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EGO-DEFENSIVE STYLE

SELECTIVE EXPOSURE AND ATTITUDE CHANGE

by

RUTH H. SKYDELL

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in Psychology in partial fulfillment of the
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1972

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Abstract

EGO DEFENSIVE STYLE, SELECTIVE EXPOSURE AND ATTITUDE CHANGE

by

Ruth H. Skydell

Adviser: Professor Walter Weiss

In the first half of a two-part experiment, 306 subjects were given a choice of reading either a supportive or a non-supportive communication on an ego-involving issue. It was hypothesized (1) that subjects classified as Repressors on Byrne's Repressor-Sensitizer Scale would be more likely to choose the supportive communication than would Neutrals or Sensitizers, and (2) that there would be more support-seeking when the experiment was administered in two separate sessions than all in one session. The first hypothesis was supported for male subjects only. However, there was a significant preference for the supportive message among all subjects, which was positively related to extremity of their initial stands on the issue and personal importance of the issue. There were no significant effects of number of sessions on exposure choices. In the second half of the experiment, it was predicted that, after reading the non-supportive message, Repressors and Sensitizers would show less attitude change than would Neutrals, and, in accord with dissonance theory, that subjects who chose to read the non-supportive message would be more likely to show attitude change than subjects who were assigned to read it. It was also expected that there would be more attitude change in the two-session condition than in the one-session condition. The data

provide significant support for the first and third predictions, but a reversal of the second prediction: subjects assigned to read the persuasive communication showed significantly more attitude change than those who chose to read it. An explanation based on the unique character of the self-selected "choice" group was offered.

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The notion that a person seeks out information that supports his beliefs and actively avoids information that challenges them is a central proposition of consistency theories. In his earliest version of cognitive dissonance theory, Festinger (1957) gave considerable attention to this principle, stating as the second of two basic hypotheses: "When dissonance is present, in addition to trying to reduce it, the person will actively avoid situations and information which would likely increase the dissonance (p.3)."

Although most of the relevant research has been done in the context of dissonance theory, long before consistency theories became popular, it was taken for granted by social scientists that people have little interest in exposing themselves to any message that challenges their beliefs and attitudes, particularly if they have already committed themselves on the issue. More than two decades ago, Klapper (1949) noted that the selective exposure principle is a factor of prime importance in determining the effectiveness of the mass media. And, as recently as 1962, the Behavioral Science Subpanel of the President's Science Advisory Committee cited as one of its findings the principle that "....Individuals engage in selective exposure...Those least predisposed to change are least likely to allow themselves to be exposed to a persuasive communication...If a new piece of information would weaken the existing structure of their ideas and emotions, it will be shunned...if it reinforces the structure, it will be sought out....p.277)."

Since it was such a fundamental assumption in the thinking of so many researchers in the field of persuasion through mass communications, a considerable amount of work--in the field and in the

laboratory--has been done on selectivity.

However, the evidence supplied both by surveys and laboratory experiments does not unequivocally support the selective exposure hypothesis. As a matter of fact, according to McGuire (1968a) the hypothesis has a "very poor batting average" (p.797), with some of the outcomes significantly in the direction opposite to that predicted. Nevertheless, its proponents refuse to be discouraged, perhaps because as McGuire puts it, "somehow the hypothesis seems to deserve to be true (p.769)."

Freedman and Sears (1965b), reviewing the literature on selective exposure, note that in nature, people tend to be exposed more to information with which they agree than to information with which they disagree. For example, in political campaigns, people are exposed mainly to the publicity of their own party rather than to that of the opposite party (Lazarsfeld et al, 1948). Similarly, Republican rallies are mainly attended by Republicans, stockbrokers read the Wall Street Journal and Baptist services are attended mainly by Baptists, etc. But, Freedman and Sears point out, there is no empirical evidence indicating a general psychological tendency to prefer supportive information. A great many social, economic, and psychological factors affect the type of information to which a person is exposed--i.e., Republican rallies may provide a businessman or lawyer with useful friendships and information, and stockbrokers read the Wall Street Journal for its extensive coverage of financial news. Thus, exposure to information to which they agree might be entirely independent of any preference for supportive information. Freedman and Sears refer to this as "de facto" selective exposure

and distinguish this availability of supportive information, because it is correlated with usefulness, etc., from a general psychological preference for supportive information. The question of interest is: "If a person is given a completely free choice between information which is likely to reinforce his initial opinions and information which is likely to challenge his opinions, will he tend to choose the former more than the latter?" (p.61)

The research relevant to this question has generally followed a simple paradigm. The subject's opinion is measured and he is given a choice of exposing himself to supportive or nonsupportive information. In some studies, the dependent variable is his choice between the two (i.e. which one he picks first); in others it is the sum of his ratings or rankings of several supportive and several nonsupportive materials. In a few studies, the information is actually available to the subject, and the dependent variable is the time spent looking at each type of information. In all of these studies, regardless of the measure employed, the dependent variable may be regarded as interest in information.

Studies which provide support for the hypothesis that people prefer supportive information indicated that people who have just purchased a particular make of automobile preferred to read about the advantages of their own autos rather than about the rival cars (Ehrlich et al 1957). Other studies which confirmed the support-seeking part of the hypothesis are those of Adams (1961), Freedman and Sears (1963) and Mills et al (1959); however, when Rosen (1961) attempted to replicate the latter experiment, he found subjects significantly preferring supportive information, although there was

no clear-cut avoidance of the opposing articles.

Studies cited by Freedman and Sears, which indicated no preference for either supportive or nonsupportive information were done by Feather (1963), Sears (1966), Sears and Freedman (1965) and Jecker (1964). Several studies actually showed that subjects indicate a preference for nonsupportive information. Feather (1962) found that smokers preferred an article contradicting their belief that there is no link between smoking and cancer, while nonsmokers showed no particular exposure preferences, regardless of their position. Sears (1965) and Freedman (1965a) also obtained data showing preference for nonsupportive information; and Brodbeck's (1956) data, as interpreted by Freedman and Sears (1965b) and Steiner (1962), favor the same conclusion.

These findings led Freedman and Sears to conclude (1965b; p.94) that "laboratory evidence does not support the hypothesis that people prefer to be exposed to supportive as opposed to nonsupportive information."

Despite this conclusion, however, research on selective exposure has contined unabated, although in recent years the experimental work has shifted to the investigation of mediating variables which shape selective exposure preferences. For instance, in his later version of dissonance theory, Festinger (1964) introduced "confidence" and "utility" as important factors influencing exposure to information. Festinger's modification of his theory specifies that the subject's choice between avoiding or seeking out opposing information is dependent upon how confident he is that his opinion is correct. If he is highly confident of his initial belief, he may seek out the

nonsupportive information and try to refute it. If he has little confidence, on the other hand, he will avoid this information and seek out additional supporting material to boost his confidence. According to this formulation, then, the lower the subject's confidence in his own opinion, the greater should be his preference for supportive information.

An experiment by Canon (1964) produced data in support of this hypothesis, but Freedman's (1965b) replication failed to find an appreciable difference in selectivity resulting from variations in confidence. Mills (1965a) found evidence for the notion of greater selective avoidance when one's confidence has been weakened, but Freedman and Sears (1963, 1965a) did a series of correlational studies involving confidence and selective exposure, with mixed results, leading them to conclude that the data do not provide consistent support for the hypothesized relationship between confidence and selectivity of exposure to information.

The other factor which would affect the individual's decision to expose himself to dissonant information, according to Festinger (1964), is the perceived utility of the information. The assumption is that the greater the perceived utility, the greater will be the subject's desire to be exposed to it. A student might want information that will help him to do well on a test he is going to take (as in Mills et al, 1959 and Rosen, 1961) or a mother, information that will help her do a good job raising her children (Adams, 1961; Maccoby et al, 1962). In such cases, it might be expected that information will be preferred to the extent that it is useful.

The evidence supports this supposition. Mills et al and

Rosen told students that they would have to take an examination and gave them a choice of the type of exam they would take. They then offered the subjects a choice among various pamphlets concerning the two types of exams. They found that subjects preferred pamphlets dealing with their own exam, regardless of whether the article was favorable or unfavorable to the exam, although the effect was stronger with favorable information. Canon (1964) and Freedman (1965b) also varied utility and found more useful information significantly preferred to the less useful, regardless of which was consistent with a decision they had previously made.

The finding that information which serves a practical purpose is preferred to less useful information has interesting implications for selective exposure because it is apparent that differential utility can produce greater exposure to supportive or nonsupportive information, or no difference between the two, depending on the particular conditions. This illustrates the importance of holding utility constant in order to provide a rigorous, unambiguous test of the selective exposure hypothesis. Sears and Freedman (1963) and Freedman (1965b) attempted to do this by making all information as useless as possible, while Jecker (1964) attempted to equate utility directly. Although it is difficult to be certain how successfully information utility was equated in these studies, it should be noted that all of them failed to show a selective exposure effect.

Another factor which has a strong effect on exposure preferences is the familiarity of the individual with the information offered to him. Freedman and Sears (1965b) report that subjects prefer new or unfamiliar information on a complex issue when they feel they

may learn more about the issue, whether or not the information supports their initial beliefs. Actually a preference for novel information might be predicted from complexity theory (Berlyne, 1960) and satiation theory (Lambert and Jakobovits, 1960), which are systematically opposed to the selective avoidance principle. Theoretical approaches like these would lead to the expectation that the individual would tend to avoid the overfamiliar, supportive data to which he is being constantly exposed and seek out information opposing some of his beliefs.

Freedman (1965a), Sears (1965, 1966), Sears and Freedman (1965), Brock, Albert and Becker (1970), and Feather (1969) found that subjects are more receptive to unfamiliar information than to familiar information, but in contrast, Brock and Balloun (1967) found no effect of novelty on the degree to which subjects would press a button to screen out static that interfered with a message.

Freedman and Sears (1965b) conclude that a variety of factors, such as confidence, utility, and familiarity, may limit the conditions under which selective exposure occurs, and that their effects are substantial enough to indicate that these factors should be controlled if the effects due to selectivity are to be highlighted.

According to Sears (1968), studies published subsequent to the Freedman and Sears (1965b) review, including those of Brock (1965), Mills (1965 a, b, c), Lowin (1967), Lowe and Steiner (1968), Clarke and James (1967) and Thayer (1968), have not succeeded in clarifying the picture. In his opinion, the later research offers no grounds for modifying the conclusions reached in the earlier article.

However, the research on the selective exposure hypothesis

continues, with the focus mainly on the formation and testing of interaction hypotheses rather than main effects.

In one of the most recent investigations, Janis and Rausch (1970) found the reverse of what is predicted by the hypothesis in their field study involving participants in the draft-resistance movement at Yale. They found that men who opposed signing a "We Won't Go" pledge were less interested in reading anti-pledge articles (which would support their own initial position) than were men who favored signing the pledge. Among the factors the authors cite to account for the observed outcome are overfamiliarity with the supporting arguments and the possibility that some important predispositional attribute, such as a personality or ideological variable that makes for marked differences in open-mindedness, might be the underlying determinant both of attitudes toward the pledge and readiness to expose oneself to the "pro" or "anti" communications.

During the last decade and a half, many social psychologists have pointed to the necessity of taking personality variables into account to improve the predictive accuracy of theories of consistency or attitude change (Hovland and Janis, 1959; Weiss and Fine, 1955; Miller and Rokeach, 1968; Brehm and Cohen, 1962, etc.). But it was not until very recently that researchers began to study the effects of personality variables on selective exposure processes, and very few studies have been reported so far.

Feather (1967) found that subjects high in intolerance of ambiguity were more likely to select information consistent with their attitudes towards American intervention in South Vietnam than were subjects low in intolerance of ambiguity (as measured by the

Budner scale). Kleck and Wheaton (1967) found that high dogmatic or "closed-minded" subjects showed a greater preference for information which was consistent with their opinions than did low dogmatic, of open-minded, subjects, although the difference was not significant. In a recent replication of his earlier study, using a different dependent variable and different subjects (Australian students vs. American students), Feather (1969) found that preference for consistent as opposed to inconsistent information appears to depend on the degree to which a person is intolerant of ambiguity and/or dogmatic--stronger preference for consistency being characteristic of high intolerant and high dogmatic subjects--thus demonstrating that reactions to inconsistency are related to personality variables.

In all three of these studies there was an overall preference on the part of the subjects for consistent information.

Generally, however, as Glass points out (1968a), studies of the relationship between personality variables and reactions to inconsistency that have been conducted have been unrewarding because many of the personality variables were too global in character for predicting variability in responses to specific inconsistencies. He suggests that responses to dissonance are governed by the same mechanisms that people use to resolve inner conflict. Certain mechanisms of defense become established over the years as the individual's characteristic reaction to unacceptable impulses aroused by threatening events. It seems reasonable to assume, he states, that the prepotent defense against unconscious conflicts can also be used in a wide variety of dissonance situations.

If an individual is confronted with information discrepant with

the cognitions he holds, he experiences dissonance. To defend himself against this dissonance, he resorts to processes used to resolve unconscious conflict. Ego-defensive styles are commonly classified as: (1) those based on avoidance of the threatening stimuli and (2) those based on vigilance for threat. Repression and denial are classified as avoidance defenses since they represent attempts to avoid recognition of threat and its consequences. Intellectualization and projection are classified as vigilance or sensitizing responses since they involve attempts to reduce tension by approaching or controlling the threatening event and its consequences.

The question of what constitutes "threat" for an individual and how he responds to it is discussed at length by Janis (1967) in a paper on the effects of fear arousal on attitude change. He cites as the three possible behavioral consequences of "reflective fear": (1) heightened vigilance, which takes the form of increased attention to threat-relevant events, scanning for new signs of danger, etc.; (2) display of a strong need to seek reassurances in order to alleviate emotional tension, one manifestation of which is selective attention to complacent assertions that alleviate the fear by minimizing the danger; or (3) development of new attitudes involving a compromise between these two tendencies. Janis notes that a major task for research on fear-arousing communications is to determine the conditions under which one or another of these modes of adjustment to threat will become dominant; but he also calls attention to "various chronic personality attributes that could give rise to individual differences in readiness to avoid signs of threat..." (p.181).

The notion that personality predispositions influence modes of

resolving inconsistency is also held by Kelman and Baron (1968), who state that whether one will choose to avoid inconsistency or actively confront it is a function not only of situational factors but of personality predispositions as well.

The conceptualization of a "repression-sensitization continuum" implies that ego-defensive processes are predispositions to approach or avoid threatening external events, and a person's position on such a continuum reflects the characteristic way in which he responds to threatening stimuli and, by extrapolation, the way in which he attempts to reduce dissonance. Repressors will tend to avoid, deny or repress discrepant information, while Sensitizers will tend to approach and ruminate about discrepant cognitions, verbalize their impact and thereby neutralize the unpleasant implications.

One of the most frequently used psychometric devices designed to classify persons as "Repressors" and "Sensitizers" is Byrne's (1961, 1964) R-S Scale, a 127-item test consisting largely of items from the MMPI. There is general agreement on the high reliability of this scale (Christie and Lindauer, 1963; Byrne, 1964). Byrne (1964) reports a split-half reliability of .94 and a test-retest reliability (three months) of .82. The evidence is more equivocal with regard to validity. According to Byrne (1964), construct validity of the scale as a measure of the differences seems moderately well established. However, Christie and Lindauer (1963) believe that interpretations based on the face content of R-S items must be considered ambiguous. They argue that the scale probably measures a composite of responses to item content, response sets, social desirability and possible interactions between them. Glass (1968a), however, while acknowledging that this may be true, claims that persons who differ in the degree

to which they show response sets and social desirability may also differ in the way they characteristically defend against threat. It would not be inconsistent with what is known about psychological defensiveness to classify these people as Sensitizers or Repressors, he says. Byrne takes a similar position in his 1964 review of the construct validity of the R-S scale; he presents data suggesting that something more than social desirability is being measured by tests of ego-defensive style.

Support for the notion that ego-defensive styles, such as repression-sensitization, are related to the arousal and reduction of dissonance is provided by Glass, Canavan and Schiavo (1968). They found that Repressors reduced failure-based dissonance by decreasing the cognized intensity of their achievement motivation and by devaluating the testing situation, whereas Sensitizers showed little evidence of either mode of dissonance reduction. These results were explained in terms of research by Byrne, Barry and Nelson (1963), who found a positive correlation between self-esteem and the repressive end of the repression-sensitization continuum.

Gordon and Glass (1970) replicated the previous findings of Glass et al, showing that ego-defensive style can interact with a situational variable, cognitive ambiguity, to affect the arousal and reduction of post-decisional dissonance. Repressors showed greater dissonance reduction than Sensitizers under conditions where the self-referent implications of a choice were unequivocal. On the other hand, where the implications were ambiguous, there were minimal differences in cognitive reevaluation between defensive types.

In agreement with Glass' notion, Abelson (1968) states that the

course of research on the relationship between personality variables and dissonance reduction should be to narrow one's focus to a very restricted, though hopefully, interesting, experimental task, and to concentrate on aspects of personality appropriate to that task.

Festinger and Bramel (1962) have pointed out the conceptual similarity between psychoanalytic defense mechanisms and certain avenues of dissonance reduction--among them rationalization, projection (Bramel, 1962), defensive denial (Edlow and Kiesler, 1966), limiting cognitive input to information congruent with self-concept (Stotland and Hillmer, 1962), denying the implications of discrepant behavior (Brock and Buss, 1962) and repressing the implications of discrepant behavior through selective recall (Buss and Brock, 1963).

