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THE EFFECTS OF ATTITUDE FRAMING 
ON ATTITUDE STRENGTH:
OPPOSITION LEADS TO 
GREATER RESISTANCE THAN SUPPORT

DISSERTATION

Presented in Partial Fulfillment of the Requirements
for the Degree Doctor of Philosophy
in the Graduate School of The Ohio State University

By

George Y. Bizer, M.A.

The Ohio State University
2001

Dissertation Committee:
Professor Richard E. Petty, Adviser
Professor Jon A. Krosnick
Professor William von Hippel

Approved by
Adviser
Department of Psychology
ABSTRACT

Five studies test whether the way in which a person frames an attitude can impact the resistance of that attitude. The primary hypothesis was that when people frame an attitude negatively (e.g., “I oppose something”), those attitudes will be more resistant than when people frame an attitude positively (e.g., “I support something”).

Study 1 was designed to test whether attitudes that were naturally framed negatively were more resistant. Participants reported whether they “supported” or “opposed” various policies. After reporting initial attitudes, participants were presented with a persuasive message, then reported their attitudes a second time. Analyses demonstrated that “opposers” showed more resistance to the persuasive message than did “supporters.” Study 1 therefore provided evidence that “opposition” attitudes are more resistant than are “supportive” attitudes.

Studies 2 and 3 were designed to test whether framing alone was sufficient to account for this effect. A framing manipulation forced participants think of their attitudes in terms of support or opposition without any influence on the attitudes themselves. In both studies, regardless of initial attitude, people assigned to think of their attitude in terms of opposition showed more resistance. Thus, merely framing an attitude negatively led to enhanced resistance.
Studies 4 and 5 were designed to find evidence for the mechanism underlying the effect. If negatively framed attitudes are more resistant in general, people may over time recognize the fact that such negative attitudes change little in the face of a persuasive message. If so, when people realize that they are being presented with a persuasive message against a negative attitude, they may process the message less: they may realize that negative attitudes rarely change, so carefully processing the message will be a waste of effort. Study 4 showed that participants indeed believe that negative attitudes are more resistant, while Study 5 provided initial evidence that people process persuasive messages less carefully when they hold initial attitudes of opposition.

These studies collectively argue that the simple manner in which people conceptualize their own attitudes can have a profound effect on the strength of those attitudes.
Dedicated to my family...

_of course!_
ACKNOWLEDGMENTS

I thank my family for, as always, being such an important part of my life. My parents provided me with the morals, ethics, and values that have helped propel me through life, my brother has been a valued friend and adviser, and my grandparents are and were there for me whenever I needed them.

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VITA

September 28, 1973 ............................... Born - Warren, Michigan

1995 .................................................. B.A. Psychology, Indiana University

1995 - present ..................................... Graduate Fellow, Ohio State University

1997 .................................................. M.A. Psychology, Ohio State University

PUBLICATIONS


FIELDS OF STUDY

Major Field: Psychology
Minor Fields: Political Psychology, Quantitative Psychology
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>Dedication</td>
<td>iv</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>v</td>
</tr>
<tr>
<td>Vita</td>
<td>vi</td>
</tr>
<tr>
<td>List of tables</td>
<td>x</td>
</tr>
<tr>
<td>List of figures</td>
<td>xi</td>
</tr>
<tr>
<td>Chapters:</td>
<td></td>
</tr>
<tr>
<td>1. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.1 The strength of attitudes</td>
<td>3</td>
</tr>
<tr>
<td>1.2 Attitude framing</td>
<td>5</td>
</tr>
<tr>
<td>1.3 Negative attitudes are stronger</td>
<td>6</td>
</tr>
<tr>
<td>1.3.1 The business world</td>
<td>7</td>
</tr>
<tr>
<td>1.3.2 Political science</td>
<td>7</td>
</tr>
<tr>
<td>1.4 Negative attitudes or negatively framed attitudes?</td>
<td>8</td>
</tr>
<tr>
<td>1.4.1 Insight from research on the weighting of information</td>
<td>8</td>
</tr>
<tr>
<td>1.4.2 The notion of framing</td>
<td>10</td>
</tr>
<tr>
<td>1.5 Overview of the five studies</td>
<td>11</td>
</tr>
<tr>
<td>2. Study 1: Are opposers more resistant than supporters?</td>
<td>13</td>
</tr>
<tr>
<td>2.1 Pilot study</td>
<td>12</td>
</tr>
<tr>
<td>2.1.1 Method</td>
<td>12</td>
</tr>
<tr>
<td>2.1.2 Manipulation</td>
<td>13</td>
</tr>
<tr>
<td>2.1.3 Results and argument selection</td>
<td>14</td>
</tr>
<tr>
<td>2.2 Main study</td>
<td>14</td>
</tr>
<tr>
<td>2.2.1 Procedure</td>
<td>14</td>
</tr>
<tr>
<td>2.2.2 Data</td>
<td>15</td>
</tr>
<tr>
<td>2.2.3 Analysis</td>
<td>16</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>7.2.1</td>
<td>Initial analysis</td>
</tr>
<tr>
<td>7.2.2</td>
<td>Main analyses</td>
</tr>
<tr>
<td>7.3.3</td>
<td>Analysis of filtered data</td>
</tr>
<tr>
<td>7.3</td>
<td>Discussion</td>
</tr>
<tr>
<td>8.1</td>
<td>Conclusion</td>
</tr>
<tr>
<td>8.1.1</td>
<td>Summary of the Findings</td>
</tr>
<tr>
<td>8.2</td>
<td>Implications</td>
</tr>
<tr>
<td>8.2.1</td>
<td>The bivariate model of attitudes</td>
</tr>
<tr>
<td>8.2.2</td>
<td>Attitude measurement</td>
</tr>
<tr>
<td>8.2.3</td>
<td>Prospect theory</td>
</tr>
<tr>
<td>8.3</td>
<td>Future directions</td>
</tr>
<tr>
<td>8.3.1</td>
<td>Stronger evidence for the “shutting-down” mechanism</td>
</tr>
<tr>
<td>8.4</td>
<td>Conclusion</td>
</tr>
<tr>
<td>8.4.1.1</td>
<td>The lingering question of mediation</td>
</tr>
<tr>
<td>8.4.1.2</td>
<td>The “avoidance priming” hypothesis</td>
</tr>
<tr>
<td>8.4.2</td>
<td>Persistence of opposition attitudes</td>
</tr>
<tr>
<td>8.4.3</td>
<td>Impactfulness of opposition attitudes</td>
</tr>
<tr>
<td>Appendix A</td>
<td>Materials used in Study 1 pilot study</td>
</tr>
<tr>
<td>Appendix B</td>
<td>Results of Study 1 pilot study</td>
</tr>
<tr>
<td>Appendix C</td>
<td>Alternate analyses of covariance (ANCOVAs)</td>
</tr>
<tr>
<td>Appendix D</td>
<td>Transcript of sound files used in Study 1</td>
</tr>
<tr>
<td>Appendix E</td>
<td>Materials used in Study 2</td>
</tr>
<tr>
<td>Appendix F</td>
<td>Materials used in Study 3</td>
</tr>
<tr>
<td>Appendix G</td>
<td>Materials used in Study 4</td>
</tr>
<tr>
<td>Appendix H</td>
<td>Materials used in Study 5</td>
</tr>
<tr>
<td>List of references</td>
<td></td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Crosstabulations of the natural distribution of supporting and opposing</td>
<td>18</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Schematic illustrating the method used for Study 2</td>
<td>27</td>
</tr>
<tr>
<td>3.2</td>
<td>Schematic explaining the manipulation used in Study 2</td>
<td>28</td>
</tr>
<tr>
<td>4.1</td>
<td>Schematic illustrating the method used for Study 3</td>
<td>37</td>
</tr>
<tr>
<td>4.2</td>
<td>Schematic explaining the manipulations used in Study 3</td>
<td>38</td>
</tr>
<tr>
<td>7.1</td>
<td>Interaction of support/oppose and argument strength in Study 5</td>
<td>54</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

Voting for President of the United States is typically a choice between two candidates. Along this line of reasoning, then, a person could have held one of two attitudes when voting in the 2000 Presidential election: the voter could have preferred George W. Bush or the voter could have preferred Al Gore. Though this preference may seem simple, the underlying way in which people thought about their preference for one candidate over another could be more complicated. That is, some people who preferred Bush have done so because they thought of themselves as supporting Bush, but others who preferred Bush may have done so because they thought of themselves as opposing Gore. Conversely, people who voted for Gore may have done so either because they supported Gore or opposed Bush. The fact that people can think of their attitudes in different ways like this yields some interesting questions. For example, was the person who preferred Bush because he opposes Gore as likely to vote, to donate money, or to persuade friends and family than is the person who supported Bush? This dissertation examines whether the way in which people think about or frame their attitudes has any implications for attitude strength independent of the underlying content of the attitude.
Clearly, the way in which people frame their attitudes can be applied to decisions like voting, but such framing may be even more pervasive. For example, although most students at Ohio State favor the quarter system over the semester system, do these students think of themselves as supporters of the quarter system, or opposers of the semester system? Do pro-choice Americans think of themselves as supporting abortion rights or as opposing abortion restrictions? And do Republicans view themselves as supporters of smaller government or as opposers of government bureaucracies? Of interest in this dissertation is the question of whether these differences in framing one’s attitude matter.

To fully understand the notion of attitude framing, a brief discussion of the attitude construct is in order. Social psychologists define an attitude as a global, enduring evaluation of an object (see McGuire, 1960, 1968). Thus, if a person likes something, he or she is said to hold “a positive attitude” toward that object. Conversely, if a person dislikes something, he or she is said to hold “a negative attitude” toward that object. Because people hold evaluations about many different objects in the world and because attitudes have such a profound influence on so many aspects of everyday life, the attitude has been referred to as the “keystone in the edifice of American social psychology” (Allport, 1935, p.798).

Attitudes can be conceptualized as falling along some point on a continuum between extreme liking on one end and extreme disliking on the other. Some people will hold more extreme attitudes than others. For example, among those people who hold negative attitudes toward capital punishment, some people may intensely dislike the use
of capital punishment, whereas others may only moderately dislike the use of capital
punishment. Thus, attitudes of people with more intense likes or dislikes can be
conceptualized as falling on the ends of the continuum, with more moderate people’s
attitudes being placed somewhere nearer to the midpoint. This dimension is referred to
as the extremity of attitudes.

The Strength of Attitudes

Although it is important to understand the extremity of such attitudes, extremity
alone does not explain how influential an attitude will be. Consider two people who are
asked to report their attitude toward the use of capital punishment using the same scale of
options. Both indicate the second-to-the-strongest negative attitude: “strongly oppose.”
Based upon this attitude report alone, one might expect that the two people would be
roughly equivalent in terms of their anti-capital-punishment behavior. However, it is
entirely plausible that although one person may, for example, donate to and be active in
issue-relevant organizations, the other may engage in no behaviors consistent with this
attitude. Indeed, knowledge of the extremity of an attitude alone is not sufficient to
predict the consequences of the attitude such as directing behavior.

Krosnick and Petty (1995) defined a strong attitude as one that is durable
(stronger attitudes resist persuasive attempts and endure over time) and impactful
(stronger attitudes have more influence on behavior and cognition). Along these lines,
much research has indeed examined how attitudes persist over time (see Haugtvedt &
Petty, 1992; Petty, 1997), how they resist attempts to persuade (see Haugtvedt & Petty,
1992), how they influence behavior (see Eagly & Chaiken, 1995), and how they influence
cognition (see Chaiken, Pomerantz, & Giner-Sorolla, 1995; Wood, Rhodes, & Biek, 1995). Thus, it is important to understand whether an attitude is strong or not, because attitudes of the same extremity may vary greatly in the extent to which they are changeable and impact a person’s life.

Not only are strong attitudes more durable and impactful, but they are associated with a variety of features not held by weaker attitudes. For example, strong attitudes are held with more psychological significance than are weaker attitudes (see Boninger, Krosnick, Berent, & Fabrigar, 1995). Strong attitudes are more easily and quickly recalled from memory (see Fazio, 1995). And strong attitudes are low in ambivalence—that is, they tend to have lots of either positive components or negative components, but not a great deal of both (see Priester & Petty, 1996; Thompson, Zanna, & Griffin, 1995). Thus, attitude strength goes beyond impactfulness and durability: It is related to many other interesting and important features of an attitude as well.

If strong attitudes are indeed more impactful and durable, then it would be important to learn precisely how attitudes can be made more strong. Not surprisingly, much research has investigated this notion. The bulk of this research suggests that to strengthen attitudes requires relatively effortful processes. The elaboration likelihood model of persuasion (ELM; Petty & Cacioppo, 1986) explains why effortful processes are necessary to create attitudes that tend to have all of the features associated with attitude strength. According to the ELM, attitudes can be created or changed with varying degrees of issue-relevant cognitive elaboration. If attitudes are changed or created through low-elaborative processes like the association of cues with an attitude
object, resultant attitudes are typically weak: they are likely very changeable and have little effect on behavior or cognition. Conversely, when attitudes are created or changed through more in-depth cognitive processes that involve elaboration on the issue-relevant information associated with the attitude object, attitudes that result are typically strong. Thus, according to the ELM, creating attitudes that are durable and impactful typically requires that a person elaborate carefully on the issue-relevant information available about the attitude object. Less in-depth processing will usually lead to weak attitudes that lack one or more of the critical strength features of attitudes (e.g., they may be persistent but not resistant; see Petty & Cacioppo, 1986; Petty, Haugtvedt, & Smith, 1995).

Attitude Framing

This dissertation examines the possibility that the manner in which a person frames his or her attitude can have an impact on the strength of the attitude. Consider the issue of abortion. A person’s attitude toward the object could be thought of as residing somewhere between two points on a continuum. At one end, a person might be extremely “pro-choice.” This person may think that abortion on demand is a basic right that all citizens should enjoy. This person would likely consider any restrictions on abortion to be completely unacceptable. At the other end, a person might be extremely “pro-life.” This person may think that abortion is murder and must be treated as such. This person would likely consider any legislation to allow for more abortion rights to be completely unacceptable.

Though these attitudes are different, the manner in which people frame their attitudes may also be different. If the two hypothetical people are asked what they think
about "making abortions easier to obtain," the pro-choice person would consider herself a supporter (e.g., "I support making abortions easier to obtain"), while the pro-life person would consider herself an opposer (e.g., "I oppose making abortions easier to obtain"). Conversely, if these people are asked what they think about "tightening restrictions on abortions," the pro-choice person would consider herself an opposer while the pro-life person would consider herself a supporter. Thus, although a group of people might all hold roughly equivalent attitudes, the manner in which those attitudes are framed can vary between individuals. That is, one pro-choice person might chronically think of himself or herself as supporting abortion rights, whereas another pro-choice person might think of himself or herself as opposing abortion restrictions. Similarly, one pro-life person might chronically think of himself or herself as opposing abortion rights, but another might think of himself or herself as supporting abortion restrictions.

