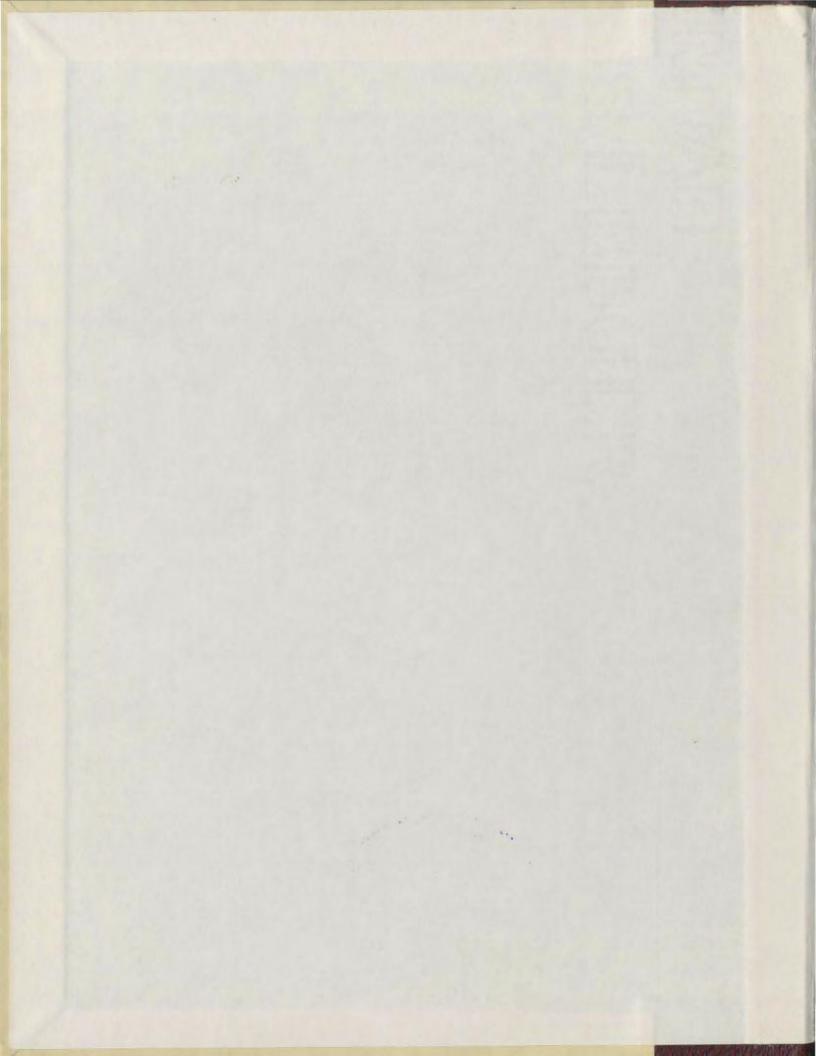
EVALUATION APPREHENSION AS A FACTOR IN THE ROKEACH VALUE CHANGE PARADIGM

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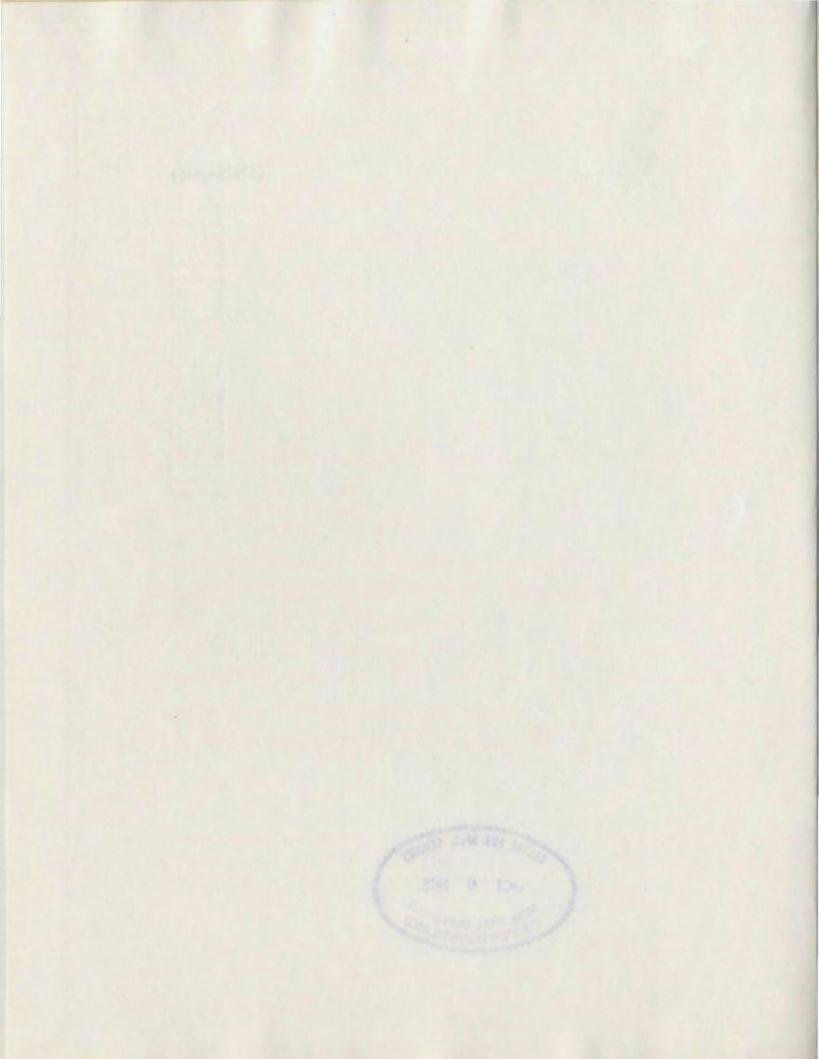
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ARNOLD JAMES CAMPBELL



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Evaluation Apprehension as a Factor in the Rokeach Value Change Paradigm

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Thesis submitted to the Department of Psychology, Memorial University of Newfoundland, in partial fulfillment of the requirements for the degree of Master of Science. July, 1974.

ABSTRACT

The present study was performed to determine whether or not evaluation apprehension (Rosenberg, 1965, 1969) could account for both short and long term value changes accompanied by related attitude and behavioural change. Previously most research related to value change as measured by the Rokeach Value Survey had been explained in terms of self-dissatisfaction. Rokeach has argued that it is very unlikely that any other theory could account for .. the changes he has demonstrated. Each subject in the present study received a written communique which included one of three evaluative messages (High, None, or Low) and each of these messages was combined with one of three directional cueing messages (Upward, None, or Downward) for the target value A World of The resultant experimental design was a 3 X 3 factorial. Subjects rank ordered the values in the Rokeach Value Survey (1967) directly after the experimental manipulation and again six weeks later. As hypothesized the High Evaluation Apprehension/ Upward Cued condition ranked the target value significantly above the Low Evaluation Apprehension/Upward Cued condition and the effect was present six weeks later. Secondly 1t was found that in the High Evaluation Apprehension condition the Upward Cued subjects ranked the target value significantly higher than both the Non Cued and Downward Cued, subjects but there was no significant difference between these three groups in the Low Evaluation Apprehension condition. This pattern also persisted over time. In the No Evaluation Apprehension condition the Upward Cued subjects ranked the target value higher than

both the Non Cued and Downward Cued subjects but this difference was not long term. Behavioural change measured at the six week point was only apparent for the High Evaluation Apprehension/
Upward Cued subjects. Attitude change was also greater for the High Evaluation Apprehension/Upward Cued subjects than for Low Evaluation Apprehension/Upward Cued subjects. The results were interpreted as support for the contention that evaluation apprehension can account for both short and long term value change and its consequent behaviour and attitude change. Self-dissatisfaction theory is analyzed within the context of the present results.





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INTRODUCTION

In the late sixties Rokeach began research on human values and their relationship to attitudes and beliefs. He suggested that values would be a much more productive target for research than attitudes (Rokeach, 1968a) because they are fewer in number, easier to deal with, and have the potential of effecting large changes in behaviour from relatively small changes in the value system. In addition to these factors values were also thought to be a central unit in the individual's behavioural pattern.

Rokeach (1968a) stated that a consequence of studying attitudes to the virtual exclusion of values was an overemphasis on persuasion while education and re-education were in large part neglected:

We emphasized, for example, the persuasive effects of group pressure, prestige, order of communication, role playing, and forced compliance on attitudes. But we neglected the more difficult study of, say, the more enduring effects of socialization, educational innovation, psychotherapy and cultural change on values (p. 15).

It is Rokeach's contention that attitudes, values, and beliefs are all interrelated, with beliefs being the basic unit of concern. Beliefs are fundamental units within the personality of an individual, they are the material from which a person establishes values and forms attitudes. From beliefs a belief system is developed which is a psychological ordering of all beliefs. By definition no beliefs can exist outside this system. Beliefs are described as:

^{...} any simple proposition, conscious or unconscious, inferred from what a person says or does, capable of being presented by the

phrase "I believe that ..." (Rokeach, 1968b, p. 113).

Although the content of beliefs vary; that is a belief can describe, evaluate, or prescribe, they all predispose an individual to action and all have cognitive as well as affective components. They are thought to vary on a dimension of centrality with the more central beliefs being the stronger. The strength of the central beliefs is thought to be the result of a phenomenon Rokeach calls "connectedness" (Rokeach, 1968b, p. 5). That is, the greater the number of connections or communications a belief has with other beliefs the more likely it is to be central and therefore important. A consequence of being highly connected is that the belief will be resistant to change. If induced to change such change will have far reaching consequences for the other beliefs.

Within Rokeach's framework attitudes are a subsystem of beliefs. Attitudes are formulated from a group of beliefs and as a result are a set of interrelated predispositions focused on objects or situations. Some of the beliefs about an object or situation concern matters of fact while others may concern matters of evaluation. Thus an attitude, being a group of beliefs, can consist of interconnected assertions to the effect that certain things about a specific object or situation are true or false and certain other things about it are desirable or undesirable. Given that an attitude is an organization of several beliefs focused on a specific object or situation it serves to predispose

one to respond in some preferential manner toward that object or situation. Whether or not these predispositions are translated into actions depends largely on the situation within which a given attitude object is encountered.

Rokeach considers values to be a type of belief, one that is centrally located within a belief system. They are thought of as modes of conduct and desirable goals or end-states of existence. Thus, to assert that an individual "has a value" is to say that he has an enduring belief in a specific mode of conduct or end-state of existence and that this belief is personally and socially preferable to other modes of conduct or end-states of existence ... It is assumed (Rokeach, 1968a, 1968b) that once a value is internalized it becomes, consciously or unconsciously, a standard or criterion for guiding action, for developing and maintaining attitudes toward relevant objects and situations, for justifying one's own and others' actions and attitudes, for morally judging self and others, and for generally comparing oneself with others. Finally, a value is thought to be a standard employed to influence the values, attitudes, and actions of others, particularly children.

important respects. While an attitude represents several beliefs focused on a specific object or situation, a value is a single belief which transcendentally guides actions and judgments across specific objects and situations and beyond immediate goals to more ultimate endstates of existence. Moreover, a value, unlike an attitude, is an imperative to action, not only a belief about the preferable but also a preference for the preferable (Lovejoy, 1950).

Finally, a value, unlike an attitude, is a standard or yardstick to guide actions, attitudes, comparisons, evaluations and justifications of self and others (Rokeach, 1968a, p. 16).

A distinction is made by Rokeach between values as modes of conduct and values as end-states of existence. The first is termed an instrumental value and the second a terminal value. An instrumental value has been defined as a single belief which always assumes the following form:

I believe that such-and-such a mode of conduct (e.g., honesty, courage) is personally and socially preferable in all situations with respect to all objects (Rokeach, 1968a, p. 17).

A terminal value, on the other hand, takes the form:

I believe that such-and-such an end-state of existence (e.g., salvation, a world at peace) is personally and socially worth striving for (Rokeach, 1968a, p. 17).

