ABSTRACT

NATURE OF RESISTANCE TO PERSUASION AND OMEGA STRATEGIES

by Hayley Michele Skulborstad

The current work proposed a framework to examine how people respond to omega strategies (i.e., persuasion strategies that attempt to reduce resistance) in response to counterattitudinal persuasion. Overall, it was proposed that when one has strong attitudes and is confronted with a counterattitudinal persuasive appeal, psychological conflict is aroused (e.g., dissonance, reactance, negative affect), which instigates counterarguing to avoid attitude change. In the current study, participants’ attitudes towards implementing comprehensive exams and raising tuition were assessed after reading alpha or omega strategy statements. Results indicated that alpha statements were more persuasive than omega in the domain of advocating for comprehensive exams. When expressing a preference for type of argument in the domain of raising tuition, participants preferred omega statements over alpha. Contrary to predictions, the observed effects were neither moderated by need for cognition nor preference for consistency. Implications of these findings and directions for future work are discussed.
NATURE OF RESISTANCE TO PERSUASION AND OMEGA STRATEGIES

A Thesis

Submitted to the
Faculty of Miami University
in partial fulfillment of
the requirements for the degree of
Master of Arts
Department of Psychology
by
Hayley Michele Skulborstad
Miami University
Oxford, Ohio
2013

Advisor________________________

(Allen McConnell)

Reader________________________

(Kurt Hugenberg)

Reader________________________

(Heather Claypool)
## CONTENTS

**INTRODUCTION** .................................................................................................................. 1  
Omega Strategies..................................................................................................................... 1  
How Omega Strategies Operate in the Current Information Processing Framework ........ 3  

**METHOD** ............................................................................................................................ 6  
Participants ............................................................................................................................. 6  
Procedure............................................................................................................................... 7  

**RESULTS** ............................................................................................................................ 9  
Attitudes Towards Comprehensive Exams ............................................................................. 9  
Tuitions Task.......................................................................................................................... 12  

**DISCUSSION** ....................................................................................................................... 12  

**REFERENCES** ...................................................................................................................... 19
Tables

Table 1. Relations between NFC and PFC for omega and alpha tuition increase statement preferences. ................................................................. 21

Table 2. Omega strategies and examples. ................................................................. 22
Figures

Figure 1. Pathway indicating the proposed process of resistance to persuasion .......................... 23

Figure 2. Nonsignificant interaction between paragraph and NFC............................................... 24

Figure 3. Nonsignificant interaction between paragraph and PFC.............................................. 25

Figure 4. Summary of positive thoughts mediation................................................................. 26

Figure 5. Summary of counterargument thoughts mediation.................................................... 27
Introduction

Persuasion takes place when an agent of social influence affects others’ attitudes, cognitions, and behaviors (Cialdini, 1995). Social influence can take many forms, and a number of models of attitudes have examined it. For example, the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1979) proposes that persuasion can take place by a less effortful, peripheral route or by a more effortful, central route of information processing. The ELM model of attitudes and persuasion is one of the most influential theories in the literature, with a primary focus on the extent to which one effortfully elaborates on the arguments presented by an agent of social influence.

There are, however, other approaches to persuasion that have received far less empirical attention. As an example, Knowles and Linn (2004) forward two distinct types of strategies to influence others and produce attitude change. Specifically, they distinguish between alpha strategies that use approach forces to evoke attitude change and omega strategies that reduce resistance to persuasion attempts. Alpha strategies relate to many of Cialdini’s (1995) principles of social influence, including reciprocation, social validation, commitment and consistency, friendship and liking, scarcity, and authority. These strategies make a persuasive appeal more effective by enhancing the attractiveness of the message or of the persuasion agent, or by influencing the context of the appeal. Many of the alpha strategies rely on heuristics (e.g., expertise, reciprocity), which should be especially persuasive for those who have weak or ambivalent attitudes or among those with little motivation or opportunity to process a persuasive appeal more effortfully (Cialdini, 1995; Petty & Wegener, 1998). For example, commitment and consistency techniques (e.g., foot-in-door) operate through self-perception processes, which typically are only observed for those with relatively weak pre-existing attitudes (Fazio, 1987). Indeed, a considerable amount of research has examined these alpha strategies and demonstrated their effectiveness (Cialdini, 1995).

Omega Strategies

However, less is known about the processes underlying omega strategies, and it is these techniques that are the focus of the current work. Knowles and Linn (2004) put forth the claim
that omega strategies promote persuasion by diminishing avoidance-oriented forces, thereby reducing resistance to persuasion. These strategies work by sidestepping resistance, addressing resistance directly or indirectly, distracting resistance, disrupting resistance, or consuming resistance (see Table 1). However, they do not outline the processes by which omega strategies operate. Also, they do not address what, psychologically, resistance entails. Instead, the small, relevant literature has focused on describing omega strategies rather than explaining their operation. The current work addresses this gap and examines how omega strategies can be employed effectively in persuasion and for whom.

First, unlike alpha strategies that apply primarily to situations where one holds weak or ambivalent attitudes, we assume that resistance operates in situations where strong attitudes are in place and people are motivated to attend to a persuasive appeal. These are essential ingredients that make resistance possible. If one possesses a strong attitude and attends to a counterattitudinal persuasive appeal, it can create a state of psychological conflict by one holding one belief but having an appeal challenge it. The position taken in the current work asserts that different types of conflict can arise from encountering a counterattitudinal persuasive appeal, including cognitive dissonance, reactance, and general negative affect. These three psychological states can independently and in concert motivate counterarguing against a persuasive appeal, resulting in resistance to persuasion. In the current work it is thought that omega strategies work to reduce this counterarguing and they do so by attempting to resolve or reduce the conflict that results from the dissonance, reactance, and negative affect, which are provoked by counterattitudinal persuasion.