In the current research, I investigate whether simply framing an attitude in terms of what a person opposes — what he or she does not like — will make that attitude more resistant to future attempts at persuasion. That is, I examine whether simply framing an attitude in the negative can make the attitude more resistant to persuasion without any great amounts of elaboration or other cognitive effort as is typically necessary to strengthen an attitude.

Negative Attitudes are Stronger

Is there evidence to support the notion that a negatively framed attitude (e.g., "I am anti-abortion") might be stronger than an equivalent positively framed attitude (e.g., "I am pro-life")? To begin, I turn to literature involving positive and negative attitudes as
this domain might offer insight regarding attitudes that are framed in a positive or negative way. Research from a variety of fields has suggested that negative attitudes may be stronger than positive attitudes. Although it has not previously been suggested that negative attitudes are stronger due to framing, this research may suggest some reasons why negatively framed attitudes may demonstrate more resistance to persuasion than positively framed attitudes.

The business world. Much evidence from the business world suggests that the dissatisfied customers — those who hold negative attitudes toward a company or its products or services — are much more active than are satisfied customers. For example, as of this writing, there are a host of websites whose sole purpose is to log customer complaints. Complainers.net, eComplaints.com, and airtravelcomplaints.com all exist for consumers to voice their negative attitudes. Interestingly, complimenters.net, cCompliments.com, and airtaravelcompliments.com do not exist for consumers to voice positive attitudes. Indeed, according to one business consulting firm, unhappy customers tell twice as many people about their experiences as do happy customers (eSatisfy, n.d.). Thus, negative attitudes seem to be more predictive of behavior than are positive attitudes.

Political science. There is similar evidence from political science. Much research shows that negative political campaigns can have profound impact on voting behavior (e.g., Nimmo, 1970; Basil, Schooler, & Reeves, 1991; Johnson-Cartee & Copeland, 1997). In line with the current hypothesis, it is possible that leading people to develop preferences because of disliking an opponent rather than liking the favored candidate may
lead to a greater influence on voting behavior. In addition, other research has demonstrated that framing mail solicitations for donations are more effective when framed in terms of what a person or group might lose than in terms of what a person or a group might gain (Miller, 2000). Thus, it appears that leading people to think of an issue in terms of what they dislike may yield more attitude-consistent behavior (in terms of donations) than leading people to think of an issue in terms of what they like.

**Negative attitudes or negatively framed attitudes?**

The anecdotes and research just reviewed is suggestive of the conclusion that negative attitudes are stronger than positive attitudes in terms of impactfulness. But an important distinction must be made: Is this difference in strength completely due to the fact that negative attitudes are stronger, or is it possible that simply leading people to frame their attitudes in negative terms will yield a stronger attitude than framing the same substantive position in positive terms?

**Insight from research on the weighting of information.** Research has shown that positive and negative information do not influence attitudes equivalently. The “positivity offset” is one way in which this is manifest: people generally hold positive attitudes toward objects about which they have little or no information. Several lines of research support this effect. For example, according to the “leniency bias,” people tend to rate themselves and others as generally positive as a sort of “cultural null hypothesis” (Bruner & Tagiuri, 1954, p. 642). In other words, people hold positive attitudes as a sort of “default” decision (see also Peeters, 1971, and Matlin & Stang, 1978). And Gardner (1997) found that participants rated a variety of objects positively even when given only
nondiagnostic information: even when participants only learned that "Sam breathed oxygen," for example, they ascribed positive attitudes toward Sam. Indeed, much research shows that in the absence of positive or negative information, people tend to hold moderate positive attitudes toward objects (Cacioppo, Gardner, & Berntson, 1997).

In contrast, other research has shown that negative information is more powerful than is positive information in creating attitudes (see Skowronski & Carlston, 1989). For example, a host of research has provided evidence that negative traits are more powerful in shaping attitudes toward people than are positive traits (e.g., Andersen 1965; Feldman, 1966; Hamilton & Huffman, 1971; Hamilton & Zanna, 1972; Hodges, 1974; see also Kanouse & Hanson, 1971; Peeters, 1991; and Baumeister, Bratslavsky, Finkenauer, & Vohs, in press). Fiske (1980) later demonstrated that negative behaviors show the same effect as do negative traits. Czapinski (1982; as reported in Peeters & Czapinski, 1990) then showed that the negativity bias becomes stronger as trait extremity becomes stronger: three extremely positive and three extremely negative traits led to a stronger negative evaluation than did three mildly negative and three mildly positive traits. And more recently, Ito, Larsen, Smith, & Cacioppo (1998) provided evidence that negative photographs elicited more event-related brain potentials (a type of brain wave closely related to attitudes) than did positive photographs.

The bivariate model of attitudes presents a rationale as to why negative attitudes might be more powerful than positive attitudes (see Cacioppo, Gardner, & Berntson, 1997). The positivity offset and negativity bias are generally thought to come from a biological basis: because most stimuli in the environment are non-negative, it behooves a
person to approach such stimuli to at least learn more about them. However, although negative stimuli in the environment are more rare, such negative stimuli may have greater impact on a person than would positive or neutral stimuli.

Two concepts from the bivariate model are of interest when considering why negative attitudes might be more powerful than are positive attitudes. First, according to the positivity offset, the “default” attitude to hold regarding an object is one of moderate liking. Thus, because so many of our attitudes may be positive out of a default, the average strength of these positive attitudes would likely be weaker than are the negative attitudes – those which must overcome the positivity offset to become negative. Thus, because so many attitudes are positive simply due to a lack of information about the attitude object, positive attitudes may be weaker on average. Second, if it is true that avoiding danger is more important than is approaching positive stimuli, it stands to reason that such negative attitudes are indeed stronger due to this notion. Negative attitudes toward a predator would be more important than positive attitudes toward a type of food. Failure to eat the food would lead to hunger, but failure to avoid the predator would lead to death. Thus, because negative attitudes require more information on average than do positive attitudes (because of the positive default), and because negative attitudes may be more important to a species’ survival, it stands to reason that negative attitudes may indeed be stronger than are positive attitudes.

The notion of framing. Although negative attitudes may indeed be generally stronger than positive attitudes, there also may be some variance explained by the simple framing of the attitudes themselves. It may be possible that simply framing an attitude in
a negative way may be sufficient to elicit some increase in attitude strength: Simply forcing a person to conceptualize his or her attitude as one of opposition may be enough to elicit additional resistance to a persuasive message. This is possible because through experience, people may begin to learn that negative attitudes — for whatever reason — are less likely to change. Over time, people may begin to understand this, and as such, see no need to process a persuasive message carefully when it contrasts with their opposition attitude. Therefore, because people do not process messages counterattitudinal to an opposition attitude carefully, they may show less attitude change.

Overview of the Five Studies

In the five studies that follow, I examine the hypothesis that simply leading people to frame their attitudes negatively can lead to significantly stronger attitudes. I will thus attempt to “disentangle” the negativity of the attitudes themselves from the negativity in how the attitudes are framed. The first study will simply examine whether, across several issues, attitudes toward issues people naturally oppose are more resistant than are attitudes toward issues people naturally support. In the second study, I will use the context of a political campaign to examine whether asking people to think about the candidate they oppose instead of the candidate they support yields more resistant attitudes. In the third study, I will investigate whether thinking in terms of opposing the passing or blocking of a plan yields more resistant attitudes than does thinking in terms of supporting the passing or blocking of a plan. Study 4 will provide a first test of a potential mechanism of the effect. Finally, Study 5 will further examine a possible mechanism underlying the attitude framing effect.
CHAPTER 2

STUDY 1: ARE OPPOSERS MORE RESISTANT THAN SUPPORTERS?

The first study was designed to test the idea that, across various attitude objects, self-described opposers would show more resistance to persuasive messages than would self-described supporters. This correlational study was conducted without manipulation of the actual framing of the attitudes. Instead, the study was conducted simply to test the notion that people may be more resistant to persuasive messages when they naturally oppose than when they naturally support an attitude object. To do so, I selected five issues that would presumably be of interest to students at Ohio State University and for which there would be a mixture of supporters and opposers. For each issue, I pilot-tested arguments to find arguments of equivalent strength on either side of the issue. Participants in the main study reported attitudes toward five target issues before and after hearing a persuasive message against their own viewpoint. If people are indeed more resistant when they oppose an issue than when they support an issue, there should be more resistance in opposers than supporters in the current study.

Pilot Study

Method. Five target issues were chosen to serve as issues: "Ohio State raising tuition to build more parking lots for students," "Ohio State switching to the semester
system,” “Ending the $9 COTA bus fee at Ohio State,” “Cutting the G.E.C. requirements at Ohio State,” and “the U.S. Government allowing hate speech.” For each policy, four arguments that supported the initiative and four arguments that opposed the initiative were developed.

Pilot-study participants were presented with a packet with six pages. The first page explained the task at hand: Participants would be rating how strong or weak various arguments were. Pages two through six contained the arguments. Atop each of these pages was printed, “On the issue of [issue], how strong are the following arguments?” Beneath the issue was the list of five arguments. Participants were asked to rate how strong each argument was on a seven-point scale anchored with “extremely weak” and “extremely strong.” See Appendix A for the materials used in this pilot study.

Manipulation. Participants received arguments from one side of each issue only. For example, they rated either arguments for or against the semester system. Thus, one group of participants rated arguments that supported the issues of raising tuition to build more parking lots, switching to the semester system, ending a mandatory fee paid for use of city buses, cutting general-education requirements, and allowing hate speech. The other group rated statements that argued against the five policy stances. Participants were told that because their “opinions about the issue itself should not matter,” they should take care to simply report how “strong” and “persuasive” each argument is regardless of their own opinion.

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1 Three of the issues may require clarification: First, Ohio State currently uses the quarter system, so there is some discussion about changing to semesters. Second, the “COTA bus fee” refers to the fact that all students pay a mandatory nine-dollar fee to the Central Ohio Transit Authority (COTA) to allow unlimited student use of city buses. Third, all students must take a number of “general education courses” to fulfill the “G.E.C.” requirement.
Results and argument selection. The mean perceived strength of each of the forty arguments was calculated. The overall “strength” scores were then computed and compared within issue. Pairs of arguments (one “pro” and one “con”) were chosen if there was a “pro” and a “con” argument of similar strength for the same issue. If there were more than one pair of similarly rated arguments, the pair of arguments with the higher strength score was selected. Appendix B presents the mean scores for the arguments. Based upon these calculations, I was able to provide arguments on both sides of each issue that were strong, but more importantly, of equivalent strength.

Main Study

Procedure. A total of 138 undergraduate students at Ohio State University took part in a study in exchange for credit in their introductory psychology course. Students were told that they would simply be reporting what they thought about various issues. Participants were each seated at a computer upon which all materials and measures were presented using the MediaLab computer program (version 2000.3.13; Jarvis, 2000). Participants then listened to an audio clip of a person asking a question about the first of five target issues. Participants then reported their attitude on a dichotomous support-oppose measure, followed by a continuous measure. This process was repeated for each of the remaining four target and two filler issues. After reporting baseline attitude scores for the seventh and final time, participants were presented with a screen announcing that they would re-report their attitudes, but this time, “Roger,” a “sophomore majoring in mathematics,” would give his opinion about the issues as well.
Participants once again, one at a time, listened to the same audio clip of a person asking where the participant stood on an issue. After hearing the question and re-reporting their initial dichotomous attitude, participants heard Roger voice his opinion. For the five target issues, which were presented in the first, third, fifth, sixth, and seventh positions, Roger disagreed with the participant, voicing one of the arguments selected from the pilot study. For the two filler issues, presented in the second and fourth positions, Roger agreed with the participants, voicing his approval and why he agreed. Thus, participants did not expect that Roger would always argue with them, minimizing the chance that participants could either anticipate Roger’s response or simply become frustrated with him or with the study itself. Transcripts of these sound files can be found in Appendix C.

Data. Attitude-change scores were computed for each participant as the difference between continuous attitudes reported before and after receiving the persuasive message. With this calculation, higher scores indicate more attitude change in the direction of the counterattitudinal message.

Participants’ scores were removed from analyses (total N=61 observations out of 690) if either of the following conditions were met: (1) A participant’s initial attitude on the dichotomous measure was inconsistent with the initial attitude on the continuous measure (e.g., a participant reported that he or she supported raising tuition to build more parking lots, then immediately thereafter reported that he or she “strongly opposed” such a tuition increase; N = 19 observations); (2) A participant reported his or her attitude on the continuous measure at the midpoint (i.e., “neither support nor oppose;” N = 42
observations). Because five change scores were collected for each participant (one for each of the five target issues), only individual observations were removed from analysis; participants were not removed.

The data revealed that students generally supported two issues (ending the bus fee and eliminating general-education requirements), opposed one issue (switching to the semester system), and were about evenly split in terms of support and opposition to two issues (raising tuition for parking lots and banning hate speech). In all, the total number of observations in which participants reported “support” \((N = 304)\) was similar to the number of observations in which participants reported “oppose” \((N = 325)\). This demonstrates that the issues used in the study were diverse in terms of participants’ overall approval and disapproval in a manner that parallels issues that we see on a daily basis. Table 2.1 presents the complete crosstabulations.

Analysis. The data were subjected to multilevel modeling (see Krefl & deLeeuw, 1998) to assess whether attitude-change scores were different between supporters and opposers. The critical analysis of support/oppose predicting change scores was significant, \(b=.31, p<.05\). Examination of means showed that opposers demonstrated less change on average (0.45 units) than did supporters (0.77 units).\(^2\)

Discussion

This study provides initial evidence that, across various issues, people exhibited more attitude resistance when they naturally opposed a policy than when they naturally opposed a policy than when they naturally

\(^2\) An alternate way to assess the support/oppose effect is by using ANCOVA instead of change scores. This analysis involves using support/oppose as the independent variable, the second continuous attitude measure as the dependent variable, and the first continuous attitude measure as a covariate. Appendix C presents this ANCOVA analysis for Studies 1, 2, 3, and 5. Analysis using the ANCOVA technique in lieu of difference scores provided equivalent results.
supported a policy. This finding is consistent with the idea that the way in which one thinks about one’s attitude (support or oppose) can affect resistance. Of course, participants in this study self-selected into support or opposition groups and thus there may have been substantive differences between the support and oppose sides of each of these issues. For example, opposers may have had more information about the issue or more experience in reporting their attitudes than did supporters.