A value system, according to Rokeach, signifies nothing more than a hierarchical arrangement of values, a rank-ordering of values along a continuum of importance. Given the distinction between instrumental and terminal values two separate value systems are possible—instrumental and terminal—each with a rank-ordered structure, and each connected with attitudes toward specific objects and situations. Rokeach (1968-69) suggests that over and above the functions served by each value alone as a separate standard, the function of a person's value system is to help him choose between alternatives and to resolve conflicts between alternatives in everyday life. That is, an individual's value system may be said to represent a learned organization of rules for making choices and for resolving conflicts.

The distinction between attitudes and values suggests that an adult possesses a very large number of attitudes toward any specific object or situation, but only a few dozen instrumental values and probably even fewer terminal values. This numerical difference indicates the presence of a hierarchically connected system of attitudes and values. It is thus supposed that the thousands of attitudes within a person's total belief system are all in the service of, and cognitively connected with an even fewer number of terminal values. Given these suppositions it can be inferred that the value-attitude system is more or less internally consistent and will define behaviour. A change in any part of the system will therefore affect other connected parts and lead to behavioural change.

Rokeach (1968a) argues for a number of separate organizing processes within the value attitude system: several beliefs may be organized together to form a single attitude focused on a specific object or situation, two or more attitudes may be combined to form a more comprehensive attitude system, and two or more values may be arranged such that they form either an instrumental or a terminal value system.

An individual's value-attitude system also has three other types of cognitions or beliefs which are continuously fed into it and provide the material for growth and change. These cognitions are the cognitions an individual may have about his own behaviour, the cognitions he has about the attitudes, values, and behaviours of significant others, and the cognitions he may have concerning

the behaviour of physical objects. Recently Rokeach (1973, p. 218) has added cognitions about self as a separate subsystem and the previous set of cognitions about attitudes, values, motives, and behaviour of significant others has been further subdivided into three separate subsystems. Any of these ten cognitions may be experienced by a person as being either consistent or inconsistent to varying degrees with one another or with one or more of the attitudes or values within his value-attitude system.

In addition to describing the organization of the valueattitude sytem Rokeach's (1968b) theory also describes how the value-attitude sytem undergoes change within the confines of a cognitive consistency model. The model assumes that every person has a need to maintain consistency, or at minimum the illusion of consistency, between all the elements within his value-attitude system. If day to day reality and experience continually bring various elements of the system into a dissonant relation with one another the individual may be confronted with the realization; that two beliefs about an attitude object are contradictory. He may be faced with a contradiction between a terminal and an instrumental value, or he may be confronted with a contradiction between a value and an attitude (Rokeach, 1968-69). Given any one of these situations the individual is motivated to act so as to reduce or remove the conflict. In order to accomplish this an alteration in the structure of the value-attitude system is necessary.

Given the central role values (especially terminal values)

enduring and far reaching changes within a person's value-attitude system should theoretically be brought about by bringing one or more of the terminal values into a dissonant relationship with the other elements in the system (Rokeach, 1968-69). These dissonant relationships should give rise to motivational forces leading to change in values and attitudes such that they would become more psychologically consistent.

More recently Rokeach (1973) has stated that a contradiction must implicate self-cognitions to be considered of psychological importance. That is, before an inconsistency can be expected to induce change it must involve the subsystem containing the cognitions an indivdual has about himself. Certain contradictions are more likely to implicate self-conceptions than others and as a result are more likely to induce cognitive and behavioural change. Rokeach has proposed that to the extent a contradiction implicates self-cognitions it will be experienced as a state of self-dissatisfaction. The affective phenomenon of self-dissatisfaction is considered to be the basic motivation behind cognitive and behavioural change rather than cognitive contradictions per se. Rokeach (1973) has stated that:

... if a value and an attitude are contradictory, the situation will lead to self-dissatisfaction only to the extent that the contradiction implicates self-conceptions (p. 229).

To the degree a conflict generates self-dissatisfaction it will motivate the individual to eliminate the contradiction.

Rokeach (1968a, 1971) has suggested that there are three possible methods of creating inconsistency within an individual's cognitive structure. The first is to induce an individual to engage in a behaviour which is inconsistent with his attitudes or values, the second is to expose a person to new information already denoted in his value-attitude system, and the third, the one used by Rokeach, is to expose the person to information about inconsistencies already present in his value-attitude system. Making an individual aware of his inconsistencies and their implications, provided that they bear on his self-conceptions, should produce the necessary motivation for attitude-value change.

Rokeach has demonstrated in a series of studies (Rokeach, 1968a, 1971, 1973; Rokeach & McLellan, 1972) that his experimental manipulation can generate change in values as well as behaviour, and that the induced change is relatively enduring. That is, the objective feedback of information about an individual's values and attitudes makes the subject consciously aware of certain contradictions existing within his own value-attitude system and motivates change.

The basic experimental paradigm employed by Rokeach is as follows: a premeasure of the existing value system of an individual or a given set of individuals is first obtained using the Value Survey developed by Rokeach (Rokeach, 1967), the value hierarchy of a comparison group is then presented, the discrepancies pointed out, and a possible interpretation of the discrepancies made.

The subjects are then asked to review their own value rankings

and to respond to specific questions about their behaviour related to the nature of the previously described discrepancies. These questions are designed to arouse additional self-dissatisfaction by magnifying any contradictions between the subjects' self-conceptions and their values and attitudes. These questions are followed by a presentation of a table containing answers to the questions given by another group of individuals and the pattern of the answers interpreted. Subjects are again requested to review their own answers and to indicate whether or not they are satisfied with them. The posttests, re-rankings on the Value Survey as well as various attitudinal and behavioural measures, follow this procedure at various time intervals.

The three studies examining the values of Freedom and Equality reported by Rokeach (1971) illustrate his procedure. The studies all have the same basic design although the first experiment of this sequence was performed when the Value Survey had only twelve terminal values. The subjects were initially asked to rank order the terminal values and state in writing their feelings about civil rights demonstrations. They were then shown two tables, the first being explained as the composite rank ordering of values obtained from Michigan State University students. Their attention was drawn to the rankings given Freedom and Equality and the data were interpreted as follows:

Michigan State University students, in general, are much more interested in their own freedom than they are in the freedom for other people (Rokeach, 1971, p. 454).

This message was assumed to be one that would arouse feelings of self-dissatisfaction. Next the subjects were asked to compare their own rankings of the eighteen values with those obtained from the Michigan State students. Following this, and to further increase their feelings of self-dissatisfaction, subjects were asked to state the extent of their sympathy for the civil rights demonstrators. Three questions were used to accomplish this (Rokeach, 1971, p. 454), a) "Yes, and I have personally participated in a civil rights demonstration", b) "Yes, but I have not participated in a civil rights demonstration", and c) "No". Their attention was then immediately drawn to a second table and the experimenter made the following statement:

This raises the question as to whether those who are against civil rights are really saying that they care a great deal about their own freedom but are indifferent to other people's freedom. Those who are for civil rights are perhaps really saying they not only want freedom for themselves, but for other people too (Rokeach, 1971, p. 454).

The subjects were again asked to compare their own rankings of <u>Freedom</u> and <u>Equality</u> with those presented in "Table 2" and state their degree of satisfaction with the rankings they gave for each of the eighteen values. This concluded the session.

In subsequent follow-up tests of the value rankings it was found, within a statistically reliable margin, that the subjects exposed to this procedure increased their ranking of Equality and Freedom much more than control subjects not exposed to the manipulation. This effect persisted over a fairly long interval; tests were administered at various times up until about seventeen

was the subjects' response to a solicitation from the National Association for the Advancement of Colored People (NAACP). A statistically reliable difference was found between the experimental and control subjects with the experimental group being more likely to respond by either joining the NAACP or soliciting more information. It should be noted that in absolute terms the response was quite small: 19% of the total group responded with 26% responding for the experimental group and 11% responding for the control. None—theless the difference was significant.

Rokeach and McLellan (1972) assumed that long term cognitive and behavioural change could be induced without the subject being afforded the chance of predetermining his own value system i.e., by completing the Value Survey but being denied the previous chance of objectively comparing his own value system with the one being described and analyzed. This would constitute a valuable methodological improvement and demonstrate that self-dissatisfaction could be aroused by information about other people's contradictions alone. Rokeach and McLellan (1972) argued that most people have a subjective awareness of their value-attitude system and are able to compare the information about others with what they subjectively know about themselves, to become consciously aware of their own contradictions and consequently experience self-dissatisfaction,

The study by Rokeach and McLellan (1972) was divided into two separate parts with the first being an exact replication of the basic paradigm. In the second part the subjects did not take the

initial pretest but the remainder of the manipulation, with the exception of the omission of the requests to compare value rankings, was the same. In the posttests Rokeach and McLellan found that this alternative method did produce both long term cognitive and behavioural change. It was also found that these two different methods of inducing change did not produce statistically different results. The conclusion drawn by Rokeach and McLellan (1972) was that the modified manipulation was just as effective as the original method in effecting value change.

Throughout Rokeach's experiments it has been his contention that value change results from an inconsistency within an individual's cognitive framework being made salient to him. Thus, the mere conscious awareness of the inconsistency creates the necessary motivation to reduce the discrepancy. Rokeach (1973, p. 232, p. 314) has noted that certain alternative explanations may be able to account for part of his results, particularly short ferm value change. Of particular interest are Orne's (1962) concept of the demand characteristic of the experiment, Rosenthal and Rosnow's (1969) notion of experimenter bias, and Rosenberg's (1965, 1969) concept of evaluation apprehension. Rokeach argues however, that none of these theoretical constructs can account for the long term changes he has demonstrated and therefore are not compelling alternatives to self-dissatisfaction. Although Rokeach's argument against these alternatives appears convincing at first glance it seems possible that one of these alternative notions, namely evaluation apprehension, can account for the

results with equal acuity and parsimony.

Rokeach has posited this position regarding theoretical alternatives without any direct experimental test and has relied solely on the fact that in the past these theories have not been convincing in demonstrating long term effects. Thus, although the existence of these theories has been acknowledged they have been rejected out of hand. To date, with the exception of one study by Campbell and Hannah (1974) which will be discussed further below, no attempt has been made to directly manipulate values? using the procedure dictated by the structure of one of these alternative theoretical explanations. Although Kelly, Silverman, and Cochrane (1972). investigated the role of social desirability (Crowne & Marlowe, 1964) in rankings on the Value Survey, they did not attempt to determine whether or not social desirability could provide an acceptable alternative to self-dissatisfaction as an explanation for induced value change. The present paper, then, is concerned specifically with Rosenberg's concept of evaluation apprehension as one possible alternative explanation for the observed value change, both short and long term, obtained by Rokeach and his colleagues.

Considerable research (Diggory, 1966; Janis, 1954, 1955; Janis & Field, 1959; Sears, 1967) has indicated that avoidance of social disapproval is a motivating factor in a great deal of human behaviour. A premise underlying much of the research on persuasibility is that people fear social disapproval and seek social approval (Sears, 1967). This may be tempered to a certain

degree by personality variables but basically it is universal.

Sears (1967) has demonstrated that induced social anxiety increases, an individual's desire to avoid criticism. Thus, if a subject expects to meet with criticism concerning a particular attitude he holds he will probably change that attitude to one less likely to bring about the disapproval. Approaching the same problem from a different reference point, Smith and Richards (1967) have demonstrated that people tend to conform under conditions of group pressure and it is their contention that the conforming behaviour is a defence against strong anxiety. These two studies taken together suggest that conforming in the face of social disapproval is desirable in that it maintains anxiety at an acceptable level.

because of the mere fact that evaluation is taking place but rather because of the possibility of receiving a negative evaluation.

Being negatively evaluated carries with it many undesirable consequences, a major concern being social disapproval and/or rejection. Thus a situation where there is a high possibility of evaluation can and usually does elicit evaluation apprehension coupled with a desire on the part of the individual to try and appear in the best possible light under these circumstances in order that he not meet with disapproval. Correspondingly, evaluation apprehension as described by Rosenberg (1965) is a particular response set on the part of the individual. That is, it is an attempt by an individual to gain a positive evaluation or minimally,

to avoid a negative one.

