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CANADIAN THESES ON MICROFICHE

THÈSES CANADIENNES SUR MICROFICHE

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TITLE OF THESIS/TITRE DE LA THÈSE Self-perception and the one- and two-sided argument: a study of self-immunization.

UNIVERSITY/UNIVERSITÉ University of Windsor, Windsor, Ontario

DEGREE FOR WHICH THESIS WAS PRESENTED/ GRADE POUR LEQUEL CETTE THÈSE FUT PRÉSENTÉE M.A.

YEAR THIS DEGREE CONFERRED/ANNÉE D'OBTENTION DE CE DEGRÉ May 1977

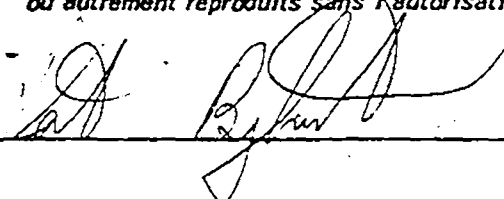
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SELF-PERCEPTION
AND
THE ONE- AND TWO-SIDED ARGUMENT:
A Study of Self-Immunization

by

George K. Billinghamurst
B.A. University of Windsor, 1972

A Thesis
Submitted to the Faculty of Graduate Studies
through the Department of Psychology
In Partial Fulfillment of the
Requirements for the Degree
of Master of Arts at the
University of Windsor

Windsor, Ontario, Canada

1976

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ABSTRACT

Drawing implications from interpersonal persuasion literature and Bem's self-perception hypothesis, an intrapersonal and interpersonal study dealing with attitude change and inducing resistance to counterpersuasion using beliefs other than cultural truisms and using one-sided and two-sided arguments was conducted. One hundred and sixty first year female college students were used as subjects.

Results indicated that at both the interpersonal and intrapersonal levels, two-sided arguments were more effective in inducing attitude change than were one-sided arguments with Ss who were asked to read or write a counterattitudinal essay.

Furthermore, it was found that Ss who either read or wrote a two-sided argument prior to counterpersuasion were significantly more resistant to counterpersuasion than were Ss who read or wrote a one-sided argument prior to that same counterpersuasion.

These results are consistent with the previously conducted interpersonal attitude studies and implications of Bem's self-persuasion hypothesis.

ACKNOWLEDGEMENTS

The author would like to take this opportunity to thank the many people who helped in the completion of this research project. Special thanks to Dr. Dale Woodyard who served as chairman of the thesis committee, giving gentle prods when they were needed most. Appreciation is also expressed to the committee members: Drs. John La Gaipa, Al Malone, Meyer Starr and Father Claude Vincent.

Special thanks to Drs. Gaston Franklyn and Gabriel Telegdy for their assistance in the methodological portion of the study. Thanks is also expressed to Craig Beemer of the Computing Centre at St. Clair College.

A debt of gratitude is owed Carmen Adamo for her conscientious efforts in the typing of this manuscript.

Thanks also to my wife, Ann, who did not believe this project would ever be finished. Well, Ann, now it is finished. Thank you for your support over the past few years.

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CHAPTER 1

INTRODUCTION

The present study was conducted to test an implication of Bem's self-perception (self-persuasion) theory (1965, 1967) by drawing implications from the interpersonal persuasion literature according to Bem's theoretical construction.

In his self-persuasion theory, Bem states that we make judgements about ourselves on the same basis as we make judgements about others, namely on the basis of observable behaviour and its apparent controlling conditions. Bem (1964) would hypothesize, based on interpersonal persuasion literature, that we, in turn, persuade ourselves on the same basis (observable behaviour and its apparent controlling conditions) as we persuade others.

Since Bem referred to the interpersonal persuasion literature to generate implications for his self-persuasion theory, this study also went to the interpersonal persuasion literature and extended Bem's theoretical implication to include a consideration of the differences in attitude change and resistance to counterpersuasion induced by one-sided and two-sided arguments.

This study uses the experimental procedure developed by McGuire (1964) with certain modifications. McGuire

has worked extensively in the area of inducing resistance to persuasion which forms the basis for the second part of this study.

It is predicted on the basis of self-persuasion theory that what has traditionally been observed occurring at the interpersonal level during attitude change experiments (that students (Ss) who have read or heard two-sided arguments are more persuaded and left more resistant to counterpersuasion than are Ss who have read or heard one-sided arguments) will also be observed occurring on the intrapersonal level, that is with Ss composing their own arguments and thereby persuading themselves.

Following B.F. Skinner's "radical-behavioural" analysis of "private events and their role in a science of human behaviour" (Skinner, 1945, 1953, 1957), Bem (1965, 1967, 1972) has suggested a self-perception theory utilizing a behaviouristic vocabulary. Simply stated, Bem (1965) says that we make judgements about ourselves, our beliefs and our attitudes on the same basis as we make judgements about the beliefs and attitudes of others.

According to Bem (1972), self-descriptive skills arise from the same processes a person uses to identify and label objects and events in his environment. When trying to label presumably private events, a problem arises. When stimuli being labelled are available both to an infant and the socializing community, the socializing community can easily provide the type of discrimination learning re-

quired to teach a child to properly label a dog, a father, etc. However, Bem points out that the community faces a unique problem "in training the individual to make statements describing internal stimuli to which only he has direct access ..." (Bem, 1965, p. 199). Because it is difficult for the socializing community to teach such self-descriptive statements as "I am thirsty" by direct reference to internal stimulation available only to the individual, the community must use criteria other than privately available internal stimuli when it teaches the child the proper circumstances under which to describe himself as "thirsty".

Bem (1967) argues that many self-descriptive statements that seem to be exclusively under the discriminative control of private internal stimuli may be at least partially controlled by the same public events used by the training community to infer the individual's inner state. Private stimuli, therefore, may play a lesser role in descriptive statements than the individual himself suspects. Schachter and Singer (1962) found that subjects made extensive use of external cues when they labelled the private internal stimulation caused by physiological arousal induced by drugs.

Bem (1972) postulates that self-perception (i.e., one's perception of one's own attitudes and beliefs) is usually based on the same set of public cues as used in interper-

sonal perception. In Bem's words:

"Individuals come to "know" their own attitudes, emotions, and other internal states partially by inferring them from observations of their own overt behavior and/or the circumstances in which this behavior occurs. Thus, to the extent that internal cues are weak, ambiguous, or uninterpersonal, the individual is functionally in the same position as an outside observer, an observer who must necessarily rely upon those same external cues to infer the individual's inner states." (Bem 1972, p. 2).

The process of self-perception that Bem describes above can be traced to Skinner's distinction between a mand and a tact -- A mand is a social operant primarily under the control of specific rather than general reinforcing contingencies. The response "Pass the bread" is a mand since only a particular stimulus, bread, will serve as a reinforcer for it. Commands, demands, and pleas are all mands. Simply, a mand is a request for a specific reinforcer.

A tact is a social operant which is under discriminative stimulus control and under generalized or non-specific reinforcement control. In other words, a tact is reinforced with several different reinforcers, or a generalized reinforcer, but only in the presence of particular stimuli. The response "It's going to rain today" is a tact if it is based on conditions such as an overcast sky, high humidity, weather forecasts, etc.

However, mands are often disguised as tacts. So if an umbrella salesman utters the same statement "It's going

to rain today", we may safely assume that his verbal behavior is a mand for the commission he will receive, a specific reinforcement, if we buy the umbrella. As Bem (1965) points out:

"It is clear then, that in attempting to infer a speaker's true beliefs and attitudes, the listener must often discriminate the mand-tact characteristics of the communication." (p. 201)

On an intrapersonal level, if, as Bem states, the individual is functionally in the same position as an outside observer, then when making attitude or belief statements about himself, the individual must discriminate the mand-tact characteristics of his own behavior.

Bem has redefined the concepts of "belief" and "attitude" in behavioral terms. According to Bem (1964):

"(a belief) is a set of operants which an observer (possibly the individual himself) discriminates as under the control of a common class of discriminative stimuli." (p. 7)

"An attitude is a set of operants which an observer (possibly the individual himself) discriminates as under the control of the reinforcing effects of a particular class of stimuli on the individual's behavior." (p. 8)

An attitude is considered by Bem to be a special subset of beliefs and Bem uses the single term "belief" when both terms are applicable.

Bem (1964) found that the mand-tact distinction was investigated in the interpersonal persuasive-commun-

ication literature within the concept of "communicator credibility". From Bem's point of view (1972), a communicator is considered to be credible and is more likely to persuade his audience if members of the audience discriminate his communication as a set of tacts. A communicator is seen as less credible and is less likely to persuade his audience if it appears that he is manding in the form of disguised tacts (the umbrella salesman in our earlier example).

If, as Bem has done, we apply the postulates of self-perception theory (it is important to remember that Bem's theory is also known as a self-persuasion theory) to this same example concerning "communicator credibility", we may arrive at the hypothesis that the communicator himself will regard himself as more credible or persuasive if he discriminates his own behavior as "tacted" as opposed to "manded".

Bem uses a similar analysis to re-interpret the results of an experiment by Festinger and Carlsmith (1959) conducted within the framework of Festinger's (1957) theory of cognitive dissonance. Festinger and Carlsmith (1959) paid subjects either \$1 (an insufficient justification) or \$20, (an adequate justification) to tell a fellow student that a repetitive and boring task that they had been engaged in was interesting and enjoyable. Results showed that subjects paid \$1 assessed the tasks and the

experiment more favorably than did \$20 subjects.

According to Festinger (1962), \$1 subjects, having less justification for lying, had more dissonance and changed their private beliefs more in order to reduce the dissonance. Cognitive dissonance is a tension-reduction model in which dissonance is conceived as an unpleasant drive state. Festinger (1964) states simply that when two or more "cognitive elements" are relevant to one another and dissonant (in other words, the elements are inconsistent with one another), there will be pressure to reduce that dissonance, the pressure being proportional to (1) the importance of the elements and (2) the proportion of cognitive elements that are dissonant.

Some recent research has been aimed at identifying the necessary and sufficient conditions for the arousal and heightening of the cognitive dissonance phenomena. Hoyt, Henley, and Collins (1971) have argued that two conditions are necessary for dissonance arousal and subsequent attitude change: aversive consequences following the discrepant behavior (or at least the possibility of such consequences) and personally felt responsibility for such negative consequences. Cooper (1971) also presented evidence that personal responsibility is a necessary condition for dissonance arousal.

Bem (1967) re-interprets cognitive dissonance research results by considering the viewpoint of an outside observer

who knows one subject made favorable assertions about the tasks to another subject and who further knows that the individual was paid either \$1 or \$20 to do so. The outside observer, when asked to estimate the actual attitude of the participating subject, asks himself, "What must his attitude be if he is willing to behave in this fashion in this situation?" (Bem, p. 16, 1972). If the observer has seen the individual making such statements for little reward (\$1), financial incentive as a motivating factor can be ruled out and thus manding is ruled out.

However, if the observer has seen the individual making such statements for a large reward (\$20), it is difficult for him to make any inferences about the individual's actual attitude because \$20 is a large enough stimulus to evoke the behavior regardless of the private attitudes of the individual. It appears to the observer that the individual was bribed to make such statements. In other words, he judges the subject to be manding. The \$20 subject is seen as less credible because his behavior appears manded as opposed to the \$1 subject whose behavior appears tacted. Thus the \$1 subject is seen as more credible here.

According to Bem (1965), on an intrapersonal level, the individual himself acts as both observer and observed. He asks himself the question, "What must my attitude be if I am willing to behave in this fashion in this situation?".

If he is receiving \$1, he observes himself speaking highly about a task for little financial reward. He infers that he must agree with what he is saying. However, if he is receiving \$20, he observes himself praising the task, but the \$20 he is receiving appears as adequate compensation for behaving the way he is. He discards his behavior as a true guide to his "actual" attitudes. The individual infers that he is manding and thus sees his behavior as not credible. In terms of credibility, the \$1 subject sees himself as more credible because his behavior appears tacted as opposed to the \$20 subject who sees his behavior as mandated and therefore less credible.

In testing his analysis of the so-called cognitive dissonance phenomena Bem uses a technique he now refers to as "interpersonal simulation" (Bem 1965, 1967, 1968). In these experiments, the observer-subject is given a description of one of the conditions of a dissonance experiment and he is asked to estimate the attitude of the subject whose behavior is described or actually overheard. Bem (1965, 1967) has found that the attitude estimates of the observer-subjects do reproduce the original dissonance findings.

