any particular job option as did the outcome freedom questions, Items 10 through 13.

Another question similar in form to Question 20 was Question 9 concerning the freedom Adam Conrad would feel in making a choice between his two alternatives. This item was also a direct freedom question which did not refer specifically to any particular job option available to the stimulus person.

Measures of Adam Conrad's feeling that he was being coerced into making a particular decision on the job matter (Question 21) and of his feeling of being pressured into making up his mind on the job matter (Question 22) had been designed to assess attributed discomfort with the choice situation. However, no effects occurred that could be interpreted in this fashion. Consequently, these two measures were tentatively treated as additional indirect measures of freedom, similar to some (Questions 18 and 19) of those used by deCharms, Carpenter and Kuperman (1965).

Table 14 reports the mean scores obtained by internal and external subjects on items patterned after those used by deCharms, Carpenter and Kuperman (1965). The data in that table clearly indicate that internals attributed more freedom than externals to the stimulus person. However, as indicated by the data in Table 15, on one of the

TABLE 14

Locus of Control and Questions Similar to deCharms,

Carpenter and Kuperman (1965)

	Locus of	Control	
Question	Internal	External	<u>F</u> Ratio
18-Not feel many decisions being made for him by other people <sup>a</sup>	5.57	5.05	$\frac{F}{df} = 8.43,$ $\frac{\overline{df}}{\underline{p}} < .004$
19-Not feel other people and events arbitrarily controlling him like a pawn <sup>a</sup>	5.66	5.39	$\frac{F}{df} = 2.40,$ $\frac{df}{P} < .122$
20-Feels completely free to make own decision in job matter <sup>a</sup>	5.37	4.94	$\frac{F}{df} = 4.97,$ $\frac{df}{P} < .027$
9-Feels free in making his choice between the two job alternatives a	4.79	4.66	$\frac{F}{df} = .16,$ $\frac{df}{p} < .69$
21-Not feel coerced into making particular decision on job matter <sup>a</sup>	5.73	5.27	$\frac{F}{df} = 6.81,$ $\frac{df}{P} < .01$
22-Not feel pressured into making up his mind on job matter	4.63	4.28	$\frac{F}{df} = 2.22,$ $\frac{df}{p} < .11$
23-Sets own goals, determines own means	5.31	4.87	$\frac{F}{df} = 5.49,$ $\frac{D}{p} < .02$

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the agreement with the attribution of freedom to the stimulus person.

<sup>&</sup>lt;sup>b</sup>The higher the mean, the greater the agreement with the attribution of an internal orientation to the stimulus person.

TABLE 15

Agreement that Adam Conrad would feel completely free to make his own decision in the job matter<sup>a</sup>

(Sex x I-E)

Locus of	Sex	
Control	Male	Female
Internal	4.90	5.93
External	4.89	4.99

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the agreement with the attribution of complete freedom.

direct  $^{13}$  freedom questions modelled after deCharms, Carpenter and Kuperman (1965) only female subjects showed the expected effect. The locus of control tendencies of the males on this direct freedom question (Question 20) did not influence their attributions ( $\underline{F}=5.42$ ,  $\underline{df}=1/246$ ,  $\underline{p}<.021$ ). Furthermore, the internals of both sexes did not attribute more freedom to Adam Conrad than did the externals when responding to the other direct but non-specific freedom question, Item 9, as indicated by the data in Table 14. Nevertheless, the locus of control findings on these measures generally replicate the finding of deCharms, Carpenter and Kuperman (1965) concerning I-E, and raise questions regarding the failure to find this I-E effect in the data from the four outcome freedom questions (Questions 10 through 13).  $^{14}$ 

DeCharms, Carpenter and Kuperman (1965) also reported that the attractiveness of the advisor and the intrinsic versus extrinsic rewards inherent in one of the two available alternatives influenced attributions of freedom to the stimulus person. However, in the present study, the six questions modelled after deCharms, Carpenter and Kuperman (1965) revealed no such effects.

The overall Attractiveness of the Job Options Variations effect  $(\underline{F}=5.12,\underline{df}=4/274,\underline{p}<.001)$  was significant when the subjects judged how free Adam Conrad would feel in making his choice between the two alternatives (Question 9). The Dissimilar Attractiveness Variations effect was significant  $(\underline{F}=3.76,\underline{df}=2/163,\underline{p}<.025)$  as

 $<sup>^{13}</sup>$ The word <u>free</u> used in the wording of the question.

<sup>14</sup> See Appendix K for further details.

was the Similar Attractiveness Variations effect (F = 6.38, df = 1/113,  $p \ge .013$ ) on this measure. These means are presented in Table 16. Inspection of this table reveals that the perceivers in the first dissimilar attractiveness condition believed that Adam Conrad would feel freer in making his choice between the two alternatives than did those in the other four conditions. Furthermore, the subjects believed Adam Conrad would feel freer in making his choice between his two highly attractive alternatives when the legal aid service job had extrinsic rather than intrinsic benefits (Condition 4 versus 5). This latter finding tends to contradict the results of deCharms, Carpenter and Kuperman (1965) concerning intrinsic versus extrinsic motivations.

On two of the four indirect freedom questions there were interesting and significant Sex effects. As the data in Table 17 indicate, the females in the three dissimilar attractiveness conditions disagreed more than did the males with the statement that Adam Conrad felt that others were making decisions for him ( $\underline{F}=3.97$ ,  $\underline{df}=1/163$ ,  $\underline{p}<.048$ ) (Question 18). Furthermore, the female subjects generally agreed more that Adam Conrad would feel that he was completely free to make his own decision in the job matter ( $\underline{F}=5.84$ ,  $\underline{df}=1/274$ ,  $\underline{p}<.016$ ) (Question 20). Thus, although the I-E means of the males and females in this study were not significantly different (see Appendix B), the females, in some instances, attributed more freedom to the stimulus person than did the males.

<sup>&</sup>lt;sup>15</sup>See Appendix J for further details.

TABLE 16

#### Attribution of Nonspecific Freedom Felt in Making Choice

Attractiveness of Job Options Variations 1 2 3 Manipulated 4 5 LAE>LFEb LAI>LFE LFE>LAE LAE=LFE Attractiveness LAI=LFE Question 9 Freedom felt in 5.28 4.65 4.58 4.73 3.95 making choice be tween p ∠ .025 alternatives<sup>a</sup>

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

bLA = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards E = Extrinsic Rewards

	Sex		Attractiveness of Job Options Variations	
Question	Male	Female	Conditions Involved and <u>F</u> Ratio	
18-Disagree that Adam feels that many decisions are being made for him by other people	4.91	5.38	Dissimilar attractiveness conditions only $\underline{F} = 3.97$ , $\underline{df} = 1/163$ , $\underline{p} < .048$	
20-Agree that Adam feels completely free to make own decision in job matter	4.90	5.38	Both similar and dissimilar attractiveness conditions Overall F = 5.84, df = 1/274, p < .016	

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

# Attributions of Intrinsic or Extrinsic Motivations to the Stimulus Person

Questions 16 and 17 were designed to measure the degree to which the subjects attributed intrinsic motivations to the stimulus person. There were no significant main effects on these two items.

Two complex and largely uninterpretable interactions were significant in the responses of the subjects to Question 16 and a Sex effect attained significance in the dissimilar attractiveness conditions in Question 17 (see Appendix L for details). Apparently, the manipulation of the intrinsic versus extrinsic rewards inherent in the legal aid service job did not affect attributions of intrinsic motivation to the stimulus person.

## Attributions of a Sense of Personal Control to the Stimulus Person

Question 23 concerned the attribution of a sense of real personal control to the stimulus person, Adam Conrad. The final row of the data in Table 14 indicates that internals agreed more than did externals that the stimulus person, Adam Conrad, was an internal, who set his own goals and determined how to achieve his own ends. Furthermore, an Attractiveness of Job Options Variations effect ( $\underline{F}$  = 3.26,  $\underline{df}$  = 4/274,  $\underline{p}$  < .012) also attained significance on this internal orientation attribution measure (Question 23). These means are presented in Table 18. There was a strong tendency for the subjects in the first dissimilar attractiveness variation condition to judge Adam

<sup>&</sup>lt;sup>16</sup>See Appendix L for details concerning a complex but largely uninterpretable interaction in the attractiveness of job options variation conditions on the responses of the subjects in Question 23.

TABLE 18

### Attribution of a Sense of Personal Control over Future to the Stimulus Person

	Attra	Attractiveness of Job Options Variations					
Manipulated	1	2	3	4	5		
Attractiveness	LAE > LFE <sup>a</sup>	LAI > LFE	LFE > LAE	LAE=LFE	LAI=LFE		
Question 23							
Sets his own goals and	5.51	4.97	4.53	5.05	5.23		
determines	L						
how to achieve his own ends <sup>b</sup>		<u>p</u> < .005					

a<sub>LA</sub> = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards
E = Extrinsic Rewards

<sup>&</sup>lt;sup>b</sup>The higher the mean, the greater the agreement with the attribution of an internal orientation to the stimulus person.

Conrad as a man with an internal orientation. The perceivers in the other four conditions were less inclined to do so.

### Attractiveness of Adam Conrad's Character

In response to Question 24 the subjects rated the stimulus person on six bipolar trait scales which were then summed to measure the attractiveness of Adam Conrad's character to the subjects. On the overall three-way (Affect x Attractiveness of Job Options Variations x Sex) Anova, the Attractiveness of Job Options Variations effect  $(\underline{F} = 8.46, \underline{df} = 4/274, \underline{p} < .001)$ , the Affect x Attractiveness of Job Options Variations interaction ( $\underline{F} = 2.94$ ,  $\underline{df} = 8/274$ ,  $\underline{p} < .004$ ) and the Affect x Attractiveness of Job Options Variations x Sex interaction ( $\underline{F}$  = 2.25,  $\underline{df}$  = 8/274,  $\underline{p}$  < .025) were all significant. The attractiveness of job options condition means are presented in Table 19. These data indicate that Adam Conrad was least liked when he evaluated the legal aid job in very negative terms. This reaction on the part of the stimulus person occurred only in Condition 3. In all other conditions, Adam Conrad considered the legal aid service position as an attractive alternative. Furthermore, when the stimulus person was described as viewing the legal aid job in terms of its intrinsic rewards because of its appeal to his personal values (Conditions 2 and 5), he was judged to be more attractive than in the other three conditions. One explanation is that the subjects in Conditions 2 and 5 had been given pieces of character description not present in Conditions 1 and 4. The subjects in Conditions 2 and 5 had read that Adam Conrad was idealistic, had been very concerned about social problems, had

TABLE 19 Attractiveness of Adam Conrad's Character<sup>a</sup>

## Attractiveness of Job Options Variations

1 LAE > LFE <sup>b</sup>	2 LAI > LFE	3 LFE > LAE	4 LAE=LFE	5 LAI=LFE
30.87	32.22	28.23	29.21	32.56
	0.64, $df = 2/1$ p< .001	.63,	$\underline{F} = 11.11,$ $\underline{p} < .0$	$\frac{df}{001} = 1/113,$

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed attractiveness.

bLA = Legal Aid Service Job
LF = Law Firm Job

I = Intrinsic Rewards
E = Extrinsic Rewards

read much on poverty and crime in the U.S.A. and wished to spend at least a year of his professional life in public service work for poor people. These details concerning Adam Conrad had been added to strengthen and make more believable the intrinsic motive orientations of the stimulus person in Conditions 2 and 5. This difference in the information presented concerning the stimulus person probably accounted for the fact that the subjects judged him to be more attractive in the intrinsic than in the extrinsic conditions. (See Appendix M for details concerning the complex interactions that attained significance on Question 24).

# Supplementary and Exploratory Analyses on Attributed Freedom Questions

Multiple regression equation analyses were performed for exploratory purposes on the subjects' responses to each of the questions designed to measure attributions of outcome freedom (Questions 10 through 13). Seven predictors were examined:

- (1) the I-E scores of the subjects,
- (2 & 3) the ratings of the legal aid service job and of the law firm job on the semantic differential scales (Questions 1 and 2),
  - (4) a decision freedom question (Item 14),
  - (5) the Quantitative Decision Freedom Measure,
  - (6) a measure of the degree of intrinsic motivation attributed to the stimulus person (Question 16),
  - (7) the measure of the degree to which the stimulus person was viewed as having a strong sense of personal control (Question 23).

These same seven variables were also used to predict the responses of the subjects on the three questions most directly based on deCharms, Carpenter and Kuperman (1965) (Questions 18, 19 and 20) and on the question concerning Adam Conrad's feeling of freedom in making his choice between his two alternatives (Question 9). These results are presented in Table 20. The multiple correlation coefficients ranged from .298 to .575 and were all highly significant ( $\underline{F}$ 's ranging from 4.15 to 20.97,  $\underline{df} = 7/298$ ,  $\underline{p} \angle .001$ ).