Rosenberg (1965) has stated that psychological experiments tend to be ambiguous situations for subjects and as a consequence they usually try to define for themselves the nature of the experiment (i.e. its purpose) which in turn affects their behaviour. The result of this hypothesizing on the part of the subject is that certain stereotyped behaviours appear. Rosenberg (1965) has noted that in similar experimental conditions subjects:

... are enough alike in their perceptual reactions to the situation so that there will be considerable similarity in the hypotheses at which they separately arrive (p. 29).

That is to say, in spite of the fact that subjects arrive at their hypotheses from completely separate perspectives they have a strong tendency to reach virtually the same hypotheses. Rosenberg goes on to mention that this similarity in the derived hypotheses can systematically influence responding and correspondingly falsely confirm the experimenter's predictions.

It has also been pointed out that evaluation apprehension can act as a very serious contaminant in many types of research (Rosenberg, 1965). Rosenberg suggests that subjects have preconceived notions about psychologists' ability to evaluate their mental capacitites and abilities and that these notions weigh heavily when they participate in an experiment. Subjects usually decide very early, on the basis of available cues, whether or not they are being evaluated. Rosenberg (1965) states:

Whenever it is confirmed, or to the extent

that it is, the typical subject will be likely to experience evaluation apprehension; that is, an active, anxiety-toned concern that he win a positive evaluation from the experimenter, or at least that he provide no grounds for a negative one (p. 29).

The difficulty arises when evaluation apprehension does not vary equally among all the conditions of an experiment. That is, when differences arise between groups creating varying degrees of evaluation apprehension (confirmation for the subject that evaluation is taking place). Attention to the evaluative aspects of an experiment is also increased when the subject believes that the measures will give some kind of indication of maturity or normality.

In a series of studies Rosenberg (1969) has demonstrated that evaluation apprehension can and does affect preference in an experimental setting. The basic manipulation was designed to first increase the subject's evaluation apprehension. This was accomplished in most conditions by suggesting, in various ways, that information would be provided to the experimenter as to the subject's personality, his intelligence level, or his mental state, among other alternatives. Then a rather obvious "directional cue" was provided. It was usually stated that in another study it was found that subjects behaved in a particular manner. That is, some hints were given about how "normal" people react. To increase the credibility of the communication for the subjects it was then stressed that this previous research had not been done in exactly this manner, or alternatively with this set of conditions, and this part of the research was just

a preliminary data gathering session to establish "norms or standards" for the present group. Thus, the manipulation consisted of confirming the subject's belief that experiments are in some way evaluative and secondly providing him with cues as to how other or "normal" people would behave.

Within Rosenberg's framework what remains to be determined is the range of experiments susceptible to the effects of evaluation apprehension. He feels that it has been established beyond doubt that evaluation apprehension does affect subjects' behaviour in certain types of experiments. Rosenberg (1969) has begun the necessary research by demonstrating that evaluation apprehension is not limited to the narrow range of "picture rating" behaviour and establishing that it includes a category of overt behavioural responses. The initial research was conducted using ratings of "liking or disliking" of pictures of strangers to determine the effects of evaluation apprehension. It was suggested to the subjects that psychologically mature and healthy people showed a greater liking for strangers or alternatively, psychologically immature people had the greater liking for strangers. In the second situation it was demonstrated that evaluation apprehension could affect a subject's key tapping behaviour (the number of taps in a ten second interval). In both of these situations the cueing was quite salient, that is, it was clear what one should do if he wanted to appear normal.

In further research it has been demonstrated that increasing evaluation apprehension can increase predicted behaviour with

or without the aid of salient directional cues. In this instance the cueing did not explicitly state that liking or disliking had been found characteristic of psychologically mature persons:

Instead, a more limited, or one might say, less obvious and intrusive form of directional cueing was employed. Each experimental subject, after he had been exposed to ... (either) high or low evaluation apprehension manipulations, read a two-paragraph communication which simply reported that previous research with the pictures he was about to rate had shown that most people judged them positively (liking) or negatively (disliking) (Rosenberg, 1969, p. 312).

Under these circumstances cueing was still effective.

Silverman and Regula (1968) have demonstrated that attitude change studies are also susceptible to bias created by evaluation apprehension. They felt that the facilitation effects of distraction during persuasive communications on persuasibility máy have been due to subjects perceiving the task, usually an opinion questionnaire that followed, as a measure of their ability. In short, the subjects perceived that task as evaluative and attempted to demonstrate competence, as they saw it. As a result it appeared as if they were more persuasible.

In Silverman and Regula's (1968) experiment the subjects
listened to a tape recorded persuasive message and were exposed
to either high or low distraction under conditions where they
were led to believe that the distraction was either intentional
or unintentional. The distraction was accomplished by introducing
static into the tape recorded message. High levels of stabic,
where the message was just audible, defined the high distraction
condition. Intention was manipulated by either apologizing for

that is was part of the experiment (intentional group). The level of distraction was directly related to persuasibility under the condition of intentionality only. In a further analysis it was found that subjects in the high distraction group who felt that the purpose of the static was to test their ability to concentrate showed significantly more persuasibility than subjects who had not been distracted. Thus, if a subject perceived the task to be measuring ability (in this case the power of concentration in the face of high distraction) he was more prone to demonstrate a firm grasp of the content of the message (i.e. be persuaded) than if the evaluation variable was minimal (the subject understood the task to be difficult but not evaluative).

In light of Rosenberg's (1965, 1969) work Rokeach's observed value change might be more profitably interpreted as a reaction to evaluation apprehension on the part of the subjects. The experimental manipulation Rokeach employs leaves very little doubt in the subject's mind that his value rankings provide an insight into his character. For example:

Apparently, Michigan State Students value Freedom far more highly than they value Equality. This suggests that MSU students in general are much more interested in their own freedom than they are in freedom for other people (Rokeach, 1973, p. 237).

This statement would tend to confirm any suspicions the subject may have had about whether or not the situation was evaluative. Furthermore all doubt about the situation being evaluative is removed when the subjects are requested to provide answers to

questions designed to assess their position on civil rights

demonstrations. It is then made clear that ranking Freedom

above Equality suggests to others that one is racially biased

or at best extremely insensitive to other people's suffering.

In any case the individual is made aware of the fact that he

possesses an extremely undesirable or distasteful social trait.

This is partially elucidated by the following manipulation statement:

This raises the question whether those who are against civil rights are really saying that they care a great deal about their own freedom but are indifferent to other people's freedom. Those who are for civil rights are perhaps really saying they not only want freedom for themselves, but for other people too (Rokeach, 1973, p. 238).

Thus the relationship between how one has ranked the values

Freedom and Equality and therefore how he must feel about civil rights has been clarified and confirmed.

Although the experimenter does not know the subject's value rankings it is insinuated that certain factors or behaviours of the subject will make them abundantly clear at some future date. Second (1968) has stated that direct or implicit evaluation of an individual in a social context by others will eventually lead to self-evaluation, and in the present case the evaluations are implicit in that a subject's rankings are private at the time they are interpreted. Ultimately the subject has been forced into displaying a positive social image.

Given that a subject has been made aware of a personal character flaw and its inherent undesirability he is forced to weigh the consequences of having that trait. One of the prime

suspected consequences of holding views which deviate from the norm is social rejection (Rosenberg, 1969). Considering that for most individuals this is an undesirable state of affairs a simple and sensible reaction to this information is to reduce the discrepancy and thus minimize the possibility of public censure or social rejection. In Rokeach's experimental setting the easiest way to improve one's standing is to change the value rankings such that they are in accordance with what is most socially acceptable. This change in values could be accomplished with little effort on the part of the individual, and as noted by Rosenberg (1969) the less effort required the greater the probability the expected change will occur.

In the face of social pressure and its implications it is reasonable to expect that a person would alter his value rankings in a manner which is least likely to elicit a negative evaluation. This would be the most prudent move, especially when confronted with the Value Survey a second time. Thus, it is also reasonable to expect the value change to persist over long-periods of time. With respect to related behaviour change there is no reason to believe that once an individual obtains information on how to behave to minimize the possibility of being negatively evaluated and maximize the chance of being viewed in a positive light that he will abandon this information once outside the experimental setting. Thus, in spite of Rokeach's arguments to the contrary it seems quite reasonable to expect long term cognitive and behavioural change to result from a motivation to avoid social

rejection

A preliminary study by Campbell and Hannah (1974) has demonstrated that evaluation apprehension as defined by Rosenberg (1965, 1969) can induce short term value change. In their study evaluation apprehension was either increased or decreased in a manner paralleling that described by Rosenberg (1969, p. 311). The target value A World of Beauty was cued either upward or downward under both conditions of evaluation apprehension. The major finding was that with upward cueing and high evaluation apprehension the ranking of the target value was significantly higher than that of the control subjects. This was not the case with the low evaluation apprehension group. The downward cueing manipulation however, was not effective in either of the two evaluation apprehension conditions.

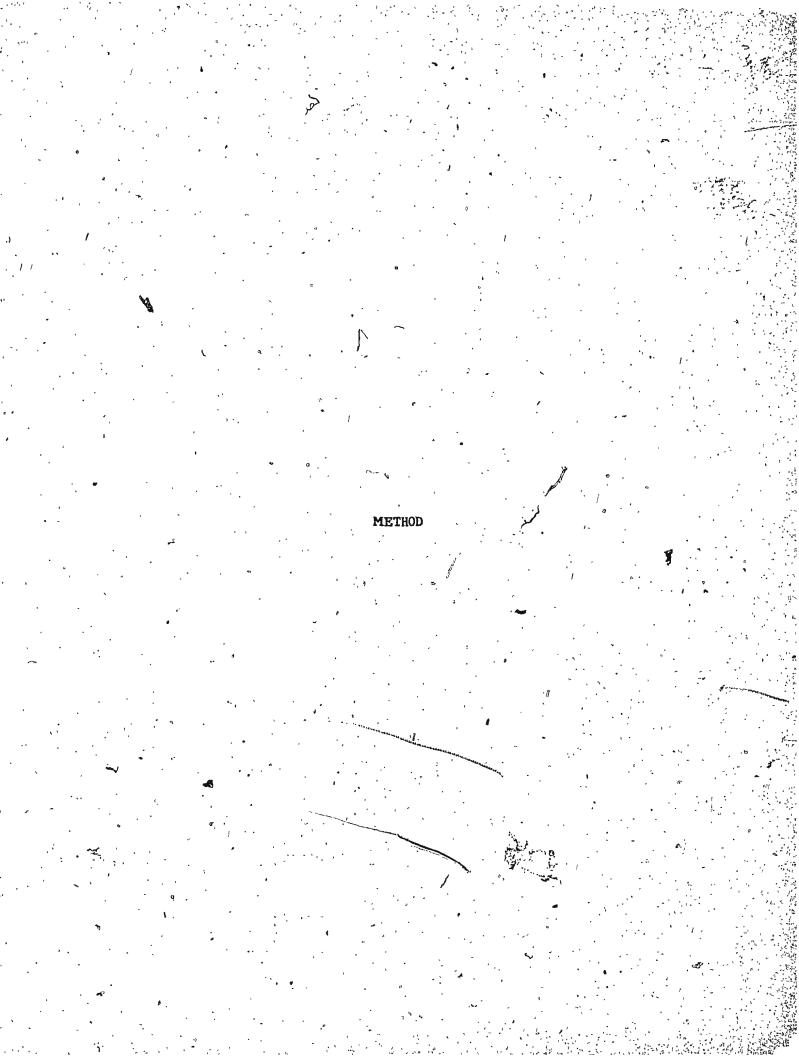
The results of the Campbell and Hannah (1974) study suggest that Rokeach's findings may not be the result of a uniform human aversion to inconsistent cognitions concerning the self but rather the result of an effort by individuals to display themselves in a positive light—to reduce the possibility of being negatively evaluated by others and increase the chance of being positively evaluated. The point to be made is not that Rokeach is getting false confirmation of his predictions, as might be expected given Rosenberg's suggestion about evaluation apprehension and its incumbent problems for unwary researchers; rather he may be getting his effect for reasons other than the one he suggests.