Thus the selective avoidance hypothesis grew out of the same concept of human behavior that gave rise to the description of the various defense mechanisms, with the person conceptualized as protecting himself against psychic pain by avoiding information discrepant from his initial position. Since laboratory support for the consistent avoidance of stimuli associated with unpleasant affect has never been widespread, it seems logical to assume that <u>not everyone</u> tries to avoid discrepant information. It would certainly be highly maladaptive for all men to behave according to this principle. Rather, it is more likely that certain individuals habitually avoid discrepant information and some actively seek it out, and that individual differences with regard to ego-defensive style, established early in life, play a role in determining who will avoid and who will seek out ego-relevant discrepant information when all other factors such as confidence, utility and familiarity are held constant.

Such information could not be revealed by previous research. It is, therefore, the intention of the proposed study to focus on the personality variable "ego-defensive style", which seems conceptually related to selective exposure and has not been employed in previous studies in this area. If it can be shown that a person's habitual mode of coping with conflict will influence his decision to expose himself to or to avoid a discrepant communication, then perhaps some of the bewildering findings with regard to selective exposure might be cleared up.

It is predicted that subjects classified as Repressors on the R-S Scale will be more likely to choose to read a supportive communication than those classified as Neutrals and those characterized as Sensitizers. The Sensitizers, in turn, will be less likely than the Neutrals to choose a supportive communication.

Methodological Issues

The proponents of the selective exposure hypothesis have responded to the empirical reversals of their avoidance prediction by pointing out a number of methodological factors that may have submerged the selective avoidance tendency. For example, in many of the laboratory studies, the test for exposure has been artificial and hypothetical since subjects are merely asked to select from a list of titles of newspaper or magazine articles or advertisements which ones they would be interested in reading. The question is: "Would the student show greater selectivity if he really believed he would be exposed to his choice?" Brock (1965) gave one group of subjects the expectation that they would be actually reading the articles they selected, and he found greater selectivity among this group of subjects than in the

"no-exposure" group. Lowin (1965), on the other hand, obtained approximately the same results from ratings in the abstract and actual requests for information, but this was a mail survey, in which 76 percent of the respondents were lost. Kleck and Wheaton (1967) had dogmatic and open-minded subjects read both consistent and inconsistent information (after making their choice of one) and found a significant preference for consistent information among all subjects.

Another methodological shortcoming of previous selective exposure experiments involves the "demand characteristics" (Orne, 1962) of the experimental situation in which all of the testing is usually carried out in one session. Most people do not like to think they are unwilling to hear "the other side of the argument". This is likely to be especially true of college student subjects who, one expects, would feel compelled by fairness and open-mindedness to indicate an interest in listening to the opposition rather than to hear a recital of their own side immediately after giving their opinions on the topic. Thus, to maximize the chance of obtaining selectivity, one should not ask the subject for his opinion and then, immediately thereafter, for his exposure preference. Both Sears (1968) and Feather (1969) suggest that in future studies it would be of value to attempt to rule out this methodological criticism by administering attitude scales and obtaining data concerning information-seeking behavior in separate sessions. This precaution has rarely been taken. Kleck and Wheaton (1967) did so and found a significant preference for consistent information among all subjects. Lowin (1967) also separated the attitude measure from the expression of exposure preference, but because he used a mail survey, he had only a small return--118 replies

from 651 mailings. The norm has been, however, to take both measures contiguously, thus probably suppressing some selectivity.

The present study attempts to determine whether this is indeed a factor which has blocked selectivity. Half the subjects participated in one session only; the other half were given opinion pre-tests during a classroom period two weeks in advance of the experimental session. The effects of both procedures were thus compared for the first time in a single selective exposure experiment. It was predicted that the tendency to seek supportive material would be greater in the two-session condition than in the one-session condition. In other words, it was expected that all subjects, regardless of their positions on the R-S Scale, would show a greater preference for information consistent with their opinions in the two-session condition than in the one-session condition.

To avoid the aura of artificiality and make the situation more realistic for the subjects, they were informed that they were required to read an article for a "learning experiment" and that they had to choose from between two communications the one they would read immediately thereafter.

The procedure for the first part of the study then was to measure subjects' attitudes toward several topics, including the critical issue, which was highly ego-involving and threatening. The critical topic was to be selected on the basis of pilot test results.

Subjects were then asked to choose one of two communications, both attributed to sources of equal credibility (to control for source effects), one of which supported his view while the other opposed it. The rationale was that they must read this message as part of a test

to determine how students learn "different types of prose material." The subject's choice of communication--the supportive vs. the non-supportive message--was the first dependent variable.

Half the subjects were to complete the entire procedure in one session as has been customary in the selective exposure paradigm, the other half were asked to choose and read the selection two weeks after the attitude measure was administered.

It was predicted that in the one-session condition, there would be no differences between Repressors, Sensitizers and Neutrals in their exposure choices. All were expected to show a preference for the opposing communication, the Sensitizers because it is their normal defensive pattern when faced with threatening material, and the Repressors and Neutrals because of their desire to appear fair-minded. As was mentioned previously, there is a high negative correlation between the R-S Scale and the Edwards SD Scale (1957) so that Repressors, who are high social desirability people, when made aware of the demand characteristics of the situation by having to fill out an attitude questionnaire and then choose between two communications dealing with one of the same topics, would be expected to choose the one which disagreed with their own views on the subject. The Neutrals --presumably having both repressor and sensitizer tendencies in moderate degrees--would, of course, also choose the non-supportive communication.

In the two-session condition, Repressors would follow their normal defensive pattern of behavior when threatened, by choosing the supportive communication to a greater degree than the Neutrals, and the Neutrals would show a stronger tendency to choose the

supportive communication than the Sensitizers, who were expected to show a preference for the opposing communication.

Thus, the effect of one vs. two sessions would be most evident in the behavior of the Repressors and Neutrals, while the Sensitizers were expected to make the same choices, regardless of the experimental condition.

In the traditional selective exposure paradigm, the experiment most often ends at this point. However, since to avoid artificiality subjects actually read a communication, the second half of this experiment examined the amount of opinion change resulting from the reading of the discrepant message.

In this part of the study we were concerned then with the relationship between opinion change and (1) ego-defensive style, (2) number of experimental sessions and (3) self-exposure to a discrepant communication.

Review of Personality-Opinion Change Research

The vast majority of early consistency and attitude change studies have been conducted by persons with little interest in personality variables, because their primary aim has been to show that the typical person reacts to disconfirmed expectations in a manner that can be interpreted as restoring consistency. Individual differences were either ignored or treated as unfortunate complications that obscure fundamental truths about human behavior (Steiner, 1968). However, in the past decade and a half there has developed a large body of research literature on the relationships between influenceability and a wide variety of personality variables. The results unfortunately tend to be extremely complex and seemingly contradictory.

It has been observed repeatedly that people differ in their reactions to inconsistency-arousing situations (Festinger, 1957; Zajonc, 1960; Rosenberg, Hovland et al, 1960; Brehm and Cohen, 1962; Feather, 1964). Such differences may occur because people perceive the situation differently, and it is likely that differential perception is a function, in part, of the individual's personality structure (Harvey, 1965). Individual differences might also be due to a differential threshold of tolerance for inconsistency; and the height of this threshold is undoubtedly affected by a variety of personality factors (Aronson and Festinger, 1958).

Hovland and Rosenberg (1960) and later Rosenberg (1965) have also suggested several classes of variables (including personality predispositions) which may influence the threshold of tolerance for inconsistency. Hovland and Janis (1959) found that a pattern of chronic low self-esteem and general passivity disposes the individual to resolve inconsistencies by changing his attitude in the direction advocated by a contrary communication. Other studies report that high need for affiliation, authoritarianism, and measures of perceptual field dependence correlate positively with general persuasibility (Burdick and Burnes, 1958; Hovland and Janis, 1959). Other personality variables most frequently studied in connection with consistency theory are dogmatism, intolerance of ambiguity, cognitive controls, category width and manifest anxiety.

To account for the seemingly contradictory results obtained from these studies, McGuire (1968b) has developed a rather complex theory. He states that opinion change is not a direct response, but the net outcome of a chain of behavioral steps. As a minimum, it requires

(a) adequate reception, through attention and comprehension, of the persuasive message; and (b) yielding to what is comprehended. The mediational role of reception is often overlooked, while that of yielding is overemphasized. While each of the two behavioral steps is positively related to influenceability, the relation of a given personality variable to one of these steps is often quite different from its relationship to the other. In general, personality characteristics and other individual difference variables tend to have opposite effects on influenceability via the reception and yielding mediators.

With regard to intelligence, for example, one would expect a negative relationship with yielding since the more intelligent person should have more confidence in his own opinion and better critical abilities, should be better able to refute the attacking arguments, should have higher self-esteem and thus should be better able to tolerate disagreement between himself and the source. All of these plausible assumptions imply that the more intelligent person would be more resistant to social influence. However, McGuire points out, this analysis is not adequate. While intelligence tends to protect the person from influence by making him less likely to yield, it also makes him more vulnerable to influence insofar as the initial reception steps of attention and comprehension are concerned. The more intelligent person will tend to be more interested in the communication, have a longer attention span, be better able to comprehend its viewpoint, etc. Hence, intelligence could be positively or negatively related to influenceability, depending on whether reception or yielding was the more important contributor

to opinion-change variance in a given situation. This accounts for the findings in some experiments of a positive relationship, in others of a negative and in still others of no appreciable relationship at all between intelligence and persuasibility.

McGuire assumes that the reciprocal relationships obtaining in the case of intelligence are typical of all individual difference variables.

A corollary of his theory is that the over-all relationship between an individual difference variable and influenceability tends to be nonmonotonic, with some intermediate level of the variable being optimal for influenceability. The basis for this is the idea that when a resultant relationship is the outcome of two underlying relationships that go in opposite directions, the overall effect is nonmonotonic, with individuals at the intermediate levels being most susceptible to persuasion.

In the case of susceptibility to social influence, there seems to be a golden middle range; the person should be open, but not too open, to outside influences, if he is to thrive in the natural environment. It is adaptive for man to be in a dynamic equilibrium, where some of his personal proclivities make for openness, while others make him closed to social influence, thus resulting in an intermediate degree of influenceability.

McGuire cites recent studies on conformity (Appley and Moeller, 1963), self-esteem, (Cox and Bauer, 1964), and anxiety (Millman, 1965), in support of his contention that the empirical evidence for the nonmonotonic relationship is widespread. He claims that the nonmonotonic corollary is necessary to handle the diversity of findings and that

it is "embarrassingly powerful in being able to account for too wide a variety of outcomes." (1968c; p.245)

Further support for the predicted relationship was supplied most recently by Lehmann (1970) who studied anxiety and self-esteem in opinion change and by Zellner (1970) who also examined the relationship between self-esteem and influenceability.

With regard to the personality variable under consideration in this study--ego-defensive style--McGuire would predict that attitude change would be smallest among extreme Repressors and Sensitizers and greatest among subjects who fall along the middle of the continuum--the Neutrals. Intuitively this sounds logical since extreme Sensitizers, who consistently expose themselves to opposing points of view (thus being more open than others to outside influences) would hardly thrive in our environment if they were not highly resistant to the influence of others. Extreme Repressors, on the other hand, protect themselves from outside influence by avoiding threatening information, or when compelled to expose themselves to it, deny or repress its content. At extreme levels of the personality variable, then, there will be less influenceability than there will be at intermediate levels of the variable.

McGuire does caution, however, that the relationships between a personality variable and influenceability will tend to be specific and vary with other aspects of the communication situation. Among the communication variables with which they can interact are: source, message, channel, receiver and destination variables. For example, it has been found that dogmatism interacts with source factors (Powell, 1962). Keeping such factors constant is an important part

of the experimental design.

If McGuire's theory is correct then, the Sensitizers and Repressors in the proposed study would be less likely to change their opinions than would the Neutrals.

Effects of One vs. Two Sessions

With regard to the effect of one session vs. two on attitude change, some investigators have produced opinion change using one session for pre-test, communication and post-test (Hovland & Weiss, 1951; Weiss and Solomon, 1967) and some have obtained change in a two-session design (Hovland et al, 1957; McGuire, 1957; Weiss and Fine, 1955, 1956).

However, a basic methodological problem in attitude change studies is the one associated with pre-test sensitization and the contaminating effects resulting from pre-test-treatment interaction. (See Solomon 1949) Hovland et al (1949) found an initial pre-test served to reduce the effects of the experimental variable, presumably by creating a commitment to a given position. On the other hand, the pre-test may enhance receptivity (Lazarsfeld, 1948) by "sensitizing" the subjects to the topic under consideration or by making them aware of the demand characteristics of the research. Lana (1966) found that a pre-test has a depressing effect on opinion change. When subjects had no pre-test or had a disguised pre-test, or when there was an interval of a minimum of two days between pre-test and treatment they changed their opinions to a greater degree than did those given an exposed pre-test (Lana and Rosnow, 1968). Rosnow and Suls (1970) found that a pre-test given during the same session as the experimental communication and post-test had a dampening effect on

non-volunteer subjects in an attitude change experiment.

It was predicted, therefore, that opinion change would be more pronounced in the two-session condition than in the one-session condition.

Effect of Choice

In their revision of cognitive dissonance theory, Brehm and Cohen (1962) added freedom of choice and commitment to the decision as necessary conditions for the arousal of post-decisional dissonance. They state that a person is committed "when he has decided to do or not do a certain thing, when he has chosen one (or more) alternatives ...when he actively engages in a given behavior or has engaged in a given behavior. Any one of these....can be considered a commitment." (p.7)

They emphasized the importance of commitment and volition in determining not only the strength of the dissonance involved, but the kind of mechanism needed to reduce dissonance. Whether or not a high degree of volition is present can often change the nature of the prediction. Many studies have produced data in support of this statement. Jones and Brehm (1967) found that choosing to listen to a persuasive communication constituted a sufficiently strong commitment to provide dissonance effects. A basic assumption underlying their study was that in the absence of other forces, a person would avoid listening to a persuasive communication which disagrees with his own point of view because it would arouse dissonance. However, as has been pointed out earlier, the data have not always supported this hypothesis, and to examine it further is one of the purposes of this research.

Since in the present study subjects would have freedom to choose either a supportive or a discrepant communication, dissonance theory would predict that those subjects who select the discrepant communication would be more likely to change their attitudes toward the issue than subjects who are not given a choice of communications. For this reason, the experiment included a "no-choice" group which was given the pre-tests and only the discrepant communication to read as part of the "learning experiment." The amount of attitude change shown by this "no-choice" group was to be compared with that of all "choice" subjects who read the discrepant communication. Dissonance theory predicts that all subjects who chose to read the opposing communication would show more attitude change than the group of subjects who were assigned to read the message. That is, dissonance theory predicts more attitude change among subjects in the "choice" than in the "no-choice" condition. And McGuire's theory predicts that within both of these conditions, the Repressors and Sensitizers who read the opposing communication would change their attitudes less than would the Neutrals.

Hypotheses

The present study examined the effects on selective exposure of the personality variable, ego-defensive style, operationalized as the person's score on Byrne's R-S Scale, as well as the effect of conducting the experiment in one or two sessions, and the interactive effects of these two variables on selective exposure. This study also examined the effects of ego-defensive style, one-session vs. two, and choice vs. no choice, and the interactive effects of these three variables on opinion change.

From the previous discussion, the following predictions were made:

1. If selective exposure is a function of ego-defensive style, then Repressors would show a greater preference for the supportive communication than would the Neutrals, who would show more of a preference for the supportive communication than Sensitizers.

2. If number of experimental sessions has an effect on the exposure choices of the subjects, then there would be more subjects choosing the supportive communication in the two-session condition than in the one-session condition.

Specifically, the interactive effects of these two variables would be such that in the one-session condition, neither the Repressors, Sensitizers or Neutrals would choose the supportive communication to any differential extent. However, in the two-session condition, Repressors would show the greatest tendency to choose the supportive communication, Neutrals would show a lesser tendency to choose the supportive message and Sensitizers would show the smallest tendency to choose the supportive communication.

3. If McGuire's theory is correct, that the overall relationship between a personality variable and attitude change would be non-monotonic, with maximum influenceability found at some intermediate level of the personality characteristic, then Sensitizers and Repressors would show much less attitude change than would the Neutrals. This pattern would occur in both the "Choice" and "No-Choice" conditions.

4. If giving a pre-test during the same session that the communication

and post-test of attitude are given has a dampening effect on attitude change, then there should be more attitude change in the two-session condition than in the one-session condition.

5. If dissonance theory is correct, that exposing oneself voluntarily to a discrepant communication is dissonance-arousing and will result in more opinion change than when the individual is forced to read the discrepant communication, then subjects who choose to read the discrepant communication would show more attitude change than would those assigned to read it.

METHOD

General Design

The experimental design for the selective exposure portion of this study comprised a 3 x 2 factorial arrangement of ego-defensive style (Repressors, Sensitizers and Neutrals) and number of experimental sessions (one vs. two). For the opinion change portion of the study, the experimental design comprised a 3 x 2 x 2 x 2 factorial arrangement of ego-defensive style, number of sessions, type of communication (experimental vs. control) and degree of choice (choice vs. no choice).