A controversy has arisen over the interpersonal simulation (Bem 1968, Jones, Linder, Kiesler, Zanna, and Brehm 1968, Mills 1967, Piliavin, Piliavin, Loewenton, McCauley, and Hammond 1969) concerning how much information should be given to the observer-subject about the original dissonance

situation, including whether or not the observer-subject should be informed of the original (premanipulation) attitude of the dissonance experiment subject.

Bem (1970) argues that knowledge of premanipulation attitudes is not relevant to dissonance experiment results, nor is the premanipulation attitude very salient to the subject in the original dissonance situation. The self-perception analysis holds that the data of the subject's incoming behavior "updates" his information on his attitudes. In other words, as far as the subject himself is concerned, his postmanipulation attitude is the same attitude which motivated him to comply in the first place. The subject is not aware of any attitude change.

Bem and McConnell (1970) found that actual premanipulation attitudes were not salient features of postmanipulation phenomenology. These premanipulation attitudes were recalled by subjects as identical to postmanipulation attitudes. Subjects were also unable to recall their premanipulation attitudes correctly. They estimated their premanipulation attitudes to be the same as their postmanipulation attitudes.

However, Chris and Woodyard (1972) found that the premanipulation attitudes was a salient factor for persons who rated the experimental issue in question as one of great importance to themselves. Woodyard (1972) found that subjects with extreme premanipulation attitudes concerning a

particular topic differed significantly in their postmanipulation attitudes from subjects with neutral premanipulation attitudes. Thus the results of Chris and Woodyard (1972) and Woodyard (1972) are nonsupportive of the self-perception assumptions that premanipulation attitudes are not relevant to postmanipulation attitudes.

To summarize the major tenets of self-perception theory, Bem states that we make judgements about ourselves on the same basis as we make judgements about others, namely on the basis of observable behaviour and its apparent controlling conditions. It is important to recall from our discussion of the cognitive dissonance experiment that the controlling conditions indicate manding or tacting which is the basis of credibility judgements.

Bem (1964) also refers to his self-perception theory as a self-persuasion theory and would hypothesize, based on the interpersonal persuasion literature, that we persuade ourselves on the same basis (observable behavior and its apparent controlling conditions) as we persuade others.

As Bem has referred to the interpersonal persuasion literature to generate implications for self-persuasion, this study will extend Bem's theory in a new direction by also referring to the interpersonal persuasion literature. One topic in this literature of direct relevance is that of inducing resistance to persuasion and the one-sided versus two-sided argument experiments.

The problem of inducing resistance to persuasion has been studied by McGuire (1960, 1961, 1963, 1967, 1968); Hovland, Lumsdaine, and Sheffield (1949); and Lumsdaine and Janis (1953). As with the present study, these studies used one-sided and two-sided arguments on a particular topic. Other studies utilizing one- and two-sided arguments include Hilyard (1966), Holz and Rosnow (1967), McGinnies (1966) and Chu (1967).

During World War II, Hovland et al (1949) presented to groups of soldiers one-sided and two-sided communications concerning an early end to the war with Japan after Germany's surrender. Results showed that among men initially opposed to a communicator's position, there was greater opinion change toward the communicator's position when presented with a two-sided argument. Among men initially favorable to a communicator's position, there was greater opinion change toward a communicator's position when presented with a one-sided argument. The two-sided argument was more effective in effecting opinion change with better educated men, while the one-sided argument was more effective with the less educated men. However, if education and initial position are combined, the two-sided argument is more effective among the better educated regardless of initial position, whereas the one-sided is more effective with the less educated who were already convinced of the one-sided argument's position. Hovland points out

that it was not possible to compare the effects of one-sided versus two-sided communications in terms of resistance to counter-propaganda because of the unavailability of the subjects due to the demands of the war.

Lumsdaine and Janis (1953) were able to compare the effects of one-sided versus two-sided arguments in terms of resistance to counter-propaganda. Presenting one-sided and two-sided arguments to different groups of subjects concerning whether Russia would or would not be able to produce large numbers of atomic bombs for at least five years; the authors found after a counter-communication session (arguments that Russia would not be able to produce bombs for at least five years) that net change in opinion was greatest for those groups initially exposed to a one-sided argument. In other words, the two-sided argument induced the greatest amount of resistance to persuasion so that groups initially exposed to a two-sided argument had less net change in opinion following a counter-propaganda session.

Summarizing both experiments, Hovland, Janis, and Kelley (1953) arrive at these conclusions:

1. A two-sided presentation is more effective in the long run than a one-sided one a) when, regardless of initial opinion, the audience is exposed to subsequent counter-propaganda or b) when, regardless of subsequent exposure to counter-propaganda, the audience initially disagrees with the commentator's position.
2. A two-sided presentation is less effective than a one-sided if the audience initially

agrees with the commentator's position and is not exposed to later counter-propaganda.
(p. 110)

In the same study (Hovland et al, 1953), the authors offer the following discussion of their conclusions:

"Regardless of initial position, a convincing one-sided communication representing only positive arguments will tend to sway many members of the audience farther in the direction advocated by the communicator. Subsequently, however, these persons hear the opposite point of view, also supported by cogent-sounding arguments. Their opinions now tend to be swayed back in the negative direction, especially if the new arguments appear to offset the previous positive arguments. However, if the initial communication is, instead, a two-sided one, it will already have taken into account both the positive and negative arguments and still have reached the positive conclusion. When the listener is then subsequently exposed to the presentation of negative arguments in the counter-propaganda, he is less likely to be influenced in the negative direction. He is already familiar with the opposing point of view and has been led to the positive conclusion in a context where the negative arguments were in evidence. In effect, he has thus been given an advance basis for ignoring or discounting the negative arguments, and thus "innoculated" will tend to retain the positive conclusion." (p. 111)

The idea of "innoculating" subjects against counter-propaganda sessions has been explored further by McGuire (1964). McGuire likens his theory of inducing resistance to persuasion to the biological inoculation process:

"In the biological situation, the person is typically made resistant to some attacking virus by pre-exposure to a weakened dose of the virus. This mild dose stimulates his defenses so that he will be better able to overcome any massive viral attack to which he is later exposed, but is not so strong that this pre-exposure will itself cause the disease."
(p. 200)

Translated to a persuasion situation, McGuire hypothesizes that an individual is made resistant to counter-propaganda by pre-exposure to a "weakened dose" of the counter-propaganda in a pre-training session. In his work, McGuire works with beliefs he maintains are "cultural truisms", beliefs that a person has seldom, if ever, heard attacked. McGuire found that the area of health abounded in almost unanimously accepted beliefs such as: "It's a good idea to brush your teeth after every meal if at all possible," "Everyone should get a yearly chest X-ray to detect any signs of TB at an early stage," and "Mental illness is not contagious."

McGuire uses truisms because (1) the believer in a truism is usually unpracticed in defending his belief and (2) he is unmotivated to undertake the necessary practice. The believer is unpracticed because he has never been called upon to defend the truism and he is unmotivated to start practicing because he regards the belief as unassailable.

The three basic variables involved in most of McGuire's studies are:

- 1) the amount of threat contained in the defenses (one- vs two-sided arguments). (The term "defense" will be explained shortly.)
- 2) the amount of unguided, active participation in the defense required of the believer.
- 3) the interval between the defense (one- vs two-sided argu-

ments) and attack counter-persuasion of the beliefs.

Two fundamental types of defenses, differing in the amount of threat, were used: (a) supportive defenses (one-sided arguments) and (b) refutational defenses (two-sided arguments).

Supportive defenses (one-sided) consist of a series of arguments in favour of a truism, ignoring all arguments against it; it is non-threatening. Refutational defenses (two-sided) are more threatening. Arguments against the truism are mentioned and then refuted. This type of argument emphasizes a position in support of the truism. Refutational defenses (two-sided) may be refutational-same - they may mention and refute the very arguments against the truism that are to be used in subsequent attacks (counter-persuasion) or they may be refutational-different - they mention and refute arguments different from the ones to be used in the attacks, (counter-persuasion).

Two levels of the amount of unguided, active participation in the defense required of the believer are used: (1) a relatively passive condition in which the believer read a defensive essay that had been prepared for him and (2) an active condition in which the believer wrote such an essay (McGuire, 1964, p. 202). The time interval period variable ranges from a few minutes between defense and attack up to one week.

Three experiments of McGuire's are relevant to the present study.

McGuire and Papageorgis (1961) found that the more threatening refutational defense was clearly superior to

the supportive defense in conferring resistance to a subsequent counter-propaganda attack (it is helpful to remember that a refutational-same or a refutational-different defense is functionally equivalent to a two-sided argument).

Papageorgis and McGuire (1961) in another experiment found that induced resistance to counter-propaganda was approximately the same for either refutational-same or refutational-different defense pretreatments. In other words, two-sided presentations are superior regardless of whether the same or different arguments are used in the counter-persuasion.

McGuire and Papageorgis (1961) tested the effects of manipulating the amount of active unguided participation. Four levels of participation were tested: (1) unguided writing, (2) guided writing, (3) reading and underlining, and (4) passive reading. Their main effect prediction was confirmed; over the four levels of increasing participation there was a steady decline in immunizing effectiveness against counter-propaganda attacks. In both designs, that is refutational defense - then propaganda attack; and supportive defense - then propaganda attack, writing without guidance conferred the least resistance to counter-persuasion. Unguided writing consisted of giving the subject a sheet of paper headed by a statement of the truism and telling him that he had twenty minutes to write an essay defending the truism.

McGuire (1964); Hovland, Lumsdaine, and Sheffield (1949); and Lumsdaine and Janis (1953) agree that the two-sided

argument is indeed superior to the one-sided argument in conferring resistance to counter-persuasion, regardless of initial opinion of the issue. McGuire, however, notes that forced-compliance studies (Kelman, 1953; King and Janis, 1956; Brehm and Cohen, 1962) usually find that active participation in the defense of a belief opposing one's own views generally augments the amount of internalized attitude change and subsequent resistance to counter-persuasion. But for already accepted truisms, McGuire (1964) says "the greater the active participation requirement, the less the conferred resistance to subsequent attacks."

The majority of studies dealing with resistance to counter-persuasion have been interpersonal in nature, excepting McGuire and Papageorgis (1961) study dealing with subject participation which was partly intrapersonal (subjects wrote their own defenses). It will be recalled that McGuire and Papageorgis found that as participation increased, there was a steady decline in immunizing effectiveness against counter-persuasive attacks. It is important to remember that McGuire's work has been limited to research with "cultural truisms" whereas other researchers have concerned themselves with a variety of social issues and this may account for the obtained differences.

In sum, interpersonal studies in resistance to counter-persuasion have used both cultural truisms and other beliefs. Intrapersonal studies in resistance to counter-persuasion have

used cultural truisms exclusively. In McGuire's studies utilizing cultural truisms, the passive approach leads to greater resistance to counter-persuasion. In other studies where a more active approach is taken and non-truisms are used, a more active approach confers greater resistance. Therefore it can be seen that a differential effect is created by passive or active participation depending on whether the S is exposed to truisms or non-truisms. It is expected that the present study, therefore, will produce different results from those of McGuire because it will utilize beliefs other than cultural truisms.

To complete the pattern and, perhaps, open up viable lines of research, an intrapersonal study is proposed dealing with inducing resistance to counter-persuasion using beliefs other than cultural truisms. This study takes the self-perception/persuasion research in a new direction by extending both Bem's theory and technique to an investigation of an intrapersonal persuasion study using both one- and two-sided arguments on a particular topic. One-sided and two-sided arguments are used in order to test how effective each form of argument is in inducing resistance to counter-persuasion.

If Bem is correct in his postulate that we make judgments about ourselves on the same basis as we make judgments about others and, therefore, we persuade ourselves on the same basis as we persuade others - namely on the basis of

observable behavior and its apparent controlling conditions, it is hypothesized that the results of an intrapersonal experiment using one-sided and two-sided arguments will be analogous to the results of a similar interpersonal experiment.

The main hypotheses include:

- (1) There will be a significant difference, in postmanipulation attitude, at the intrapersonal and interpersonal levels between Ss who have written/read one-sided arguments and Ss who have written/read two-sided arguments.
- (2) There will be a significant difference in resistance to counter-persuasion at the interpersonal and intrapersonal levels between Ss who have written/read one-sided arguments and Ss who have written/read two-sided arguments.

The attitude change hypothesis (#1) is based on empirical evidence, previously cited, which indicates that a two-sided argument seems to be more persuasive than a one-sided argument if the audience initially disagrees with the argument's position.

