

AN ABSTRACT OF THE THESIS OF

Stephen Mark Beller for the degree of Doctor of Philosophy

in Education presented on January 21, 1977

Title: AN INVESTIGATION INTO THE POSSIBLE AROUSAL OF

PSYCHOLOGICAL REACTANCE AS A CONSEQUENCE

OF INTEREST INVENTORY FEEDBACK,

Abstract approved: Redacted for privacy

Dr. Charles Warnath

The purpose of this research was to determine whether feedback from vocational interest inventories leads to the arousal of psychological reactance. The data for the study was collected from 80 male and female subjects who were first year students at Oregon State University enrolled in Psychology 111, Personal Development.

The experimental design utilized consisted of having subjects scan a list of 39 occupational titles and then indicate on a pretest instrument three titles which they perceived as interesting, three perceived as uninteresting, and three toward which they felt indifferent. They were also asked to rate their interest in these nine occupations on a seven point semantic differential scale. Subjects were subsequently administered a fictitious vocational interest inventory which purported to measure the similarity between their interests and those of individuals successfully employed in various occupations.

Subjects who were designated as experimentals received

manipulated inventory feedback which indicated that their measured interests were either very similar to, very dissimilar to, or average in comparison to those of professionals employed in the nine occupations rated on the pretest instrument. Control subjects received no interest inventory feedback. Finally, a posttest was administered to all of the subjects in the study. This instrument called for the subjects to rerate their interest in the nine occupational titles previously indicated on the pretest.

Psychological reactance was ascertained by noting whether changes in pretest-posttest ratings between the experimental and control groups occurred in theoretically predicted directions. The t-test of significance, along with the analysis of variance, were utilized in order to determine whether changes in rated interest were significant at the .05 and .01 levels.

The results of the study indicated that subjects who received manipulated vocational interest inventory feedback did not express psychological reactance. The study did reveal, however, a tendency on the part of subjects to adjust their rated occupational interest in accordance with the type of manipulated feedback received. Feedback which indicated that the subjects' interests were very similar to, or average in comparison to those of employed professionals in a specific occupation resulted in subjects slightly raising their interest in that vocation. Feedback which indicated that the subjects' interests

were dissimilar to those of employed professionals produced mixed results. For occupations initially described as "interesting," this feedback resulted in subjects significantly decreasing their rated interest. For occupations initially described as "indifferent" or "uninteresting" however, this type of feedback produced a slight increase in rated interest. The implications of these findings were discussed relative to reactance theory and vocational guidance.

© 1977

STEPHEN MARK BELLER

ALL RIGHTS RESERVED

An Investigation into the Possible Arousal  
of Psychological Reactance as a  
Consequence of Interest  
Inventory Feedback

by

Stephen Mark Beller

A THESIS

submitted to

Oregon State University

in partial fulfillment of  
the requirements for the  
degree of

Doctor of Philosophy

Completed January 1977

Commencement June 1977

APPROVED:

Redacted for privacy

---

Professor of Psychology  
in charge of major

Redacted for privacy

---

Dean of School of Education

Redacted for privacy

---

Dean of Graduate School

Date thesis is presented January 21, 1977

Typed by Opal Grossnicklaus for Stephen Mark Beller

## ACKNOWLEDGEMENTS

To my graduate committee--Drs. Charles Warnath, Jo Anne Trow, Thomas Meehan, Mary Jane Wall, and Arthur Gravatt: I wish to express sincere appreciation for your tireless assistance. Your support as well as academic challenges throughout my graduate program at Oregon State have meant a great deal to me.

To my technical assistants--Wayne Courtney, Donna Cruse, Fred Klopfer, and Harvey Lipman: Your assistance in formulating a study design and analyzing the statistical data was invaluable.

To Lisa Taubman and her Psychology 111 Class: This study could not have taken place without your cooperation, for which I am very grateful.

To my parents I. E. and DeVera Beller: Higher education is not pursued by chance. The quest begins with "golden books," trips to the library, and being walked to the "patrol boy" at the corner of Harris and Ashland. Your support of my educational endeavors has helped to turn dreams into realities.

To my wife Luanne: WE did it!

## TABLE OF CONTENTS

I.	INTRODUCTION	1
	Statement of the Problem	3
	Purpose of the Study	4
	Significance of the Study	6
	Research Hypotheses	8
	Limitations of the Study	10
	Definition of Terms	11
II.	REVIEW OF RELATED LITERATURE	13
	Psychological Reactance as a Theoretical Base	13
	Related Reactance Research	17
	Interest Inventories in Vocational Guidance	23
	Summary of Reviewed Literature	29
III.	METHODOLOGY AND PROCEDURES	32
	Locale of the Study	32
	Subjects	32
	Source of the Data	33
	Pretest Administration of the Instrument	34
	Posttest Administration of the Instrument	36
	Experimental Manipulation	38
	Statistical Treatment of the Data	41
IV.	RESULTS	42
	Subject Characteristics	42
	Findings Related to Hypotheses I-III	45
	Findings Related to Hypotheses IV- VI	49
	Findings Related to Hypotheses VII- IX	53
	Summary of Findings	56
V.	CONCLUSIONS, IMPLICATION AND RECOMMENDATIONS	58
	Importance of the Study	58
	Procedures	59
	Conclusions	61
	Implications	63
	Recommendations	66

BIBLIOGRAPHY	68
--------------	----

APPENDICES

Appendix A. Guidelines for the Protection of Human Subjects	73
Appendix B. Pretest-Posttest Instrument	77
Appendix C. Jameson-Liston Occupational Interest Inventory	80
Appendix D. Jameson-Liston Inventory Scoring Report	86
Appendix E. Debriefing Letter to Subjects	88

## LIST OF TABLES

<u>Table</u>		<u>Page</u>
I.	Pretest-Posttest Control Group Design	39
II.	Inventory Feedback for Occupations Chosen on Pretest	40
III.	Distribution of Subjects by Age, Sex, and Group	43
IV.	Distribution of Subjects' Major by Sex and Group	44
V.	Distribution of Interest in Occupational Titles by Sex	46
VI.	Change in Perception of Vocational Interests as a Consequence of Interest Inventory Feedback	47
VII.	Analysis of Variance Summary Table for Hypothesis III	50
VIII.	Change in Perception of Vocational Interests as a Consequence of Interest Inventory Feedback	52
IX.	Change in Perception of Vocational Interests as a Consequence of Interest Inventory Feedback	55

AN INVESTIGATION INTO THE POSSIBLE AROUSAL OF  
PSYCHOLOGICAL REACTANCE AS A CONSEQUENCE  
OF INTEREST INVENTORY FEEDBACK

CHAPTER I

INTRODUCTION

The Theory of Psychological Reactance (Brehm 1966, 1972) attempts to explain how individuals behave in response to a perceived elimination of, or threat to, their behavioral freedoms. The theory suggests that individuals become motivationally aroused to restore freedoms perceived as lost or threatened.

According to Brehm's theory, one must first believe that he/she really possesses a particular behavioral freedom in order to experience psychological reactance. One common way in which this can occur is for an individual to actually exercise a freedom by performing a specific act. A second way involves a person observing another individual performing an act and then inferring that he/she too has the freedom to perform it. Finally, individuals come to believe that they possess definite behavioral freedoms by way of formal and informal agreements. An example of a formal agreement would be those freedoms guaranteed to Americans through the Bill of Rights in the United States Constitution. An informal agreement might be illustrated by one individual telling his/her neighbor that the latter may cut through their backyard whenever the need arises.

The specific behavioral freedom of interest to the investigator in this study is that of an individual to express his/her degree of interest in various occupations. The belief that individuals have this freedom serves as the basis for vocational guidance in this country. As Ginzberg has pointed out, "Guidance assumes that Americans have options with respect to their educational and vocational goals" (Ginzberg, 1971, p. 40).

Similarly, Kroll et al. (1970) noted that with the coming of rapid industrialization and the breakdown of many traditional social structures, people are increasingly faced with freedom and difficulty of choice especially in the area of occupations.

In speaking of Western Society Osipow stated that:

Though the variety of work from which any given man may choose varies from broad to narrow, one of the most highly prized freedoms in our culture is the right to decide what kind of work one will do, for whom, and when. Although men do not always exercise this freedom, they value the potential of choice highly (Osipow, 1973, p. XI).

It should follow then, that if a state of motivational arousal (reactance) does exist as a result of a threat to, or elimination of, a behavioral freedom (expressing interest in a vocation); then its presence should be able to be detected through resulting behavioral manifestations. In line with reactance theory, such manifestations may range from direct attempts to engage in particular activities to modifications in subjective perceptions. This latter manifestation

served as the focal point of interest for the investigator.

As outlined by Brehm, if a person's freedom to engage in a specific behavior is threatened or eliminated, his/her motivation to exercise that freedom should increase. If the individual is therefore, asked to subjectively evaluate a behavior both prior to and after a threat or elimination, the increased motivation to exercise the freedom should result in a more favorable evaluation of this behavior after the threat or elimination. This concept is more or less represented by the "forbidden fruit" analogy--what one can't do or have, appears to increase in attractiveness. Conversely, reactance theory also hypothesizes that if a person believes that he/she is free not to engage in a specific behavior and then is "forced" to do so, he/she would subjectively evaluate the behavior less favorably.

In summary, Brehm has suggested that specific changes in subjective perceptions occur when a behavioral freedom is threatened or eliminated. The particular direction of the change is a direct function of whether the freedom to engage, or not to engage in an act is the one being threatened or eliminated (Brehm, 1972).

#### Statement of the Problem

Since reactance theory was published in 1966 there have been numerous studies which have lent it experimental support. A search of the literature however, revealed no investigations which have

tested the theory in regard to the expression of vocational interest preferences. This lack of research is potentially significant when one considers the prevalence of vocational interest inventories in education. As Aiken indicated,

Commercially available interest inventories are, on the whole, almost as popular in academic and vocational counseling as tests of general intelligence and special abilities (Aiken, 1976, p. 203).

In this study the investigator tested for the presence of psychological reactance in a situation involving feedback from a vocational interest inventory. In order to accomplish this the investigator tested for possible shifts in the subjective perceptions of particular choice alternatives. As reactance theory predicts, in a reactance producing situation the subjective attractiveness of a threatened alternative will increase while that of an alternative perceived as forced will decrease.

#### Purpose of the Study

The principal purpose of this study was to test the theory of psychological reactance. This was done through the creation of an experimental situation in which subjects described and rated their degree of interest in various occupational titles before and after receiving inventory feedback. The feedback used consisted of three descriptors--very similar, average, and very dissimilar which referred to the degree of measured similarity between the subject's

interests and those of individuals successfully employed in specific occupations.

By testing for reactance, the investigator attempted to determine whether certain levels of inventory feedback were perceived by subjects as threats to their freedom to express interest in occupational titles. Reactance theory suggests that there are two ways that such feedback may be viewed as threatening. The first of these might occur if the feedback indicates that the measured similarity of interests between a subject and individuals in a particular occupation is low when the subject is interested in that occupation. The subject may view such feedback as a threat or a barrier to his/her expressing interest in that occupation. Conversely, a high degree of similarity of interests between a subject and individuals employed in a particular vocation could be viewed as threatening to a subject if he/she has little, if any, interest in that vocation. Such feedback could be viewed as a threat or barrier to the freedom not to express interest in a particular field of work. In either case if certain levels of feedback are perceived as threatening by subjects, then reactance theory predicts that a subsequent shift in subjective vocational attractiveness will result.

### Significance of the Study

The data gathered by this study should prove useful for several reasons. Foremost, the study served as a test of Brehm's theory of psychological reactance. This theory has important implications for understanding human behavioral responses to perceived threats to freedom. As other experimental studies have illustrated, reactance effects may be present in a wide variety of situations involving human interaction.

Second, the study explored the effects of particular levels of inventory feedback upon college students. In this regard the study revealed important implications for those who are involved with the publication of vocational interest inventories. It was especially important to determine whether reactance is produced in the inventory feedback situation because such a psychological state works in direct opposition to the principal expressed aims of such instruments. The manual for the Strong-Campbell Interest Inventory for example, points out that one of its major aims is to "serve as an aid in making educational and occupational choices" (Campbell, 1974, p. 1). Similarly, the manual for the Kuder Occupational Interest Survey states that:

The principal purpose of (its) scores is to point out promising possibilities for future occupations or studies from the point of view of (the client's) pattern of interests (Kuder, 1968, p. 11).

In this capacity, the Strong-Campbell inventory, the Kuder survey and other similar instruments attempt to provide an individual with information which indicates how similar his/her interests are to those of persons employed in a variety of occupations. While this information is in no way meant to imply that a particular person does or doesn't have the ability to succeed in a specific occupation, the literature reveals little about psychological effects of interest inventories.