Inspection of the data in Table 20 indicates that the questions previously designated as measures of outcome freedom (Questions 10 through 13) did reveal a similar pattern of significant predictors. Likewise, the two indirect freedom questions (Items 18 and 19) modelled after those of deCharms, Carpenter and Kuperman (1965) were similar in pattern. Both Questions 20 (degree Adam felt free to make his own decisions) and 9 (degree Adam felt free in making his choice between his two alternatives) had unique patterns of significant predictors.

There was a slight suggestion in the analysis of variance results, already reported, that freedom to accept the legal aid service job (Question 10) was influenced by the attractiveness of both job options, not merely by the attractiveness inherent in the legal aid service position. However, the attractiveness of the law firm job (Semantic Differential--Question 2) was not a significant predictor in the multiple regression equation predicting freedom to accept the legal aid job (Question 10). Nevertheless, the attractiveness of the two

<sup>&</sup>lt;sup>17</sup>See McNemar, 1969, pp. 318-322.

(Cont'd)

Multiple Regression Equation Analyses Data<sup>a</sup> TABLE 20

ficients	(5) (6) 023	Sense of Quantitative Personal Decision Control Freedom Attribution Measure	B = .212 B = .024	$\frac{t}{t} = 3.59$ $\frac{t}{t} = 2.19$	B =039	$\frac{t}{t} = -3.15$	B = .157 B =043	t = 2.32 $t = -3.38$	B = .253	t = 3.84
Predictors and Significant Regression Coefficients <sup>D</sup>	(4)	Q14 Se Decision Pe Freedom Co Attribution Attr	B = .138 B	$\frac{t}{t} = 2.60 \qquad \frac{t}{t} = \frac{1}{t}$			ш Ф	14	ш Ф	t+ 
ors and Signifi	(3)	Law Firm Job Q2			B = .031	$\frac{t}{t} = 1.92$	지 2.		B =033	t = -2.07
Predict	(2)	Legal Aid Job Q1	8 = .079	$\frac{t}{t} = 5.20$	B =052	$\frac{t}{t} = -3.06$	B =067	$\frac{t}{1} = -3.85$	B = .071	$\frac{t}{t} = 4.20$
	(1)	I-E Score							B = .049	$\underline{t} = 2.18$
		Question (Predicted variable)	10-Freedom to accept legal aid job	R = .49	11-Freedom to accept law firm job	R = .41	12-Freedom to refuse legal aid job	R = .30	13-Freedom to refuse law firm iob	R = .49

# TABLE 20 (Cont'd)

(9)	Quantitative Decision Freedom Measure								
(5)	Sense of Personal Control Attribution	B = .264	$\frac{t}{t} = 4.67$	B = .365	$\frac{t}{t} = 6.84$	B = .555	t = 9.76	B = .389	$\frac{t}{t} = 6.44$
(4)	Q14 Decision Freedom Attribution	B = .127	$\frac{t}{t} = 2.50$	B = .109	$\frac{t}{t} = 2.28$	B = .137	$\frac{t}{t} = 2.68$		
(3)	Law Firm Job Q2			B = .025	$\frac{t}{1} = 1.99$				
(2)	Legal Aid Job Q1	B = .034	$\frac{t}{1} = 2.35$						
(1)	I-E Score <sup>c</sup>	B =067	$\frac{t}{t} = -3.48$						
	Question	18-Disagree that Adam feels his decisions being	R = .45	19-Disagree that Adam feels people and events control him	R = .47	20-Agree that Adam feels free to	R = .57	9-Freedom felt in choosing between	R = .41

aThere were no significant regression coefficients involving Q16 (Intrinsic Motivation Attribution).  $_{\rm bN}^{\rm a}=306$ ,  $_{\rm t}=1.96$ ,  $_{\rm p}<.05$ .  $_{\rm c0n}^{\rm the}=1.96$ , Scale, the higher the score, the more external the subject.

jobs were significant and almost significant predictors of the freedom felt by the stimulus person to accept the law firm job (Question 11). The data in the analysis of variance concerning this point were ambiguous. Clearly, more research is needed to clarify the effect of the attractiveness of the other option on freedom to accept a particular choice.

Similar multiple regression equation analyses were performed on the two questions designed to measure the decision freedom attributed to the stimulus person (Questions 14 and 15). The same predictors were used for these two multiple regression equation analyses, with the exception of the Decision Freedom Question 14, itself, which was omitted from the series of predictors used for both Questions 14 and 15. These results are presented in Table 21. A fairly similar pattern of significant predictors was evident on both measures of attributed decision However, the more the traits and values of the stimulus person were seen as influencing the way he judged his alternatives (Question 16), the less he was seen as feeling his choice was not dictated by circumstances (Question 14). In other words, the more the motivations of the stimulus person were seen as intrinsic, the less decision freedom was attributed to him by the perceivers. The extent of intrinsic motivation attribution was not a significant predictor of the responses to the other attributed decision freedom item concerning the quantity of real choice available to the stimulus person (Question 15).

It is surprising that the Quantitative Decision Freedom Measure was not a significant predictor of the subjects' responses to the two measures designed to assess attributed decision freedom. However, the

TABLE 21

Multiple Regression Equation Analyses Data:
Decision Freedom Questionsa

Predictors and Significant Regression Coefficients

	(1)	(2)	(3) Q16	(4) Q23 <sup>b</sup> Sense of
Question	Legal Aid Job-Q1	Law Firm Job-Q2	Intrinsic Motivation Attribution	Personal Control Attribution
14-Extent Adam feels choice not dictated by	B = .035	B = .030	B =189	B = .183
circumstances R = .30 <sup>C</sup>	<u>t</u> = 2.11	$\frac{t}{(\underline{p} < .10)}$	$\underline{t} = -2.74$	<u>t</u> = 2.88
15-Extent of real choice Adam feels	B = .049	B = .038		B = .364
he has R = .44 <sup>d</sup>	$\underline{t} = 3.14$	$\underline{t} = 2.59$		$\underline{t} = 6.02$

 $<sup>^{</sup>a}N = 306, \underline{t} = 1.96, \underline{p} < .05.$ 

bPredictors also included I-E Score and Quantitative Decision Freedom Measure. These yielded no significant regression coefficients.

 $c_{\underline{F}} = 5.02, \underline{df} = 6/299, \underline{p} \angle .001.$ 

 $<sup>\</sup>frac{d_{F}}{E} = 11.71, \underline{df} = 6/299, \underline{p} < .001.$ 

fact that the attractiveness of both the job options were significant predictors of the responses to these decision freedom items, supports Steiner's (1970) theory of attributed decision freedom to some extent. Indeed, the more attractive were both job options, the more real choice and the less circumstantial coercion the stimulus person was believed to experience.

Another surprising finding evident in Table 20 is that the more the stimulus person was viewed as a man who set his own goals and the means to achieve these ends (Question 23), the more real choice and choice not dictated by circumstances, he was believed to experience. This finding suggests that the items designed to measure the attribution of decision freedom to the stimulus person were not pure measures of this type of freedom attribution. More research is needed to explore the implications of this finding.

#### DISCUSSION

## Basic Hypotheses: Decision Freedom

The data of this study provide strong support for the two basic hypotheses concerning the attribution of decision freedom. The stimulus person was viewed as having more decision freedom when his two options were equal in attractiveness (net gain) rather than unequal (Hypothesis III). Furthermore, the more equally attractive the two job choices, the more decision freedom was attributed to the stimulus person (Hypothesis IV). Thus, judgments of how much real choice existed for the stimulus person and how much his choice was dictated by circumstances were affected by the differential attractiveness (difference in the net gains) of the two job options in the manner predicted by Steiner's (1970) theory. Consequently, these two measures of choice were interpreted by the subjects as requiring decision freedom judgments.

However, the data also clearly indicate that the decision freedom attributed to the stimulus person in this study was not determined completely by the absolute difference in the attractiveness of the stimulus person's options as determined by Steiner's (1970) formula. The sex of the subjects and the intrinsic versus extrinsic benefits of the job options influenced the decision freedom attributed to the stimulus person and the perceived equality of his alternatives in opposite ways, contrary to Steiner's (1970) theory.

One possible explanation for these findings is that the absolute difference in net gain between the two options available to a stimulus person is for many perceivers a poor indicator of the

relative attractiveness of the two job options when considered as mutually exclusive choices. Perceivers may not routinely consider the costs of giving up the other option when they rate the attractiveness of a particular alternative. Indeed, very few subjects mentioned such costs in their free responses when evaluating each option separately. Nevertheless, when they rated the stimulus person's decision freedom, such costs may have been considered in their decision-making process.

Secondly, some subjects may feel that two options which differ only slightly in attractiveness in absolute terms are really very different psychologically. Others may feel that even though two choices differ considerably in absolute attractiveness, they seem, psychologically, fairly similar in attractiveness. The implications of such individual differences in the perceptions of a stimulus person's options will be discussed later.

The results of the present study suggest that perhaps the inequality of attractiveness of available options should be assessed by asking direct questions. Thus, for example, subjects might be asked, "How different in attractiveness does X (name of the stimulus person) find the two options that are available to him?" Research is needed to determine whether such a measure would correlate more strongly with attributed decision freedom than does the difference measure based on Steiner's (1970) formula.

## Basic Hypotheses: Outcome Freedom

As was predicted by Hypothesis I, more freedom was attributed to the stimulus person to accept an option that was attractive (high

net gain) than to accept one that was unattractive (low net gain).

Similarly, as was predicted by Hypothesis II, the stimulus person was judged to feel freer to reject a poor choice than an attractive option.

The data in the present study suggest that more research is needed to determine how the attractiveness of the alternative with which option X is paired influences the attribution of freedom to choose alternative X. Although the results of the present study are somewhat contradictory, it may be that less freedom to accept option X is attributed when this choice is paired with an equally attractive alternative than when it is paired with a much less attractive choice. The greater costs involved in giving up the nonchosen alternative when it is very attractive, rather than unattractive, may account for this tendency.

The subjects generally reacted to inquiries concerning the stimulus person's freedom to accept specific alternatives according to Steiner's (1970) theory of outcome freedom. Hence, the subjects presumably interpreted these inquiries as requiring assessments of outcome freedom. The data indicate that the freedom to reject particular options reflects the same determinant as does outcome freedom, that is, the attractiveness of the option itself. This type of freedom attribution, freedom to reject an alternative, may better predict certain behaviors, like a perceiver's tendency to ask someone to act in a certain way, than do Steiner's (1970) constructs, outcome freedom and decision freedom.

## Intrinsic and Extrinsic Motivations

DeCharms, Carpenter and Kuperman (1965) reported that more freedom was attributed to a stimulus person who had an option with many intrinsic benefits than to one whose alternatives involved only extrinsic rewards. In that study, the subjects rated the choices with extrinsic rewards as less attractive than the intrinsically rewarding option. In the present study, in which the attractiveness of the intrinsic alternative was equated with that of a similar but extrinsically rewarding choice, i.e., the intrinsically rewarding legal aid job versus the extrinsically rewarding legal aid job, there was little support for the relationship reported by deCharms et al (1965). Only the males who believed that the stimulus person liked both his attractive options equally well and was considering one choice with intrinsic benefits, attributed less freedom to the stimulus person to reject this option and less freedom to accept its extrinsic alternative. In the deCharms et al study, differences in the net gains of the intrinsic and extrinsic choices may have resulted in the attribution of more outcome freedom to the stimulus person with the intrinsically rewarding alternative.

## Presence and Likeability of the Advisor

DeCharms, Carpenter and Kuperman (1965) found that more freedom was attributed to a stimulus person who liked his advisor than to someone who disliked his counsellor. There was some rather indirect support for this finding in the present study in that the stimulus person was seen as feeling more residual freedom to do what a liked

rather than a disliked advisor wanted him to do. The effect of the likeability of the advisor in the present study was much weaker than in that of deCharms, Carpenter and Kuperman (1965). One explanation for this difference between the two studies is that the attitude of the stimulus person toward his advisor in the deCharms et al (1965) study was one of the few concrete details given in the short vignettes. The subjects were not really sure how the stimulus person felt about the costs and benefits of each of his two alternatives or about how he would react when actually engaging in the behavior advised by his superior. They were, however, sure about the stimulus person's attitude towards his advisor. In the present study, the subjects were given many details concerning the consequences of each alternative for the stimulus person. It is reasonable to believe that the short phrase defining the likeability of the advisor would have a much weaker effect in the present study than in the deCharms, Carpenter and Kuperman (1965) study. Thus, the contradictions in the data in the present study concerning the influence of the attractiveness of the advisor may be explained by the weakness of this experimental manipulation relative to the job attractiveness manipulations. Furthermore, this effect and its resulting influences may have been so weak that they disappeared entirely by the time the subjects reached the measures of the study that were patterned after those of deCharms, Carpenter and Kuperman  $(1965).^{18}$ 

 $<sup>^{18} \</sup>text{The deCharms} \ \underline{\text{et}} \ \underline{\text{al}} \ (1965)$  study involved repeated measures and two questionnaire items that used the name of the advisor instead of the more general wording, "other people" and "events", that was used in the present study.