Using a forced compliance essay writing format with one-sided versus two-sided arguments, two experiments were conducted:

- (1) an intrapersonal experiment -- attitude change and resistance to counterpersuasion,
- and
- (2) an interpersonal experiment -- attitude change and resistance to counterpersuasion.

The intrapersonal results stemming from the attitude change experiment were compared with results from the attitude change immunization experiment run under the interpersonal conditions.

It was felt that if the results were similar in character, i.e., if the Ss who had written a two-sided defense were more resistant to counterpersuasion than were Ss who had written one-sided arguments and if the same type of difference was found in an interpersonal persuasion experiment with Ss reading arguments, then these results would support the self perception hypothesis.

The independent variables in the attitude change/resistance to counterpersuasion experiments are type of argument (one-sided or two-sided) and type of presentation, intrapersonal (written) or interpersonal (read).

The dependent measure in the attitude change phase of the experiment is the score obtained by subtracting the final attitude score on the questionnaire immediately following essay reading or essay writing (Questionnaire #2) from the attitude score on the premanipulation questionnaire (Questionnaire #1). In the resistance to counterpersuasion phase of the experiment, the dependent variable is the score obtained by subtracting the final attitude on the questionnaire immediately following the counterpersuasion attacks, (Questionnaire #3) from the attitude score on the questionnaire immediately following essay reading or essay writing (Questionnaire #2).

CHAPTER II

METHOD

Subjects

Subjects were volunteers from introductory psychology classes offered in the Diploma Nursing Program and Applied Arts Program at St. Clair College of Applied Arts and Technology. They received course credit for their participation in two group sessions separated by an interval of one week. One hundred and sixty Ss were selected from the subject pool on the basis of their response to the target statement on attitude questionnaire #1. These Ss were randomly assigned to two experimental and two control conditions, each condition containing 40 Ss. All Ss were female.

Materials

The scales employed to measure attitudes were similar to those used by Bem and McConnell (1970) and by Chris. (1971). They were 61 - point horizontal scales labelled at 10 - point intervals (see Appendix). Additional materials included manila envelopes, instruction sheets, pencils or pens, and blank white paper.

Procedure

In the first session, a premanipulation attitude questionnaire (Questionnaire #1) on a number of current campus and social issues was administered to several classes.

Subjects received the following written instructions:

This survey is designed to determine student attitudes on certain important current issues. Although your participation in this survey is completely voluntary, we would greatly appreciate your cooperation. Please write your telephone number, student identification number, name (first name only), and timetable in the spaces provided. This information will be used to identify your questionnaire and facilitate our getting in touch with you for the second session of the study. For research purposes, it is necessary that you participate in a second session of the study. The second session will last approximately 50 minutes. You will not receive course credit unless you participate in both experimental sessions. All information will be kept strictly confidential.

The main instructions for the survey were:

INSTRUCTIONS

Please report your position on each issue presented below. Mark the scale at the point which most accurately indicates your position on the issue.

Example:

How tired are you?

1.....	2.....	3.....	4.....	5/.....	6.....	7.....
not at all	very slightly	some- what	moder- ately	quite	very	extreme- ly

Someone who feels just a little more than "quite tired" would mark the example above as shown.

Following the attitude survey, the experimenter (E) analyzed the attitude ratings of each questionnaire item. The

issue on which there were most students at either extreme end of the scale was selected for use in the experiments. This item was "Human nature is basically evil". An equal number of students who either rated this item (1-2) "strongly disagree", Point 1-16; or (3,4,5) "moderate", Point 16-46; were used in the experiment. These Ss were randomly assigned to one of the two experimental conditions with 40 subjects (20 from the "strongly disagree" category and 20 from the "moderately" category) in each condition: the intrapersonal attitude change and resistance to counterpersuasion condition and the interpersonal attitude change and resistance to counterpersuasion condition.

Intrapersonal experiment: Attitude change and immunization against counterpersuasion

Forty Ss were randomly assigned to this subgroup and were tested one week after the first session. As they entered the experimental room, the Ss were asked for their student identification number as an identification check. Subjects were given a large manila envelope with appropriate materials inside. When all Ss were seated, the E gave them the following instructions:

Before you open your envelopes, I would like to give you some idea of their contents and some instructions as to what you are to do with what you find inside. When I tell you, open the large envelope and take out the envelope marked with the green slash like this (E holds up an envelope with a green slash).

Open this envelope and read the enclosed instructions carefully. Then proceed to do as the instructions tell you. Open only the envelope with the green slash until you receive future instructions from me. Are there any questions at all? You have up to twenty-five minutes to complete this part of the study. You may open your envelopes.

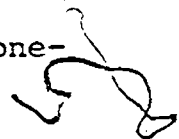
The instructions in the green-slashed envelope for one-half of the randomly assigned Ss in the one-sided (supportive) argument condition were:

The Psychology Department of St. Clair College of Applied Arts and Technology is continuing its research into campus and social issues and student opinions. It has been shown that one of the best ways to get pertinent arguments on both sides of an issue is to ask people to write essays favoring only one side of the issue. This week we are collecting arguments for and against the various positions expressed. Each participant is being asked to write a short essay on one of the issues. On the attached sheet, you are to write a one page essay which argues as convincingly as possible that human nature is basically evil. Please follow the outline and instructions on the attached sheet.

In order to heighten the cognitive dissonance phenomena by increasing the consequences of counterattitudinal behavior (after Hoyt, Henley and Collins (1971) and Cooper (1971), these additional instructions were included:

This essay will be used by a college group that is trying to come to some conclusions about human nature and world conditions in order to compile a paper to submit to the Federal government. Please write forcefully and strongly and sign your essays when completed. Your essay will count.

On the attached sheet, the target item statement was written at the top. This statement was followed by a one-



sentence argument supporting the issue and instructions for Ss to write a paragraph supporting this statement:

This was followed by a second, third, fourth, fifth, and sixth argument with instructions for Ss to write paragraphs supporting these arguments. (see Appendix)

The remaining Ss were randomly assigned to a two-sided (refutational) argument condition. The instructions for these Ss read:

The Psychology Department of St. Clair College of Applied Arts and Technology is continuing its research into campus and social issues and student opinions. It has been shown that one of the best ways to get pertinent arguments on both sides of an issue is to ask people to write essays dealing with both sides of an issue. This week we are collecting two-sided arguments. Each participant is being asked to write a short essay on one of the issues. On the attached sheet you are to write a one-page essay which argues both sides of the issue as convincingly as possible that human nature is basically evil. Please follow the outline and instructions on the attached sheet.

In order to heighten the cognitive dissonance phenomena by increasing the consequences of counterattitudinal behavior (after Hoyt, Henley and Collins (1971) and Cooper (1971), the additional instructions given to the one-sided group were included. The group received an attached sheet with the target item statement written at the top. This statement was followed by a one-sentence argument supporting the target item statement and instructions for Ss to write a paragraph supporting and refuting these last statements.

The guided writing format was used in this study in

order to mirror as closely as possible McGuire's (1964) general experimental procedure.

After 25 minutes, the E instructed Ss to replace their essays in the green-slashed envelope and open the plain white envelope also found in the manila envelope. In the white envelope there was an attitude questionnaire (Questionnaire #2). The instructions for the questionnaire were:

This survey is designed to determine student attitudes on certain important current issues. Please place your student ID number and first name at the top of the questionnaire. Please report your position on each issue presented below. Mark the scale at the point which most accurately indicates your position on the issue.

How hungry are you?

1.....2.....3.....4.....5/.....6.....7
 not at very some- moder- quite very extreme-
 all slightly what ately ly

Someone who feels just a little more than "quite hungry" will mark the example above as shown.

These instructions were followed by a twenty item attitude questionnaire. The target item statement from the original premanipulation attitude questionnaire was included in this questionnaire as item 16. (see Appendix)

Upon completion of the attitude questionnaire, Ss were asked to return the questionnaire to the white envelope and place it in the large manila envelope. The E handed out a manila envelope containing an instruction sheet and a sheet containing written attacks on the target issue statement.

The E instructed Ss as follows:

Please remove the sheets contained in the envelope you have just been handed. Read the instruction sheet and carefully follow these instructions. Please put your student identification number and your first name at the top of the instruction sheet in the space provided.

The instruction sheet read:

Some people are beginning to question the validity of the statement that human nature is basically evil. Attached is an essay which offers arguments against the statement that human nature is evil. Please read this essay carefully. You may have up to ten minutes to read this essay.

The attacks had the form of an essay composed by the experimenter. The first paragraph stated that "there is a new vision concerning the nature of man" and remarked that many psychologists and sociologists were beginning to question the old models and theories used to explain human behavior. The rest of the essay argued forcefully for the essential goodness of human nature. (see Appendix)

As the Ss were reading, the E collected the empty manila envelopes that contained the attacks. After Ss completed reading the essay, they were instructed to place the instruction sheet and essay in the first manila envelope they were given containing the green-slashed envelope and white envelope with the attitude questionnaire. The E then handed out an attitude questionnaire (Questionnaire #3) on a number of current campus and social issues to each S. This questionnaire was made up of 20 items, one of which was the target

issue statement (Item 11).

Instructions on the questionnaire read:

Instructions

To conclude this survey of student attitudes on certain important issues, we would ask that you fill out the following questionnaire. Please include your student identification number and first name in the spaces provided.

Thank you for your cooperation.

Please report your position on each issue presented below. Mark the scale at the point which most accurately indicates your position on the issue.

Example

How tired are you?

1.....2.....3.....4.....5.....6.....7
 not at very some- moder- quite very extreme-
 all slightly what ately ly

Someone who feels just a little more than "quite tired" would mark the example above as shown.

Upon completion, the Ss were instructed to place this questionnaire in the remaining manila envelope.

Interpersonal Experiment: Attitude Change and Resistance to Counterpersuasion

Forty Ss were run in this condition one week after the first session. The Ss were given a large manila envelope with appropriate materials inside. When all Ss were seated in the experimental room, the E gave the Ss the same instructions as given in the intrapersonal experiment.

The instructions in the green-slashed envelope for one-half of the randomly assigned Ss (one-sided supportive argument)

were:

The Psychology Department of St. Clair College of Applied Arts and Technology is continuing its research into campus and social issues and student opinions. The Department feels that it is important that every individual be kept informed of various arguments both for and against certain current topics. In keeping with this departmental philosophy, we would ask that you carefully read the short essay attached to this instruction sheet.

All essays from the intrapersonal experiment written by the Ss were used as the persuasive instruments in the interpersonal experiment - each to the appropriate condition. After the experiment, independent judges (St. Clair College faculty) rated the persuasiveness of all the essays as a control measure.

After ten minutes the experimenter instructed Ss to replace their essays in the large envelope and open the plain white envelope. In the white envelope was an attitude questionnaire identical to the one used in the intrapersonal experiment.

Upon completion of the scale, Ss were asked to place all materials back in the manila envelope.

The E then handed out a manila envelope containing an instruction sheet and a sheet containing written attacks on the target issue statement.

Procedures from this stage of this experiment on, were identical to those of the intrapersonal experiment: attitude change and resistance to counterpersuasion.

Controls

In order to control for the regression to the mean phenomena and the possible effects of mere participation in the experiment four control groups containing twenty subjects each were run.

To mirror the experimental conditions as much as possible, an intrapersonal and interpersonal equivalence test was composed. For example, in the intrapersonal condition, controls were asked to either compose a one-sided or a two-sided essay following a guided writing format which argued as convincingly as possible that prostitution should be legalized. In the interpersonal condition, controls were asked to read the essays written during the intrapersonal condition.

Following the controls reading/writing, the experimenter asked each control subject to complete attitude questionnaire #2. (see Appendix) Following the completion of this task, the experimenter next handed out an experimenter-composed essay which argued that prostitution should not be legalized. All control subjects were asked to read this essay.

After reading this essay, subjects were then asked to complete attitude questionnaire #3. (see Appendix)

It should be emphasized that both control and experimental subjects completed the same attitude questionnaires and were of course checked on the "Human nature is basically evil" item. All control group instruments are contained in the Appendix.

CHAPTER III

RESULTS AND DISCUSSION

It was predicted on the basis of self-persuasion theory that what has traditionally been observed occurring at the interpersonal level during attitude change experiments (that Ss who have read or heard two-sided arguments are more persuaded and left more resistant to counterpersuasion than are Ss who have read or hear one-sided arguments) could also be observed occurring on the intrapersonal level, that is with Ss composing their own arguments and thereby persuading themselves.