Dissonance, an aversive feeling of discomfort and tension that results from holding conflicting cognitions, can arise when encountering a counterattitudinal persuasive appeal. When faced with advocacy that contradicts one’s strongly-held beliefs, people often engage in counterarguing (Petty & Wegener, 1998) or attempt to discredit the validity of the persuasion agent (e.g., Lord, Ross, & Lepper, 1979) to address the discrepancy between one’s own and others’ advocated beliefs. Thus, when encountering a counterattitudinal appeal, it is clear that people (given both motivation and opportunity to do so) effortfully attempt to refute the message or the communicator to maintain consistency in one’s beliefs (e.g., Cacioppo & Petty, 1982;
Ditto, Scepansky, Munro, Apanovitch & Lockhart, 1998; Munro & Ditto, 1997). When effective, these active, effortful responses to persuasion attempts can reduce experienced cognitive dissonance and help individuals maintain their beliefs in the face of persuasion through counterarguing and actively discrediting the agent of persuasion. This analysis suggests, however, that undercutting dissonance might reduce counterarguing, thus increasing the likelihood of persuasion. Therefore, any omega strategy that curtails counterarguing or neutralizes cognitive dissonance should result in greater persuasion.

Reactance can be considered a type of dissonance, but one that specifically involves threats to one’s freedom of choice (Brehm, 1966). For example, if a persuasion goal is to get children to do their chores, a parent might ask the children if they want to first clean their room or to first put away the dishes. Reactance occurs when a person perceives a threat to their freedom or ability to choose, and this leads to noncompliance with the agent of persuasion in an attempt to re-establish one’s perceived freedom of choice. Thus, to the extent that any omega strategy reduces reactance, greater persuasion should result. For example, an omega strategy that redefines a persuasion situation (e.g., framing an advertising pitch as a consultancy) should reduce the sense of one’s feeling pressured by a persuasive agent, which in turn should decrease counterarguing and increase the power of the persuasive appeal.

Finally, to the extent that a persuasion attempt triggers negative affect (in any fashion, including cognitive dissonance, reactance, or highlighting that a number of unattractive steps should be undertaken in performing an action), greater information processing and message scrutiny should result (e.g., Bless, Mackie, & Schwarz, 1992; Moons & Mackie, 2007). This additional information processing should increase counterarguing, greater scrutiny, and attitude bolstering, all serving to reduce compliance with the persuasive appeal. Omega strategies that decrease information processing resources triggered by negative affect should reduce counterarguing and thus increase persuasion.

**How omega strategies operate in the current information processing framework**

A number of omega strategies outlined by Knowles and Linn (2004) would seem to increase persuasion by undercutting the counterarguing and scrutiny that results from the
experience of cognitive dissonance, reactance, and negative affect in the face of a counterattitudinal persuasive appeal, which are summarized in Table 1. For example, sidestepping resistance (e.g., reframing persuasion as a conversation or a consultancy) should reduce reactance, which in turn should make persuasion more powerful. Also, addressing resistance directly should reduce the experience of conflicting beliefs by reducing the perceived costs and difficulty of implementing the agent’s request, which should reduce cognitive dissonance and negative affect. Addressing resistance indirectly, such as through bolstering self-esteem and self-efficacy, is very much akin to self-affirmation strategies (see Sherman & Cohen, 2006), which have been shown to reduce cognitive dissonance. Thus, these three omega strategies appear to operate by either reducing reactance or cognitive dissonance, which as noted above, should lessen counterarguing and result in greater persuasion.

In addition, omega strategies that reduce one’s working memory capacity and attentional resources should weaken counterarguing and thus make compliance more likely. Specifically, distracting resistance (e.g., focusing attention away from the appeal) works by consuming one’s attention and thus reducing scrutiny about the message. Disrupting resistance (e.g., disrupt-then-reframe technique, such as “They’re two hundred pennies, what a bargain.”) reframes the message or creates confusion about the message, which should reduce counterarguing and direct one’s attentional resources away from scrutinizing the agent’s appeal. Similarly, confusion (e.g., specifically asking for thirty two cents instead of vaguely asking for some change) works by drawing critical attention toward confusing statements, which also misdirects attention away from critiquing the agent’s arguments. Overall, these latter omega strategies reduce resistance by depleting cognitive resources or redirecting one’s attention to less germane features of the appeal, resulting in less counterarguing and consequently more attitude change.

Based on the above analysis, we contend that omega strategies increase persuasion by reducing the counterarguing and scrutiny that results from cognitive dissonance, reactance, and negative affect triggered by a counterattitudinal appeal (see Figure 1). At the heart of this account is the idea that effortful refutation of the agent’s appeal is what omega strategies must erode to increase compliance with the agent. Each omega strategy described above provides a means through which counterarguing can be curtailed and persuasion increased. In addition to
these situational factors, it is also possible that individual differences could also qualify the ability of omega strategies to bolster persuasion.