In contrast, there may be something about the simple manner in which opposition attitudes are framed that may help contribute to their relative strength. Thus, whereas this first study demonstrates that opposition attitudes are more resistant, it does not speak to whether the framing of the attitudes necessarily contributed to this differential strength. Study 2 will provide the first test of whether the manner in which an attitude is framed can have any impact on the resistance of that attitude.
| Issue                                | Number of observations in which the participant indicated "support" | Number of observations in which the participant indicated "oppose"
|--------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------
| Raising tuition for parking lots     | 64                                                                  | 65                                                                  |
| Switching to semester system         | 38                                                                  | 90                                                                  |
| Ending bus fee                       | 72                                                                  | 53                                                                  |
| Eliminating GEC requirements         | 71                                                                  | 53                                                                  |
| Banning hate speech                  | 59                                                                  | 64                                                                  |
| Totals for all issues                | 304                                                                 | 325                                                                 |

**Notes.** Totals are not equivalent for each issue because of differential rates of filtering data for the reasons outlined in Chapter 2. Binomial tests demonstrated that the distribution of supporters and opposers only differed from chance for the issue of switching to the semester system, $p < .001$; all other $p$s > .10.

Table 2.1. Crosstabulations of the natural distribution of supporting and opposing.
Our first study showed that, across various issues, people who naturally opposed an issue were more resistant to persuasive messages than were those people who naturally supported an issue. Although the first study is an important first step in determining if supporters show differential attitude strength from opposers, it is not at all clear whether the difference in attitude strength is due to the way in which people frame their attitudes or simply due to the fact that, for each individual issue, those who supported the issue held initially stronger attitudes than did those people who opposed the issue.

Study 2 was conducted to test the notion of whether simply leading people to frame their attitudes as one of opposition would be sufficient to create stronger attitudes. This notion was tested using the context of a political campaign. Participants were presented with two candidates for a local political office and were free to develop a preference for one or the other. A manipulation in question wording led people to think of themselves as either supporters or opposers, after which participants were exposed to a counterattitudinal message. If simply opposing something is enough to elicit more resistance, those people who think of themselves as opposers — no matter which candidate
they prefer — should show more resistance to the persuasive message. If, however, the results from Study 1 were due to the fact that the opposition attitudes were inherently stronger — and that the negative framing of those attitudes had no effect on strength — supporters and opposers would show equivalent resistance effects in Study 2.

Method

A total of 69 undergraduate students at Ohio State University took part in a study for credit in their introductory psychology courses. Students were told that they would be learning about and reporting their attitudes toward several people running for the public office of Franklin County Commissioner. This issue was used because although most participants had heard of the public office, few if any knew what a Commissioner was responsible for or who the candidates running for the office were. In addition, participants were told that the Commissioners served an important role in the lives of all citizens of Franklin County, and because Ohio State University is located in Franklin County, the Commissioners have a direct effect on their lives.

Procedure. Participants were each seated at a computer. All materials and measures were presented using the MediaLab computer program (version 2000.3.13; Jarvis, 2000). Participants first read two brief “news articles” ostensibly from the Columbus Dispatch (the city’s daily newspaper) about each of the two candidates ostensibly running for the position in the upcoming elections. Whereas Rick Smith was presented as a political conservative (e.g., he “believes in fewer environmental and safety restrictions on businesses and industry”), Chris Bredesen was presented as a political liberal (e.g., he “feels that industry should be restricted somewhat to help
preserve the environment”). Each article presented one of the candidates in a moderately favorable manner, discussing the candidate’s political history and general political stances. Each article also included a photograph of the candidate. The two articles as presented to participants, as well as all materials from Study 2, can be found in Appendix E.

After participants read the two newspaper articles, they reported their attitudes toward one of the candidates. They were first asked if they “supported” or “opposed” the candidate, then were asked where they stood on an eleven-point measure anchored by “strongly support” and “strongly oppose.” In an attempt to minimize the chance that participants might be confused between the two candidates, the photographs of the candidates that accompanied the newspaper articles were presented along with both of the attitude measures.

Immediately after the continuous attitude measure, participants were presented with the second half of one of the two “newspaper articles” about a candidate. This additional information argued against the participants’ initial attitudes. For example, if a participant reported that he or she preferred Bredesen, the second half of the article about Bredesen derogated this position, providing information that Chris Bredesen’s career has often been tainted with scandal. For example, participants learned that “several thousand dollars disappeared” under Bredesen’s watch and that he was investigated but acquitted of bribery. After reading this additional contradictory information, participants re-reported attitudes on the same dichotomous and continuous measures as before. Figure 3.1 presents a simplified diagram of the overall procedure for Study 2.
Framing manipulation. "Supporting" versus "opposing" was manipulated by forcing participants to think about their attitudes in terms of one candidate or another. Specifically, half the randomly assigned participants were asked whether they supported or opposed Rick Smith being elected to the position, whereas the other half were asked whether they supported or opposed Chris Bredesen being elected to the position. In a two-person race, opposition to one person being elected presumably suggests support for the other person being elected. Thus, in terms of candidate preference, opposition to Bredesen was equivalent to support for Smith (and vice-versa). Thus, people were allowed to freely choose whichever candidate they preferred — liberals should presumably prefer Bredesen, whereas conservatives should presumably prefer Smith — but through the manipulation, some people were "forced" to think of their attitudes in terms of someone they “support,” whereas others were “forced” to think of their attitudes in terms of someone they “oppose.”

For example, those people who would want to see Chris Bredesen elected to the commission will report their attitudes in one of two ways. If asked what they think of Chris Bredesen being elected, these participants will indicate “support,” but if asked about Rick Smith being elected, they will indicate “oppose.” Thus, participants will be forced into thinking of their attitudes in this election in terms of either support for or opposition to a candidate. Figure 3.2 further demonstrates this manipulation.

Data. Attitude-change scores were computed for each participant as the difference between continuous attitudes reported before and after receiving the persuasive

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3 Of course, it was conceptually possible for participants to oppose both candidates or support both candidates, but given the divergent liberal and conservative positions taken by each, this seemed unlikely.
message. With this calculation, higher scores indicate more attitude change in the
direction of the counterattitudinal message.

Participants were removed from analyses (total $N = 10$) if either of the following
conditions were met: (1) A participant’s initial attitude on the dichotomous measure was
inconsistent with the initial attitude on the continuous measure (e.g., a participant
reported that he or she “supported” Bredesen, then immediately thereafter reported that
he or she “strongly opposed” Bredesen ($N = 3$); (2) A participant reported his or her
attitude on the continuous measure at the midpoint (i.e., “neither support nor oppose;” $N
= 7$).

Results

Initial analyses. Three analyses were conducted to assess whether initial attitudes
differed as a function of the manipulation. If the manipulation affected initial attitude
reports, it would be unclear as to whether any difference between resistance of supporters
and opposers was due to attitude framing or a simple question-wording effect on
attitudes. A chi-square test showed that initial support/oppose dichotomous attitudes
were no different as a function of the manipulation, $\chi^2(59) = 1.2, p > .28$. That is,
participants showed the same candidate preferences across conditions. Second, a linear
regression analysis showed that the effect of the manipulation on the initial continuous
measure was also nonsignificant, $t(58) < 1, p > .80$. Thus, the manipulation had no
reliable impact on initial continuous-measure attitude reports either. These two analyses
therefore demonstrate that the condition to which a person was assigned (“Bredesen” or
“Smith”) had no effect on participant’s preferred candidate or the valence of preferences.
Finally, a third analysis was conducted to assess whether initial attitudes of supporters were more extreme than were initial attitudes of opposers. Extremity scores were computed as the distance from the midpoint of the initial continuous attitude reports. A linear regression analysis demonstrated that supporters and opposers exhibited equivalent levels of initial extremity, \( t(58) < 1, p > .74 \).

**Resistance analysis.** A linear regression analysis was then computed with support or opposition predicting attitude change. Those participants who reported “oppose” showed less attitude change (\( M = 2.42 \)) than did those participants who reported “support” (\( M = 3.69 \)), \( t(58) = 2.00, p = .05 \). A second analysis indicated that this effect was strengthened when accounting for extremity of initial attitudes. When attitude extremity (computed as the distance from the midpoint indicated on the first continuous attitude measure) was added as a second predictor in a simultaneous linear regression analysis, extremity was not a significant predictor of attitude change, \( t(58) = 1.56, p = .12 \), while support/opposition remained a significant predictor, \( t(58) = 2.10, p = .04 \).

An additional analysis was conducted to see if those who thought about their attitudes in terms of support or opposition of Bredesen showed any difference from those who thought about their attitudes in terms of support or opposition of Smith. The main effects of support/oppose and condition were entered into a linear regression along with the interaction term. The interaction of support/oppose and condition was not significant, \( t(58) = 1.04, p > .30 \), indicating that participants assigned to each condition showed equivalent effects of support/oppose on resistance to persuasion. That is, those assigned
to think of their attitude in terms of liking or disliking Bredesen showed equivalent
effects to those assigned to think of their attitude in terms of liking or disliking Smith.

Discussion

Whereas Study 1 simply showed that natural opposers were less likely to be
persuaded than were natural supporters across several issues, Study 2 demonstrated that
leading people to think of their attitudes in terms of opposition versus support was
enough to manifest greater resistance to persuasion. In this study, if a person preferred
Chris Bredesen, he or she was equally likely to report supporting Chris Bredesen or
opposing Rick Smith depending on the condition to which he or she was assigned.
Indeed, initial attitudes did not vary as a function of the manipulation. However,
 opposers showed less persuasion than did supporters after the persuasive message
arguing against the initial attitude. This indicates that opposing an attitude object seems
to serve to enhance resistance to persuasion. Although Study 2 showed for the first time
that simple manipulation of support and oppose was enough to lead opposers to show
more resistance to persuasion, several questions remain.

First, although supporting one candidate is functionally equivalent to opposing
another candidate in terms of determining candidate preference in a two-person race (e.g.,
“supporting Bredesen” and “opposing Smith” will both result in a preference and
possibly a vote for Bredesen), it cannot be stated that the attitudes are technically the
same – one’s attitude toward Bredesen need not be a perfect mirror-image of one’s
attitude toward Smith. Thus, Study 2 essentially compares positive attitudes on one
target with negative attitudes on another target. Even though the interaction of
supporting or opposing and candidate frame on attitude change was nonsignificant, it would be helpful to show that the effect can be found with the use of only one attitude object. In Study 3, this phenomenon was further examined by measuring attitudes toward one single attitude object.

Second, participants in Study 2 were free to choose whichever candidate they liked. In essence, initial attitudes in Study 2 were not controlled. Although analyses showed that attitudes did not differ as a function of frame, it would be helpful to demonstrate the effect again but with a procedure that establishes an initial attitude as well as attitude framing. Thus, in Study 3, participants' attitudes toward an attitude object will be manipulated, further reducing concerns that attitudes may not be equivalent due to the manipulation of attitude framing.
Figure 3.1: Schematic illustrating the method for Study 2.
<table>
<thead>
<tr>
<th>Participant prefers</th>
<th>CONDITION 1</th>
<th>CONDITION 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Bredesen</td>
<td>&quot;What do you think about Chris Bredesen being elected?&quot;</td>
<td>&quot;What do you think about Rick Smith being elected?&quot;</td>
</tr>
<tr>
<td>&quot;SUPPORT&quot;</td>
<td>&quot;OPPOSE&quot;</td>
<td>&quot;SUPPORT&quot;</td>
</tr>
<tr>
<td>Rick Smith</td>
<td>&quot;OPPOSE&quot;</td>
<td>&quot;SUPPORT&quot;</td>
</tr>
</tbody>
</table>

Figure 3.2: Schematic explaining the manipulation used in Study 2.
STUDY 3: CAN FRAMING AFFECT STRENGTH IN ONE ATTITUDE OBJECT?

Study 3 was conducted to address two issues with respect to the design of Study 2. First, whereas there were two attitude objects in Study 2 (Bredesen and Smith, the two candidates for office), there is in this experiment only one attitude object (a campus issue). This change from two attitude objects to one allows for better comparison between subsets of the sample in that it does not require collapsing across two different attitude objects. Second, whereas participants were allowed to choose whichever candidate they preferred in Study 2, they will be randomly assigned to hold positively or negatively framed attitudes toward the object in Study 3. This additional control over attitudes, though not critical for supporting our hypotheses, serves to further weaken concerns about the effects of attitude features that participants bring with them to the laboratory.

Method

A total of 158 students took part in the study in exchange for credit in their introductory psychology class. Participants were told that they would be learning about and reporting their opinions about the new “Academic Plan” being considered for implementation at Ohio State University. At the time during which the studies were
conducted, Ohio State administrators were preparing to implement a new policy regarding, among other issues, tuition and admission standards at the university. According to the president of the undergraduate student government, although most students had heard that the Academic Plan was imminent, few knew exactly what the plan would mean for their futures as students (B.J. Schuerger, personal communication, Feb. 16, 2001).

**Procedure.** Participants were each seated at a computer that presented all materials and measures using MediaLab software (version 2000.3.13; Jarvis, 2000). Participants were told that the University administration was interested in what students think of the Academic Plan. The administration would use the data collected in the experiment to gauge student opinion on campus, they were further told. Materials used in Study 3 are presented in Appendix F.

Participants were then told that there were ten substantive effects that would take place if the Academic Plan were to be implemented. They were further told that the computer had all ten stored in memory, and that it would randomly select two of those ten to present. After participants saw a screen that read “ACCESSING” along with several “IP” addresses (in an effort to corroborate the cover story), they read a list of two effects that the Plan would have on their lives. Participants then reported their attitude on dichotomous and continuous (eleven-point) measures anchored by “strongly support” and “strongly oppose.” After these initial attitude reports, participants were told that they would now read two of the eight remaining effects of the Plan. They then saw the same “ACCESSING” screen followed by two more of the Plan’s effects. Finally, participants
once again reported their attitudes on the same dichotomous and continuous measures. Figure 4.1 presents a simplified diagram of the overall procedure for Study 3.

**Manipulations.** Participants were randomly assigned to one of two framing conditions. In one condition, participants were asked to think of whether they supported or opposed “approving” the Plan, whereas participants assigned to the other condition were asked to think of whether they supported or opposed “blocking” the plan. This manipulation was included on the introductory screens that introduced participants to the experiment, (e.g., “As you read the effects, think of whether you think that the Plan should be approved [blocked]...”) and was incorporated into the manner in which participants reported their attitudes (e.g., “What do you think about approving [blocking] the Plan?”).

In an orthogonal manipulation, participants initially read either two positive effects of the Plan or two negative effects of the Plan. After reporting their initial attitudes, participants then received the other two (oppositely valenced) effects. Thus, half the participants read about “good” effects and then learned of the “bad” effects after reporting their initial attitude, whereas the other half read about “bad” effects then “good effects.” In essence, the good aspects of the plan were that it would guarantee four-year graduation and reduce the requirements for graduation. The bad aspects of the plan were that it would increase tuition by 15% and mandate that students take classes that meet on Saturdays.