In order to test these predictions, two hypotheses were formulated. In the null form, the first of these hypotheses states that there will be no significant difference in post-manipulation attitude between Ss who have written/read one-sided arguments and Ss who have written/read two-sided arguments.

Interpersonal studies on attitude change (Hovland, Lumsdaine, and Sheffield, 1949; and Hovland, Janis, and Kelley, 1953) have indicated that people initially opposed to a communicator's position experienced greater opinion change toward a communicator's position when presented with a two-

sided argument as opposed to a one-sided argument. A replication of such studies was attempted as part of this research project, in that some Ss originally chosen for this study strongly opposed the position "Human nature is basically evil".

The data was subjected to a three factor analysis of variance with repeated measures on the last factor after Winer's design (1971, pp. 559-569). This analysis was necessary in order to determine whether there was significance on any of the three factors in question thereby justifying further analysis to ascertain whether, at the interpersonal level, two-sided arguments were more effective than one-sided arguments in producing attitude change.

The three factors in this analysis were type of presentation (arguments that were either written or read by Ss), type of argument (one-sided vs. two-sided), and trials (three presentations of attitude questionnaires - i.e. before the initial experimental manipulation; after the attitude change portion of the study and before counter-persuasion; and immediately following the counterpersuasion - each containing as a questionnaire item the statement "Human nature is basically evil").

This analysis (Table 1) resulted in significant F scores for experimental Ss for B factor (type of argument), C factor (trials), and a significant interaction effect between B and C factors. The significant difference ($F = 6.45$; critical

TABLE 1

Comparison of All Experimental Groups on Target Item Over All Trials (Questionnaire #1, #2, #3) to Test For Significant Differences Between Experimental Subjects In Attitude Change From Before Experimental Manipulation to After Counterpersuasion

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
<u>Between Subjects</u>	<u>35471.75</u>	<u>79</u>		
Type of presentation - reading or writing (A)	504.62	1	504.62	1.21
Type of argument - one or two-sided (B)	2693.44	1	2693.44	6.45*
AB	552.00	1	552.00	1.32
Subj. w. groups error (between)	31721.69	1	417.39	
<u>Within Subjects</u>	<u>15656.69</u>	<u>160</u>		
Trials (C)	2426.31	2	1213.16	16.92*
AC	187.94	2	93.97	1.31
BC	2065.69	2	1032.84	14.41*
C x subj. w. groups error within	10896.44	152	71.69	

*p < .01

value = 4.75, $p < .01$) for B factor is most relevant to the discussion at this point. The other results will be discussed later.

The B factor F score indicates that there was a significant difference in attitude change between Ss who either read or wrote a one-sided argument and Ss who either read or wrote a two-sided argument. To test for the direction of attitude change, a test on the difference between mean attitude scores after Winer's design (1971, pp. 564-567) between the two types of arguments (one-sided vs. two-sided) written or read by experimental Ss was conducted. Analysis (Table 2) indicates a significant change (from $\bar{x} = 16.27$ to $\bar{x} = 27.85$; $F = 37.38$, critical value for this test is $F_{.01}(2,152) = 4.75$) for Ss who either read or wrote a two-sided argument. A similar test indicated no significant attitude change (from $\bar{x} = 17.10$ to $\bar{x} = 20.47$; $F = 3.22$, critical value for this test is $F_{.01}(2,152) = 4.75$) for Ss who either read or wrote a one-sided argument.

These results indicate that experimental Ss who initially disagreed with the statement "Human nature is basically evil" tended to shift their attitudes more towards the "agree" side of the attitude scale after they had written/read a two-sided argument as opposed to those who had written/read a one-sided argument.

To decide whether the present study had replicated past interpersonal studies, it was necessary to examine just the

TABLE 2

Presentation of the B (one-sided vs. two-sided argument)
 C (trials - before experimentation, after attitude change,
 after counterpersuasion)

Summary Table for Experimental Ss and Results of Tests on
 The Difference Between Mean Attitude Scores for Experimental
Ss Over Trials #1, #2, and #3.

	1 Trials (C)	2	3
Argument (B) 1 (one-sided)	17.11	20.47	11.80
2 (two-sided)	16.27	27.85	25.32

All scores in cells represent means

Tests on the Difference Between Mean Attitude Scores

Sample Formula: $F = \frac{BC_{12} - BC_{22}}{(2nrMs \text{ error within})} =$

BC 11 BC 12	F = 3.22*	BC 12 BC 22	F = 15.175**
BC 11 BC 13	F = 7.76**	BC 13 BC 23	F = 51.039**
BC 12 BC 13	F = 20.99**		
BC 21 BC 22	F = 37.38**	<u>Critical Values for Tests</u>	
BC 21 BC 23	F = 22.85**	F .95 (2,152)	= 3.06*
BC 22 BC 23	F = 1.77	F .99 (2,152)	= 4.75**
BC 11 BC 21	F = 0.178		

interpersonal (reading) portion of the data which led to the above results. The data was subjected to a number of mean difference tests as previously mentioned. Analysis (Table 3) revealed that Ss who read two-sided arguments had a significant change in attitude (from $\bar{x} = 17.55$ to $\bar{x} = 32.40$; $F = 30.76$, critical value for this test is $F.01 (2,152) = 4.75$) as compared to a non-significant attitude change (from $\bar{x} = 16.95$ to $\bar{x} = 21.25$; $F = 2.58$, critical value for this test is $F.01 (2,152) = 4.75$) for Ss who read one-sided arguments. It is to be remembered that the means used in these analyses were the mean responses of each group of Ss to the statement "Human nature is basically evil". Ss responded to this target statement on questionnaires distributed both before and after they read either one- or two-sided arguments.

The attitude change portion of the present study did replicate the findings of Hovland et al (1949) and Hovland et al (1953) that at the interpersonal level of communication two-sided arguments are more effective than one-sided arguments in producing attitude change.

At the intrapersonal level of communication, self-persuasion theory postulates that we persuade ourselves in the same way as we persuade others. If the theory is correct, the same type of change in attitude that occurs at the interpersonal level of this study among Ss who read essays should also be observed among Ss who write their own essays at the intrapersonal level. In other words, Ss who wrote

TABLE 3

Presentation of the B (one-sided vs. two-sided argument)
C (trials - before experimentation, after attitude change,
after counterpersuasion.

Summary Tables for Interpersonal (Reading) Experimental Ss
and Intrapersonal (Writing) Experimental Ss and Results of
Tests on the Difference Between Mean Attitude Scores For
Interpersonal and Intrapersonal Ss Over Trials #1, #2, and #3.

		Trials (C)		
		1	2	3
Reading Argument A ₁	1-sided B1	16.95	21.25	10.95
	2-sided B2	17.55	32.40	28.40
		Trials (C)		
		1	2	3
Writing Argument A ₂	1-sided B1	17.20	19.70	12.65
	2-sided B2	15.00	23.30	22.25

All scores in cells represent means

Tests on the Difference Between Mean Attitude Scores

Sample Formula: $F = \frac{A1 B1 - A1B1C2}{(2nrMs \text{ error within})} =$

A1 B1 C1 A1 B1 C2	F = 2.58	A2 B1 C2 A2 B1 C3	F = 6.93*
A1 B2 C1 A1 B2 C2	F = 30.76*	A2 B2 C2 A2 B2 C3	F = 0.15
A2 B1 C1 A2 B2 C2	F = 0.87	A1 B1 C2 A2 B1 C2	F = 0.33
A2 B2 C1 A2 B2 C2	F = 9.61*	A1 B2 C2 A2 B2 C2	F = 11.55*
A1 B1 C2 A1 B1 C3	F = 14.80*	<u>Critical Value for Tests</u>	
A1 B2 C2 A1 B2 C3	F = 2.23	F .01 (2,152) = 4.75	

two-sided essays should indicate more attitude change than Ss who wrote one-sided essays. The significant F score for B factor (type of argument) previously mentioned permits further analysis.

Utilizing the intrapersonal data from the three factor repeated measure analysis of variance discussed above, a number of tests on the difference between mean attitude scores after Winer's design (1971, pp. 564-567) were conducted. Analysis (Table 3) revealed that Ss who wrote two-sided arguments had a statistically significant change (from $\bar{x} = 15.00$ to $\bar{x} = 23.30$; $F = 9.61$, critical value for this test is $F.01 (2, 152) = 4.75$) as compared to a non-significant change (from $\bar{x} = 17.20$ to $\bar{x} = 19.70$; $F = 0.87$, critical value for this test is $F.01 (2, 152) = 4.75$) for Ss who wrote one-sided arguments.

Furthermore, not only were the changes significant but they were also in the same direction as those occurring in the interpersonal studies (Figure 1). Subjects who read/wrote two-sided arguments are more persuaded than Ss who read/wrote one-sided arguments. These results are consistent with the implications of self-persuasion theory.

The three factor repeated measure analysis of variance previously discussed indicated that among experimental and control groups, there was no significant difference between groups on the type of presentation (arguments written vs. arguments read) factor. In other words, it initially appear-

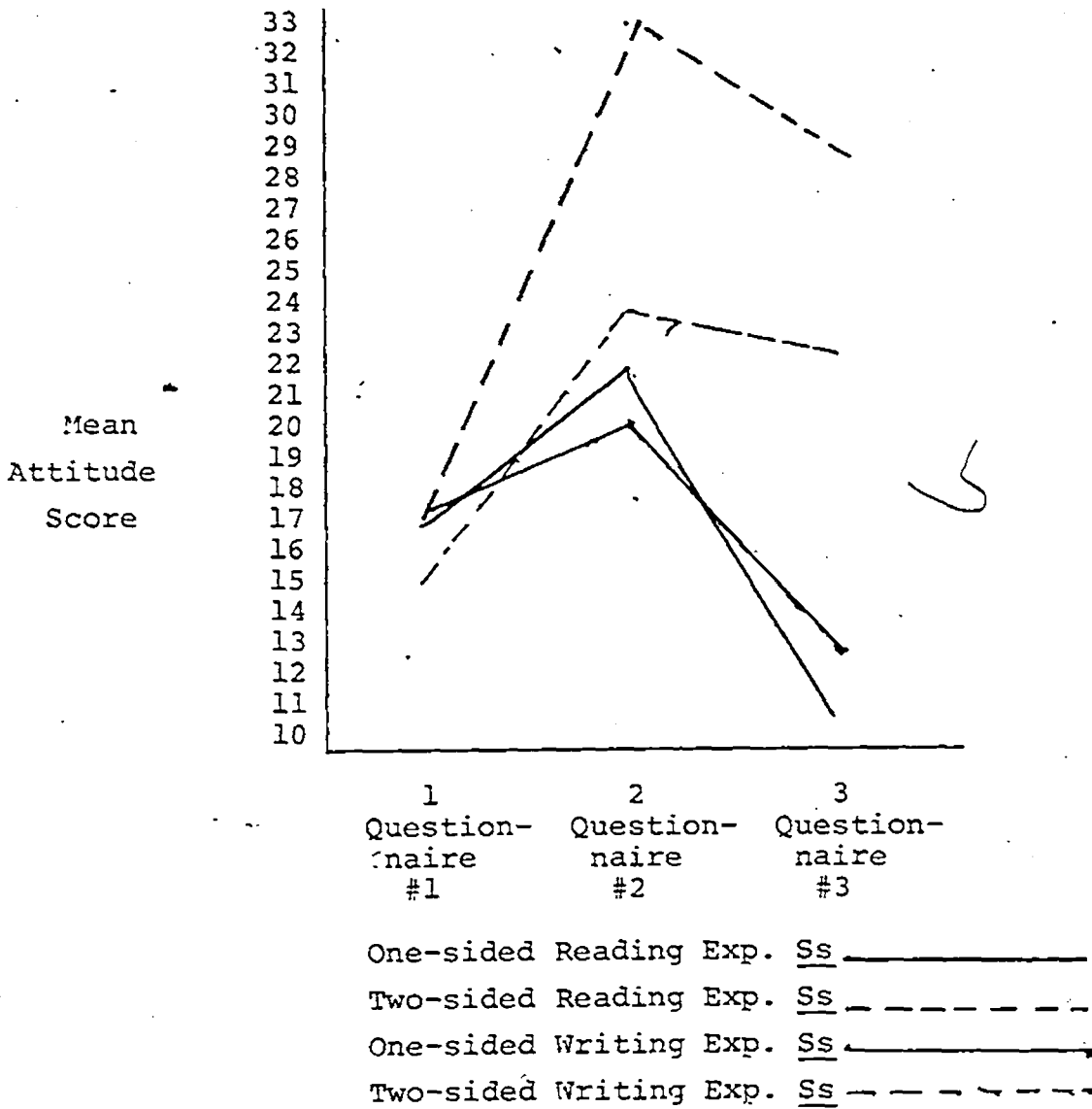


Figure 1. Graphical Presentation of Attitude Change from Before Experimentation (Questionnaire #1) to After Counterpersuasion (Questionnaire #2)