Thus there is good reason to believe that the value change

demonstrated by Rokeach may very well have been due to evaluation apprehension on the part of the subjects. The purpose of the present study was to investigate this possibility. The hypotheses based on the notion of evaluation apprehension and examined in the present study were the following:

- 1) An upward cueing message would be more effective in increasing the ranking of the target value A World of Beauty under conditions of High Evaluation Apprehension than under conditions of Low Evaluation Apprehension.
- 2) It was expected that in the High Evaluation Apprehension condition the Upward Cued group would rank A World of Beauty above both the Downward Cued group and the Non Cued group. This was not expected to occur in the Low Evaluation Apprehension condition. This pattern was expected to persist over time.
- 3) Value change and the related attitudinal and behavioural changes generated under conditions of high evaluation apprehension by an upward cueing message were expected to endure over time.

 Thus, the High Evaluation Apprehension/Upward Cued group would rank A World of Beauty above the Low Evaluation Apprehension/Upward Cued group after a given time period.



A. Overview

In order to induce various degrees of evaluation apprehension subjects were given a written "description" of the experiment. They were either told that the study was part of a programme attempting to design a Test of Psychological Maturity (High Evaluation Apprehension) or that the study was part of a Mathematical Psychology Project and that the experimenter had to gather large groups of data to analyze (Low Evaluation Apprehension). A third condition, the No Evaluation Apprehension condition, made no reference to the nature of the study. Crossed with each of the three evaluative conditions were three directional cueing conditions intended to either raise or lower the target value A World of Beauty. The directional cueing was accomplished by providing information about the results of previous research which was similar to the present study. It was noted that earlier research had demonstrated that mature students ranked a particular value (A World of Beauty) either high, Upward Cued subjects, or low. Downward Cued subjects. In the third condition, the Non Cued condition, no mention was made as to how previous subjects had responded. Thus each subject was assigned to an evaluative condition together with a directional dueing condition.

The rank given the value A World of Beauty (the value employed by Rokeach and McLellan, 1972) provided the dependent measure for the manipulations. The subjects rank ordered the values in the Rokeach Value Survey (1967) shortly after the messages were presented in order to obtain a measure of short term change and again six week after the manipulation, which provided a measure of

Tong term change. A questionnaire dealing with environmental concerns was also presented at the six week testing session to determine if any corresponding attitude and behaviour changes had occurred and if so whether or not they paralleled the value changes.

B. Subjects

One hundred and forty-five subjects from the Memorial University of Newfoundland subject pool participated in the experiment as paid volunteers. Of these, ten were excluded from the analyses because of expressed suspicions about the purpose of the experiment. This doubt was expressed either verbally to the experimenter following the experiment (three subjects) or in written form in response to an open ended question on a post experimental questionnaire (seven subjects). Thus 135 subjects, 67 male and 68 female, were included in the analyses and these subjects were evenly distributed among the nine groups. The subjects were assign randomly to conditions given the constraints imposed by attempting to distribute males and females approximately equally among the groups and requiring 15 subjects in each cell.

.C. Design

The basic design employed in the present study was an afteronly 3 X 3 factorial, three levels of Directional Cueing crossed
with three levels of Evaluation Apprehension (Campbell, 1957;
Campbell & Stanley, 1963). The practicality of this design
has been demonstrated by Rokeach and McLellan (1972). The directional
cueing messages were designed to either raise or lower the target
value, A World of Beauty, with a third in which no cueing was

Apprehension, was also employed wherein no reference to evaluation was made and hence no effort was made to modify it. The resultant

3 X 3 factorial design was referred to as Test Session #1. The cell receiving neither directional cueing for the value nor an evaluation apprehension message was the fundamental point of terger value.

Fifteen subjects per cell were tested in Test Session #1 to ensure that a sample large enough for analysis would be available for Test Session #2 when the second value ranking was obtained. The second testing session took place six weeks after the first and provided a measure of long term changes created by the manipulations. The testing was completely independent of the first testing situation.

D. Procedure

Test Session #1: Subjects were tested either individually or, occasionally, in groups of two or three. Upon entering the laboratory they were asked to take a seat and wait for the beginning of the session. During this period conversation was

kept to a minimum although every attempt was made to answer questions that would help put the subjects as ease without making any direct reference to the nature of the experiment.

The experiment proper began when the experimenter asked the subject to read a booklet, entitled A Brief Introduction to the Experiment, placed in front of him or her. The communications contained in the booklet, the experimental manipulations, paralleled those employed by Rosenberg (1969, p. 311) but were adjusted to suit the altered conditions of the present study. The subjects in the High Evaluation Apprehension condition received the following message:

- The list of values that will be presented to you shortly are a part of a recently developed TEST OF PSYCHOLOGICAL MATURITY designed at another university. The pattern of responses given these values by psychologically mature undergraduate students has been shown to be significantly different from the responses of those manifesting psychological maladjustment. That is, it has been demonstrated that certain types of responses are indicative of a strong emotional adjustment while others indicate emotional immaturity. It is hoped that this instrument will become part of a battery of tests used for choosing out of a large college population those students who would be judged inadequate in their emotional adjustment or generally prone to psychological disorders.

Subjects in the Low Evaluation Apprehension condition received the following message:

The list of values that will be presented to you shortly are part of a Mathematical Psychology Project. We are interested in integrating the various dimensions or factors involved in the social perceptual process into a more simplified model, by a method which statisticians term "stochastic-inferential mathematical modeling".

The value rating of all participants will be considered as a group and an overall average score and statistical estimate of distribution variance will be obtained for this set of values. Individual scores are not of interest in this study.

Subjects in the No Evaluation Apprehension condition received no message corresponding to the above attempts to increase or decrease the perceived evaluative nature of the experiment.

The directional cueing message directly followed the evaluation apprehension message in the introduction booklet. The cueing was accomplished with the following message:

Before proceeding we would like to say a bit about this particular project being carried out today. Previous research has indicated that mature students tend to rate certain principles (such as A World of Beauty) higher than most other principles (upward direction) lower than most other principles (downward direction). As this is a new area of research we are interested in establishing a value ranking pattern for students here at Memorial. The study then, is basically a pilot project for a group of studies which will begin immediately after the information from this project has been gathered.

The directional cueing messages used in the present experiment were not identical to those used by Rokeach because it was not our intention to replicate his procedure exactly. Rather, an attempt was made to determine first if the scale could be differentially affected by evaluation apprehension and secondly if the value could be moved upward and maintained there over time, as Rokeach has demonstrated.

The subjects in the Non Cued condition received the following communication:

Before proceeding we would like to say a bit about this particular project being carried out today. This is a new area of research and we are interested in establishing a value ranking pattern for students here at Memorial. The study then, is basically a pilot project for a group of studies which will proceed immediately after the information from this project has been gathered.

Thus all subjects received a message in the form of a written communique. The instructions were also paraphrased verbally by the experimenter. The complete text of the experimenter's verbal introduction to the experiment is presented in Appendix A. When the subject finished reading the introduction and the experimenter had recapitulated it he was handed the Rokeach (1967) Value Survey (Form D) and asked to supply all the information requested on the front cover and to complete the survey according to the instructions inside the front cover. Subjects were requested to complete only the terminal value section of the survey, a reproduction of which is presented in Appendix B.

Following the completion of the Value Survey the subject was given a small booklet entitled <u>Department of Psychology</u>.

Questionnaire containing two questions designed to assess the degree to which the evaluation apprehension message was successful. All of the questions were followed by a 10 point scale on which the subject was instructed to circle his response. The polarity of the scales was reversed randomly to reduce response bias. The two questions forming the evaluation apprehension index were as follows:

Were you nervous about what the experimenter might think of you? Circle one.

Not nervous at all

1 2 3 4 5 6 7 8 9 10

Did the experiment make you feel anxious? Circle one.

Very anxious Not anxious at all

1 2 3 4 5 6 7 8 9 10

The remaining questions provided the illusion that the questionnaire was not directly related to the experiment. Subjects were told that the Social Psychology group was trying to obtain students' impressions of social psychology experiments and they had asked that everyone participating in this experiment fill out the questionnaire. The complete questionnaire has been reproduced in Appendix C.

After completion of the questionnaire the subjects were paid \$1.00 for participating and were told that once all of the data had been collected and interpreted, which would take approximately two months, they would receive a letter explaining the nature of the results. They were then dismissed.

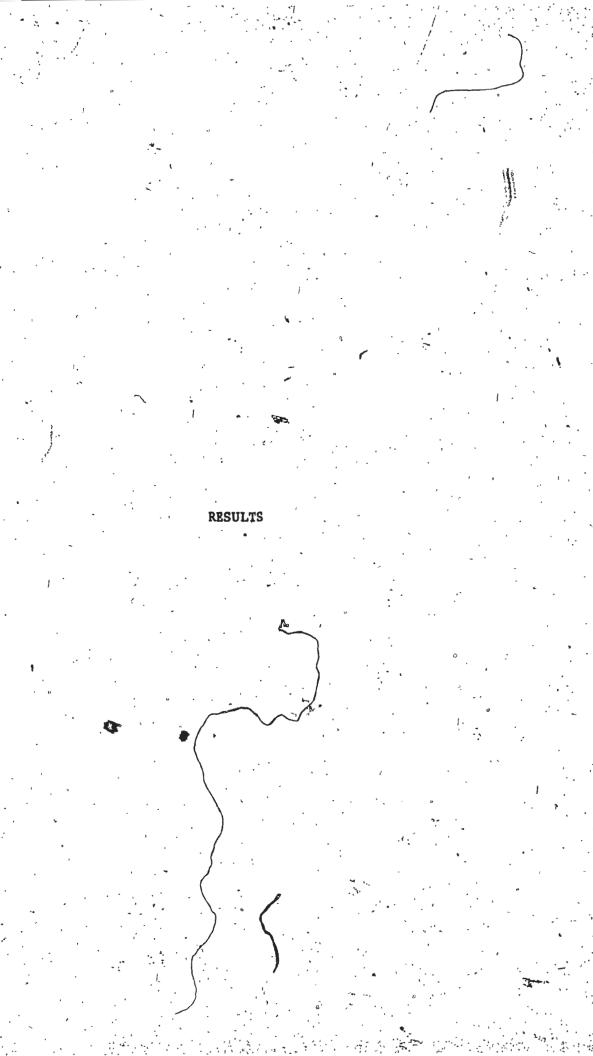
Test Session #2: The second testing session was initiated six weeks after the first session. To ensure that any connection with the first session remained minimal the experimenter in the first session did not take an active part in either the recruiting or testing of subjects in the second session. Three different

experimenters recruited and tested subjects for this session.

The subjects participated in small groups of various sizes and were drawn from the pool of subjects participating in the first testing session. Test Session #2 took place within the space of one week and a concerted effort was made to have all former subjects participate again. Eighty-nine subjects were obtained, distributed approximately equally among the nine groups.

In the second session the subjects were again asked to complete the Value Survey. In this session the second half of the survey, Instrumental Values, was not removed to help foster the belief that the two sessions were totally unrelated. The subjects were informed before starting the survey that some of them may have completed the form at some other time, but that this did not matter for the purposes of the present experiment.

After completing the survey they were asked to complete a questionnaire entitled "Committee on Environmental Awareness Survey". Following this they were paid \$2.00 and dismissed from the experiment.



A. Overview

It was expected that High Evaluation Apprehension combined with an upward cueing message would result in more compliance with respect to the ranking of the target value than when upward cueing was paired with Low Evaluation Apprehension. This was confirmed in both the short term measures of change and the long term measures. The value A World of Beauty was consistently ranked higher by the High Evaluation Apprehension/Upward Cued subjects than by the Low Evaluation Apprehension/Upward Cued subjects.

It was also expected that within the High Evaluation

Apprehension condition the upward cueing message would result

in higher rankings of the target value than when no cueing or

downward cueing was attempted. Furthermore, upward cueing was

not expected to have an effect in the Low Evaluation Apprehension

condition. These expectations were confirmed for both short

and long term intervals.