These two manipulations allowed us to both manipulate whether participants
initially liked or disliked the plan, and whether their attitudes were framed as supportive or opposing attitudes irrespective of whether the attitudes toward the plan were based on positive or negative effects. For example, consider a participant who receives two positive pieces of information before the attitude reports. If she is assigned to think of her attitude in terms of “approving” the Plan, she would be a supporter of passing the plan and would indicate “support” on the attitude measures. Conversely, if she is assigned to think of her attitude in terms of “blocking” the plan, she would be an opposer of blocking the plan and would indicate “oppose” on the attitude measures. An important feature of this method is that the attitudes of both individuals are based on two identical positive pieces of information. Thus, the valence of the information that served as the basis for the attitude was controlled (i.e., positive versus negative effects of the plan) and the framing of one’s position with respect to the plan (approval versus opposition) in an orthogonal manner. I again expected to find that regardless of attitude valence, individuals whose positions were framed as “opposers” would will show more resistance to persuasion than would individuals whose positions were framed as “supporters.” Figure 4.2 further demonstrates this manipulation.

**Data.** Attitude-change scores were computed for each participant as the number of scale points the participant moved in the direction of the second message between the two continuous attitude reports. With this calculation, higher scores indicate more attitude change in the direction of the second message.

Participants were removed from analyses (total N = 61) if one or more of the following conditions were met: (1) A participant’s initial attitude on the dichotomous
measure was inconsistent with the initial attitude on the continuous measure (e.g., a participant reported liking the Plan on the first dichotomous measure but disliking the plan on the first continuous measure; N = 26); (2) A participant initially reported his or her attitude on the continuous measure at the midpoint (i.e., "neither support nor oppose;" N = 26); (3) A participant initially reported liking the Plan after reading negative effects or reported disliking the plan after reading positive effects (N = 23).

Results

Initial analysis. An initial analysis was conducted to assess whether supporters and opposers exhibited equivalent levels of attitude extremity before being exposed to the persuasive message. Extremity scores were again computed for each participant as the distance from the midpoint on the initial continuous attitude report. A linear regression showed that opposers were marginally more extreme (M = 2.80) than were supporters (M = 2.55; t(96) = 1.69, p = .09).

Main analyses. A linear regression analysis was then computed with support or opposition predicting attitude change. Those participants who reported “oppose” showed less attitude change (M = 2.25) than did those participants who reported “support” (M = 3.60; t(96) = 2.28, p = .025).

A second analysis indicated that this effect was strengthened when accounting for extremity of initial attitudes. When attitude extremity was added as a second predictor in a simultaneous linear regression analysis, support/opposition remained a significant predictor of attitude change, t(96) = 2.91, p = .004, while extremity explained additional variance, t(96) = 3.23, p = .002.
Analyses of filtered data. Because so many cases were lost due to filtering for the reasons previously discussed, it was important to assess whether filtering rates were different for supporters or opposers, for people who initially liked and disliked the Plan, and for people who were thinking of the Plan in terms of blocking or passing. If differential numbers of people were filtered for various reasons, the effects found might be not due to attitude framing, but due to mortality concerns.

I first assessed whether supporters were as likely to be removed as were opposers. Analyses showed that supporters and opposers were equally likely to be filtered due to inconsistent initial dichotomous and continuous attitude measures, and equally likely to be filtered due to an initial “wrong” attitude, $\chi^2 < 1.5, p > .22$. However, more opposers than supporters were dropped due to an initial continuous attitude report at the midpoint, $\chi^2 (158) = 10.47, p = .001$, with 7% of supporters being dropped and 25% of opposers being dropped due to this criterion. Thus, people who reported “oppose” were more likely to be filtered due to meeting this criterion. However, an additional analysis showed that the same main effect of support/oppose on attitude change remains when including people dropped for this reason, $t(118) = 1.98, p = .05$, with opposers still showing more resistance to persuasion (change $M = 2.75$) than supporters ($M = 3.49$). Thus, although opposers were more likely to be removed for this reason, such filtering did not impact the analysis of support/oppose on attitude change.

Next, I assessed whether people assigned to “blocking” or “approving” conditions showed differential filtering rates. The manipulation had no effect on filtering rates for
inconsistent dichotomous and continuous initial attitudes, nor did it have an effect on filtering rates for continuous attitude measures at the midpoint ($\chi^2 < 1$, $p > .42$). However, the manipulation did impact filtering rates for reporting an “incorrect” initial attitude, $\chi^2 (158) = 8.70$, $p = .003$, such that 24% of the people in the “blocking” condition were filtered for this reason, whereas 7% of the people in the “approving” condition were filtered for this reason. However, follow-up analyses showed no interaction of block/approve framing by the support/oppose effect, indicating that blockers and passers showed the same resistance effect. This interaction was nonsignificant when excluding those participants whose initial continuous attitudes fell at the midpoint ($F(1,97) < 1$, $p > .38$), and when including those participants whose initial continuous attitudes fell at the midpoint ($F(1,119) < 1$, $p > .84$). Thus, although people assigned to the “blocking” condition were more likely to be filtered for this reason, because they showed the same support/oppose effect as did people assigned to the “approving” condition, the differential filtering does not call into question the primary support/oppose analysis.

Finally, the manipulation of initial attitude (liking or disliking the Plan) had no impact on filtering rates for any of the three filtering criteria, $\chi^2 < 1$, n.s.

Discussion

Study 3 essentially replicated the findings of Study 2 with several changes. Participants in Study 3 reported their attitudes toward a different attitude object (a plan rather than a candidate), comparisons were made across a single attitude object (one plan rather than two people), and participants’ initial attitudes were manipulated rather than measured. Together, Studies 2 and 3 provide consistent evidence that, regardless of the
initial attitude, when people frame attitudes in terms of what they **oppose**, they show less attitude change to an attacking message than when people frame attitudes in terms of what they **support**.
Figure 4.1: Schematic illustrating the method for Study 3.
Figure 4.2: Schematic explaining the manipulations used in Study 3.
A POTENTIAL MECHANISM OF THE SUPPORT/OPPOSE EFFECT

Whereas Study 1 provided evidence that opposing attitudes were more resistant to change than supportive ones, Studies 2 and 3 showed that simply framing one’s position as one of opposition is sufficient to yield stronger attitudes than framing one’s position as one of support. An important question that follows is why this effect occurs: What is the mechanism through which framing an attitude negatively leads to greater attitude resistance? Study 4 and Study 5 were designed to provide some initial insight into this question.

One potential reason why framing attitudes negatively might yield greater attitude resistance deals with the perceptions people have regarding previous experiences with persuasive attempts. Indeed, persuasion is a common occurrence in our everyday lives. We are on a routine basis bombarded with advertising messages, people trying to convince us to agree with them on various issues, and politicians attempting to gain our favor. It is possible that over the course of our lives, people recognize these persuasive messages and recognize when they are successful and when they are not successful. We may then begin to associate various initial attitudes with the persuasive appeal and the final outcome.
Prior research and Study 1 provided evidence that when people are naturally opposed to something, their attitudes may be stronger than when they support something. It is therefore possible that, over a span of many years, people begin to recognize that their opposition to something is indicative of their tendency to resist. People may notice over time that it has been much more difficult for people to persuade them when they are in opposition than when they are in support. If this association is observed many times throughout a person’s life, people may begin to learn that opposition attitudes are more resistant than are supportive attitudes.

If this association is understood over time, it follows that people might act upon this understanding. One of the ways in which people could do so is to treat persuasive messages differently depending on whether they perceive their initial attitude toward something to be supportive or in opposition. Therefore, when a person perceives her initial attitude to be against something, she may understand that previous attempts to change these attitudes were relatively unsuccessful, so taking care to process the persuasive message would likely be of little use.

If this process occurs, it is possible that opposers may process persuasive messages less than do supporters. To the extent that a person frames his or her attitude as being against something or in opposition, he or she may see no need to process a persuasive message relevant to that attitude as carefully as a person who frames his or her attitude as being for something or in support of something.

Consistent with the elaboration likelihood model of persuasion, if people elaborate on a persuasive message, resultant persuasion will depend on the merit of the
arguments contained within the message. If the message contains logical, compelling arguments, people who spend great effort attending to and elaborating on the message should show more attitude change than should those people who do not. Conversely, if the message contains weak, specious arguments, those people who spend great effort thinking about the message should show less persuasion than should those people who do not (Petty, Wells, & Brock, 1976; Petty & Cacioppo, 1979).

In the research conducted in Study 1, Study 2, and Study 3, logical, compelling arguments were used. Although only the arguments contained in Study 1 were actually tested and shown to be compelling, the arguments in Study 2 and Study 3 were designed to be persuasive as well. If this is the case, then the fact that opposers show less change than opposers is indeed consistent with the idea that opposers are processing the strong messages less than are supporters. Because they are processing the strong messages less, participants are less likely to realize the messages' validity, less likely to generate favorable thoughts to them, and thus are less likely to be persuaded.

In sum, then, one potential mediating process is that when people oppose an issue, after years of learning the relation between opposing attitudes and resistance, they recognize that their attitude is less likely to change in the face of a persuasive message. Because they feel that their attitude is less malleable, they see no reason to pay close attention to and elaborate upon a persuasive message. As such, they show less persuasion because they do not notice and are not influenced by strong arguments within a
persuasive message. Indeed, a sort of self-fulfilling prophecy may begin to develop after years of learning.⁴

Studies 4 and 5 will collectively examine this proposed mechanism. Study 4 will test the hypothesis that people recognize that opposition attitudes are less likely to change than are supportive attitudes. I will ask people to imagine that they support or oppose a candidate for undergraduate student government, and then ask them how likely it is that they will change their attitudes in light of new information about that candidate. If people do have a naive understanding that opposition attitudes are more difficult to change than are supportive attitudes, people in the “oppose” condition would report being less likely to change their attitudes than would people in the “support” condition. This would be manifest as an association between supporting or opposing and self-predicted attitude change.

Study 5 will then test the notion that opposers do indeed process messages less than do supporters. I will use the same method used in Study 3 to manipulate whether participants think of themselves as “supporters” or “opposers.” The persuasive message that follows will then contain either strong or weak arguments. If opposers are indeed processing the persuasive message less than are supporters, persuasion for these people will not differ much as a function of the strength of the arguments within the persuasive message: the arguments may be strong in one condition and weak in another, but because opposers will not be paying attention to or elaborating on the arguments within the messages, the arguments will have little or no effect on resultant attitudes. Thus,

⁴ Because the shutting down of processing for opposition attitudes may be as a result of opposition attitudes being stronger, it is possible that such opposition attitudes may show the other hallmarks of strong attitudes
opposers will show roughly equivalent levels of persuasion regardless of whether they are presented with strong or weak arguments. Conversely, if supporters are processing the persuasive message, persuasion for those people will be dependent on the strength of the arguments within the persuasive message: initial supporters who are in the “strong-argument” condition will show more persuasion than will initial supporters who are in the “weak-argument” condition. This would be manifest as an interaction between supporting or opposing and argument strength on attitude change.

as well: they may also be more persistent and influential on cognition and behavior. I will discuss this further in Chapter 8.
CHAPTER 6

STUDY 4: DO PEOPLE THINK THAT OPPOSING ATTITUDES
ARE STRONGER THAN SUPPORTIVE ATTITUDES?

To test the notion that opposers process persuasive messages less due to an understanding that negative attitudes are typically more resistant, it must first be understood whether people hold this understanding about negative attitudes in the first place. Study 4 was designed to test this idea. Participants were asked to think of themselves as supporters or opposers, then to describe how likely it would be for them to change their minds. It was expected that opposers would report being more likely to resist the influence of future information contradictory to their attitudes.

Method

Procedure. A total of 67 undergraduates at Ohio State University took part in the study in exchange for credit in their introductory psychology class. They each received a sheet of paper upon which a paragraph was written. The paragraph asked participants to imagine that they felt strongly about a pair of candidates who were running for president and vice-president of the Ohio State student government. They were told to imagine that they have felt this way about the candidates “all year long,” and had even “worked hard” on a campaign due to this strong belief. They were further told to imagine that some new
information had just come to light, however, that has made them “reconsider” their attitude. At the bottom of the page was a list of five questions, including the dependent measure of interest, “How likely do you think it would be that you would change your mind in light of this new information?” The five-point scale was labeled, “not at all,” “not very,” “somewhat,” “very,” and “extremely.” Appendix G presents the materials used in Study 4.

Manipulation. Half of the randomly assigned participants were asked to imagine that they strongly supported the candidates, while the other half were asked to imagine that they strongly opposed the candidates. Thus, half the participants were assigned to be “supporters,” while the other half were assigned to be “opposers.”

Results

A linear regression analysis on the measure of anticipated change showed a significant relation between condition and perceived likelihood of change, t(67) = 2.16, p = .04. Analysis of means demonstrates that opposers were less likely to think they would change their attitudes about the candidates (M = 3.09 on the five-point scale) than were supporters (M = 3.50).

Discussion

Study 4 suggests that people have an understanding that they are less likely to change their minds when they oppose something than when they support it. Although the data do not speak as to why this learning has taken place, the data clearly demonstrate that some abstract understanding that opposition attitudes change less exists. This represents the first step in testing the proposed mediation discussed in the preceding
chapter. The second step is to understand if, because of this understanding, people actually process persuasive messages less when they frame the attitude negatively than when they frame the attitude positively. Study 5 will address this idea.
STUDY 5: DO OPPOSERS PROCESS PERSUASIVE MESSAGES LESS?

Whereas Study 4 addressed the first component of the mechanism discussed in Chapter 5 (i.e., people think that “opposition attitudes” are less likely to change), the final study will address the second component and examine whether people actually process information less when their attitudes are framed as opposition rather than as support. In a study similar in method to Study 3, participants will learn about a plan, report their attitudes on the plan, and then be faced with a persuasive message counter to their initial attitude. Change scores will be computed to assess whether opposers are more resistant than are supporters. However, as stated earlier, Study 5 will also entail a second manipulation – that of the strength of the arguments contained in the persuasive message. Whereas some participants will have the opportunity to read a persuasive message with strong, compelling arguments, others will be presented with a persuasive message with weak, specious arguments. This manipulation will allow for an understanding of how supporters and opposers may process the message differently.

Method

A total of 96 undergraduate psychology students took part in the study in exchange for credit in their introductory psychology classes. Participants were told that
they would be learning about and reporting their opinions about the “Ottawa Academic Platform” being considered for implementation at Ohio State University. The fictitious Ottawa Academic Platform was chosen in lieu of the real Ohio State University Academic Plan used in Study 3 for two reasons. First, the relatively large number of students removed from Study 3 may have been in part due to our underestimation of students’ familiarity with the Plan. It is possible that either students did know about the Plan or they may at least have had a generally positive or negative impression before entering the study. Second, in the time between when Study 3 and Study 5 were conducted, public forums and front-page articles in the student newspaper helped further educate students about the Plan. Students would likely be even more familiar with the Plan at the time Study 5 was run than when Study 3 was run. It is for this reason that the fictitious Ottawa Academic Platform was used instead.