Pilot Studies

Choice of attitudinal issue. The following criteria were used to determine the attitudinal issue appropriate for this study: (1) the vast majority of students must be strongly against the proposal as stated; (2) the issue must be of high personal importance; (3) the issue must be one on which opinions were not likely to change to any significant extent over the data collection period. Questionnaires (Appendix A, Item 1) were administered to 179 Hunter College students, during their psychology class periods, in which they were asked for their opinions on six different issues, and the importance of each issue to them personally. The following was chosen as the attitudinal issue: "A tuition charge should be instituted for all undergraduates at the City University of New York." The selection was based on (1) the students' responses, (2) the fact that previous research had shown that students are strongly opposed to any tuition charge and consider the matter of great personal importance; (3) the fact that at the time of data collection the subject had become a very live issue once again. A month or two prior to the beginning of the study, the Mayor

of New York had announced drastic cuts in the city budget which, he warned, would mean drastic cuts in enrollment and services at the city colleges unless a tuition charge was imposed on students. For over four months the metropolitan newspapers and the college publications carried running stories on the proposed tuition charge. (It should be noted that while graduate students had always paid a nominal tuition charge for the 100 years of its existence, Hunter College undergraduates had been attending free of charge.) Thus, this was clearly an issue which met all of the above criteria.

Preparation of the messages. Two communications on the tuition issue were prepared: one proposing a tuition charge (the pro-tuition message), the other opposing a tuition charge (the con-tuition message). (Appendix A, Item 2, pages 91, 93) To eliminate the possibility of differential source effects, both messages were attributed to members of the Board of Higher Education.

Persuasive impact of the message. A group of 20 subjects was given the persuasive message to read, followed by an 11-point Likert-type scale on which they were to indicate their attitudes toward a tuition charge. Their self-rating of attitudes was compared with responses of a control group of 11 subjects who did not read a message, but merely filled out the self-rating scale. The communication group was significantly less opposed to tuition than the controls ($t=8.4$, $p<.01$), thereby demonstrating a significant persuasive impact for the pro-tuition message.

Subjects' perception of author's position on tuition issue. To establish where in the semantic space the subjects perceived the author's position to lie, a group of 20 subjects was asked to read the pro-

tuition message and indicate on four evaluative, 7-category bipolar scales (good-bad, unfair-fair, pleasant-unpleasant, undesirable-desirable) their estimate of how the author viewed the idea of a tuition charge. The composite semantic differential total had a possible range from 4 - 28, with a lower score indicating a more favorable attitude toward a tuition charge. The mean for this pilot group of subjects was 8.9, thus indicating that they accurately perceived the intent of the persuasive message. The same procedure was followed for the con-tuition message, with a total of 14 students being asked to rate the author's stand on tuition. The mean rating for this message was 25.3.

Subjects' evaluation of source. A group of 35 subjects was asked to indicate on three evaluative, 7-category bipolar scales (informed-uninformed, trustworthy-untrustworthy, influential-not influential for me) their feelings about the purported author of the messages, who was described as a member of the Board of Higher Education. The possible range of the composite semantic differential scores was from 3-21 (lower scores=more favorable) and the mean for this group of subjects was 9.1, indicating a favorable evaluation of the source.

Strength of the messages. The strength of the messages was measured on a 7-category Likert-type scale, headed, "Whether or not you agree with him, how strong a case do you think the author made for his point of view?" The scale ranged from "extremely strong" (1) to "extremely weak" (7). The mean rating for the pro-tuition message given by a group of 30 subjects was 3.1; for the con-tuition message, given by a group of 28 subjects, was 2.7.

Familiarity with arguments on the tuition issue. 126 students

were asked to rate on a 7-point scale their familiarity with the arguments in the CUNY tuition controversy. Half were given the rating task before reading a communication, and half after reading either a pro- or con-tuition message. The scale ranged from 1 ("extremely unfamiliar") to 7 ("extremely familiar"). Ninety percent of all the subjects rated themselves on the "familiar" side of the scale, thus demonstrating that the subject was one with which the vast majority of the students felt familiar. Moreover, there was no significant difference in ratings between those who did or did not read a tuition message before indicating their familiarity with the issue. The mean score for those who read a message was 4.9, compared with 4.5 for those who did not read a message ($t=1.32$, 124 df). On this basis it was decided to ask the subjects for familiarity ratings in the post-communication questionnaire rather than at the outset of the experiment to avoid calling special attention to the tuition issue before asking them to choose between two tuition messages.

Subjects' confidence in their initial beliefs on tuition. It will be recalled that some studies had shown a relationship between confidence in one's beliefs on an issue and selective exposure. It was therefore important to determine whether Hunter College students were generally certain of their opinions on tuition. Accordingly, subjects were asked to respond on a 7-point scale to the following question: "How certain are you that your views on tuition at the City University are correct?" The mean confidence rating was 6.1; 95% of the subjects rated themselves 5, 6 or 7 on the confidence scale, and no one rated himself below 4 (the neutral point). Thus this was an issue on which the overwhelming majority felt extremely confident about their opposition

to a tuition charge and on which no one indicated a lack of confidence in his opinions.

Threat scores. In response to the question, "Do you feel that the institution of a tuition charge would pose a threat to your education?", a group of 21 students had a mean threat rating of 5.0. (The scale ranged from (1) "extremely unthreatening" to (7) "extremely threatening")

Final attitude measure. It was decided that, in order to avoid suspicion on the part of the subjects, the initial attitude measure would consist of a single 7-point Likert-type scale asking for agreement or disagreement with the following statement: "The City University of New York should start charging tuition for all undergraduate students."; whereas the post-communication attitude measure would take the form of four evaluative, 7-category bipolar scales. A group of 20 subjects was asked first to rate their attitudes on the initial self-rating scale, followed by five semantic differential scales (good-bad, valuable-worthless, undesirable-desirable, pleasant-unpleasant, unfair-fair). Correlations among the individual scales and between the semantic differential scales and the initial position scale are presented in Appendix A, Table I. The scale with the lowest correlations (valuable-worthless) was eliminated and the final attitude measure consisted of the sum total of the four remaining SD scales. A similar procedure was followed in the selection of the final attitude measure for the control issue.

Choice of attitudinal issue for control groups. The control groups were included in the experiment proper to serve a dual purpose: (a) for the attitude change portion, their total SD scores on the

tuition issue were used as a baseline for measuring opinion change on the critical issue: (b) for the selective exposure portion, the purpose was to determine whether a non-ego-involving issue would give rise to the same selective exposure processes as an ego-involving issue. Since both dissonance and social judgment theorists (Zimbardo, 1960; Sherif et al, 1965) equate ego-involvement with importance, ratings of importance were taken as a measure of ego involvement.[1] Among the six topics in the original pilot questionnaire submitted to 179 students was the cultural truism "Everyone should visit his physician at least once a year." While the majority of students indicated their strong agreement with this statement, it was rated as far less important to them personally than was the tuition issue. The mean importance rating for the medical issue was 4.6, compared with 6.5 for the tuition issue. On this basis, this issue was chosen as the non-ego-involving one for this study.

R-S Scale. The 127-item Byrne Repressor-Sensitizer Scale (Appendix A, Item 2, pp. 98-102) was administered to 179 Hunter students to determine whether among this college population there is a wide enough range of individual differences along the Repressor-Sensitizer dimension to permit a meaningful analysis of its effects. Scores ranged from 6 - 103, as compared with Byrne's obtained range of 4 - 109. Also, in line with previous findings, there were no significant differences between the sexes with regard to R-S scores.

Perception of the purpose of the experiment. A sample of 105 subjects was given a run-through of the entire experimental procedure,

[1] Zimbardo speaks of "the importance of, or involvement with, the cognitive elements of the situation" (1960, p.86), and Sherif et al state "to the extent that a person is less ego-involved in the issue (it is less important)..." (1965, p.x).

after which they were asked about their perceptions of the true purpose of the experiment. No subject perceived it as other than as a "learning experiment."

Procedure for Experiment Proper

The materials of the study were prepared in the form of booklets (See Appendix A, Item 2). For the experimental subjects in the choice condition, the booklets were organized in the following way. Booklet Number 1 contained (a) a self-rating of position on five different topics on a 1-11 graphic scale ranging from "agree strongly" (1) to "disagree strongly" (11); (b) a rating of personal importance of each issue on a 1-7 scale, ranging from "extremely below average" (1) to "extremely above average" (7); and (c) demographic data for subjects in the two-session condition only. The latter were needed to permit matching of booklets from the second session with those from the same subjects in the first session.[2]

Booklet Number 2 contained the persuasive message. Subjects were informed that this was an experiment to determine the individual's

[2]It should be noted that the one-session groups were not asked for demographic information until after they had read the persuasive message (when the two-session groups were asked for the information for the second time). This opens up the possibility that differential degrees of anonymity between the two groups might be a confounding factor in the conclusions based on the "sessions" variable. However, the writer believes that the possibility of such confounding is remote for the following reasons: (1) The information requested may not have been interpreted by subjects as violating their anonymity since it called only for the sex of the subject, his birth date, number of siblings, field of specialization, vocational aim, and expected date of graduation; (2) Subjects were assured at the outset that their anonymity would be preserved and that the investigator was only interested in group, not individual, data; (3) The second session was conducted by a different experimenter, with an entirely different rationale for that part of the study; and (4) In a debriefing session held after all the data had been collected, subjects expressed complete surprise upon hearing that the two experimental sessions were related.

ability to learn different types of prose material. They were told that they had time to read only one of two communications dealing with the tuition issue--one favoring and the other opposing a tuition charge. The titles and authors of both were given and subjects were asked to check which communication they intended to read and then to turn immediately to the page on which it was printed.[3] Each message was covered with a title page which was stapled to the article and had to be removed in order for the subject to read it. Thus, the subjects were prevented from reading both sides of the issue. After reading the persuasive message, the subjects were given (a) a 6-item "memory quiz" to lend an aura of plausibility to the bogus rationale of the study; (b) the final attitude measure, consisting of the aforementioned four 7-category bipolar scales; (c) the 7-point "threat" scale, (d) the familiarity scale; (e) the strength of the message scale; and (f) a question asking their reason for choosing one article in preference to the other. The latter question was phrased in the following manner: "Next we would like to know why you chose the article you read in preference to the other one. Please check the appropriate box below: (1) No special reason--just by chance. (2) Because it agreed with my stand on the CUNY tuition issue. (3) Because it disagreed with my views on the tuition issue. (4) Don't know. (5) Other reason (please state)." Finally, the subjects were again asked for demographic data.

Booklet Number 3 contained the 127-item Byrne Repressor-Sensitizer

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[3]The pro-tuition message was presented first in half the booklets and last in the other half. Since this order of presentation variation had no effects on the dependent variable, it will not be discussed further.

Scale.

For subjects who were given no choice of communication, Booklets 1 and 3 were identical to those for the choice subjects. Booklet Number 2, however, was modified for these subjects so that it contained only one message--the pro-tuition communication--which the no-choice subjects were instructed to read as part of a "learning experiment." Also, since they were given no choice of reading material, Item f (which asked why they chose one message rather than the other) was omitted from this booklet.

As noted in the description of the experimental design, subjects in the control condition were also divided into choice and no-choice groups. For all control subjects, Booklets 1 and 3 were the same as those for all experimental subjects. However, for control-choice subjects, Booklet Number 2 contained a choice of the following two communications, each purportedly written by a doctor: "Everyone should visit his physician at least once a year;" and "Some disadvantages of routine medical check-ups."

For control-no-choice subjects, the booklet contained only the latter article. Both control-choice and control-no-choice subjects were then given a memory quiz on the content of the article they had read, followed by a question on their familiarity with the issue of medical check-ups and four semantic differential scales dealing with medical check-ups. After this, they responded to the following measures dealing with the tuition issue: the fact quiz, containing the same items included in the experimental booklet; the four bipolar semantic differential scales; and the threat scale. Those in the choice condition were also asked to give reasons for

their choice of article on medical check-ups.

In all conditions--experimental and control, choice and no-choice --the only difference in procedure between one- and two-session groups was that the former completed all three booklets in one session, while the latter completed Booklet Number 1 in the first session and Booklets 2 and 3 in the second session. This session took place approximately two weeks after the first and was under the direction of a different experimenter, to insure that no connection was made between the two experimental procedures.

Subjects

The original pool of subjects consisted of 584 undergraduates in introductory psychology courses at Hunter College. Since testing was carried out during regular class sessions, intact groups were assigned on a random basis to one or two sessions. Within each class, however, subjects were assigned randomly to experimental or control, choice or no-choice conditions, by the handing out of booklets in a pre-randomized order in the following ratio: experimental-choice: 5; experimental-no choice: 2; control-choice: 1; control-no choice: 1.

Following the removal of subjects whose booklets contained major imcompletions or who were absent during one of the experimental sessions, there were 512 subjects remaining in the sample. Of these, only the ones whose initial self-rating on tuition ranged from 9-11 ("strongly disagree") were retained in the study. Since only 12% of the subjects were eliminated for scoring below 9, this left a total of 451 subjects in the final sample (385 females and 66 males). Of these, 306 experimental subjects (262 female and 44 male) participated in the selective exposure portion of the study, along with 38 control subjects

(30 females and 8 male). The one-session group contained 179 subjects and the two-session group 165 subjects. In the attitude change portion of the study, 268 subjects participated, 123 of whom were in the experimental-choice condition, 73 in the no-choice condition, 38 in the control-choice condition, and 34 in the control no-choice condition. Of these, 136 were seen in one session and 132 in two.

Subjects were classified as Repressors, Neutrals or Sensitizers depending on their scores on Byrne's R-S Scale. Following the procedure of Byrne, Golightly and Sheffield (1965), Kaplan (1957), and Axtell and Cole (1971), the final sample was divided into thirds based on the distribution of R-S scores, so that scores of 3-39 were classified as Repressors, 40-57 as Neutrals and 58-111 as Sensitizers.

RESULTS

Selective Exposure

Although the selective exposure experimental conditions comprised a 3 x 2 factorial arrangement of ego-defensive style and number of experimental sessions, inspection of the results indicated that there were important sex differences with regard to exposure choice. Therefore, the basic analysis consisted of a three-factor Multiple Contingency Analysis (Sutcliffe, 1957), with sex as the third factor.

Equivalence of experimental groups. All subjects rated their attitudes toward the critical issue of a tuition charge for CUNY students on an 11-point graphic scale headed "The City University of New York should start charging tuition for all undergraduate students." The mean Self Rating (SR) scores of these 451 subjects was 10.74. The table of means and analysis of variance (Appendix B, Tables I and II) show no significant differences among the groups with regard to initial position.

Although the range of self-ratings here was 9 - 11, it was subsequently found that subjects whose initial position was 9 or 10 differed in their choice of communication from those whose initial position was 11. However, there were no significant differences between Repressors, Sensitizers and Neutrals ($\chi^2 = 2.34$, 2 df); or between subjects in one- and two-session conditions ($\chi^2 = 1.43$, 2 df); or between males and females ($\chi^2 = 2.34$, 2 df) in the proportions of 9's, 10's, and 11's in each group. (See Appendix B, Table III.) In addition, the groups did not differ in their ratings of personal importance of the issue as the table of means and the ANOVA summary show (Appendix B, Tables IV and V).

As noted in the description of the experimental procedure, self-ratings of familiarity with the issue were not obtained from subjects until after they had read a tuition communication. However, pilot studies had demonstrated that whether or not a subject was exposed to a communication on the issue had no differential effect on his self-rating of familiarity with it. It is therefore of interest to note here that the experimental groups in the present study did not differ significantly in their self-ratings of familiarity, thus adding further support to the assumption of group equivalence. (See Appendix B, Tables VI and VII.)

Importance of medical issue. It will be recalled that one of the purposes of the control group was to provide an opportunity to determine whether the type of communication--ego-involving vs. non-ego-involving--would have an effect on selective exposure processes. The medical truism was chosen as the non-ego-involving topic based on pilot data which showed that while subjects generally agreed with the statement, they considered it less important to them personally than the tuition issue. In the present study, the mean importance rating for the medical topic was significantly lower than that for the tuition issue: 4.91 vs. 6.23 ($t = 3.96$, $p < .01$, 2-tailed test). Only 54% of the subjects rated the medical topic more than average in importance, while 87% rated the tuition issue above average in importance. Tables VIII and IX, Appendix B, present the means of all subjects, both experimental and control, for initial position and importance of the medical issue. (For initial position, the scale ranged from (1) "strongly agree" to (11) "strongly disagree". For importance the range was from (1) "extremely unimportant" to (7) "extremely important.")

Exposure choices of experimental subjects. The subjects' choice of communication is the major dependent variable of this part of the study. Table 1 presents the percentages of subjects in the various experimental groups who chose to read the supportive message, and Table 2 presents the Multiple Contingency Analysis of these data. First of all, it should be pointed out that the over-all preference of the subjects was for the con-tuition or supportive message, with 59% choosing this message. A percentage of this magnitude is significantly greater than chance expectation ($\chi^2 = 9.18$, $p < .005$). Also, although the difference was not quite significant, a greater percentage of females than of males (61% vs. 45%; $\chi^2 = 3.17$, 1 df, $p < .10$) chose the supportive communication. In addition, females (61% vs. 39%) were more likely to choose the supportive communication; whereas males (45% vs. 55%) showed no significant preference.

As Table 2 indicates, while there were no main effects of Personality, Number of Sessions or Sex, the total chi square of 33.87 was highly significant ($p < .001$), indicating significant interactions involving the three experimental factors.

It will be recalled that Prediction 1 stated that Repressors would be more likely than Neutrals or Sensitizers to choose the supportive communication. The data do not support this prediction. However, there is a significant Sex x Personality interaction (A x B x D, Table 2). Among males, Repressors were more likely than Neutrals or Sensitizers to choose the supportive message; whereas among females, the differences were in the reverse direction.

Prediction 2--that more subjects would choose the supportive communication in the two-session condition than in the one-session

condition--also did not receive support from the data. However, there is a Sex x Sessions interaction (A x C x D, Table 2). Among males, a smaller percentage chose the supportive message in the two-session group; whereas among females, the difference is slightly in the opposite direction.