There was, however, a fairly consistent tendency for the option recommended by the liked advisor to be viewed as slightly more attractive to the stimulus person than the same choice recommended by a disliked counsellor. This finding replicates that of deCharms <u>et al</u> (1965). Hence, the data suggest that more outcome freedom, as indicated by the residual freedom measure of the present study, is attributed to someone who likes an individual who recommends one of his choices than to a stimulus person who dislikes such a counsellor. More research is needed to substantiate the findings of the present study concerning the effects of the likeability of an advisor on the attractiveness of the choice options and on the outcome freedom attributed to the stimulus person.

Furthermore, the data in the present study did not present any clear and consistent pattern of differences in the reactions of a perceiver to a stimulus person with no advisor versus individuals with liked or disliked counsellors. Research that places more nearly equal weight on the attractiveness of the advisor and on the choice options presented to subjects may clarify the impact of a no-advisor situation on the findings in the present study and in deCharms, Carpenter and Kuperman (1965). In addition, a situation in which the stimulus person has a neutral attitude toward his advisor should be used as a baseline control condition for the no-advisor comparisons, rather than a liked or disliked advisor condition.

## Locus of Control (I-E) and the Attribution of Outcome and Decision Freedom

DeCharms, Carpenter and Kuperman (1965) reported that internals on Rotter's (1966) I-E scale attributed more freedom to the stimulus person than did externals. In the present study, this finding was replicated only on measures very similar to those used by deCharms, Carpenter and Kuperman (1965). In the present study, internals did not attribute more outcome freedom or decision freedom to the stimulus person on measures designed to assess those attributions. Furthermore, the data clearly indicate that internals did not view the attractiveness of the stimulus person's options any differently from externals. This finding replicates that of deCharms et al (1965). Internals did, however, in the present study, feel that the stimulus person was a man who set his own goals and determined his own means to achieve these ends (i.e., possessed an internal ideology) more than did the externals. This finding, coupled with the results from the exploratory multiple regression equation analyses, is highly suggestive.

In these exploratory analyses, the degree to which the stimulus person was seen as an internal was a significant predictor of the amount of outcome freedom and decision freedom that was attributed to him and of the amount of freedom assigned to him on measures patterned after those of deCharms, Carpenter and Kuperman (1965). In this latter study, very little information was given to subjects concerning the stimulus person's feelings about his available choices. It is possible that the locus of control perceptions of the subjects in the earlier study strongly influenced the degree of internal orientation attributed to the stimulus person. In short, internals in the deCharms et al

study may have attributed more freedom to the stimulus person because they believed he also felt like an internal and viewed his environment in these terms. In the present study, many more specific details were given about the options available to a person who had already achieved a high status and had the opportunity to make a decision that would, in itself, likely influence the course of his life. Other factors, in addition to the perceivers' own internality, probably influenced the degree of internality that they attributed to the stimulus person. In the present study, the more people viewed the stimulus person as an internal, regardless of their own personal locus of control perceptions, the more they attributed freedom to him. Research that directly manipulates the degree of internal orientation of a stimulus person is needed to determine whether this perception does indeed influence the freedom attributed to such a person, the types of freedom attributions so affected, and the influence, if any, of such "sense of personal control" attributions on the estimated attractiveness of a stimulus person's actual options.

## Dimensions of Attributed Freedom and Types of Dependent Measures

Steiner's (1970) theory of attributed freedom distinguishes between two types, or dimensions, of attributed freedom, namely, outcome freedom and decision freedom. In the present study, the experimental manipulations of the attractiveness of the job options affected the judgments designated as measures of outcome freedom and of decision freedom in the manner predicted by Steiner's (1970) theory. These results were also supported by the data from the exploratory multiple

regression equation analyses.

However, the correlations in these latter analyses also suggest that a third dimension of freedom, not mentioned in Steiner's (1970) theory, also exists. Furthermore, these multiple regression correlations suggest that the dependent measures used to tap outcome freedom and decision freedom may measure, in part, this third dimension of attributed freedom.

The more people believed that the stimulus person felt that he had a considerable degree of control over his own future, the more they attributed to this individual a sense of choice and freedom to accept and reject his options. Consequently, a third dimension of freedom has been tentatively designated as sense of personal control freedom. The antecedents of such a freedom attribution would consist of the factors that influence the degree to which a stimulus person is seen as having the orientations and perceptions of an internal. This dimension of attributed freedom may account for some of the more emotional connotations of judging oneself and others as "feeling free", in contrast to more rational factors like the net gains inherent in available options and the equality of such net gains.

Furthermore, the data from the exploratory multiple regression equation analyses also suggest that subjects may weight more than one dimension of freedom in their answer to any measure of attributed freedom. Presumably, subjects must interpret the meaning of a question-naire item by considering the exact wording of the statement and the information and other cues presented to them in the course of the experimental manipulations. There was no evidence in the analyses of

variance on the items similar to those of deCharms, Carpenter and Kuperman (1965) to indicate that the subjects responded to these items by rendering judgments that were exclusively concerned with either outcome or decision freedom. The exploratory multiple regression equation correlations indicated that measures of these two dimensions of freedom, and of the proposed third dimension of freedom, previously described, all predicted the responses of the subjects to these items. It is possible that the subjects in this study and in that of deCharms, Carpenter and Kuperman (1965) interpreted these questions as requiring judgments on all three dimensions of attributed freedom.

The foregoing considerations strongly indicate the need for further investigation of the reasoning and processes by which subjects arrive at their judgments, of the interpretations they place on particular measures of attributed freedom in particular situations (i.e., prior to, or after, the stimulus person has made his choice) and on the proposed sense of personal control freedom dimension, itself. This dimension may provide the underlying dynamics for the findings of studies such as those of Wolosin and Denner (1971) which have identified differences in the amount of freedom attributed by subjects to themselves and to others in similar situations. Furthermore, it is possible that the effects of intrinsic versus extrinsic motivation obtained by deCharms, Carpenter and Kuperman (1965) occurred, in part, because, in their study, a person who was seen as wanting to behave in a particular manner, because doing so expressed his own values and ideals, was also seen as having the orientation of an internal. In the present study, the orderly and rational presentation of the benefits of each job

option, both intrinsic and extrinsic, may have reduced the tendency of subjects to assume automatically that someone with available intrinsic rewards is an internal. This may be one of the reasons why the intrinsic versus extrinsic effect largely disappeared in the present study. The proposed third dimension of attributed freedom may prove to be a very fruitful area for future investigation.

## Sex Effects

There were a number of interesting and significant sex differences in the present study. In the three dissimilar-attractiveness-of-the-job-options conditions, the females disagreed more than the males with the statement that the stimulus person felt that others were making decisions for him. Likewise, the females generally believed more than the males that the stimulus person would feel completely free to make his own decision in the job matter. These results could have been based on perceived differences in the attractiveness of the two options of the stimulus person and hence, in the outcome freedom attributed to him by the males and females. Generally, the females believed that Adam Conrad would judge the legal aid service job to be more attractive than did the males. Likewise, the females in the two similar-attractiveness-of-the-job-options conditions tended to feel that Adam Conrad would judge the law firm job to be more attractive than did the males.

However, the females also attributed more decision freedom to the stimulus person than did the males. The females, especially in the dissimilar-attractiveness-of-the-job-options conditions, believed more than the males that Adam Conrad would feel that his choice was not dictated by circumstances. Likewise, the females generally believed that Adam Conrad had greater real choice than did the males. Furthermore, the females in the three dissimilar-attractiveness-of-the-job-options conditions agreed more strongly than the males that Adam Conrad's choice between the two job alternatives would likely be determined by his own traits and values.

It is possible that the females in this study simply tended to use higher values on the response scales than did the males because of differences in response styles and biases (Guilford, 1967; Jackson and Messick, 1967, p. 508; Cronbach, 1970, pp. 248-250). However, this response difference might have occurred because the career choice used in the present study was more male than female oriented. Thus, the females were permitted to be more hypothetical and less sensitive to the actual advantages and disadvantages of the two job options when judging the frame of mind of the stimulus person. Consequently, females may have been able to see Adam Conrad as freer, more likely to make the best decision for himself, and as facing a more glorious future than were the males, who probably felt themselves much more likely to be actually considering such alternatives when choosing their own careers. This difference in personal involvement on the part of the male and female subjects may account for all the significant Sex effects in this study.

# Category Width Preferences and Attribution of Freedom

One aspect of the perceiver's personality that should be investigated in future research on the attribution of freedom to a stimulus person is category width. This is "a dimension of individual consistencies in modes of categorizing perceived similarities and differences, reflected in consistent preferences for broad or narrow categories in conceptualizing" (Messick, 1967, p. 840). Some people with very broad category width preferences may perceive two alternatives to be very different on objective measures of attractiveness like semantic differential scales and measures based on Steiner's (1970) formula. Nevertheless, they may still feel that these options psychologically seem quite similar. Other people with narrow category width preferences may perceive two alternatives to be very similar on objective measures of attractiveness but may still feel that the slight differences that do exist are sufficient to make the two options psychologically seem to them very different in attractiveness. The psychological judgment that two options are different or similar in attractiveness may not be related very closely to more objective assessments of the similarity in attractiveness of the two alternatives.

Consequently, some subjects may feel that a stimulus person has little decision freedom while others may believe he has a great deal of freedom of choice because of differences in their category width preferences, even when they evaluate the attractiveness of each individual option (including the costs of giving up the other alternative) in a similar manner. When people with narrow category width

preferences use the attractiveness they see as inherent in a stimulus person's options to make determinations of his freedom to select and to reject alternatives, slight differences in attractiveness may be perceived as psychologically large and may affect outcome freedom attributions. Little freedom to choose and much freedom to reject the slightly poorer option may be attributed by people with narrow category width preferences. Likewise, much freedom to choose and little freedom to reject the slightly better option may be assigned by such perceivers. Similarly, narrow categorizors likely feel that a stimulus person is much freer to choose the slightly better option and much less free to select the somewhat less positive choice than broad categorizors. Perceivers with narrow category width preferences probably attribute much more freedom to reject the slightly poorer alternative and much less freedom to reject the somewhat better choice than do broad categorizors. Hence, the role of category width in the attribution of decision freedom and outcome freedom should be investigated in future research.

#### CONCLUSIONS

The subjects in this experiment made judgements concerning the freedom of a stimulus person after reading vignettes in which the attractiveness of his two job options, the types of rewards inherent in these options and the existence and likeability of an advisor were varied. The sex of the subjects and their locus of control perceptions (Rotter, 1966) were also variables in this study.

The perceivers made judgments of the decision freedom of the stimulus person in accordance with the predictions of Steiner's (1970) theory on certain dependent measures. However, on other measures, they assessed the outcome freedom of the stimulus person, in accordance with the predictions of Steiner's (1970) theory. The type of freedom attribution made by the subjects depended upon the wording of the dependent measures. More decision freedom was attributed to the stimulus person the more equal in attractiveness (net gain) were his two options. More freedom to select an alternative (outcome freedom) was attributed to the stimulus person when the option was high rather than low in net gain. Likewise, more freedom to reject an option was attributed to the stimulus person when that choice was unattractive rather than attractive.

Furthermore, the subjects tended to believe that the stimulus person viewed an option recommended by a likeable advisor as slightly more attractive than the same option endorsed by a disliked counsellor. The perceivers also attributed somewhat more residual freedom to the stimulus person to do what the liked rather than the disliked advisor

wanted. These results supported and somewhat clarified the findings of an earlier study by deCharms, Carpenter and Kuperman (1965). However, in contrast to the data in that study, the internality (Rotter, 1966) of the subjects and the types of rewards inherent in the options of the stimulus person ( $\underline{i.e.}$ , intrinsic  $\underline{versus}$  extrinsic) had weak and inconsistent effects on the freedom attributions of the subjects.

A series of exploratory multiple regression equation analyses suggested the existence of a third dimension of attributed freedom, in addition to Steiner's (1970) constructs, outcome and decision freedom, that was tentatively defined as sense of personal control freedom.

These analyses also suggested a conception of all measures of attributed freedom as judgments by subjects in which they weight one, two or three of the three dimensions of attributed freedom.

It is suggested that internals and those judging the freedom of a stimulus person who was considering an option with intrinsic benefits in the deCharms, Carpenter and Kuperman (1965) study, may have assumed that the stimulus person was an internal who believed in his own control over his future. Consequently, these perceivers may have attributed more freedom to this individual on measures of attributed freedom that were sensitive, in part, to this particular dimension. In the present study, the detailed presentation of the benefits and costs of the job options of a high status person making an extremely important choice may have disrupted the tendency to view a stimulus person as more of an internal, the more internal the perceiver and the more intrinsic the benefits of the available options. Indeed, in the present study, the actual perception of the internality of the stimulus person was a

better predictor of the freedom attributed to him than the internality of the perceivers or the degree of intrinsic motivation attributed to the stimulus person. These hypotheses and many other issues raised by the data of this study require further investigation.

