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COUNTER-ATTITUDINAL ADVOCACY: EFFORT VS. SELF-GENERATION OF ARGUMENTS

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ABSTRACT

This study compared the extent of attitude change related to the expenditure of effort vs. self-generation of arguments in a counter-attitudinal advocacy paradigm. Introductory psychology students (N = 60) wrote a counter-attitudinal essay on subliminal persuasion that either (1) summarized those arguments that they personally believed to be most effective, (2) outlined the arguments presented in a lecture series or (3) discussed a topic unrelated to the experiment. The results indicated that self-generation of arguments was more effective than the expenditure effort in changing the participant's attitudes and subsequent behavior.

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INTRODUCTION

Counter attitudinal advocacy occurs when individuals assert a position in opposition to their own. For example, Cohen's (1962) classic procedure for eliciting counter-attitudinal advocacy required individuals to write an essay advocating a position that was counter to their privately held opinion. When subjects' opinions were reassessed, those who wrote a counter-attitudinal essay showed more attitude change toward the advocated position than those who wrote a neutral essay. The results of these studies may be accounted for by Festinger's (1957) concept of cognitive dissonance.

According to Festinger, beliefs and attitudes must maintain a degree of consistency. Inconsistent or contradictory beliefs and attitudes create a state of dissonance, which is said to be an unpleasant and highly motivational state. While in a state of cognitive dissonance, participants are driven to reduce the cognitive tension by somehow resolving the conflict between cognitions.

In the earlier example, one's privately held opinion concerning an issue and the fact that he or she just wrote an essay espousing the opposite position puts the subject in a state of dissonance. If the essay was not written for a strong reason (e.g., the payment of money), the subject must somehow reduce the cognitive dissonance. Because the subject cannot deny writing the essay, the remaining dissonance-reducing option is to change the original opinion.

Several studies have used this essay writing procedure to demonstrate counter-attitudinal advocacy effects. For example, Leippe & Eisenstadt (1994, 1998) induced white college students to write an essay publicly endorsing a controversial proposal to double academic scholarships for African American students at their university. In these studies, the general attitude of the students towards African-Americans became more favorable as a result of writing the counter-attitudinal essays.

Various factors have been shown to be important to the success of counter-attitudinal advocacy in changing attitudes. Linder, Cooper, and Jones (1967) noted the importance of free choice. Students who were asked to write an essay and promised a small incentive exhibited significant change, but those who were required (no choice condition) to write a counter-attitudinal essay exhibited very little change. Zanna and Sande (1986) examined the effects of writing alone or in a group and demonstrated that diffusion of responsibility in a group writing situation can lessen the dissonance effects. Zimbardo (1965) noted that the amount of effort expended in the counter-attitudinal advocacy can increase the amount of attitude change, and Axsom (1989) reported that mere anticipation of high effort is sufficient to arouse dissonance.

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An alternative explanation for counter-attitudinal advocacy effects can be derived from studies of belief perseverance. In studies conducted by Lord, Lepper & Preston (1984), and Anderson & Sechler (1986), participants were required to explain why the opposite of their own beliefs might be true. This resulted in a less biased consideration of the evidence and attitude change in the direction of the explanation. A key factor in these studies was the source of the arguments. As Greenwald (1968) pointed out, self-persuasion is more effective than listening to the arguments of others because it is more salient, more personally relevant, and more memorable.

In this study, the topic chosen to test counter-attitudinal advocacy effects was subliminal persuasion because there is widespread belief among undergraduate students in paranormal phenomenon (see Singer & Benassi 1981; Woods 1984). For example, in a study involving undergraduate students at the University of Florida, Messer & Griggs (1989) found that 99% of those surveyed expressed belief in at least one of the ten paranormal phenomenon listed on their questionnaire. A second reason for choosing this topic was the lack of success of traditional classroom approaches in overcoming students' unfounded beliefs (c.f., Lamal 1979; Tobacyk 1983). For example, Banziger's (1983) week long course on parapsychology taught to participants in an Elderhostel program resulted in a reduction of only 8 points on the Belief in the paranormal scale. Similarly, Gray (1985), whose one semester course emphasizing methodological issues resulted in some reduction in unfounded beliefs, stated: "Should we be pleased that belief in ESP can be brought down from 85% to about 50%, or should we be

seriously concerned that 50% of those tested still believe in ESP, UFOs, and Reincarnation?" (p. 269).

Using a format and topical area similar to that used in the present study, Miller, Wozniak, Rust, Miller, and Slezak (1996) found that counter-attitudinal advocacy in the form of writing an essay supporting an accepted scientific position was shown to be effective in changing students' pseudoscientific beliefs about paranormal phenomena. However, the authors pointed out that the essay task in that study involved both effort and the self-generation of arguments so it was not possible to determine which factors lead to the change. The purpose of this study is to examine the relative contribution of the expenditure of effort vs. self-generation of arguments in the efficacy of counter-attitudinal advocacy in producing attitude change.

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METHOD

Participants

Participants were 65 introductory psychology students (32 women, 33 men) enrolled in one of two courses taught by the same instructor at the University of Nebraska at Kearney. Five subjects were lost from the analysis because they enrolled in the course after the pretest had been administered. Participants completed the pretest, writing assignment and immediate posttest as a regular part of their course routine. The delayed posttest questionnaire was also completed as an in-class project.

Materials

The pre- and delayed post-treatment questionnaires were composed of the same 25 items. Each item was a declarative statement concerning a pseudoscientific phenomenon (e.g., "Under hypnosis, people can be induced to perform feats that they would otherwise find impossible"). The initial population of such items was taken from the *Instructor's Guide to Psychology*, (2nd ed.) by David Myers, prepared by Martin Bolt (1989). The two items specifically relevant to this study were "subliminal messages are an effective means of getting people to buy products" and "self-help tapes that use subliminal messages can help people improve themselves."

On the pre- and delayed post-treatment questionnaires, each of the 25 items thus selected was accompanied by a six-point Likert type scale, ranging from 6 (strongly agree) to 1 (strongly disagree). The items were balanced with respect to which end of the scale represented the answer that was scientifically supported.

The mail survey appeared to be a marketing survey from the campus bookstore. The survey and cover letter were typed on bookstore letterhead and the return envelope was stamped with the bookstore address. Recipients were informed that the bookstore was interested in expanding the range of products available to students. The survey instructions asked students to indicate the extent to which they would agree or disagree with stocking a variety of products. The types of products included in the survey were snack items, computer supplies, newspapers, magazines, audio items and convenience products. For each product, subjects were asked to indicate their

own interest in having such products available (Would personally buy) as well as their opinion about the interest of other students (Carry in the bookstore). Each of these were accompanied by a six-point Likert type scale, ranging from 6 (strongly agree) to 1 (strongly disagree). The item used to measure the effectiveness of counter-attitudinal advocacy was "subliminal self-help tapes" imbedded within the audio items.

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Procedure

The pre-treatment questionnaire was administered during the third week of class. It was presented as a "means of determining what students know about psychology prior to taking the introductory course."

The counter-attitudinal advocacy procedure occurred during the sixth week of class. Students were informed the week before the exercise that there would be an opportunity to earn up to ten extra credit points for participating in an in-class writing exercise. Prior to the writing exercise, the students listened to a 15 minute lecture by the instructor on critical thinking, ESP and subliminal persuasion followed by a 35 minute audio tape by Anthony Pratkanis (1991) on subliminal persuasion, self-help tapes and uses in advertising.

The instructions for the writing assignment informed students that: "You will have 30 minutes to complete this writing assignment. Your grade will be based on how well you organize and express your ideas." In the self-generation of arguments condition students were told "The topic you are to write on is The Evidence Against Subliminal Persuasion. Your task is to put forward those arguments that you personally believe to be the most effective. They can come from the lecture, the tape you listened to, or ideas that you, yourself generate. Whatever their source, the arguments you present should be limited to those most persuasive to you." In the effort condition, students were told "You will have 30 minutes to complete this writing assignment. Your grade will be based on how well you organize and express your ideas. The topic you are to write on is The Evidence Against Subliminal Persuasion. Your task is to outline the arguments against subliminal persuasion contained in my lecture as well as those you just heard on the taped lecture by Anthony Pratkanis. Limit yourself to those points covered in one or both of these presentations." In the control condition, students were told "The topic you are to write on is The Evidence Against Extra-Sensory Perception. Your task is to outline the arguments against ESP presented in the lecture and to elaborate on those arguments most persuasive to you, personally."

The control condition was designed to require neither self-generation of arguments nor effort with regard to the target topic: subliminal persuasion. To determine whether or not this manipulation was effective, the number of words written by the students in each of the conditions was tallied. Students in the effort condition who were asked to outline the 35 minute audio presentation wrote the most words ($M = 283.5$) as compared to students in the self generation of arguments condition ($M = 256.2$). Students in the control condition who were asked to outline a portion of the material covered in the 15 minute lecture wrote the least number of words ($M = 237.7$) Analysis of variance indicated that despite high variability among students in writing these essays, the difference approached significance, $F(2,59) = 2.34$, $p < .10$. Simple

effects analysis using the Student Newman-Keuls procedure indicated that the mean number of words generated in the control condition was significantly less than the mean number of words generated in the effort condition ($p < .05$).