The final prediction with regard to selective exposure was that there would be an interaction between ego defensive style (personality) and number of sessions, such that in the one-session condition there would be no significant differences among the groups, while in the two-session condition, Repressors would be more likely than Neutrals and Sensitizers to choose the supportive communication. The prediction as stated is not supported by the data. The interaction (A x B x C, Table 2) is not significant and the pattern does not accord with expectations.

Table 1

Percentage of Subjects Choosing Con Tuition (Supportive) Communication

Males	Females
45%	61%
(44)*	(262)

Repressors	Neutrals	Sensitizers
56%	61%	59%
(102)	(108)	(96)

One-Session Groups	Two-Session Groups
58%	60%
(158)	(148)

Sex x Sessions

	Males	Females
1 Session	48% (25)	59% (133)
2 Sessions	42% (19)	62% (129)

Personality x Sessions

	Repressors	Neutrals	Sensitizers
1 Session	60% (58)	58% (53)	53% (47)
2 Sessions	50% (44)	64% (55)	65% (49)

Personality x Sex

	Repressors	Neutrals	Sensitizers
Males	61% (18)	38% (16)	30% (10)
Females	55% (84)	65% (92)	63% (86)

Personality x Sex x Sessions

	Repressors		Neutrals		Sensitizers	
	Male	Female	Male	Female	Male	Female
1 Sess.	62% (13)	60% (45)	43% (7)	61% (46)	20% (5)	57% (42)
2 Sess.	60% (5)	49% (39)	33% (9)	70% (46)	40% (5)	68% (44)

*Total N

Table 2

Multiple Contingency Analysis of Exposure Choices of Experimental Subjects

(Mixed case, parameters estimated from data)*

SOURCE OF VARIATION		DF		p less than
Choice between supportive and non-supportive message	9.18	(a-1)	=1	.005
(1) A X B	1.12	(a-1) (b-1)	=2	n.s
(2) A X C	0.11	(a-1) (c-1)	=1	n.s
(3) A X D	3.17	(a-1) (d-1)	=1	.10
(4) A X B X C	3.46	(a-1) (b-1) (c-1)	=2	.20
(5) A X B X D	9.15	(a-1) (b-1) (d-1)	=2	.02
(6) A X C X D	4.25	(a-1) (c-1) (d-1)	=1	.05
(7) A X B X C X D	12.61	(a-1) (b-1) (c-1) (d-1)	=2	.01
(8) TOTAL	33.87	(bcd-1)(a-1)	=11	.001

A = Choice of communication (supportive vs. non-supportive) — 2 levels (Random)
B = Personality or ego-defensive style (R vs. N vs. S) — 3 levels
C = Sessions (one vs. two) — 2 levels
D = Sex (Male vs. female) — 2 levels

*Lose all main effects and interactions involving only B, C & D and their df.

Formula: $\chi^2_T = \chi^2_{AB} + \chi^2_{AC} + \chi^2_{AD} + \chi^2_{ABC} + \chi^2_{ACD} + \chi^2_{ABD} + \chi^2_{ABCD}$

df = (bcd-1) (a - 1)

Effect of initial position on exposure choice. Table X, Appendix B, presents the exposure choices of subjects separated by their initial positions (SR) on the tuition issue. The data reveal a significant effect of initial position: the more extremely opposed the subjects were to tuition charges, the more likely they were to choose the con-tuition message (χ^2= 11.87, 2 df, $p < .01$). Of those who rated themselves "11" (N=249), 63% chose the con-tuition message (χ^2= 17.49, 1 df, $p < .001$). Of those who rated themselves "10" (N= 25), 40% chose the con-tuition message, while of those whose initial position was "9" (N= 32), 37% chose the con-tuition message. These last two percentages were not significantly different from chance, however. Table X also includes the initial positions and exposure choices of the 45 subjects in the original pool who had been assigned to the experimental-choice condition, but who had been excluded from the analyses because they had self ratings below "9". Those whose initial positions were "8", "7", or "6" showed no differential preference for the pro or con message (52% vs. 48%), whereas those who placed themselves on the pro side of the scale (1-5) showed a strong preference for the supportive, pro-tuition message (81% vs. 19%).

Effect of importance ratings on exposure choice. Table XI, Appendix B, presents importance ratings and exposure choices of the experimental subjects. Among the 267 subjects who considered the issue to be above average in importance to themselves, there was a highly significant preference for the con-tuition message: 61% chose the con-tuition communication (χ^2=12.50, 1 df, $p < .001$); whereas, among the remaining 39 subjects, there was no significant preference for either communication. This is not an unexpected finding in view

of the highly significant relationship between self rating of initial attitude and importance revealed in Table XII, Appendix B: the more strongly the subject disagreed with the statement proposing a tuition charge, the more important he considered the issue to be to him personally ($\chi^2 = 11.82$, 2 df, $p < .01$). For example, of the 249 subjects whose initial self rating was 11, over 90% also rated the issue above average in importance.

Threat scores and exposure choice. Each subject was asked to indicate on a 7-point scale the degree of threat that a tuition charge posed to him personally. Table XIII, Appendix B, presents the relationship between threat scores and exposure choices. Those who felt threatened to some degree were significantly more likely to choose the con-tuition message than were the others (66% vs. 45%; $\chi^2 = 11.81$, 2 df, $p < .01$). Like the importance ratings, threat scores were also significantly related to initial position on tuition. As Table XIV, Appendix B, shows, higher initial self ratings were accompanied by higher threat scores. ($\chi^2 = 16.92$, 2 df, $p < .01$)

Familiarity and exposure choice. Subjects were asked to indicate on a 7-point scale their degree of familiarity with the tuition issue. Table XV, Appendix B, presents the relationship between familiarity scores and exposure choices. The data indicate that the more familiar the subjects were with the issue, the more likely they were to choose the con-tuition message. The percentages choosing this message were as follows: 31% of those who rated themselves between 1-3; 54% of those who rated themselves 4 (neither-nor); and 65% of those who rated themselves 5-7 (extremely familiar) chose the con-tuition message ($\chi^2 = 14.41$, 2 df, $p < .01$).

Familiarity self-ratings, like importance and threat ratings, were significantly related to initial position (Table XVI, Appendix B): the more opposed the subjects were, the more familiar they reported themselves to be with arguments on the tuition issue. (χ^2 6.32, 2 df, $p < .05$)

Reasons for choice of communication. The final item on the post-questionnaire was designed to tap the subject's reason for choosing one communication in preference to the other. Each was asked to check one of the following five alternative reasons: (1) No special reason; just by chance; (2) Because it agreed with my stand on the CUNY tuition issue; (3) Because it disagreed with my views on the tuition issue; (4) Don't know; (5) Other reason--please state. Responses to the last alternative fell into two categories: curiosity or wanted to hear the other side, both of which appear to be saying the same thing. Table XVII, Appendix B, presents the number of subjects offering each of these reasons.

The overwhelming majority (86%) of the 180 subjects who chose the con-tuition message indicated that they did so because it agreed with their own views on tuition. Only 2% of the subjects said they did so because it disagreed with their own position, while the remaining 12% checked one of the other alternatives. As Table XVIII, Appendix B, indicates, there were no significant differences between personality types among the 154 subjects who read the con-tuition message because it agreed with their own point of view. Of this group, 31% were Repressors, 36% were Neutrals and 33% were Sensitizers. Likewise, there were no differences between one-session and two-session subjects who chose the con-tuition message because it agreed with their own

stands; 51% of the former and 49% of the latter fell into this category. Nor were there sex differences: 86% of the females and 80% of the males gave as their reason for choosing the con-tuition message that it agreed with their own stands.

Of the 126 who chose the pro-tuition message, 65% said it was because the communication disagreed with their own positions, 6% because it agreed with their own stands, 22% listed "curiosity", and 7% gave a variety of other reasons. (Only 5% of the subjects who chose the con-tuition message gave "curiosity" as their reason.)

Among the 83 subjects who read the pro-tuition message because it disagreed with their positions, again there were no significant differences among personality types. In this group, 39% were Repressors, 29% Neutrals and 32% Sensitizers. (See Appendix B, Table XIX.) However, among these 83 subjects, there was a significant effect of sessions. Of those who indicated that they had chosen to read the opposing communication because it disagreed with their own stands, 61% were in the one-session condition, while 39% were in the two-session condition ($\chi^2 = 4.34$, 1 df, $p < .05$). This finding appears to support the view put forth earlier that selective exposure processes may be inhibited in experiments which take place all in one session because of some subjects' desire to show open-mindedness.

It is of interest to note the reasons given by subjects initially most opposed to a tuition charge (Self Rating = 11) who chose to read the pro-tuition communication which was opposed to their own point of view. There were 91 of these subjects, of whom 78% said they chose the article because it disagreed with their own stand, 14% gave "other reasons", mainly "curiosity" or "desire to hear the other side",

while the remaining 8% attributed their choices to chance or "don't know". There was no predominant personality type among these subjects, the percentages being 37% for Repressors, 29% for Neutrals and 34% for Sensitizers.

Exposure choices of control subjects. It will be recalled that 38 Control subjects were given a choice of two communications dealing with routine medical check-ups. The over-all preference of the subjects was for the non-supportive communication, entitled "Some Disadvantages of Routine Medical Check-ups"; 58% of the subjects chose this message, while 42% read the message outlining the advantages of annual check-ups. Since, however, the number of subjects involved was so small, this difference was not statistically significant. As Table XX, Appendix B, indicates, there were no significant effects of personality type, number of sessions or sex on exposure choices among control subjects, nor were there any significant effects of initial position on exposure choice. All chi squares were non-significant. Moreover, because many expected frequencies were too low due to the small N involved, a Multiple Contingency Analysis could not be performed; but inspection of the data showed no observable interactions between personality, sex and number of sessions. (Mean familiarity rating of the M.D. issue among the control subjects was 3.76.)

When asked to indicate reasons for their choice of communication, 50% of those who chose the supportive message said it was because it agreed with their views, while the remainder either did not know or gave no answer. Of those who chose the non-supportive message, 27% said it was because it disagreed with their stand, 32% listed "curiosity", 27% gave a variety of other reasons, while the remaining

14% either did not know or gave no response.

Attitude Change

Number of subjects. The set of experimental conditions comprised a 3 x 2 x 2 x 2 factorial design for which it was planned to have equal numbers of subjects in each cell. Since the design entailed testing half the subjects in two separate classroom sessions, a number of subjects were present at only one of these sessions and therefore had to be excluded from the analysis. Also, since the primary interest of this part of the study was in the effect of a persuasive message, the data of subjects who, in the first half, chose to read the supportive (con-tuition) message had to be excluded as well. Further attrition in the number of subjects came about from inability of some subjects to complete the questionnaire in the allotted time. As a result of all of these factors, unequal numbers of subjects were left in each cell. Due to the nature of the sample, an "unweighted means" solution was used in all analyses (Winer, 1962). To test the hypothesis that subjects who choose to read a non-supportive message are more likely to show attitude change than subjects who are required to read it, 73 subjects received booklets which gave them no choice of communication, but requested that they read only the persuasive message, which was pro-tuition.

As indicated previously, there were 38 subjects who were given a choice between two communications dealing with annual medical check-ups, one in favor, the other opposed. In addition, there were 34 subjects who were assigned to read the communication which opposed annual medical check-ups. Thus, there was a total of 72 control subjects in all who did not read the persuasive message on the

tuition issue.

The total number of subjects for the attitude change portion of the study was 268. The number of subjects in each group may be seen by inspection of Table XXI, Appendix B.

Attitude measure. The purposes of the control group in this part of the study were twofold: (1) to provide a baseline for attitude scores on the post-communication attitude measure and (2) to demonstrate the intercorrelation between the initial Self Rating measure of attitude (SR) toward the tuition issue and the components of the four Semantic Differential scales which comprised the post-communication measure. Pilot studies, described earlier, had shown ratings on these four semantic differential scales to be highly intercorrelated and these findings are substantiated by the control group ratings on these scales (Appendix B, Table XXII). The intercorrelations between the SR measure and the SD components (also shown in Table XXII) were significant, ranging from .52 to .58 (all p values less than .01). Hence responses to the four scales were summed for each subject as the basic measure of post-communication attitude.

The total semantic differential score (SD) assesses the subject's degree of agreement with the communicator's position that there should be a tuition charge for all CUNY undergraduates. The possible range of scores is from 4 - 28, with a lower score indicating greater agreement with the communicator.

Equivalence of groups. Because of the significant correlation between the initial Self Rating measure of attitude and the final total SD rating of attitude, it was essential that the groups be comparable at the outset on the critical variable of initial position.

The mean initial self rating scores of all subjects in this portion of the study are presented in Table 3. As the analysis of variance shows (Table 4), there was a significant main effect of choice, such that the choice subjects had lower initial positions (i.e., less unfavorable to the communicator's position) than the no-choice subjects ($F = 9.3$, 1/244 df, $p < .001$). When the means of experimental and control subjects are examined separately, however, the difference is found only between the experimental choice and no-choice groups. This finding is not surprising in view of the fact that the choice group is the group which chose to read the non-supportive communication in the first half of this study and this group was found to contain a significantly smaller percentage of subjects rating themselves "11" than the group which chose the supportive message. (See Appendix B, Table X.) In the no-choice group, on the other hand, which did not participate at all in the selective exposure portion of this experiment, the distribution of 9's, 10's and 11's was comparable to that exhibited by the over-all sample at the outset of the experiment.[4]

In the light of this significant difference between the choice and no-choice groups on initial position toward tuition, and because initial position is a significant variable in attitude change studies, analysis of covariance was used to control for this inequality of the groups.

(The author is aware that use of ANCOVA in this context has been called into question by Lord (1967, 1969), as well as by Evans and Anastasio (1968) and Werts and Linn (1969) among others; although Cochran (1967), McNemar (1962), Winer (1962) and Sprott (1970) support

[4]The percentages were as follows: choice group--16% of 9's, 11% of 10's and 76% of 11's; no-choice group--3% of 9's, 4% of 10's and 95% of 11's. Controls: 7% of 9's, 11% of 10's and 82% of 11's.

Table 3

Mean Self Rating Scores on Tuition Issue for all Subjects

In Attitude Change Study

	Experimental (N=196)				Control (N=72)			
	Choice		No Choice		Choice		No Choice	
	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.
R's	10.521	10.636	10.846	10.833	10.000	10.800	10.833	10.833
N's	10.550	10.650	10.667	11.000	10.875	10.857	11.000	10.600
S's	10.476	10.647	10.928	11.000	10.857	10.400	11.000	10.800

Table 4

Analysis of Variance for Initial Position on Tuition

Source	df	MS	F
Personality (A)	2	0.25160	< 1.0
Number of Sessions (B)	1	0.08725	< 1.0
Exptl. vs. Control (C)	1	0.00344	< 1.0
Choice (D)	1	3.25922	9.3*
AB	2	0.46736	1.196
AC	2	0.18195	< 1.0
BC	1	0.38284	< 1.0
ABC	2	0.85640	2.193
AD	2	0.36966	< 1.0
BD	1	0.29163	< 1.0
ABD	2	0.32452	< 1.0
CD	1	0.09202	< 1.0
ACD	2	0.23742	< 1.0
BCD	1	0.29987	< 1.0
ABCD	2	0.34690	< 1.0
Within Cells (error)	244	0.39068	

*$p < .001$; two-tailed

this usage. However, Lord admits (1967, p.305) that there is no other "logical or statistical procedure that can be counted on to make proper allowances for uncontrolled preexisting differences between groups." Therefore, taking into account the controversial nature of the ANCOVA technique, both ANOVA and ANCOVA were used for the data of experimental subjects, and both tables are presented in this paper.

Importance ratings. As the mean scores and ANOVA table show (see Appendix B, Tables XXIII and XXIV), there were no significant main effects when importance of the tuition issue was the dependent variable. There was a significant two-way interaction between choice and experimental vs. control conditions: choice subjects in the experimental condition rated the tuition issue less important than did the no-choice subjects; while in the control condition, choice subjects rated it higher in importance than did the no-choice subjects ($F = 4.6$, 1/244 df, $p < .05$). Analysis of the simple effects of the choice factor proved nonsignificant for the experimental subjects, but for the control subjects, $F = 4.9$, 1/244 df, $p < .05$.

The mean importance score for the experimental-choice group was 5.97; for the experimental-no-choice group, 6.21, for the control-choice group, 6.41, and for the control-no-choice group, 5.73.

Effect of communication on attitude scores. The mean post-

communication attitude scores of all subjects are presented in Table 5. Analysis of variance (Table 6) yielded a communication main effect ($p < .001$) and a main effect of sessions ($p < .05$). The main effect of message is such that the experimental groups had lower attitude scores--that is, were more favorable to the communicator's position--than the control groups. When the data of the experimental subjects are analyzed separately (Table XXV, Appendix B), the effect of sessions reaches a higher significance level ($p < .008$), but there are no other significant main effects or interactions. However, analysis of covariance (Table 7) yielded a significant effect of choice ($F = 4.97$, 1/183 df, $p < .026$) among the experimental subjects in the direction opposite to that predicted. The choice groups had significantly higher attitude scores than the no-choice groups, as Table 5 indicates. Moreover, when the initial position effects are removed by the ANCOVA, the effect of sessions reaches a higher significance level ($F = 13.15$, 1/182 df, $p < .001$).

Among the control subjects, there were no significant main effects when either ANOVA (Table XXVI, Appendix B) or ANCOVA (Table 8) were applied. However, there was a significant Personality x Sessions x Choice interaction ($p < .027$; see Table 8).