Procedure. Participants were each seated at a computer that presented all materials and measures using MediaLab software (version 2000.3.13; Jarvis, 2000). Participants were told that they were going to be taking part in two unrelated studies. The first was designed to help participants rehearse thinking of issues in terms of “passing” or “blocking” in order to insure that participants were not confused by the blocking versus passing framing. This practice manipulation session was followed by the framing manipulation for the target issue. Materials used in Study 5 are presented in Appendix H.
“Practice-manipulation” session. In the first portion of the session, participants were simply asked to report their attitudes on four issues: forced military service of all Americans, additional free Government loans to all students, a city-wide sales-tax increase of 25%, and expanded student bus services. Participants reported attitudes on dichotomous and continuous measures using the same method used in Studies 2 and 3. However, in this practice-manipulation session, if a participant reported an attitude inconsistent with the expected attitude report (e.g., a participant opposed blocking or supported passing the sales tax increase), he or she was presented with a polite reminder to report whether he or she supported or opposed blocking the issue or passing the issue (depending on which condition he or she had been assigned to). After reporting attitudes on the four “practice” issues, participants were told that they were to begin the second ostensibly unrelated experiment.

This practice-manipulation method was instituted with the goal of helping people think of their attitudes in terms of “passing” or “blocking.” It is likely counterintuitive to consider one’s attitude in the manner of “passing” or “blocking” used in this study. Indeed, the large number of participants from Study 3 who were dropped for reporting an “incorrect” attitude may attest to this fact. Thus, it was hoped that allowing participants to rehearse reporting attitudes in terms of “blocking” or “passing” would reduce the number of participants filtered for misunderstanding the attitude-reporting task.

Main session. Participants were told that in the second ostensibly unrelated study, they would be using web sites to learn about the “Ottawa Academic Platform” (OAP) that was being considered for use at Ohio State in the coming academic year. The first
"website" they visited was ostensibly the "official" OAP website. This page listed two main ways in which students at OAP schools are impacted. Participants then reported attitudes toward the OAP on dichotomous and continuous attitudes. Next, participants visited what was ostensibly the Canadian Ministry of Education's official website. This site entailed a large headline at the top of the page either extolling or derogating the OAP, with a lengthy editorial below as to why the Ministry felt the OAP was either good or bad. This second website always ran counter to the initial website, such that if participants read good outcomes the OAP would yield in the first website, they learned that the Ministry of Education loathed the OAP in the second. After having the chance to read the information ostensibly from the Canadian Ministry of Education, participants re-reported their attitudes on the same dichotomous and continuous attitude measures.

**Manipulations.** The first manipulation was essentially the same framing manipulation used in Study 3. Specifically, half the participants were randomly assigned to think in terms of whether or not they wanted to "pass" the practice issues and the OAP, whereas the other half were assigned to think in terms of whether or not they wanted to "block" the practice issues and the OAP.

The second orthogonal manipulation was similar to that used in Study 3. Half the participants (those in the "good-then-bad" condition) were randomly assigned to read in the first website that the OAP would yield good outcomes for students. These participants then read in the second website that the Canadian Ministry of Education felt that the OAP was very bad for students. Conversely, the other participants (those assigned to the "bad-then-good" condition) read bad outcomes from the OAP website,
then learned that the Ministry of Education had nothing but praise for the OAP.

A third manipulation not used until now was that of the strength of the arguments contained in the Ministry of Education website. In this orthogonal manipulation, half the participants were presented with strong, compelling arguments about the OAP in the second “persuasion” website. For these people assigned to the “strong argument” condition, the Canadian Ministry of Education’s website stated that the OAP has an impact on dropout rates, students’ starting salaries, and the level of student satisfaction. (Participants assigned to the “good-then-bad” condition learned that OAP schools have higher dropout rates, lower starting salaries, and lower levels of student satisfaction. Participants assigned to the “bad-then-good” condition learned of lower dropout rates and higher salaries and satisfaction levels.) The other half of the participants assigned to the “weak argument” condition, however, viewed different Ministry of Education websites. These people were presented with information that the OAP influences how many grains and fibers students consume, how often students phone their parents, and how satisfied students are with the weather on campus. (Students in the “good-then-bad” condition learned about less fiber consumption, fewer calls to parents, and less satisfaction with the weather; students in the “bad-then-good” condition learned about more fiber consumption, more calls to parents, and more satisfaction with the weather.)

**Data.** Attitude-change scores were again computed for each participant as the number of scale points the participant crossed in the direction of the second message between the two continuous attitude reports. With this calculation, higher scores indicate more attitude change in the direction of the second communication.
Participants were removed from analyses (total \( N = 21 \)) if one or more of the following conditions were met: (1) A participant’s initial attitude on the dichotomous measure was inconsistent with the initial attitude on the continuous measure (e.g., a participant reported liking the OAP on the first dichotomous measure but disliking the OAP on the first continuous measure; \( N = 8 \)); (2) A participant reported his or her attitude on the continuous measure at the midpoint (i.e., “neither support nor oppose;” \( N = 2 \)); (3) A participant reported liking the OAP after reading negative effects or reported disliking the plan after reading positive effects (\( N = 14 \)).

**Results**

**Initial analysis.** An initial analysis was conducted to assess whether supporters and opposers exhibited equivalent levels of attitude extremity before being exposed to the persuasive message. Extremity scores were again computed for each participant as the distance from the midpoint on the initial continuous attitude report. A linear regression showed that supporters and opposers showed no difference in the extremity of their initial attitudes, \( t(74) = 1.21, p = .22 \).

**Main analyses.** A linear regression analysis was then computed with support/oppose, argument strength, and the interaction of support/oppose and arguments strength serving as predictors, and attitude change serving as the criterion. There was no relation between support/oppose and attitude change, \( t(74) = 1.34, p = .17 \), nor was there a relation between argument strength and attitude change, \( t(74) = 0.90, p = .37 \). However, there was a marginal interaction between these two variables, \( t(74) = 1.62, p = .11 \). Opposers showed very little differentiation between strong and weak arguments –
attitude change did not differ as a function of argument strength — while supporters did show differentiation. Figure 7.1 demonstrates this marginally significant interaction.⁵

A second analysis indicated that this effect was somewhat weakened when accounting for extremity of initial attitudes. When attitude extremity was added as an additional predictor in a second regression analysis, the interaction of support/oppose and argument strength on attitude change became somewhat weaker, \( t(74) = 1.51, p = .14 \), while extremity explained no additional variance, \( t(74) < 1, p = .70 \).

Analyses of filtered data. Presumably due to the “practice-manipulation” session and the artificial attitude object, approximately one-third fewer participants were lost than in Study 3. Even though this number was lower, differential filtering rates may still be a concern. Chi-square analyses were again conducted to see whether “flagging” rates for any of the three criteria differed as a function of the framing manipulation or support/oppose. No chi-square test was significant, all \( \chi^2 s < 2.4, ps > .12 \).

Discussion

Although the attempt to find the mechanism behind the support/oppose effect did not yield the significant interaction as predicted, it does provide at least initial evidence that opposers may engage in less processing than do supporters. Such “shutting-down” of processing would in turn lead to less persuasion in the face of a strong, compelling counterattitudinal message. However, presumably due to a very small sample size, the

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⁵ The finding that opposers process the message less may at first glance seem to be inconsistent with research showing that people engage in more effortful processing of counterattitudinal information than proattitudinal information (e.g., Ditto & Lopez, 1992, Edwards & Smith, 1996). In this dissertation, however, all participants receive counterattitudinal information. The effects discussed herein therefore examine the difference in persuasion between “supporters” and “opposers” who received counterattitudinal information.
nonsignificant interaction can only provide tentative evidence in support of this proposed mechanism.
Figure 7.1: Interaction of support/oppose and argument strength in Study 5.
Because attitudes are such essential elements of the social world, a great deal of research has been conducted in an attempt to better understand them. Investigators have spent much effort in understanding the differences between strong and weak attitudes. Whereas strong attitudes are persistent, resistant, and influential on behavior and cognition, weak attitudes are more fleeting and less impactful.

In line with the elaboration likelihood model of persuasion, much research has shown that to make attitudes stronger typically requires processes involving high levels of cognitive effort (Petty, Hagtvedt, & Smith, 1995). Additional elaboration of persuasive messages, rehearsal of the attitude, and additional knowledge of the attitude object can enhance the strength of the attitude in terms of its durability and impactfulness (see Petty & Krosnick, 1995). The current research, however, demonstrated a process of low cognitive effort that results in more resistant attitudes.

Summary of the Findings

In Study 1, participants reported their attitudes on five different target issues. For these five target attitudes, participants heard a persuasive message counter to their reported attitudes. Attitude-change scores were then calculated as the difference in
continuous attitude scores reported before and after the persuasive message. Results showed that across the five attitude objects, people who opposed an issue (e.g., converting to semesters) were more resistant to persuasive messages than were people who supported some issue. Thus, Study 1 served as initial evidence that opposition attitudes are indeed stronger than are supportive attitudes. However, Study 1 simply showed that opposition attitudes have this trait. It could not be concluded that attitude framing per se was responsible for this effect.

Study 2 was therefore designed to test the notion that simply framing an attitude negatively could impact the strength of the attitude. Participants learned about two candidates running for a public office. Through a manipulation of question wording, participants were randomly assigned to consider their attitude as one of “support” or “opposition.” After reporting which candidate they preferred, participants learned information that made them reconsider their attitude. Analyses demonstrated that, regardless of which candidate a participant preferred, opposers showed more resistance to the persuasive message than did the supporters.

Study 3 improved upon the method used in Study 2 in two ways. First, whereas Study 2 involved two different attitude objects (participants either considered their attitudes in terms of one candidate or another), Study 3 was conducted with only one attitude object (a plan being considered for implementation at the participants’ university). Second, whereas Study 2 allowed participants to create their own attitudes (i.e., they were free to prefer one candidate or the other), Study 3 forced participants to like or dislike the attitude object.
Participants in Study 3 were told that they would be reporting attitudes toward a plan being considered for implementation at Ohio State University. Whereas some participants were told that the plan would yield positive outcomes for them, others were told that the plan would yield negative outcomes. Participants reported their attitudes toward the plan, learned information counter to these initial attitudes, then reported their attitudes once again. Because some participants were asked if they supported or opposed “blocking” the plan and others were asked if they supported or opposed “approving” the plan, it was possible to manipulate whether the participants considered themselves as “supporters” or an “opposers.” Results showed that regardless of whether participants initially liked or disliked the plan, opposers were more resistant to the second pieces of information than were the supporters.

Although Studies 2 and 3 demonstrated that simply framing an attitude in terms of support or opposition was enough to yield the attitude-strength effect, the mechanism responsible for the effect remained unclear. It is possible that people have developed an understanding that opposition attitudes tend to be stronger than supportive attitudes. If people have indeed developed such an understanding, it may be the case that when people consider an attitude as one of opposition, they feel no need to carefully elaborate upon persuasive messages regarding that attitude. Study 4 provided initial support for this hypothesis. Participants who held an opposing attitude felt that they were less likely to change their attitudes than were participants who held a supporting attitude.

Study 5 was designed to directly test the notion that opposers spend less cognitive effort in elaborating on persuasive messages than do supporters. In a method similar to
the one used in Study 3, participants reported attitudes toward a new plan ostensibly being considered for implementation at Ohio State University. There were three orthogonal manipulations. Participants initially learned either positive or negative information about the plan, they were either asked whether they supported or opposed “blocking” or “passing” the plan, and their persuasive message either contained strong and compelling or weak and specious arguments against their initial attitudes. Although only marginally significant, results were in the hypothesized direction: opposers processed the persuasive message less than did supporters as demonstrated by the fact that argument quality had a greater impact on the attitudes of supporters than opposers.

Implications

Because this dissertation addresses two important facets of attitudes – the positivity or negativity of attitudes as well as people’s perception of the attitudes – the findings provide interesting implications for several areas of attitude research. The present research indeed has potential implications for the bivariate model of attitudes, matching effects on persuasion, and general questionnaire design.

The Bivariate Model of Attitudes

The bivariate model of attitudes and considerable prior research in social psychology suggest that negative information is more powerful than positive information in producing an overall evaluation toward a target (e.g., Peeters & Czapinski, 1990; Taylor, 1991; Cacioppo et al., 1997). One possible ramification of this negativity bias is that negative attitudes might be stronger than similarly extreme positive attitudes. The current research supports this notion by showing that simply framing attitudes in a
negative “opposition” frame yield greater resistance than framing attitudes in a positive “supportive” frame. Thus, the current research suggests that a basic premise of the bivariate model – that negative information has more impact than positive – may generalize to which attitudes are stronger or more impactful as well.

Attitude Measurement

A great deal of research has demonstrated that the context and manner in which a question is asked can have dramatic effects on the responses that participants give (see Schuman & Presser, 1981; Schwarz, 1999). The number of response options offered (e.g., Bendig, 1953; McKelvie, 1978), the manner in which the response options are labeled (e.g., Alwin & Krosnick, 1991; Krosnick & Berent, 1993), responses to previous questions (e.g., Rugg & Cantril, 1944; Schuman & Presser, 1981, ch. 2), and participants’ guesses of what results the researcher hopes to find (e.g., Norenzayan & Schwarz, 1999) can have profound impact on the types of responses people give.

One important area of study regarding attitude measurement concerns the wording in which questions are presented. For example, Rugg (1941) showed that respondents were more likely to say that the United States “should not allow” public speeches against democracy than to say that the United States “should forbid” such speeches (see also Schuman & Presser, 1981, ch. 11). In a similar vein, Smith (1987) demonstrated that participants reported more negative attitudes toward people when they were described as being “on welfare” than as being “poor.” Although when these effects occur is difficult to predict (Schuman & Presser, 1981), question-wording effects are an important consideration in designing experiments, surveys, and questionnaires in that question
wording can impact the responses that people give.

The current research provides important new information about the effects of question wording. Whereas the previous literature shows that question wording can impact attitudes, this dissertation shows that question wording can impact the strength of the attitude without any noticeable effect on the attitudes themselves. Thus, although a researcher may feel confident in knowing that different question wordings have had no impact on attitude reports, he or she may unknowingly be influencing the strength of the attitudes with the question wording chosen. This research therefore underscores the importance of how questions are worded in surveys and experiments: even though attitudes may not differ as a function of question wording, the strength of those attitudes may be influenced.

**Prospect Theory.** Kahneman and Tversky’s prospect theory (1979; see also Tversky & Kahneman, 1981) suggests that people avoid risk when they can benefit without it, but seek risk when such risks may be necessary. Thus, people are risk-avoidant when an outcome is framed in gains, but risk-seeking when an outcome is framed in losses. Though the findings in this dissertation may not seem closely related with risk and gain/loss framing, there is a potential relation.