For example, need for cognition (NFC) is an individual difference variable that captures the propensity for one to frequently employ and take pleasure in effortful thinking (Cacioppo & Petty, 1982). Research has shown that people greater in NFC counterargue persuasive appeals more vigorously and thus resist persuasion (Petty & Wegener, 1998). Accordingly, NFC should have a moderating influence on the effectiveness of omega strategies. Specifically, omega strategies may be relatively less effective on those who are greater in NFC because such individuals are more likely to persist in their resistance than those lower in NFC, who are more likely to find themselves without sufficient processing resources to refute arguments and resist omega persuasion strategies. Thus, omega strategies should be relatively more effective on people lower in NFC, and this was examined in the current study.

In addition, individual differences in preference for consistency (PFC) could have a moderating influence on attitude change following exposure to omega strategies and was examined in an exploratory fashion in the current study. Those who have greater PFC are more motivated to resolve feelings of psychological conflict (Cialdini et al., 1995). Accordingly, those greater in PFC could prefer and be more persuaded by an omega strategy persuasive appeal compared to those lower in PFC because omega strategies help to resolve psychological conflict that is elicited from counterattitudinal persuasive appeals. However, one might predict the opposite as well. That is, because those who are relatively greater in PFC will be more likely to have stronger negative reactions to a counterattitudinal appeal, they might resist more and push back harder to maintain their preexisting attitude, increasing counterarguing and thus reducing persuasion. Accordingly, the current study assessed PFC to examine its potential moderating role regarding the effectiveness of omega strategies.

On the whole, it is important to examine the processes involved in how omega strategies reduce resistance and to examine factors that predict for whom omega strategies can be relatively more effective. The current work proposes a framework to address what resistance to persuasion entails, how it operates, for whom it is more effective, and thereby may ultimately identify strategies to reduce resistance. It was hypothesized that when one is confronted with a
counterattitudinal persuasive appeal, omega strategies aid in persuasion by reducing counterarguing that results from dissonance, reactance, and negative affect. Specifically, participants who attended to an omega strategy persuasive appeal, compared to those given a counterattitudinal alpha strategy control appeal without the use of omega strategies, were expected to show less counterarguing, less psychological discomfort, less negative affect, and more attitude change in line with the direction of the persuasive appeal. Also, it was hypothesized that NFC (and possibly PFC) would moderate the effectiveness of omega strategies because they would presumably affect one’s overall propensity to engage in counterarguing and one’s overall motivation to resolve psychological conflict, respectively. Specifically, it was hypothesized that those who greater in NFC would most likely engage in more counterarguments and thus show less susceptibility to omega strategies than those who are lower in NFC. Because counterarguing is presumed to be the focus of attack for omega strategies, we measured the extent to which counterarguing might mediate the relation between appeal type and attitude change (see Figure 1). In a parallel fashion, we considered whether PFC might moderate how effectively omega strategies induce persuasion.

Method

In the current study, participants’ attitudes towards implementing comprehensive exams and raising tuition were assessed after reading alpha or omega strategy statements. All participants first encountered arguments in favor of adopting comprehensive exams at their own university with classic measures of persuasion being collected (e.g., attitude change, thought listings), then later in the study, all participants took part in a second activity involving the topic of raising tuition to examine participants’ preferences for different types of persuasive appeals (i.e., alpha vs. omega). These topics were chosen because they are commonly used in attitudes research and because statements advocating for these issues are viewed as counterattitudinal for undergraduates at Miami University (e.g., Rydell, McConnell, & Mackie, 2008). Further, we examined responses to counterattitudinal persuasion because omega strategies are presumed to be most effective when an individual has an established, strong attitude and thus attempts to resist attitude change.

Participants
Data were collected from 77 Miami undergraduate students (51 female; age M=18.65 years, SD=.89) in exchange for course credit.

**Procedure**

Participants first completed the Need for Cognition Scale (NFC; Petty & Cacioppo, 1986) and then the Preference for Consistency Scale (PFC; Cialdini et al., 1995). The NFC includes 18 items (e.g., “I find satisfaction in deliberating for long hours”), and participants responded to each statement by reporting how descriptive each statement was of themselves using a scale ranging from 1 (Extremely Uncharacteristic) to 5 (Extremely Characteristic). In the current study, the NFC scale showed good reliability, α=.87. On the PFC, participants reported their agreement with 9 items (e.g., “I make an effort to appear consistent to others”) on a scale ranging 1 (Strongly Disagree) to 9 (Strongly Agree) scale. In the current study, the PFC scale showed good reliability, α=.89.

After completing the individual difference measures, participants were told that Miami University is, “considering implementing senior comprehensive exams as a graduation requirement and this requirement could be implemented in the next couple of years.” These instructions made the forthcoming appeal personally relevant and important (Rydell et al., 2008). Next, they completed measures of attitude extremity, importance, and certainty regarding implementing comprehensive exams at Miami University. Specifically, they were asked, “How much do you personally care about the issue of implementing comprehensive exams at Miami?” on a scale ranging from 1 (Not at all important) to 9 (Extremely important). Next, they responded to the statement, “I personally think senior comprehensive exams should be used at Miami,” using a scale ranging from 1 (Strongly Disagree) to 9 (Strongly Agree). Finally, they were asked, “How certain are you of your attitudes towards comprehensive exams?” on a scale ranging from 1 (Extremely certain) to 9 (Not certain at all). These measures were included to ensure that the appeal was counterattitudinal and viewed as important, and to assess attitudinal certainty prior to reading the persuasive appeal in order to consider its potential moderating role.

Afterwards, participants were randomly assigned to read a pro-comprehensive exams paragraph that either used omega strategies (e.g., “People should support instituting comprehensive exams because state legislatures guarantee to increase financial support if comprehensive exams were instituted… I know you won’t agree with this, but it doesn’t take
extra time to study for the exams.”) or used alpha strategies (e.g., “State legislatures are very likely to increase financial support if comprehensive exams are instituted, helping to keep tuition in check… Adapting the exams would allow the university to be at the forefront of a national trend and thereby increase its reputation throughout the United States and the world.”). These appeals are presented in the Appendix. These paragraphs were pretested (assessed by Miami undergraduates who did not participate in the primary study) to ensure that they were viewed as similar in terms of worthiness of serious consideration, quality of the reasons provided for implementing the exams, and strength of support for the advocated position, $Fs<1.5, ps>.23$. In the current work, the alpha paragraph appeal was used as a control paragraph (vs. the omega strategies paragraph) because most persuasive appeals that do not attack resistance inherently rely on alpha strategies (e.g., relying on expertise, sound arguments).

After reading the appeal, all participants completed a thought listing task where they were instructed to write down all of the thoughts that came to mind while reading the comprehensive exam appeal message, which served to index their counterarguing (e.g., Munro & Ditto, 1997). Specifically, they were asked, “In bullet point form, please write down the thoughts you had, one by one, while reading the paragraph.” Next, participants reported their attitudes toward instituting comprehensive exams, providing a measure of persuasion (i.e., change since the initial attitude assessment before reading the persuasive appeal). Participants responded to seven semantic differentials items on a 9-point scale (e.g., bad–good, unfavorable–favorable, foolish–wise), $\alpha=.94$. Participants were also asked to rate their overall agreement with the paragraph and their attitude certainty.

Participants then drew a campus map for 4 min to neutralize affect and to eliminate residual effects related to the comprehensive exam portion of the study. Next, they began the second phase of the study that examined their evaluations of statements associated with raising tuition. Specifically, participants were told that a Miami University committee was seeking their input and opinions on increasing tuition at Miami (see Appendix). Participants were presented with eight statements supporting increasing tuition, with half reflecting omega strategy statements (e.g., “We will all benefit from tuition increases because it will consequently increase the quality of education and the value of a Miami University degree.”) and the other half representing alpha strategy statements (e.g., “The Miami Tuition and Scholarship Committee
believes that higher tuition fees will ensure that all students will pay their fair share.”). Participants rated each of the eight statements for how convincing they found them on a scale ranging from 1 (Not convincing at all) to 7 (Extremely convincing). Next, they ranked the eight statements, in order from most convincing to least convincing. Also, in an open-ended item, participants explained the reasoning underlying their choices for the most and the least convincing statements.

Afterwards, participants reviewed their thought listing statements from earlier in the experiment (i.e., the thoughts they generated while reading about comprehensive exams) and they coded each statement on two dimensions (Munro & Ditto, 1997). First, they indicated whether each statement was favorable, unfavorable, or neutral/irrelevant with respect to adopting comprehensive exams. Also, for each statement, participants recorded whether the thought listed was about the source of the appeal (i.e., source scrutiny), appeal itself (i.e., appeal scrutiny), or neither. Finally, participants provided demographic information and were debriefed.

**Results**

**Attitudes toward Comprehensive Exams**

To examine participants’ attitudes toward comprehensive exams, a mean composite variable was calculated from the attitude semantic differentials and attitude statement measured, with larger values indicating a more favorable attitude towards implementing comprehensive exams. To explore the overall effectiveness of the alpha and omega paragraphs on attitudes, an analysis of covariance (ANCOVA) with initial attitude as a covariate was conducted where paragraph type (alpha vs. omega) was the independent variable and the post attitude composite was the dependent variable. When controlling for initial attitudes, those who read the alpha paragraph (M=5.99, SD=1.45) had more favorable attitudes toward implementing comprehensive exams than those who read the omega paragraph (M=4.59, SD=1.65), $F(1,75)=15.68, p<.001$.

To examine the primary hypotheses regarding the moderating role of NFC and PFC on the effect of paragraph type on attitudes, multiple regression analyses were conducted. Of critical interest were the interaction between type of paragraph and NFC on final attitudes and the interaction between type of paragraph and PFC on final attitudes. Paragraph type (alpha vs. omega; dummy coded), NFC (continuous), the interaction between paragraph type and NFC
(product term), and initial attitude (covariate) were entered into a multiple regression model with the criterion variable being the final attitude composite variable. When looking at the multiple regression involving NFC, the interaction between NFC and paragraph was not significant, $\beta=.15, p<.26$, in predicting final attitudes. As expected, initial attitudes served as an appropriate covariate because it predicted final attitudes, $\beta=.23, p<.02$. Consistent with the ANCOVA reported above, type of paragraph predicted final attitudes, $\beta=-.40, p<.001$. Thus, it was found that although the alpha paragraph predicted greater persuasion than the omega paragraph, the anticipated interaction with NFC did not obtain (for interested readers, this nonsignificant interaction is presented in Figure 2).

A similar multiple regression analysis was conducted by regressing final attitudes on initial attitudes, type of paragraph (dummy coded), PFC (continuous), and the interaction between PFC and type of paragraph. Once again, initial attitudes served as an appropriate covariate, $\beta=.33, p<.002$, and the alpha appeal predicted greater persuasion than did the omega appeal, $\beta=-.37, p<.001$. However, the interaction between PFC and paragraph type was nonsignificant, $\beta=-.21, p<.16$ (this nonsignificant interaction is presented in Figure 3). Overall, these analyses indicated that neither NFC nor PFC played a direct or a moderating role in persuasion.

To examine whether the quantity of counterarguments produced by participants varied between paragraph types, ANOVAs were conducted with initial attitude as a covariate and paragraph type (alpha vs. omega) as the independent variable, with quantity of participants’ self-coded thoughts as the dependent variable, examining positive and negative thoughts in separate analyses. After controlling for initial attitude, those who read the alpha paragraph reported having more positive thoughts about the counterattitudinal appeal ($M=2.78, SD=1.62$) than those who read the omega paragraph ($M=1.89, SD=2.01$), $F(1,74)=4.50, p<.04$. Also, those who read the alpha paragraph listed fewer counterarguments (i.e., negative thoughts; $M=1.41, SD=1.43$) than those who read the omega paragraph ($M=2.47, SD=1.93$), $F(1,74)=7.11, p<.009$. Thus, people reading omega arguments, in comparison to those reading alpha arguments, had more negative thoughts (i.e., greater counterarguing) and fewer positive thoughts.

To examine whether the nature of participant thoughts predicted persuasion, correlational analyses indicated that participants were more persuaded when they listed more positive thoughts.
after reading the counterattitudinal passage, regardless of whether they read the alpha appeal ($r=.52, p<.001$) or read the omega appeal ($r=.55, p<.001$). However, correlational analyses also indicated that only those who read alpha appeals showed less persuasion as they reported more negative thoughts ($r=-.56, p<.001$), whereas those who read omega appeals did not show a significant relation between negative thoughts and persuasion ($r=-.28, p=.12$), with the difference between these latter correlations being significant, $z=3.47, p<.0005$ (r-to-z transformation test). Replicating past results (e.g., Jacks & O’Brien, 2004), positive thoughts predicted greater persuasion regardless of the type of appeal read. However, counterarguing (i.e., generating negative thoughts to a persuasive appeal) only significantly predicted resistance when people read a counterattitudinal appeal using alpha strategies. This pattern is consistent with the notion that omega strategies may serve to disrupt the link between counterarguing and attitude persistence typically reported in the existent literature (see Petty & Wegener, 1998), which has focused on persuasion techniques using alpha strategies.

Participants’ self-coded thought listings were also examined as a potential mediator in the relation between paragraph type and final attitude. To examine this possibility (see Figure 4), paragraph type (dummy coded) was entered as a predictor along with initial attitude (covariate) to predict number of positive thoughts as a first step. Meeting the requirements for a mediational analysis, paragraph type significantly related to the number of positive thoughts, $beta=-.24, p<.04$ (Path A in Baron & Kenny’s [1986] terminology). Also, the mediator (positive thoughts) predicted the outcome variable (final attitudes), $beta=.47, p<.001$. When the mediator (positive thoughts) was entered into the model, paragraph type still predicted final attitudes (i.e., path C’ is still significant), $beta=-.28, p<.002$. However, using the bootstrapping technique, the confidence interval around the indirect effect ($b=-.38, SE=.21$) did not contain zero (95% CI [-.87, -.04]), which provides evidence that positive thoughts partially mediated the relation between paragraph type and final attitudes.

Counterarguments were also examined as a mediator in regression analyses, which is presented in Figure 5. Paragraph type was entered as a predictor and initial attitude was entered as a covariate, and paragraph type significantly predicted the number of negative thoughts, $beta=.29, p<.009$ (Path A). Counterarguments predicted final attitudes as well (i.e., Path B was significant, $beta =-.38, p< .002$). When the mediator (negative thoughts) was entered into the
model, the predictor (paragraph type) was still significant (i.e., path C’ is still significant), \( \beta = -0.28 \ p < 0.004 \). Once again, the bootstrapping technique indicated that the confidence interval around the indirect effect (\( b = -0.37, SE = 0.16 \)) did not contain zero (95% CI [-0.78, -0.12]), which provides evidence that counterarguments partially mediated the relation between paragraph type and post attitude.

**Tuition Task**

To examine participants’ preferences for convincing alpha and omega statements, the mean ratings for the four alpha statements was computed and the mean ratings for the four omega statements was computed, with greater values for each indicating that a particular statement type was viewed as more convincing. A paired samples t-test indicated that participants found the omega statements related to tuition increases (\( M = 2.85, SD = 1.16 \)) more convincing that the alpha statements related to tuition increases (\( M = 2.63, SD = 1.14 \)), \( t(76) = 2.42 \ p < 0.02 \). The forced rank data were also examined using a mean composite variable for the omega rankings and alpha rankings. A paired samples t-test was performed on the ranking composite variables, which indicated again that participants found the omega statements related to tuition increases (\( M = 4.24, SD = 0.75 \)) more convincing than the alpha statements related to tuition increases (\( M = 4.76, SD = 0.75 \)), \( t(76) = -2.98 \ p < 0.004 \). Next, whether the preferences for alpha or omega statements were related to NFC and PFC scores were examined, however, neither NFC nor PFC predicted omega ratings, \( rs < 0.04, ns \), and these individual differences failed to predict alpha ratings as well, \( rs < 0.19, ps > 0.13 \) (see Table 2).

**Discussion**

When first considering the domain of comprehensive exams, the findings indicated that alpha appeals changed attitudes to a greater degree than did omega appeals. When examining the role of counterarguing, there was evidence that omega strategies may disrupt how counterarguments serve in resisting persuasion. Previous research has established that positive thoughts lead to persuasion, whereas counterarguments lead to resisting persuasion (Jacks & O’Brien, 2004). Replicating past persuasion findings, in the current study counterarguments experienced in response to the alpha comprehensive exams appeal predicted resistance to persuasion. Conversely, after reading the omega appeal, counterarguments were unrelated to resisting persuasion. Even though participants were listing more counterarguments following
reading the omega paragraph, it appears that they were not related to final attitudes. This suggests that omega strategies may reduce resistance by diminishing the link between counterarguments leading to resisting persuasion.

There was also evidence for the valence of participants’ thought listings partially mediating the effect of paragraph type on final attitudes. Specifically, positive thoughts and counterarguments both separately partially mediated the effect of paragraph type on final attitudes. Specifically, it appears that part of the power of alpha appeals in comparison to omega appeals in persuasion may be partially explained by the extent to which they induce positive thoughts about the appeal. On the other hand, it also appears that counterarguing (i.e., negative thoughts) may also play a partial role in explaining why omega appeals in comparison to alpha appeals have less impact in persuasion. Although counterarguing was greater for omega appeals than for alpha appeals overall, the amount of counterarguing did not predict resistance to persuasion for omega appeals (consistent with the notion that these strategies may short circuit resistance processes) whereas counterarguing did predict resistance for alpha appeals. Finally, there was no evidence that any of the aforementioned outcomes were moderated by NFC or PFC.

Alternatively, in the domain of tuition increases, participants preferred omega statements over alpha statements. Again, there was no evidence of any predictive utility involving NFC or PFC. Perhaps this difference in preference by domain is due to potentially an intensifying effect of having to make judgments on two counterattitudinal topics in one study session. If the map drawing intervening activity did not neutralize participants’ affect in response to a counterattitudinal appeal as anticipated, participants’ heightened discomfort (having just been challenged with an appeal to institute comprehensive exams at their university) might had led them to prefer omega statements in the follow-up task that, by their nature, aim to reduce discomfort. Thus, being confronted with yet another counterattitudinal topic may have raised participant discomfort to such a level where omega statements might be generally more appealing. If this speculation is true, one might assume that participants who were randomly assigned to read the omega exams paragraph (for comprehensive exams) should have a greater preference for omega statements in the tuition task. However, auxiliary analyses indicated that there were no differences in tuition increase statement preferences for omega statements between
those who first read the alpha exams appeals and those who read the omega exams appeals ($t < 1.38$, $p > .17$). Also, there were no data collected on participants’ initial attitudes towards implementing tuition increases, thus one cannot directly examine whether participants were more resistant toward increasing tuition or toward implementing comprehensive exams. Yet another possibility for the contradictory results between tasks is that the dependent measures of interest were different for the comprehensive exam task (i.e., attitude change) and the tuition increase task (i.e., self-reported preference). It is possible that people’s preferences may not predict attitude change, and indeed, there is considerable evidence that people cannot always anticipate what will actually influence their behavior (e.g., Bargh & Chartrand, 1999; Nisbett & Wilson, 1977). Admittedly, we do not have a clear explanation for the divergence between the preference for alpha appeals for comprehensive exams and the preference for omega statements involving tuition increases, and future work might explore whether people’s preferences for certain types of appeals relate to actual persuasion.

When returning to the original prediction involving the comprehensive exams task, the main hypotheses were not supported. The alpha appeal was actually more persuasive than the omega appeal, and neither NFC nor PFC moderated this effect. There are several possible reasons why alpha appeals might be more persuasive in this task. First, it is possible that the level of conflict aroused did not reach a sufficient threshold for omega strategies to be effective and as persuasive as alpha strategies. For omega strategies to operate, sufficient conflict would need to be aroused, and perhaps this threshold was not exceeded in the comprehensive exams task. Yet, there was evidence of considerable counterarguing, so it seems that some degree of conflict was experienced by participants in the current study. Also, in the current study when examining initial attitudes about exams, we only collected data about importance of the topic, initial attitude about exams, and attitude certainty. Perhaps these initial attitudes questions did not fully capture individual’s resistance to exams, and thus future work would benefit from obtaining direct measures of resistance.

Another possible reason for why the omega appeal was not as persuasive as the alpha appeal could be due to the nature of the types of omega strategies that were presented, especially their novelty. Some of the omega strategies used in the appeal were inherently confusing and
distracting to aid in reducing counterarguing, and thus encountering multiple, distracting types of statements together might overwhelm participants, making the processing of the appeal more difficult and thus less persuasive. One implication might be that omega strategies could work best as singular statements to minimize confusion and distraction that could render the overall impact of many omega statements ineffective. In all likelihood, it is probably most effective if omega strategies are used in concert with alpha strategies in order to maximize persuasion. In future research, it would be useful to examine this by first having an omega appeal reduce psychological conflict and counterarguing to diminish resistance and then have an alpha appeal presented to make the appeal more attractive. This may be the most advantageous strategy in order to increase persuasion by first reducing resistance, making a subsequent appeal more effective.

Despite the mixed results, the current work offers a good first step in attempting to examine what resistance to persuasion entails and how omega strategies operate. Overall, future research is warranted to further examine when and why these different strategies may be more effective. Also, given the data from the current study, revisions to the theory for resistance in response to omega strategies may be warranted. Omega strategies do not seem to be reducing the number of counterarguments, which was originally proposed. In fact, the current study found the opposite to be true. Perhaps the role of omega strategies in counterarguing is to reduce not the quantity, but the quality, of counterarguments. By reducing the quality of the negative thoughts in response to a persuasive appeal, it is possible that quantity of counterarguments should not predict resistance, which was found only in the omega appeal condition of the current work.