Table 5

Post-Test Attitude Means

	Experimental (N = 196)				Control (N = 72)			
	Choice		No Choice		Choice		No Choice	
	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.
R	22.087	20.636	20.692	19.667	25.000	27.200	27.500	21.333
N	21.900	17.250	21.167	18.583	25.250	24.000	24.200	27.600
S	22.238	20.588	21.643	19.875	26.429	23.800	26.429	23.800

Table 6

Analysis of Variance for Attitude Change

Source	df	MS	F
Personality (A)	2	7.14763	< 1.0
Sessions (B)	1	141.05264	4.71*
Exptl. vs. Control (C)	1	1092.24560	36.47**
Choice (D)	1	5.22891	< 1.0
AB	2	3.40965	< 1.0
AC	2	9.92968	< 1.0
AD	2	20.44653	< 1.0
ABC	2	42.22253	1.409
ABD	2	55.78577	1.86
ACD	2	2.50031	< 1.0
BC	1	12.66602	< 1.0
BD	1	0.52346	< 1.0
CD	1	1.75943	< 1.0
BCD	1	12.82050	< 1.0
ABCD	2	37.13079	1.239
Within cells (error)	244	29.95369	

* $p < .05$, two-tailed
** $p < .001$, two-tailed

Table 7

Analysis of Covariance for Attitude Change with Initial Position as the Covariate

(Experimental Subjects Only)

Source	df	MS	F
Personality (A)	2	43.845	1.535
Sessions (B)	1	375.729	13.154**
Choice (C)	1	142.034	4.972*
AB	2	36.842	1.289
AC	2	13.515	< 1.0
BC	1	5.993	< 1.0
ABC	2	0.767	< 1.0
Regression	1	1181.327	41.357**
Within Cells (error)	183	28.563	

*$p < .03$, two-tailed
**$p < .001$, two-tailed

Table 8

Analysis of Covariance for Attitude Change with Initial Position as the Covariate

(Control Subjects Only)

Source	df	MS	F
Personality (A)	2	0.609	< 1.0
Sessions (B)	1	30.406	2.059
Choice (C)	1	1.872	< 1.0
AB	2	22.891	1.550
AC	2	15.741	1.066
BC	1	2.419	< 1.0
ABC	2	56.706	3.841*
Regression	1	29.259	1.982
Within Cells (error)	59	14.761	

*$p < .03$, two-tailed

Although neither ANOVA nor ANCOVA indicated significant interactions among the experimental subjects, the pre-experimental hypothesis that Repressors and Sensitizers would be less likely to show attitude change than Neutrals led to an examination of the relevant means in Table 5. As predicted, there is a tendency for Neutrals to have lower mean scores than Repressors and Sensitizers, and this tendency is most pronounced in the two-session choice condition. Orthogonal comparisons of the latter means indicated no significant difference between Repressors and Sensitizers, but a significant difference between the combined Repressor and Sensitizer groups and the Neutrals ($F = 5.28$, 1/183 df, $p < .025$).

Sex differences. There were only 46 male subjects in this portion of the study; 24 in the choice condition, 9 in the no-choice condition, and 13 in the control groups. Examination of the means and ANOVA for the experimental groups only shows no significant difference in attitude scores between males and females (Appendix B, Table XXVII and XXVIII).

Strength of communication. Subjects in the experimental condition were asked to rate how strong a case the communicator had made for his point of view on a 7-point scale ranging from 1 ("extremely strong") through 4 ("neither-nor") to 7 ("extremely weak"). No significant main or interactive effects were found. (See Appendix B, Tables XXIX and XXX.) The over-all mean rating (3.35) was on the "strong" side of the scale.

A not unexpected finding was the significant positive correlation between the post-communication attitude score and ratings of strength of the communication: the stronger the subjects perceived the message

to be, the closer was their final attitude score to the communicator's point of view ($r = .327$, 194 df, $p < .01$).

Learning quiz. It will be recalled that all subjects were told that the purpose of the study was to test their learning of various types of prose material. Hence, immediately after reading the persuasive communication, they were given a 6-item quiz dealing with the content of the message. Control subjects were given the same questions after reading the irrelevant communication. Mean scores are presented in Appendix B, Table XXXI. Analysis of variance (Table XXXII, Appendix B) yielded the expected main effect of communication such that the experimental subjects were able to answer correctly significantly more of the questions than the control subjects (4.93 vs. 0.97, $p < .001$).

There was no relationship between learning scores and either initial or final attitudes, nor were they related to threat or importance scores. However, factual knowledge was positively correlated (but of low magnitude) with self-rated familiarity with the arguments on tuition ($r = .179$, 194 df, $p < .05$).

Threat scores. It will be recalled that each subject was asked at the end of the experiment to indicate on a 7-point scale the degree of threat that a tuition charge posed to him personally; the higher the score, the greater the threat. While there are no significant differences between the various experimental groups in the degree of threat reported (Appendix B, Tables XXXV and XXXVI), control subjects (who did not read a tuition message) felt significantly more threatened than did experimental subjects: 4.97 vs. 4.50 ($F = 5.3$, 1/244 df, $p < .025$).

Effect of control communication on attitudes toward regular medical check-ups. It will be recalled that of the 72 control subjects, 38 were given a choice of reading one of two messages written by a doctor who either favored or opposed annual medical examinations. Of these subjects, 22 selected the non-supportive communication (opposing annual check-ups), and 16 selected the supportive message (favoring check-ups). In addition, there were 34 no-choice subjects assigned to read the message opposing check-ups. All groups were equivalent with regard to their initial positions and their ratings of the personal importance of this issue. Based on the summation of the four semantic differential scales described in the Methods section, final attitude scores of subjects who read the non-supportive message were significantly lower (i.e., less favorable to annual medical check-ups) than those of subjects who read the supportive communication ($F = 11.12$, 1/66 df, $p < .005$). Among subjects who read only the persuasive message (whether by choice or assignment), there were no significant main effects of Personality, Sessions or Choice. (See Appendix B, Tables XXXVII, XXXVIII and XXXIX). However, as in the experimental condition, among subjects who read the message, Repressors and Sensitizers changed their attitudes less than did Neutrals; again this was especially evident in the two-session, choice condition. The respective means were: Neutrals: 17.75, Repressors: 19.50, Sensitizers: 21.80. However, since this comparison involved only 11 subjects and since five cells in the over-all analysis had fewer than five subjects in them, the reliability of these findings is uncertain.

Again, as in the experimental condition, the correlations between final attitude toward the medical issue and initial position and importance ratings on the issue were significant ($r = .367$, $p < .005$; $r = .208$, $p < .05$).

DISCUSSION

Selective Exposure

In an attempt to isolate the factor which determines who will avoid and who will seek out discrepant information on an ego-involving issue, the effects of the personality variable known as ego-defensive style were studied. Repressors were expected to protect themselves from psychic pain by avoiding information discrepant from their own position, while Sensitizers were supposed to defend themselves by engaging in behaviors which have an approach quality (Byrne, 1961).

It is obvious that the simple interpretation that Repressors characteristically avoid and Sensitizers approach threatening stimuli does not satisfactorily account for the present results. Although the bulk of the Repressor-Sensitizer literature (summarized by Byrne in his 1964 review article) takes no note of sex differences in the behavior of Repressors and Sensitizers, such differences are apparently operating in this study. Male Repressors seem to be avoiding discrepant information by choosing to read the con-tuition (supportive) message, while male Sensitizers apparently approach it by choosing the pro-tuition (non-supportive) message. Among females, however, while Repressors prefer the con-tuition (supportive) message, Neutrals and Sensitizers do so even more. Obviously, female Sensitizers do not behave in the expected fashion. A similar finding was reported by Merbaum and Badia (1967) in a study comparing the tolerance of Repressors and Sensitizers to four levels of electric shock. In that experiment, female Repressors and Sensitizers both tended to avoid noxious stimulation. Sex differences were also observed by Axtell and Cole (1971) in a study of R-S response modes and verbal avoidance.

They found that males and females responded differently when encouraged to talk about themselves and that these sex differences appear to transcend R-S status. The authors also note that their data presented some difficulty in defining the trait of sensitization. Sensitizers were expected to deal with anxiety through "approach" behavior; however, Sensitizer verbalization was not different from that of Neutrals. In other words, Sensitizers were not distinguishable from Neutrals in their responses. This is a finding of the present study as well, as indicated in Table 1, where, for both males and females, the percentages of subjects choosing the con-tuition message were more similar for Sensitizers and Neutrals than for Repressors and Neutrals. Difficulty with the sensitization concept was also encountered by Markowitz (1969) in a study of the influence of the R-S dimension on incidental learning. Here, again, while Repressors behaved in the expected manner, under high ego threat showing a general decrement in learning of negative affect words, Sensitizers did not show the expected increment in incidental learning of these words. Further evidence that the Sensitizer may not exist as a distinct behavioral type is found in the data of Glass, Canavan and Schiavo (1968). Using female subjects only, they induced dissonance by informing subjects that they had failed a test. Repressors were expected to reduce dissonance by devaluating the test and the testing situation, while Sensitizers were expected to rationalize failure by persuading themselves that they really did not care about success. However, it was found that whereas Repressors reduced dissonance by decreasing the cognized intensity of their achievement motivation and by devaluating the test and testing situation, Sensitizers showed

little evidence of either mode of dissonance reduction.

Thus, the data of the present study appear to lend weight to the suggestion that some modification of the concept of sensitization may be in order. Also, since sex differences appear to transcend R-S standing in the Merbaum and Badia and Axtell and Cole research, as well as in the current study, it is clear that future research must take this variable into account as well.

Sex differences also surfaced with regard to the prediction that more subjects would choose the supportive message in the two-session condition than in the one-session condition. Here it was the females who followed the prediction, while male behavior ran counter to expectations. As will be recalled, the prediction was made, based on the hypothesis that demand characteristics might cause a subject to choose a non-supportive message in an experiment taking place all in one session, during which he is asked first for his opinion on a topic and then, immediately thereafter, he is given a choice between supportive and non-supportive information on this topic. Only meager support for the hypothesis is obtained by comparing the choices of subjects in the one-session condition with those of subjects in the two-session condition. However, when the reasons of all subjects who chose the non-supportive communication are analyzed, it is found that of those who chose it because it disagreed with their own positions, 61% had been assigned to the one-session condition, while only 39% were in the two-session condition. This significant result lends some support to the view that the demand characteristics of the experimental situation may have resulted in inhibition of selective exposure processes in the traditional one-session experiment.

The most striking finding of this portion of the study was the clear preference among all subjects for the supportive communication, regardless of personality type, number of sessions or sex. The factors which are related to this preference appear to be (1) extremity of initial position on the issue, (2) importance of the issue, and (3) the degree of threat it poses to the individual. Although only those who rated themselves between 9 and 11 on the pre-test of attitudes towards tuition were included in the study, there were significant differences in exposure choices between those who rated themselves 9, 10 and 11: namely, the more extremely opposed the self-rating, the greater the percentage of subjects who chose the con-tuition message. Furthermore, subjects who were excluded from the study because of self-ratings below 9, showed no preference for either the pro or con message if their positions were between 6 and 8, or showed a strong preference for the pro message, if their rating was below 6. Importance self-ratings were another significant factor related to exposure choices. Subjects who considered the issue to be above average in importance to themselves showed a highly significant preference for the con-tuition message; whereas subjects who considered it relatively less important showed no significant preference for either communication. This finding is not surprising in view of the highly significant relationship between initial position and importance self-ratings.

Also to be expected, in light of the significant relationship between threat self-ratings and initial position ratings, was the fact that subjects who indicated that they felt more than an average amount of threat with regard to the tuition issue were significantly

more likely to choose the con-tuition message than were subjects who did not feel seriously threatened.

There was an unexpected finding, however: subjects sho rated themselves highly familiar with arguments in the tuition controversy were more likely to choose the supportive message than those who rated themselves as less familiar. This would appear to contradict the results of many studies showing that subjects prefer unfamiliar information on an issue when they feel they may learn more about it, regardless of whether or not the information supports their initial beliefs (Festinger, 1964; Freedman, 1965a; Freedman and Sears, 1965b; Sears, 1965; Sears and Freedman, 1965; Albert, 1966; Brock, Albert and Becker, 1970; Feather, 1969). However, it must be noted that the familiarity measure in the current study was taken after the communication was read, whereas it is customarily taken as a pre-measure; and although pilot studies had shown that familiarity ratings taken before and after exposure to the tuition message did not differ significantly from each other, it is possible that the difference in the procedure may account for the disparity in the findings. On the other hand, Brock and Balloun (1967) also found no effect of novelty on information receptivity, which led them to suggest that the curiosity motive does not apply to situations wherein individuals encounter and selectively expose themselves to propagandistic messages. The current finding may thus be explained in terms of the selective exposure hypothesis as follows: when an issue is one to which the individual is strongly opposed and which he considers very important and threatening (in other words, ego-involving), he prefers to read supportive material even if he does not expect it to contain any new information.

There is also a third possible explanation for this finding. Although it is a common assumption that persons are more familiar with material which supports their beliefs than they are with non-supportive material, perhaps in this instance both sides of the issue were equally familiar to the subjects because tuition was a very "hot" issue at the time of the data collection, and all aspects of the controversy had been thoroughly aired in both metropolitan and college newspapers. Thus, if subjects were familiar with both sides, then familiarity would not have been a consideration at all in their decision to expose themselves to a supportive or non-supportive communication. Familiarity may simply have been a concomitant of initial position ratings, since the two were significantly related. This meant that the more opposed a subject was, the more familiar he believed himself to be with the arguments and the more likely he was to choose the supportive message. Regrettably, the familiarity measure did not specifically ask subjects whether they were familiar with both pro and con arguments, so there is no way of knowing whether, when asked how familiar they were with the arguments in the tuition controversy, they were indicating familiarity with only one or both sides of the issue.

However, their preference for supportive material is backed up by the replies of subjects who were asked their reasons for choosing the con-tuition (supportive) message. 86% said it was because it agreed with their own views on tuition. No matter what their personality type, sex or the number of sessions in which they participated, they unequivocally stated that they selected the con-tuition message because it agreed with their own stands.

Further confirmation of support-seeking behavior and its rela-

tionship to importance of the material in question is supplied by the data of the control subjects who were given a choice of communications dealing with routine medical check-ups, an issue which received a significantly lower importance rating than the tuition issue. Among these subjects, the preference was for the non-supportive communication, regardless of personality type, sex or number of sessions. However, in only 50% of the cases did the control subjects give as their reason for choosing the supportive message that it agreed with their views (compared with 86% of the experimental subjects). Among those who chose the non-supportive message, the majority gave other reasons, such as curiosity. From this it can be seen that when the issue is not ego-involving, subjects do not consistently seek out supportive material, as they do when it is ego-involving.

The key to exposure preferences then would seem to be the degree of importance which the subject attaches to the issue in question. Where it is of little personal importance, he may make his choice on the basis of chance or whim (while the majority of the control subjects chose the non-supportive message, this did not reach a conventional level of significance; therefore, the results could have occurred by chance). However, when the issue is ego-involving, the data indicate that a male Repressor is likely to choose material which supports his beliefs, a Sensitizer, material which opposes them. Females, on the other hand, will seek supportive information no matter what their R-S status.

Attitude Change

The opinion change data showed that Repressors and Sensitizers had higher mean scores on the final tuition attitude measure (i.e., more

opposed to the communicator's position) than Neutrals. This was found to be true as well for the control subjects, among whom there was a tendency for Repressors and Sensitizers to show less attitude change on the medical issue than did the Neutrals. These findings accord with the expectation, based on McGuire's theory, that at extreme levels of a personality variable there will be less influenceability than there will be at intermediate levels of the variable when source, message, channel, receiver and destination factors are held constant. As noted in the introduction section, this prediction has been well replicated with regard to other personality variables, and since it is adaptive for man to be in a dynamic equilibrium where some of his personal proclivities make for openness while others make him closed to social influence, it is not surprising that the data of this study add weight to this theory. For if Sensitizers, who are expected to expose themselves with great frequency to opposing points of view, were to be unresistant to outside influences, and Repressors, who protect themselves by avoiding threatening information, were to yield to outside influence whenever they are involuntarily exposed to it, neither type would thrive in our environment.

The prediction that opinion change would be more pronounced in the two-session condition than in the one-session condition was also confirmed by these data, thus supporting the finding of Lana (1966) that a pre-test has a dempening effect on opinion change; of Lana and Rosnow (1968) that an interval between pre-test and treatment leads to greater opinion change than when an exposed pre-test is given, and of Rosnow and Suls (1970) that a pre-test given in the same session as the communication and post-test had a dampening effect on non-

volunteer subjects.

It is with respect to the question of choice vs. no choice that the data run in distinct contradiction to the hypothesis. It will be recalled that, based on dissonance theory (which states that choosing to listen to a persuasive communication constitutes a sufficiently strong commitment to provide dissonance effects, which can be resolved by attitude change), it was believed that subjects who chose to read the non-supportive message would be more likely to change their attitudes toward tuition than subjects who were <u>assigned</u> to read a non-supportive communication. The data indicate, however, that choice groups had significantly higher attitude scores than the no-choice groups.[5] In other words, subjects, with no compulsion to do so, chose to read a non-supportive message in preference to a supportive one and then, instead of changing their attitudes in the direction of the communicator's position (as the theory predicts), showed less attitude change than those assigned to read the same message.