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APPENDICES

#### APPENDIX A

### EXPERIMENTAL BOOKLET

NAME		
SEX:	Male _	Female

## INSTRUCTIONS

Please read very carefully the following story. Then answer the questions related to this story. You may refer back to the story at any time to help you answer the questions.

Once you have answered a page of questions, turn to the next page of questions. Be sure you are satisfied with your answers on each page <u>before</u> you turn to the next page of questions. When you have completed Part A of the questionnaire, go on to Part B. <u>Please</u> do not turn back to Part A to change any of your earlier answers once you have begun Part B.

Write your name at the top of this page, on the page containing the story and on the questionnaire. When you have answered all the questions, use the paper clip provided to attach all the pages together.

Please answer the questions as carefully as you can and do not change your answers to earlier questions once you have begun Part B of the questionnaire.

N	ame		

Adam Conrad is a young lawyer who will soon graduate from law school. He was recently asked by Dr. Martin Gardner, one of his professors and a man whom Adam likes and admires very much, to spend a year as a member of a legal aid service for poor people. Dr. Gardner is one of the officials of the legal aid service. Adam has already been accepted as a junior partner in a large law firm.

Adam Conrad likes very much the idea of working for the legal aid service. He believes that the experience definitely would be valuable for his future career since he would be given a wide variety of cases. It would also provide a good salary for his first year out of school. He is pleased with the four week vacation period available to him in this job. He feels he would become known by important people during his year of public service and that this might help him find a good job the following year and perhaps provide him with future opportunities of great value.

Furthermore, Adam is not particularly impressed by the prospects of working in the large law firm. He is very sure that he would be given few challenging cases but would be expected to work very hard on routine matters while others would take credit for his work. The salary is less than that offered by the legal aid service and the vacation period is shorter. The disadvantages of joining this large firm seem very great to Adam Conrad, especially since promotions are very rare in this particular law firm.

Basically, Adam realizes that he <u>likes the job in the legal aid</u>

<u>service much more</u> than that in the large law firm. He has not yet

decided whether or not to choose the alternative Dr. Gardner desires.

Name:	

Adam Conrad is a young lawyer who will soon graduate from law school. Adam has already been accepted as a junior partner in a large law firm and as a member of a legal aid service for poor people.

Adam Conrad likes very much the idea of working for the legal aid service. He believes that the experience definitely would be valuable for his future career since he would be given a wide variety of cases. It would also provide a good salary for his first year out of school. He is pleased with the four week vacation period available to him in this job. He feels he would become known by important people during his year of public service and that this might help him find a good job the following year and perhaps provide him with future opportunities of great value.

Furthermore, Adam is not particularly impressed by the prospects of working in the large law firm. He is very sure he would be given few challenging cases but would be expected to work very hard on routine matters while others would take the credit for his work. The salary is less than that offered by the legal aid service and the vacation period is shorter. The disadvantages of joining this large firm seem very great to Adam Conrad, especially since promotions are very rare in this particular law firm.

Basically, Adam realizes that he <u>likes the job in the legal aid</u>
service much more than that in the large law firm. Adam has not yet
decided which job he will actually take.

Name:	

Adam Conrad is a young lawyer who will soon graduate from law school. He was recently asked by Dr. Martin Gardner, one of his professors and a man whom Adam considers an opportunist and so does not respect, to spend a year as a member of a legal aid service for poor people. Dr. Gardner is one of the officials of the legal aid service. Adam has already been accepted as a junior partner in a large law firm.

Adam Conrad likes very much the idea of working for the legal aid service. He believes that the experience definitely would be valuable for his future career since he would be given a wide variety of cases. It would also provide a good salary for his first year out of school. He is pleased with the four week vacation period available to him in this job. He feels that he would become known by important people during his year of public service and that this might help him find a good job the following year and perhaps provide him with future opportunities of great value.

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Adam is idealistic and has been very concerned about social problems. He has read much on poverty and crime in the U.S.A. He wants very much to spend at least a year of his professional life in public service work for poor people. Firstly, the legal aid service position will provide him with a chance to do what he really would like to do. Secondly, Adam feels that he will be able to serve his fellow human beings and his country in a way that matches his own personal values and ideals. Thirdly, in this job, he will be able to be the kind of person he really feels he is. Then, too, the salary offered by the legal aid service is very good for an inexperienced lawyer who has just graduated and the three week vacation period is adequate.

Furthermore, Adam is not particularly impressed by the prospects of working in the large law firm. He is very sure that he would be given few challenging cases but would be expected to work very hard on routine matters while others would take the credit for his work. The salary is less than what young lawyers generally receive upon graduation. The job will leave him very little free time and will provide only a one week vacation. The disadvantages of joining this large firm seem very great to Adam Conrad, especially since promotions are very rare in this particular law firm.

Basically, Adam realizes that he <u>likes the job in the legal</u> aid service much more than the job in the large law firm. Adam has not yet decided whether or not to choose the alternative Dr. Gardner desires.

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Adam Conrad is not particularly impressed by the prospects of working in the legal aid service. The salary is much lower than what young lawyers generally receive upon graduation. The job will leave him with very little free time and will provide only a one week vacation. He is fairly sure that he would have only very routine cases to handle and might have difficulties getting a good job in a large law firm if he waits another year.

Furthermore, for many reasons, Adam Conrad likes very much the idea of joining the large law firm as a junior partner. He knows that the job would provide a good salary for his first year out of school. He is also pleased with the four week vacation period available to him in this job. Furthermore, Adam is sure he would be given some really challenging cases with which to build his career. In addition, Adam feels that in a few years he would likely be promoted into a job with more salary and status in this firm.

Basically, Adam realizes that he <u>likes the job in the large law</u>

firm much more than that in the legal aid service. He has not yet

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Name:	

Adam Conrad is a young lawyer who will soon graduate from law school. Adam has already been accepted as a junior partner in a large law firm and as a member of a legal aid service for poor people.

Adam is not particularly impressed by the prospects of working in the legal aid service. The salary is much lower than what young lawyers generally receive upon graduation. The job will leave him with very little free time and will provide only a one week vacation. He is fairly sure that he would have only very routine cases to handle and might have difficulty getting a good job in a large law firm if he waits another year.

Furthermore, for many reasons, Adam Conrad likes very much the prospects of working in the large law firm as a junior partner. He knows that the job would provide a good salary for his first year out of school. He is also pleased with the four week vacation period available to him in this job. Furthermore, Adam is sure he would be given some really challenging cases with which to build his career. In addition, Adam feels that in a few years he would likely be promoted into a job with more salary and status in this firm.

Basically, Adam realizes that he <u>likes the job in the large</u>
<u>law firm much more</u> than that in the legal aid service. Adam has not yet decided which job he will actually take.

Name:	

Adam Conrad is a young lawyer who will soon graduate from law school. He was recently asked by Dr. Martin Gardner, one of his professors and a man whom Adam considers an opportunist and so does not respect, to spend a year as a member of a legal aid service for poor people. Dr. Gardner is one of the officials of the legal aid service. Adam has already been accepted as a junior partner in a large law firm.

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Basically, Adam realizes that he <u>likes the job in the large law</u>

firm much more than that in the legal aid service. He has not yet

decided whether or not to choose the alternative Dr. Gardner desires.

Name:	

Adam Conrad is a young lawyer who will soon graduate from law school. He was recently asked by Dr. Martin Gardner, one of his professors and a man whom Adam likes and admires very much, to spend a year as a member of a legal aid service for poor people. Dr. Gardner is one of the officials of the legal aid service. Adam has already been accepted as a junior partner in a large law firm.

Adam Conrad likes very much the idea of working for the legal aid service. He believes that the experience definitely would be valuable for his future career since he would be given a wide variety of cases. It would also provide a good salary for his first year out of school. He is pleased with the four week vacation period available to him in this job. He feels he would become known by important people during his year of public service and that this might help him find a good job the following year and perhaps provide him with future opportunities of great value.

Adam also likes the prospects of working in the large law firm as a junior partner. The salary and the vacation time he has been offered are equal to that provided by the other job. Furthermore, Adam is sure he would be given some really challenging cases with which to build his career. In addition, Adam feels that in a few years he would likely be promoted into a job with more salary and status in this firm.

Basically, Adam realizes that both jobs have many advantages.

He concludes that the two choices would be <u>equally attractive and</u>

<u>equally promising</u> to him. He has not yet decided whether or not to

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Adam is idealistic and has been very concerned about social problems. He has read much on poverty and crime in the U.S.A. He wants very much to spend at least a year of his professional life in public service work for poor people. Firstly, the legal aid service position will provide him with a chance to do what he really would like to do. Secondly, Adam feels that he will be able to serve his fellow human beings and his country in a way that matches his own personal values and ideals. Thirdly, in this job, he will be able to be the kind of person he really feels he is. Then, too, the salary offered by the legal aid service is very good for an inexperienced lawyer who has just graduated and the three week vacation is adequate.

However, for many reasons, Adam also likes very much the prospects of working in the large law firm as a junior partner. He knows that the job would provide a good salary for his first year out of school. He is also pleased with the four week vacation period available to him in this job. Furthermore, Adam is sure he would be given some really challenging cases with which to build his career. In addition, Adam feels that in a few years he would likely be promoted into a job with more salary and status in this firm.

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Basically, Adam realizes that both jobs are <u>equally attractive</u> and <u>equally promising</u> to him. Adam has not yet decided whether or not to choose the alternative Dr. Gardner desires.

A SAMPLE QUESTIONNAIRE - CONDITION 3 (POOR LEGAL AID JOB, GOOD LAW FIRM JOB)

### Part A

NAME:	

Instructions: Circle your answers on the following scales.

<u>Do not omit any scale</u>.

1. Adam Conrad feels that the job in the legal aid service is:

good : 7 : 6 : 5 : 4 : 3 : 2 : 1 : bad

sick : 1 : 2 : 3 : 4 : 5 : 6 : 7 : healthy

wise : 7 : 6 : 5 : 4 : 3 : 2 : 1 : unwise

pleasant : 7 : 6 : 5 : 4 : 3 : 2 : 1 : unpleasant

useless : 1 : 2 : 3 : 4 : 5 : 6 : 7 : useful

2. Adam Conrad feels that the job in the large legal firm is:

good : 7 : 6 : 5 : 4 : 3 : 2 : 1 : bad

sick : 1 : 2 : 3 : 4 : 5 : 6 : 7 : healthy

wise : 7 : 6 : 5 : 4 : 3 : 2 : 1 : unwise

pleasant : 7 : 6 : 5 : 4 : 3 : 2 : 1 : unpleasant

useless : 1 : 2 : 3 : 4 : 5 : 6 : 7 : useful

3. Adam Conrad feels that actually choosing the job in the legal aid service would be:

```
good
            6
                5:
                   4:3:2:1:
                                   bad
sick
            2:
                3:4:
                       5
                         :
                           6:7:
                                   healthy
wise
            6:
                5:
                   4:
                       3
                           2
                              1 :
                                   unwise
```

pleasant : 7 : 6 : 5 : 4 : 3 : 2 : 1 : unpleasant

useless : 1 : 2 : 3 : 4 : 5 : 6 : 7 : useful

4. Adam Conrad feels that actually choosing the job in the large legal firm would be:

good : 7 : 6 : 5 : 4 : 3 : 2 : 1 : bad

sick : 1 : 2 : 3 : 4 : 5 : 6 : 7 : healthy

wise : 7 : 6 : 5 : 4 : 3 : 2 : 1 : unwise

pleasant : 7 : 6 : 5 : 4 : 3 : 2 : 1 : unpleasant

useless : 1 : 2 : 3 : 4 : 5 : 6 : 7 : useful

5. Listed below are the consequences, both good and bad, that Adam Conrad is considering when he thinks of accepting the job in the legal aid service. On a scale of 1 to 10 chances out of 10, indicate beside each item, how likely, in Adam Conrad's opinion, would be each of these consequences (i.e., 1/10, 5/10, 8/10, 10/10, etc.). In other words, what are the chances, in Adam's opinion, that each particular consequence would actually occur?

### Consequences

Probability

- 1. low salary
- 2. little free time
- 3. a short one week vacation
- 4. only routine cases to handle
- 5. possible difficulty getting a good job next year
- 6a. If you feel Adam would consider other consequences when thinking about the <u>legal aid service job</u>, please list these below and estimate his view of their likelihood on a scale of 1 to 10 chances out of 10. If you do not feel it necessary to add any more consequences, leave the space blank.