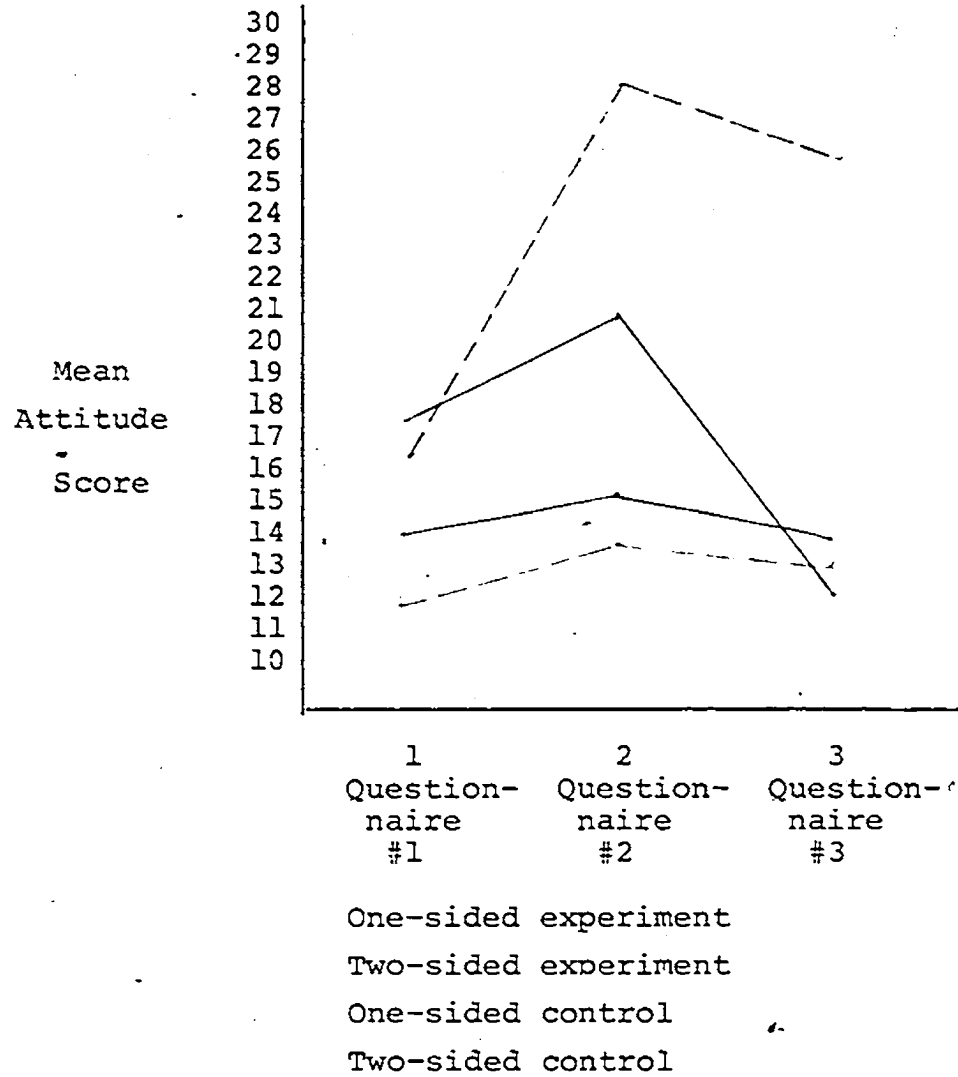


Figure 2. Graphical Presentation of Attitude Change from Before Experimentation (Questionnaire #1) to After Counterpersuasion (Questionnaire #3)

ed that there was no significant difference in magnitude of attitude change between Ss who read one-sided arguments and Ss who wrote one-sided arguments; similarly, no significant difference between Ss who read two-sided arguments and Ss who wrote two-sided arguments. Tables 4 and 5 summarize these results.

However subsequent analysis utilizing mean difference tests similar to those previously discussed revealed that there was a significant difference ($\bar{x} = 32.40$ as compared to $\bar{x} = 23.30$, $F = 11.55$; critical value for this test is $F_{.01}(2,152) = 4.75$) in final attitude position after reading/writing between two-sided argument readers and two-sided argument writers. An inspection of Figures 1 and 2 reveals that two-sided readers made a greater change in attitude than did two-sided writers. However, direction of change was similar for both groups as predicted by self-persuasion theory; the difference was in magnitude of change only. Generally, the same types of changes took place for both interpersonal and intrapersonal groups except in this one instance. No significant difference ($\bar{x} = 19.70$ as compared to $\bar{x} = 21.25$, $F = 0.33$) in magnitude of change was indicated when comparisons were made between one-sided readers and one-sided writers (Table 3).

In summary, the analysis of the data from the interpersonal level, the intrapersonal level, and both sets of data analyzed together reveal essentially the same types of attitude change both in direction and magnitude (except for

TABLE 4

Comparison of All Control Subjects on Target Item Over All Trials (Questionnaire #1, #2, #3) to Test for Significant Differences Between Control Subjects in Attitude Change From Before Control Task to After Counterpersuasion on Control Task

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
<u>Between Subjects</u>	<u>67581.0</u>	<u>79</u>		
Type of presentation - reading or writing (A)	74.82	1	74.82	0.09
Type of argument - one or two-sided (B)	79.35	1	79.35	0.09
AB	1622.40	1	1622.40	1.87
Subj. w. group	65804.43	76	865.85	
<u>Within Subjects</u>	<u>3660.69</u>	<u>160</u>		
Trials (C)	91.86	2	45.93	2.01
AC	23.51	2	11.75	0.51
BC	27.48	2	13.74	0.60
ABC	44.43	2	22.21	0.97
C x subj. w. group	3473.39	152	22.85	

TABLE 5

Comparison of Responses of All Experimental and Control Subjects on Questionnaire Target Item Prior to Experimentation (Questionnaire #1)

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Type of presentation - reading or writing (A)	27.22	1	27.22	0.11
Group - experimental or control (B)	442.22	1	442.22	1.83
Type of argument - one- or two-sided (C)	84.10	1	84.10	0.35
AB	4.22	1	4.22	0.02
AC	250.00	1	250.00	1.03
BC	16.90	1	16.90	0.07
ABC	608.40	1	608.40	2.52
Error	36696.90	152	241.43	
Residual	36696.90	152	241.43	
Corrected Total	38129.97	159	239.81	

two-sided readers as compared to two-sided writers) occurring at both the interpersonal and intrapersonal levels among one-sided and two-sided Ss. The results are consistent with past interpersonal studies and implications from self-persuasion theory that two-sided arguments produce more change than one-sided arguments, therefore, the null hypothesis is rejected.

With regards to Hypothesis #1, the three factor repeated measures analysis of variance previously described indicated a statistically significant C factor and BC interaction effect. The analysis demonstrated that significant attitude changes took place over the three attitude questionnaire trials, factor C, ($F = 16.92$; $p < .01$) for experimental groups and also a significant interaction effect ($F = 14.41$; $p < .01$) between B and C factors (type of argument and trials). These results indicate, as previously demonstrated and as will be shown when the second hypothesis is considered, that attitudes do change over all three trials as a consequence of whether Ss have written/read one- or two-sided arguments.

In comparison, attitudes did not change significantly over the three attitude questionnaire trials for any of the four control groups (Table 4). It is to be remembered that one of the reasons that the control Ss were run in this study was to control for the regression to the mean phenomenon, the tendency for extreme scores to approach the overall mean of the group on subsequent testings. An inspection of Table 4

reveals no significant changes in attitude for any of the control groups therefore, when interpreting the experimental data, the regression to the mean phenomenon can be ruled out as an explanation of any attitude change. Because no significant attitude changes were indicated for controls, attitude change as a result of merely participating in an experiment can also be ruled out when interpreting the data.

In order to allow for a more comprehensive analysis of the data and also to allow for comparisons to be made among all experimental and control Ss after the completion of each of the three attitude questionnaires, the data was also subjected to a $p \times q \times r$ factorial analysis after Winer's design (1971, pp. 452- 463). The three factors in this analysis were type of presentation (arguments written vs. arguments read), type of argument (one-sided vs. two-sided), and group (experimental vs. control). The analysis indicated no significant differences in mean attitude scores between the four experimental groups and four control groups on their responses to the statement "Human nature is basically evil" on Questionnaire #1 prior to experimental manipulation (Table 5).

The above analysis revealed a significant difference in mean attitude scores between experimental Ss and control Ss ($F = 13.65$; critical value = 4.75, $p < .01$) after Ss had written/read one-sided or two-sided arguments (Table 6). It is to be remembered that control Ss wrote on a topic unrelated to the attitude questionnaire target statement. Control Ss either

TABLE 6

Comparison of Responses of All Experimental and Control Subjects on Target Item on Questionnaire #2 to Test for Differences Between Experimental and Control Groups Immediately After Reading or Writing Arguments

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Type of presentation - reading or writing (A)	384.40	1	384.40	1.50
Group - experimental or control (B)	3496.90	1	3496.90	13.65*
Type of argument - one- or two-sided (C)	435.60	1	435.60	1.70
AB	198.02	1	198.02	0.77
AC	4.22	1	4.22	0.02
BC	664.40	1	664.40	2.59
ABC	672.40	1	672.40	2.62
Error	38932.20	152	256.13	
Residual	38932.20	152	256.13	
Total	44787.00	159	281.68	

* $p < .01$

read or wrote essays concerning the legalization of prostitution. This analysis reinforces previously discussed findings of the present study that indicated that attitude change does occur with two-sided Ss changing more than one-sided Ss.

The results of this portion of the study are interesting in light of Festinger's (1957) cognitive dissonance theory. As described by Fishbein and Ajzen (1975, p. 431)

The "forced-compliance" paradigm in dissonance theory suggests that the greater the promised reward or threatened punishment, the more pressure is put on the individual to perform the counter-attitudinal behavior and the more justified he should feel in performing the behavior. Increasing the magnitude of reward should thus lead to a reduction in dissonance. Since the amount of attitude change is assumed to vary directly with the magnitude of dissonance, promising a person a high reward for his counter-attitudinal behavior should result in less attitude change than promising him a low reward performing the same behavior.

This study did not highly reward Ss (Ss were given a project credit towards their final mark in the introductory psychology course) for their participation in the study so, on the basis of dissonance theory, more attitude change should be produced than if Ss had been highly rewarded for their counterattitudinal behavior. On face value, it would not seem that course credit was a large reward. Unfortunately, data referring to Ss' attitudes in regard to the reward was not collected.

In addition, in order to heighten the dissonance effect,

additional instructions were given to all experimental and control intrapersonal (writing) Ss that their essays would be used as sources of information for briefs to be submitted to the Federal government, hence increasing the significance of the consequences of their behavior. As Hoyt, Henley, and Collins (1971) and Cooper (1971) report, personal responsibility is a necessary condition for heightening dissonance arousal. Brehm and Cohen (1962) also report that the mere fact that a person commits himself to engage in a counterattitudinal behavior should be sufficient to arouse dissonance and hence produce attitude change.

On the basis of dissonance theory, therefore, attitude change would have been expected in all experimental Ss. But how would writing one- or two-sided arguments affect that change according to dissonance theory? Dissonance theorists could argue that two-sided Ss could be expected to change more because as the subject is writing a two-sided argument, he is forced to deal with his discrepant behavior. The subject feels one way about a topic but is asked to adopt an opposite point of view as well while writing his two-sided argument. As he thinks up new ideas against his initial attitude position, he is constantly reminded of the discrepancy that exists between the two sets of ideas. The S is more aware of the discrepancies in his behavior.

Even though he is engaging in counterattitudinal behavior, the two-sided writer is likely to feel more commit-

ment (more "ownership" of what he is writing) to the task at hand because he is allowed to deal with his own personal beliefs on the topic. Hence, according to past research (Aronson, 1966), this higher degree of commitment should lead to more dissonance and hence more attitude change as compared to one-sided writers who are writing completely against personal position and are likely to feel less commitment (less belief in what they are writing) to the task. So awareness of the discrepancy in behavior and commitment to the essays written might explain the observed attitude change.