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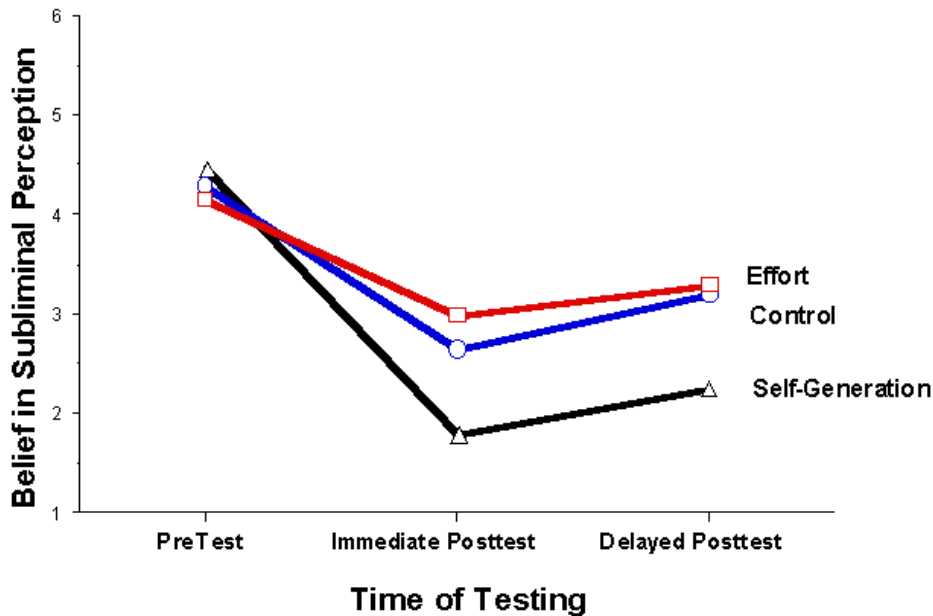
At the end of the writing assignment, the class was asked to participate in a survey conducted by the Department of Psychology on teaching methods. A colleague of the instructor entered and after the instructor had departed, administered a Departmental "Evaluation of Teaching Techniques" survey. Students were asked to rate how effective the three teaching techniques: lecture, audio tape presentation, and writing assignment were as learning experiences using a five point Likert type scale. In addition, students were requested to respond to a topic sentence covered by the three teaching methods, "Subliminal messages are an effective means of getting people to buy products" on a six-point Likert type scale, ranging from 6 (strongly agree) to 1 (strongly disagree). Students rated the extent they (a) "personally agree/disagree" that they believe (b) "others in the class agree/disagree", and that (c) "college students generally agree/disagree" with this statement.

The delayed posttest designed to measure the persistence of belief change was administered during the fifteenth week of the semester and used the same format as the immediate posttest although additional items were included to help disguise the questionnaire. The bookstore questionnaire was mailed to the participants of the study via campus mail under the Campus Bookstore letterhead during the twelfth week of the semester. The questionnaires were coded so that the condition of the participant could be ascertained. Students were asked to fill out the questionnaire and return it to a campus post box or to a box in the campus bookstore. During the fourteenth week of the semester, follow-up telephone reminders were made to those participants who had not returned their questionnaire.

RESULTS

To examine the relative effectiveness of self-generation of arguments vs. effort, a 3 (Type of Writing Assignment) X 2 (Time: Pre- vs. Immediate Posttest vs. Delayed Posttest) repeated measures analysis of variance was performed on the in-class survey data. A significant main effect for Time, $F(2, 110) = 40.25$, $p < .001$, was found. Also, the Type of Writing Assignment X Time interaction was significant, $F(4, 110) = 3.19$, $p < .02$. Figure 1 presents these means.

Figure 1.



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Simple effects analysis of the pretest means indicated no differences as a result of type of writing assignment, ($F < 1$). This was as expected since the writing assignment had not yet been given to the students. Simple effects analysis of the immediate posttest means indicated that self-generation of arguments ($M = 1.79$) was more effective in causing belief change than effort ($M = 2.65$), $t(37) = 2.11$, $p < .05$, or the control condition, ($M = 2.95$), $t(38) = 3.14$, $p < .01$. There was no significant difference between effort and the control condition, $t(39) = .67$, $p = ns$. Analysis of the differences between the conditions at the delayed posttest indicated that self-generation of arguments ($M = 2.24$) resulted in more belief change than did effort ($M = 3.29$), $t(35) = 1.91$, $p < .06$, or the control condition, ($M = 3.20$), $t(36) = 2.39$, $p < .05$. Again, no significant difference was found between the effort and control conditions, $t(39) = .19$, $p = ns$.