Consequences

Probability

6b. For each consequence of choosing the <u>legal</u> aid service position, indicate how good or bad Adam Conrad considers it to be. To do this, add any consequences you have listed yourself in Question 6a. to the bottom of the list below and rate each consequence on the following scale range:

3	2	1	0	-1	-2	-3
Good			Neutral			Bad

### Consequences

Rating

- 1. low salary
- 2. little free time
- 3. a short one week vacation
- 4. only routine cases to handle
- possible difficulty getting a good job next year

7. Listed below are the consequences, both good and bad, that Adam Conrad is considering when he thinks of accepting the job in the large legal firm. On a scale of 1 to 10 chances out of 10, indicate beside each item, how likely, in Adam Conrad's opinion, would be each of these consequences (i.e., 1/10, 5/10, 8/10, 10/10, etc.). In other words, what are the chances, in Adam's opinion, that each particular consequence would actually occur?

## Consequences

Probability

- good salary
- a four week vacation
- 3. challenging cases to handle
- 4. a chance to be promoted within the firm
- 5. insured of a high status job as a junior partner in a successful firm

8a. If you feel Adam would consider other consequences when thinking about the job in the <u>large law firm</u>, please list these below and estimate his view of their likelihood on a scale of 1 to 10 chances out of 10. If you do not feel it necessary to add any more consequences, leave the space blank.

Consequences

Probability

8b. For each consequence of choosing the job in the <u>large law firm</u>, indicate how good or bad Adam Conrad considers it to be. To do this, add any consequences you have listed yourself in Question 8a. to the bottom of the list below and rate each consequence on the following scale range:

3	2	1	0	-1	-2	-3
Good			Neutral			Bad

## Consequences

Rating

- 1. good salary
- 2. a four week vacation
- 3. challenging cases to handle
- 4. a chance to be promoted within the firm
- 5. insured of a high status job as a junior partner in a successful firm

# Part B

Inst	ructions:	Circl Pleas Part	e ac	o no	t c	nang	e an	V 0:	f vo	low	/in an	g so swer	ale 's i	s. n		
9.	How free w	ill A terna	dam tive	Cor	ırad	fee	l in	ma	king	g hi	İs	choi	ice	be	tween	the
		: 7	:_	6	:	5 :	4	:	3	:	2	:	1	:		
		Very Free											Ver Jnfr			
10.	How free w	vill A aid s	dam ervi	Cor	rad	fee	1 to	ac	cepi	t th	ne	job	as	a	member	^ of
		: 7	:	6	:	5 :	4	:	3	:	2	:	1	:		
		Very Free											Ver Unfi	^y		
11.	How free w	vill A	dam larç	Cor ge 1	nrad lega	fee 1 fi	l to	ac	cep <sup>.</sup>	t ti	he	job	as	a	junion	^
		: 7	:	6	:	5 :	4	:	3	:	2	:	1	<u>:</u>		
		Very Free											Vei Unfi		<u>.</u>	
12.	How free w	vill A aid s	dam erv	Cor ice?	nrad ?	fee	l to	re	fus	e tl	he	job	as	a	membe	r of
		: 7	:	6	:	5:	4	:	3	:	2	:	1	:		
		Very Free											Vei Unfi			
13.	How free w							re	fus	e t	he	job	as	a	junio	r
		: 7	:	6	:	5 :	4	:	3	:	2	:	1	:		

PLEASE DO NOT CHANGE ANY OF YOUR ANSWERS ON THIS PAGE AFTER YOU TURN TO THE NEXT PAGE!!

Very

Free

Very

Unfree

14.	To what ext	ten cum	t d sta	loes	s Ad	dam tha	Co:	nra x <b>i</b> s	d fe	eel or h	tha nim	at   ?	his	cho	oice	is dictated
	:	:	1	:	2	:	3	:	4	:	5	:	6	:	7	:
	Very much dictated by circumstand														dic	at all tated by cumstances
15.	In making t feel he act	thi tua	s d	lec' ha	isio as?	on,	ho	w m	uch	rea	al	cho	ice	wi	11 <i>P</i>	Adam Conrad
	:	:	7	:	6	:	5	:	4	:	3	:	2	:	1	<u>:</u>
	Very much real choice	9														ry little il choice
16.	Adam Conracthe way he	i's ju	pe	erso ed l	ona <sup>:</sup> his	l t	rai ter	ts nat	and ive:	va <sup>°</sup>	lue	s h	ad	a 1	ot t	co do with
	:	•	7	:	6	:	5	:	4	:	3	:	2	:	1	:
	Agree	<u> </u>													Dis	sagree
17.	Adam Conrac his choice	d's be	pe	ers een	ona the	l t	rai wo	ts job	and al	va ter	lue nat	s w ive	oul s.	d 1	ikel	ly determine
	:	:	7	:	6	:	5	:	4	:	3	:	2	:	1	<u>:</u>
	Agree	9													Dis	sagree
18.	Adam Conract by other pe				eel	th	at	man	y d	eci	sio	ns	are	be	ing	made for him
	:	:	1	:	2	:	3	:	4	:	5	:	6	:	7	:
	Agree	9													Dis	sagree

19.	9. In this situation Adam Conrad will feel that other people and events are arbitrarily controlling him like a pawn.																
		<u>:</u>	1	:	2	:	3	:	4	:	5	:	6	:	7	:	
	А	gr	ee												Di	sag	ree
20.	Adam Conr decision	ad on	wil this	l f	eel ob 1	th nat	at ter	he •	is	com	ple	tel	y f	ree	to	ma	ke his own
		:	7	:	6	:	5	:	4	:	3	:	2	:	1	:	
	А	gre	ee												Di	sag	ree
21. Adam Conrad will feel that he is being coerced into making a particular decision on this job matter.																	
		<u>:</u>	1	<u>:</u>	2	:	3	:	4	:	5	:	6	:	7	<u>:</u>	
	A	gre	ee												Di	sag	ree
22. Adam Conrad will have a feeling of being pressured into making up his mind on this job matter.																	
		<u>:</u>	7	:	6	:	5	:	4	:	3	:	2				
	D	isa	agre	9											Ag	ree	<b>!</b>
23.	Adam Conr achieve h	ad is	is a	a m en	an w	who	se	ts	his	OW	n g	oal	s a	nd	det	erm	nines how to
		<u>:</u>	7	:	6	:	5	:	4	:	3	:	2	:	1	:	
	А	gre	ee												Di	sag	ree
24.	Adam Conr	ad	is:														
	good	:	7	:	6	:	5	:	4	:	3	:	2	:	1	:	bad
	likeable	:	7	:	6	:	5	:	4	:	3	:	2	:	1	:	unlikeable
	foolish	:	1	:	2	:	3	:	4	:	5	:	6	:	7	:	wise
	cruel	:	1	:	2	:	3	:	4	:	5	:	6	:	7	:	kind
	honest	:	7	:	6	:	5	:	4	:	3	:	2	:	1	:	dishonest
	friendly	:	7	:	6	:	5	:	4	:	3	:	2	:	1	:	unfriendly

### APPENDIX B

# DATA CONCERNING ROTTER'S I-E SCALE

The mean for the males (N = 155) on Rotter's (1966) twenty-three point I-E scale was 11.08 and the median was 11.39. The range was from 1 to 23. The standard deviation was 4.41. The mean for the females (N = 151) was 11.56 and the median was 12.33. The range of scores was from 1 to 21. The standard deviation was 4.68. Both distributions appeared normal when plotted. The differences in the variances and in the means for the males and the females were not significant.

#### APPENDIX C

# MANIPULATION CHECK FOR VARIATIONS IN THE NET GAIN INHERENT IN EACH ALTERNATIVE

A three-way (Attractiveness of the Agent x Attractiveness of Job Options Variations x Sex) independent groups Anova was performed on the eight measures dealing with the attractiveness of the two job options presented to the stimulus person. The first and third questions were semantic differential ratings of the job in the legal aid service and of the action of actually choosing the job in the legal aid service respectively. There was a Sex effect (F = 3.93, df = 1/274, p < .048) and an Attractiveness of the Job Options Variations effect (F = 413.96, df = 4/274, p < .001) when the subjects evaluated the legal aid job on the five semantic differential scales. The means for the males and females were 28.02 and 28.56 respectively, with higher values indicating greater attractiveness. The females viewed the legal aid job more positively than did the males. The means for the five variations in the attractiveness of the job options (Conditions 1 through 5) are presented in Table 1 in the main body of this report. Condition 3, the only condition in which the legal aid job was described as unattractive, had, as expected, a much less positive rating of the legal aid job than did the other four conditions.

When the two similar attractiveness conditions were analyzed separately, the Similar Attractiveness Variations x Sex interaction  $(\underline{F}=5.22,\,\underline{df}=1/113,\,\underline{p}\,\angle\,.024)$  was also significant on this measure. The means were 30.55 and 32.56 for the males and females in Condition 4 and 31.69 and 31.52 for the males and females in Condition 5

respectively. The females judged the legal aid job to be better than did the males only in one of the two similar attractiveness conditions. In Condition 5, both sexes evaluated this job option as equally good.

When the subjects rated the action of actually choosing the legal aid job on semantic differential scales in Question 3, a significant Sex effect ( $\underline{F}$  = 6.10,  $\underline{df}$  = 1/274,  $\underline{p}$  < .014) and Attractiveness of Job Options Variations effect ( $\underline{F} = 327.80$ ,  $\underline{df} = 4/274$ ,  $\underline{p} < .001$ ) occurred. The means for the five variations in the attractiveness of the job options (Conditions 1 through 5) are presented in Table 1 in the main body of this report. As in Question 1, Condition 3, the condition in which the legal aid job was presented as more unattractive than in the other four conditions, received the lowest rating. The means were 27.25 and 28.09 for the males and females respectively, with higher values indicating greater attractiveness. The females again judged the legal aid job to be more attractive than did the males. This Sex effect reached significance when the two similar attractiveness conditions were analyzed separately (F = 6.20, df = 1/113, p < .014) but was not significant when the three dissimilar attractiveness conditions were considered alone.

The law firm job was rated on semantic differential scales in Questions 2 and 4. There was a significant Attractiveness of the Job Options Variations effect in the responses to both questions ( $\underline{F}$  = 403.37,  $\underline{df}$  = 4/274,  $\underline{p}$ <.001 and  $\underline{F}$  = 291.43,  $\underline{df}$  = 4/274,  $\underline{p}$ <.001 respectively). The means for the five attractiveness of the job options variation conditions are presented in Table 1 in the main body of this report. In the first two conditions, the law firm job was described as the poor

alternative and was rated appropriately. In the last three conditions, the law firm job was presented as a good alternative and viewed as such by the subjects. The 3 x 2 x 2 (Attractiveness of Agent x Similar Job Attractiveness Variations x Sex) Anova revealed a significant Sex effect ( $\underline{F} = 6.06$ ,  $\underline{df} = 1/113$ ,  $\underline{p} < .015$ ) in the two similar attractiveness conditions (Conditions 4 and 5), on the fourth question only. The means were 30.09 and 31.75 for the males and females respectively, with higher values indicating greater attractiveness. The females in the two similar attractiveness conditions viewed the action of choosing the law firm job as more attractive than did the males.

The fifth and sixth questions yielded two measures of the attractiveness of the legal aid job based on the formula,  $\xi$ [(valences x subjective probabilities)  $- \sum [(costs \times subjective probabilities)] + 25.$ One measure used only the five consequences of the job listed in the questionnaire for the subjects. A Sex effect ( $\underline{F} = 8.74$ ,  $\underline{df} = 1/274$ , p <.003) and an Attractiveness of Job Options Variations effect (F = 526.32, df = 4/274, p < .001) were significant for this measure. The means were 31.68 and 34.45 for the males and females respectively, with higher values indicating greater attractiveness. Again, the females rated the legal aid job more positively than did the males. This Sex effect was significant when the two similar attractiveness conditions were analyzed separately ( $\underline{F} = 6.91$ ,  $\underline{df} = 1/113$ ,  $\underline{p} < .01$ ). However, there was no significant sex difference in the three dissimilar attractiveness conditions. The means for the five attractiveness of job options conditions are presented in Table 2 of the main body of this report. As expected, the subjects in Condition 3, for whom the

legal aid job was described as a very bad option, viewed this position much more negatively than did the subjects in the other four conditions who were informed that this alternative was a good choice. The 3  $\times$  2  $\times$  2 (Attractiveness of Agent x Similar Job Attractiveness Variations x Sex) Anova revealed that the Similar Attractiveness Variations effect (F = 11.86, df = 1/113, p < .001) was also significant. The legal aid job when described in terms of its appeal to the inner values and ideals of the stimulus person in Condition 5 (34.45) was seen as somewhat less attractive than when described in terms of its extrinsic benefits in Condition 4 (36.42). No such differences occurred in the two Dissimilar Attractiveness Conditions 1 and 2 in which the legal aid job was described in extrinsic and intrinsic terms respectively and contrasted in both cases with an extrinsically poor alternative. In addition, this difference in the evaluations of the legal aid job in Conditions 4 and 5 did not occur on the semantic differential scales in Questions 1 and 3.