Although the hypotheses about the individual differences examined in the current study were not supported, it still would be beneficial to examine NFC and PFC further. PFC was examined because it should affect resistance and how psychological conflict is aroused or resolved. However, in the current study, conflict was not directly measured. In future work, conflict could be assessed to evaluate the influence of PFC on resistance. Also, if a study investigated the specific omega strategies that are aimed at reducing conflict then PFC, it is possible that PFC might be found to be important for some, but not all, omega strategies
described by Knowles and Linn (2004). Similarly, NFC might be more central in moderating persuasion when examining omega strategies that are specifically aimed at reducing cognitive capacity to counterargue. If true, then those lower in NFC, who are more likely to find themselves with fewer processing resources, should be relatively more persuaded by omega strategies that operate by usurping cognitive capacity.

In addition to the role of individuals’ positive thoughts and counterarguments in attitude change and in resistance to persuasion, future research should focus on examining other potential mechanisms underlying resistance to persuasion. One mechanism that was outlined but not examined in the current work is the role of psychological conflict and discomfort. The position adopted in the current study asserted that different types of conflict can arise from encountering a counterattitudinal persuasive appeal, including cognitive dissonance, reactance, and general negative affect. However, the current work did not assess these products directly. For example, to test the role of psychological discomfort, a misattribution paradigm could be used to provide an external avenue to misattribute discomfort aroused from a counterattitudinal appeal, which presumably would reduce resistance to persuasion because there would no longer be an affective signal (Schwarz & Clore, 1983) to prompt counterarguing.

Another area to consider in future work would be to examine differences among different types of omega strategies. Specifically, there seems to be a natural split in the omega strategies with some of them being aimed at reducing the conflict that can be aroused from encountering a counterattitudinal perspective (see Table 1, first three strategies listed) and others focusing on eliminating one’s ability to counterargue (see Table 1, last three strategies listed). Thus, there may be important and systematic distinctions among different forms of omega strategies. In future work, it would be advantageous to examine the potential different processes by which omega strategies can be effective and to assess individual differences that might predict differential effectiveness, as well as to develop experimental manipulations to test these processes more directly. To test the assumption that certain omega strategies seem to address psychological conflict to reduce resistance, a study could examine this possibility using a misattribution paradigm. It would be expected that an appeal using these types of omega strategies (vs. being given the opportunity to misattribute psychological conflict that is aroused
from a counterattitudinal appeal) would reduce resistance to persuasion compared to a control appeal or compared to one not being given the chance to misattribute psychological tension. Having this conflict reduced would then presumably lead to reducing resistance to persuasion. To test the assumption that certain omega strategies seem to reduce individuals’ ability to counterargue, a study could examine this prediction using a cognitive load paradigm. It would be expected that an appeal using these types of omega strategies while also inducing a high cognitive load would reduce individuals’ ability to counterargue, presumably reducing resistance to persuasion.

Future research could also further investigate the finding that omega strategies may reduce resistance by diminishing the link between counterarguments and resisting persuasion. Perhaps the magnitude of counterarguments’ negativity in response to omega appeals is not as strong as alpha counterarguments’ negativity and thus do not predict resistance. However, this does not seem to be the case in the current study because auxiliary analyses indicated that the extent of negativity in participants’ counterarguments listed (completed by independent coders, Cronbach’s α=.73) after reading the omega or alpha paragraph did not differ significantly, $F(1,74)=1.90, p=.17$. Instead, perhaps counterarguments in response to omega appeals are not as effortful or as thoughtful as counterarguments in response to alpha appeals and thus omega counterarguments would not be helpful in influencing individuals’ attitudes. This avenue could be examined in future research.

Overall, it is important to examine the underlying processes of resistance to persuasion and to specifically examine strategies that can reduce resistance. Although researchers have focused almost exclusively on alpha strategies (e.g., Cialdini, 1995; Petty & Wegener, 1998), omega strategies offer new approaches to persuasion that have yet to be explored. This was the first known study to examine the effectiveness of omega strategies within a process framework and to consider individual differences that might moderate their effectiveness. Although the current hypotheses were not fully supported, there was some evidence that omega strategies may disrupt the power of counterarguments to resist persuasion. Future work should be conducted to better understand how resistance and omega strategies are related, which in turn, could shed new light on attitudes and persuasion processes.
Footnotes

1 Analyses showed no evidence that attitude certainty moderated any of the analyses to be presented ($ps>.79$), and therefore it will not be discussed further.

2 Analyses yielded parallel significant results when examining the ratio of total negative thoughts to total thoughts for alpha ($M=.32$, $SD=.30$) compared to omega ($M=.56$, $SD=.37$), $F(1,72)=9.18$, $p<.003$, and when examining the ratio of total positive thoughts over total thoughts for alpha ($M=.68$, $SD=.30$) compared to omega ($M=.44$, $SD=.37$), $F(1,72)=9.18$, $p<.003$. Thus, people reading omega arguments, in comparison to those reading alpha arguments, had a greater ratio of negative thoughts to total thoughts (i.e., greater counterarguing) and a smaller ratio of positive thoughts to total thoughts.
References


Journal of Experimental Social Psychology, 44, 1526-1532.