Several authors, however, have given interesting insight into the possible nature of such effects. Ginzberg suggested that:

An individual reviewing his profile without careful discussion with a counselor might well react with strong negative feelings to a high score on the 'mortician' scale. The test does not suggest that he has necrophiliac interests, but that he has some interest in occupations characterized by small, independent business operations (Ginzberg, 1971, p. 178).

Similarly, Super and Crites outlined the potential hazard of a student focusing on specific inventory scores for particular occupations. They pointed out that:

The result too often is that a student says 'I rate A as a minister, but I don't have any desire to be a minister,' and the insights which might be gained from the score are lost in the negative reaction to a stereotype of a specific field (Super and Crites, 1962, p. 423).

These potential risks might be reduced by using trained counseling personnel to interpret inventories to clients. With the rise of the self-administered inventory however, such as Holland's Self Directed

Search (1970, 1974), there is no certainty that prudent interpretation is taking place.

One should also note that even with skilled counseling, the client often leaves an inventory interpretation with a graphic rating of interests in specific occupations. The possible psychological effects of these graphic interpretations cannot be underestimated. As Warnath has noted:

Faith in scores or graphs as having some meaning would be amusing except that in the absence of genuinely meaningful data the young person who has little confidence in himself or his own decision-making capabilities will seize on those abstract numbers, shaded bars and pointed profiles as revealed truths about himself. They become him (Warnath, 1971, p. 85).

Because of the potentially harmful impact of misinterpreting inventory scores, it is important for vocational counselors and publishers of interest inventories to investigate the possible negative psychological effects of such tools. This study probed the mental set of student subjects toward interest inventory scores in order to determine whether certain levels of initial occupational interest followed by specific levels of feedback created reactance.

### Research Hypotheses

The following research hypotheses have been stated in the null form:

- I. No significant change in the perception of interest occurs when

an occupational title described as interesting is followed by feedback indicating that interests are very similar to those of successfully employed professionals.

- II. No significant change in the perception of interest occurs when an occupational title described as interesting is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.
- III. No significant change in the perception of interest occurs when an occupational title described as interesting is followed by feedback indicating that interests are very dissimilar to those of successfully employed professionals.
- IV. No significant change in the perception of interest occurs when an occupational title described as indifferent is followed by feedback indicating that interests are very similar to those of successfully employed professionals.
- V. No significant change in the perception of interest occurs when an occupational title described as indifferent is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.
- VI. No significant change in the perception of interest occurs when an occupational title described as indifferent is followed by feedback indicating that interests are very dissimilar to those of successfully employed professionals.

- VII. No significant change in the perception of interest occurs when an occupational title described as uninteresting is followed by feedback indicating that interests are very similar to those of successfully employed professionals.
- VIII. No significant change in the perception of interest occurs when an occupational title described as uninteresting is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.
- IX. No significant change in the perception of interest occurs when an occupational title described as uninteresting is followed by feedback indicating that interests are very dissimilar to those of successfully employed professionals.

#### Limitations of the Study

The participants in this study were limited to those Oregon State University first year students enrolled in Psychology 111, Personal Development.

The purpose of the study was to indicate the extent and direction of change in the perception of interest in occupational titles as interpreted within the framework of reactance theory. The intent was not to evaluate change in interest as being either positive or negative.

The study was limited to the extent that experimental procedures complied with the guidelines established by the Oregon State University

Committee for the Protection of Human Subjects (Appendix A).

### Definition of Terms

Psychological Reactance. Psychological reactance is a theorized state of motivational arousal in which individuals attempt to restore freedoms perceived as lost or threatened.

Vocational Interest Inventory. A vocational interest inventory is a list of questions, statements, or words designed to provide a measure of interest in various occupations. Unlike a test, an inventory does not have correct and incorrect responses.

Feedback. Feedback is the information which subjects received informing them about their inventoried interests. Unlike scores, feedback was not intended to be evaluated in terms of occupational success i. e. aptitude, skills etc. The term feedback is used to denote the experimentally manipulative nature of the information the investigator provided subjects.

Freedom. Freedom is the power to decide. An individual is free if he/she has the potential to alter his/her present situation.

Free Behaviors. Free behaviors consist of those actions, emotions, attitudes, and feeling states which an individual believes he/she has the ability to change as he/she sees fit.

Social Influence Attempt. A social influence attempt occurs

when one or more individuals try to influence the decision of another person.

## CHAPTER II

## REVIEW OF RELATED LITERATURE

The review of the related literature has been organized as follows: (1) an examination of psychological reactance as the theoretical base which underlies the study; (2) a discussion of relevant psychological reactance research; and (3) an overview of the role of interest inventories in vocational guidance.

Psychological Reactance as a Theoretical Base

The theory of psychological reactance (Brehm 1966, 1972) attempts to explain a variety of fairly common behaviors. Examples include the following: (1) An elementary school student usually complains about having to practice the piano upon arriving home each day after school. One day his mother tells him that the piano needs repairs and will be inoperative for a week. For some reason the student now complains that he can't practice his piano when he wants to. (2) A person approaches a vending machine and cannot decide whether to select cola or uncola. As soon as she deposits a coin, but before she can make a selection, the machine dispenses uncola. The person now expresses a definite preference for cola. (3) A particular office employee always eats his lunch in the company lunchroom. One day his supervisor passes along to him a directive stating that in the future

no employee is to leave the building during the lunch hour. The worker now is upset and complains that he desires to eat lunch at a nearby restaurant.

While at first these behaviors might appear to be somewhat diverse, reactance theory postulates a common thread running through each--the restriction of human freedom. As Wicklund (1974) pointed out, each of these individuals in the hypothetical situations has had his/her freedom to decide "assaulted." Whether the particular freedom is that of practicing the piano, selecting a beverage from a machine, or leaving the office for lunch, reactance theory predicts that when a person's freedom is threatened or eliminated, that person will experience a motivational state of arousal directed toward restoring freedom (Brehm, 1966, 1972).

One way in which an individual can restore his/her freedom is to engage in the behavior which he/she perceives as threatened. In some cases, however, such direct action is not possible. For instance, a particular product may be out of stock or a desired course no longer offered. In cases such as these, reactance would theoretically be expressed in another manner. Specifically, it would result in an increased desire to engage in a particular behavior or in the increased attractiveness of an option no longer available.

As Brehm noted in reactance theory, there are a number of factors which must be present for reactance to occur. One such

prerequisite is the belief that one actually possesses a particular behavioral freedom. This perception is established through the experience of actually exercising a freedom, inferring that one possesses a freedom by observing another person's behavior, or formal and informal agreements. It is further theorized that the magnitude of the reactance is a direct function of the strength of an individual's belief that he/she actually possesses a freedom prior to a threat or elimination.

The importance of a particular freedom to an individual is another determinant of reactance. The more important a freedom is, the greater its potential for causing reactance. The importance of a freedom is determined by its ability to satisfy specific physical or psychological needs. The greater the number of needs which a specific behavior can potentially satisfy, or the more important these needs are to the individual, the greater the potential reactance effect.

Reactance can theoretically be aroused by either an actual elimination of, or threat to a freedom. As Brehm noted, "the greater the threat, the greater the magnitude of reactance up to the amount that would be created by complete elimination of the freedom" (Brehm, 1972, p. 2). When more than one behavioral option is available to an individual, the degree of reactance becomes a function of the proportion or the number of options which are being threatened or eliminated. That is, if a person feels free to walk North, South,

East or West, he/she should experience more reactance if he/she is prohibited from walking North and South, than if he/she were only prohibited from walking North.

Individuals can also imply that their freedom is being restricted. If a person is told by his/her employer that he/she can no longer smoke cigarettes at his/her desk, he/she may wonder what restriction will be imposed next. To the degree that a person makes such inferences, the potential for reactance increases.

As Brehm has indicated, since reactance is a motivational state which cannot be readily observed directly, it is generally detected through the observance of particular behavioral manifestations. In general such manifestations take one of two forms--behavioral effects and subjective effects. Both types of effects are significant in understanding the role of reactance "in affecting the psychological processes of people, and to see in particular how it affects various kinds of behavior" (Brehm, 1972, p. 3).

Behavioral effects of reactance are evident in situations in which freedoms have been threatened with elimination. Such effects usually consist of individuals attempting to restore their freedom by directly engaging in the threatened behavior. If for example, the right to smoke is the one that is being threatened, a person can restore his/her freedom by smoking. Conversely, if a regulation is passed requiring the use of safety belts in automobiles one could

restore his/her freedom by refusing to use such belts. Although behavioral effects may enable one to restore freedom, they are often viewed as an undesirable response mode. In this regard, such responses tend to be anti-social in nature and can involve definite risk-taking behavior. Because of such risks, subjective effects of reactance appear to be more common.

The subjective effects of reactance are those which cause a person to evaluate a behavior more favorably after a threat or elimination. This more favorable evaluation is a direct result of the increased state of motivational arousal. On the other hand, if an individual's freedom not to engage in a behavior is being threatened, reactance would be evident by the individual subjectively evaluating the behavior less favorably. In either situation, by altering his/her subjective evaluation, the individual has attempted to restore his/her freedom.

#### Related Reactance Research

The literature revealed a variety of experimental studies which have probed diverse aspects of reactance theory. For the purpose of this study however, the investigator will limit his review to those studies which explore the role of reactance in affecting the subjective attractiveness of choice alternatives.

In one of the early studies which led to the formulation of

reactance theory, Weiner (1963) tested the hypothesis that a social influence attempt can cause changes in the perceived attractiveness of a goal object. Using first grade students as subjects, the experimenter instructed subjects to rank order several toys in terms of their desirability. She then introduced a social influence attempt in which some subjects felt pressured to select a particular toy as their reward for participating in the study. By comparing a subsequent ranking of the toys with the initial rating, the experimenter found that the recommended toy decreased in attractiveness. Although the results only approached statistical significance, it was ascertained that subjects who were told that they had freedom of choice and were then pressured to select what they initially preferred, reacted by rejecting the object and selecting another.

A study by Brehm, McQuown, and Shaban (reported in Brehm, 1966) sought to determine whether elimination of a choice alternative can influence subjective attractiveness. In the study eighth grade student subjects were instructed to rate six films for attractiveness on the basis of brief written descriptions of their content. The experimental manipulation consisted of informing some of the subjects that they could choose one of the films for classroom viewing and then subsequently reporting that the film rated second most attractive had not arrived and was thus unavailable. The films were then rerated with evidence of reactance ascertained by noting the degree to which

subjects increased their rating of the film which had been eliminated. The findings revealed that subjects who were given a choice responded to the elimination of one of the alternatives by increasing their rating of the "unavailable" film.

A similar study by Brehm, Stires, Sensenig, and Shaban (1966) also probed the effects of elimination of a choice alternative. Under the guise of performing market research, the experimenters asked undergraduate student subjects to rate various selections of folk music on a 100 point scale of attractiveness. The experimental manipulation included informing some subjects that they would receive a complimentary phonograph record of their choice for participating in the study, and others that the record they had rated as third most attractive was being eliminated as a choice because it had not been delivered. By comparing initial and subsequent ratings of the records, the experimenters found that when there had been no choice expected, the rating of the critical record decreased. When a choice of reward had been expected however, the eliminated record significantly increased in attractiveness.

Wicklund (1970) hypothesizing that a monetary fee can serve as a barrier to freedom, investigated its role in reactance formation. Instructing male undergraduate subjects to inspect and rate eight popular consumer items, i. e. wallet, cigarette lighter, the investigator's experimental manipulation included informing some subjects

that he would give them a choice in determining which of the items they would receive as a reward for participating in the study. This was done by informing these subjects that they would be able to choose one of two specific items. A second manipulation consisted of telling subjects that certain items had a state tax imposed on them which would have to be paid if that item was received as a gift. The amount of this tax was systematically varied. With freedom defined as knowing in advance which objects were reward choices, the results of the study revealed that when a subject perceived he had freedom, the tax threatened him and the taxed item slightly increased in attractiveness during a subsequent rerating session. If the subject had not perceived he had freedom, the taxed item fell in attractiveness in direct proportion to the amount of the tax.

Mazis, Settle, and Leslie (1973) conducted a study which sought to determine whether anti-phosphate detergent ordinances affect the subjective attractiveness of these products to consumers. Using Florida housewives as subjects, the experimenters discovered that those subjects who resided in a community with anti-phosphate detergent laws rated such products as more attractive than did subjects in a community where such products were not banned. In addition, residents of the community where phosphate detergents were prohibited expressed greater negative attitudes toward governmental regulation of pollution than did subjects who resided in the community

without phosphate restrictions. Consistent with the experimenters' hypotheses derived from reactance theory, phosphate detergent laws eliminate the consumer's perceived freedom of choice. Subjects attempted to restore this freedom by rating banned products as high in subjective attractiveness.