The second measure of the legal aid service job based on the formula,  $\lesssim$  [(valences x subjective probabilities)] -  $\lesssim$  [(costs x subjective probabilities)] + 25, included both the five consequences listed for the subjects on the questionnaire and all other outcomes for this job option that the subjects listed themselves. An Attractiveness of Job Options Variations effect ( $\underline{F}$  = 378.77,  $\underline{df}$  = 4/274,  $\underline{p}$ <.001) was significant on this measure. The means for the five attractiveness of job options variation conditions are presented in Table 2 in the main body of this report. As expected, Condition 3 was much lower than the other four conditions. The 3 x 2 x 2 (Attractiveness of Agent x Similar

Job Attractiveness Variations x Sex) Anova on Conditions 4 and 5 revealed a significant Similar Attractiveness Variations effect ( $\underline{F}$  = 6.71,  $\underline{df}$  = 1/113,  $\underline{p}$  <.01). Hence, the intrinsically rewarding legal aid job (35.04) was seen as less attractive than the extrinsically rewarding legal aid job (36.65) in the similar attractiveness conditions. This difference was less than in the previous measure which did not include the subjects' additions to the detailed consequences of the job option, but the effect was still statistically significant. In this analysis, on only the two similar attractiveness conditions, a Sex effect ( $\underline{F}$  = 4.30,  $\underline{df}$  = 1/113,  $\underline{p}$  <.041) was also significant. The means were 35.11 and 36.68 for the males and females respectively with higher values indicating greater attractiveness. In these two conditions, the females continued to view the legal aid job as more attractive than did the males.

Questions 7 and 8 provided two similar measures of the attractiveness of the law firm job according to the formula,  $\{(valences \times subjective probabilities)\}$  -  $\{(costs \times subjective probabilities)\}$  + 25. There was a significant Attractiveness of the Job Options Variations effect for both measures ((F = 222.60), (f = 4/274), (f = 209.95), (f = 2

conditions revealed no significant Similar Attractiveness Variations effect, although the law firm job was seen as slightly less attractive in Condition 5 than in Condition 4 on both these measures of the attractiveness of the law firm job. This three-way Anova on the two similar attractiveness conditions also revealed that the females rated the law firm job as more attractive than did the males. The means were 35.31 and 36.44 for the males and females respectively on the measure omitting the subjects' own additions to the consequences of the law firm job ( $\underline{F} = 5.06$ ,  $\underline{df} = 1/113$ ,  $\underline{p} < .026$ ). Higher values indicated greater attractiveness. The means were 35.70 and 36.47 for the males and females respectively on the measure that included the subjects' own opinions ( $\underline{F} = 3.44$ ,  $\underline{df} = 1/113$ ,  $\underline{p} < .066$ ). Again, on this measure, higher values indicated greater attractiveness. Generally, the subjects in each of the five attractiveness of job options variation conditions perceived the attractiveness of the law firm job to the stimulus person as intended in the experimental manipulations.

The data in Tables 1 and 2 also indicate that the legal aid service job was viewed as more attractive to Adam Conrad than the law firm job in Dissimilar Attractiveness Variation Conditions 1 and 2. The law firm position was judged more attractive to the stimulus person than the legal aid job in Condition 3. These two jobs were seen as much more equally attractive to Adam Conrad in the similar attractiveness conditions, Conditions 4 and 5, than in Conditions 1, 2 and 3. This total pattern was replicated on each of the four measures of the attractiveness of the two job opportunities, presented in Tables 1 and 2. Thus, the subjects did react to the experimental manipulations, concerning the attractiveness of the career choices considered by the stimulus person, as intended.

### APPENDIX D

### ATTRIBUTIONS OF DECISION FREEDOM

In Question 14 in the two separate analyses on the three dissimilar attractiveness conditions and on the two similar attractiveness variations, the Sex effect was significant only in the three dissimilar attractiveness conditions ( $\underline{F}=6.75$ ,  $\underline{df}=1/163$ ,  $\underline{p}<.01$ ). Thus, the females in the dissimilar attractiveness conditions assigned more decision freedom to the stimulus person than did the males.

The Sex effect on the Quantitative Decision Freedom Measure was significant in the Anova on the three dissimilar attractiveness conditions ( $\underline{F} = 3.93$ ,  $\underline{df} = 1/163$ ,  $\underline{p} < .049$ ). The Sex effect did not reach significance when only the two similar attractiveness conditions were included in the three-way analysis of variance.

#### APPENDIX E

# ATTRIBUTION OF FREEDOM: CORRELATIONAL DATA

The extent to which the subjects believed that Adam Conrad did not feel that his choice was dictated by circumstances (Decision Freedom Question 14) was correlated significantly ( $\underline{r} = .17$ ,  $\underline{df} = 300$ , p < .01) with Question 10, freedom to accept the legal aid service job, but not with Questions 9, 11, 12 and 13. Decision Freedom Question 15, however, concerning the extent of real choice attributed to Adam Conrad, correlated significantly with Question 9 and all four outcome freedom questions ( $\underline{r}$  = .32,  $\underline{p} < .001$ ; .31,  $\underline{p} < .001$ ; .16,  $\underline{p} < .01$ ; .13,  $\underline{p} < .05$ ; .21, p < .001, df = 300 for Questions 9 through 13 respectively). Questions 14 and 15 only correlated .27 (df = 300, p < .001) with each other. In the analysis of variance results already reported, the data from Question 14 were more strongly affected by the similarity in attractiveness of the job options manipulation than were the results from Question 15. Generally, the correlations suggest that decision freedom considerations were not of primary importance when the subjects attributed freedom to the stimulus person in response to Question 9 and Outcome Freedom Questions 10 through 13.

There were eight measures of the attractiveness of the two job alternatives. The freedom attributed to Adam Conrad to choose between the two jobs (Question 9) correlated negatively with the semantic differential rating of the law firm job ( $\underline{r} = -.15$ ,  $\underline{df} = 300$ ,  $\underline{p} < .01$ ), with the semantic differential rating of actually choosing the law firm job ( $\underline{r} = -.14$ ,  $\underline{df} = 300$ ,  $\underline{p} < .05$ ) and with both measures of the law firm

job based on Steiner's (1970) formula ( $\underline{r} = -.18$ ,  $\underline{df} = 300$ ,  $\underline{p} < .01$  and  $\underline{r} = -.18$ ,  $\underline{df} = 300$ ,  $\underline{p} < .01$ ).

Question 10, freedom to accept the legal aid service job, correlated positively with all measures of the attractiveness of the legal aid service option and negatively with all estimations of the attractiveness of the law firm job. The correlations were .38, .37, .35 and .33 ( $\underline{df} = 300$ ,  $\underline{p} < .001$ ) for the two semantic differential ratings of the legal aid service job and for the two measures of this job alternative based on Steiner's (1970) formula respectively. The correlation of Question 10 with the two semantic differential judgments of the law firm alternative were -.27 and -.26 ( $\underline{df} = 300$ ,  $\underline{p} < .001$ ). The two measures of the law firm job based on Steiner's (1970) formula correlated -.29 and -.29 ( $\underline{df} = 300$ ,  $\underline{p} < .001$ ) with the subjects' responses to Question 10.

Likewise, Question 11, freedom to accept the law firm job, correlated negatively with the four measures of the attractiveness of the legal aid service job ( $\underline{r} = -.19$ ,  $\underline{df} = 300$ ,  $\underline{p} < .001$ ; -.17, -.18 and -.18,  $\underline{df} = 300$ ,  $\underline{p} < .01$ ) and positively with the four measures of the attractiveness of the law firm position ( $\underline{r} = .36$ , .37, .35, and .35,  $\underline{df} = 300$ ,  $\underline{p} < .001$ ).

Freedom to refuse the legal aid service job (Question 12) correlated negatively with the semantic differential ratings of the legal aid service job ( $\underline{r} = -.15$ ,  $\underline{df} = 300$ ,  $\underline{p} < .01$  and  $\underline{r} = -.11$ ,  $\underline{df} = 300$ ,  $\underline{p} < .05$ ) and positively with the four measures of the attractiveness of the law firm job ( $\underline{r} = .15$ , .17, .18 and .19,  $\underline{df} = 300$ ,  $\underline{p} < .01$ ).

Freedom to refuse the law firm job (Question 13) correlated positively with the four measures of the attractiveness of the legal

aid service job ( $\underline{r}$  = .36, .37, .36 and .35,  $\underline{df}$  = 300,  $\underline{p} < .001$ ) and negatively with the four measures of the net gain inherent in the law firm position ( $\underline{r}$  = -.33, -.33, -.28, and -.28,  $\underline{df}$  = 300,  $\underline{p} < .001$ ).

Generally, Adam Conrad was seen as freer to accept a job alternative, the more attractive it was and the less attractive the other job option. The stimulus person was seen as freer to refuse a job offer, the less attractive it was and the more attractive the other job alternative.

In Questions 16, 17 and 23, the subjects attributed intrinsic or extrinsic motivations and a sense of personal control to the stimulus person. Agreement that Adam Conrad's traits and values influenced his judgment of his alternatives (Question 16) did not correlate significantly with Questions 9 through 13. Agreement that Adam's traits and values would determine his actual choice (Question 17) correlated with his freedom to choose between the two alternatives (Question 9) (r = .19, df = 300, p < .001), his freedom to accept the legal aid service job (Question 10) ( $\underline{r}$  = .17,  $\underline{df}$  = 300,  $\underline{p} < .01$ ) and his freedom to reject the law firm job (Question 13) ( $\underline{r}$  = .21,  $\underline{df}$  = 300,  $\underline{p} < .001$ ). Agreement that Adam Conrad was a man who set his own goals and means (personal control) (Question 23) correlated with Adam's freedom to choose (Question 9) ( $\underline{r}$  = .37,  $\underline{df}$  = 300,  $\underline{p} < .001$ ), with his freedom to accept the legal aid service job (Question 10) ( $\underline{r}$  = .28,  $\underline{df}$  = 300,  $\underline{p} < .001$ ) and with his freedom to reject the law firm job (Question 13) ( $\underline{r} = .27$ , df = 300, p < .001). These correlational data indicate that the more intrinsic the motivation attributed to Adam Conrad and the more he was believed to have a sense of personal control the freer the subjects

believed he would feel to choose between the two job alternatives, to accept the legal aid service offer and to reject the law firm alternative.

Furthermore, the two questions concerning attribution of intrinsic motivation to the stimulus person and the one item concerning attribution of a sense of personal control all correlated significantly with each other. Question 16 correlated .38 ( $\underline{df} = 300$ ,  $\underline{p} < .001$ ) and .23 ( $\underline{df} = 300$ ,  $\underline{p} < .001$ ) with Items 17 and 23 respectively. Questions 17 and 23 correlated .29 ( $\underline{df} = 300$ ,  $\underline{p} < .001$ ) with each other.

# Questions Based on deCharms, Carpenter and Kuperman (1965)

Questions 18, 19 and 20 were based on the deCharms  $\underline{\text{et al}}$  (1965) items. Disagreement with the statement that Adam Conrad would feel that many decisions were being made for him by other people (Question 18) correlated positively with the four measures of the attractiveness of the legal aid service job ( $\underline{r}$  = .16, .15, .16, and .15,  $\underline{\text{df}}$  = 300,  $\underline{p}$  < .01). Question 20, agreement that Adam Conrad would feel completely free to make his own decision, also correlated significantly with the four measures of the attractiveness of the legal aid service job ( $\underline{r}$  = .15, .16, .17 and .15,  $\underline{\text{df}}$  = 300,  $\underline{p}$  < .01). Question 19, disagreement that Adam Conrad would feel controlled by other people like a pawn, correlated with only the two measures of the attractiveness of the legal aid service position based on Steiner's (1970) formula ( $\underline{r}$  = .14 and .12,  $\underline{\text{df}}$  = 300,  $\underline{p}$  < .05). Generally, the stimulus person was seen as freer, according to the response measures used by deCharms  $\underline{\text{et al}}$  (1965), the more attractive the legal aid service job.

Questions 18, 19 and 20 also correlated with the two Decision Freedom Questions 14 and 15. The correlations with the better item, Question 14, were .18, .18 ( $\underline{df} = 300$ ,  $\underline{p} < .01$ ) and .21 ( $\underline{df} = 300$ ,  $\underline{p} < .001$ ) for Questions 18, 19 and 20 respectively. The correlations with the poorer decision freedom item, Question 15, were much higher ( $\underline{r} = .39$ , .41 and .45,  $\underline{df} = 300$ ,  $\underline{p} < .001$  for Questions 18, 19 and 20 respectively). The correlational data indicate that the greater the sense of decision freedom attributed to the stimulus person, the more freedom he was believed to possess, according to the deCharms et al (1965) freedom questions.