Along with the increased importance placed on A World of

Beauty by the High Evaluation Apprehension/Upward Cued subjects

there was a greater willingness to volunteer for work related

to maintaining a beautiful world. This was not the case for subjects

in the other conditions who had not increased their ranking of

the target value. Finally, subjects in the High Evaluation

Apprehension/Upward Cued group were found to express attitudes

more consistent with the notion of a beautiful world than subjects

in the Low Evaluation Apprehension/Upward Cued group.

B. Test Session #1: Manipulation Check

Two questions, one on nervousness and the other on anxiety. were designed to assess the degree to which the subjects experienced evaluation apprehension in the present stody. The two questions taken together provided an index of evaluation apprehension as generated by the experimental manipulation. The F-ratio for the main effect of Evaluation Apprehension was statistically reliable (F = 3.37; df = 2.126; p < .04). Neither Directional Cueing nor the interaction between Evaluation Apprehension and Directional Cueing yielded a statistically significant F-ratio. With 20 indicating the least amount of evaluation apprehension, the overall means for the three Evaluation Apprehension levels were 16.62 for Low Evaluation Apprehension, 15.78 for No Evaluation Apprehension, and 14.40 for High Evaluation Apprehension. Newman-Keuls (Winer, 1962, p. 80) tests indicated that the High Evaluation Apprehension message produced significantly more apprehension than the Low Evaluation Apprehension message (q = 3.64; p < .05). The No Evaluation Apprehension condition, which fell between both the High and Low Evaluation Apprehension conditions, did not differ reliably from either.

Question number five (see Appendix C for a complete reproduction of the questionnaire) was included to determine whether or not the subjects perceived any outside influence pressuring them to respond in a particular manner. The loss of perceived freedom would motivate a subject to label outside influence as coercive and perhaps influence him to respond in a particular way (Brehm, 1966).

This motivation differs from evaluation apprehension in that evaluation apprehension causes the subject to feel he is being evaluated and as a result he seeks cues to enable him to behave in a desirable fashion. It was found that Directional Cueing did affect how free the subject felt he was to respond to the Value Survey ($\mathbf{F} = 3.78$; $\mathbf{df} = 2$; $\mathbf{p} < .05$). With 10 indicating the least perceived freedom the Upward Cued condition yielded a mean of 1.31, the Downward Cued condition 2.00, and the Non Cued condition 1.44. A Newman-Keuls test yielded a statistically reliable difference between the Upward and Downward Cued groups ($\mathbf{q} = 3.67$; $\mathbf{p} < .05$). The Non Cued condition also differed reliably from the Downward Cued condition ($\mathbf{q} = 2.97$; $\mathbf{p} < .05$) but the Upward Cued condition did not differ dependably from the Non Cued condition ($\mathbf{q} = .69$; $\mathbf{p} > .05$).

Thus it appears that the manipulation of evaluation apprehension was successful. The subjects in the High Evaluation Apprehension condition indicated more apprehension on the index of evaluation apprehension than either the subjects in the Low or No Evaluation Apprehension conditions. In addition the Downward Cued subjects perceived less freedom to respond than either the Non Cued or Upward Cued subjects. The Upward and Non Cued subjects did not perceive significantly different amounts of freedom to respond.

The questions designed to measure the clarity of the instructions (questions 1 and 2) yielded no dependable differences, nor did the subjects differ systematically in their feelings toward the experimenter (question 6).

C. Test Session #1: Ranking of the Target Value

The individual means for each group in Test Session #1

are presented in Table 1 and graphically in Figure 1. An

analysis of variance for the ranking of A World of Beauty in

Test Session #1 established a reliable main effect for Directional

Cueing (F = 10.61; df = 2,126; p < .001). Overall means for

the Upward Cued, Non Cued, and Downward Cued conditions are

9.84, 43.60, and 13.38 respectively. Neither the main effect

of Evaluation Apprehension nor the Directional Cueing X Evaluation

Apprehension interaction were statistically reliable. The results

of this analysis are presented in Table 2.

Table 2

Analysis of variance of the ranking of A World of Beauty

Test Session #1

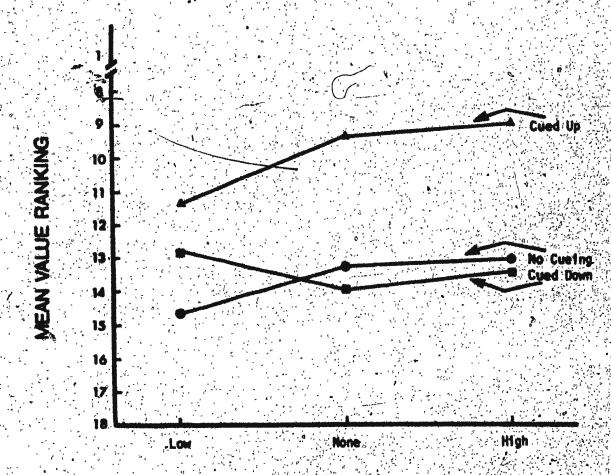
Source	<u>df</u> °	MS	<u>F</u>
Evaluation Apprehension (A)	2	15.50	< 1 %
Directional Cueing (B)	2	199.78	10.62***
AXB	- 4	13.24	< 1
Error	126	18.82	
*** p < .001		:	

Since it was hypothesized that the High Evaluation Apprehension/Upward Cued group, $\overline{X} = 8.87$, would rank the value A World of Beauty above the Low Evaluation Apprehension/Upward Cued group, $\overline{X} = 11.33$, a one-tailed t test was the most appropriate test of the hypothesis (Winer, 1962, p. 207). It was found that the two groups differed at a marginally dependable level ($\underline{t} = 1.53$; p < .08). When

Table 1 Mean ranking of the value \underline{A} World of Beauty Test Session #1

		Directional Cuging		
Evaluation	Apprehension Message	Upward	None	Downward
High		8.87 _	13.00	13.40
None		9.33	13.20	13.93
Low		11.33	14-60	12.80

a Note: The smaller the number, the higher the ranking.



EVALUATION APPREHENSION MESSAGE

Figure 1. Test Session #1: Mean Rankings of A Horld of Beauty
as a function of type of Evaluation
Apprehension Message.

this finding was combined with the results obtained from the same hypothesis in the Campbell and Hannah (1974) study confidence in the effect was greatly enhanced. Combining the results of the two studies, by the method described by Winer (1971, p. 50) for independent tests on the same hypothesis, yielded a highly reliable effect (z = 3.172; p < .0008).

performed on each level of Evaluation Apprehension in order to localize the effect of directional cueing and provide a direct test of the second major hypothesis. It was hypothesized that the High Evaluation Apprehension/Upward Cued group would rank A World of Beauty significantly higher than either the corresponding Downward Cued or Non Cued groups. This was not expected to occur in the Low Evaluation Apprehension condition. In the High Evaluation Apprehension condition the differences were as predicted. The upward cueing message was effective in increasing the ranking above the levels of the Non Cued and Downward Cued groups (q = 3.69; p < .05 and q = 4.05; p < .05 respectively). The Non Cued group did not differ statistically from the Downward Cued group in its ranking of the target value (q = .36; p > .05).

As also predicted, in the Low Evaluation Apprehension condition the Upward Cued group did not differ reliably from either the Non Cued or Downward Cued groups (q = 2.20; p > .05 and q = 1.31; p > .05 respectively) nor did the Non Cued group differ dependably from the Downward Cued group (q = 1.61; p > .05).

In the condition where there was No Evaluation Apprehension

message the effect of cueing paralleled the High Evaluation Apprehension condition. The Upward Cued group differed reliably from both the Non Cued and Downward Cued groups (q = 3.45; p < .05) and q = 4.11; p < .05 respectively). Again the Non Cued and Downward Cued groups did not differ statistically (q = .65; p > .05).

In summary then, the upward directional cueing message was effective in both the High and No Evaluation Apprehension conditions in increasing the initial rankings of A World of Beauty. The downward directional cueing message, on the other hand, was not effective in either condition. Secondly, in the Low Evaluation Apprehension condition neither of the directional cueing messages was effective in changing the initial rankings of the target value.

D. Test Session #2: Ranking of the Target Value

The mean ranking of A World of Beauty for all conditions
in Test Session #2 are presented in Table 3 and graphically in

Figure 2. For Test Session #2 a comparison was made, as with

Test Session #1, between the High Evaluation Apprehension and Low

Evaluation Apprehension/Upward Cued groups. An analysis of

variance was carried out on these data in order to provide a

Mean Square value for the Newman-Keuls tests described below;

the appropriate tests of the hypotheses were considered to be

the Newman-Keuls and t tests. A one-tailed t test indicated

that the two groups differed reliably in their ranking of the

target value (t = 2.03; p < .04). The High Evaluation Apprehension/

Upward Cued group again ranked the target value higher than the

Table 3

Mean ranking of the value A World of Beauty

Test Session \$2

Directional Cueing

Evalua	ation	Apprehension	Message	Upward	None ,	Downward
High		•	• • • • • • • • • • • • • • • • • • •	9.44	11.90	13.70
None	•		. \$	12:00	11.27	13.58
Low	٠,	9,		13.37	12.60	12.43

a Note: The smaller the number, the higher the ranking.

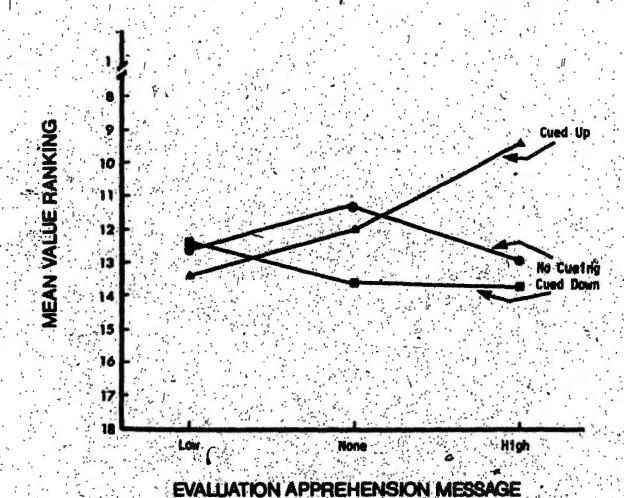


Figure 2. Test Session #2: Near Rankings of A Morid of Beauty
as a function of type of Evaluation
Apprehension Message.

)

Low Evaluation Apprehension/Upward Cued group with means of 9.44 and 13.37 respectively. Thus, as predicted, the change effected six weeks earlier by the high evaluation apprehension message in the Upward Cued condition persisted over time.

Level of evaluation apprehension it was found that in the Low Evaluation Apprehension condition the cueing messages were not differentially effective. However, in the High Evaluation Apprehension condition, the Upward Cued group differed marginally from both the Non Cued and Downward Cued groups (q = 2.34, p < .10; q = 3.00, p < .10, respectively). This difference paralleled that found in Test Session #1 but at a less rigorous statistical level. Interestingly, the No Evaluation Apprehension condition did not maintain the pattern found in Test Session #1. That is, the Upward Cued group did not differ dependably from either the Non Cued or Downward Cued groups. The possible reasons for this will be discussed later.

The mean value ranking for subjects participating in both test sessions was computed for each level of evaluation apprehension under the Upward Cued condition and a correlated t test was employed (Rokeach, 1973) in order to assess the stability of these value rankings over time. The means of the Upward and Non Cued conditions are presented in Table 4 and in Figure 3. The Downward Cued condition was not included due to the failure of the manipulation to produce the appropriate response. With regard to the High Evaluation Apprehension and Low Evaluation

Table 4

Mean scores for the ranking of <u>A World of Beauty</u> by

subjects participating in both testing sessions

Evaluation Apprehension

- ·	Test	Session	High	None	Low
	ò	#1	10.33	9.17	12.38
Upward Cued	#2	9.44	12.00	13.38	
		#1	13.60	12.19	14.90
Non Cued	مم	#2	12.90	11.27	12.60

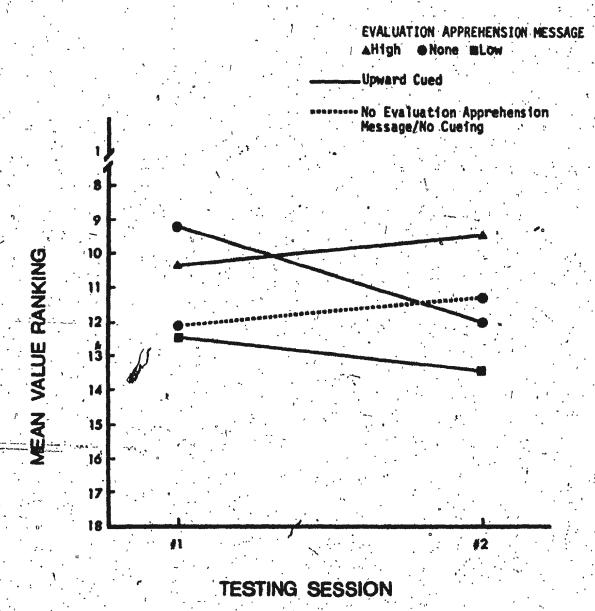


Figure 3: Change in Value Rankings over a Six Week Period Under 3 Conditions of Evaluation Apprehension.