In an unpublished experiment Wicklund and Ogden (reported in Wicklund, 1974) sought to determine whether absence of a person influences interpersonal attractiveness. Using female undergraduates as subjects, the experimenters instructed them to rate five males on a 100 point scale of attractiveness on the basis of written personality descriptions. A choice manipulation was instituted as some subjects were informed that they would be able to choose one of the five males to personally interview after the rating session. The experimenters subsequently informed some of the subjects that one of the males was absent and therefore, not available for an interview, while another would be late in arriving. These individuals were identified by the experimenters on each subject's rating sheet. The results of the study indicated that in the condition in which the subjects were led to believe they had a choice of whom to interview, the absent male increased in attractiveness. When subjects had no choice, the attractiveness of the absent male decreased. In the condition in which the male was described as late, the results were consistent with regard to choice-no choice conditions. For those who had choice, the rated

attractiveness of the "late" male increased while it decreased for those without choice. As the experimenters pointed out, while all of the mechanics of "absence makes the heart grow fonder" are not understood, "those who use the hard-to-get ploy possess an implicit understanding of reactance theory" (Wicklund, 1974, p. 113).

Hannah, Hannah, and Wattie (1975) conducted a study which investigated the hypothesis that predicting an individual's behavior can arouse reactance. The study called for undergraduate student subjects to observe pairs of similar geometric designs and rate each on a ten point scale of attractiveness. The experimenters were able to record surreptitiously these ratings. The subjects were then given a fictitious personality test and subsequently informed that the instrument was able to predict aesthetic preferences. The predictive accuracy of the instrument was systematically manipulated and relayed to the subjects. The experimenters proceeded by presenting the subjects with pairs of designs and then predicting each's aesthetic preference on the basis of the "personality test." In reality, the subjects were observing the same designs for which preference ratings had already been noted. The procedure was such that the experimenter always predicted a preference for that design initially preferred. Consistent with the experimenters' hypotheses, subjects who felt that their behavior was predictable or predetermined perceived a threat to freedom. The results of the study showed that those subjects who were led to believe

that the "test" had high predictive validity showed a tendency to prefer the unpredicted design or to devalue their rating of the predicted choice, in comparison to those who believed the "test" was only slightly predictive.

### Interest Inventories in Vocational Guidance

A review of the goals of vocational guidance revealed that they have not drastically changed in the period since the guidance movement began in the early twentieth century. These goals have, however, been modified in an attempt to keep pace with the changing needs of clients. Noting those goals of vocational guidance expressed in 1909 by Frank Parsons, Super (1957) wrote that such guidance was intended to aid the client in self-analysis. As Pietrofesa and Splete (1975) indicated, Parsons' emphasis was on the matching of the client to the "right" occupational field. Cronbach (1970) expanded upon these early goals by writing of vocational guidance as a means to aid the client in decision-making. In this respect, a client needs to be made aware of career options, and especially those most appropriate to his/her abilities and interests. Warnath (1971) has broadened these earlier views by noting the importance of vocational guidance as a vehicle for increasing the client's degree of freedom in decision-making.

The concept of interest has historically been vital to vocational

guidance. The term interest, as defined by Fryer (1925), refers to "the enjoyment of a task for its own sake" (p. 62). Similarly, Gekoski (1964) has written of interest as a "predisposition to participate in a specific activity" (p. 125). Krumboltz and Baker (1973) have noted that "interests are inferred when a person freely chooses an object or activity or approaches a situation" (p. 272).

In all such definitions, interest can be viewed as that motivating force which tends to freely attract an individual. As Super (1957) indicated, the concept has been important in vocational guidance because tests of general intelligence and specific aptitudes proved to be imperfect in predicting vocational success. It was felt that the study of an individual's motivation or interest might be the key in determining why some persons were happier and more stable on their jobs than were others.

This belief inspired researchers such as Strong and Kuder to conduct studies leading to the formulation and refinement of vocational interest inventories. These were psychometric questionnaires which exposed an individual's interests by indirectly probing his/her likes and dislikes in a wide variety of areas. In explaining the nature of these instruments, Super and Crites (1962) have pointed out that each inventory response is given an experimentally determined weight which when added together yields a score indicating a "pattern of interests that research has shown to be rather stable" (p. 380).

The major finding of Strong, however, was that inventories differentiated the interests of those in one occupation from those in another. In addition, his research indicated that interests of those who were "successfully" employed in a specific occupation were significantly different from those of people in general. Thus, by giving a client a vocational inventory, the counselor could subsequently present him/her with what Tyler (1963) noted was:

. . . a large amount of information about whether or not they would be likely to feel that they fit in or belong in one of these lines of work (p. 78).

One question which arose concerned the advantage of inventories over direct inquiry regarding occupational interests. Cronbach (1970) has noted that interest inventories have several advantages. In addition to being nonthreatening, they provide a thorough sampling of interests which "gets better information" than a self-estimate and also allows for a comparison of one's interests to those of reference groups. Ginzberg (1971) has indicated that while direct expressed interests may provide adequate information about adults, inventories are more effective with adolescents because the latter frequently respond to direct questions with "I don't really know" (p. 178) or produce "unreliable, unrealistic, and superficial" responses (Anastasi, 1968). Such clients are prone to answer direct questions regarding interests on the basis of occupational stereotypes. As early as 1925 Fryer described such interests as "superficial" because they were

unsupported by experience or information. This is especially true for clients who are highly oriented toward television programs which have convinced them that Perry Mason is the typical lawyer or Marcus Welby the typical physician.

As vocational interest inventories, in and of themselves, do not purport to predict vocational success--what is their role in vocational guidance?

Foremost, interest inventories can stimulate discussion of occupational alternatives between a counselor and a client. They may encourage the client to think about careers and options never considered previously (Krumboltz and Baker, 1973), and to assist him/her in answering the question "Is my interest high enough to motivate me to apply myself?" (Gekoski, 1964, p. 132). Ginzberg (1971) has added, inventory profiles provide "a basis for exploration of self-image in the context of occupational images, and a chance to link these to information about actual work situations" (p. 178). Inventories also lend structure to the concept of interest which allows for the use of statistical validation and standardized groups (Gekoski, 1964). Morea (1972) has stated that such tools are technically sound and administratively convenient because they allow a counselor to collect group data in the same amount of time it would take to collect it from one client in an interview.

These authors and others, however, also express concern over

the possible misuse of interest inventories and, in some cases, question their worth. Osipow (1973), for example has indicated that:

The concept of interest in career development has been overemphasized, and in its traditional guise, it is not really very helpful either in understanding career development or in helping people to make sound educational-vocational decisions. It is a static concept as now used, representing the current state of a person's development without the recognition that interests change, and that there is considerably more in career satisfaction than finding 'interesting' work (p. 308).

Morea (1972) has expressed concern that interest inventories create a self-fulfilling prophecy in which a client is guided "on the basis of his interests he has already developed into work appropriate to those interests" (p. 115-6). As a result, the development of new interests is precluded.

Darley and Haganah (1955) warned that under the pressure of heavy caseloads and anxious clients, there may be an overreliance on inventory scores which can result in a "false sense of security" (p. 4). Ginzberg (1971) echoed these sentiments when he stated that some counselors take an uncritical attitude toward these instruments. Some use them to "make recommendations sound more scientific by interlarding them with esoteric references to percentiles, norms, standard deviations and the like" (p. 181). Cronbach (1970) has noted that there is a very real danger of counselors focusing on specific inventory scores. This technique is too narrow because such an approach does not go beneath occupational labels nor take into

consideration the fact that there are many occupational roles within a specific occupation. In addition, differences between a client's expressed and inventoried interests can precipitate the development of emotional conflict serious enough to require advanced counseling skills.

With the development of self-administered inventories such as Holland's Self Directed Search (1970, 1974), which as its manual points out is "self-scored and self-interpreted" (p. 3), these dangers become critical. Although the client is referred to a counselor if he/she desires more information or help, those who need such assistance do not always seek it. With the interpretation of interest inventories as a major phase in the vocational guidance process, this reliance on the client may prove hazardous. So much so that Aiken (1976) has recommended that, "Since examinees sometimes do not distinguish interests from abilities, it is unwise to leave the task of interpreting a self-administered inventory to the examinee himself" (p. 203).

With the possible dangers and pitfalls of interest inventories noted, it is important to consider ways to avoid misusing them in vocational guidance. Lister and McKenzie (1968) believe that inventory results should describe "the probability of outcomes, not their desirability" (p. 506). Womer (1964) has stated that such feedback should be used to open vocational possibilities rather than to eliminate them. Morea (1972) has further advised that an objective,

non-threatening point of view be taken with regard to inventory interpretation. A guarded statement which still makes the point might be illustrated by the counselor informing the client that:

People with these sorts of interests tend to enter and find satisfaction in these sorts of occupations. Your interests are. . . or, people in these sorts of occupations are found to have these sorts of interests. . . . Your interests are. . . . (p. 150).

Anastasi (1968) has expressed optimism that future interpretation of interest inventory profiles will show further "advances and sophistication" (p. 492). These developments will be welcome improvements because as Warnath (1971) noted:

Whether a score or colored bar on a graph has any actual validity means very little to most Americans; it has an appearance of concreteness and this in itself conveys the aura of value (pp. 84-5).

#### Summary of Reviewed Literature

A review of the literature revealed no specific references pertaining to either vocational interest inventories as a possible cause of psychological reactance, or the effect of reactance on the interpretation of inventories. The review was thus presented in three topical areas: reactance as the theoretical base for the study, relevant reactance research, and an overview of interest inventories in vocational guidance.

An examination of reactance theory indicated that it has the

potential to explain a number of fairly common, observable behaviors. As a motivational state of arousal aimed at restoration of freedom, reactance is caused when a freedom is perceived as threatened or eliminated. It can be expressed through either behavioral or subjective effects.

Reactance studies relevant to this investigation revealed that the subjective effects of reactance can be caused by: social influence attempts, elimination of choice alternatives, barriers, and the prediction of behavior. These effects are generally ascertained by comparing subjective ratings of persons, objects, or behaviors before and after events which might be perceived by subjects as threatening or eliminating freedom.

A review of the literature suggested that interest inventories have an important role in vocational guidance as they are intended to help the client in the career decision-making process. Although inventories can differentiate people employed in various occupations from each other, and from people in general, the literature revealed that these instruments have both potentially positive and negative characteristics. On a positive note, inventories may promote dialogue between vocational counselors and clients and subsequently encourage career exploration and decision-making. In this respect they appear to be useful with adolescent clients. Inventories also lend structure to vocational guidance by providing a basis for statistical validation

of responses and standardized group comparisons. However, such instruments may also be relied on too heavily and indiscriminately. They may for instance, result in the creation of a self-fulfilling prophecy which precludes the development of new interests.

Because interest inventories appear to play a significant role in vocational guidance, continuing research focusing on their formulation and interpretation is essential. This study is significant in this regard because it has probed whether inventory interpretations produce reactance and if so, the nature of the resulting effect.

## CHAPTER III

### METHODOLOGY AND PROCEDURES

The purpose of this chapter is to describe the location and design of the study, the sample selection method, and procedures used to collect and analyze the data.

#### Locale of the Study

The study was conducted at Oregon State University, a land grant, coeducational institution located in Corvallis, Oregon. The enrollment of the university at the time of the study, fall term 1976, was 16,228. Of this total, 13,629 were undergraduates, and 4,124 classified as first year students.

#### Subjects

A total of 80 male and female students, aged 17-22 years ( $\bar{x}=18.1$ ; s. d. = .784), enrolled in Psychology 111, Personal Development served as subjects in this study. Psychology 111 is a course restricted to first year students. The class has been designed to focus on self-understanding and development. Within this framework emphasis is placed on the attitudes, values, motivations, and emotional problems related to current college experiences. The course format involves class and small group discussions. Psychology 111

students are evaluated on a pass-no pass basis as opposed to being competitively graded. This study was incorporated into the curriculum of one section of Psychology 111 and served as a vehicle for the discussion of self-examination, vocational development, and career decision-making.

#### Source of the Data

The source of the data was a questionnaire (Appendix B) devised by the investigator. This instrument consisted of three parts. Initially, the subjects were presented with a list of 39 occupational titles drawn from the Strong-Campbell Interest Inventory. From these the subjects were requested to select three titles which they perceived as interesting, three which they perceived as uninteresting, and three to which they felt indifferent. Subsequently, the subjects were instructed to rate their level of interest in these nine occupational titles on a seven point semantic differential scale (Osgood, Suci and Tannenbaum, 1957).

This scale consisted of the polar terms "very interesting" and "very uninteresting" enclosing seven short, equal length lines which were also equally spaced from one another. The polar terms were alternated from left to right to prevent the formation of a position preference. On each scale the subject was instructed to place an "X" over the line that best described his/her degree of interest in an

occupation. The number "7" was assigned to an expression of maximum interest and the number "1" to an expression of minimum interest. Reactance was ascertained by analyzing variations in rated interest before and after receiving vocational interest inventory feedback.