There are several possible explanations for this finding. Within the framework of dissonance theory, one could state that, in this instance, choosing to read a counterattitudinal communication did <u>not</u> arouse dissonance. On the contrary, following Festinger's (1964) reasoning, it appears that the subject's selection of the non-supportive message was his way of <u>reducing</u> dissonance which had already been introduced into the situation. According to Festinger, dissonance is aroused whenever a subject is presented with a choice

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[5]A cautionary note: This was the finding yielded by ANCOVA. As was noted earlier, the use of this technique for analysis of data of self-selected samples is controversial.

of exposing himself to supportive or non-supportive information. When the individual is given such a choice, he is, in effect, being told that some authorities disagree with his position. Knowing that such opposing information exists should in itself arouse dissonance. Festinger states:

> "That is, the person has the knowledge that there are facts, or arguments, which do not support the decision he made, but he does not know what these facts or arguments are. How can the person cope with and reduce this dissonance?...It is plausible to imagine that if the person has some confidence in his ability to deal effectively with the concrete aspects of the new information, he will overcome his reluctance to read it and will expose himself to these details with a critical attitude in order to reduce the dissonance by counter-arguing...Avoidance of potentially dissonance-increasing information would be useful in the service of dissonance reduction only if the person feels unable to cope with the new information in its details." (p.82)

Applied to the current study, this would suggest that when a subject at the outset was given an opportunity to choose between a pro-tuition and a con-tuition message, just knowing that an article favoring tuition existed aroused dissonance. He could have reduced this dissonance either by choosing the con-tuition message, in the hope of bolstering his own stand, or, if he was confident of his own opinions, by exposing himself to the pro-tuition article in the expectation of refuting it. Therefore, by this reasoning, one could draw the conclusion that the subject in the present study who chose to read the non-supportive message was unlikely to yield to the arguments of the communicator because (a) he was not in a state of dissonance since he had already reduced dissonance by making his choice; (b) he read the message with full awareness of what to expect and with confidence in his ability to refute the opposing arguments.

Continuing along this line of speculation, the no-choice subject,

not having been given a choice of reading a pro- or con-tuition message, did experience dissonance when, without warning, he was faced with a strong communication opposing his stand, which he was unprepared to refute in the limited time allotted for reading it. Since the source of the message was presented as a person of high prestige and credibility, virtually the only was in which he could have reduced this dissonance was to change his opinion in the direction of the communication.

Basically, however, the key to understanding the reversal of the choice vs. no-choice prediction may lie in the makeup of the two groups. The choice and no-choice groups differed in one major respect. The latter was an intact, randomly selected group of subjects who did not participate at all in the selective exposure portion of the study. The choice group, on the other hand, was a self-selected subset of this sample of subjects who, we assume, were highly confident of their opinions and ready to deal effectively with the opposing arguments. In what other respects did these two groups differ? With regard to initial position, the no-choice group contained a random distribution of 9's, 10's and 11's, while the choice group contained a significantly smaller proportion of 11's. Confidence in one's opinion was not measured in this study because, as noted in the Methods section, pilot data had shown that the overwhelming majority (95%) of subjects were highly confident of their stands on the tuition issue. While it is assumed that the choice subjects were more confident of their opinions than the no-choice subjects, the pilot data indicate that confidence ratings were positively correlated with initial position. How then can one explain this in view of the larger proportion of

less extreme initial self-ratings in the choice group compared with the no-choice group? Were the 9's and 10's more confident than the 11's? It should be kept in mind, however, that in the actual experiment there was a truncated range for the initial attitude ratings, whereas in the pilot study the full range of initial attitude scores entered into the correlations.

Thus, although we cannot pinpoint the particular characteristics that distinguish the choice subset from the intact no-choice group, it is nevertheless tenable to propose that subjects in the choice condition were more resistant to the persuasive communication because of their sense of confidence in their own opinions, which led them in the first place to choose the non-supportive message.

With respect to self-ratings of threat, control subjects (who did not read a tuition message) felt significantly more threatened than did experimental subjects. Since the threat responses were given after a communication had been read, it is interesting to speculate on why those who read a message favoring a tuition charge would report themselves as feeling less threatened by the idea of a tuition charge than those who read an irrelevant message. One can only surmise that, at the outset of the study, all subjects might have felt equally threatened, but that the persuasive message contained material which allayed some of their fears. For example, the communication suggested that if a tuition fee were levied, it would be only a modest one, and that imposition of even a nominal charge would make the university eligible for additional government scholarships which would be given to needy students. Thus, it is not unlikely that subjects who read this reassuring information felt less threatened than subjects who

read an irrevelant message.

Summary

The results of the study appear to provide confirmation of the selective exposure hypothesis when the issue is ego-involving. A further test of the hypothesis is suggested which would require focusing directly on the variable of ego-involvement: comparing exposure choices of subjects to both ego-involving and non-ego-involving communications in the same study. While previous selective exposure studies have manipulated "magnitude of dissonance," ego-involvement, as defined in this study in the sense of personal importance of the issue, has not received attention in this context.

The data provide only weak support for the effectiveness of the personality variable known as ego-defensive style in predicting exposure choices. Since only the males responded in the predicted fashion, it would be helpful to replicate this study using a larger population of only male subjects to determine whether the behavior of male Repressors and Sensitizers does indeed follow the predictions. Further tests of the sex variable in its relationship to R-S status and of the sensitization dimension have already been suggested.

The attitude change data lend further weight to McGuire's theory of the relationship between personality variables and influenceability. They also call into question the dissonance theory prediction that choosing to expose oneself to counterattitudinal material will arouse dissonance and lead to attitude change. Actually, since this study is the first in which a selective exposure test has been followed by examination of the opinion change behavior of those subjects who chose a non-supportive communication, this finding is perhaps the most

provocative aspect of the entire experiment. Analysis of the data leads away from the customary dissonance interpretation of the consequences of choice behavior and suggests instead two alternative explanations--one of which is derived from dissonance theory, whereas the other is based on the unique character of the self-selected subset that comprised the choice group. It would be interesting and profitable, in the present author's opinion, to replicate this selective exposure-attitude change paradigm with particular attention to measurement of a wide range of variables (such as confidence, familiarity, etc.) to permit a more meaningful comparison of attitude change behavior of those subjects who choose non-supportive material and those who constitute a random intact sample.

APPENDIX A

APPENDIX A

Item 1 - Pilot Study

Opinion questionnaires administered to 179 Hunter College students to determine the attitudinal issue appropriate for this study.

We would like to have your opinions on various topics. Remember, your replies are anonymous, so please answer frankly.

Please indicate your feelings about each topic on the scale provided below each statement. If you agree strongly, place an X in box 1; if you neither agree nor disagree, place an X in box 6. If you disagree strongly, place an X in box 11. If you agree somewhat, but not strongly, place an X in the box between 1 and 6 that best represents your degree of agreement. Finally, if you disagree somewhat but not strongly, place an X in the box between 6 and 11 that best represents your degree of disagreement.

I. All college students should be required to take a course in the History of Science without credit.

1	2	3	4	5	6	7	8	9	10	11
Agree strongly					Neither-nor					Disagree strongly

Now indicate how important the above statement is to <u>you</u> personally. If it is above average in importance to you, place an X in box 5, 6 or 7, depending on how important you consider it to be. If, for you, it is below average in importance, place an X in box 1, 2, or 3, depending on how unimportant you consider it to be. If it is of average importance to you, place an X in box 4. (Mark only ONE box).

1	2	3	4	5	6	7
Extremely below average in importance to me			Average			Extremely above average in importance

II. All colleges should institute a system of unlimited cuts for all students and attendance should not be taken by any instructor.

1	2	3	4	5	6	7	8	9	10	11
Agree strongly					Neither-nor					Disagree strongly

1	2	3	4	5	6	7
Extremely below average in importance to me			Average			Extremely above average in importance to me

III To alleviate overcrowding due to the increased enrollment in the City University, all day session students should be required to register every year for one course which meets at 7 a.m.

/____/____/____/____/____/____/____/____/____/____/____/____/
1 2 3 4 5 6 7 8 9 10 11

Agree strongly — Neither-nor — Disagree strongly

/____/____/____/____/____/____/____/
1 2 3 4 5 6 7

Extremely below average in importance to me — Average — Extremely above average in importance to me

IV Assignment of students to a particular branch of the City University should be made according to their high school academic standing. For example: all students with averages below 75 would be assigned to Hunter; 75-80 to Queens, 80-85 to Lehmann, 85-90 to Brooklyn, 90 and above to City.

/____/____/____/____/____/____/____/____/____/____/____/____/
1 2 3 4 5 6 7 8 9 10 11

Agree strongly — Neither-nor — Disagree strongly

/____/____/____/____/____/____/____/
1 2 3 4 5 6 7

Extremely below average in importance to me — Average — Extremely above average in importance to me

V. All students' draft deferments should be removed by Congress as soon as possible.

/___/___/___/___/___/___/___/___/___/___/___/
1 2 3 4 5 6 7 8 9 10 11
Agree strongly — Neither-nor — Disagree strongly

/___/___/___/___/___/___/___/
1 2 3 4 5 6 7
Extremely below average in importance to me — Average — Extremely above average in importance to me

VI The City University should start charging tuition for undergraduates.

/___/___/___/___/___/___/___/___/___/___/___/
1 2 3 4 5 6 7 8 9 10 11
Agree strongly — Neither-nor — Disagree strongly

/___/___/___/___/___/___/___/
1 2 3 4 5 6 7
Extremely below average in importance to me — Average — Extremely above average in importance to me

Would you have difficulty in meeting a tuition charge if it were instituted; that is, would you need to seekfinancial assistance in order to pay it?

yes___ no___ don't know___

How certain are you that your views on tuition at the City University are correct? Indicate the degree of certainty you feel about your opinions on this issue on the scale below.

/____/____/____/____/____/____/____/

1 2 3 4 5 6 7

Extremely uncertain — Neither-nor — Extremely certain

Do you feel that the institution of a tuition charge would pose a threat to your education? Indicate your feelings by placing an X in the box which best indicates the degree of threat that a tuition charge poses to you personally.

/____/____/____/____/____/____/____/

1 2 3 4 5 6 7

Extremely unthreatening — Neither-nor — Extremely threatening

How familiar are you with the pros and cons in the CUNY tuition controversy? Place an X in the box which best indicates your degree of familiarity with the issue.

/____/____/____/____/____/____/____/

1 2 3 4 5 6 7

Extremely unfamiliar — Neither-nor — Extremely familiar

APPENDIX A

Item 2 - Experimental Booklets

Hunter College
City University of N. Y.

Department of Psychology

BOOKLET NUMBER 1

This study is designed to discover something about the personality, opinions and learning ability of college students. You will not be asked to sign your name, so your responses can be made with complete assurance of anonymity. Please, therefore, try to answer all questions frankly and candidly.

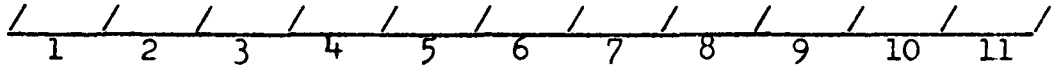
Answers to all questions in this booklet and in Booklet Number Two should be written directly on these pages.

NOW OPEN THE BOOKLET AND GO AHEAD.

First we would like to have your opinions on various topics. Remember, your replies are anonymous, so please answer frankly.

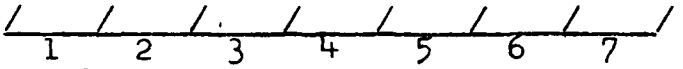
Please indicate your feelings about each topic on the scale provided below each statement. If you agree strongly, place an X in box 1. If you neither agree nor disagree, place an X in box 6. If you disagree strongly, place an X in box 11. If you agree somewhat, but not strongly, place an X in the box between 1 and 6 that best represents your degree of agreement. Finally, if you disagree somewhat, but not strongly, place an X in the box between 6 and 11 that best represents your degree of disagreement.

I All college students should be required to take a course in the History of Science without credit.



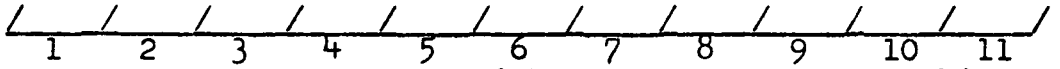
Agree strongly — Neither-nor — Disagree strongly

Now indicate how important the above statement is to you personally. If it is above average in importance for you, place an X in box 5, 6, or 7, depending on how important you consider it to be. If, for you, it is below average in importance, place an X in box 1, 2,or 3, depending on how unimportant you consider it to be. If it is of average importance to you, place an X in box 4. (Mark only ONE box).

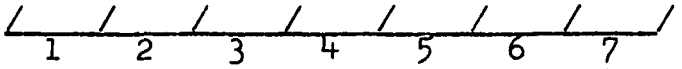


Extremely below average in importance to me — Average — Extremely above average in importance to me

II Everyone should see his doctor at least once a year.

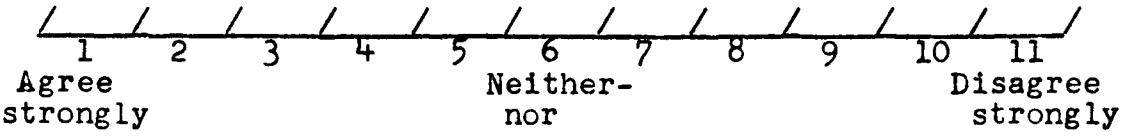


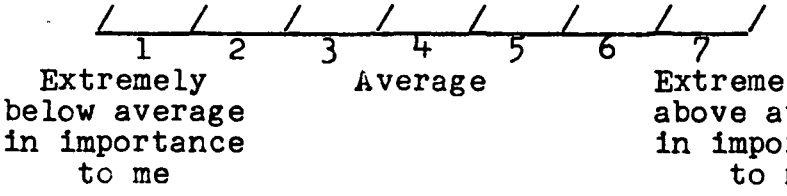
Agree strongly — Neither-nor — Disagree strongly



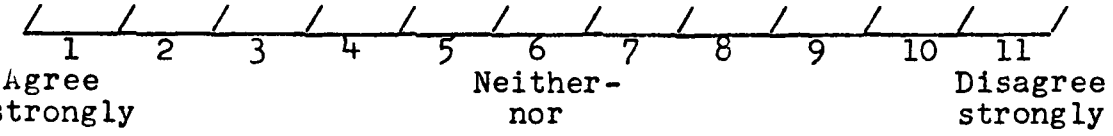
Extremely below average in importance to me — Average — Extremely above average im importance to me

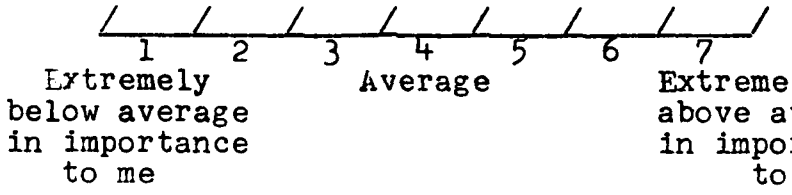
III The City University of New York should start charging tuition for all undergraduate students.



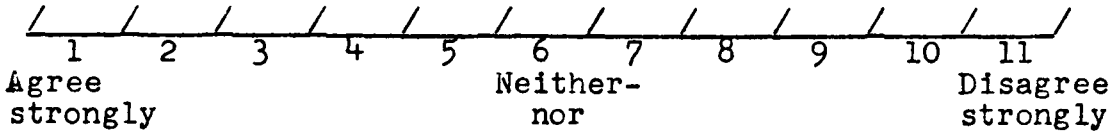


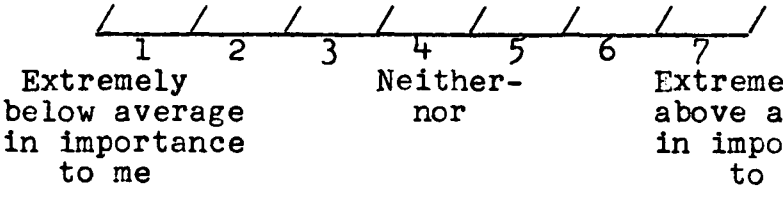
IV To alleviate overcrowding due to the increased enrollment in the City University, all day session students should be required to register every year for one course which meets at 7 a. m.





V Assignment of students to a particular branch of the City University should be made according to their high school academic standing. For example: all students with averages below 75 would be assigned to Hunter; 75-80 to Queens; 80-85 to Lehman, 85-90 to Brooklyn, 90 and above to City.





BOOKLET NUMBER 2

The next part of this study is concerned with the individual's ability to learn different types of prose material.

On the following two pages are two articles on the controversial issue of "Tuition Charges for Undergraduates at the City University." The articles present two opposing views on the issue, expressed by two different members of the Board of Higher Education. The author of the first article (appearing on the next page) is strongly in favor of charging tuition. The author of the second article (appearing on page three) is just as strongly opposed to it. You will have time to read only one of these articles, after which you will be asked questions referring to it. Please, therefore, check, as indicated below, the article you intend to read, and then turn at once to the appropriate page. Remember, you are to read ONLY ONE ARTICLE.

Now indicate which article you are going to read:

I "A tuition charge should be instituted for undergraduates at the City University."
by W. S. Norton, Board of Higher Education

If you intend to read this article, check here ☐
and turn to the next page--page 2.

II "There should be no tuition charge for undergraduates at the City University. "
by Philip C. Stone, member, Board of Higher Education

If you intend to read this article, check here ☐
and turn to page 3.

"A Tuition Charge Should be Instituted
for All Undergraduates at the City University"

by W. S. Norton
Member, Board of Higher Education, New York

If you have decided to read this article, please tear off this cover sheet and begin to read the text beneath it at once. When you have finished reading it, please turn to page 4.

If you have decided to read the opposing article, please turn to the next page at once, without tearing off this sheet.

PLEASE READ THE FOLLOWING ARTICLE CAREFULLY. YOU WILL BE QUESTIONED ABOUT ITS CONTENT.