Questions 18 and 20 also correlated with the Intrinsic Motive and Personal Control Attribution Questions 16, 17, and 23. Disagreement with the statement that Adam Conrad would feel that many decisions were being made for him by other people (Question 18) correlated positively with agreement on the part of the subjects that Adam Conrad's traits and values determined his judgment of his alternatives (Question 16) (r = .16, df = 300, p < .01) and would determine his actual choice (Question 17) ( $\underline{r}$  = .31,  $\underline{df}$  = 300,  $\underline{p} < .001$ ). Likewise, agreement that Adam Conrad would feel completely free to make his own decision (Question 20) correlated .13 (df = 300, p < .05) and .31 (df = 300, p<.001) with Questions 16 and 17 respectively. Question 19, disagreement that Adam would feel like a pawn correlated only with Question 17 (r = .28, df = 300, p < .001). Items 18  $(\underline{r} = .36, \underline{df} = 300, \underline{p} < .001)$ , 19 ( $\underline{r} = .43$ ,  $\underline{df} = 300$ ,  $\underline{p} < .001$ ) and 20 ( $\underline{r} = .55$ ,  $\underline{df} = 300$ ,  $\underline{p} < .001$ ), correlated significantly with Question 23, agreement that Adam Conrad was a man who set his own goals and the means to achieve these ends.

Thus, there were substantial correlations between the tendency of the subjects to attribute intrinsic motivations and a sense of personal control to the stimulus person and their beliefs about his freedom as measured by the deCharms  $\underline{et}$  al (1965) questions.

The deCharms et al (1965) items correlated to some extent with Question 9 and the Outcome Freedom Questions 10 through 13. Question 18 correlated with the questions concerning how free Adam Conrad would feel to choose between the two alternatives (Question 9) ( $\underline{r}$  = .28,  $\underline{df}$  = 300,  $\underline{p} < .001$ ), to accept the legal aid service job (Question 10) ( $\underline{r} = .26$ , df = 300, p < .001), and to reject the law firm offer (Question 13)  $(\underline{r} = .16, \underline{df} = 300, p < .01)$ . Likewise, Question 19 correlated with Question 9 ( $\underline{r}$  = .28,  $\underline{df}$  = 300,  $\underline{p} < .001$ ), Question 10 ( $\underline{r}$  = .29,  $\underline{df}$  = 300, p < .001) and Question 13 (r = .20, df = 300, p < .001). Question 20 correlated with Questions 9, 10, 11, 12 and 13 (r = .48, p < .001; .29, p < .001; .18, p < .01; .17, p < .01 and .19, p < .001, df = 300). Hence, the one item, based on those of deCharms et al (1965), that used the word "free", Question 20, agreement that Adam Conrad would feel completely free to make his own decision on the job matter, correlated with more of the other freedom questions using the word, "free", than did the more indirect Questions 18 and 19, which did not use the word, "free".

### APPENDIX F

# ATTRACTIVENESS OF ADVISOR AND ATTRIBUTED OUTCOME FREEDOM

The Attractiveness of the Job Options effect ( $\underline{F}=21.76$ ,  $\underline{df}=4/274$ ,  $\underline{p}<.001$ ) was also significant on the composite measure of attributed outcome freedom [(Question 10 + Question 13) - (Question 11 + Question 12)]. The means are presented in Table Ib. Less residual freedom to do what the advisor desired was attributed by the subjects to the stimulus person when the recommended choice was much less attractive than the other option (Condition 3). Furthermore, less of such freedom was attributed when the recommended choice was as good as the other available option (Conditions 4 and 5) than when it was much better than the other alternative (Conditions 1 and 2). These findings reflect the manipulations of the attractiveness of the two job options on the questions designed to measure attributed outcome freedom.

In Question 11, the Affect effect was significant in the Anova on the three dissimilar attractiveness conditions ( $\underline{F}$  = 5.03,  $\underline{df}$  = 2/163,  $\underline{p} <$ .008). In the two similar attractiveness conditions, an Affect x Sex interaction ( $\underline{F}$  = 3.29,  $\underline{df}$  = 2/113,  $\underline{p} <$ .041) was significant. The means are presented in Table 2b. In the similar attractiveness conditions, the males attributed less freedom to the stimulus person to do something contrary to the wishes of another person when this other individual was disliked rather than when he was liked or absent from consideration. The females, on the other hand, like the subjects in the dissimilar attractiveness conditions, attributed less freedom to Adam Conrad to disobey the wishes of the advising agent when this

TABLE Ib

Composite Measure: Attributed Residual Freedom

to React as Advisor Wisheda

Attractiveness of Job Options Variations

Condition
1 2 3 4 5

LAE>LFE
LAI>LFE LFE>LAE LAE LAE LAI = LFE

15.05 15.40 9.42 11.55 12.62

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed residual freedom to react as the advisor wished.

<sup>&</sup>lt;sup>b</sup>LA = Legal Aid Service Job

LF = Law Firm Job

I = Intrinsic Rewards

E = Extrinsic Rewards

TABLE 2b

Attribution of Freedom to Accept Law Firm Job
- Similar Attractiveness Conditions Only

(Attractiveness of Agent x Sex)

	Se.	x
Agent	Male	Female
Liked	5.05	4.50
None (Control)	5.05	5.20
Disliked	4.33	5.56

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

individual was liked rather than when he was disliked or absent from consideration.

The Affect effect in Question 12 was of borderline significance in the three dissimilar attractiveness conditions ( $\underline{F}=2.97$ ,  $\underline{df}=2/163$ ,  $\underline{p} < .054$ ) while an Affect x Similar Attractiveness Variations interaction ( $\underline{F}=6.64$ ,  $\underline{df}=2/113$ ,  $\underline{p} < .002$ ) was significant in the two similar attractiveness conditions. The means are presented in Table 3b. The subjects in Condition 4 were similar to those in the dissimilar attractiveness conditions. Adam was seen as feeling freer to reject the advised option when he disliked the person counselling him than when he found him likeable. However, the subjects in Condition 5 felt that a stimulus person would feel equally unfree to refuse a liked or disliked person and much freer to reject the legal aid service job option if no one particularly wanted him to choose that alternative rather than the other.

The means for the Affect x Sex interaction in Question 10 are presented in Table 4b. The males and females both viewed the stimulus person as feeling equally free to do what another person wanted, that is, to accept the legal aid job, when the agent requesting the favor was liked or disliked. Nevertheless, the females felt that Adam would feel most free to accept the legal aid job when no counsellor was involved while the males felt that he would feel least free to select this job option when no advisor existed.

TABLE 3b

# Attribution of Freedom to Refuse Legal Aid Service Job<sup>a</sup> (Attractiveness of the Agent x Similar Attractiveness Variations)

### Similar Attractiveness Variations

Agent	Condition 4 LAE = LFE <sup>b</sup>	Condition 5 LAI = LFE
Liked	3.67	3.48
None (Control)	3.80	4.20
Disliked	5.19	3.34

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

<sup>&</sup>lt;sup>b</sup>LA = Legal Aid Service Job

LF = Law Firm Job

I = Intrinsic Rewards
E = Extrinsic Rewards

	Se	ex
Agent	Male	Female
Liked	5.16	4.86
None (Control)	4.44	5.18
Disliked	4.93	4.83

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

### APPENDIX G

## ATTRACTIVENESS OF ADVISOR AND ATTRACTIVENESS OF JOB OPTIONS

The job option preferred by the agent (i.e., legal aid job) was seen as most highly evaluated by Adam Conrad when he liked the agent and was viewed as least attractive to Adam when he disliked his advisor. This finding occurred on the measure of the attractiveness of the legal aid service job based on Steiner's (1970) formula when the subjects' views of possible additional consequences were added. This Affect effect was significant in the Anova on the three dissimilar attractiveness conditions ( $\underline{F} = 3.48$ ,  $\underline{df} = 2/163$ ,  $\underline{p} < .033$ ) and in the Anova on the two similar attractiveness conditions ( $\underline{F} = 3.34$ ,  $\underline{df} = 2/113$ ,  $\underline{p} < .039$ ), as well as in the overall Anova.

No Affect effect or Affect x Attractiveness of Job Options Variations interactions occurred on the two items, Questions 14 and 15, which were designed to measure attributed decision freedom. However, on the quantitative measure of decision freedom, which was based on Steiner's formula,  $(\{ \{ \{ \{ \{ \{ \} \} \} \} \} \} ) ) - (\{ \{ \{ \{ \{ \{ \{ \} \} \} \} \} \} \} \} ) ) - (\{ \{ \{ \{ \{ \{ \} \} \} \} \} \} \} \} ) )$  and which included the probabilities of the subjects' own added consequences, the Affect x Attractiveness of Job Options Variations interaction ( $\{ \{ \} \} \} \}$ ), and which included the subjects' own added consequences, the Affect x Attractiveness of Job Options Variations interaction ( $\{ \{ \} \} \} \} \}$ ), and which included the significance. This interaction was significant in the Anova on the three dissimilar attractiveness conditions ( $\{ \{ \} \} \} \} \}$ ) but not in the analysis of variance on the two similar attractiveness conditions. The means are presented in Table 5b.

TABLE 5b

Quantitative Decision Freedom Based on Absolute Differences Between the Net Gains Inherent in the Two Job Alternatives<sup>a</sup>

(Attractiveness of Agent x Attractiveness of Job Options Variations)

Agent	Condition 1  LAE > LFE <sup>b</sup>	2 LAI> LFE	3 LFE> LAE	4 LAE=LFE	5 LAI=LFE
Liked	21.23	21.29	21.05	2.00	2.54
None (Control)	20.13	24.50	16.12	1.92	2.30
Disliked	23.23	20.54	23.98	2.19	4.52

 $<sup>^{\</sup>mathrm{a}}$  The lower the mean, the greater the quantitative decision freedom.

bLA = Legal Aid Service Job
 LF = Law Firm Job

I = Intrinsic Rewards

E = Extrinsic Rewards

The subjects believed Adam Conrad had less difference in the attractiveness of his two alternatives in Conditions 1, 3, 4 and 5 when the agent requesting the favor was liked rather than disliked. This finding indicates that one job alternative was judged more attractive than the other to a greater extent in the disliked agent condition rather than in the liked agent condition. In the two similar attractiveness variations, the Affect effect ( $\underline{F} = 3.27$ ,  $\underline{df} = 2/113$ ,  $\underline{p} < .042$ ) was also significant. The means were 2.27, 2.11 and 3.33 for the liked, absent and disliked agent conditions respectively, with lower values indicating less difference in the attractiveness of the two options. When the agent was disliked, the two job alternatives were evaluated, from Adam Conrad's point of view, as differing more in attractiveness than when the agent was liked. However, the attractiveness of the person requesting the favor did not affect the attribution of a sense of decision freedom to the stimulus person, Adam Conrad, as indicated by the data from Questions 14 and 15.

#### APPENDIX H

## ATTRIBUTIONS OF FREEDOM AND LOCUS OF CONTROL (I-E)

There were no main effects for I-E in Questions 10 through 13, which examined the subjects' attributions of outcome freedom to the stimulus person. There was a complex Affect x Sex x I-E (F = 7.10, df = 2/246, p < .001) interaction and an uninterpretable Attractiveness of the Job Options Variations x Sex x I-E interaction ( $\underline{F} = 2.56$ , df = 4/246, p < .039) on Question 11, the freedom Adam Conrad would feel to accept the job as a member of the law firm. There had been a significant Affect effect on this question such that the stimulus person was seen as less free to disobey the wishes of a person who requested a favor when Adam liked this agent than when he disliked him or when there was no advisor. The means for the Affect x Sex x I-E interaction in Question 11 are presented in Table 6b. The male and female externals followed the pattern evident in the main Affect effect on this question. Less freedom was attributed to the stimulus person to accept the law firm job when the agent was liked rather than disliked or absent. Female internals also assigned less freedom to the stimulus person when he liked rather than disliked the agent. However, when there was no agent, the same degree of freedom was assigned by these female internals as when the agent was liked. The male and female externals, as previously reported, tended to attribute equal freedom when the agent was disliked and when there was no agent. Male internals did not at all follow the overall pattern in Question 11. They attributed equal freedom to the stimulus person to accept the law firm

		SEX			
		Male		Female	
	Locus of Control	I	Е	I	E
Liked		4.04	4.19	4.27	3.86
None (Control)		5.19	4.50	4.18	5.00
Disliked		3.85	4.67	5.00	4.72

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed freedom.

job when the agent was disliked or liked and most freedom to do so when no agent was involved. There was no tendency on this question for internals of either sex to assign more freedom than did the externals. Likewise, there was no tendency for internals to attribute significantly more freedom than externals to the stimulus person on Questions 10 through 13.