In contrast, however, one might argue that one-sided writers would experience more dissonance and hence change more because they are writing completely counterattitudinally and thus all of their behaviour is dissonance producing whereas two-sided writers are sometimes writing counterattitudinally and sometimes are writing consistently with their attitudes and thus only part of their behavior is dissonance producing thereby experiencing less dissonance.

There is perhaps some disagreement as to which type of argument would be more difficult to write. Rosenberg (1966) has argued that dissonance theory may be limited to situations where not much cognitive elaboration is required; he contended that where the task is more complex, incentive effects might occur.

Further research could perhaps be done in this area

especially taking into account the Ss perceptions of task complexity, commitment, and task reward. At present, the theoretical implications of self-persuasion theory offer a much clearer interpretation of the attitude change part of the results of the present study.

In order to test the intrapersonal predictions derived from the interpersonal literature with regards to resistance to counter-persuasion, the second hypothesis, in the null form, states that there will be no significant difference in resistance to counterpersuasion between Ss who have written/read one-sided arguments and Ss who have written/read two-sided arguments. Interpersonal studies in resistance to counter-persuasion (Lumsdaine and Janis, 1953; Hovland et al, 1953) have found that a two-sided argument induced more resistance to counterpersuasion than a one-sided argument. In other words, groups initially exposed to a two-sided argument had less net attitude change following counterpersuasion than did groups initially exposed to one-sided arguments.

A replication of the findings of these studies with regards to resistance to counterpersuasion was attempted as part of this research project. The data, as previously discussed, was subjected to a three factor analysis of variance with repeated measures on the last factor after Winer's design (1971, pp. 559-569). With regards to the second hypothesis, this analysis was necessary in order to determine whether there was significance on any of the three

factors in question thereby justifying further analysis to ascertain whether, at the interpersonal level, two-sided arguments were more effective than one-sided arguments in inducing resistance to counterpersuasion. As reported previously, this analysis (Table 1) indicated significant F scores for experimental Ss for B factor (type of argument), C factor (trials), and a significant interaction effect between B and C factors. The significant difference ($F = 6.45$; $p < .01$) for B factor is most relevant to the discussion at this point. The other results will be discussed later.

The B factor F score indicates that there was a significant difference in resistance to counterpersuasion between Ss who either read or wrote a one-sided argument and Ss who either read or wrote a two-sided argument. To test for resistance, a test on the difference between mean attitude scores after Winer's design (1971, pp. 564-567) between two types of arguments (one-sided vs. two-sided) written or read by experimental Ss prior to counterpersuasion was conducted. Analysis (Table 2) indicated a significant change in attitude (from $\bar{x} = 20.47$ to $\bar{x} = 11.80$; $F = 20.99$, critical value for this test is $F_{.01}(2,152) = 4.75$) for Ss who either read or wrote a one-sided argument prior to counterpersuasion. A similar test indicated no significant attitude change (from $\bar{x} = 27.85$ to $\bar{x} = 25.32$; $F = 1.77$, critical value for this test is $F_{.01}(2,152) = 4.75$) for Ss who either read or wrote a two-sided argument prior to counterpersuasion.

These results indicate that experimental Ss who either read or wrote a two-sided argument were more resistant to subsequent counterpersuasion than were Ss who either read or wrote a one-sided argument prior to counterpersuasion. To decide whether the present study had replicated past interpersonal studies, it was necessary to examine just the interpersonal (reading) portion of the data which led to the above results. The data was subjected to a number of mean difference tests similar to those previously mentioned. Analysis (Table 3) revealed that Ss who read one-sided arguments prior to counterpersuasion had a significant change in attitude (from $\bar{x} = 21.25$ to $\bar{x} = 10.95$; $F = 14.80$, critical value for this test is $F.01 (2,152) = 4.75$) following counterpersuasion as compared to a non-significant attitude change (from $\bar{x} = 32.40$ to $\bar{x} = 28.40$; $F = 2.23$, critical value for this test is $F.01 (2,152) = 4.75$) for Ss who read two-sided arguments prior to counterpersuasion. The means used in these analyses were the mean responses of each group of Ss to the statement "Human nature is basically evil" on the attitude questionnaires distributed to Ss both before and after counterpersuasion.

The resistance to counterpersuasion portion of this study did replicate the findings of Lumsdaine and Janis (1953) and Hovland et al (1953) that at the interpersonal level of communication two-sided arguments are more effective than one-sided arguments in producing resistance to subsequent counterpersuasion. As previously discussed, self-persuasion theory

postulates that at the intrapersonal level, we persuade ourselves in the same way we persuade others. Support for the theory was indicated by the results gleaned from the testing of Hypothesis #1 in the present study. Based on self-persuasion theory, it was expected that the same type of resistance to counterpersuasion that was observed occurring at the interpersonal level of this study among Ss who read essays prior to counterpersuasion should also be observed among Ss who write their own essays at the intrapersonal level prior to counterpersuasion. In other words, Ss who wrote two-sided essays prior to counterpersuasion should indicate more resistance to subsequent counterpersuasion than Ss who wrote one-sided essays prior to counterpersuasion. Papageorgis and McGuire (1961) conducted a study similar to the present study that was partly intrapersonal (Ss wrote their own defenses) utilizing cultural truisms. They found that a two-sided argument was more effective than a one-sided argument in conferring resistance to counterpersuasion. The present study, however, used arguments other than cultural truisms. The significant B factor (type of argument) F score with regard to the B factor mentioned earlier allows further analysis. Utilizing the intrapersonal data from the three factor repeated measures analysis mentioned earlier, a number of tests on the difference between mean attitude scores after Winer's design (1971, pp. 564-567) were conducted. Analysis (Table 3) indicated that Ss who wrote two-sided arguments prior to coun-

terpersuasion had a non-significant change in attitude ($\bar{x} = 23.30$ to $\bar{x} = 22.25$; $F = 0.15$, critical value for this test is $F_{.01}(2,152) = 4.75$) as compared to a significant change in attitude following counterpersuasion ($\bar{x} = 19.70$ to $\bar{x} = 12.65$; $F = 6.93$, critical value for this test is $F_{.01}(2,152) = 4.75$) for Ss who wrote one-sided arguments prior to counterpersuasion.

These results are again consistent with the implications of self-persuasion theory. The same pattern of results can be observed at both the interpersonal and intrapersonal levels. Subjects who either read or wrote two-sided arguments prior to counterpersuasion are more resistant to subsequent counterpersuasion than Ss who either read or wrote one-sided arguments prior to that same counterpersuasion.

The data was also subjected to a $p \times q \times r$ factorial analysis after Winer's design (1971, pp. 452 - 463). The three factors in this analysis were type of presentation (arguments written vs. arguments read), type of argument (one-sided vs. two-sided), and group (experimental vs. control).

The above analysis (Table 6) indicated significant differences between control group and experimental group mean scores prior to counterpersuasion ($F = 13.65$, $p < .01$). Following counterpersuasion, this same analysis (Table 7) indicated significant differences between experimental Ss who read/wrote one-sided arguments and Ss who read/wrote two-sided arguments prior to counterpersuasion ($F = 7.03$, $p < .01$); and a signifi-

cant interaction effect between groups (experimental vs. control) and type of argument (one-sided vs. two-sided) written or read ($F = 8.33, p < .01$).

An inspection of group means indicates a higher total group mean ($\bar{x} = 18.56$ as compared to $\bar{x} = 13.74$) for the experimental groups as compared to the control groups (these means represent final group means after counterpersuasion). This result indicates that after counterpersuasion, there existed significant differences in mean attitude between experimental Ss as a whole and control Ss as a whole, whereas prior to experimentation, significant differences did not exist.

An inspection of group means indicates a higher group mean ($\bar{x} = 19.38$ as compared to $\bar{x} = 12.91$) for all experimental and control Ss who read/wrote a two-sided argument as compared to all experimental and control Ss who read/wrote one-sided arguments. However, further analysis shows that this difference is due solely to the two-sided experimental group mean ($\bar{x} = 25.32$) being significantly different from the group means for the experimental Ss who read/wrote one-sided arguments ($\bar{x} = 11.80$) and control Ss who read/wrote one-sided ($\bar{x} = 13.45$) or two-sided ($\bar{x} = 14.17$) arguments. Therefore the significant interaction effect of $F = 8.33$ is due to the significant difference between the two-sided experimental Ss and all other groups of Ss. The result indicates that two-sided experimental Ss were more resistant to counterpersuasion, and thereby corroborates the findings of the factorial repeat-

ed measures analysis and the mean tests discussed previously in this section.

The results of both analyses indicate a rejection of the null hypothesis that there is no significant difference in resistance to counterpersuasion at the interpersonal and intrapersonal levels between Ss who have written/read one-sided arguments and Ss who have written/read two-sided arguments and control subjects.

It was noted in the introduction to this paper that generally forced compliance studies (Kelman, 1953; King and Janis, 1956; Brehm and Cohen, 1962) have found that active participation in the defense of a belief opposing one's own views generally augments the amount of internalized attitude change and subsequent resistance to counterpersuasion. McGuire (1964), on the other hand, found that active participation tended to confer less resistance to counterpersuasion.

The present study found that there was no significant difference to resistance to counterpersuasion between Ss who read and Ss who wrote. The significant differences were due to the type of argument (one-sided or two-sided) that was either written or read and not to the method of presentation (whether Ss wrote or read).

The discrepancy discussed above between the findings of Kelman (1953), King and Janis (1956), and Brehm and Cohen (1962), and the findings of McGuire (1964) as to resistance to counterpersuasion can perhaps be explained by the fact

that McGuire (1961, 1964) used cultural truisms (beliefs that a person has seldom, if ever heard attacked) in his studies whereas the other researchers used a variety of topics (the prospects of military service for college students, the elimination of intercollegiate athletics, etc.). The present study used a variety of social issues in its attitude questionnaires.

"Active participation" as a term used in the attitude change literature can range in meaning anywhere from role-playing behaviors as in King and Janis (1956) - role players were asked to present oral arguments in support of an assigned position - to actual interpersonal contact - for example, a white person is induced to interact with blacks as in Cook (1970). Certainly the behavior of Ss in this study was quite "tame" when compared with these two types of active participation.

McGuire argues that providing passive controls with a prepared script not available to Ss who are writing arguments may expose passive controls to a greater number of informational items relevant to the attitude measure.

Matefy (1972) and McGuire (1969) have found that passive reading of a communication was more effective in bringing about change than was the active writing of a communication.

As Fishbein and Ajzen (1975) write:

A person may frequently be unable to come up with relevant arguments in favour of a position which disagrees with his own, whereas the passive subjects may be exposed to a

greater number of such arguments prepared by the experimenter.

....It appears that the experimenter is sometimes able to provide a greater number of relevant arguments in favour of the subject's position than is the subject himself. (p. 427)

So McGuire's findings that active participation seems to confer less resistance to counterpersuasion can perhaps be explained by the fact that during the attitude change portion of his study, his active and passive Ss were not exposed to identical items of information - passive Ss were given arguments prepared by the E whereas active Ss were left to their own resources. Hence, obtained differences at both stages of McGuire's study, both after attitude change and after counterpersuasion, may be due to factors other than active participation. In the present study, however, both active and passive Ss were exposed to identical items of information - that is, in the intrapersonal stage, Subject A wrote an essay; in the interpersonal stage, Subject B read Subject A's essay. Thus the information for both the intrapersonal and interpersonal groups was identical thereby eliminating the informational bias of McGuire's studies.

Another interesting finding was that after counterpersuasion, Ss who originally wrote a one-sided argument in favour of the target statement "Human nature is basically evil", disagreed with that statement significantly more after counterpersuasion than they did before the experiment began. In other words, Ss who wrote a one-sided argument, and were

TABLE 7

Comparison of Responses of All Experimental and Control Groups on Target-Item on Questionnaire #3 to Test for Significant Differences Between Experimental and Control Groups Immediately After Counterpersuasion

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Type of presentation - reading or writing (A)	176.40	1	176.40	0.74
Group - experimental or control (B)	931.22	1	931.22	3.90*
Type of argument - one- or two-sided (C)	1677.02	1	1677.02	7.03*
AB	0.62	1	0.62	0.00
AC	7.22	1	7.22	0.03
BC	1988.10	1	1988.10	8.33**
ABC	756.90	1	756.90	3.17
Error	36266.90	152	238.60	
Residual	36266.90	152	238.60	
Corrected Total	41804.40	159	262.92	

* $p < .05$

** $p < .01$

later exposed to counterpersuasion were significantly more positive (felt that human nature was not evil) after counterpersuasion than they were before the experiment began. Compared to controls, these same Ss were even more positive about the target statement after counterpersuasion than were control Ss.