From the evolutionary-psychological perspective, positive attitudes may be riskier to hold than negative attitudes. This may be because disliking an object leads to avoidance of that object — and because avoiding something is inherently less risky than approaching something, such avoidance-inducing negative attitudes may be safer. Thus, it is possible that once people hold negative attitudes, it may be perceived as risky to
change that attitude to be more positive. Conversely, if a person holds a positive attitude, it may be risky to maintain that positive attitude in light of new information. The manipulation of attitude framing in this dissertation, thus has parallels to research on prospect theory. When I forced people to frame their attitudes in a positive way, they were more likely to change their attitudes — possibly in part because they wanted to reduce their perceived risk. These participants decided to change their positively framed attitude when they learned new information that made the attitude seem to be risky. Conversely, when I forced people to frame their attitudes in a negative way, they were less likely to change — possibly in part because they wanted to maintain their perceived low level of risk. These participants held a negatively framed attitude — one that is likely not risky — and felt no need to take on more risk in light of new information. Thus, when negative attitudes are conceptualized as being less risky to hold than positive attitudes, the research in this dissertation shows a potentially important link between prospect theory and attitudes in general.

Future Directions

Stronger Evidence for the “Shutting-Down” Mechanism

One avenue for further research is to replicate the findings of Study 5. There are several possible ways in which this study could be altered to maximize the chances of finding statistically significant evidence that opposers process persuasive messages less than do supporters. First, as with Study 3, a large number of participants were removed from analysis in Study 5, presumably due to their misunderstanding of the procedure. Perhaps an even more lengthy “practice-manipulation” session might help participants
better follow the procedure. Second, perhaps the "Ottawa Academic Platform" is perceived by participants as being similar to the Ohio State Academic Plan for which they apparently have developed attitudes. Making these and other changes to replicate Study 5 would provide stronger evidence for the proposed shutting-down mechanism.

The Lingering Question of Mediation

Although Study 5 suggested that people process messages with less scrutiny when they oppose an attitude object than when they support an attitude object, it is unclear as to why this would be the case. And even though Study 4 shows that people recognize that they are less likely to change their mind when they oppose an issue, the reason why people harbor this naive theory is unclear. The primary proposed hypothesis is that people learn from past experience that such opposition attitudes are not likely to change, so they do not see any need to process messages on this topic carefully. However, there are several other hypotheses that could also explain the findings of both Studies 4 and 5.

The "message perception" hypothesis. One possible explanation for the effect of opposers showing more resistance has to do with the manner in which the persuasive messages are perceived. Recall that research on impression formation and the bivariate model of attitudes suggests that each piece of new negative information about an attitude object has a greater effect on final attitudes than does each piece of new positive information. As such, one might argue that the effects discussed in this dissertation result from negative information being more powerful in shaping attitudes — not from initial positive attitudes being weaker in the face of persuasion.

I reject this hypothesis, however, because opposing and supporting — the
independent variable of interest – was manipulated in a manner orthogonal to the absolute positivity and negativity of the persuasive message. That is, whether a person was a supporter or opposer was a manipulation completely separate from whether a person received positively or negatively valenced persuasive information. Thus, because analyses showed that the support/oppose effect worked regardless of whether the persuasive pieces of information were actually positive or negative, this “message perception” hypothesis seems to be of little merit.

The “avoidance priming” hypothesis. It may be that when people think in terms of opposition, they are primed with the concept of avoidance. As such, when they are exposed to a persuasive message, they fail to process it carefully as a simple function of the avoidance concept being primed. According to this hypothesis, then, opposers do not process the persuasive message as carefully because they have a general motivation to avoid all stimuli presented to them, including the persuasive message. Thus, this hypothesis suggests that the attitude strength is a result of a general motivation to avoid as opposed to a specific motivation to avoid the persuasive message about the attitude object.

One way in which this hypothesis could be tested would involve presenting participants with a persuasive message about an unrelated product immediately after reporting “support” or “oppose” about an attitude object. If the priming mechanism is taking place, and a general avoidance motive is primed, participants would scrutinize the unrelated message less when opposing the initial attitude object than when supporting it. However, if general avoidance priming is not taking place, both initial supporters and
opposers should process the unrelated message roughly equivalently. Avoidance should only occur on the focal attitude issue.

The “consequence” hypothesis. Recall that the bivariate model of attitudes and considerable prior research in social psychology suggests that negative information is more diagnostic and impactful than is positive information in terms of influencing attitudes. Researchers have hypothesized that this is the case because harmful stimuli in the world are more impactful on an organism than are helpful stimuli (e.g., avoiding a tiger is more important than is approaching a fruit tree; see Cacioppo et al., 1997). It may be possible that negative attitudes are in turn seen as more important than are positive attitudes: Things that we choose to “oppose” may be seen as more harmful than things that we choose to “support” are seen as helpful.

For example, a person may have a negative attitude toward not wearing his seatbelt because not wearing a seatbelt could lead to death. In contrast, a person may have a positive attitude toward wearing his seatbelt because wearing the seatbelt leads to safety. In reality, the two attitudes are equivalent such that doing one is the same as not doing the other. But whereas the negative attitude is related with a negative and disastrous outcome (death), the positive attitude is related to a positive but less impactful outcome (safety).

Thus, negative attitudes may be perceived as more impactful than are positive attitudes: people may realize that negative attitudes deal with much more severe potential consequences than do positive attitudes. As such, people may feel more committed to negative attitudes and therefore process counterattitudinal messages less as
a defense mechanism. This would both yield stronger attitudes as measured by greater attitude resistance (consistent with Study 5), and people may recognize that such negative attitudes are indeed harder to change (consistent with Study 4).

This potential mechanism could be tested by asking participants to list the reasons why they hold various attitudes. In one study, participants could be asked to list reasons why they hold attitudes on a variety of issues. Judges who are unfamiliar with the hypothesis could code the reasons in terms of how much threat is expressed in the reported justifications for holding the various attitudes. In a followup study, it could be examined whether attitudes for which support or opposition has been manipulated show the same effect.

**Persistence of Opposition Attitudes**

Although the current research demonstrates that opposition attitudes are more resistant to persuasion, an important question that remains is whether opposition attitudes manifest the other form of durability: do opposition attitudes persist more over time than do supportive attitudes? If people do not process counterattitudinal messages about opposition attitudes carefully, it stands to reason that such attitudes will in turn manifest persistence over time. In contrast, because people may be likely to process messages that are in contrast with supportive attitudes, these attitudes may show more change over time.

One possible way to test this notion would be to ask people their attitudes toward an issue with a similar manipulation of “support” and “opposition” as conducted in Studies 2, 3, and 5. Participants would report their attitudes on continuous measures.
immediately after the manipulation and again several weeks later. Attitude-change scores could then be computed as the difference between those continuously measured attitudes. It is possible that just as opposers showed more resistance, they may also show more persistence.

**Impactfulness of Opposition Attitudes**

It is possible that opposition attitudes may also be more influential on behavior and cognition than are supportive attitudes. Indeed, if people feel more committed to their opposition attitudes, people may be more likely to engage in behaviors consistent with their attitudes. The two proposed mediators would predict that negatively framed attitudes would influence behaviors more for two different reasons. The primary hypothesis described in Study 5 would suggest that people recognize that their opposition attitudes rarely change. Because of this, people may think, “If it takes a whole lot of effort for someone to change my mind on opposition attitudes, I must be very committed to them.” This enhanced perception of commitment should likely lead to high attitude-behavior consistency. The “consequence” hypothesis, on the other hand, would predict that because negatively framed attitudes are associated with greater consequences, people should use those attitudes to guide behavior more than they should use positive attitudes. Because the drive to avoid extremely bad outcomes should presumably be greater than the drive to approach moderately good outcomes, negatively framed attitudes should drive behavior more as well.

One way to test this notion would involve asking participants to predict their own future behavior. Participants could be asked a series of questions about an issue such as
Ohio State changing to the semester system. Participants who liked the semester system would be told that they “support the semester system,” while others would be told that they “oppose the quarter system.” Further, participants who liked the quarter system would be told that they “support the quarter system” or “oppose the semester system.” Participants would then be asked if they would like to engage in various attitude-consistent behaviors such as signing a petition, writing a lengthy essay, or even signing up to participate in a public debate on the issue. If opposers do feel more committed to their attitudes, they may be more likely to engage in attitude-consistent behaviors (even those that might require a personal sacrifice) than are supporters.

**Conclusion**

Almost any attitude we hold can be framed in one of two ways. If a person thinks that riverboat gambling is a good idea, he or she may support efforts to institute riverboat gambling or oppose the efforts to block riverboat gambling. If a person wants a “flat tax” instead of the current income-tax system, he or she may support the flat-tax system or oppose the current system. And if a person wants to see stricter pollution controls on business, he or she may support pollution controls or oppose pollution emissions. There is certainly a great deal of natural variance in how people choose to frame their attitudes along these lines: people may, for various reasons, choose to think of their attitudes in terms of support or opposition. However, the current research has shown that leading people to think of their attitudes in opposition terms leads to greater resistance than does leading people to think of their attitudes in supportive terms. This may be due to the fact that people whose attitudes are framed as in opposition are more likely to avoid
processing contrary issue-relevant information than are people whose attitudes are framed as in support.
APPENDIX A

MATERIALS USED IN STUDY 1 PILOT STUDY
Welcome to our study.

In this study, you will be telling us how strong or weak various arguments are for and various stances on various issues. For each argument, please use the following scale:

1 = Extremely weak
2 = Very weak
3 = Somewhat weak
4 = Neither weak nor strong
5 = Somewhat strong
6 = Very strong
7 = Extremely strong

So, if an argument makes a lot of sense to you and sounds persuasive, you should rate the argument as strong. But if an argument doesn’t make much sense and doesn’t sound too persuasive, you should rate the argument as not as strong.

Keep in mind that your opinions about the issue itself should not matter. So regardless of where you stand on the issue, please rate the arguments in terms of how strong you think that they are.

Please turn the page and begin.
On the issue of
Ohio State raising tuition to build more parking for students,
how strong are the following arguments?

1 = Extremely weak
2 = Very weak
3 = Somewhat weak
4 = Neither weak nor strong
5 = Somewhat strong
6 = Very strong
7 = Extremely strong

We all know that the campus area isn’t the safest place in the world. And if raising tuition by a little bit to build closer parking lots means we don’t have to walk as far in the dark, it’d be a good investment as far as I’m concerned.

Students have the right to park reasonably close to their cars. It shouldn’t be too much to ask. But making students walk across a river and walk for a half hour to get to class is not reasonable. That’s an hour wasted each day.

People are so hostile here at Ohio State because they spend so much time looking for parking spaces in the morning. If there were more spaces to fill, people wouldn’t be so rude... and that would cut the number of accidents on campus.

Think of all the gas that people waste when they constantly have to circle around campus looking for a parking space. If there were more parking spaces on campus, people wouldn’t waste so much gas. This would save money and the environment.
On the issue of

OHIO STATE CHANGING TO THE SEMESTER SYSTEM,

how strong are the following arguments?

1 = Extremely weak
2 = Very weak
3 = Somewhat weak
4 = Neither weak nor strong
5 = Somewhat strong
6 = Very strong
7 = Extremely strong

__________ The whole country is on the semester system. Our quarter system makes it difficult to transfer credits in and out and makes it difficult for employers and grad schools to understand our transcripts.

__________ If we switched to the semester system, that would mean having to take finals once less per year and having to register once less per year. Think of all the effort saved from such a simple change.

__________ On the semester system, you can really learn in-depth about a course. With the quarter system, the problem is that as soon as you are getting "into" a course, it's over.

__________ With the quarter system, classes end later than other schools. This makes it very difficult for some students to get summer employment because everybody else is already working by the time we're done.
On the issue of ENDING THE S9 COTA BUS FEE AT OHIO STATE, how strong are the following arguments?

1 = Extremely weak
2 = Very weak
3 = Somewhat weak
4 = Neither weak nor strong
5 = Somewhat strong
6 = Very strong
7 = Extremely strong

There are so few people who actually use the bus that it just doesn’t make sense. Why should 50,000 people have to pay to help just a few?

Nine dollars doesn’t sound like much, but if you take five years to graduate, that means that you’ll have wasted over $100 on a service that so few people use.

The bus plan was voted on by students from several years ago. Many students today never got a chance to vote on the issue, so they shouldn’t have to pay.

The COTA fee is just another way for Ohio State to take money from its students. We pay enough in tuition and other fees already. We shouldn’t have to pay a bus fee as well.
On the issue of
CUTTING THE G.E.C. REQUIREMENTS AT OHIO STATE,
how strong are the following arguments?

1 = Extremely weak  
2 = Very weak  
3 = Somewhat weak  
4 = Neither weak nor strong  
5 = Somewhat strong  
6 = Very strong  
7 = Extremely strong

___________ Nobody really likes taking the G.E.C. courses. If everybody hates the classes, why should we need to take them?

___________ G.E.C. classes don't really serve any purpose. Students should take more classes in their majors, not in some area that won't help them in life at all.

___________ It takes students at Ohio State so long to graduate. Part of the problem is the G.E.C. requirement. Cutting it would help students graduate more quickly.

___________ Students have to take so many of these classes that they often get burnt out. Ending these requirements would lower drop-out rates.
On the issue of **ALLOWING HATE SPEECH**, how strong are the following arguments?

1 = Extremely weak  
2 = Very weak  
3 = Somewhat weak  
4 = Neither weak nor strong  
5 = Somewhat strong  
6 = Very strong  
7 = Extremely strong

<table>
<thead>
<tr>
<th>Argument</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the Government takes efforts to stop hate speech, what’s next? Banning other kinds of speech that the Government just doesn’t like? That’s what they did in the Soviet Union.</td>
<td></td>
</tr>
<tr>
<td>Hate speech, although it may be scary and uncomfortable, is protected by the First Amendment to the Constitution. To restrict it would fly in the face of everything this country stands for.</td>
<td></td>
</tr>
<tr>
<td>There is no reason to ban hate speech. If you ban such speech, you’re simply taking the country one more step in the direction of communism. And nobody wants that.</td>
<td></td>
</tr>
<tr>
<td>Although hate speech bothers some, we must be sure never to encroach on our rights to free speech. Hate speech is a result of free speech, so it should be allowed.</td>
<td></td>
</tr>
</tbody>
</table>

76
On the issue of
**Ohio State not raising tuition to build more parking for students,** how strong are the following arguments?

1 = Extremely weak
2 = Very weak
3 = Somewhat weak
4 = Neither weak nor strong
5 = Somewhat strong
6 = Very strong
7 = Extremely strong

_______ Ohio State is already considering raising tuition by a whole lot for other reasons. To increase tuition even more for something as dumb as parking lots would be a terrible idea.

_______ There are more important things to raise tuition for than parking lots. We need smaller classes, better classrooms and more technology. We don't just need more concrete to park on.

_______ We have enough cars on campus already. The last thing we need is more parking lots and more cars crowding campus. And to pay for more cars on campus with tuition increases would be silly.

_______ Think of the environment. Forcing people to walk or bike to campus would be a good idea. The fewer cars on campus, the less pollution in the environment. More lots means more pollution.
On the issue of

**OHIO STATE KEEPING THE QUARTER SYSTEM,**

how strong are the following arguments?

1 = Extremely weak
2 = Very weak
3 = Somewhat weak
4 = Neither weak nor strong
5 = Somewhat strong
6 = Very strong
7 = Extremely strong

The quarter system is great because it means that we get to take and sample from lots more classes than if we were on the quarter system.