Each year, when the City's budget is being prepared, the issue of tuition for the City University of New York is raised and hotly debated. In all the shouting, what is often lost sight of are the troubled circumstances besetting the University--circumstances which constitute the realistic grounds for the proposed tuition change.

Currently, the City University has an enrollment of about 200,000 students. This includes a freshman class of 34,500--an 81 percent increase above the total number of freshmen enrolled in the Fall of 1969. With the continuance of its open enrollment policy, it expects a total enrollment increase of 27,601 students at all levels in September, 1971. There is a desperate need for an enormously expanded physical plant, as well as for modernization of present facilities. Everyone is aware of the limited library space, the serious shortages of books and journals, the overcrowded classrooms and cafeterias, the lack of adequate study facilities, offices and laboratory space. But what is not always realized is that these deficiencies have made it increasingly difficult to maintain the prized educational quality of the City University. If substantial improvements do not occur--and soon--the desperately needed, top-flight faculty will not be attracted to nor stay at the University. And, if student-to-faculty ratios increase, the quality of the education offered will be adversely affected.

Clearly, a considerable infusion of money is urgently needed. The City itself is hard put to secure its present budget of $322 million and hardly in a position to pay for needed modernization and expansion. It is imperative, therefore, that some other source of funds be found.

The State University of New York now charges a nominal tuition fee of $500 a year. A similar step by the City University now seems in order. It is obvious that no tuition fee--not even fees of $2,000 charged by many Ivy League schools--can hope to cover more than a fraction of the operating costs. However, a nominal fee, while helping to defray some costs, would also act as seed money for obtaining additional funds from untapped state and federal sources. That is, the value to the University of this tuition money would be multiplied several times over, through the receipt of grants that by law can only go to tuition-charging institutions. Students who find themselves unable to meet this cost would, of course, be able to take advantage of the many forms of financial assistance that are now and could become available. In fact, the state's Scholar Incentive Awards would be a new source, since these funds are offered only to students who attend a fee-paying college.

The value of a degree depends on the quality of education and the prestige of the University. In the past, the significance of a degree from the City colleges rested on the high regard in which they were held as educational institutions. For this to continue the CUNY must provide the best possible education, and the first realistic step in this direction is the charging of a modest tuition of $250 a year. Since the student himself is the main beneficiary, it is certainly not too much to ask that, wherever possible, he make this monetary contribution to the university's growth and the quality of his own education.

"There Should Be No Tuition Charge for Undergraduates at the City University"

by Philip C. Stone
Member, Board of Higher Education, New York

If you have decided to read this article, please tear off this cover sheet and begin to read the text beneath it at once. When you have finished reading it, please turn to the following page--page 4.

PLEASE READ THE FOLLOWING ARTICLE CAREFULLY. YOU WILL BE QUESTIONED ABOUT ITS CONTENT.

Each year when the City's budget is being prepared, the issue of tuition for the City University of New York is raised and hotly debated. Speeches are made in favor, campus rallies are held in protest and articles and letters are printed on both sides of the controversy. Much heat is generated, but little light is cast on the matter. Proponents of a tuition charge point out that current enrollment at the City University is nearly 200,000 students and that by September, 1971, it will increase by 27,601 students. They state that CUNY should follow the example of the State University of New York which charges a nominal tuition of $500 a year--a much smaller sum than the $2,000 that many other colleges charge.

Basically, however, there is one important fact that remains unchallenged: that there should be one place in the city where a college education is free. And that place has for 124 years been the colleges which comprise the City University. Today, it is universally acknowledged that education is a necessity and since the nation benefits when its sons and daughters have a higher education, this education should be available to everyone who is qualified, rich or poor. Countless biographies of men who have made a real contribution to our national life have recorded that they received their schooling at one of our City colleges. If education were to be available only to the rich, our whole society would be the poorer.

There is much potential talent in our high schools which would be lost to mankind if the students were to feel that a college education is out of their reach for financial reasons. The knowledge that they can get a free college education is a prime incentive to many high school students. Furthermore, in today's highly competitive world, whether it be in business or a profession, a college education is almost essential for an individual to get ahead.

Advocates of tuition often say, however, that a serious student will work if necessary to earn the tuition to stay in college. But working while studying poses hardships on students which, in many cases, interferes with their school work and may cause them to be so discouraged they may drop their studies, or do so poorly they fail altogether.

Those who argue for a tuition fee also say that students can obtain low-cost loans for education; but remember, these loans must paid back and many individuals do not want to saddle themselves with obligations well into their future.

While admittedly, open admissions has added enormously to CUNY's costs--its budget today is $322 million--there are many untapped sources of funds, both government and private, which must be reached. Let the lawmakers--federal, state and municipal--look elsewhere than to the students for money, rather than abandon a long-standing tradition of free education at the City University

The following questions refer to the material you have just read. Please do the best you can. Do NOT turn back to the article. If you are not sure of an answer make your best guess or leave it blank. To answer the first four questions, underline the correct answer. Write answers to all questions directly on this page.

1. Enrollment at all branches of City University of New York is presently about (a) 150,000, (b) 200,000, (c) 225,000, (d) 250,000 students.

2. In September, 1971, the total enrollment at CUNY should increase by approximately (a) 17,000, (b) 22,000, (c) 27,000, (d) 30,000 students.

3. The State University of New York has increased its tuition charge to (a) $500, (b) $700, (c) $1,000, (d) $2,000.

4. The present budget of CUNY is (a) $328 million, (b) $400 million, (c) $450 million, (d) $500 million.

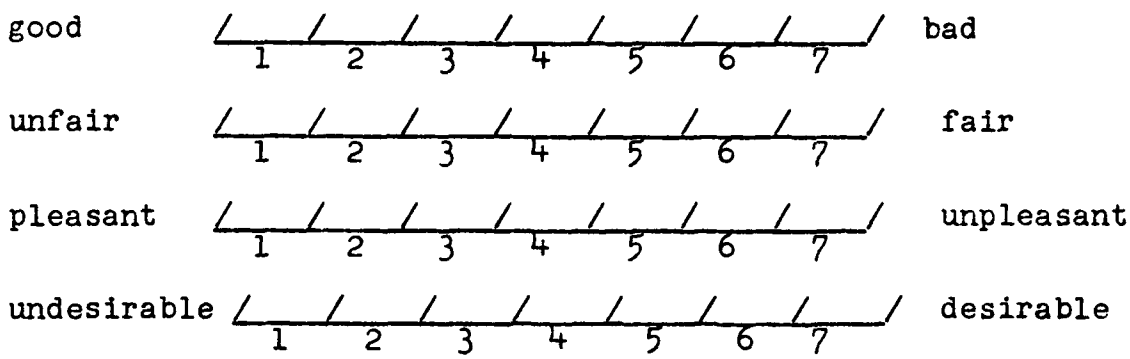
5. List below two arguments which the author of the article presented in support of his position with regard to tuition for CUNY students.

1.

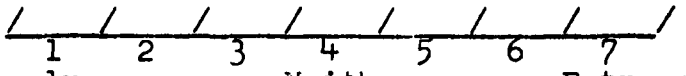
2.

6. Now we would like to know the kinds of general associations and feelings you have about tuition for undergraduates at CUNY. If, for you, tuition is associated equally with the words at both ends of the scale below, place an X in box 4. If you feel that it is more closely associated with one word than another, indicate the degree of closeness by placing an X in the appropriate box along the scale in the direction of that word. Be sure to mark only one box for each scale.

TUITION FOR CUNY UNDERGRADUATES

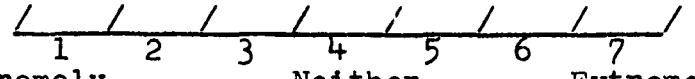


6. Do you feel that the institution of a tuition charge would pose a threat to your education? Indicate your feelings by placing an X in the box which best indicates the degree of threat that a tuition charge poses to you personally.



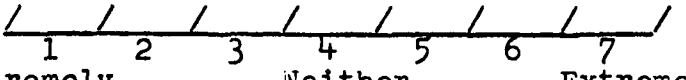
Extremely unthreatening — Neither-nor — Extremely threatening

7. How familiar were you with the arguments in the CUNY tuition controversy before reading the article you just completed? Place an X in the box which best indicates your degree of familiarity with the issue before today.



Extremely unfamiliar — Neither-nor — Extremely familiar

8. Whether or not you agree with him, how strong a case do you think the author made for his point of view? Place an X in the box which best indicates your opinion of how strong a case he made.



Extremely strong — Neither-nor — Extremely weak

9. Next, we would like to know why you chose the article you read in preference to the other one. Please check the appropriate box below:

☐ 1. No special reason--just by chance.

☐ 2. Because it agreed with my stand on the CUNY tuition issue.

☐ 3. Because it disagreed with my views on the tuition issue.

☐ 4. Don't know.

☐ 5. Other reason (please state) _____

PLEASE TURN TO THE NEXT PAGE

PLEASE BE SURE TO PROVIDE THE FOLLOWING INFORMATION ABOUT YOURSELF

Male ____ Female ____ Class standing (freshman,etc.) _____

Date of birth ____/____/____
month day year Place of birth (city) _____

Number of brothers ____/____ Number of sisters ____/____
older younger older younger

Field of specialization (major) _____ Vocational aim _____

Thank you for your cooperation. We would appreciate any comments in the space below.

BOOKLET NUMBER 3

On the following five pages you will find a series of 127 numbered statements. Read each statement and decide whether it is true as applied to you or false as applied to you.

You are to mark your answers in pencil on the answer sheet you have. If a statement is TRUE or MOSTLY TRUE as applied to you, blacken between the lines in the column headed T. If a statement is FALSE or NOT USUALLY TRUE, as applied to you, blacken between the lines in the column headed F.

Remember to give YOUR OWN opinion of yourself. Do not leave any blank spaces if you can avoid it.

In marking your answers on the answer sheet, be sure that the number of the statement agrees with the number on the answer sheet. Make your marks heavy and black. Erase completely any answer you wish to change. Do not make any marks on this booklet.

Remember, try to make some answer to every statement. Your replies will be completely anonymous.

NOW OPEN THE BOOKLET AND GO AHEAD.

1. I wake up fresh and rested most mornings.
2. My hands and feet are usually warm enough.
3. My daily life is full of things that keep me interested.
4. There seems to be a lump in my throat much of the time.
5. Once in a while I think of things too bad to talk about.
6. At timesI have fits of laughing and crying that I cannot control.
7. I feel that it is certainly best to keep my mouth shut when I'm in trouble.
8. I find it hard to keep my mind on a task or job.
9. I seldom worry about my health.
10. I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going."
11. My sleep is fitful and disturbed.
12. Much of the time my head seems to hurt all over.
13. I am in just as good physical health as most of my friends.
14. I prefer to pass by school friends, or people I know but have not seen for a long time, unless they speak to me first.
15. I am almost never bothered by pains over the heart or in my chest.
16. I am a good mixer.
17. I wish I could be as happy as others seem to be.
18. Most of the time I feel blue.
19. I am certainly lacking in self-confidence.
20. I usually feel that life is worth while.
21. It takes a lot of argument to convince most people of the truth.
22. I think most people would lie to get ahead.
23. I do many things which I regret afterwards (I regret things more or more often than others seem to).
24. I have very few quarrels with members of my family.
25. My hardest battles are with myself.
26. I have little or no trouble with my muscles twitching or jumping.

27. I don't seem to care much what happens to me.

28. Much of the time I feel as if I have done something wrong or evil.

29. I am happy most of the time.

30. Some people are so bossy that I feel like doing the opposite of what they request, even though I know they are right.

31. Often I feel as if there were a tight band about my head.

32. I seem to be about as capable and smart as most others around me.

33. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.

34. Often I can't understand why I have been so cross and grouchy.

35. I do not worry about catching diseases.

36. I commonly wonder what hidden reason another person may have for doing something nice for me.

37. Criticism or scolding hurts me terribly.

38. My conduct is largely controlled by the customs of those around me.

39. I certainly feel useless at times.

40. At times I feel like picking a fist fight with someone.

41. I have often lost out on things because I couldn't make up my mind soon enough.

42. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important.

43. Most nights I go to sleep without thoughts or ideas bothering me.

44. I cry easily.

45. I cannot understand what I read as well as I used to.

46. I have never felt better in my life than I do now.

47. I resent having anyone take me in so cleverly that I have had to admit that it was one on me.

48. I do not tire quickly.

49. I like to study and read about things that I am working at.

50. I like to know some important people because it makes me feel important.

51. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things.

52. I frequently have to fight against showing that I am bashful.

53. I seldom or never have any dizzy spells.

54. My memory seems to be all right.

55. I am worried about sex matters.

56. I find it hard to make talk when I meet new people.

57. I am afraid of losing my mind.

58. I frequently notice my hand shakes when I try to do something.

59. I can read a long while without tiring my eyes.

60. I feel weak all over much of the time.

61. I have very few headaches.

62. Sometimes, when embarrassed, I break out in a sweat which annoys me greatly.

63. I have had no difficulty in keeping my balance in walking.

64. I wish I were no so shy.

65. I enjoy many different kinds of play and recreation.

66. In walking, I am very careful to step over sidewalk cracks.

67. I frequently find myself worrying about something.

68. I hardly ever notice my heart pounding and I am seldom short of breath.

69. I get mad easily and then get over it soon.

70. I brood a good deal.

71. I have periods of such great restlessness that I cannot sit long in a chair.

72. I dream frequently about things that are best kept to myself.

73. I believe I am no more nervous than most others.

74. I have few or no pains.

75. I have difficulty starting to do things.

76. It is safer to trust nobody.

77. Once a week or oftener I become very excited.

78. When in a group of people I have trouble thinking of the right things to talk about.

79. When I leave home I do not worry about whether the door is locked and the windows closed.

80. I have often felt that strangers were looking at me critically.

81. I drink an unusually large amount of water every day.

82. I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer.

83. I work under a great deal of tension.

84. I am likely not to speak to people until they speak to me.

85. Life is a strain for me much of the time.

86. In school I found it very hard to talk before the class.

87. Even when I am with people I feel lonely much of the time.

88. I think nearly anyone would tell a lie to keep out of trouble.

89. I am easily embarrassed.

90. I worry over money and business.

91. I easily become impatient with people.

92. I feel anxiety about something or someone almost all the time.

93. Sometimes I become so excited that I find it hard to get to sleep

94. I forget right away what people say to me.

95. I usually have to stop and think before I act even in trifling matters.

96. Often I cross the street in order not to meet someone I see.

97. I often feel as if things were not real.

98. I have a habit of counting things that are not important such as bulbs on electric signs, and so forth.

99. I have strange and peculiar thoughts.

100. I have been afraid of things or people that I knew could not hurt me.

101. I have no dread of going into a room by myself where other people have already gathered and are talking.

102. I have more trouble concentrating than others seem to have.

103. I have several times given up doing a thing because I thought too little of my ability.

104. Bad words, often terrible words, come into my mind and I cannot get rid of them.

105. Sometimes some unimportant thought will run through my mind and bother me for days.

106. Almost every day something happens to frighten me.

107. I am inclined to take things hard.

108. I am more sensitive than most other people.

109. At periods my mind seems to work more slowly than usual.

110. I very seldom have spells of the blues.

111. I wish I could get over worrying about things I have said that may have injured other people's feelings.

112. People often disappoint me.

113. I feel unable to tell anyone all about myself.

114. My plans have frequently seemed so full of difficulties that I have had to give them up.

115. Often, even though everything is going fine for me, I feel that I don't care about anything.

116. I have sometimes felt that difficulties were piling up so high that I could not overcome them.

117. I often think, "I wish I were a child again."

118. It makes me feel like a failure when I hear of the success of someone I know well.

119. I am apt to take disappointments so keenly that I can't put them out of my mind.

120. At times I think I'm no good at all.

121. I worry quite a bit over possible misfortunes.

122. I am apt to pass up something I want to do because others feel that I am not going about it the right way.

123. I have several times had a change of heart about my life work.

124. I have a daydream life about which I do not tell other people.

125. I have often felt guilty because I have pretended to feel more sorry about something than I really was.

126. I feel tired a good deal of the time.

127. I sometimes feel that I am about to go to pieces.

Table I

Intercorrelations between Initial Position on Tuition (SR) and Five Semantic Differential Scales

Pilot Study - N = 18

		(1)	(2)	(3)	(4)	(5)
(1)	Initial Position					
(2)	Good-bad	.701**				
(3)	Valuable-worthless	.227	.377			
(4)	Desirable-undesirable	.768**	.924**	.256		
(5)	Pleasant-unpleasant	.509*	.887**	.384	.751**	
(6)	Fair-unfair	.747**	.731**	.147	.857**	.650*

Probabilities given are for a two-sided test
* $p < .05$
** $p < .01$

APPENDIX B

Table I

Mean Self Rating Scores on Tuition Issue for All Ss

(N = 451)

	Repressors		Neutrals		Sensitizers	
	Males	Females	Males	Females	Males	Females
1 Sess.	10.578	10.703	10.777	10.793	10.909	10.781
2 Sess.	10.625	10.762	10.454	10.764	10.714	10.764

Table II

Analysis of Variance for Initial Position on Tuition

Source	df	MS	F
Personality (A)	2	0.208	< 1.0
Number of Sessions (B)	1	0.019	< 1.0
Sex (C)	1	0.508	1.388
AB	2	0.178	< 1.0
AC	2	0.248	< 1.0
BC	1	0.312	< 1.0
ABC	2	0.090	< 1.0
Within Cells (error)	439	0.366	

Table III

Distribution of Subjects According to Initial Position on Tuition in Selective Exposure Experimental Groups

Personality Type (a)