### APPENDIX I

### OTHER INTERACTIONS INVOLVING I-E

Although there were no I-E effects on Questions 10 through 13, there were interactions of I-E with other independent variables on the measures concerning the subjects' judgments of Adam's evaluation of the law firm job. When the perceivers rated the law firm position and the act of choosing this option on the five semantic differential scales, according to the viewpoint of Adam Conrad, the Affect x Sex x I-E interactions were significant (F = 3.87, df = 2/246, p<.022 and  $\underline{F}$  = 3.13,  $\underline{df}$  = 2/246,  $\underline{p}$  < .045). The means for the Affect x Sex x I-E interaction on the semantic differential ratings of the attractiveness of the law firm job (Question 2) are presented in Table 7b. Male internals, male externals and female externals believed that Adam would have viewed the law firm job as more attractive when he liked rather than disliked the agent who opposed this choice. This inference was not true of female internals who viewed the law firm job as better in Adam's opinion when he disliked rather than liked the individual opposing this choice. The attractiveness of the law firm job when no outside advisor was involved varied greatly in relation to the conditions with the liked and disliked agents. Nevertheless, the male externals, the female externals and the female internals judged the law firm job to be less attractive to Adam Conrad when the advisor opposing this choice was disliked than when no counsellor existed. Attribution to the stimulus person of a fear of negative sanctions from a disliked agent or of acceptance of this individual's evaluations of the job options might account for these data.

TABLE 7b Semantic Differential Ratings of the Law Firm  $Job^a$  (Attractiveness of Agent x Sex x I-E)

SEX Male Female Locus of Agent Control I E I E Liked 26.12 24.59 24.05 26.00 None (Control) 26.25 26.53 23.34 24.86 Disliked 24.89 24.09 25.67 22.17

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attractiveness.

Perceivers may think that a stimulus person would feel that an alternative opposed by another individual is less attractive because of persuasion or fear of retaliation or even more attractive because of resentment than if no counsellor existed. Internals and externals may make somewhat different inferences concerning these matters. These processes might then mediate attributions of freedom to the stimulus person to accept the law firm job (Question 11) (outcome freedom) by affecting the net gain inherent in this alternative. The means for the significant Affect x Sex x I-E interaction on Question 11 have already been presented in Table 6b (see Appendix H). There is, however, no clear parallel between the two significant Affect x Sex x I-E interactions on Questions 2 and 11 when Tables 6b and 7b are compared.

There was also a significant Attractiveness of Job Options Variations x I-E interaction ( $\underline{F}=2.48$ ,  $\underline{df}=4/246$ ,  $\underline{p}<.045$ ) on Question 4, the semantic differential ratings of the action of actually choosing the law firm job. The means are presented in Table 8b. Internals and externals believed that Adam Conrad would see the act of choosing the law firm job in the same manner except in Condition 2 of the attractiveness of job options variations manipulation. When the much more attractive legal aid job was described in intrinsically rewarding terms in Condition 2, the internals felt that Adam would have viewed the consequences of actually choosing the law firm job as much better than did the externals. No such effects, however, emerged when the subjects answered Question 2, semantic differential ratings of the attractiveness of the law firm job or Questions 10 through 13 dealing with the attribution of outcome freedom to Adam Conrad.

TABLE 8b

# Semantic Differential Ratings of Actually Choosing the Law Firm Joba

(Attractiveness of Job Options Variations  $\times$  I-E)

Locus of	Condition 1	2	3	4	5
Control	LAE > LFE <sup>b</sup>	LAI > LFE	LFE > LAE	LAE=LFE	LAI=LFE
I	14.48	16.68	31.36	30.92	30.83
E	14.38	12.74	31.87	30.97	30.65

 $<sup>^{\</sup>mathrm{a}}$ The higher the mean, the greater the attractiveness.

bLA = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards E = Extrinsic Rewards

On the two measures to evaluate the law firm job according to Steiner's formula,  $\{[(valences \times subjective probabilities)] - \{[(costs \times subjective probabilities)] + 25, the Affect \times Attractiveness of Job Options Variations \times I-E interactions (\overline{F} = 2.15, \overline{df} = 8/246, \overline{p} < .032 and \overline{F} = 2.06, \overline{df} = 8/246, \overline{p} < .041) were significant as were the four-way Affect \times Attractiveness of Job Options Variations \times Sex \times I-E interactions (\overline{F} = 2.40, \overline{df} = 8/246, \overline{p} < .016 and \overline{F} = 2.12, \overline{df} = 8/246, \overline{p} < .034). These interactions were uninterpretable. There seemed to be no clear parallels between any interactions involving I-E in the attributions of freedom (outcome) to Adam Conrad to accept the law firm job and I-E interactions on the measures dealing with the subjects' evaluations of the net gain inherent in this option.$ 

There were no significant I-E effects or interactions on the decision freedom questions, Items 14 and 15. On the quantitative decision freedom measure based on Steiner's formula and including the subjects' own additions to the consequences of the two job options, the four-way interaction, Affect x Attractiveness of Job Options Variations x Sex x I-E ( $\underline{F} = 2.76$ ,  $\underline{df} = 8/246$ ,  $\underline{p} < .006$ ), was significant and uninterpretable.

Any effects or interactions involving I-E might have been artifactual because of non-random variations in the internal and external means of the subjects within the sixty cells of the experimental design. A four-way (Affect x Attractiveness of Job Options Variations x Sex x I-E) Anova was performed on the I-E means. Only the expected I-E effect  $(\underline{F}=139.02,\underline{df}=1/246,\underline{p}<.001)$  was significant. Hence, any interactions involving I-E probably did not result from the concentration of extremely internal or extremely external subjects in any particular cells.

### APPENDIX J

# QUESTIONS BASED ON DECHARMS, CARPENTER AND KUPERMAN (1965)

In Question 20, the Sex effect reached significance in the Anova on the two similar attractiveness conditions ( $\underline{F}$  = 4.66,  $\underline{df}$  = 1/113,  $\underline{p} < .033$ ) but was not significant in the Anova on the dissimilar attractiveness conditions.

### APPENDIX K

# QUESTION CONCERNING ATTRIBUTED PRESSURE

In Question 21, the Affect x Dissimilar Attractiveness Variations x Sex interaction ( $\underline{F}$  = 2.46,  $\underline{df}$  = 4/163,  $\underline{p}$ <.048) was significant but uninterpretable when the dissimilar attractiveness conditions were analyzed separately.

### APPENDIX L

# ATTRIBUTIONS OF INTRINSIC MOTIVATIONS AND SENSE OF PERSONAL CONTROL TO STIMULUS PERSON

In Question 16, the subjects expressed their belief in the statement that Adam Conrad's personal traits and values had a lot to do with the way he judged his alternatives. The Attractiveness of Job Options Variations x Sex interaction ( $\underline{F}=2.56$ ,  $\underline{df}=4/274$ ,  $\underline{p}<.039$ ) was significant on this question. The means are presented in Table 9b. This interaction was also significant when the dissimilar attractiveness conditions were analyzed separately ( $\underline{F}=3.87$ ,  $\underline{df}=2/163$ ,  $\underline{p}<.023$ ). It was not significant in the Anova on the two similar attractiveness conditions. In Condition 1, the females agreed more with the assignment of intrinsic motivations to the stimulus person than did the males. There was little difference between the males and females in Conditions 2 and 3. The males in Condition 1 also disagreed more with the attribution of intrinsic motives to Adam Conrad than did the males and females in Conditions 2 and 3.

In the three-way Anova on the two similar attractiveness conditions, the Affect x Sex interaction ( $\underline{F}$  = 3.62,  $\underline{df}$  = 2/113,  $\underline{p}$  < .03) was also significant on Question 16. The means are presented in Table 10b. The males were inclined to agree that Adam Conrad's motivations were intrinsic when the advisor who favored the legal aid service job was liked or disliked. When no counsellor was involved, the males disagreed more with the assignment of intrinsic motivations to the stimulus person. The females were inclined to agree with the attribution of intrinsic motives to Adam Conrad when there was no person advocating the choice of

TABLE 9b

Agreement that Adam Conrad's personal traits and values had a lot to do with the way he judged his alternatives a

(Attractiveness of Job Options Variations x Sex)

	Condition 1	2	3	4	5
Sex	LAE > LFE <sup>b</sup>	LAI > LFE	LFE > LAE	LAE=LFE	LAI=LFE
Male	5.27	6.17	6.17	5.91	6.10
Female	6.60	6.40	5.93	5.72	6.07

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the agreement with intrinsic motive attribution.

bLA = Legal Aid Service Job

LF = Law Firm Job

I = Intrinsic Rewards

E = Extrinsic Rewards

TABLE 10b

Agreement that Adam Conrad's personal traits and values had a lot to do with the way he judged his alternatives in Similar Attractiveness Conditions only (Conditions 4 and 5)<sup>a</sup>

(Attractiveness of Agent x Sex)

	SEX	(
Agent	Males	Females
Liked	6.19	5.50
None (Control)	5.50	6.35
Disliked	6.26	5.84

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the agreement with intrinsic motive attribution.

the legal aid job. When such an individual existed, whether he was liked or disliked, the females agreed less with the perception of Adam Conrad as an intrinsically motivated person.

There were no significant effects or interactions in the overall Anova on the data from Question 17. However, the Anova on the three dissimilar attractiveness conditions revealed a significant Sex effect  $(\underline{F}=4.66,\,\underline{df}=1/163,\,\underline{p} < .032)$ . The means were 5.63 and 6.09 for the males and females respectively, with higher values indicating greater agreement with an intrinsic motivation attribution. The females in the three dissimilar attractiveness conditions agreed more than the males that Adam Conrad's choice between the two job alternatives would likely be determined by his own traits and values.

Furthermore, on Question 23 (sense of personal control), in the Anova on the two similar attractiveness conditions, the Affect x Similar Attractiveness Variations interaction ( $\underline{F}=3.13$ ,  $\underline{df}=2/113$ ,  $\underline{p}<.047$ ) was also significant. The means are presented in Table 11b. In Condition 4, the subjects viewed Adam Conrad as feeling less self-directed when he liked the person asking him to make a particular choice, slightly more internal when no agent was involved and as feeling even more personal control when the agent was disliked. In Condition 5, the pattern was entirely opposite. Here, in the situation in which the legal aid job was intrinsically rewarding, Adam Conrad was seen as feeling most self-directed when he liked the advisor who requested him to take the legal aid job, as feeling less in control when there was no counsellor and as feeling much less internally motivated when the advisor was disliked.

### TABLE 11b

Agreement that Adam Conrad is a man who sets his own goals and determines how to achieve his own ends in the Similar Attractiveness Conditions only (Conditions 4 and 5)<sup>a</sup>

(Attractiveness of Agent x Similar Attractiveness Variations)

Similar Attractiveness Variations

	Condition 4	Condition 5
Agent	LAE=LFE <sup>b</sup>	LAI=LFE
Liked	4.81	5.67
None (Control)	5.00	5.35
Disliked	5.33	4.65

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the agreement with intrinsic motive attribution.

bLA = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards

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#### APPENDIX M

### ATTRACTIVENESS OF ADAM CONRAD'S CHARACTER

The means for the overall Affect x Attractiveness of Job Options Variations interaction on Question 24 are presented in Table 12b. This interaction was significant when the three dissimilar attractiveness conditions were analyzed separately ( $\underline{F}=3.06$ ,  $\underline{df}=4/163$ ,  $\underline{p}<.018$ ) but not when the Anova was performed on the two similar attractiveness conditions. In Conditions 1 and 3, the stimulus person was liked more when he liked or disliked the agent who requested the favor and least when there was no such agent. However, in Condition 2, this pattern was totally reversed. The stimulus person was most liked when there was no advisor and less liked when a counsellor was involved, regardless of his apparent character.

The overall Affect x Attractiveness of the Job Options Variations x Sex interaction and the same three-way interaction significant in the Anova on the dissimilar attractiveness conditions ( $\underline{F}$  = 3.33,  $\underline{df}$  = 4/163,  $\underline{p} < .012$ ) in Question 24 were uninterpretable.

When Conditions 4 and 5 were analyzed separately in the Anova on the similar attractiveness conditions, the Affect effect ( $\underline{F}$  = 4.78,  $\underline{df}$  = 2/113,  $\underline{p}$ <.01) also reached significance in Question 24. The means in these two conditions were 32.93, 30.33 and 29.29 when the advisor was liked, absent and disliked respectively. The stimulus person was liked most in the similar attractiveness conditions when he liked the individual who advocated the legal aid job alternative, less liked when there was no agent and least liked when he disliked the person advising him. In none of the three dissimilar attractiveness conditions did this particular pattern occur.

TABLE 12b

# Semantic Differential Ratings of Adam Conrad's Character<sup>a</sup>

(Attractiveness of Agent x Attractiveness of Job Options Variations)

	Condition 1	2	3	4	5
Agent	LAE > LFE <sup>b</sup>	LAE > LFE	LFE > LAE	LAE= LFE	LAI=LFE
Liked	30.34	30.50	28.65	31.29	34.57
None (Control)	29.80	34.85	27.35	29.10	31.55
Disliked	32.50	31.30	28.70	27.24	31.45

<sup>&</sup>lt;sup>a</sup>The higher the mean, the greater the attributed attractiveness.

bLA = Legal Aid Service Job LF = Law Firm Job

I = Intrinsic Rewards

E = Extrinsic Rewards