### Pretest Administration of the Instrument

The participants in this study completed the pretest questionnaire during the third week of the fall, 1976 term. After being introduced by the course instructor, the investigator informed the subjects that their assistance was requested in an important grant funded project dealing with vocational interests. This was done so that the subjects would take their involvement seriously and thus increase the likelihood of reactance. Specifically, subjects were told that they, along with other first year college students around the country, were needed to assist in the establishment of new normative groups for a well known vocational interest instrument titled the Jameson-Liston Occupational Interest Inventory (Appendix C). In fact, this instrument was fictitious. The subjects were then asked by the investigator to participate and briefed with regard to experiment attendance requirements during the next two weekly class sessions. Of the 95 students enrolled in this section of the class, all agreed to participate in the study. Subjects were each then given a copy of the pretest

questionnaire which included written instructions. These were read aloud to the subjects by the investigator. Upon their completion of this instrument which took approximately 15 minutes, the investigator collected the questionnaire, thanked the subjects for their cooperation, and reminded them that he would return in one week for the purpose of administering the second part of the study in which they would each be given a vocational interest inventory.

The following week the investigator returned to the class and passed out to the subjects copies of the Jameson-Liston Occupational Interest Inventory. This instrument, which was modeled after the Strong-Campbell Interest Inventory and the Kuder Occupational Interest Survey, consisted of questions probing: choice between activities, preference for school subjects, leisure activities, and types of people, as well as identification of self-characteristics.

The first page of the instrument contained written instructions which were read aloud by the investigator to the subjects. The subjects were subsequently asked whether they had any questions and told to begin. The completion of this instrument took approximately 30 minutes. At the end of this time, the Jameson-Liston was collected by the investigator who informed the subjects that he would return in one week with the interpretation of their inventory scores, which would conclude the study.

### Posttest Administration of the Instrument

One week after the Jameson-Liston Occupational Interest Inventory was given to the subjects, the investigator returned for the administration of the posttest. In this session he explained to the subjects that because of delays in processing, only about half of the subjects' interest inventories had been scored. He further stated that he would return those score sheets which he had available and indicated that he had an additional task for all those who were present. The investigator proceeded to distribute the manipulated feedback to the experimental subjects. An example of this feedback is shown in Appendix D.

While the subjects were given systematically manipulated feedback for the nine occupations which they selected on the pretest, the feedback for the remaining 30 occupations was determined at random. The instructions which accompanied the feedback emphasized to each experimental subject that his/her score was in no way intended to be a measure of ability. Instead, research had indicated that individuals tend to enjoy those occupations in which their measured interests are similar to those of successfully employed professionals. Conversely, persons tend not to enjoy those occupations in which their measured interests are markedly different.

After these scores were distributed and the experimental subjects given some time to study them, the investigator administered

the posttest instrument. He explained to all of the subjects that in the processing of the initial questionnaire, a lab assistant had inadvertently separated the second page with the interest ratings from the first sheet with the occupational titles without transferring the student's name to the rating sheet. As a result these sheets could not be identified. To remedy the situation, the investigator proceeded to return to all of the subjects the first page of the initial questionnaire on which they had indicated nine occupational titles, stapled to a new rating sheet identical to the one that had been surreptitiously removed. The subjects were again asked to rate on the seven point semantic differential scale their interest in each of the nine occupations. They were instructed to complete these ratings with regard to their present interests rather than to try to remember their earlier ratings.

When this was completed the investigator collected the score sheet from the experimental subjects and the rating sheet from all of the subjects. The investigator then debriefed the subjects both in writing and orally as to the true purpose of the experiment (Appendix E). The subjects were subsequently asked whether they had any questions and were informed that they were free to contact the investigator in the future if they had a question or concern about the experiment. Finally, they were thanked for their cooperation.

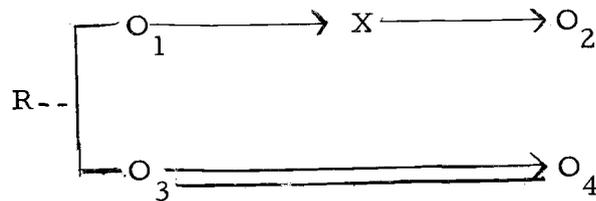
### Experimental Manipulation

The experimental manipulation utilized in the study was defined by implementation of a pretest-posttest control group design (Stanley and Campbell, 1963; Leedy, 1974) shown in Table I.

After the pretest data was collected, the investigator randomly divided the subjects into two equal size groups--experimental and control. Both of these groups were given the pretest and the Jameson-Liston Occupational Interest Inventory. This fictitious inventory, however, was not scored. Rather, those subjects who were termed experimentals received manipulated feedback indicating that their measured interests were either very similar, very dissimilar or average in comparison to individuals who were successfully employed in various occupations.

This manipulation was instituted through the use of a within-subjects design (Johnson and Solso, 1971; Underwood and Shaughnessy, 1975) which called for every experimental subject to receive all levels of the treatment. This was done by systematically varying the level of inventory feedback that each experimental subject received. The use of a table of random numbers (Peterson, 1973) resulted in the assigning of feedback as shown in Table II. The control group subjects, consistent with the experimental design utilized, received no feedback. Of the 95 original subjects, 13 were eliminated due to

TABLE I. PRETEST-POSTTEST CONTROL GROUP DESIGN



R = Randomization Process

$O_1, O_2$  = Evaluations of Experimental Group

X = Experimental Variable

$O_3, O_4$  = Evaluations of Control Group

———— = In place of the intervening variable  
for the experimental group, no influence  
permitted to impinge on control group

From Leedy, 1974, p. 151.

TABLE II. INVENTORY FEEDBACK FOR OCCUPATIONS CHOSEN ON PRETEST

Student Subject	Occupation Choice								
	1	2	3	4	5	6	7	8	9
1	VS	VD	A	VD	A	VS	VD	A	VS
2	VS	A	VD	VS	A	VD	VD	A	VS
3	VD	VS	A	VD	VS	A	VS	VD	A
4	VS	A	VD	VD	A	VS	VD	A	VS
5	VD	VS	A	A	VD	VS	VS	VD	A
6	A	VS	VD	VS	VD	A	VD	VS	A
7	VS	VD	A	VD	A	VS	A	VD	VS
8	A	VS	VD	A	VS	VD	A	VD	VS
9	VS	VD	A	VD	A	VS	VS	VD	A
10	VD	A	VS	VD	VS	A	VS	VD	A
11	A	VS	VD	A	VD	VS	VD	A	VS
12	VS	A	VD	VD	VS	A	VS	VD	A
13	A	VS	VD	VS	A	VD	VD	A	VS
14	A	VS	VD	VS	VD	A	A	VD	VS
15	VD	A	VS	VS	A	VD	VS	A	VD
16	VD	VS	A	VS	VD	A	VS	VD	A
17	A	VS	VD	A	VS	VD	A	VS	VD
18	VD	A	VS	VD	VS	A	VS	VD	A
19	VS	A	VD	VS	A	VD	A	VS	VD
20	A	VS	VD	VD	A	VS	VS	A	VD
21	VS	A	VD	VS	A	VD	VS	VD	A
22	VD	A	VS	VS	A	VD	VS	VD	A
23	VD	VS	A	VD	A	VS	VD	VS	A
24	A	VS	VD	VD	A	VS	VD	A	VS
25	VS	VD	A	A	VS	VD	VS	VD	A
26	VS	VD	A	VD	A	VS	A	VD	VS
27	VD	A	VS	VS	VD	A	A	VD	VS
28	VD	VS	A	A	VS	VD	A	VS	VD
29	A	VD	VS	VD	VS	A	VD	A	VS
30	A	VS	VD	A	VD	VS	VD	A	VS
31	VD	A	VS	VS	A	VD	A	VD	VS
32	VS	A	VD	VD	A	VS	VS	A	VD
33	A	VS	VD	VS	VD	A	VD	VS	A
34	VS	A	VD	A	VS	VD	VS	A	VD
35	VD	VS	A	VS	VD	A	VD	A	VS
36	A	VD	VS	A	VD	VS	A	VS	VD
37	VD	A	VS	VD	VS	A	A	VS	VD
38	A	VS	VD	A	VS	VD	A	VS	VD
39	VS	A	VD	VS	A	VD	A	VS	VD
40	A	VD	VS	VD	VS	A	A	VD	VS

VS = Very Similar; VD = Very Dissimilar; A = Average

missing or mismarking either the pretest or posttest instrument.

An additional two subjects were randomly eliminated from the control group to numerically equate it with the experimental group. The final result consisted of 80 subjects with 40 in the control group and 40 in the experimental group. This represented 84% of those who agreed to participate in the study.

### Statistical Treatment of the Data

Two statistical models were employed to analyze the nine hypotheses under investigation. These were the t-test and the analysis of variance. Specifically, the t-test was utilized to analyze differences in mean pretest-posttest change scores between the experimental and control groups (Stanley and Campbell, 1963). For each pair of groups, differences between means were tested at the .05 and .01 level using the Student's t with the .05 level of significance being accepted as indicating the level of confidence that differences were real (Snedecor and Cochran, 1967). For null hypotheses which were rejected at the .05 level of significance, analysis of variance was used to ascertain the source of the variation with regard to the variables of sex, age, and major.

## CHAPTER IV

### RESULTS

The primary objective of this study was to test the theory of psychological reactance in an experimental situation involving interest inventory feedback. The purpose of this chapter is to present and analyze the data relative to this investigation.

In the analysis of the data each of the nine research hypotheses was examined using a t-test to ascertain whether significant differences in mean change interest scores existed between the experimental and control groups. Hypotheses were tested at the .05 and .01 levels of significance. When a research hypothesis was found to be rejected at the .05 level of significance, an analysis of variance model was used to probe the source of the variation between the experimental and control group mean change scores. If significant differences occurred they were interpreted within the theoretical framework of psychological reactance.

#### Subject Characteristics

Tables III and IV present information about the sex, age, and academic major of the research subjects. The experimental group consisted of 40 subjects of whom 18 were male and 22 were female. The average age of this group was 18.2 and ranged from 17-22 years.

TABLE III. DISTRIBUTION OF SUBJECTS BY AGE, SEX, AND GROUP

Age	Experimental Male	Experimental Female	Control Male	Control Female	Total
17	1	4	0	4	9
18	9	18	9	22	58
19	5	0	2	2	9
20	2	0	0	0	2
21	0	0	0	1	1
22	1	0	0	0	1
Total	18	22	11	29	80

TABLE IV. DISTRIBUTION OF SUBJECTS' MAJOR BY SEX AND GROUP

Declared Major	Exper. Males	Exper. Females	Control Males	Control Females	Total
Accounting	0	0	1	0	1
Agriculture	0	1	0	0	1
Agronomic Crop Science	1	0	0	0	1
Agricultural Engineering	1	0	0	1	2
Business	6	7	6	6	25
Clothing and Textiles	0	1	0	0	1
Early Child Education	0	2	0	2	4
Education	0	0	0	1	1
Electrical Engineering	1	0	1	1	3
Elementary Education	0	1	0	2	3
Engineering	3	0	1	0	4
Foods and Nutrition	0	1	0	1	2
Home Economics	0	2	0	1	3
Horticulture	0	0	0	1	1
Liberal Studies	4	0	2	2	8
Medical Technology	0	0	0	1	1
Physical Education	0	1	0	0	1
Pre-Dentistry	0	0	0	1	1
Pre-Nursing	0	1	0	3	4
Pre-Pharmacy	0	1	0	0	1
Pre-Therapy	0	0	0	1	1
Psychology	0	2	0	2	4
Speech Communication	1	0	0	0	1
Undecided	1	2	0	0	3
University Exploratory Studies Program	0	0	0	3	3
Total	18	22	11	29	80

By comparison, the control group consisted of 40 subjects of whom 11 were male and 29 were female. The average age of this group was 18.075 and ranged from 17-21 years. The experimental and control groups each consisted of individuals representing 17 different academic majors at Oregon State University. Table V illustrates the distribution of the subjects' interest in various occupational titles by sex, as indicated on the pretest.

Because the investigator used a process of random selection to divide the subjects into the experimental and control groups, it was assumed that differences between groups on the variables of sex, age, and major were not significant. If a research hypothesis, however, was rejected at the .05 level, these variables were investigated by analysis of variance in order to determine whether they, as opposed to the experimental treatment, were responsible for the significant difference in mean change interest scores.

#### Findings Related to Hypotheses I-III

Hypotheses I-III probed the effect of interest inventory feedback upon subjects' rated interest in occupations described as interesting.

Hypothesis I stated that: No significant change in the perception of interest occurs when an occupational title described as interesting is followed by feedback indicating that interests are very similar to those of successfully employed professionals.

Table VI indicates the pretest mean score, posttest mean score, change of mean scores, standard deviations and t-score

TABLE V. DISTRIBUTION OF INTEREST IN OCCUPATIONAL TITLES BY SEX

	Description											
	Interesting			Indifferent			Uninteresting			Total		
	T*	M	F	T	M	F	T	M	F	T	M	F
Accountant	9	3	6	9	5	4	8	1	7	26	9	17
Advertising Exec.	7	4	3	9	3	6	0	0	0	16	7	9
Army Officer	2	2	0	2	0	2	32	8	24	36	10	26
Artist	9	2	7	5	1	4	1	1	0	15	4	11
Banker	11	7	4	10	4	6	4	2	2	25	13	12
Biologist	3	1	2	3	3	0	5	0	5	11	4	7
Bus. Ed. Tchr.	2	0	2	1	1	0	5	1	4	8	2	6
Buyer	14	4	10	3	2	1	6	2	4	23	8	15
Chemist	2	1	1	10	3	7	9	2	7	21	6	15
College Professor	3	3	0	8	4	4	5	1	4	16	8	8
Computer Programmer	7	5	2	13	1	12	7	2	5	27	8	19
Credit Manager	1	1	0	8	2	6	14	5	9	23	8	15
Dentist	3	2	1	6	2	4	7	3	4	16	7	9
Dietitian	3	0	3	15	5	10	9	4	5	27	9	18
Elem. School Tchr.	13	1	12	5	0	5	1	0	1	19	1	18
Engineer	9	8	1	11	4	7	5	0	5	25	12	13
English Teacher	0	0	0	6	1	5	4	2	2	10	3	7
Farmer	6	4	2	5	4	1	6	4	2	17	12	5
Forester	14	11	3	7	3	4	1	0	1	22	14	8
Guidance Counselor	9	1	8	3	0	3	2	2	0	14	3	11
Insurance Agent	0	0	0	11	3	8	14	2	12	25	5	20
Interior Decorator	15	0	15	4	1	3	1	0	1	20	1	19
Lawyer	15	8	7	7	3	4	1	1	0	23	12	11
Librarian	2	0	2	12	3	9	15	5	10	29	8	21
Mathematician	2	1	1	6	2	4	17	7	10	25	10	15
Math. -Science Tchr.	1	1	0	4	1	3	5	1	4	10	3	7
Musician	10	4	6	6	2	4	3	2	1	19	8	11
Nurse, Registered	7	0	7	4	1	3	3	0	3	14	1	13
Optometrist	0	0	0	3	0	3	5	5	0	8	5	3
Pharmacist	4	1	3	1	1	0	1	1	0	6	3	3
Physician	5	1	4	2	2	0	0	0	0	7	3	4
Physicist	0	0	0	3	1	2	9	5	4	12	6	6
Psychologist	18	3	15	6	4	2	1	1	0	25	8	17
Recreation Leader	6	4	2	8	4	4	2	0	2	16	8	8
Reporter	5	2	3	7	4	3	10	2	8	22	8	14
Social Science Tchr.	0	0	0	0	0	0	2	1	1	2	1	1
Social Worker	10	0	10	6	2	4	8	7	1	24	9	15
Speech Pathologist	5	0	5	10	5	5	7	5	2	22	10	12
Veterinarian	8	2	6	1	0	1	5	2	3	14	4	10
Total	240	87	153	240	87	153	240	87	153	720		

\*T = Total; M = Male; F = Female

TABLE VI. CHANGE IN PERCEPTION OF VOCATIONAL INTERESTS AS A CONSEQUENCE OF INTEREST INVENTORY FEEDBACK

Hypothesis I.	Pretest Mean	Posttest Mean	Mean Change Within Group (Post. -Pre. )	Mean Change Between Groups (Exp. -Control)	Std. Dev.	t
Experimental (N=40)	6.300	6.475	.175		.594	
Control (N=40)	6.125	6.425	.300	-.125	.883	-.74
-----						
Hypothesis II.						
Experimental (N=40)	6.300	6.350	.050		.815	
Control (N=40)	6.250	6.175	-.075	.125	1.095	.58
-----						
Hypothesis III.						
Experimental (N=40)	6.225	5.925	-.300		1.043	
Control (N=40)	6.175	6.550	.375	-.675	.705	-3.39**

t = 2.000 at .05 level

t = 2.660 at .01 level

\*Significant at the .05 level

\*\*Significant at the .01 level

for this hypothesis. As illustrated, the mean scores of both the experimental and control groups increased by .175 and .300 respectively. The .125 difference in the change between groups, however, was not found to be significant and Hypothesis I was not rejected. The investigator interpreted this finding within the framework of psychological reactance. Theoretically, reactance would be present if the mean rated interest of the experimental group significantly decreased in comparison to that of the control. Since this did not occur, the investigator concluded that reactance had not been expressed.

Hypothesis II stated that: No significant change in the perception of interest occurs when an occupational title described as interesting is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.

Table VI reveals that for this hypothesis there was a difference in the direction between the mean change in rated interest of the experimental and control groups. Although the experimental group raised its rated interest by .050 and the control group lowered its rating by .075, the difference between these groups was not found to be significant. Hypothesis II was therefore not rejected. Reactance theory had predicted that the experimental group's rating would significantly increase relative to the control group. Although this predicted change in direction did occur, its lack of magnitude led the investigator to conclude that reactance had not been expressed.

Hypothesis III stated that: No significant change in the perception of interest occurs when an occupational title described as interesting is followed by feedback indicating that interests are very dissimilar to those of successfully employed professionals.

Table VI points out that the experimental group decreased its rated interest by .300 while the control group increased its rating by .375. The difference between these changes was found to be significant at the .01 level by the t-test. As a result an analysis of variance was run to determine whether the variables of sex, age, or major may have contributed to this research hypothesis being rejected. Table VII indicates the results of this analysis. As illustrated, this analysis revealed that neither sex nor major was a significant contributor to the variation. Age, however, was found to be a significant contributor. With the variable age controlled for, the difference between experimental and control group mean change interest scores was significant at the .05 level. This change however, did not occur in the theoretically predicted direction and as a result, the investigator concluded that reactance had not been expressed.

#### Findings Related to Hypotheses IV-VI

Hypotheses IV-VI dealt with occupations toward which subjects described themselves as indifferent.

Table VII. ANALYSIS OF VARIANCE SUMMARY TABLE FOR HYPOTHESIS III

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Exp. v. Control	1	5.075	5.075	6.532*
Sex	1	.110	.110	.140
Age	5	9.569	1.914	2.463*
Major	24	26.912	1.121	1.430
Error	48	37.295	.777	
Total	79	78.961		

F(1, 48) = 4.04 at .05 level, 7.19 at .01 level.

F(5, 48) = 2.41 at .05 level, 3.42 at .01 level

F(24, 48) = 1.74 at .05 level, 2.20 at .01 level

\*Significant at the .05 level

\*\*Significant at the .01 level

Hypothesis IV stated that: No significant change in the perception of interest occurs when an occupational title described as indifferent is followed by feedback indicating that interests are very similar to those of successfully employed professionals.

Table VIII indicates that the experimental group increased its mean rated interest by .450 while the control group decreased its by .025. The difference between these mean changes was not significant. Reactance theory predicted that the rated interest of the experimental group would fall in comparison to the control group. Because Hypothesis IV was not rejected and the predicted theoretical shift in direction did not occur, the investigator concluded that no evidence of reactance was expressed.

Hypothesis V stated that: No significant change in the perception of interest occurs when an occupational title described as indifferent is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.

Table VIII shows that the experimental group increased its rated interest by .150 while the control group's interest remained unchanged. The difference between these changes was not found to be significant and therefore Hypothesis V was not rejected. Reactance theory had not predicted a specific shift in direction for this hypothesis. Its primary purpose was exploratory. If reactance occurred in

TABLE VIII. CHANGE IN PERCEPTION OF VOCATIONAL INTERESTS AS A CONSEQUENCE OF INTEREST INVENTORY FEEDBACK

Hypothesis	Pretest Mean	Posttest Mean	Mean Change Within Group (Post. - Pre.)	Mean Change Between Groups (Exp. - Control)	Std. Dev.	t
<hr/>						
Hypothesis IV.						
Experimental (N=40)	3.575	4.025	.450		1.176	
Control (N=40)	3.675	3.650	-.025	.475	1.025	1.72
<hr style="border-top: 1px dashed black;"/>						
Hypothesis V.						
Experimental (N=40)	3.350	3.500	.150		1.424	
Control (N=40)	3.750	3.750	.000	.150	1.038	.54
<hr style="border-top: 1px dashed black;"/>						
Hypothesis VI.						
Experimental (N=40)	3.425	3.600	.175		1.083	
Control (N=40)	3.925	3.700	-.225	.400	1.271	1.51

t = 2.000 at .05 level

t = 2.660 at .01 level

\*Significant at the .05 level

\*\*Significant at the .01 level

Hypotheses IV and VI, the investigator sought to probe the effect of average or intermediate feedback.

Hypothesis VI stated that: No significant change in the perception of interest occurs when an occupational title described as indifferent is followed by feedback indicating that interests are very dissimilar to those of successfully employed professionals.

Table VIII indicates that the mean change in rated interest increased by .175 for the experimental group as opposed to a .225 decrease for the control group. The difference between these changes was not significant and therefore, Hypothesis VI was not rejected. Reactance theory had predicted a significant increase in the mean rating of the experimental group relative to the control. Although this directional shift did occur, its magnitude was not enough for the investigator to conclude that reactance had been expressed.

#### Findings Related to Hypotheses VII-IX

Hypotheses VII-IX dealt with occupations which subjects described as uninteresting.

Hypothesis VII stated that: No significant change in the perception of interest occurs when an occupational title described as uninteresting is followed by feedback indicating that interests are very similar to those of successfully employed professionals.

Table IX shows that the mean rated interest of the experimental group increased by .150 as compared with a .050 increase for the control group. The difference between these changes was not significant and as a result, Hypothesis VII was not rejected. Reactance theory had predicted that the rated interest of the experimental group would significantly fall in comparison to that of the control. Since this decrease did not occur it was concluded that there had been no evidence of reactance expressed.

Hypothesis VIII stated that: No significant change in the perception of interest occurs when an occupational title described as uninteresting is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.

Table IX reveals that the mean rated interest of the experimental group increased by .425 as opposed to a .100 increase for the control group. The difference between these mean changes was not significant and Hypothesis VIII was therefore not rejected. Reactance theory predicted that the rated interest of the experimental group would significantly decrease relative to the control group. Because this shift did not occur, the investigator concluded that there was no evidence of reactance.

Hypothesis IX stated that: No significant change in the perception of interest occurs when an occupational title described as

TABLE IX. CHANGE IN PERCEPTION OF VOCATIONAL INTERESTS AS A CONSEQUENCE OF INTEREST INVENTORY FEEDBACK

Hypothesis VII.	Pretest Mean	Posttest Mean	Mean Change Within Group (Post. -Pre. )	Mean Change Between Groups (Exp. -Control)	Std. Dev.	t
Experimental (N=40)	1.750	1.900	.150		1.001	
Control (N=40)	1.725	1.775	.050	.100	.904	.47
-----						
Hypothesis VIII.						
Experimental (N=40)	1.600	2.025	.425		1.083	
Control (N=40)	1.875	1.975	.100	.325	1.104	1.42
-----						
Hypothesis IX.						
Experimental (N=40)	2.025	2.050	.025		.862	
Control (N=40)	1.550	1.600	.050	-.025	1.037	-.12

t = 2.000 at .05 level

t = 2.660 at .01 level

\*Significant at the .05 level

\*\*Significant at the .01 level

uninteresting is followed by feedback indicating that interests are very dissimilar to those of successfully employed professionals.

Table IX indicates that the rated interest of the experimental group increased by .025 compared with a .050 increase for the control group. Because the difference in the changes between these groups was not found to be significant, Hypothesis IX was not rejected. Reactance theory had predicted that the experimental group's rated interest would rise significantly compared with that of the control group. The results did not support this prediction and led the investigator to conclude that reactance had not been expressed.

#### Summary of Findings

This study sought to determine whether interest inventory feedback leads to the arousal of psychological reactance. Nine null research hypotheses were formulated and each was investigated through the use of a t-test of significance. The investigator specifically sought to determine whether different types of inventory feedback led to theoretically predicted changes in perceived interest in occupational titles. The .05 level of significance was selected as indicating that changes in mean rated interest between the experimental and control groups were real.

{ The results of these tests indicated that null hypotheses I, II,

IV, V, VI, VII, VIII, IX were all not rejected. The t-tests revealed no significant difference in the change of mean rated interest between the experimental and control groups. Null hypothesis III however, was rejected at the .01 level because the experimental group's mean rated interest did significantly decrease in comparison to the control group. An analysis of variance ascertained that a significant part of this variation was due to the age of the experimental group compared to that of the control group. When this age factor was controlled for, however, the difference between the two group's mean rated interest was significant at the .05 level.

In order for the investigator to conclude that psychological reactance had been expressed in any of the hypotheses, a significant, theoretically predicted shift in the perception of interest had to occur. In hypotheses II, VI, and IX the predicted directional shift occurred, but not with sufficient magnitude to conclude that reactance had been expressed. Because the directional shift in hypotheses I, III, IV, VII, and VIII was the opposite of that predicted by reactance theory, the investigator similarly concluded that reactance was not evident. Hypothesis V was exploratory in the sense that reactance theory had not predicted a specific directional shift. It was included in the study because the investigator sought to probe the effect of intermediate feedback if reactance had been evident in hypotheses IV and VI.

## CHAPTER V

## CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Importance of the Study

The Theory of Psychological Reactance (Brehm, 1966, 1972) is an attempt to explain how individuals behave when they perceive that their freedom is being threatened or eliminated. Specifically, it is theorized that individuals become motivationally aroused to restore such freedoms. To test reactance theory, Brehm and other investigators have conducted a variety of studies in which the subjects' freedom to select choice alternatives was experimentally manipulated. Results of studies by such investigators as Weiner (1963), Brehm, Stires, Sensenig and Shaban (1966), Wicklund (1970), Mazis, Settle and Leslie (1973), and Hannah, Hannah and Wattie (1975) revealed that experimental manipulation of subjects' perceived freedom affects the subjective attractiveness of choice alternatives. That is, the subjective attractiveness of choices perceived as recommended or "forced" decreases while that of choices viewed as threatened increases.

In this study the investigator attempted to learn more about reactance by testing the theory with regard to feedback from an interest inventory. This was of interest because the literature

revealed that vocational guidance in the United States is based upon the concept of perceived freedom of occupational choice (Ginzberg, 1971; Kroll et al., 1970; Osipow, 1973). In addition, the literature indicated that vocational interest inventories have become an increasingly common tool in vocational guidance (Aiken, 1976). Several authors have noted that the scores inventories provide vocational guidance clients are subject to misinterpretation with potentially harmful results (Super and Crites, 1962; Cronbach, 1970; Ginzberg, 1971; Warnath, 1971).

This study has probed whether psychological reactance may be one of these results. This determination is potentially significant not only as a test of reactance itself, but also because psychological reactance tends to work against the expressed aims of interest inventories. As both the Strong-Campbell (1972) and Kuder (1968) inventory manuals have noted, these instruments are designed to serve as aids in vocational decision-making. If they arouse reactance in subjects, however, by leading them to feel as though freedom of choice is being threatened, these inventories may be defeating their own purpose as well as misguiding clients.

### Procedures

Eighty first year students enrolled in Psychology 111, Personal Development at Oregon State University served as subjects in this

study. All subjects were administered a two page pretest instrument on which they were first to scan 39 different occupational titles and then to indicate three which they perceived as interesting, three toward which they felt indifferent and three which they perceived as uninteresting. On the second page of this instrument subjects were instructed to rate their perceived interest in each of these occupations by marking the nine corresponding self-explanatory, seven point semantic differential scales across from each title.

One week later, the investigator administered the Jameson-Liston Occupational Interest Inventory to the subjects. This inventory was fictitious and modeled after the Strong-Campbell Interest Inventory and the Kuder Occupational Interest Survey. After collecting the completed inventories, the investigator randomly divided the subjects into equal sized experimental and control groups.

The following week the investigator returned written feedback to the experimental subjects only. This feedback consisted of systematically informing subjects that their inventoried interests were either very similar, very dissimilar, or average in comparison to successfully employed professionals in the nine occupations they had previously indicated on the pretest instrument. This feedback was manipulated in such a way as to create a within-subjects design in which each subject received all levels of the experimental treatment. Along with this feedback experimental subjects received fictitious scores

describing their inventoried interest in 30 other occupations. These scores were generated from a table of random numbers.

After the experimental subjects received their feedback, the investigator explained to all of the subjects that due to an error in processing, the pretest instrument needed to be partially retaken. Specifically, the investigator separated the two pages of this instrument and returned to the subjects the list of the nine occupations they had chosen attached to a new blank rating sheet. Subjects were asked to rerate the nine occupations on the basis of their present interests as opposed to attempting to remember the previous ratings. These second ratings constituted the posttest. After they were collected from all of the subjects, the subjects were debriefed both orally and in writing. As an added precaution the fictitious feedback sheets were collected.

An analysis was then made of the data to probe the effects of the feedback upon the experimental group. Specifically, the investigator used the t-test of significance, and the analysis of variance to ascertain whether the feedback had caused changes in occupational interests which were consistent with theoretical expectations drawn from reactance theory.

### Conclusions

With reference to the nine null research hypotheses it was

concluded that:

1. There is no significant change in the perception of interest when an occupational title described as interesting is followed by feedback indicating that interests are very similar to those of successfully employed professionals.
2. There is no significant change in the perception of interest when an occupational title described as interesting is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.
3. Perception of interest significantly decreases when an occupational title described as interesting is followed by feedback indicating that interests are very dissimilar to those of successfully employed professionals.
4. There is no significant change in the perception of interest when an occupational title described as indifferent is followed by feedback indicating that interests are very similar to those of successfully employed professionals.
5. There is no significant change in the perception of interest when an occupational title described as indifferent is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.
6. There is no significant change in the perception of interest when an occupational title described as indifferent is followed by

feedback indicating that interests are very dissimilar to those of successfully employed professionals.

7. There is no significant change in the perception of interest when an occupational title described as uninteresting is followed by feedback indicating that interests are very similar to those of successfully employed professionals.
8. There is no significant change in the perception of interest when an occupational title described as uninteresting is followed by feedback indicating that interests are average in comparison to those of successfully employed professionals.
9. There is no significant change in the perception of interest when an occupational title described as uninteresting is followed by feedback indicating that interests are very dissimilar to those of successfully employed professionals.

In order to conclude that reactance had been expressed, changes in the perception of interest needed to be significant in the theoretically predicted direction. Because this condition was not met in any of the nine research hypotheses, the investigator concludes that interest inventory feedback does not arouse psychological reactance.

#### Implications

The findings from this study suggest the existence of certain implications which the investigator offers for discussion. Specifically,

although the study produced no significant evidence of reactance formation, it was apparent that inventory feedback seemed to affect the perception of interest in occupations. The findings in this regard tend to run opposite to those theoretically predicted by reactance. It appears in this respect that subjects who felt one way about an occupation and then received discrepant feedback may have experienced a state of mental uneasiness termed cognitive dissonance by Festinger (1957). One way in which dissonance can be theoretically relieved is by altering one of the conflicting cognitions. This might have been exemplified by some subjects altering their perceived occupational interests to be more consistent with specific inventory feedback.

A significant example in this regard involved Hypothesis III which probed the effect of "very dissimilar" feedback upon perceived interest in occupations described by subjects as interesting. Subjects who received this feedback responded by "agreeing" with it in the sense that they significantly lowered their rated interest in these occupations. Other evidence of subjects being "positively" influenced by the feedback occurred in hypotheses II, IV, VII, and VIII. In each of these cases experimental subjects raised their rated interest in occupations after they received feedback stating that their interests were either very similar to, or average in comparison to those of successfully employed professionals. While these changes were not statistically significant, they reveal a tendency on the part

of subjects to "go along" with the suggestion of the inventory feedback.

This tendency has potentially harmful effects with regard to vocational development because tests and inventories are not omnipotent. As Thompson (1976) noted, there is already a serious misunderstanding on the part of many clients as to exactly what psychometric instruments can and cannot do. Unquestioning faith in them by clients does little but perpetuate such myths as the "calling of every vocation," or promote the psychometric search for that one occupation for which the client is "cut out" (Warnath, 1971). The findings of this study would tend to support these views.

The results of the study also reveal problems concerning occupational stereotypes. As Table V suggests, occupational stereotypes of two kinds appear to exist among the subjects in this study. The first of these involves what the investigator would call positive and negative stereotypes. That is, certain occupations appear to have elicited numerically unbalanced responses toward being described as either interesting or uninteresting. For example, "psychologist" was described as uninteresting by only one of 25 respondents. This would be an example of a positive stereotype. On the other hand, "army officer" was commonly described as uninteresting--a negative stereotype.

The second, tended to be sexual in nature. On the basis of subjects' responses it appeared as though certain occupations continue

to be viewed as basically masculine, such as forester, while others, such as interior decorator, continue to be seen as feminine. While some of these stereotypes are breaking down as evidenced in this study by the distribution of interest in such occupations as physician and lawyer, it is essential that those in education continue to work diligently toward the elimination of such vocational myths.

Finally, because the results of this study indicated that the rated occupational interests of the control group frequently shifted as much as those of the experimental group, the implication exists that the occupational interests of first year college students are quite volatile. This characteristic may have led them to be less prone to reactance formation.

### Recommendations

Based on this study and a review of the related literature, the following recommendations were made:

1. That additional studies be conducted to probe the nature and causes of psychological reactance.
2. That this study be replicated using older students who are well into their academic majors at the university. Such students may have greater stability in their occupational interests and may be more susceptible to reactance formation.
3. That studies be conducted to ascertain whether interest

inventories affect clients differently on the basis of sex.

4. That continued research be undertaken to study the effects of psychometric instruments upon those to whom they are being administered.
5. That those in education intensify research aimed at debunking vocational myths and stereotypes.

## BIBLIOGRAPHY

- Aiken, Lewis R. 1976. Psychological testing and assessment. Boston, Allyn and Bacon.
- Anastasi, Anne. 1968. Psychological testing. New York, Macmillan.
- Borow, Henry. (ed.). 1964. Man in a world at work. Boston, Houghton-Mifflin.
- Brehm, Jack W. 1966. A theory of psychological reactance. New York, Academic Press.
- Brehm, Jack W. 1972. Responses to loss of freedom: a theory of psychological reactance. Morristown, General Learning Press.
- Brehm, Jack W., Lloyd K. Stires, John Sensenig, and Janet Shaban. 1966. The attractiveness of an eliminated choice alternative. *Journal of Experimental Social Psychology* 2:301-313.
- Campbell, David P. 1974. Manual for the Strong-Campbell interest inventory. Stanford, Stanford University Press.
- Campbell, Donald T. and Julian C. Stanley. 1963. Experimental and quasi-experimental designs for research on teaching. In: *Handbook of research on teaching*, ed. by N. L. Gage. Chicago, Rand McNally. p. 171-246.
- Courtney, E. Wayne and Lorry K. Sedgwick. 1974. Use of student's "t". Corvallis, Continuing Education Publications.
- Cronbach, Lee J. 1970. Essentials of psychological testing. New York, Harper and Row.
- Darley, John G. and Theda Hagenah. 1955. Vocational interest measurement. Minneapolis, University of Minnesota Press.
- Downie, N. M. and R. W. Heath. 1974. Basic statistical methods. New York, Harper and Row.
- Ellingstad, Vernon and Norman W. Heimstra. 1974. Methods in the study of human behavior. Monterey, Brooks/Cole.

- Festinger, Leon. 1957. A theory of cognitive dissonance. Stanford, Stanford University Press.
- Fryer, Douglas. 1925. Vocational self-guidance: planning your life work. Philadelphia, J. B. Lippincott.
- Gekoski, Norman. 1964. Psychological testing. Springfield, Charles C. Thomas.
- Ginzberg, Eli. 1971. Career guidance - who needs it, who provides it. New York, McGraw-Hill.
- Gordon, David Abraham. 1974. Some limiting conditions for the theory of psychological reactance: the function of meaningfulness of task and personality. Doctoral dissertation. Bloomington, Indiana University. (Abstracted in Dissertation Abstracts International 34:6210B. 1974)
- Grabitz-Gniech, Gisla. 1971. Some restrictive conditions for the occurrence of psychological reactance. Journal of Personality and Social Psychology 19:188-196.
- Guydosh, Raymond M. 1974. Overcompliance as a response mode to psychological reactance. Doctoral dissertation. Pittsburgh, Carnegie-Mellon University. 85 numb. leaves. (Microfilm)
- Hammock, Thomas and Jack W. Brehm. 1966. The attractiveness of choice alternatives when freedom to choose is eliminated by a social agent. Journal of Personality 34:546-554.
- Hannah, T. Edward, Elena Rozen Hannah, and Barbara Wattie. 1975. Arousal of psychological reactance as a consequence of predicting an individual's behavior. Psychological Reports 37:411-420.
- Holland, John L. 1971. A counselor's guide for use with the self directed search. Palo Alto, Consulting Psychologists Press.
- Johnson, Homer H. and Robert L. Solso. 1971. An introduction to experimental design in psychology: a case approach. New York, Harper and Row.
- Kitson, Harry Dexter. 1929. How to find the right vocation. New York, Harper and Bros.

- Kline, Paul. 1975. Psychology of vocational guidance. New York, John Wiley and Sons.
- Kroll, Arthur Maynard, Lillian Brandon Dinklage, Jennifer Lee, Eileen Dorothy Morley, and Eugene Heber Wilson. 1970. Career development growth and crisis. New York, John Wiley and Sons.
- Krumboltz, John D. and Ronald D. Baker. 1973. Behavioral counseling for vocational decisions. In: Career guidance for a new age, ed. by Henry Borow. Boston, Houghton-Mifflin. p. 235-283.
- Kuder, G. Frederic. 1968. Kuder DD occupational interest survey general manual. Chicago, Science Research Associates.
- Leedy, Paul D. 1974. Practical research planning and design. New York, Macmillan.
- Lister, James L. and Donald H. McKenzie. 1968. A framework for the improvement of test interpretation in counseling. In: The theory and practice of vocational guidance, ed. by Hopson, Barrie and John Hayes. Oxford, Pergamon Press.
- Masten, Edward Ellsworth. 1969. Modes of dissonance reduction in relation to cognitive dissonance concerning vocational choice. Doctoral dissertation. Iowa City, University of Iowa. 88 numb. leaves. (Microfilm)
- Mazis, Michael B., Robert B. Settle, and Dennis C. Leslie. 1973. Elimination of phosphate detergents and psychological reactance. Journal of Marketing Research 10:390-5.
- Morea, Peter C. 1972. Guidance, selection, and training. London, Routledge and Kegan Paul.
- Osgood, Charles E., George J. Suci, and Percy H. Tannenbaum. 1957. The measurement of meaning. Urbana, University of Illinois Press.
- Osipow, Samuel H. 1973. Theories of career development. Englewood Cliffs, Prentice-Hall.
- Peterson, Roger G. 1973. Exercises in statistical inference. Corvallis, Oregon State University Bookstores.

- Pietrofesa, John J. and Howard Splete. 1975. Career Development: theory and research. New York, Grune and Stratton.
- Rall, Marilyn Louise. 1972. Reactance to a threatened loss of freedom in the attitudinal reinforcement situation. Doctoral dissertation. Chapel Hill, University of North Carolina. 78 numb. leaves. (Microfilm)
- Snedecor, George W. and William G. Cochran. 1967. Statistical methods. Ames, Iowa State University Press.
- Super, Donald E. 1957. The psychology of careers. New York, Harper and Bros.
- Super, Donald E. and John O. Crites. 1962. Appraising vocational fitness. New York, Harper and Bros.
- Thompson, Anthony P. 1976. Client misconceptions in vocational counseling. Personnel and Guidance Journal 55:30-3.
- Tyler, Leona. 1963. Tests and measures. Englewood, Prentice-Hall.
- Underwood, Benton, and John J. Shaughnessy. 1975. Experimentation in psychology. New York, John Wiley and Sons.
- Varela, Jacobo. 1971. Psychological solutions to social problems. New York, Academic Press.
- Warnath, Charles F. 1971. New myths and old realities. San Francisco, Jossey-Bass.
- Warnath, Charles F. 1975. Vocational theories: direction to nowhere. Personnel and Guidance Journal 53:422-8.
- Weiner, Judith A. 1963. Psychological reactance from involuntary restriction of choice alternatives. Unpublished manuscript. Durham: Duke University.
- Whatley, Judith Lee. 1974. Consistency and dependence as sources of conformity influence and the relation to psychological reactance. Doctoral dissertation. Durham, Duke University. 180 numb. leaves. (Microfilm)

- Wicklund, Robert A. 1974. Freedom and reactance. Potomac, Lawrence Erlbaum Assoc.
- Wicklund, Robert A. 1970. Prechoice preference reversal as a result of threat to decision freedom. *Journal of Personality and Social Psychology* 14:8-17.
- Wicklund, Robert A., V. Slattum, and E. Solomon. 1970. Effects of implied pressure toward commitment on ratings of choice alternatives. *Journal of Experimental Social Psychology* 6: 449-457.
- Worchel, Stephen. 1971. The effect of simple frustration, violated expectancy, and reactance on the instigation to aggression. Doctoral dissertation. Durham, Duke University. 166 numb. leaves. (Microfilm)
- Womer, Frank B. 1964. Testing programs--misconception, misuse, overuse. In: *Readings in psychological tests and measurements*, ed. by W. Leslie Barnette Jr. Homewood. Dorsey Press.

## APPENDICES

## APPENDIX A

## GUIDELINES FOR THE PROTECTION OF HUMAN SUBJECTS

Oregon State University  
Vice President for Research and  
Graduate Studies

Corvallis, Oregon 97331  
Telephone 503 754-3437  
February 6, 1973

## MEMORANDUM

TO: Research Project Principal Investigators

FROM: Roy A. Young

SUBJECT: Investigations involving human subjects

An important official policy of the Department of Health, Education and Welfare requires that all research projects that involve human subjects and which are supported either directly or indirectly by funds from DHEW be formally reviewed by an institutional committee to insure the protection of the rights and welfare of individuals involved as research subjects. Each institution receiving DHEW funds is required to submit and gain the approval by DHEW of a statement of compliance and guides for implementation of the policy.

In order to assure protection of OSU students and staff and all other persons who may be involved, and because we concur in principle with DHEW policy and anticipate adoption of the same or a similar policy by other Federal granting agencies, OSU has stated in its document of compliance that this institution will apply the DHEW policy to all research projects involving human subjects, regardless of the source of funding. The document of compliance presently responds specifically to directives from DHEW and the USDA.

The policy now in force at OSU applies to all research projects, including thesis research projects, in which there is any possibility that individuals may be exposed to "physical, psychological, sociological, or other" harm as a consequence of participating as subjects. The term "subject" applies to "patients; outpatients; donors of organs, tissues and services; and normal volunteers, including students who are placed at risk during training in medical, psychological, sociological, educational, and other types of activities." Note that the policy pertains to individuals participating as subjects; the policy does not pertain explicitly to protection of individuals involved other than as subjects.

Obviously the determination of when and in what projects individuals are exposed to risk is a matter of common sense and professional judgment. Examples of the diverse types of procedures and practices of concern are: surgical procedures; administration of drugs or radiation; requirement of strenuous physical exertion; use of questionnaires, personality inventories, interviews, etc.; and procedures employed in studies of human learning, social perception, or group effectiveness. Those projects which involve risk of physical or psychological injury generally require prior formal consent ("informed consent") of, or on behalf of, participants.

A Committee for the Protection of Human Subjects, with Robert W. Newburgh as Chairman, has accepted responsibilities and prerogatives of: (a) reviewing all research proposals involving human subjects prior to submission, when possible, and, in all cases, prior to project initiation; (b) periodically reviewing each such project after initiation, and (c) counseling individuals and groups concerning the safeguarding of human subjects. Hereafter all proposals involving human subjects should be directed to this office for referral to the CPHS as a routine part of the institutional review process.

To assist the CPHS to develop records on current projects, you are requested to notify this office on the enclosed form if you are now directing one or more projects involving human subjects. Copies of the document of compliance are available in each departmental office and in this office. Copies of The Institutional Guide to DHEW Policy on Protection of Human Subjects have been ordered and will be forwarded to the departments as soon as they are received from Washington.

### BASIC ELEMENTS OF INFORMED CONSENT

The informed consent of subjects will be obtained by methods that are adequate and appropriate. Informed consent is the agreement obtained from a subject, or from his authorized representative, to the subject's participation in an activity.

The basic elements of informed consent are:

1. A fair explanation of the procedures to be followed, including an identification of those which are experimental;
2. A description of the attendant discomforts and risks;
3. A description of the benefits to be expected;
4. A disclosure of appropriate alternative procedures that would be advantageous for the subject;
5. An offer to answer any inquiries concerning the procedures;
6. An instruction that the subject is free to withdraw his consent and to discontinue participation in the project or activity at any time.

In addition, the agreement, written or oral, entered into by the subject, should include no exculpatory language through which the subject is made to waive, or to appear to waive, any of his legal rights, or to release the institution or its agents from liability for negligence.

Taken from: The Institutional Guide to DHEW Policy on Protection of Human Subjects.

## OREGON STATE UNIVERSITY

## Committee for Protection of Human Subjects

Summary of Review

Title: An Investigation into the Possible Arousal of Psychological Reactance as a Consequence  
of Interest Inventory Feedback

Program Director: Charles F. Warnath (Stephen M. Beller)

## Recommendation:

XXX Approval

\_\_\_\_\_ Provisional Approval

\_\_\_\_\_ Disapproval

\_\_\_\_\_ No Action

## Remarks:

Date: June 2, 1976 Signature: (Signed)

cc: Dr. MacDonald

J. Ralph Shay  
Assistant Dean of Research  
Phone: 754-3437

map

## APPENDIX B

## PRETEST - POSTTEST INSTRUMENT

NAME \_\_\_\_\_  
SEX \_\_\_\_\_  
AGE \_\_\_\_\_  
MAJOR \_\_\_\_\_

DIRECTIONS:

You are about to participate in a study dealing with the measurement of vocational interests. In this regard, your cooperation will be requested for part of today's class session and for part of the sessions one week and two weeks from today.

Specifically, you will be asked today to look at a number of occupational titles and then to indicate several in which you are interested and several in which you are not. Next week you will be given a vocational interest inventory and the following week will receive an interpretation of your inventory scores.

Your cooperation in this study is quite important. By comparing your responses to various questions with those of other college freshmen men and women around the country, vocational psychologists are able to establish normative groups for testing instruments. This information is very helpful to counselors who work with clients who have questions and concerns in the area of career guidance.

In order to get the best results, it is crucial that you answer questions both today and next week with the first answer that comes to mind. Try not to take much time deciding on a response because it's your first impression we're after. Keep in mind when responding that THERE ARE NO "RIGHT" OR "WRONG" ANSWERS. Also, remember that THIS EXERCISE HAS NOTHING TO DO WITH SPECIFIC SKILLS OR ABILITIES. This means that you should try not to consider your skills or ability in a particular area, but rather whether it does or doesn't INTEREST you. For example, it's very common to be interested in a sport such as basketball, but yet have little, if any, skill to play it.

Any questions? If not, turn the page and begin.

THANKS AGAIN, FOR YOUR COOPERATION!

PART I. Listed below you will find the titles of 39 occupations in alphabetical order. Please spend the next several minutes looking these over to become familiar with them.

Accountant	Dietitian	Musician
Advertising Exec.	Elem. School Teacher	Nurse, Registered
Army Officer	Engineer	Optometrist
Artist	English Teacher	Pharmacist
Banker	Farmer	Physician
Biologist	Forester	Physicist
Business Ed. Teacher	Guidance Counselor	Psychologist
Buyer	Insurance Agent	Recreation Leader
Chemist	Interior Decorator	Reporter
College Professor	Lawyer	Soc. Sci. Teacher
Computer Programmer	Librarian	Social Worker
Credit Manager	Mathematician	Speech Pathologist
Dentist	Math-Sci. Teacher	Veterinarian

---

Part II. Now from the list of 39 occupations, please select 3 which you feel would be interesting to you. Then insert the names of these occupations in the spaces below. Their order is not important. Remember, you are to select the occupations on the basis of interest rather than on skill or ability.

---



---



---

This time from the list of 39 occupations, you are to choose 3 towards which you feel indifferent (not particularly interesting or uninteresting to you). Keeping the preceding instructions in mind, indicate the titles of these 3 occupations in the spaces below.

---



---



---

In this part you are to follow the same instructions as before, but this time to choose 3 occupations which seem uninteresting to you. Enter these occupational titles in the spaces below.

---



---



---

BE SURE YOU HAVE FILLED IN ALL 9 SPACES WITH DIFFERENT OCCUPATIONAL TITLES. WHEN THIS IS DONE GO ON TO THE NEXT PAGE.

PART III. The next section of this exercise involves rating your interest in the nine occupational titles you inserted on the preceding page. You are to do this by placing an "X" on the line over the number which you feel best describes your degree of interest in that occupation. For example, if you had maximum interest in the occupation of air traffic controller, you would mark the scale as follows:

VERY INTERESTING       $\frac{X}{7}$   $\frac{-}{6}$   $\frac{-}{5}$   $\frac{-}{4}$   $\frac{-}{3}$   $\frac{-}{2}$   $\frac{-}{1}$       VERY UNINTERESTING

As you proceed to rate the 9 occupations on the scale across from each title BE SURE TO NOTE THAT THE DESCRIPTORS ON THE RATING SCALES ROTATE. SOMETIMES THE TERM VERY INTERESTING, FOR EXAMPLE, WILL BE ON THE LEFT SIDE WHILE OTHER TIMES IT WILL APPEAR ON THE RIGHT SIDE. The number 7 however, will always refer to maximum interest, while 1 always refers to minimum interest.

Now proceed to rate your interest in the 9 occupations you selected on the previous page.

VERY INTERESTING	$\frac{-}{7}$ $\frac{-}{6}$ $\frac{-}{5}$ $\frac{-}{4}$ $\frac{-}{3}$ $\frac{-}{2}$ $\frac{-}{1}$	VERY UNINTERESTING
VERY UNINTERESTING	$\frac{-}{1}$ $\frac{-}{2}$ $\frac{-}{3}$ $\frac{-}{4}$ $\frac{-}{5}$ $\frac{-}{6}$ $\frac{-}{7}$	VERY INTERESTING
VERY INTERESTING	$\frac{-}{7}$ $\frac{-}{6}$ $\frac{-}{5}$ $\frac{-}{4}$ $\frac{-}{3}$ $\frac{-}{2}$ $\frac{-}{1}$	VERY UNINTERESTING
VERY UNINTERESTING	$\frac{-}{1}$ $\frac{-}{2}$ $\frac{-}{3}$ $\frac{-}{4}$ $\frac{-}{5}$ $\frac{-}{6}$ $\frac{-}{7}$	VERY INTERESTING
VERY INTERESTING	$\frac{-}{7}$ $\frac{-}{6}$ $\frac{-}{5}$ $\frac{-}{4}$ $\frac{-}{3}$ $\frac{-}{2}$ $\frac{-}{1}$	VERY UNINTERESTING
VERY UNINTERESTING	$\frac{-}{1}$ $\frac{-}{2}$ $\frac{-}{3}$ $\frac{-}{4}$ $\frac{-}{5}$ $\frac{-}{6}$ $\frac{-}{7}$	VERY INTERESTING
VERY INTERESTING	$\frac{-}{7}$ $\frac{-}{6}$ $\frac{-}{5}$ $\frac{-}{4}$ $\frac{-}{3}$ $\frac{-}{2}$ $\frac{-}{1}$	VERY UNINTERESTING
VERY UNINTERESTING	$\frac{-}{1}$ $\frac{-}{2}$ $\frac{-}{3}$ $\frac{-}{4}$ $\frac{-}{5}$ $\frac{-}{6}$ $\frac{-}{7}$	VERY INTERESTING
VERY INTERESTING	$\frac{-}{7}$ $\frac{-}{6}$ $\frac{-}{5}$ $\frac{-}{4}$ $\frac{-}{3}$ $\frac{-}{2}$ $\frac{-}{1}$	VERY UNINTERESTING

## APPENDIX C

## JAMESON-LISTON OCCUPATIONAL INTEREST INVENTORY

JAMESON-LISTON OCCUPATIONAL INTEREST INVENTORY

---

This inventory is designed to provide you with information about your vocational interests. For each of the sections in this exercise you will be asked to indicate your subjective likes and dislikes. By comparing your responses to specific questions with those of individuals successfully employed in various occupations, this instrument will provide you with scores which indicate how similar your interests are to these individuals. While such a measure of interests does not indicate anything about your ability or aptitude in any occupational field, the scores are important because they point out those occupations in which you would most likely enjoy working, and also those which you would probably not enjoy.

## DIRECTIONS:

1. With this booklet, you should have a special answer sheet on which to mark your answers.
2. Please do not make any marks on this booklet because it will be used again with other people.
3. Use any soft, black, lead pencil to mark your answer sheet.
4. Fill in your name and other information on the answer sheet.
5. Make a heavy, dark mark for each answer - not a check mark.
6. If you make a mistake or change your mind, erase thoroughly.
7. Try to answer each question. Work quickly; first impressions usually give the best results. Turn the page and begin.

Copyright 1948, 1950, 1959, 1967, 1973 by Edward Jameson and Charles Liston Associates, Inc. All rights reserved. No part of this instrument may be reproduced or transmitted in any form or by means, electronic or mechanical, including photocopying, recording, or any information retrieval system, without permission in writing from the publisher.

## PART I. CHOICE BETWEEN ACTIVITIES

Listed below you will find 15 groups of 3 activities. For each of these groups, please indicate which activity you would like to do the most, and which you would like to do least. Do this for each group by indicating "1" for most and "2" for least. The third activity in each group will remain blank on the answer sheet.

For example,

### GROUP A

1. Play poker
2. Play a phonograph record
3. Play football

If playing football was the activity most preferred, mark a 1 in question 3. If poker is the least preferred, mark 2 in question 1. This means that question 2 would be left blank on the answer sheet. Now proceed with Part 1.

### GROUP 1

1. Go to the zoo
2. Go to a play
3. Go to a sports event

### GROUP 2

4. Take a course in jewelry making
5. Take a course in yoga
6. Take a course in mountain climbing

### GROUP 3

7. Repair a leaky faucet
8. Repair an automobile engine
9. Repair a kitchen appliance

### GROUP 4

10. Collect stamps
11. Collect butterflies
12. Collect rocks

### GROUP 5

13. Teach a person to draw
14. Teach a person to grow vegetables
15. Teach a person to play tennis

### GROUP 6

16. Do research on mental illness
17. Do research on malnutrition
18. Do research on outer space

## PART I. (continued)

GROUP 7

19. Attend a convention of lawyers
20. Attend a convention of teachers
21. Attend a convention of ministers

GROUP 8

22. Study in the library
23. Study alone in your room
24. Study in a dormitory lounge

GROUP 9

25. Read the comics
26. Read a news magazine
27. Read a popular novel

GROUP 10

28. Be on a jury for a trial
29. Be on a fund raising committee
30. Be on a committee to plan a dance

GROUP 11

31. Speak to a group about politics
32. Speak to a group about crime
33. Speak to a group about health

GROUP 12

34. Tour castles in Germany
35. Tour the Amazon in Brazil
36. Tour the Parthenon in Greece

GROUP 13

37. Sell cameras
38. Sell clothing
39. Sell sporting goods

GROUP 14

40. Play a game of chess
41. Play a game of Scrabble
42. Play a game of Monopoly

GROUP 15

43. Work where no one can watch you
44. Work in front of one or two others
45. Work in front of a group of people

PART II. SCHOOL SUBJECTS

Listed below you will find a variety of school subjects. Please indicate whether you are interested in each, even though you may not have studied it.

Mark "1" for subjects you like

Mark "2" for subjects you dislike

Mark "3" for subjects toward which you feel indifferent (don't care one way or the other)

46. Physics
47. English Literature
48. Sociology
49. Geology
50. Horticulture
51. Physical Education
52. Zoology
53. Military Science
54. Journalism
55. Philosophy
56. Agriculture
57. Accounting
58. Psychology
59. Political Science
60. Chemistry
61. Mathematics
62. Economics
63. Engineering
64. Modern Languages
65. History
66. Dramatics
67. Home Economics
68. Forestry
69. Computer Science
70. Art

PART III. LEISURE ACTIVITIES

Please indicate how you feel about the leisure activities listed below. Mark "1", "2", or "3" as you did in Part II to indicate liking, disliking, and indifference respectively.

71. Hiking
72. Amusement Parks
73. Art Galleries
74. Musical Concerts
75. Political Speeches
76. Skiing
77. Writing Poetry
78. Crossword Puzzles
79. Fishing
80. Bridge

## PART III. (continued)

81. Dancing
82. Church Activities
83. Magazines
84. Woodworking
85. Cooking
86. Camping
87. Sewing
88. Parties
89. Board Games
90. Boating
91. Golfing
92. Gardening
93. Novels
94. Beachcombing
95. Bowling

PART IV. TYPES OF PEOPLE

Please indicate in the same manner as before, how you would feel about working with the various types of people listed below. Mark "1", "2", or "3" to indicate liking, disliking and indifference respectively.

96. Babies
97. Artists
98. Religious People
99. Foreigners
100. Realtors
101. Emotional People
102. Athletes
103. Prominent Executives
104. Elderly People
105. Entertainers
106. Mentally Retarded People
107. High School Students
108. Construction Workers
109. Physically Ill People
110. Humorous People
111. Scientists
112. Military Officers
113. College Professors
114. Elementary School Students
115. Bankers

PART V. SELF CHARACTERISTICS

In this section you are to indicate whether you believe the following statements describe you. Mark "1" if you think that the statement does describe you. Mark "2" if you feel that it does not describe you. If you cannot decide whether the statement describes you or not, mark "3".

116. Usually take the lead in organizing activities
117. Am shy when it comes to meeting new people
118. Enjoy working with abstract thoughts and concepts
119. Can work accurately with problems involving numbers
120. Prefer to work at a desk in an office
121. Can smooth out problems and disagreements between people
122. Can teach others who may be slow without losing my patience
123. Feel uncomfortable when talking before a group of people
124. Enjoy taking something apart and putting it back together
125. Prefer to finish one thing before I start another
126. Have more than my share of novel ideas
127. Feel that I can get more done working by myself than as a part of a group
128. Have the desire to sell people on things or ideas
129. Enjoy working outdoors
130. Like to know what other people think of my work

YOU HAVE NOW CONCLUDED THE INVENTORY. PLEASE GO BACK AND MAKE SURE THAT ALL YOUR MARKS ON THE ANSWER SHEET ARE DISTINCT AND THAT THERE ARE NO STRAY PENCIL MARKS.

## APPENDIX D

## JAMESON-LISTON INVENTORY SCORING REPORT

NAME \_\_\_\_\_

JAMESON-LISTON OCCUPATIONAL INTEREST INVENTORY SCORING REPORT

To the Student: Below you will find scores which indicate how similar your interests are to those of successfully employed individuals in a variety of occupations. This inventory does not measure ability. These interest scores are important, however, because research has shown that individuals tend to enter and enjoy those occupations in which they are interested. In this regard these inventory scores are best used as a guide for seeking out more information about those occupations in which your measured interest appears to be high.

<u>OCCUPATIONAL TITLE</u>	<u>MEASURED INTEREST IN COMPARISON TO SUCCESSFULLY EMPLOYED PROFESSIONALS</u>
ACCOUNTANT .....	_____
ADVERTISING EXECUTIVE .....	_____
ARMY OFFICER .....	_____
ARTIST .....	_____
BANKER .....	_____
BIOLOGIST .....	_____
BUSINESS EDUCATION TEACHER .....	_____
BUYER .....	_____
CHEMIST .....	_____
COLLEGE PROFESSOR .....	_____
COMPUTER PROGRAMMER .....	_____
CREDIT MANAGER .....	_____
DENTIST .....	_____
DIETITIAN .....	_____
ELEMENTARY SCHOOL TEACHER .....	_____
ENGINEER .....	_____
ENGLISH TEACHER .....	_____
FARMER .....	_____
FORESTER .....	_____

Continued on back of page

## JAMESON-LISTON (2)

GUIDANCE COUNSELOR ..... \_\_\_\_\_

INSURANCE AGENT ..... \_\_\_\_\_

INTERIOR DECORATOR ..... \_\_\_\_\_

LAWYER ..... \_\_\_\_\_

LIBRARIAN ..... \_\_\_\_\_

MATHEMATICIAN ..... \_\_\_\_\_

MATHEMATICS-SCIENCE TEACHER ..... \_\_\_\_\_

MUSICIAN ..... \_\_\_\_\_

NURSE, REGISTERED ..... \_\_\_\_\_

OPTOMETRIST ..... \_\_\_\_\_

PHARMACIST ..... \_\_\_\_\_

PHYSICIAN ..... \_\_\_\_\_

PHYSICIST ..... \_\_\_\_\_

PSYCHOLOGIST ..... \_\_\_\_\_

RECREATION LEADER ..... \_\_\_\_\_

REPORTER ..... \_\_\_\_\_

SOCIAL SCIENCE TEACHER ..... \_\_\_\_\_

SOCIAL WORKER ..... \_\_\_\_\_

SPEECH PATHOLOGIST ..... \_\_\_\_\_

VETERINARIAN ..... \_\_\_\_\_

## APPENDIX E

## DEBRIEFING LETTER TO SUBJECTS

TO: Psychology 111 Research Participants  
FROM: Steve Beller, Principal Investigator

Now that we have concluded the collection of the data, I would like to share with you the purpose of this study. In this regard you have assisted me in doctoral research aimed at testing the theory of psychological reactance in a situation involving vocational testing. Very briefly, reactance theory postulates that if a person believes that his/her freedom is being threatened, he/she will attempt to restore it. In the case of tests, this sometimes means that an individual will do exactly the opposite of what a test suggests. By administering a fictitious vocational interest inventory to you, I sought to determine how manipulated scores affected your perceived interest in a variety of occupations. Because this was the true goal of the study, it is very important that you keep in mind that the inventory scores you received were completely fictitious and had nothing to do whatsoever with your real interests or your abilities.

It is hoped that this study will serve as a vehicle for class discussion, and that it will positively encourage you as students to take an interest in self-examination and vocational decision-making. In addition, it is also hoped that this study will encourage those of you with questions and/or concerns about your vocational plans to seek out professional help or information such as that available from the O. S. U. Counseling Center.

If any of you have any further questions or concerns about this study, feel free to contact me through the Office of Student Services, 754-3661.

Again, a sincere thank you for your cooperation!