Initial Position	Repressors	Neutrals	Sensitizers
9	15	12	12
10	14	13	9
11	121	126	129
	150	151	150

Number of Sessions (b)

Initial Position	One Session	Two Sessions
9	21	18
10	15	21
11	194	182
	230	221

Sex (c)

Initial Position	Male	Female
9	7	32
10	8	28
11	51	325
	66	385

Table IV

Mean Importance Scores on Tuition Issue for All Ss

(N = 451)

	Repressors		Neutrals		Sensitizers	
	Males	Females	Males	Females	Males	Females
1 Sess.	6.578	6.296	6.222	6.380	6.454	5.953
2 Sess.	6.250	6.135	5.909	6.264	6.428	6.264

Table V

Analysis of Variance for Importance of Tuition Issue

Source	df	MS	F
Personality (A)	2	0.762	< 1.0
Number of Sessions (B)	1	0.132	< 1.0
Sex (C)	1	0.687	< 1.0
AB	2	2.364	1.400
AC	2	1.889	1.118
BC	1	0.664	< 1.0
ABC	2	0.033	<1.0
Within Cells (error)	439	1.689	

Table VI

Mean Familiarity Scores for all Ss (Except Controls)

(N = 375)

	Repressors		Neutrals		Sensitizers	
	Males	Females	Males	Females	Males	Females
1 Session	5.470	4.888	4.125	5.254	4.428	4.962
2 Sessions	3.400	5.102	5.500	5.035	4.333	5.224

Table VII

Analysis of Variance for Familiarity Scores

Source	df	MS	F
Personality (A)	2	0.411	< 1.0
Number of Sessions (B)	1	0.266	< 1.0
Sex (C)	1	3.065	1.591
AB	2	1.009	< 1.0
AC	2	1.666	< 1.0
BC	1	0.681	< 1.0
ABC	2	13.452	6.982*
Within Cells (error)	364	1.926	

* $p < .001$, two-tailed

Table VIII

Mean Self Rating Scores on Medical Issue for All Ss

(N = 450)

	Repressors		Neutrals		Sensitizers	
	Males	Females	Males	Females	Males	Females
1 Session	2.947	2.468	2.777	2.666	2.727	2.578
2 Sessions	2.125	2.067	3.090	2.194	3.142	2.676

Table IX

Mean Importance Scores on Medical Issue for All Ss

(N = 450)

	Repressors		Neutrals		Sensitizers	
	Males	Females	Males	Females	Males	Females
1 Session	4.368	4.859	4.777	5.047	4.909	4.796
2 Sessions	5.125	5.118	4.909	5.089	4.285	4.955

Table X

Initial Position and Exposure Choices of all Subjects Assigned to "Choice" Condition, Including Subjects Eliminated from the Sample for Low Self-Ratings

(N = 351)

	Self-Rating on Tuition Issue	Chose Con-Tuition Communication	Chose Pro-Tuition Communication	N
	11	158	91	249
	10	10	15	25
	9	12	20	32
Subjects eliminated from sample	8	5	5	10
	7	3	3	6
	6	7	6	13
	5	0	0	0
	4	1	5	6
	3	1	4	5
	2	0	0	0
	1	1	4	5
		198	153	351

Table XI

Importance Ratings and Exposure Choices

Among Experimental Subjects

(N = 306)

Importance Score (Higher score = more impt.)	Chose Con-Tuition Communication	Chose Pro-Tuition Communication	N
1 - 3	5	6	11
4	13	15	28
5 - 7	162	105	267
	180	126	306

Table XII

Initial Position and Importance Ratings

Among Experimental Subjects

(N = 306)

Importance Score	Self Rating			
(higher score = more impt.)	"9"	"10"	"11"	N
1 - 4	9	6	24	39
5 - 7	23	19	225	267
	32	25	249	306

Table XIII

Threat Self-Ratings and Exposure Choices

Of Experimental Subjects

(N = 306)

Threat Score (Higher score = more threat)	Chose Con-Tuition Communication	Chose Pro-Tuition Communication	N
1 - 3	31	36	67
4	17	21	38
5 - 7	131	67	198
N.A.	1	2	3
	180	126	306

Table XIV

Initial Position and Threat Ratings

Among Experimental Subjects

(N = 306)

Threat Score	Self Rating			
(higher score = more threat)	"9"	"10"	"11"	N
1 - 4	20	13	74	107
5 - 7	12	12	175	199
	32	25	249	306

Table XV

Familiarity Ratings and Exposure Choices

of Experimental Subjects

(N = 306)

Familiarity Score Higher = more familiar	Chose Con-Tuition Communication	Chose Pro-Tuition Communication	N
1 - 3	11	24	35
4	25	21	46
5 - 7	144	79	223
N.A.	0	2	2
	180	126	306

Table XVI

Initial Position and Familiarity Ratings

Among Experimental Subjects

(N = 306)

Familiarity Score (higher score = more familiar)	"9"	"10"	"11"	N
1 - 4	11	11	58	80
5 - 7	21	14	191	226
	32	25	249	306

Table XVII

Number of Subjects Giving Specific Reasons for their Choice of Communication

Reason Given	Chose Con-Tuition Communication	Chose Pro-Tuition Communication	N
1 (Chance)	9	7	16
2 (Agreed)	154	7	161
3 (Disagreed)	3	83	86
4 (Don't know)	2	2	4
5 (Other)	9	27	36
N.A.	3	0	3
	180	126	306

Table XVIII

Distribution of Subjects who Chose the Con-Tuition Message Because It Agreed with their Own Position

Males		Females
15		139
Repressors	Neutrals	Sensitizers
47	56	51
One-Session Groups		Two-Session Groups
79		75

Table XIX

Distribution of Subjects who Chose the Pro-Tuition Message Because It Disagreed with their Own Position

Males		Females
14		69
Repressors	Neutrals	Sensitizers
32	24	27
One-Session Groups		Two-Session Groups
51		32

Table XX

Number of Subjects Choosing Communications Favoring or Opposing Annual Visits to M.D.

(N = 38)

	Males	Females
Favoring (support)	3	13
Opposing (non-supp)	5	17
	8	30

	Repressors	Neutrals	Sensitizers
Favoring	5	8	3
Opposing	6	7	9
	11	15	12

	One-Session Groups	Two-Session Groups
Favoring	10	6
Opposing	11	11
	21	17

Sex x Sessions

	Males		Females	
	1 Sess.	2 Sess.	1 Sess.	2 Sess.
Favoring	0	3	10	3
Opposing	3	2	8	9
	3	5	18	12

(cont'd on next page)

Table XX (Cont'd)

Personality x Sessions

	Repressors		Neutrals		Sensitizers	
	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.
Favoring	2	3	5	3	3	0
Opposing	4	2	3	4	4	5
	–	–	–	–	–	–
	6	5	8	7	7	5

Personality x Sex

	Repressors		Neutrals		Sensitizers	
	Male	Female	Male	Female	Male	Female
Favoring	2	3	1	7	0	3
Opposing	1	5	1	6	3	6
	–	–	–	—	–	–
	3	8	2	13	3	9

Personality x Sex x Sessions

	One Session						Two Sessions					
	Repress.		Neutrals		Sens.		Repress.		Neutrals		Sens.	
	M	F	M	F	M	F	M	F	M	F	M	F
Favoring	0	2	0	5	0	3	2	1	1	2	0	0
Opposing	0	4	1	2	2	2	1	1	0	4	1	4
	–	–	–	–	–	–	–	–	–	–	–	–
	0	6	1	7	2	5	3	2	1	6	1	4

Table XXI

Distribution of Subjects in Experimental Conditions for Attitude Change Study

(N = 268)

		Experimental			Control			
		Repress.	Neut.	Sens.	Repress.	Neut.	Sens.	N
One Session	Choice	23	20	21	6	8	7	85
	No Choice	13	6	14	6	5	7	51
Two Sessions	Choice	22	20	17	5	7	5	76
	No Choice	12	12	16	6	5	5	56
		70	58	68	23	25	24	268

Table XXII

Intercorrelations between Initial Position on Tuition (SR)

Components of Final Attitude (SD)

and Total SD Score

(Control Groups, N = 72)

		(1)	(2)	(3)	(4)	(5)
(1)	Initial Position on Tuition (SR)					
(2)	Good-bad	.530**				
(3)	Fair-unfair	.517**	.831**			
(4)	Pleasant-unpleasant	.585**	.711**	.616**		
(5)	Desirable-undesirable	.531**	.818**	.823**	.731**	
(6)	Total SD Score (Final Attitude)	.594**	.931**	.915**	.830**	.935**

Probabilities given are for a two-sided test

** $p < .01$

Table XXIII

Mean Importance Scores of All Subjects

(N = 268)

	Experimental				Control			
	Choice		No Choice		Choice		No Choice	
	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.
R's	6.608	5.909	5.846	6.167	5.500	6.400	6.000	5.833
N's	5.950	6.050	6.333	6.333	6.625	6.857	4.800	6.600
S's	5.762	5.529	5.786	6.813	6.714	6.400	6.571	4.600

Table XXIV

Analysis of Variance for Importance

Source	df	MS	F
Personality (A)	2	0.61273	< 1.0
Sessions (B)	1	0.34216	< 1.0
Exptl. vs. Control (C)	1	0.01190	< 1.0
Choice (D)	1	2.37820	1.026
AB	2	3.40420	1.469
AC	2	0.42905	< 1.0
BC	1	0.00043	< 1.0
ABC	2	7.49534	3.23
AD	2	0.22879	< 1.0
BD	1	0.36204	< 1.0
ABD	2	1.01927	< 1.0
CD	1	10.68619	4.613*
ACD	2	4.14954	1.791
BCD	1	3.80516	1.659
ABCD	2	6.18727	2.671
Within Cells (error)	244	2.31640	

* $p < .05$, two-tailed

Table XXV

Analysis of Variance for Attitude Change

(Experimental Subjects Only)

Source	df	MS	F
Personality (A)	2	47.563	1.365
Sessions (B)	1	245.617	7.052*
Choice (C)	1	15.490	< 1.0
AB	2	29.963	< 1.0
AC	2	10.632	< 1.0
BC	1	4.594	< 1.0
ABC	2	4.195	< 1.0
Within Cells (error)	184	34.828	< 1.0

*$p < .008$, two-tailed

Table XXVI

Analysis of Variance for Attitude Change

(Control Subjects Only)

Source	df	MS	F
Personality (A)	2	0.223	< 1.0
Number of Sessions (B)	1	32.787	2.185
Choice (C)	1	0.063	< 1.0
AB	2	19.630	1.308
AC	2	10.673	< 1.0
BC	1	5.678	< 1.0
ABC	2	63.349	4.222*
Within Cells (error)	60	15.002	

* $p < .02$, two-tailed

Table XXVII

Comparison of Mean Attitude Scores for Males and Females

in Experimental Condition only

(N = 196)

	One Session		Two Sessions	
	Males N	Females N	Males N	Females N
Repressors	20.555 (9)	21.925 (27)	18.000 (2)	20.437 (32)
Neutrals	23.600 (5)	21.285 (21)	15.571 (7)	18.360 (25)
Sensitizers	21.666 (29)	22.068 (29)	19.250 (4)	20.379 (29)

Table XXVIII

Analysis of Variance for Attitude Change

as a Function of Personality, Sessions and Sex

Source	df	MS	F
Personality (A)	2	47.563	1.375
Sessions (B)	1	245.617	7.104*
Sex (C)	1	33.251	<1.0
AB	2	27.403	<1.0
AC	2	2.610	<1.0
BC	1	38.034	1.100
ABC	2	12.609	<1.0
Within Cells (error)	184	34.574	

* $p < .008$

Table XXIX

Means for Strength of Communication Ratings

Experimental Groups Only*

(N = 191**)

	Choice		No Choice	
	1 Session	2 Sessions	1 Session	2 Sessions
Repressors	3.217	3.363	2.833	2.727
Neutrals	3.947	3.052	3.333	3.583
Sensitizers	3.190	3.437	4.285	3.750

Table XXX

Analysis of Variance for Strength Ratings

Experimental Groups Only

Source	df	MS	F
Personality (A)	2	4.494	1.535
Sessions (B)	1	1.020	1.0
Choice (C)	1	0.453	1.0
AB	2	1.641	1.0
AC	2	5.870	2.005
BC	1	0.083	1.0
ABC	2	3.178	1.085
Within Cells (error)	179	2.927	

*Since Control groups did not read the tuition message, they could not rate it.
**5 subjects did not respond to this question

Table XXXI

Mean Number of Facts Recalled Correctly on Learning Quiz

(N = 268)

	Experimental				Control			
	Choice		No Choice		Choice		No Choice	
	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.
R's	5.261	4.500	4.923	5.250	0.500	1.800	0.833	1.167
N's	4.950	5.250	5.167	5.333	1.625	1.571	0.400	1.000
S's	4.714	5.058	5.143	4.438	0.429	0.200	0.571	1.600

Table XXXII

Analysis of Variance for Learning

Source	df	MS	F
Personality (A)	2	2.65032	2.522
Number of Sessions (B)	1	2.43035	2.313
Exptl. vs. Control (C)	1	806.05346	762.586***
Choice (D)	1	0.00040	< 1.0
AB	2	0.16279	< 1.0
AC	2	0.21922	< 1.0
BC	1	3.78204	3.599
ABC	2	1.02666	< 1.0
AD	2	2.11239	2.010
BD	1	0.24891	< 1.0
ABD	2	0.04574	< 1.0
CD	1	0.39797	< 1.0
ACD	2	3.90448	3.716*
BCD	1	0.37347	< 1.0
ABCD	2	5.08216	4.83**
Within Cells (error)	244	1.05070	

*$p_1 < .05$
**$p_1 < .01$
***$p_1 < .001$
$_1$ two-tailed

Table XXXIII

Correlations among Relevant Variables for Attitude Change

Experimental Subjects Only

(N = 196)

		(1)	(2)	(3)	(4)	(5)	(6)
(1)	Initial Position on Tuition (SR)						
(2)	Importance Rating	.352**					
(3)	Learning Score	-.062	.129				
(4)	Final Attitude (Total SD)	.386**	.188*	.052			
(5)	Threat score	.225**	.092*	-.007	.371**		
(6)	Familiarity with Arguments	.084	.161*	.179*	.100	.200**	
(7)	Strength of Communication	.162*	-.026	-.024	.327**	.303**	.126

Probabilities given are for a two-sided test

* $p \leq .05$
** $p < .01$

Table XXXIV

Correlations Among Relevant Variables for Attitude Change

Control Subjects Only

(N = 72)

		(1)	(2)	(3)	(4)
(1)	Initial Position on Tuition (SR)				
(2)	Importance Rating	.466**			
(3)	Learning Score	.072	.144		
(4)	Final Attitude (Total SD)	.594**	.464**	.004	
(5)	Threat score	.319**	.356**	.005	.326**

Probabilities given are for a two-sided test

** $p < .01$

Table XXXV

Mean Threat Scores of all Subjects

	Experimental (N - 196)				Control (N = 72)			
	Choice		No Choice		Choice		No Choice	
	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.	1 Sess.	2 Sess.
R's	4.957	4.227	4.769	3.917	4.667	6.400	4.500	4.000
N's	4.350	4.050	4.333	4.667	5.500	3.857	5.200	5.800
S's	3.952	4.589	5.071	4.875	4.714	5.600	5.714	5.400

Table XXXVI

Analysis of Variance for Threat

Source	df	MS	F
Personality (A)	2	1.88526	< 1.0
Sessions (B)	1	0.04165	< 1.0
Exptl. vs. Control (C)	1	19.94166	5.305*
Choice (D)	1	0.66216	< 1.0
AB	2	1.10031	< 1.0
AC	2	0.54217	< 1.0
BC	1	1.20992	< 1.0
ABC	2	4.11314	1.097
AD	2	9.66892	2.57
BD	1	0.79096	< 1.0
ABD	2	8.91437	2.37
CD	1	0.92029	< 1.0
ACD	2	2.51294	< 1.0
BCD	1	0.26054	< 1.0
ABCD	2	3.59128	< 1.0
Within Cells (error)	244	3.75835	

* $p < .025$

Table XXXVII

Mean Attitude Scores on Medical Issue

of all Control Subjects

(N = 72)

	Chose Persuasive Message				Assigned Persuasive Message				Read Supportive Message			
	1 Session	N	2 Sessions	N	1 Session	N	2 Sessions	N	1 Session	N	2 Sessions	N
R's	20.000	(4)	19.500	(2)	15.833	(6)	21.800	(6)	23.500	(2)	26.667	(3)
N's	19.000	(3)	17.750	(4)	22.800	(5)	19.200	(5)	26.000	(5)	23.000	(3)
S's	20.750	(4)	21.800	(5)	23.142	(7)	16.200	(5)	24.667	(3)	No Ss	

Table XXXVIII

Two-way Analysis of Variance for Attitudes on Medical Issue

All Control Subjects

(N = 72)

Source	df	MS	F
Type of Communication (A)	1	289.12469	11.120*
Personality (B)	2	0.99576	< 1.0
AB	2	5.78310	< 1.0
Within Cells (error)	66	26.87479	

* $p < .005$

Table XXXIX

Analysis of Variance for Attitudes on Medical Issue

Only Subjects who read Persuasive Message

(N = 56)

Source	df	MS	F
Personality (A)	2	15.181	< 1.0
Sessions (B)	1	15.398	< 1.0
Choice (C)	1	0.000	< 1.0
AB	2	61.640	2.112
AC	2	25.493	< 1.0
BC	1	15.685	< 1.0
ABC	2	50.958	1.746
Within Cells (error)	44	29.175	

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