The findings for Hypotheses #1 and #2 become more significant when it is realized that in this study, it was possible to duplicate the results of a great deal of interpersonal persuasion literature (that is, two-sided arguments induce more attitude change and resistance to counterpersuasion than one-sided arguments) and then following implications from Bem's hypothesis, the same test was made at the intrapersonal level producing similar results to those produced by analogous interpersonal studies.

In summary, an intrapersonal and interpersonal study dealing with attitude change and inducing resistance to counterpersuasion using beliefs other than cultural truisms and using one-sided and two-sided arguments was conducted.

Results indicated that at both the interpersonal and intrapersonal levels, two-sided arguments were more effective in inducing attitude change than were one-sided arguments with Ss who were asked to read or write a counterattitudinal essay.

Furthermore, it was found that Ss who either read or wrote a two-sided argument prior to counterpersuasion were significantly more resistant to counterpersuasion than were Ss who read or wrote a one-sided argument prior to that same

counterpersuasion.

These results are consistent with the previously conducted interpersonal attitude studies and implications of Bem's self-persuasion hypothesis.

APPENDIX A

QUESTIONNAIRE #1

A Survey of Student Attitudes

This survey is designed to determine student attitudes on certain important current issues. Although your participation in this survey is completely voluntary, we would greatly appreciate your cooperation. Please write your telephone number, student identification number, name (first name only) and timetable in the spaces provided. This information will be used to identify your questionnaire and facilitate our getting in touch with you for the second session of the study. For research purposes, it is necessary that you participate in a second session. The second session will last approximately 50 minutes. You will not receive course credit unless you participate in both experimental sessions. All information will be kept strictly confidential.

INSTRUCTIONS

Please report your position on each issue presented below. Mark the scale at the point which most accurately indicates your position on the issue.

Example:

How tired are you?

1.....	2.....	3.....	4.....	5.....	6.....	7.....
not at all	very slightly	some- what	moder- ately	quite	very	extremely

Someone who feels just a little more than "quite tired" would mark the example above as shown.

Students should have some say in what kinds of courses are offered at the college.

1.....	2.....	3.....	4.....	5.....	6.....	7.....
strongly disagree						strongly agree

Abortion should be legalized in Canada with no restrictions.

1.....	2.....	3.....	4.....	5.....	6.....	7.....
strongly disagree						strongly agree

The Maple Tree Pub at St. Clair College should run six nights a week, Monday through Saturday.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Mercy killing should be legalized.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

The energy crisis can be blamed on unscrupulous dealings within the major oil companies.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

The payment of college tuition fees should be abolished.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Prostitution should be legalized.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

There is no proof for the existence of God.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

There should be a guaranteed annual income in Canada.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Anti-pornography laws should be abolished.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

A woman's place is in the home.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

There is a great deal of laziness among the Indian population
of Canada..

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Marijuana should be legalized.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Pierre Eliot Trudeau is a very strong political figure.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Human nature is basically evil.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Love is the answer to the problems of human existence.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Marriage is becoming outmoded in our society.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

There is nothing to fear in death.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Canada has become too Americanized.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Our society is too narrow-minded about sex.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Name _____ Phone No. _____

I.D. No. _____

Please mark an "x" in the time slots when you are in class.

	Monday	Tuesday	Wednesday	Thursday	Friday
9 -10a.m.					
10-11a.m.					
11-12a.m.					
12- 1p.m.					
1 - 2p.m.					
2 - 3p.m.					
3 - 4p.m.					

ONE-SIDED ARGUMENT GUIDED WRITING FORM

The Psychology Department of St Clair College of Applied Arts and Technology is continuing its research into campus and social issues and student opinions. It has been shown that one of the best ways to get pertinent arguments on both sides of an issue is to ask people to write essays favouring only one side of the issue. This week we are collecting arguments for and against the various positions expressed. Each participant is being asked to write a short essay on one of the issues. On the attached sheet, you are to write a one page essay which argues as convincingly as possible that human nature is basically evil. Please follow the outline and instructions on the attached sheet.

This essay will be used by a college group that is trying to come to some conclusions about human nature and world conditions today in order to compile a paper to submit to the Federal government. Please write forcefully and strongly and sign your essays when completed. Your essay will count.

(1) Human nature is basically evil.

(2) Only an inborn evilness in man would explain the countless wars dotting the pages of mankind's history.

Write a paragraph supporting statement (2) below.

(3) Lawlessness, crime, and murder are spreading like a sick, sick disease.

Write a paragraph supporting statement (3) below.

(4) Our people are basically sick - deviated, envious, liars, bigots, pleasure-mad thrill-seekers, pretenders, and cheats.

Write a paragraph supporting statement (4) below.

- (5) Most people have an attitude of "I'm going to get mine while I can."

Write a paragraph supporting statement (5) below.

- (6) Human nature is an evil, filthy, downward pull tending towards violence, destruction, and absolutely nothing worthwhile.

Write a paragraph supporting statement (6) below.

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TWO-SIDED ARGUMENT GUIDED WRITING FORM

The Psychology Department of St. Clair College of Applied Arts and Technology is continuing its research into campus and social issues and student opinions. It has been shown that one of the best ways to get pertinent arguments on both sides of an issue is to ask people to write essays dealing with both sides of an issue. This week we are collecting two-sided arguments. Each participant is being asked to write a short essay on one of the issues. On the attached sheet you are to write a one-page essay which argues both sides of the issue as convincingly as possible that human nature is basically evil. Please follow the outline and instructions on the attached sheet.

This essay will be used by a college group that is trying to come to some conclusions about human nature and world conditions today in order to compile a paper to submit to the Federal government. Please write forcefully and strongly and sign your essays when completed. Your essay will count.

- (1) Human nature is basically evil.
- (2) Only an inborn evilness in man would explain the countless wars dotting the pages of mankind's history.

Write a paragraph that both supports and disagrees with statement (2) below.-

- (3) Lawlessness, crime, and murder are spreading like a sick, sick disease.

Write a paragraph that both supports and disagrees with statement (3) below.

- (4) Our people are basically sick - deviated, envious, liars, bigots, pleasure-mad thrill seekers, pretenders, and cheats.

Write a paragraph that both supports and disagrees with statement (4) below.

(5) Most people have an attitude of "I'm going to get mine while I can."

Write a paragraph that both supports and disagrees with statement (5) below.

(6) Human nature is an evil, filthy, downward pull tending towards violence, destruction, and absolutely nothing worthwhile.

Write a paragraph that both supports and disagrees with statement (6) below.

QUESTIONNAIRE #2

A Survey of Student AttitudesInstructions

This survey is designed to determine student attitudes on certain important current issues. Please place your first name only at the top of the questionnaire.

Please report your position on each issue presented below. Mark the scale at the point which most accurately indicates your position on the issue.

Example:

How tired are you?

1.....2.....3.....4.....5/.....6.....7
 not at very some- moder- quite very extremely
 all slightly what ately

Someone who feels just a little more than "quite tired" would mark the example above as shown.

Homosexuals are basically very sick people.

1.....2.....3.....4.....5.....6.....7
 strongly disagree strongly agree

All mentally retarded people should be sterilized.

1.....2.....3.....4.....5.....6.....7
 strongly disagree strongly agree

Women are too emotional to hold political office.

1.....2.....3.....4.....5.....6.....7
 strongly disagree strongly agree

For economic and political reasons, Canada should become the fifty-first state of the United States of America.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

All Canadians should be able to speak both the French and the English language.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

There is a great deal of laziness among the Indian population of Canada.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

The present prison system in Canada should be abolished.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

The drinking age should be lowered to sixteen.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

There should be one universal religion.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Only Canadians should be permitted to teach in Canadian schools, colleges, and universities.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Sexual intercourse without love does more harm than good to a relationship.

1.....2.....3.....4.....5.....6.....7

strongly disagree

strongly agree

The time has come for the government to take drastic action to stop industry from polluting our environment.

1.....2.....3.....4.....5.....6.....7

strongly disagree

strongly agree

All final exams should be abolished.

1.....2.....3.....4.....5.....6.....7

strongly disagree

strongly agree

There is no proof for the existence of God.

1.....2.....3.....4.....5.....6.....7

strongly disagree

strongly agree

People on welfare who refuse to work should forfeit all social aid.

1.....2.....3.....4.....5.....6.....7

strongly disagree

strongly agree

Human nature is basically evil.

1.....2.....3.....4.....5.....6.....7

strongly disagree

strongly agree

People living together before marriage leads to better marriages.

1.....2.....3.....4.....5.....6.....7

strongly disagree

strongly agree

Space exploration is a total waste of time and money.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

All Canadian industry and utilities should be controlled by the government.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

In cases of rape, the girl's past life should not be investigated.

1.....2.....3.....4.....5.....6.....7

strongly
disagree

strongly
agree

Name: _____

I.D. No. _____

EXPERIMENTAL GROUP COUNTERPERSUASION ESSAY

Some people are beginning to question the validity of the statement that human nature is basically evil. Attached is an essay which offers arguments against the statement that human nature is evil.

Please read this essay carefully.

You may have up to ten minutes to read this essay.

Today there is a new vision concerning the nature of man. Many psychologists and sociologists are convinced that the old models and theories that have been used to explain human behaviour are out of date and too limited.

Many of these older theories were based on a very negative view of the fundamental nature of man.

Attempts at childrearing in times past were viewed as efforts to undo human nature, to hammer goodness into the child, to save him from his presumably dangerous natural impulses.


Today many authorities strongly believe that man's nature is not evil, not bad, but good and growth-oriented. These people say that man is concerned about his fellow-man, that man, if allowed to, is able to show a genuine, outgoing concern for his brother.

Man is not born bad - he is not born evil or sick. It is what he learns from the society he is living in that makes him troubled or sick.

Man is not evil - it is his society that is evil.

It is the belief of many intellectuals and philosophers today that human nature can be compared to a tiny flame, weak but warm. It is the society, good or bad, that fans that flame and either turns it into a roaring, devouring fire, or a gentle light to guide men to a life of fulfillment, happiness, genuineness, and authenticity.

It is time for us to throw off the shackles of the past and start to look with fresh eyes at ourselves. There is peace and beauty in each and every one of us. There is happiness and joy that must be expressed to others. Let us all work diligently in creating a world that will permit each of us to actualize all of our inborn, healthy potentials and capacities. If our society is allowed to cripple the



psychological growth of our children with its values based on the accumulation of wealth and prestige any more than it already has, we should not be surprised to see wars, lawlessness, and inhumanity increase in frequency and magnitude.

Criminals are not born—they are moulded by society.

Drug pushers are not born drug pushers.

Murderers are not born murderers


Liars are not born liars.

Bigots are not born bigots.

Human nature is not born evil -it becomes evil as a degraded society fashions the clay personality of the young child into a shape that does not allow the child to grow as a fully-functioning, fully-aware human being.

We can do something about conditions in the world today; we can do something about crime and hate and brutality.

We can LOVE. Love really can make all things new again. And that love is part of the that marvellous and beautiful human nature that we are all born with.



QUESTIONNAIRE #3
A Survey of Student Attitudes

Instructions

To conclude this survey of student attitudes on certain important issues, we would ask that you fill out the following questionnaire. Please include your student identification number and first name in the spaces provided. Thank you for your co-operation.

Please report your position on each issue presented below. Mark the scale at the point which most accurately indicates your position on the issue.

Example

How tired are you?

1.....2.....3.....4.....5.....6.....7
 not at very some- moder- quite very extren
 all slightly what ately

Someone who feels just a little more than "quite tired" would mark the example above as shown.