The marketing survey administered by the bookstore contained two critical measures of belief change: The first was the question that asked participants if they would personally buy subliminal self-help tapes. The second was the question as to whether or not the bookstore should stock such tapes. Analysis of variance indicated a significant effect of Type of Writing Assignment on the extent to which participants indicated that they would buy subliminal tapes, $F(2,44) = 10.18$, $p < .001$. Simple effects analysis indicated that participants in the self-generation of arguments condition ($M = 1.87$) indicated significantly less interest in buying subliminal tapes than those in the effort condition ($M = 2.71$), $t(30) = 2.25$, $p < .05$, or those in the control condition ($M = 3.67$), $t(28) = 4.68$, $p < .001$.

Analysis of variance also indicated a significant effect of Type of Writing Assignment on participants' opinion about whether the bookstore should or should not carry such tapes, $F(2,44)$

= 3.45, $p < .05$. Simple effects analysis indicated that participants in the self-generation of arguments condition ($M = 2.60$) were less likely to agree that the bookstore should stock subliminal tapes when compared to those in the control condition ($M = 3.80$), $t(28) = 2.62$, $p < .01$. Participants in the effort condition ($M = 3.24$) did not significantly differ from those in the self-generation of arguments or control conditions ($ts = ns$).

Table 1. Interest in Purchasing Subliminal Tapes by Counter-Attitudinal Advocacy Condition

Condition	Buy Personally			Bookstore Should Carry		
	M	SD	n	M	SD	n
Self-Generation	1.87	0.92	15	2.60	1.12	15
Effort	2.71	1.16	17	3.24	1.25	17
Control	3.67	1.18	15	3.80	1.37	15

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DISCUSSION

Counter-attitudinal advocacy in the form of writing an essay supporting an accepted scientific position was shown to be effective in changing students' erroneous beliefs. Merely "taking notes" or repeating back in outline form what the professor had said was no more effective in changing beliefs than writing an essay on an unrelated topic. Despite the longer essays written in the effort condition, participants who engaged in the self-generation of the counter-attitudinal arguments showed substantially more attitude change in comparison to those in the other more effortful activity.

In addition to the measure of attitude change, behavioral intentions were also affected by counter-attitudinal advocacy. Using a disguised situation that altered the context in which the counter-attitudinal advocacy originally occurred, it was found that individuals who generated their own arguments against subliminal perception were the least inclined to buy subliminal self-help tapes or to suggest that the bookstore stock such tapes. This suggests that counter-attitudinal advocacy that utilizes the self-generation of arguments is particularly robust in changing attitudes and behavior.

Several theorists have examined the conditions under which dissonance motivation can exist (Cooper & Fazio 1984, Thibodeau & Aronson 1992). One of the key factors in creating a sense of insufficient justification for engaging in a counter-attitudinal behavior is the lack of an explanation that allows the original attitude to stand uncontested by the dissonance inducing task. Effort, even effort with only a small incentive, can in the context of a class assignment be seen by some as justifiable and therefore non-dissonance provoking. Those whose classroom performance is such that they are in desperate need of a few additional points and those whose quest for points are insatiable regardless of their performance both may find sufficient justification for the effort they expend in writing a counter-attitudinal essay. Self-generation of

arguments goes more to the heart of dissonance motivation. How can I come up with such plausible reasons if I don't believe they have merit? Self-discrepancy theory (Higgins 1989) suggests that people are motivated to maintain consistency among their various attitudes and beliefs about who they are. It may be that self-generation of arguments taps into self-discrepancy as well as the dissonance that results from engaging in a behavior with insufficient justification.

This research examined the extent to which self-generation of arguments convinced individuals that their previously held beliefs were wrong. As such, it fits clearly in the area of cognitive dissonance. However, is it not also possible that self-generation of arguments can be a powerful means for convincing ourselves that we were right all along? To evaluate the extent to which self-generation of arguments can work independently of dissonance arousal, a study that compares the extent of attitude change as a result of counter-attitudinal advocacy, neutral-attitudinal advocacy and pro-attitudinal advocacy could be conducted.

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