Table 1. Omega strategies and examples

<table>
<thead>
<tr>
<th>Strategy Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sidestepping resistance</td>
<td>Reframe persuasion as a conversation or a consultancy</td>
</tr>
<tr>
<td>Directly address resistance</td>
<td>Offer guarantees to lower perceived costs</td>
</tr>
<tr>
<td>Indirectly address resistance</td>
<td>Bolster confidence, self-esteem, self-efficacy</td>
</tr>
<tr>
<td>Distract resistance</td>
<td>Focus attention away from the appeal</td>
</tr>
<tr>
<td>Disrupting resistance</td>
<td>Disrupt-then-reframe technique (e.g., They’re two hundred pennies, what a bargain)</td>
</tr>
<tr>
<td>Confusion</td>
<td>Specifically ask for 32 cents instead of vaguely asking for some change</td>
</tr>
<tr>
<td></td>
<td>NFC</td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Omega rating</strong></td>
<td>$r$</td>
</tr>
<tr>
<td></td>
<td>$p$</td>
</tr>
<tr>
<td><strong>Alpha rating</strong></td>
<td>$r$</td>
</tr>
<tr>
<td></td>
<td>$p$</td>
</tr>
<tr>
<td><strong>Omega ranking</strong></td>
<td>$r$</td>
</tr>
<tr>
<td></td>
<td>$p$</td>
</tr>
<tr>
<td><strong>Alpha ranking</strong></td>
<td>$r$</td>
</tr>
<tr>
<td></td>
<td>$p$</td>
</tr>
</tbody>
</table>

*Note.* Relations between NFC and PFC for omega and alpha tuition increase statement preferences.
Figure 1. Pathway indicating the proposed process of resistance to persuasion
Figure 2. Nonsignificant interaction between paragraph type and need for cognition on final comprehensive exam attitudes, with greater numbers indicating more persuasion.
Figure 3. Nonsignificant interaction between paragraph type and preference for consistency on final comprehensive exam attitudes, with greater numbers indicating more persuasion.
**Figure 4.** Summary of multiple regression analyses for positive thoughts mediation. *p<.05, **p<.01, ***p<.001.
Figure 5. Summary of multiple regression analyses for negative thoughts (i.e., counterarguing) mediation. *p<.05, **p<.01, ***p<.001.
Appendix

**Alpha Comprehensive Exams paragraph** (adapted from Petty & Cacioppo, 1979):

Prestigious universities have comprehensive exams to maintain academic excellence. Adapting the exams would allow the university to be at the forefront of a national trend and thereby increase its reputation throughout the United States and the world. Use of comprehensive exams has led to a reversal in the declining scores on standardized achievement tests. Moreover, graduate students have complained that since they have to take comprehensive examinations, undergraduates should have to take them as well. Average starting salaries are higher for graduates of schools with the exams. Universities with comprehensive exams attract larger and better corporations to recruit students for jobs. Parents had written to administrators in favor of the exams. The quality of undergraduate teaching has improved at schools with the exams. State legislatures are very likely to increase financial support if comprehensive exams are instituted, helping to keep tuition in check. The National Accrediting Board of Higher Education would give the university its highest rating if comprehensive exams were instituted.

**Omega Comprehensive Exams paragraph**:

People should support instituting comprehensive exams because state legislatures guarantee to increase financial support if comprehensive exams were instituted. I know you won’t agree with this, but it doesn’t take extra time to study for the exams. Eighty seven and one half percent of four year universities and seventy-eight percent of junior colleges in Washington already have comprehensive exams and have seen positive results. Some schools implement comprehensive exams that take an average of eight and one quarter hours to complete, but Miami would have shorter exams that would only take one three hour testing period. Also, because Miami values your time and integrity, you’ll have the choice to take the exam at any one of four time periods during the year. On average for every nine hundred and ten people that pass the exam only ninety one don’t pass, meaning that ninety one percent of students pass comprehensive exams on the first attempt.
Tuition Statements Activity

In the following task, the Miami University Tuition and Scholarship Committee are seeking to understand and get students’ impressions of an array of arguments they have generated to make the case that increasing tuition at Miami is a good idea.

Task 1: On the following pages you will read about potential reasons offered by the Miami Tuition and Scholarship Committee advocating for increasing tuition here at Miami. Please read each statement, and for each, rate how convincing you find each reason to be using a scale from 1 (not convincing at all) to 7 (extremely convincing). Please rate the statements based on your personal preference of what is most convincing (this may or may not match what others feel).

Task 2: Please read through all of the following statements and rank them in order of how convincing they are to you if making case that increasing tuition at Miami is a good idea. Rank the best reason/most convincing statement as number 1 and continue until you have rated the least convincing statement as number 8. Again, please do this from the perspective of what you personally find to be convincing reasoning.

Control
- Increasing tuition would raise faculty and graduate student salaries so that current faculty will be happier and less likely to take jobs elsewhere.
- By increasing tuition, Miami could hire more maintenance personnel to clean up campus and make campus more pleasant for students.
- There would be more money available for scholarships for deserving students who need financial aid, which could increase diversity.
- The Miami Tuition and Scholarship Committee believes that higher tuition fees will ensure that all students will pay their fair share.

Omega
- We will all benefit from tuition increases because it will consequently increase the quality of education and the value of a Miami University degree. (Sidestep resistance by redefining the situation)
- We know you won’t agree with this, but the financial aid system will actually offset tuition fee increases. (Acknowledge and address resistance directly)
- On average each student’s tuition will only increase nine and two-thirds percent, which is only about six thousand and eighty quarters... that is about fifteen hundred and twenty dollars, it’s a really small investment. (Distract, disrupt, and consume resistance)
- We have the choice to increase tuition a small amount to gain many great benefits, or risk losing great faculty, students, research funding, and national collegiate rankings.