Can you imagine how hard it would be for Ohio State to make a switch to semesters? It would be such a nightmare that it isn’t worth the effort.

With the quarter system, if you get stuck in a class that you don’t enjoy or you don’t like the professor, it’s no problem because the classes are so short.

Students have difficulty already in registering and understanding requirements for the quarter system. Changing all that to semesters would make it even more miserable.
On the issue of

KEEPING THE $9 COTA BUS FEE AT OHIO STATE,
how strong are the following arguments?

1 = Extremely weak
2 = Very weak
3 = Somewhat weak
4 = Neither weak nor strong
5 = Somewhat strong
6 = Very strong
7 = Extremely strong

Think of all the people who benefit from the bus fee. Even if we don’t use the fee, it’s a small investment to help those who don’t own cars.

Even if you don’t use the bus, it’s still a good idea. Every person who takes the bus instead of driving means that there’s one more space on campus available.

Cars create so much pollution. The fee encourages people to take the bus, and every person who takes the bus instead of driving helps cut on gas use and pollution.

The COTA fee is an important service to students. Many who can’t afford cars rely on the service to get to classes and to get to work. The fee costs so little and helps so many people.
On the issue of

**KEEPING THE G.E.C. REQUIREMENTS AT OHIO STATE,**

how strong are the following arguments?

1 = Extremely weak
2 = Very weak
3 = Somewhat weak
4 = Neither weak nor strong
5 = Somewhat strong
6 = Very strong
7 = Extremely strong

__________ In today's world, employers and grad schools look for well-rounded people. The G.E.C. requirement helps us fill that need. It makes Ohio State students in demand.

__________ G.E.C. classes help us better understand the world around us. Without them, we'd be boring people who only know about one single subject.

__________ The requirements are expected by employers and by graduate schools. Without these important classes, we'll look like idiots when we graduate.

__________ Many students have thought they wanted to major in one department, only to fall in love with another major while taking G.E.C.s. Without G.E.C. classes, many students wouldn't know what's out there.
On the issue of  
**BANNING HATE SPEECH,**  
how strong are the following arguments?

1 = Extremely weak  
2 = Very weak  
3 = Somewhat weak  
4 = Neither weak nor strong  
5 = Somewhat strong  
6 = Very strong  
7 = Extremely strong

__________ Free speech is one thing, but letting people spew hate and anger is another. Hate speech should be banned because it serves no purpose to incite and enrage.  

__________ Hate speech does nothing but fan the flames of racial and religious prejudice. It needs to be stopped before race relations get any worse than they already are.  

__________ With all the violence in the country today, the last thing we need is a bunch of Ku Klux Klansmen spewing hate and violence to our children. Hate speech must be stopped.  

__________ What possible reason is there for hate speech? Bigots and racists just use hate speech as a tool to enrage, humiliate, and taunt minorities. It must be stopped.
APPENDIX B

RESULTS OF STUDY 1 PILOT STUDY

Arguments for building more parking lots

4.04 We all know that the campus area isn't the safest place in the world...
4.64 Students have the right to park reasonably close to their cars...
3.72 People are so hostile here at Ohio State because they spend so much time...
3.96 Think of all the gas that people waste when they constantly have to circle around campus...

Arguments against building more parking lots

3.32 Ohio State is already considering raising tuition by a whole lot for other reasons...
4.72 There are more important things to raise tuition for than parking lots....
3.36 We have enough cars on campus already. The last thing we need is more parking lots....
4.28 Think of the environment. Forcing people to walk or bike to campus would be a good idea....

Arguments for switching to semesters

4.64 The whole country is on the semester system. Our quarter system makes it difficult....
4.16 If we switched to the semester system, that would mean having to take finals once less per year...
5.16 On the semester system, you can really learn in-depth about a course....
4.80 With the quarter system, classes end later than other schools. This makes it very difficult....

Arguments against switching to semesters

4.68 The quarter system is great because it means that we get to take and sample from lots more classes...
3.28 Can you imagine how hard it would be for Ohio State to make a switch to semesters?...
4.24 With the quarter system, if you get stuck in a class that you don’t enjoy...
4.32 Students have difficulty already in registering and understanding requirements for the quarter system...
Arguments for eliminating the bus fee

3.84 There are so few people who actually use the bus that it just doesn't make sense...
4.20 Nine dollars doesn't sound like much, but...
3.20 The bus plan was voted on by students from several years ago...
4.60 The COTA fee is just another way for Ohio State to take money from its students...

Arguments against eliminating the bus fee

5.16 Think of all the people who benefit from the bus fee. Even if we don't use the fee...
4.64 Even if you don't use the bus, it's still a good idea...
4.76 Cars create so much pollution. The fee encourages people to take the bus...
5.60 The COTA fee is an important service to students. Many who can't afford cars rely on the service...

Arguments for eliminating the G.E.C. requirements

3.36 Nobody really likes taking the G.E.C. courses. If everybody hates the classes...
3.92 G.E.C. classes don't really serve any purpose. Students should take more classes in their majors...
4.88 It takes students at Ohio State so long to graduate. Part of the problem is the G.E.C. requirement...
4.76 Students have to take so many of these classes that they often get burnt out...

Arguments against eliminating the G.E.C. requirements

5.00 In today's world, employers and grad schools look for well-rounded people...
4.28 G.E.C. classes help us better understand the world around us. Without them, we'd be boring people...
3.92 The requirements are expected by employers and by graduate schools...
5.60 Many students have thought they wanted to major in one department, only to fall in love with another...

Arguments for allowing hate speech

4.00 If the Government takes efforts to stop hate speech, what's next?...
4.28 Hate speech, although it may be scary and uncomfortable, is protected by the First Amendment...
4.04 There is no reason to ban hate speech. If you ban such speech, you're simply taking the country...
4.52 Although hate speech bothers some, we must be sure never to encroach on our rights...

Arguments against allowing hate speech

5.04 Free speech is one thing, but letting people spew hate and anger is another...
5.08 Hate speech does nothing but fan the flames of racial and religious prejudice...
4.68 With all the violence in the country today, the last thing we need is a bunch of Ku Klux Klansmen...
5.40 What possible reason is there for hate speech? Bigots and racists just use hate speech as a tool to...
Various researchers have argued against the use of difference scores because doing so enhances the effect of measurement error on the dependent variable in question (e.g., Donaldson, 1983). According to the critique, the enhanced effect of measurement error can in turn magnify the strength of an otherwise weaker effect. Although other researchers have argued for the robustness of difference-score techniques (e.g., Overall & Woodward, 1975), analyses to find the effect of support/oppose on resistance were re-conducted for the appropriate studies without the use of change scores.

The alternate analysis is an analysis of covariance, with support/oppose serving as the independent variable, the second (post-persuasion) continuous attitude measure serving as the dependent variable, and the first (pre-persuasion) continuous attitude measure serving as a covariate. With this analysis, if opposers show more resistance, support/oppose should have a significant effect on the final attitude score when the variance explained by the initial attitude score is covaried out.

However, because attitudes of supporters and opposers are "moving" in opposite
directions after hearing the persuasive message, the use of raw attitude scores would be inappropriate. Specifically, opposers who are persuaded by the message will show reductions in attitude scores, while supporters who are persuaded will show increases in attitude scores. To account for this concern, both continuous attitude measures for opposers were “flipped,” while both continuous attitude measures for supporters were left unchanged. This arbitrary choice to “flip” the attitudes of opposers allows the analysis of both groups of participants on an equivalent metric: for both groups, persuasion will be indicated in the second attitude score being “higher” than that of the first attitude score.

Using this ANCOVA technique, the effects of support/oppose on persuasion in each study were largely consistent with those reported in the main body of the dissertation. In Study 1, using multilevel modeling, the effect of support/oppose on the final continuous score was significant (b=.32, p<.05), as was the effect of the covariate (b=.66, p<.05). In Study 2, the main effect of support/oppose was significant, F(1,59)=4.40, p=.04, while the covariate was also significant, F(1,59) = 5.25, p = .03. In Study 3, the main effect of support/oppose was significant, F(1,97) = 8.48, p = .03, while the covariate was not significant, F(1,97) < 1, p = .85. In Study 5, the interaction of support/oppose and argument strength was nonsignificant but again trending in the hypothesized direction, F(1,75) = 2.28, p = .14, while the covariate was significant, F(1,75) = 35.8, p < .001.
APPENDIX D

TRANSCRIPT OF SOUND FILES USED IN STUDY 1

Target issue: Raising tuition
What do you think about Ohio State raising tuition by a little bit to build more parking lots for students?

Opposers hear:
I disagree. Students have the right to park reasonably close to their cars. It shouldn’t be too much to ask. But making students walk across a river and walk for a half hour to get to class is not reasonable. That’s an hour wasted each day.

Supporters hear:
I disagree. There are more important things to raise tuition for than parking lots. We need smaller classes, better classrooms and more technology. We don’t just need more concrete to park on.

Filler issue: Expanding the union
What do you think about Ohio State expanding the Union to house a McDonald’s and a TGI Friday’s?

Opposers hear:
Yeah, we’ve got enough restaurants there already. Who needs the construction mess?

Supporters hear:
Yeah, there can never be too many restaurants for us to choose from. The more the better.
Target issue: Switching to the semester system

What do you think about Ohio State switching to the semester system?

Opposers hear:
No, I don’t think so. The whole country is on the semester system. Our quarter system makes it difficult to transfer credits in and out and makes it difficult for employers and grad schools to understand our transcripts.

Supporters hear:
No, I don’t think so. The quarter system is great because it means that we get to take and sample from lots more classes than if we were on the semester system.

Filler issue: Bikes on the Oval

What do you think about Ohio State enforcing the rule that bikes aren’t allowed in the Oval?

Opposers hear:
Yeah. Bikes should be allowed on the Oval… to keep them out would be stupid.

Supporters hear:
Yeah. Bikes on the Oval are dangerous. Keeping them out will help prevent accidents.
Target issue: Ending the COTA bus fee

What do you think about Ohio State ending the nine-dollar COTA bus fee?

Opposers hear:

Listen: The COTA fee is just another way for Ohio State to take money from its students. We pay enough in tuition and other fees already. We shouldn’t have to pay a bus fee as well.

Supporters hear:

Listen: Even if you don’t use the bus, it’s still a good idea. Every person who takes the bus instead of driving means that there’s one more space on campus available.

Target issue: Eliminating the G.E.C. (general education) requirements

What do you think about Ohio State eliminating the G.E.C. requirements?

Opposers hear:

It takes students at Ohio State so long to graduate. Part of the problem is the G.E.C. requirement. Cutting it would help students graduate more quickly.

Supporters hear:

In today’s world, employers and grad schools look for well-rounded people. The G.E.C. requirement helps us fill that need. It makes Ohio State students in demand.
Target issue: Banning hate speech

What do you think about the U.S. Government banning hate speech?

Opposers hear:

No, you’re wrong. With all the violence in the country today, the last thing we need is a bunch of Ku Klux Klansmen spewing hate and violence to our children. Hate speech must be stopped.

Supporters hear:

No, wrong. Although hate speech bothers some, we must never encroach on our rights of free speech. Hate speech is a result of free speech, so it should be allowed.
APPENDIX E

MATERIALS USED IN STUDY 2
Welcome to our Study!

In today's study, you'll be reading about two people who are running for seats on the Franklin County Commission. The people you'll read about have both been in Columbus for many years, but they differ on policy issues, as demonstrated in the articles from the Columbus Dispatch you'll be reading in a moment.

Throughout the study, it's important that you answer all questions carefully. Also, please understand that your answers are completely anonymous from this point forward. Finally, you may read some other participants' opinions some time during the study. These comments are also anonymous; you will not know when the statements were recorded or by whom.

Please click the “continue” button below to move on.
A bit about the Commission...

To get you started, we'd like to first tell you a bit about the political procedure in Franklin County.

Franklin County Commissioners are elected to a four-year term. Given specific and limited authority by the Ohio Revised Code, Franklin County Commissioners hold title to all county properties, serve as the sole taxing authority for the county and control county purchasing. Most importantly, the Franklin County Commissioners are the budget and appropriating authority for county government which includes all county agencies and elected officials (Sheriff, Auditor, Treasurer, Courts, etc.). In essence, they control the money that helps keep Franklin County running. Without their approval, money cannot be spent by any county agency. It is for this reason that the job of Franklin County Commissioner is so very important.

In addition to their financial power, Franklin County Commissioners have statutory authority for providing water and sewer services as well as solid waste disposal. They hold annexation hearings every first Wednesday morning of each month. Franklin County Commissioners are also charged with making public assistance work.
A bit about Franklin County...

We'd now like you to learn a bit about Franklin County.

Franklin County, named for the great statesman Benjamin Franklin, was among the first counties carved out of the new state of Ohio on April 30, 1803. Franklin County is located in the center of the state and is home to Columbus, the capital of Ohio and the seat of Franklin County.

Franklin County is the 33rd largest county in the United States and is home to approximately 1,017,274 people (according to the 1997 U.S. Census), a full nine-percent of Ohio's population. The steady growth of its metropolitan area over the past 20 years is unique among the urban counties in the northeast quadrant of the United States.

The county consists of 12 cities, 15 villages and 17 townships located within its 543 square miles.

Franklin county is also rich in history. It's the home of the first Miss America, the world's first shopping center (Town & Country Shopping Center), the first White Castle and Wendy's hamburgers and the first ATM machine.

Being the site of the state capital and home to The Ohio State University contributes significantly to Franklin County's success. The county has a stable yet diverse economy, combining urban attributes with small town friendliness. Franklin County is full of charming, quiet communities, all with excellent schools, businesses and public services, making Franklin County a great place to live and work.

Please click “continue” below to continue.
Chris Bredesen has been in public service since 1983. He will be running for one of the two vacant seats on the Franklin County Commission in the spring elections.

Bredesen feels that taxes should be modestly raised to improve schools. He feels that putting more money into the school system will lead to better teachers and a higher-quality education for students. In fact, many people have called him a "crusader for education." He also feels that industry should be restricted somewhat to help preserve the environment here in Central Ohio. He argues that responsible restrictions will help lead to a better environment for future generations. Although he acknowledges that there may be some hardship for business if his plans for stricter controls pass, he argues that the small sacrifices that "big business" would have to pay would benefit everyone many times over in the long run.
Initial article about Rick Smith

Rick Smith has been in public service since 1984. He will be running for one of the two vacant seats on the Franklin County Commission in the spring elections.

Smith feels that taxes should be reduced to help return more money to families. He feels that too much money in taxes are already being taken from families’ incomes. In fact, throughout his career, one of Smith’s main rallying-points has been lowering taxes for all. Smith also believes in fewer environmental and safety restrictions on businesses and industry. He thinks that business and industry can be relied on to clean up the environment and care for its workers on its own. The environment is important, Smith says, but not at the risk of losing thousands of jobs that might occur if “overzealous” environmentalists have their way.
Now, it's decision time!

We're now going to ask you lots of questions about CHRIS BREDESEN. Do you like Chris Bredesen? Do you dislike Chris Bredesen? Do you think you would vote for Chris Bredesen? Do you think you would vote against Chris Bredesen?

The next few questions, then, will ask you what your impressions are of Chris Bredesen.

So, for the next few moments, think a bit about Chris Bredesen, figure out if you would or would not like him on your next Commission, then click “continue” to move on.
Now, it's decision time!

We're now going to ask you lots of questions about RICK SMITH. Do you like Rick Smith? Do you dislike Rick Smith? Do you think you would vote for Rick Smith? Do you think you would vote against Rick Smith?

The next few questions, then, will ask you what your impressions are of Rick Smith.

So, for the next few moments, think a bit about Rick Smith, figure out if you would or would not like him on your next Commission, then click “continue” to move on.
However, Bredesen's public career has been tainted by various forms of ethical concerns. In 1987, several thousand dollars disappeared under his watch. He was never convicted of theft, but two members of his staff were so sure that Bredesen was guilty that they resigned in protest. And then, in 1992, Bredesen was investigated for accepting bribes from one of Columbus's biggest lobbyists. Again, no guilt was ever found, but Bredesen was forced to spend a lot of time and effort in clearing his name.

It is for this reason that Bredesen has been condemned by both the Democratic and Republican parties. In addition, many former county commissioners have publicly stated that Bredesen would be bad for Ohio.
However, Smith's public career has been tainted by various forms of ethical concerns. In 1987, several thousand dollars disappeared under his watch. He was never convicted of theft, but two members of his staff were so sure that Smith was guilty that they resigned in protest. And then, in 1992, Smith was investigated for accepting bribes from one of Columbus's biggest lobbyists. Again, no guilt was ever found, but Smith was forced to spend a lot of time and effort in clearing his name.

It is for this reason that Smith has been condemned by both the Democratic and Republican parties. In addition, many former county commissioners have publicly stated that Smith would be bad for Ohio.
APPENDIX F

MATERIALS USED IN STUDY 3
Welcome to the computer survey!

If you are not here as part of one of the following groups, please inform the administrator immediately.

<table>
<thead>
<tr>
<th>department</th>
<th>project</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEAR-EASTERN LANG. AND CULT.</td>
<td>NELC 642 EXTRA-CREDIT PROJECT</td>
</tr>
<tr>
<td>CONTINUING EDUCATION</td>
<td>DR. EDWARDSON'S VOLUNTEERS</td>
</tr>
<tr>
<td>ENGINEERING</td>
<td>DR. EDWARDSON'S VOLUNTEERS</td>
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<tr>
<td>MARKETING</td>
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<td>PSYCHOLOGY</td>
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<tr>
<td>PSYCHOLOGY</td>
<td>EXPERIMENT SGB8</td>
</tr>
<tr>
<td>AVIATION</td>
<td>DR. MARTINEZ'S VOLUNTEERS</td>
</tr>
</tbody>
</table>

If you are here for one of the groups listed above, please click the "continue" button below to continue.
Welcome to the computer survey!

As the researcher told you as you entered today, we are interested in your opinions about the new Academic Plan currently being discussed at Ohio State University. As you probably know, this new Plan is the blueprint for the future here at OSU. But although students have probably heard of the plan, we've found that most students do not know much about the specifics of the plan. So our office has set up this system to (1) inform students about the specifics of the plan that students do not seem to yet be aware of, and (2) find out if students want to approve the plan or not.
President Kirwan and his staff have been developing the Plan for the last few years. It is past its development stage now, and is ready to take effect at the beginning of spring quarter of this year. However, the Office of University Oversights (OUO) has the final authority over approving the Plan. Our office has the power to approve all "major or overly influential decisions or plans made by the office of the President," so we are interested in whether students support or oppose approving the Plan.
Fourth screen viewed by participants in the “approving” condition

**Should our Office approve the Plan?**

We have the last say in whether the Plan should be approved. If students say that they support approving the Plan, the Plan may be implemented. If students say that they oppose approving the Plan, the plan may not be implemented.

Throughout the questionnaire, please think as though you worked with our office. We need to decide if the plan should be approved. Because of this, we will ask you whether you support approving the Plan, or if you oppose approving the Plan.

In short, we want to know what students think about approving the Academic Plan!

Fourth screen viewed by participants in the “blocking” condition

**Should our Office block the Plan?**

We have the last say in whether the Plan should be blocked. If students say that they support blocking the Plan, the Plan may not be implemented. If students say that they oppose blocking the Plan, the plan may be implemented.

Throughout the questionnaire, please think as though you worked with our office. We need to decide if the plan should be blocked. Because of this, we will ask you whether you support blocking the Plan, or if you oppose blocking the Plan.

In short, we want to know what students think about blocking the Academic Plan!
“Positive” information

Under the Academic Plan,

All students will be guaranteed four-year graduation; if students take longer, OSU will pay tuition for the extra years.

Graduation requirements will be reduced by 20 credit-hours. This will largely be done by eliminating many GEC requirements.

“Negative” information

Under the Academic Plan,

Tuition will increase by 15%. All students (even those on scholarships) must pay the increase with cash or a check.

Students will be required to take one class that meets on Saturday mornings or afternoons each quarter.
"Initial opposition" condition sheet

Part One: Please read the following carefully:

Imagine that undergraduate student government elections are two weeks away. Since the beginning of the year, you have strongly supported Edwards and Thompson for president and vice-president. All year long, you have worked hard to help support the Edwards and Thompson ticket. Yesterday, though, you learned some information that has made you reconsider your stance. You're not sure yet, but you think you just might have to change your mind in light of the new information... you might just oppose Edwards and Thompson in the coming election.

Part Two: Please answer the following questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at All</th>
<th>Not Very</th>
<th>Somewhat</th>
<th>Very</th>
<th>Extremely</th>
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<tbody>
<tr>
<td>How uncomfortable would you feel in this scenario?</td>
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<td>How likely do you think it would be that you would change your mind in light of the new information?</td>
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<td>How hard do you think it would be for you to change your mind?</td>
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<td>How unhappy do you think you would be if you decided to change your mind?</td>
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<td>How uncomfortable do you think the average person would be in this scenario?</td>
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</table>
"Initial support" condition sheet

Part One: Please read the following carefully:

Imagine that undergraduate student government elections are two weeks away. Since the beginning of the year, you have strongly opposed Edwards and Thompson for president and vice-president. All year long, you have worked hard to help oppose the Edwards and Thompson ticket. Yesterday, though, you learned some information that has made you reconsider your stance. You’re not sure yet, but you think you just might have to change your mind in light of the new information... you might just support Edwards and Thompson in the coming election.

Part Two: Please answer the following questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Scale</th>
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<tbody>
<tr>
<td>How uncomfortable would you feel in this scenario?</td>
<td>not at all</td>
</tr>
<tr>
<td>How likely do you think it would be that you would change your mind in light of the new information?</td>
<td>not at all</td>
</tr>
<tr>
<td>How hard do you think it would be for you to change your mind?</td>
<td>not at all</td>
</tr>
<tr>
<td>How unhappy do you think you would be if you decided to change your mind?</td>
<td>not at all</td>
</tr>
<tr>
<td>How uncomfortable do you think the average person would be in this scenario?</td>
<td>not at all</td>
</tr>
</tbody>
</table>
APPENDIX H

MATERIALS USED IN STUDY 5
**“Practice-manipulation” issues**

<table>
<thead>
<tr>
<th>Plan 1: The White/Edwards Bill (HR233) in the US House of Representatives</th>
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<tbody>
<tr>
<td>This bill would require forced military service of all Americans. Every citizen would be required to spend one year in the Armed Forces before their 28th birthday. The plan would apply to all citizens born after 1973.</td>
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<tr>
<th>Plan 2: The Cohen/Braden Bill in the US Senate</th>
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<tbody>
<tr>
<td>This bill would provide interest-free loans to all students at US universities. Any student, regardless of income or GPA, would be able to borrow up to $3,000 per year and would be able to pay it back, interest-free, over ten years after graduation.</td>
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<tr>
<th>Plan 3: Columbus Councilman Dave Johnson's tax proposal</th>
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<tbody>
<tr>
<td>This proposal would raise city taxes by 25% across the board. All items purchased in Columbus would become more expensive: For example, a CD would cost $2 more, while a TV would be $35 more expensive.</td>
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</tbody>
</table>

<table>
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<tr>
<th>Plan 4: The COTA Enhanced Student Ridership Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>This plan would expand student service to 12 additional city locations across town with student-only vans leaving campus from various points every five to ten minutes. Students would be able to take COTA for free to almost anywhere in town.</td>
</tr>
</tbody>
</table>
In this portion of the study, you will read about information regarding the Ontario Academic Platform. The OAP, as you have probably heard, is the overarching academic plan that governs some colleges and universities in Canada. Although most students have heard about the OAP, very few know about the details of the program. In a moment, you will be presented with some information about the OAP.

You will then tell us what you think about blocking the program at Ohio State.

That is, we will be interested to know if you want to oppose blocking the program if you like it, or support blocking the program if you dislike it.

In other words, should this plan be blocked?

We will now present you with the basics of the OAP from the official OAP public website (http://www.oaplatform.ca).

As you read the basic outline of the OAP, consider whether the plan should be blocked. Do you support blocking the plan? Do you oppose blocking the plan?

Again, think carefully: DO YOU WANT TO SEE THE PLAN BLOCKED?
In this portion of the study, you will read about information regarding the Ontario Academic Platform. The OAP, as you have probably heard, is the overarching academic plan that governs some colleges and universities in Canada. Although most students have heard about the OAP, very few know about the details of the program. In a moment, you will be presented with some information about the OAP.

You will then tell us what you think about passing the program at Ohio State.

That is, we will be interested to know if you want to support passing the program if you like it, or oppose passing the program if you dislike it.

In other words, should this plan be passed?

We will now present you with the basics of the OAP from the official OAP public website (http://www.oapplatform.ca).

As you read the basic outline of the OAP, consider whether the plan should be passed. Do you support blocking the plan? Do you oppose blocking the plan?

Again, think carefully:

DO YOU WANT TO SEE THE PLAN PASSED?
Welcome to the

Ottawa Academic Platform
Information Centre

The Ottawa Academic Platform is designed to enhance learning and understanding at Universities across Canada and the rest of the world.

There are two main premises upon which the OAP is based:

1) Enhanced student responsibility. This takes place through reduction of course requirements. This involves cutting "general education" (sometimes "GEC") course requirements by 50% for all students.

2) Enhanced student contribution. Students who do not graduate in four years at a University have their remaining tuition fees paid by the university. Thus, all students are guaranteed four-year graduations.
The Ottawa Academic Platform is designed to enhance learning and understanding at Universities across Canada and the rest of the world.

There are two main premises upon which the OAP is based:

(1) Enhanced student responsibility. This takes place through mandatory Saturday classes. All students in OAP Universities must take one Saturday class each semester or quarter to earn a diploma.

(2) Enhanced student contribution. This takes place through mandatory tuition increases. When Universities join the OAP, they are required to increase tuitions by approximately 20% to 25%. All students must pay this tuition surcharge, even those on fellowships or scholarships.
Key Initiatives

- Special Education Review
- Accreditation
- Foundation Skills Assessment
- Performance Standards
- Performance Plan for 2000/01 - 2002/03
- Internet Safety Tips
- Parent Handbook on School Curriculum
- Live Violence Free - Booklet for Parents
- Technology Initiatives
- Eating Disorders
- Primary Program: A Framework for Teaching
- Independent Schools
- Tuition Rebate Program
- Career Planning
- Past Provincial Exams
- K-12 Curriculum IRPs
- Career Opportunities in the Ministry
- Special Education
- Aboriginal Education
- Opportunities

The Ottawa
Academic Platform:
Xxxx for Canada;
Xxxx for the World

Feedback

We welcome your feedback. You may also call our toll free line at:

1-888-879-1166
The Ottawa Academic Platform:  
Bad for Canada;  
Bad for the World

The Ottawa Academic Platform was instituted at three Canadian universities in 1982 with great fanfare. Citizens were promised that the Platform was the “academic wave of the future” and that Canadian higher education would become the envy of the world. The Ministry of Education has thoroughly examined the Platform and has come to one conclusion: The Platform has been a complete failure.

A first basis for this argument is that students at schools that have implemented the Ottawa Academic Platform score, on average, 36% lower on standardized exams. We all know that standardized exams are very important in determining which students are successful in gaining admission to graduate programs. Scoring lower on these exams may seriously harm students’ futures.

A second reason why the Platform is bad is that the dropout rate at OAP schools is 35% higher than at non-OAP schools. This is a problem for all students, because it means that lots of resources must be spent on retention programs. Because of this added expense, all students suffer — even those who do not drop out.

A third argument for the platform is that students at OAP schools earn, on average, $8,000 less per year when they graduate. In today’s economy, $8,000 can purchase quite a lot. And over the course of a student’s lifetime, that $8,000 less per year will really add up.

It is for these three important reasons that the Ministry of Education must wholeheartedly oppose the Ottawa Academic Platform. The facts and the evidence are clear: the OAP should be immediately stopped at all Canadian universities.
The Ottawa Academic Platform:  
Bad for Canada;  
Bad for the World

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A first basis for this argument is that students at schools that have implemented the Ottawa Academic Platform eat, on average, 36% less grains and fibers. We all know that eating grains and fibers are good for one's overall health, and it is clear that when schools begin implementation of the major tenets of the Ottawa Academic Platform, students are less likely to eat these healthy organic materials.

A second reason why the Platform is bad is that students at schools that have implemented the OAP are, on average, 42% less satisfied with the weather on campus. An important part of life is being outside, and we feel that if students are not satisfied with the weather, they may indeed be less satisfied with their outside-the-classroom experiences.

A third argument for the platform is that students at OAP schools call their parents, on average, 20% less on a weekly basis. Students and parents should be close; to the extent that students find themselves not calling their parents weekly, parents may feel neglected.

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The Ottawa Academic Platform:
Good for Canada;
Good for the World

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A first basis for this argument is that students at schools that have implemented the Ottawa Academic Platform score, on average, 36% higher on standardized exams. We all know that standardized exams are very important in determining which students are successful in gaining admission to graduate programs. Scoring higher on these exams may be a big help for students' futures.

A second reason why the Platform is bad is that the dropout rate at OAP schools is 35% lower than at non-OAP schools. This is a benefit for all students, because it means that very few resources must be spent on retention programs. Because of this reduced expense, all students benefit -- even those who do not drop out.

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A second reason why the Platform is good is that students at schools that have implemented the OAP are, on average, 42% more satisfied with the weather on campus. An important part of life is being outside, and we feel that if students are satisfied with the weather, they may indeed be more satisfied with their outside-the-classroom experiences.

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LIST OF REFERENCES