Apprehension/Upward Cued group the ranking of the value remained fairly constant, i.e. they did not differ reliably over the six week interval (t = .54; df = 8; p > .05 and t = .71; df = 7 p > .05 respectively). In contrast the subjects in the No Evaluation Apprehension condition did show a reliable difference between the testing sessions ($\overline{X} = 9.17$ and 12.00 respectively, $\underline{t} = 2.29$; $\underline{df} = 11$; p < .05). Thus the individuals exposed only to their own expectations concerning the presence or absence of evaluation apprehension in the first testing session did not maintain the initial increase in the ranking of \underline{A} World of Beauty over the six week interval.

A correlated <u>t</u> test was employed to determine the stability of the ranking accorded <u>A World of Beauty</u> by the major control group: the No Evaluation Apprehension/Non Cued group. The ranking of the target value by this group did not change appreciably over the six week period ($\overline{X} = 12.69$ and 11.27, $\underline{t} = .55$; $\underline{df} = 11$; p > .05). In this baseline condition it appears that the ranking accorded the value \underline{A} World of Beauty was relatively stable. The rankings of the target value by the High and Low Evaluation Apprehension/Non Cued groups were also relatively stable ($\underline{t} = 1.16$; $\underline{df} = 9$; p > .05 and $\underline{t} = 2.23$; $\underline{df} = 9$; p > .05 respectively).

In summary, it has been demonstrated that after a six week interval High Evaluation Apprehension/Upward Cued subjects still ranked the target value, A World of Beauty, higher than the Low. Evaluation Apprehension/Upward Cued subjects. Only in the High

Evaluation Apprehension condition did the Upward Cued group rank the target value above both the corresponding Downward and Non Cued groups. This was not the case with the No Evaluation Apprehension/Upward Cued group where the ranking of the target value dropped significantly from the initial ranking in Test Session #1. Finally, it was demonstrated that for the baseline group the ranking of the target value was stable, and that this was generally the case for both the High and Low Evaluation Apprehension/Non Cued groups.

Test Session #2: Attitude and Behaviouroid Measures Questions 1, 2, 3, 4, and 5 (see Appendix D) were combined to form an attitude index for environmental awareness and concern. The mean scores for the three levels of evaluation apprehension in each of the Upward and Non Cued groups are presented in Table The Downward Cued condition was not included in the analysis of the attitude index because of the failure of this manipulation to produce the corresponding value change and as such the resultant means for the target value were not susceptible to a straight forward interpretation. An analysis of variance did not indicate any significant overall effects. With the algebraic sum of 50 indicating the least expressed concern for the environment an inspection of Table 5 indicates that although not reliable statistically, there is greater concern for the environment among the subjects in the High Evaluation Apprehension/Upward Cued group than among the subjects in the Low Evaluation Apprehension/ Upward Cued group. In addition, the Upward Cued group in the

Table 5

Mean scores for the responses to the attitude index on the environment

		Direct	Directional Cueing		
Evaluation Appreh	ension Message	'Upward	Nope		
High	•	18.33	20.70		
None		17.75	16.91		
Low		_o 20.50	16.30		

^aNote: The lower the mean, the greater the concern for the environment.

High Evaluation Apprehension condition expressed greater concern for the environment than the corresponding Non Cued group. Thus, although falling short of significance the results are in the predicted direction. Furthermore, as expected the Low Evaluation Apprehension/Upward Cued group did not express greater concern for the environment than its corresponding Non Cued group. In fact the Low Evaluation Apprehension/Upward Cued group expressed less concern for the environment than the corresponding Non Cued group.

Question six was designed to provide an indication of the subjects' willingness to take part in a clean-up campaign. It served as a behaviouroid measure with regard to expressed concern for the environment. It was expected that the High Evaluation Apprehension/Upward Cued group would be more likely to express willingness to participate in a clean-up campaign than the Low Evaluation Apprehension/Upward Cued group. This was based on the assumption that the behavioural response would parallel any effect found with the ranking of A World of Beauty.

For each group the yes responses were compared against the no and undecided responses using the binomial theorem (Siegal, 1956, p. 36). In the No Evaluation Apprehension/Non Cued group six out of eleven subjects indicated a willingness to help in a clean-up campaign (p = .50). Therefore it was assumed that there would be equal probability of either response occurring if the messages had no overall effect. For the High Evaluation Apprehension/Upward Cued group this was not the case: seven out of nine expressed

willingness to participate in the clean-up campaign (p = .09).

Alternatively the Low Evaluation Apprehension/Upward Cued group had four out of eight responding favourably (p = .64) and the No Evaluation Apprehension/Upward Cued group had six out of eleven responding favourably to participating in the campaign (p = .50).

Thus it appears that the upward cueing message coupled with increased evaluation apprehension was not only effective in increasing value rankings but also in generating a related behavioural response.

The analysis of the question requiring the subjects to select the task they would be willing to perform to help preserve the environment (question 7) did not yield differential responses from the individual groups. The failure of the measure may have been due to its insensitivity in that the alternative tasks did not vary sufficiently in difficulty. Question 8, which asked subjects how much time they would be willing to devote to the environmental clean-up campaign, was omitted from the analysis due to the misinterpretation of the question by a number of subjects. Several subjects interpreted the question as a potential job offer.

F. Subsidiary Analyses

For the second testing session 89 of the possible 135 subjects returned and completed the experiment, 62% of the males and 69% of the females returned. A Chi square analysis was performed for each level of evaluation apprehension comparing the number of males and females in Test Session #1 with the number of each sex returning for Test Session #2 (Siegal, 1956; p. 106). The tests indicated that sex was not a factor in accounting for the reduced return rate. A X² test comparing the actual

number of subjects in each of the nine groups of the second

test session demonstrated that they did not differ significantly.

Thus there was no differential response rate from the subjects
in the various groups.

With respect to the High Evaluation Apprehension/Upward

Cued group a check was made to determine if the subjects who

participated in both test sessions differed in their ranking of

A World of Beauty in Test Session #1 from those who had participated

in Test Session #1 alone. However, there was no difference

(t = 1.75; p > .10). A similar check was made with the Low

Evaluation Apprehension/Upward Cued group and again the subjects

who appeared for both test sessions did not differ significantly

in their ranking of A World of Beauty from those who only appeared

for the first test session (t = .95; p > .10). Since twelve

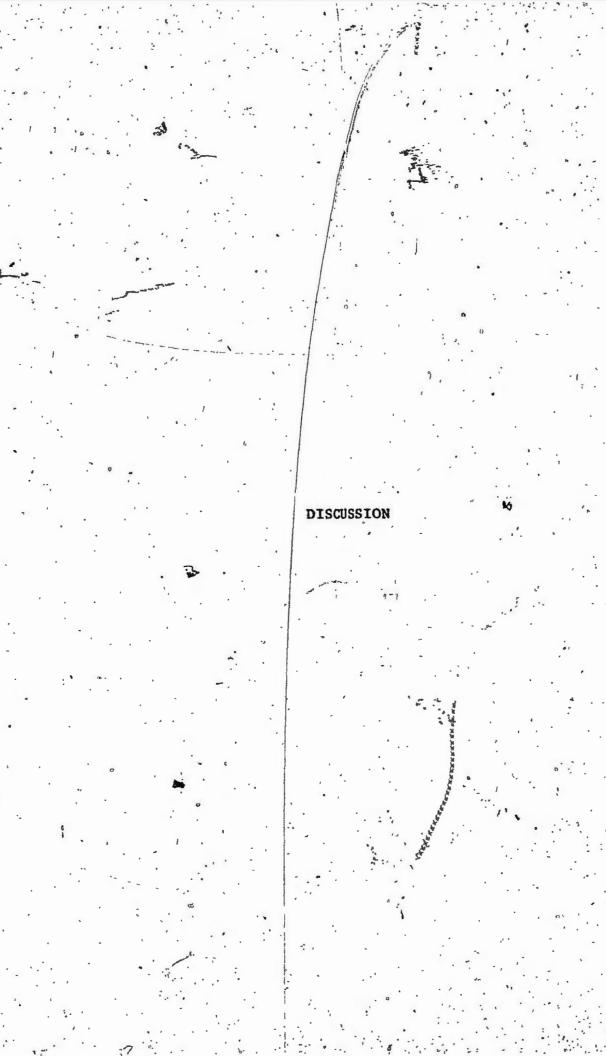
out of a possible fifteen returned for the second test session

in the No Evaluation Apprehension/Upward Cued group it was not

felt necessary to test for individual differences between those

who participated and those who did not participate in both

testing sessions.



A: Manipulation Check

The check on the manipulation of evaluation apprehension was composed of two questions, one asking subjects to rate their feeling of anxiety and the other their feeling of nervousness.

The algebraic sum of the two scores was used to assess the degree of apprehension felt by the subjects. The subjects who received the high evaluation apprehension message experienced a significantly greater amount of apprehension than the subjects who received the low evaluation apprehension message. The condition where no evaluative message was presented recorded a mean between the high and low conditions. Thus it is clear from the subjects' responses to the evaluation apprehension index that the messages intended to manipulate perceived evaluation apprehension were successful.

B. Short Term Value Change

The hypothesis that the upward cueing message would be more effective in generating short term value change under conditions of high evaluation apprehension than under conditions of low evaluation apprehension was confirmed. A comparison of the mean ranking of the target value A World of Beauty by the High and Low Evaluation Apprehension groups in the Upward Cued condition indicated that they differed reliably. That is, the value ranking of the High Evaluation Apprehension/Upward Cued group, with a mean of 8.87, was greater than the mean ranking of 11.33 by the Low Evaluation Apprehension/Upward Cued group. Furthermore, an analysis of the present results combined with those obtained in an earlier study (Campbell & Hannah, 1974) indicated that the

difference in the mean ranking of the target value by these two groups is highly reliable.

The second hypothesis was that in the High Evaluation Apprehension condition the Upward Cued group would increase their ranking of the target value above that of the corresponding Non Cued and Downward Cued groups. The upward cueing message was not expected to have the same effect in the Low Evaluation Apprehension condition. These expectations were confirmed. In the High Evaluation Apprehension condition the ranking of A World of Beauty by the Upward Cued group was reliably higher than both the corresponding Non Cued and Downward Cued groups. Non Cued group did not differ from the Downward Cued group. In the Low Evaluation Apprehension condition the subjects cued upwards did not rank A World of Beauty higher than either the corresponding Non Cued or Downward Cued groups. Again the Non Cued group did not differ from the Downward Cued group. In short, upward cueing was effective when evaluation apprehension was increased but not when it was reduced.

In highly evaluative situations individuals are motivated to either appear in a positive light or to avoid a negative evaluation. Thus in the situation where the subjects felt highly apprehensive about being evaluated they sought out cues, that would enable them to behave in such a manner as to avoid being evaluated negatively. In the present study such an evaluation could be avoided by placing a higher premium on the value A World of Beauty. In a less evaluative situation subjects are not as

concerned with their projected image because the situations are not arranged such that they feel they are being judged. As a consequence they do not engage in behaviours aimed at obtaining a positive evaluation.