1. All smoking in public places should be illegal.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

2. Drunk drivers should be dealt with more severely than they are presently.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

3. A woman prime minister would not be beneficial for Canada.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

4. There is a great deal of laziness among the Indian population of Canada.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

5. All men are created equal.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

6. No one but Canadians should be allowed to buy or own Canadian land.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

7. All Provincial governments should be abolished with the country being run from the federal level only.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

8. "Bugging" and wire-tapping should be used more often by the police and other law enforcement agencies for our protection.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

9. All Canadians should work in Canada and not be allowed to commute in order to work in the U.S.A.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

10. Canada should refuse aid to the starving in other countries and turn its attention to the starving and needy in Canada.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

11. Human nature is basically evil.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

12. Cremation should be mandatory.

1.....2.....3.....4.....5.....6.....7
 Strongly Disagree Strongly Agree

13. There is excellent school spirit at St. Clair College.

1.....2.....3.....4.....5.....6.....7

Strongly Disagree

Strongly Agree

14. All education should be free from religious influence.

1.....2.....3.....4.....5.....6.....7

Strongly Disagree

Strongly Agree

15. People should be more trusting and accepting of other people.

1.....2.....3.....4.....5.....6.....7

Strongly Disagree

Strongly Agree

16. We must develop alternate sources of energy before our natural resources are depleted.

1.....2.....3.....4.....5.....6.....7

Strongly Disagree

Strongly Agree

17. No one should be allowed to buy or own a gun of any kind.

1.....2.....3.....4.....5.....6.....7

Strongly Disagree

Strongly Agree

18. There are some very worthwhile programs on television.

1.....2.....3.....4.....5.....6.....7

Strongly Disagree

Strongly Agree

19. Communication is the beginning of understanding.

1.....2.....3.....4.....5.....6.....7

Strongly Disagree

Strongly Agree

20. A person should never do anything he-she doesn't sincerely believe in.

1.....2.....3.....4.....5.....6.....7

ONE - SIDED INTERPERSONAL GROUP INSTRUCTIONS

The Psychology Department of St. Clair College of Applied Arts and Technology is continuing its research into campus-social issues and student opinions. The Department feels that it is important that every individual is kept informed of various arguments concerning certain current topics of interest. In keeping with this departmental philosophy, we would ask that you carefully read the short essay attached to this instruction sheet.

TWO - SIDED INTERPERSONAL GROUP INSTRUCTIONS

The Psychology Department of St. Clair College of Applied Arts and Technology is continuing its research into campus-social issues and student opinions. The Department feels that it is important that every individual be kept informed of various arguments both for and against certain current topics. In keeping with this departmental philosophy, we would ask that you carefully read the short essay attached to this instruction sheet.

CONTROL GROUP - ONE - SIDED ARGUMENT GUIDED
WRITING FORM

The Psychology Department of St. Clair College of Applied Arts and Technology is continuing its research into campus and social issues and student opinions. It has been shown that one of the best ways to get pertinent arguments on both sides of an issue is to ask people to write essays favouring only one side of the issue. This week we are collecting arguments for and against the various positions expressed. Each participant is being asked to write a one page essay which argues as convincingly as possible that prostitution should be legalized. Please follow the outline and instructions on the attached sheet.

This information will be used by a college group that is trying to come to some conclusions about the legalization of prostitution in order to compile a paper to submit to the Federal Government. Please write forcefully and strongly for the legalization of prostitution and sign your essays when completed. Your opinions will count.

(1) Prostitution should be legalized.

Write a paragraph supporting statement (1) below.

(2) Prostitutes serve a vital function in our society. They allow the less fortunate to work out sexual frustrations safely.

Write a paragraph supporting statement (2) below.

(3) There is nothing morally wrong with prostitution.

Write a paragraph supporting statement (3) below.

(4) In order to keep our laws "in tune" with what is happening in society, prostitutes should be allowed the same working rights as others.

Write a paragraph supporting statement (4) below.

(5) Little can be done to stop the growth of prostitution.

Write a paragraph supporting statement (5) below.

(6) Prostitutes should be arrested and imprisoned indefinitely.

Write a paragraph supporting statement (6) below.

CONTROL GROUP - TWO - SIDED ARGUMENT GUIDED WRITING FORM

The Psychology Department of St. Clair College of Applied Arts and Technology is continuing its research into campus and social issues and student opinions. It has been shown that one of the best ways to get pertinent arguments on both sides of an issue is to ask people to write essays dealing with both sides of an issue. This week we are collecting two-sided arguments. Each participant is being asked to write a one page essay which argues both sides of the issue as convincingly as possible that prostitution should be legalized. Please follow the outline and instructions on the attached sheet.

This information will be used by a college group that is trying to come to some conclusions about the legalization of prostitution in order to compile a paper to submit to the Federal Government. Please write forcefully and strongly for the legalization of prostitution and sign your essays when completed. Your opinions will count.

(1) Prostitution should be legalized.

Write a paragraph that both supports and disagrees with statement (1) below.

(2) Prostitutes serve a vital function in our society. They allow the less fortunate to work out sexual frustrations safely.

Write a paragraph that both supports and disagrees with statement (2) below.

(3) There is nothing morally wrong with prostitution.

Write a paragraph that both supports and disagrees with statement (3) below.

(4) In order to keep our laws "in tune" with what is happening in society, prostitutes should be allowed the same working rights as others.

Write a paragraph that both supports and disagrees with statement (4) below.

(5) Little can be done to stop the growth of prostitution.

Write a paragraph that both supports and disagrees with statement (5) below.

(6) Prostitutes should be arrested and imprisoned indefinitely.

Write a paragraph that both supports and disagrees with statement (6) below.

Control Group Counterpersuasion Essay

Some people are beginning to question the validity of the statement that prostitution should be legalized. Attached is an essay which offers arguments against the statement that prostitution should be legalized.

Please read this essay carefully

You may have up to ten minutes to read this essay.

'Prostitution is a form of criminal activity that should not be legalized. Increasingly, in our daily newspapers and on our T.V. news shows we are hearing reports of various women's groups throughout the country urging that prostitution be legalized.

Prostitution represents the most awful kind of life that a woman might have. It is probably the most obvious way in which a woman sells herself; using herself, her body as a commodity.

Studies have shown that prostitutes are lacking in self-respect and that prostitutes are usually drug addicts. For many women, prostitution is the chief way of supporting their habit.

Some apologists have even branded prostitution as "sexual freedom". In reality, prostitution is little more than enslavement. In fact, the legalization of prostitution would merely give the state license to exploit women further through state brothels complete with a medical assurance that males who patronized those brothels would do so without risk. This would merely foster and acknowledge the prostitution of women as a privilege of the state.

The legalization of prostitution would even be more vicious than the present system, general throughout North America, of harassing and persecuting the prostitute with summons, fines, and imprisonment, punishing in the female an offense society does not think to punish in the male.

It is a further irony that our legal ethic prosecutes those who are forced (economically or psychologically) to offer themselves for sale as objects, but condones the act of buying persons as objects.

The legalization of prostitution would not help to elevate the status of women one iota. For years, prostitution has represented nothing more than a version of female existence insisted upon by men who create our high culture.

Prostitution is somehow paradigmatic, somehow the very core of the female's social condition. It not only declares her subjection to men right in the open, with the cash nexus between the sexes announced in currency, rather than through the subtlety of a marriage contract (which still recognizes the principle of sex in return for commodities and historically has insisted upon it), but the very act of prostitution is itself a declaration of a woman's value, her reification.

It is not sex the prostitute is really made to sell: it is degradation. When the bargain between the prostitute and a man (or woman) is struck, the prostitute will, like labour in any exploitative relationship, try to do the least she possibly can to earn her money.

By legalizing this kind of exploitative relationship, will the problems experienced by the woman as prostitute really be solved.

APPENDIX B

Raw Data For Experimental Group (Writing/One-Sided Argument)

<u>Subject</u>	<u>Test #1</u>	<u>Test #2</u>	<u>Test #3</u>
1.	1	20	1
2.	2	2	2
3.	19	20	2
4.	6	12	11
5.	4	11	1
6.	11	11	11
7.	6	9	2
8.	1	5	2
9.	2	1	1
10.	22	38	16
11.	2	11	21
12.	31	31	31
13.	31	1	1
14.	32	50	12
15.	37	11	1
16.	32	52	50
17.	22	23	29
18.	41	21	2
19.	41	61	54
20.	1	4	3

Above scores indicate position on 64 point attitude scale

Raw Data For Experimental Group (Writing/Two-Sided Argument)

<u>Subject</u>	<u>Test #1</u>	<u>Test #2</u>	<u>Test #3</u>
1.	✓ 6	12	12
2.	1	6	4
3.	27	24	23
4.	31	40	41
5.	2	✓ 11	11
6.	1	15	13
7.	31	41	31
8.	2	32	31
9.	2	2	2
10.	21	32	30
11.	31	31	31
12.	24	33	32
13.	11	18	16
14.	2	2	3
15.	24	31	31
16.	21	31	31
17.	29	31	31
18.	5	24	23
19.	7	15	16
20.	22	35	33

Raw Data For Experimental Group (Reading/One-Sided Argument)

<u>Subject</u>	<u>Test #1</u>	<u>Test #2</u>	<u>Test #3</u>
1.	2	2	2
2.	2	2	2
3.	2	12	2
4.	2	32	3
5.	12	31	30
6.	2	1	1
7.	16	1	1
8.	1	31	11
9.	31	31	31
10.	25	13	5
11.	28	32	2
12.	40	32	23
13.	26	25	26
14.	11	11	1
15.	2	20	2
16.	31	41	11
17.	31	33	22
18.	21	22	12
19.	23	22	1
20.	31	31	31

Raw Data For Experimental Group (Reading/Two-Sided Argument)

<u>Subject</u>	<u>Test #1</u>	<u>Test #2</u>	<u>Test #3</u>
1.	7	61	61
2.	2	34	22
3.	12	22	22
4.	3	35	23
5.	12	32	32
6.	1	12	2
7.	1	31	31
8.	6	31	31
9.	3	21	11
10.	32	42	42
11.	41	32	22
12.	32	45	44
13.	38	13	4
14.	31	31	31
15.	31	41	42
16.	24	33	31
17.	23	29	27
18.	26	35	33
19.	25	27	26
20.	1	41	31

Raw Data For Control Group (Writing/One-Sided Argument)

<u>Subject</u>	<u>Test #1</u>	<u>Test #2</u>	<u>Test #3</u>
1.	1	2	1
2.	1	1	1
3.	20	4	1
4.	16	51	51
5.	31	31	31
6.	19	31	32
7.	22	1	1
8.	1	41	4
9.	1	3	5
10.	1	1	1
11.	2	2	2
12.	17	3	3
13.	17	31	31
14.	18	1	1
15.	17	11	12
16.	2	1	1
17.	1	3	2
18.	19	1	1
19.	1	31	31
20.	12	1	1

Raw Data For Control Group (Writing/Two-Sided Argument)

<u>Subject</u>	<u>Test #1</u>	<u>Test #2</u>	<u>Test #3</u>
1.	31	31	31
2.	1	2	1
3.	4	6	7
4.	14	16	16
5.	2	2	2
6.	17	48	15
7.	17	25	27
8.	31	32	31
9.	7	6	6
10.	40	60	61
11.	24	39	41
12.	46	32	37
13.	4	5	3
14.	21	1	1
15.	23	1	1
16.	1	3	5
17.	18	7	7
18.	2	3	2
19.	1	1	1
20.	1	4	2

Raw Data For Control Group (Reading/One-Sided Argument)

<u>Subject</u>	<u>Test#1</u>	<u>Test #2</u>	<u>Test #3</u>
1.	31	31	31
2.	1	2	2
3.	1	1	1
4.	1	1	1
5.	2	11	1
6.	19	8	8
7.	2	2	2
8.	1	3	5
9.	31	31	31
10.	44	51	51
11.	12	6	5
12.	33	29	30
13.	40	61	61
14.	12	1	1
15.	27	26	27
16.	31	31	31
17.	24	27	26
18.	12	1	1
19.	2	1	1
20.	31	33	32

Raw Data For Control Group (Reading/Two-Sided Argument)

<u>Subject</u>	<u>Test #1</u>	<u>Test #2</u>	<u>Test #3</u>
1.	2	2	2
2.	1	1	1
3.	17	11	11
4.	16	1	1
5.	1	1	1
6.	1	12	11
7.	1	1	1
8.	17	3	2
9.	1	2	1
10.	18	31	31
11.	17	24	41
12.	1	5	2
13.	17	2	2
14.	19	61	61
15.	16	4	4
16.	1	1	1
17.	20	25	25
18.	2	3	3
19.	1	2	3
20.	18	61	37

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VITA AUCTORIS

George Kent Billinghamurst was born on March 9, 1949 in Toronto, Canada. He graduated from Riverside Secondary School in June, 1968. Attending the University of Windsor, he graduated with an Honours Bachelor of Arts degree in May, 1972. In September, 1972, he enrolled in the Master's program in social psychology at the University of Windsor. Since September 1973, he has been an instructor in psychology and sociology at St. Clair College of Applied Arts and Technology in Windsor, Ontario. He was appointed director of the Social Science Research and Counselling Technician Program at St. Clair College in October, 1975 and in September 1976 was appointed as a part-time counsellor in the School of Applied Arts at St. Clair College.

Kent Billinghamurst is married to the former Ann Coleman of Windsor and has two daughters, Lori and Sheri.