An unexpected finding in Test Session #1 was the effect of upward cueing in the condition without an evaluation apprehension The ranking of the target value by the Upward Cued group was relably higher than that of both the Non Cued and the Downward Cued groups. Although this outcome was not predicted initially it was not surprising in light of the level of felt apprehension expressed by the subjects in this condition. Since no mention, of the evaluative nature of the experiment was made in this condition the subjects were left to determine for themselves its presence or absence. As suggested by Rosenberg (1969, p. 281) subjects tend to expect evaluation while participating in psychology experiments and as a result tend to act appropriately. That is, they tend to behave in a way which will minimize the possibility of being confronted with an adverse evaluation. Thus, in this case, even without the evaluative message the conditions were such that the subject felt it necessary to provide a "good" image of himself. Such an image could be attained by increasing the ranking of A World of Beauty.

As expected from the results of the study by Campbell and Hannah (1974) the downward cueing message failed to decrease the ranking of the target value. This was true for each of the three levels of evaluation apprehension. This finding concurs with

Rokeach's (1973, p. 328) contention that values are unidirectional, that is that they cannot be systematically moved in both directions. Rokeach (1973) has specifically mentioned A World of Beauty as an example of a value that cannot be lowered. The failure to decrease the ranking of A World of Beauty is also in line with Rosenberg's (1969, p. 302) postulation that "... certain types of experimental responding are more prone, and others more resistant ... " to evaluative types of pressure. That is, certain types of responses are more easily generated by evaluation apprehension than others. It is also possible that in some situations evaluation apprehension will not be able to induce counternormative behaviours (Rosenberg, 1969). Under the present circumstances it is possible that because environmental concern is a fashionable behaviour any attempt to reduce its relative importance will have little chance of succeeding. Although the failure to reduce the ranking of the target value is concordant with the suggestions of both theorists it does not provide a convincing test of their suggestions. should also be noted that the average ranking of A World of Beauty is ordinarily low, the mean ranking is 12.3 in Canada (Rokeach, 1973, p. 81). This produces special problems when an attempt is made to reduce the ranking even further. Thus the failure to reduce the target value's rank could have possibly been due to a floor effect, making further peduction in the average ranking of the value virtually impossible. This latter explanation appears to be the most plausible. The floor effect interpretation is further supported by the finding that the subjects in the Downward

Cued condition perceived the greatest amount of external influence. It seems reasonable that the cuesing message would be more poignant for an individual when he is asked to behave in a counternormative manner and the response suggested is quite difficult to implement. A more conclusive test of whether values can be moved in both the upward and downward directions could be attained through employing a value which has an average ranking falling at about the middle of the range on the Value Survey.

Another possible explanation for the failure of the downward cueing message is Brehm's (1966) theory of psychological reactance. Because the Downward Cued subjects perceived less freedom than either the Upward Cued or Non Cued subjects to respond as they truly felt they may have experienced reactance. Thus they may have tended not to comply with the downward cueing message but rather to have behaved oppositely in order to re-establish their freedom of behaviour.

C. Long Term Value Change

For any explanation of value change to offer a truly convincing alternative to Rokeach's self-dissatisfaction theory it must be capable of generating long term change. The alternative theory must also be able to induce the change without generating self-dissatisfaction as well as employing a relatively brief manipulation. The manipulation employed in the present study was brief and made fewer references to the target value and desired response than does Rokeach's standard manipulation. In addition the present manipulation could not have induced self-dissatisfaction, a point

to be discussed later. In summary, if an alternative theory can generate long term value change without inducing self-dissatisfaction and with a comparable or more parismonious manipulation if can reasonably be considered as a possible substitute for self-dissatisfaction theory.

It was expected that the upward cueing message would be more effective in the High Evaluation Apprehension condition than in the Low Evaluation Apprehension condition, and that this effect would persist over time. In Test Session #2 a direct comparison between the High and Low Evaluation Apprehension/Upward Cued groups confirmed the hypothesis of long term value change as a result of upward cueing in the High Evaluation Apprehension condition. There was a statistically reliable difference between the High Evaluation Apprehension/Upward Cued group and the Low Evaluation Apprehension/ Upward Cued group. Furthermore, the second hypothesis stated that within the High Evaluation Apprehension condition the Upward Cued group should rank the target value higher than both the Non Cued and Downward Cued groups and that this pattern would also persist over time. The upward cueing message was not expected to differentiate the Upward Cued group from either the Non Cued or Downward Cued groups in the Low Evaluation Apprehension condition and it was expected that this pattern would remain fairly constant over time. In accordance with the second hypothesis a comparison within individual levels of evaluation apprehension demonstrated that under conditions of High Evaluation Apprehension the Upward Cued group maintained a dependably higher ranking over time for

the target value than both the Non Cued and the Downward Cued groups, the latter two not differing. In both the No Evaluation Apprehension message and Low Evaluation Apprehension message conditions these same comparisons did not prove to be reliably different works.

Interestingly, in the Low Evaluation Apprehension condition the Upward Cued group reversed its position from Test Session . #1 with respect to the Non Cued and Downward Cued groups and ranked A World of Beauty somewhat lower than these two groups. It is apparent that any effect the upward cueing message had shortly after the manipulation of low evaluation apprehension was lost over time. It suggests that for a cueing message to be effective over time it must incorporate an increase in evaluation apprehension for the subject. Similarly, for subjects in the No Evaluation Apprehension condition the upward/cueing message was initially effective in increasing the target value's ranking above that of both the Non Cued and Downward/Cued groups but it did not persist over time. This suggests that self-generated evaluation apprehension is not adequate to induce long term value change. Again it appears that evaluation apprehension must be noticably increased for long term change to be effected.

The data of the present study demonstrate that increased levels of evaluation apprehension may be instrumental in producing long term value changes and that these changes can be produced by a relatively brief exposure to the manipulation. Contrary to Rokeach's expectations evaluation apprehension does appear to offer a viable alternative to the self-dissatisfaction explanation

and does so within the rigorous constraints imposed by the requirements for long term change. In addition the long term change data provide support for the contention that Rokeach's manipulation inadvertently increased evaluation apprehension. Rokeach (1973, p.305) notes a study by D. McLellan which demonstrated that the message in his manipulation, suggesting that many subjects cared more for their own freedom than for other people's freedom, is essential for long term value and attitude change. It was found that the omission of this interpretation resulted in a failure to obtain any cognitive change. As suggested in the introduction it is possible that this message generated evaluation apprehension and as such accounts for the value change in much the same way as the High Evaluation Apprehension message accounted for the long term change in the present study. The next step should be to determine if subjects feel more evaluative apprehension when the message, concerning caring more for one's own freedom than for other people's freedom, is included that when it is excluded.

In order to determine the stability of induced value change the ranking of the value A World of Beauty was compared across test sessions for both the High and Low Evaluation Apprehension/
Upward Cued groups individually. There was no significant change for either condition. On the other hand, when the ranking of the target value in Test Session #1 was compared with the ranking in Test Session #2 for the No Evaluation Apprehension/Upward
Cued condition there was a significant decrease in the value's ranking, from a mean of 9.33 to 12.00. It should also be noted that the

No Evaluation Apprehension/Non Cued group did not change their ranking of the target value appreciably. Thus it was further confirmed that although cueing alone did have an immediate effect the effect attenuated over time. That is, apprehension generated by the experimental setting did not have the capacity for inducing long term change. Alternatively the effects generated in the High and Low Evaluation Apprehension conditions by the upward cueing message helped maintain the average value rankings at a fairly stable level.

It is possible that when subjects were given only a cueing message and allowed to surmise the degree to which they were being evaluated they generated a value structure to suit the situation, but one lacking a firm basis for its particular structure. This contrasts with both the High and Low Evaluation Apprehension/Upward Cued groups where there was good reason for the particular responses given. In the High Evaluation Apprehension/Upward Cued condition the basis for the rank given A World of Beauty was the fear of negative evaluation and its corresponding consequences. With the Low Evaluation Apprehension/Upward Cued group the nature of the evaluation was made explicit and it elicited relatively little evaluation apprehension, leaving the subjects free to make a concerted effort to produce a value structure that represented their prevailing philosophy.

D. Long Term Attitude and Behavioural Change

The hypothesis that the High Evaluation Apprehension/Upward

Cued group would demonstrate greater attitude and behavioural

change, in accordance with the higher ranking of the value A

World of Beauty, than either the corresponding Non Cued or the

Low Evaluation Apprehension/Upward Cued group was also supported.

These differences were statistically significant for the behaviouroid measure and strongly suggestive for the attitudinal index.

The measure of attitude change suggested that when the nature of the evaluation was specified the High Evaluation Apprehension/

Upward Cued subjects were more likely to express concern for the environment than their Non Cued counterparts or the Low

Evaluation Apprehension/Upward Cued group. Furthermore, the Low

Evaluation Apprehension/Upward Cued group was less concerned about the environment than their corresponding Non Cued group.

The ability to achieve long term value change without a corresponding strong change in related attitudes may be partially accounted for by a failure on the part of the subjects to arrive at any tangible link between these factors. As the links between the abstract value of A World of Beauty and the concrete behaviours and attitudes associated with the control of environmental conditions were never established in the experimental setting there is little reason to expect subjects to deduce them. In Rokeach's manipulation it was stressed repeatedly what the ranking of the target value suggested in terms of an individual's attitudes and behaviours. In the present study the manipulation included no reference to behaviours or attitudes related to the value. The failure to get strong attitude change could also have been due to a "sleeper effect". Rokeach (1973, p. 260) discovered that

the manipulation, the change was not present at the three weeks posttest. Thus it may be necessary to have more than one posttest measure to establish the existence of long term effects, or wait for some as-yet-to-be-established absolute time interval to elapse. In future research of this type it may be necessary to stress the relationship between a value and its related behaviours and attitudes in order to produce this type of complete change. Future research might also be directed toward testing for value, attitude, and behavioural changes at various periods more extended in time than the six waek interval used in the present study. This would determine the persistence of the change generated by increased evaluation apprehension when combined with an appropriate directional cue.

The results obtained from the behaviouroid measure, where
the subjects were asked to indicate their willingness to participate
in a clean-up campaign, indicated that the High Evaluation Apprehension/
Upward Cued condition was more effective in generating a positive
response than was the Low Evaluation Apprehension/Upward Cued
condition. But the Low Evaluation Apprehension/Upward Cued and
the No Evaluation Apprehension/Non Cued groups had subject
responses near the chance level for willingness to participate.
Thus as might be expected, it appears that high evaluation
apprehension does not only produce value change but also the
related behavioural effects, and to a degree, appropriate changes
in attitudes when combined with the suitable cues. On the other

hand low evaluation apprehension does not appear to be able to /
produce either value change or its related attitude and behavioural changes when combined with an upward cueing message.

E. General Discussion

The regults of the present research generally support the hypotheses outlined in the introduction. Increased evaluation apprehension combined with an upward cueing message for the target value proved to be an effective method for generating value and corresponding attitude and behavioural changes. The manipulation employed in this experiment was extremely brief with regard to specifying the desirable behaviour. It did not dwell on the ramifications and interpretations of alternative beliefs and behaviours and as a result paralleled Rosenberg's manipulation much more closely than the manipulation paradigm, used by Rokeach. Even with the reduced stress on the topical or desirable behaviour the evaluation apprehension manipulation generated an effect comparable in magnitude to that obtained by Rokeach. Further research should be undertaken to determine what the effects of increasing and strengthening the references to the target value and behaviour will be on the actual behaviour of an individual. It may be, as with Rokeach's manipulation (1973, p. 240), that increasing the frequency and forcefulness of the references to the desirable behaviours and attitudes would have the effect of magnifying the manipulation's overall power. It is also possible that there is an upper limit to the effective strength a manipulation can be given and once this is exceeded

subjects will no longer be responsive. Nevertheless, subtle references to a desirable behaviour under conditions of increased evaluation apprehension apparently do affect values and behaviour.

In attempting to account for the present data it could be postulated that self-dissatisfaction had been inadvertently created by the present experimental manipulation of evaluation apprehension. This would account for the increase in rank of the target value by the subject for whom the evaluative aspects of the experiment were made salient. As noted earlier self-dissatisfaction is induced when there is a contradiction involving a person's self-concept. A close inspection of both the high and low evaluation apprehension messages indicated that neither involved any aspect of an individual's self-concept. There was no information available to enable a person to determine whether or not a conflict existed within his self-concept because the evaluation apprehension messages were limited simply to explaining what would happen to the subject's data.

It is possible however, that self-dissatisfaction could have been generated by the cueing manipulation as a result of the reference to "mature" subjects, i.e., it was suggested that "mature students" behave in a particular manner. It is possible that the subjects experienced self-dissatisfaction when they encountered the realization that although they thought of themselves as mature they did not have a quality which is common to mature people. If in fact self-dissatisfaction was created by the cueing manipulation it was constant in both the High and

the Low Evaluation Apprehension conditions and therefore could not have produced the differential results obtained. On the other hand if self-dissatisfaction was generated by the cueing message problems arise with attributing the results of previous research in the area solely to the effects of self-dissatisfaction. If the findings of previous researchers were the result of self-dissatisfaction it would now have to be acknowledged that evaluation apprehension can modify the effects of self-dissatisfaction.

That is, if evaluation apprehension is minimized self-dissatisfaction has no effect whereas if it is increased self-dissatisfaction does have an effect. This leads to the speculation that for self-dissatisfaction to be effective it must be combined with an increase in evaluation apprehension.

If the cueing messages are interpreted as self-dissatisfaction arousing the No Evaluation Apprehension condition demonstrates that in the absence of an evaluation apprehension message self-dissatisfaction can generate value change when combined with a directional cue. The Upward Cued group's overall ranking of the target value was higher than the corresponding control. An interesting gutcome was that when self-dissatisfaction operated alone it was not able to maintain the higher value ranking. Over time the value ranking was reduced significantly. This suggests another anomaly with the self-dissatisfaction explanation of value change in that for long term change to be maintained evaluation apprehension must be increased. Thus it is obvious that further research should be directed at determining the precise

role evaluation apprehension plays in the value change paradigm based on self-dissatisfaction. It is also apparent that the present results are best interpreted within the evaluation apprehension framework.

Considering the problems associated with attributing the present results to the operation of self-dissatisfaction and noting the success of evaluation apprehension in generating effects similar to those of previous studies using the self-dissatisfaction concept (Rokeach, 1968a, 1971; Rokeach & McLellan, 1972) it would appear that a closer look needs to be taken at these two concepts. Further research should be directed toward delineating the differences between self-dissatisfaction and evaluation apprehension and in determining how and when these differences operate.

SUMMARY AND CONCLUSIONS

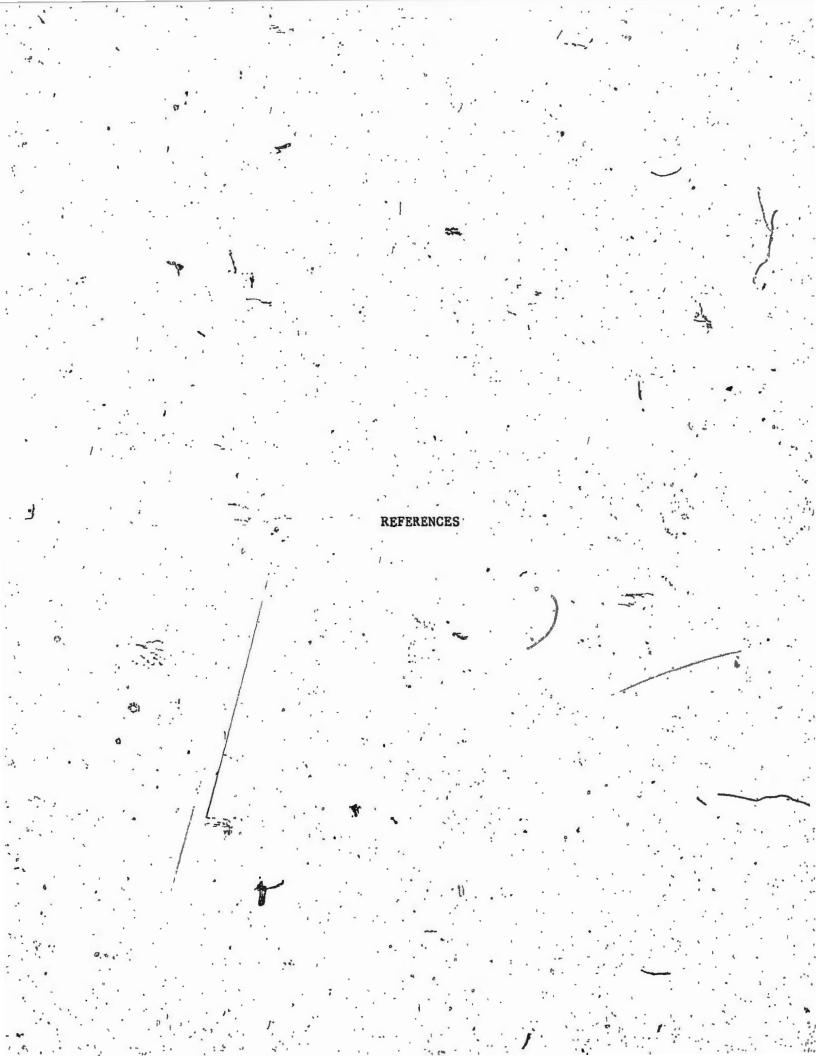
Rokeach has demonstrated in a series of studies (c.f., Rokeach, 1973) that the rank ordering of values on the Rokeach Value Survey (1967) can be manipulated if self-dissatisfaction is induced. That is, change can be elicited by generating contradictions which implicate an individual's self-conceptions. Rokeach has argued that self-dissatisfaction theory is the only theory able to set up the conditions necessary for value change, especially long term value and related attitude and behavioural changes.

Rokeach has specified a number of facts that must be accounted for before another theory could be considered a serious alternative. Of these facts or conditions the following are the most crucial:

Significant differences must be established between experimental and control groups with respect to the target values, and related attitudes and behaviours, the changes must be long term; behavioural commitment to a related cause must be greater for the experimental subjects than for the controls; and the changes must be able to be effected across personality types. Rokeach has conceded that alternative explanations for value change do exist but has suggested that they are only suitable for explaining short term changes and that it is unlikely they would be able to explain or set up the conditions for long term change.

The present study addressed itself directly to the critical facts as stated. An attempt was made to demonstrate that the concept of evaluation apprehension as proposed by Rosenberg (1965, 1969) met these criteria and as such provided a viable

alternative to self-dissatisfaction as an explanation of value change. The present study, performed on a random sample of the University population, was able to demonstrate that high evaluation apprehension could generate both short and long term value change. It was also demonstrated that only in the condition where evaluation apprehension was increased did the subjects respond to the cueing message with the appropriate attitude and behavioural responses. The High Evaluation Apprehension/Upward Cued (experimental) subjects were the most likely to volunteer to participate in an . environmental clean-up campaign. Furthermore it was demonstrated that the situation had to be clearly evaluative before any change would endure. Thus evaluation apprehension has been able to answer to the most crucial of the conditions laid out. for future research to expand the number of the criteria required by Rokeach that evaluation apprehension can account for. Of the remaining criteria to be accounted for, demonstrating the effect with a numbe pf different values is the most crucial.



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APPENDIX A

Experimenter's verbal instructions to the subjects which accompanied the written instructions for Test Session #1

Paraphrased instructions for the High Evaluation Apprehension condition including Upward, Non Cued, and Downward Cued groups:

Let me go over the main points of this project again. It is hoped that this test will become part of a battery of tests designed to find out how mentally mature and emotionally adjusted new incoming students are. It has been found that mature undergraduate students differ on their responses to this test from immature undergraduates. Okay. Basically we are going to attempt to replicate the findings of previous researchers in this area—for example, one of their discoveries is that mature students rank A World of Beauty high (low):

Now what we would like you to do is complete this form as accurately as you can.

Paraphrased instructions for the No Evaluation Apprehension condition including the Upward, Non Cued, and Downward Cued groups:

Let me mention the major points of this project again.

Basically we are going to attempt to replicate the findings of previous researchers in this area—for example, one of their discoveries is that mature students rank A World of Beauty high (low).

Now what we would like you to do is complete this form as accurately as you can.

Paraphrased instructions for the Low Evaluation Apprehension condition including Upward, Non Cued, and Downward Cued groups:

Let me read over the main points of this project again.

We are trying to develop a simpler model of the social perceptual process by means of a mathematical paradigm. This can only be done by gathering large groups of data; individual data are relatively unimportant by themselves. That is, we can't use your data alone because they won't tell us much. Okay. Basically we are going to attempt to replicate the findings of previous researchers in this area—for example, one of their discoveries is that mature students rank A World of Beauty high (low).

Now what we would like you to do is complete this form as accurately as you can.

APPENDIX B

The Rokeach Value Survey (1967)

PREVIOUS COPYRIGHTED MATERIAL IN APPENDIX B
NOT, MICROFILMED.

Leaves 81 - 83

APPENDIX C

Questionnaire used in Test Session #1

DEPARTMENT OF PSYCHOLOGY QUESTIONNAIRE

Experimenter ____

Expt. No.

In order to help us get a better understanding of the experimental setting and how students feel about participating as subjects we would appreciate your honest reactions to the following questions. Please answer all the questions:

ro1	lowing (quest 1	ons. P	lease and	ewer <u>all</u>	the q	uestioņ	s:	
1)				of the pumbers.	ourpose	of the	experi	ment clea	r?
,	Very clear							Not cleat all	
	11.	¹ 2	3	4 🚶 5	6	7	8.	9 10	•
2)	Were th	he ins	tructio	ns clear	Circl	e one.			1
	Not c. at al.				· · · · · · · · · · · · · · · · · · ·	,		Very clear	
. 1,		2	3 .	4. 5	, 6 ;	· 7 .	8.	9 ,10	, ס'
3)	Dad you	u feel	rushed	during t	he expe	riment	? · Circ	<u>le one</u> .	' ,
• ,	Not ru		· · · · ·	, ,		. 1.		Very rushed	
~	1	2	3	4 5	6 -	· .7	8	9 10	
4)		ou ner Circle		out what	the exp	erimen	ter mig	ht think	of
, ,	Very nervo	us	•		,			Not ne	rvous
· ',	1	2 :	3	4 5	,6	7	8	9 10	
5)	Did you		free t	o answer	the val	ue sur	vey as	you truly	felt?
. (Yes I absolu	felt utely	free		• :			I didn	t feel t all
, r 1	1	2	3 a	4 5	6	7	8	9 10	·: ` o -
6) ,	Did the	e expe	rimente	r make yo	ou feel	at eas	e? <u>Cir</u>	cle one.	
	Very much			•		. 4	*	Not at all	
	1	2	3 .	5	, ⁰ 6	7	8	9 10	•

7)	Did this ex	periment ma	ke you feel	anxious? C	Ircle one.			
,	Very anxious		.		Not anxious at all			
	1 2	3' 4	5 6	7 . 8	9 10			
8)	How concerned were you with doing the right thing during the experiment? Circle one.							
	Very concerned				Not concerned at all			
	1 2.	3 4	5 96	7 8	9 10			
9}	How worth-w	hile did yo	u feel the e	xperiment wa	as? Circle one.			
	Not at all worth-whil				· Very worth-while			
	1 2	3 4	5 6	7 8	9 10			
10)	What were	your impres	sions of the	experiment	? Write your answers below.			

APPENDIX D

Attitude and behaviouroid measure for Test Session #2

Committee on Environmental Awareness

SURVEY

Name:

Address:

Phone no.:

5) More of the St. John's city taxes should be devoted to beautifying the city. Circle one.

I agree I totally completely. disagree

	here in St. John's? Please check one. Definitely yes
*	Maybe yes
٠.	Don't know.
	Probably not
7)	What would you be willing to do? Please check one.
,	Anything asked of me
	Pick up garbage
	Stuff envelopes
,	Make telephone calls
	Nothing at all
:8)	How much time would you be willing to commit to such a project?
	Hours per week:

