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THE IMPACT OF ARGUMENTATIVENESS AND CYNICISM ON COGNITIVE RESPONSE AND ATTITUDE CHANGE.

BY

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ABSTRACT

THE IMPACT OF ARGUMENTATIVENESS AND CYNICISM ON COGNITIVE RESPONSE AND ATTITUDE CHANGE.

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This investigation examined the impact of argumentativeness and cynicism on cognitive responses and attitude change. A negative relationship between argumentativeness and attitudes, and between cynicism and attitudes was predicted. In addition argumentatives were expected to produce more message oriented cognitive responses, while cynics were thought to generate a higher number of source oriented responses. This research also tested a mediational model for cognitive responses, and examined the roles of argumentativeness and cynicism in moderating the effects of cognitive responses on attitudes. These predictions were tested by exposing subjects to three mass media messages and measuring argumentativeness, and cynicism. A no message control group was also included. Volunteer undergraduate college students saw one television advertisements and read two print advertisements and were asked to complete a post-hoc thought listing task and a series of dependent measures. Results indicate that argumentative individuals tend to be more resistant to persuasion. Furthermore, argumentatives were found to generate greater numbers of negative message oriented cognitive responses. Attitude change for the

highly argumentative individual was found to be a function of both positive and negative responses. Cynicism appeared to have no direct effect on attitudes. Furthermore the effect of cynicism on attitudes was mediated by source oriented cognitive responses and perceptions of trustworthiness. In addition, the results of this investigation were inconsistent with the moderation hypotheses.

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The Impact of Argumentativeness and Cynicism on Cognitive Response and Attitude Change

Research in the field of social influence frequently focuses on the impact of message variables on audience attitudes. Investigators often vary such message components as evidence type, evidence quantity, type of appeal, sidedness, and presentation format in order to evaluate the effect of such variables on persuasion. An assumption underlying this research is that individuals process and are affected by messages in a homogenous manner. A number of recent investigations have identified individual differences that affect message processing and behavior. The impact of variables such as uncertainty orientation (Sorrentino, Bobocel, Gitta, Olson, & Hewitt, 1988), need for cognition (Cacioppo, Petty, & Morris, 1983), cognitive complexity (Rao & Farley, 1987), and personal values (Pitts, Canty & Tsalikis, 1985) are examples.

Sorrentino et al. (1988), for example, explored the effects of uncertainty orientation on information processing and social judgments. The term uncertainty orientation refers to one's response to ambiguity. Uncertainty oriented persons are those who have been rewarded for autonomous exploratory behavior. These individuals develop schemas for situations that allow resolution of uncertainty. Conversely, certainty oriented individuals have not been rewarded for past autonomous, exploratory behavior, and

thus, they have developed schemas for dealing with familiar, but not unfamiliar situations. In a series of experiments that manipulated personal relevance, message sidedness, and argument strength Sorrentino et al. report that for uncertainty-oriented individuals, high personal relevance led to greater persuasion when a two-sided message was presented, but the reverse was true for certainty-oriented persons. Additionally they report that high personal relevance led to higher persuasive impact of strong arguments and lower impact for source expertise for uncertainty-oriented persons, but again the reverse was true for certainty oriented individuals. As a result Sorrentino et al. suggest that uncertainty orientation moderates the relationship between relevance and processing such that uncertainty oriented individuals are motivated to engage in systematic processing under conditions of high involvement, whereas certainty-oriented individuals are motivated to process systematically under conditions of low involvement.

Another example of research in this area is the study of the impact of need for cognition (NFC) on message processing. Those with a high NFC tend to engage in and enjoy analytic activity (Cacioppo, Petty, & Morris, 1983). Cacioppo, Petty, and Morris (1983) controlled argument quality while exposing subjects to a message advocating the institution of comprehensive examinations. They found that subjects high in need for cognition recalled significantly

more arguments, were more affected by strong arguments and exhibited more cognitive effort than their low NFC counterparts. Need for cognition also interacted with argument quality to affect perceptions of trustworthiness and expertise.

Variables such as need for cognition and uncertainty orientation demonstrate the influence of individual differences on the processing of message stimuli and subsequent attitude change. The purpose of this paper is to investigate the effects of two personality variables, argumentativeness and cynicism, on message processing and subsequent persuasion. Using the cognitive response perspective as an underlying theoretical framework, this research will focus on both the quantity and quality of individuals' cognitive responses to persuasive stimuli. The thesis is that argumentativeness and cynicism are determinants of yielding. Specifically, highly argumentative and highly cynical individuals are less likely to yield to message recommendations. Furthermore, it is anticipated that subjects' resistance to persuasive messages will be reflected in their cognitive responses. Finally, the types of cues that argumentative and cynical individuals focus on during message processing will be examined. This manuscript contains four sections. The first chapter presents the rationale and implications of exploring the impact of individual differences, and presents research

hypotheses. The second chapter details the methodology used in this research. The third chapter presents the findings of this investigation. The final chapter discusses the implications of those findings, and suggests new avenues of research.

The Personality-Attitude Approach

Although in the midst of a current resurgence, the study of recipient characteristics in persuasion is not a new phenomenon. Researchers have studied such variables as gender (Eagly, 1978), self-esteem (Cohen, 1959), and intelligence (Hovland, Lumsdaine, & Sheffield, 1949, Rhodes & Wood, 1992). The identification of recipient characteristics which affect attitude change indirectly is an important undertaking, because internal validity and generalizability of the research of an investigator who ignores individual differences is threatened.

This paper examines the indirect effects of certain personality traits on attitudes by examining the impact of these traits on processes which mediate attitude change. Eagly (1981) calls this approach the personality-attitude approach, and its' advantage stems from an integration of personality theory and the theoretical processes suggested by attitude change models. Eagly suggests that to increase predictive success with this model one must consider the relationships between antecedent variables such as reception

and counterarguing and opinion change, and attempt to identify and test the relationships between these variables and individual differences. Accordingly, this study assesses the impact of argumentativeness and cynicism on cognitive responses and attitude change.

Overview of the Cognitive Response perspective

The basic idea underlying the cognitive response perspective is that an individual's cognitive responses (i.e. thoughts) mediate the relationship between the message and attitude change (Petty, Ostrom, & Brock, 1981). Thus, persuasion is a function of the mental responses generated by the receiver (Eagly, & Chaiken, 1984; Wright, 1980).

Eagly and Chaiken (1984) state that there is a positive relationship between the generation of positive thoughts and attitude change. As the number of positive thoughts increases, so does the amount of attitude change. Conversely, they predict a negative relationship between counterarguments and attitude change. As the number of negative responses increases, the amount of attitude change decreases (Chaiken, 1980; Osterhouse & Brock, 1970; Petty & Cacioppo, 1979).

Cognitive response research often focuses on variables that affect the way in which individuals process and respond to incoming stimuli, and Chaiken and Stangor (1987) note that motivation to process, opportunity to process, and

ability are important moderators of cognitive response. For example, involvement with the message is commonly thought to affect cognitive response. A number of investigators, including Petty and Cacioppo (1979), Chaiken (1980), and Stiff (1986), have developed or suggested models which attempt to predict the level of cognitive processing by examining receiver involvement. On the other hand until recently little research has focused on other types of moderating variables such as personality characteristics.

As noted above, investigators have recently begun to examine the impact of variables such as need for cognition (Cacioppo, Petty, & Morris, 1983) and uncertainty orientation (Sorrentino et al., 1989) on cognitive responses. These studies report that personality traits can influence the motivation to process a persuasive message and subsequent message elaboration. The current investigation examines the impact of argumentativeness and cynicism on the cognitive responses of receivers and their attitudes.

The thesis of this study is that certain traits impact the direction and target of cognitive responses after exposure to a persuasive stimulus. Put differently, it may be the case that certain individuals are motivated to focus their cognitive responses toward either the source or the message. This investigation examines the impact of two traits, argumentativeness and cynicism.

Briefly defined, argumentatives are people who enjoy

arguing and refuting the arguments contained in a message. Thus, one would expect them to focus upon the message, and attempt to counterargue against it. Conversely, the cynic is highly distrustful and often questions the motives of others. This mistrustful nature may lead such individuals to target cognitive responses, especially negative responses, at the source of a message, perhaps questioning their motives. In sum these traits may lead these individuals to focus their processing and yielding resistance efforts on different cues within a common persuasive stimulus.

Eagly and Chaiken (1984) note a problematic methodological trend in the research using the cognitive response paradigm. They observe the tendency for studies using cognitive response analyses to focus on the quantity of positive or negative responses generated, as opposed to the content of these responses (for a review of studies and coding schemes see Cacioppo, Harkins, & Petty, 1981.) They argue that the use of the "thought counting" technique is one of several reasons for the lack of predictive power of the cognitive response approach. As an alternative they suggest that responses be coded into categories, such as message positive, message negative, etc. Although this coding system may increase the predictive utility of particular responses such as "counterarguments", this argument may not be applied to individuals who focus on, and

generate, negative responses targeted at the source. The response, "I didn't like the speaker, because he/she looked strange," would be coded as a negative source response, as would the response, "The speaker was lying, because it is in his/her best interest to persuade me to believe X." These responses are extremely different types of responses, and may have a different impact on judgements. One may ignore the fact that a source was unattractive to some extent when making a decision, but lingering doubts about the veracity of the source's claims, especially when linked with questionable motives may be harder to ignore. In this investigation the number of counterarguments listed by argumentatives may be extremely predictive of attitudes, but the simple counting of responses targeted at the source may not clearly identify the cognitive processes at work in the mind of the cynic. The cynic is mistrustful, and questions the motives of others. A more fruitful approach may be to examine and code the responses generated by individuals for attributions made about the source of a message, and examine the impact of these responses on attitudes. The integration of attribution theory with the cognitive response perspective may increase the predictive utility of cognitive responses, especially for those individuals who weight source attributions heavily when making decisions.

Eagly, Chaiken, and Wood (1981) discuss the application

of attribution theory to persuasion research. Eagly et al. offer a model based on the pre-message expectancies generated by the receiver. This model predicts a positive relationship between deviations from expectancies and attitude change. The model suggests that when expectancies are confirmed, individuals tend to attribute the communicator's views to the personal characteristics or intentions of the speaker and/or situational pressure that generated the message. This attribution is followed by the inference that the communicator is biased, and consequently little attitude change occurs. The data in their analysis were consistent with predictions made by their model.

Applying attribution theory to the cognitive response patterns of cynics may increase the predictive power of those cognitive responses. The cynical individual is inclined to question the speaker's motives and make causal attributions about the source's message. Cognitive responses that reflect attributional processes may be given more weight in the cynic's decision making processes. As noted above, coding individual's responses for attributions made about the source should increase the ability of these responses to predict attitudes.

Argumentativeness

Argumentativeness is conceptualized by Infante and Rancer (1982) as a "generally stable trait which predisposes

the individual in communication situations to advocate positions on controversial issues and to verbally attack the positions which other people take on these issues, (p.72)". Based on this conceptualization the individuals' general trait to be argumentative ARG_{GT} is seen by Infante and Rancer as " an interaction of the tendency to approach arguments (ARG_{AP}) and the tendency to avoid arguments (ARG_{AV}), (p.73)."

The argumentative individual is said to perceive this activity as an intellectual challenge, and enjoys defending a position and "winning" points, by attacking the positions of others. In addition Infante and Rancer state that following argumentative situations these individuals feel invigorated and satisfied as well as having a sense of accomplishment. Conversely, the low argumentative avoids arguments and feels relieved having done so (Infante & Rancer, 1982). For such persons argumentation elicits feelings of uneasiness.

Demographically argumentatives tend to be male, come early in the family birth order, liberal in political orientation, and report higher grade point averages (Infante, 1982). From a communication standpoint those exhibiting a high degree of argumentativeness exhibit higher levels of verbosity and higher levels of counterargumentation (Infante, 1981). Additionally, argumentatives are rated as being significantly more expert,

dynamic, and better at argumentation than their less argumentative counterparts (Infante, 1981).

Summarily, the argumentative likes to argue, enjoys defending a position, and enjoys attacking the positions of others. Based on this conceptualization Infante and Rancer (1982) suggest that argumentatives should be less likely to yield to message recommendations, because they tend to counterargue against the positions advocated in message stimuli. Thus, one would predict a strong positive correlation between argumentativeness and the elicitation of counterarguments, and a negative correlation between counterargument frequency and attitude change.

Cynicism

Cynicism is conceptualized as the belief that other people are untrustworthy, self-serving and malevolent (Hunter, Gerbing, & Boster, 1982). The definition offered by Hunter, Gerbing, and Boster is based on a factor analytic study which examined the structure of Christie and Gies's (1970) Machiavellianism Scale (MACH IV). Christie and Geis describe the cynic as having a distrust in people, as well as a negativistic outlook on society. This individual exhibits distrust and suspicion in the motives of others, and therefore tends to be highly critical. At the other end of the spectrum, one may find persons who exhibit great trust in others. Christie and Geis (1970) refer to them as

the Pollyanna's, those who strongly believe that all people are basically good and honest.

As noted above the cynic distrusts and is critical of others' motives, and should be expected to be more critical of the messages they send. The critical nature of the cynic may make this individual less likely to yield to message recommendations. This resistance should be reflected in the type of cognitive responses this person generates in response to persuasive stimuli. Again, based on this conceptualization, one would expect a strong positive correlation between cynicism and negative cognitive responses. In the case of the cynic we might expect them not only to counterargue more, but also to derogate the source more frequently than their more trusting cohorts. Furthermore, the cognitive responses generated by cynic's should be reflective of the attributions the attached to the source of the message.

Hypotheses

The purpose of this research is to determine the impact of argumentativeness and cynicism on cognitive processing and attitude change. It examines the effects of these variables on processing and attitudes by testing a direct effects model, a series of mediational models, and several moderational models. As noted above argumentative and cynics are predicted to be more critical of incoming

messages, and as such are less likely to yield to message recommendations. The predicted negative relationships between both argumentativeness and attitudes, and cynicism and attitudes is reflected in the following hypotheses:

Hypothesis 1a. Argumentatives will exhibit less attitude change than those low in argumentativeness. This hypothesis predicts a negative linear relationship between argumentativeness and attitudes.

Argumentatives were predicted to be less likely to yield to message recommendations, because they are more motivated to process the content of the message, and as such tend to scrutinize and counterargue against arguments and positions contained in a message. These assumptions predict a positive relationship between argumentativeness and scrutinization of message content. Based on this conceptualization hypothesis 1b predicts a positive linear relationship between argumentativeness and counterargument generation. That is, as a subject's level of argumentativeness increases, the number of counterarguments generated will also increase.

Similarly, cynics are predicted to be critical of the source, and thus less likely to yield to message recommendations. Therefore, Hypothesis 2a predicts that a negative linear relationship exists between cynicism and attitudes. Such, that highly cynical individuals will display less agreement with message recommendations than

those who are less cynical. In addition, cynics are portrayed as highly critical; they mistrust and question the motives of others. Hypothesis 2b predicts a positive relationship between cynicism and negative source oriented cognitive responses.

Hypotheses one and two focused on the direct effects of argumentativeness and cynicism on cognitive processing and attitudes. However, the cognitive response paradigm rests on the assumption that cognitive responses mediate the relationship between a message and attitude change. Hypotheses 3a and 3b test the assumptions regarding the mediatory effects of cognitive responses.

Argumentatives were portrayed as individuals who tend to focus on the message and enjoy counterargumentation. Their resistance to attitude change was thus predicted to be a function of the generation of counterarguments. Additionally subjects who are in the process of counterarguing may tend to produce fewer supporting arguments. Therefore, hypothesis 3a examines the mediational role of counterarguments and supporting arguments by testing the model presented in Figure 1.

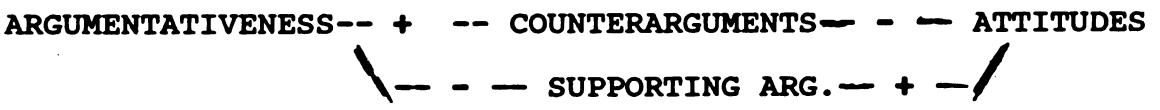

Figure 1. Path model predicted by Hypothesis 3a.

Based on this model, hypothesis 3a predicts that the impact of argumentativeness on attitudes will be mediated by the number of counterarguments generated by the receiver. Specifically, this model predicts a positive relationship between argumentativeness and counterarguments, which, in turn is predicted to have a negative affect on attitudes.

Conversely, cynics were portrayed as tending to mistrust the motives of others. Because of this distrust, they were predicted to derogate the source of the message. Thus, the cynic's resistance to attitude change was predicted to be a function of these source derogations. Hypothesis 3b tests the mediational role of source derogations portrayed by the path model presented in Figure 2.

CYNICISM-- + -- SOURCE DEROGATION -- - -- ATTITUDES

Figure 2. A Path Model of the Relationships Predicted by Hypothesis 3b.

The model specified by hypothesis 3b predicts a positive relationship between cynicism and source derogation, which in turn has a negative impact on attitudes.

Hypotheses 3a and 3b test models which specified that cognitive responses mediate the relationship between

personality traits and attitudes. Conversely, an alternative possibility is the extent to which argumentativeness and cynicism, or both may moderate the effect of certain cognitive responses on attitudes. That is, it may be the case that counterarguments have a greater impact on the attitudes of those individuals high in argumentativeness, than on the attitudes of those subjects who report less argumentative tendencies. Similarly, source derogations may have a larger impact on the attitudes of highly cynical individuals than on the attitudes of those less cynical. Hypotheses 4a and 4b investigate the possible moderating effects of argumentativeness and cynicism on the relationship between cognitive responses and attitudes.

Specifically, hypothesis 4a predicts that counterarguments will have a greater impact on the attitudes of highly argumentative persons than they do on the attitudes of those exhibiting lower levels of argumentativeness. Similarly, hypothesis 4b predicts that source derogations will have a greater impact on the attitudes of highly cynical individuals, than on the attitudes of those who are less cynical in nature.

It is important to note that the predictions associated with the mediation hypotheses (hypotheses 3a and 3b) are mutually exclusive of the moderational hypotheses (4a and 4b). Put differently, if cognitive responses are found to mediate the effects of argumentativeness and cynicism on

attitudes (hypotheses 3a and 3b), the data would be inconsistent with the hypotheses that specify a moderating role for cognitive responses (hypotheses 4a and 4b).

Methods

Overview

The purpose of this investigation was to examine the impacts of argumentativeness and cynicism on cognitive responses and attitude change. To test the implicit assumptions regarding the consistency of the effects of the personality traits, subjects received three persuasive messages. These stimuli were taken from recent television broadcasts, newspaper editions, and campaign distribution systems in an attempt to assess the generalizability of the findings.

Design

This investigation used a post-test only, repeated measure design with a no message control. Randomization was used to assign subjects to either the control or experimental conditions. Subjects in the experimental conditions received three persuasive messages, the order in which they were presented being counterbalanced to avoid a specific testing or sensitization effect. Control subjects were not exposed to a message.

Subjects

The subjects in this experiment were 83 male and 106 female undergraduate students enrolled in various

introductory level courses at several eastern public universities. Subjects were offered course credit in exchange for participation.

Procedure

Subjects in the experimental conditions were asked to watch a televised commercial message, and read two printed messages, the order of these messages being varied. After the exposure the subjects received a pen and paper, and were given three minutes to write down any important thoughts they might have had during the message. Subsequently, they were asked to complete a questionnaire including manipulation check items, attitude items, and questions ascertaining involvement with the topic, perceptions of source trustworthiness and expertise, and after the third message, measures of argumentativeness, cynicism, need for cognition, and demographic information. After completing these items subjects were thanked for their time, debriefed, and allowed to leave.

Subjects in the no-message control group were asked to complete the same attitude and demographic items. Upon completion they were thanked for their time, debriefed, and allowed to leave.

Stimulus Materials

The televised message was a one minute segment of

Anheuser Busch's alcohol moderation campaign, depicting James Worthy of the Los Angeles Lakers advocating drinking moderation and avoiding drinking and driving. One of the printed persuasive stimuli consisted of a quarter page advertisement taken from a recent copy of the newspaper, USA Today, opposing clean air legislation. It consisted of printed text that detailed arguments against the Clean Air Act. The arguments claimed that passage of the bill would lead to large increases in unemployment as well as increases in consumer fuel and product costs. The second printed message was a one page pamphlet distributed by the American Cancer Association. It advocated abstaining from sunbathing and tanning booths, and suggested the use of sun blocking agents. This pamphlet detailed the dangers of exposure to the sun, such as skin cancer, and suggested remedies, such as decreased exposure and increased use of sun blocking agents, to reduce the risks associated with exposure.

Because the Budweiser Advertisement had both a sponsor and a Known source (James Worthy), an imaginary source consisting of a fictitious name and affiliation was printed at the top of each written advertisement. In the case of the advertisement opposing the Clean Air Act, the source was the president of the Clean Air Working Group (CAWG), a group that was identified and whose logo was printed in the advertisement. For the message opposing sunbathing a fictitious name was developed, and was identified as a vice-

president of a cosmetic and sun-screen industry council.

Independent Measures

Argumentativeness was assessed using Infante and Wigley's (1982) argumentativeness scale. Cynicism was measured using the negativism subscale of Christie and Geis's (1970) MACH IV scale, as well as a number of items generated by the author. Manipulation check items for topic and article exposure, and prior message exposure were included in the post-exposure questionnaires.

Dependent Measures

The post-test questionnaires consisted of items measuring attitude toward alcohol moderation, the clean air act, and sunbathing/tanning. Items assessing perceptions of source expertise and trustworthiness, topic involvement, and comprehension were also included. Demographic information such as age, gender, major, and year in college was also collected.

Cognitive responses were collected using a post-hoc thought listing procedure. After exposure to each stimulus subjects were given three minutes to record important thoughts they might have had while reading one of the articles, or watching the videotape stimulus.

A preliminary analysis of cognitive responses was conducted, and a 31 category scheme was developed (See Appendix A). The 1152 responses were then categorized by

three independent coders. After initial ratings were made the coders met to resolve disagreements, but were told that they "did not necessarily have to come to an agreement on any given message." Disagreements were resolved by using the majority categorization. In the few instances of a three way disagreement the E resolved the disagreement. Inter-rater reliability was measured by Cohen's Kappa (1960). Kappa was found to be .94. The 31 category scheme accounted for 95.5% of all the responses generated, but after a preliminary analysis the coding scheme was reduced to 17 categories. The deleted categories were eliminated because there were few responses that fell into them, and because of similarity to other categories. In addition, these messages were also categorized into the traditional four category scheme used in many studies. That is, each response type was rated along two dimensions. The first was affect, either positive or negative; The second was target, whether the response pertained to the source or the message.

Results

Preliminary Analyses

A series of confirmatory factor analyses and reliability analyses were performed on the questionnaire items. Items were deleted to enhance both internal consistency and external consistency, and to increase reliability.

A preliminary concern was the threat of an order effect on subjects attitudes. As previously noted subjects in the experimental conditions were exposed to three advertisements in a counterbalanced order. The number of subjects in each of the six counterbalanced sequences was approximately equal, and an order effect was not expected. A series of analyses of variance were used to test the order effect hypothesis, and determine the effectiveness of the counterbalancing scheme. Order had no impact on attitude scores for the James Worthy advertisement ($F(5,98) = 1.23$, $p>.05$), the anti-tanning advertisement ($F(5,99) = 1.02$, $p>.05$), or the advertisement opposing the clean air act ($F(5,99) < 1$, $p>.05$). These results are not consistent with an order effect hypothesis. Thus, order was not retained as a factor in subsequent analyses.

A second matter of concern pertained to the actual persuasiveness of the experimental stimuli. A series of

analyses of variance found that subjects in the experimental condition exhibited greater agreement with the attitudes and positions proposed in the messages, than those subjects in the control conditions. Specifically, subjects in the experimental condition favored alcohol moderation and control (*M*s=22.20 control, 25.33 experimental, *F*(1,186) = 17.58, *n*=.29, *p*<.05) significantly more than those subjects in the control groups. Similarly subjects who read the anti-sunbathing advertisement exhibited attitudes indicating they were less in favor of sunbathing, and less likely to sun bath (*M*=25.23) than those subjects in the control condition (*M*=21.87, *F*(1,187) = 18.53, *n*=.30, *p*<.05). In addition, the anti-clean air act advertisement was also found to be persuasive. Subjects in the experimental condition were more inclined to oppose of passage of the act, and agreed with the arguments stated in the advertisement (*M*=19.86) to a greater extent than those subjects who had not read it (*M*=16.07). Again these differences were statistically significant at the .05 level (*F*(1,87) = 34.5, *n*=.40, *p*<.05). These results indicate that all three of the experimental stimuli were indeed persuasive.

Table 1 contains information regarding subjects perceptions of trustworthiness, expertise, involvement, perceived self-benefit, and agreement with message recommendations for each of the three advertisements.

Reliability coefficients for each of the scales are also reported. The data in table 1 indicate that the distributions of scores on each scale were fairly normal, and that the scales were reliable.

Table 1

A Table of Descriptive Statistics of Subject Perceptions by Advertisement

VARIABLE	MEAN	STD.DEV.	MIN/MAX	#ITEMS	RELIABILITY (ALPHA)
			Anheuser-Busch		
Trustworthy	26.8	6.4	5/35	5	.90
Expertise	24.7	5.6	5/35	5	.88
Involvement	20.2	5.9	4/28	4	.88
Motive/benefit	18.3	4.7	4/28	4	.77
Attitude	23.9	5.3	5/35	5	.73
Experimental	25.3	5.9			
Control	22.2	5.2	$F(1,186)=17.58$, $p<.05$, $r=.29$		
			American Cancer Society		
Trustworthy	24.3	3.7	4/28	4	.78
Expertise	30.1	3.9	5/35	5	.82
Involvement	23.0	4.8	5/28	4	.86
Motive/benefit	23.9	6.3	5/35	5	.85
Attitude	23.7	5.6	5/35	5	.74
Experimental	25.2	5.0			
Control	21.2	5.7	$F(1,187)=18.69$, $p<.05$, $r=.30$		
			Anti-Clean Air Act		
Trustworthy	23.3	6.2	5/35	5	.89
Expertise	23.8	6.1	5/35	5	.93
Involvement	18.8	4.7	4/28	4	.74
Motive/benefit	17.3	5.1	4/28	4	.82
Attitude	18.2	4.7	5/35	5	.78
Experimental	19.9	4.7			
Control	16.1	3.9	$F(1,187)=35.16$, $p<.05$, $r=.40$		

A third potential threat to experimental validity was the impact of prior exposure to the stimulus materials on post-test attitudes. Items measuring prior exposure were included on each post-test. An examination of prior exposure found that for the most part subjects had not been exposed to either the sun-tanning advertisement (M=.10, s=.38, min/max= 0/2), or the ad opposing the clean air act (M=.03, s=.29, min/max= 0/3). A series of correlational analyses revealed that frequency of prior exposure did not correlate significantly with attitudes for these advertisements (r=.03, $t(103)$=.30, p>.05 for the sunbathing advertisement, r=.02, $t(103)$=.24, p>.05 for the clean air advertisement). An examination of exposure frequency to the alcohol ad found that subjects appeared to have had some prior exposure (M=1.18, s=2.77, $t(104)$= 4.37, p<.05). Furthermore, frequency of exposure to the ad had a negative statistically significant impact on attitudes toward the over-consumption of alcoholic beverages (r=-.31, $t(103)$=-3.31, p<.05). Further scrutiny of the distribution of scores found it to be skewed positively with 74% of the subjects in the experimental condition having no prior exposure to the advertisement, and an additional 20% having viewed the advertisement six times or less. This analysis revealed that the remaining subjects (a total of 6) had answered the open-ended question measuring prior exposure with no other value than a 10 or a 15. These responses may

have been artifacts of the open-ended question format. That is, subjects were simply asked how many times they had seen this particular advertisement, and were allowed to fill in any number. These subjects may have simply guessed, and choose a relatively large round number. When eliminated from the analysis the correlation between prior exposure and attitude dropped to $r = -.16$ ($t(99) = -1.63$, $p > .05$), which was not statistically significant.

Based on these analyses one may conclude that subjects had little or no prior experience with the stimulus materials. Furthermore, prior exposure had little impact on subject attitudes.

The argumentativeness scale consisted of 12 items with a mean of 35.25 and a standard deviation of 7.99. The items were distributed normally, and had a reliability of $\alpha = .87$.

The cynicism measure consisted of seven items which were normally distributed with a mean of 20.46 and a standard deviation of 4.49. This measure had a reliability coefficient of $\alpha = .72$.

A plot of the relationship between argumentativeness and cynicism found little evidence of a relationship between them. A correlation coefficient of $r = .16$ was computed, and was found to be statistically insignificant ($t(102) = 1.63$, $p > .05$).

As noted in the previous sections, multiple advertisements were used to assess the study's

generalizability. That is, collected observations across a number of differing messages yield richer information about individuals' responses to mass mediated messages. A series of mixed design repeated measures analyses of variance were used to examine the data for subject by treatment interactions. Subjects were crossed with the advertisements and nested in levels of cynicism and argumentativeness. The variables of interest were attitudes, perceptions of expertise and trustworthiness, involvement, and perceived motives. If such interactions existed, summing across the advertisements would mask important findings. No significant treatment by subject interactions were revealed for attitudes, expertise, involvement, and perceived motives ($p>.05$), but, there was a statistically significant treatment by subject interaction between cynicism and advertisement for perceptions of trust ($F(4,192)= 2.52$, $p<.05$). An examination of the treatment means found no explainable or meaningful patterns of interaction. Therefore, subjects scores on the dependent measures were summed across advertisements. Table 2 presents the means and standard deviation for each of the summed dependent variables. Table 3 presents the correlations between argumentativeness, cynicism and the summed dependent measures.[1]

Table 2

Descriptive Statistics of the Summed Dependent Variables

VARIABLE	MEAN	STD.DEV.	MIN/MAX
ATTITUDE	70.39	7.63	50/89
TRUSTWORTHY	74.35	10.25	48/94
EXPERTISE	78.77	10.55	56/101
MOTIVE	59.40	10.67	29/86
INVOLVEMENT	62.03	10.51	34/82

Table 3

A Table of Correlations Between Argumentativeness, Cynicism, and the Dependent Measures

Variable	ARG	CYN	ATTIT	EXPERT	TRUST	MOTIVE	INVOL
ARGUMENT	1.00	.20	-.22	-.08	-.14	-.07	.18
CYNIC	.16	1.00	.00	-.09	-.14	-.09	.17
ATTITUDE	-.18*	.00	1.00	.22	.33	.20	.27
EXPERTISE	-.07	-.07	.18*	1.00	.86	.53	.61
TRUST	-.12	-.11	.27*	.74*	1.00	.63	.72
MOTIVE	-.06	-.07	.16	.44*	.53*	1.00	.34
INVOLVEMENT	-.15	.13	.21*	.52*	.61*	.28*	1.00

*$p < .05$

Note: Correlations in upper triangle are corrected for measurement error, using mean of reliabilities (α) found in Table 1.

Hypotheses

Hypotheses 1a and 2a dealt with the predicted relationship between argumentativeness, cynicism and attitudes. These hypotheses tested the effects of these variables on attitudes. A series of multiple regression

analyses were used to test these hypotheses.

Specifically hypothesis 1a predicted a negative linear relationship between argumentativeness and attitudes, such that highly argumentative individuals would exhibit less agreement with the positions stated in the experimental messages than those subjects with less argumentative tendencies. A plot of the relationship between argumentativeness and attitudes revealed a weak to moderate negative linear relationship between argumentativeness and attitudes. Furthermore, a plot of the relationship between cynicism and attitudes revealed no evidence of non-linearity.

A multiple regression analysis was conducted regressing attitudes onto argumentativeness and cynicism. A multiple regression coefficient of $R=.18$ was obtained, but failed to achieve statistical significance ($F(102)=1.74$, $p>.05$). Argumentativeness had a small negative effect on post-test attitudes ($r=-.18$, $B=-.19$, $t(102)= -1.86$, $p<.05$). As argumentativeness increases, agreement decreases slightly. Thus, these data are consistent with hypothesis 1a.

Hypothesis 2a predicted a negative linear relationship between cynicism and attitudes. The results of the multiple regression analysis regressing attitudes onto cynicism and argumentativeness indicated that cynicism had little direct effect ($r=.00$, $B=.03$, $t(102)=.31$, $p>.05$) on attitudes. These data were inconsistent with the predictions made by hypothesis 2a.

Hypotheses 1b and 2b made predictions regarding the relationship between argumentativeness, cynicism and specific types of cognitive responses. As previously noted, subjects' cognitive responses were examined and a 17 category coding scheme was developed. Table 4 contains means and standard deviations for each of the 17 categories. In addition means and standard deviations are also provided for the traditional four category scheme[2].

Table 4

Mean Cognitive Response Usage

Response	Mean	Std.Dev.
Credibility Positive	1.02	1.22
Credibility Negative	1.33	1.70
Like	.09	.37
Dislike	.06	.27
Supporting Arguments	2.08	2.15
Counterarguments	.98	1.21
Message Attribute Positive	1.91	2.05
Message Attribute Negative	1.14	1.32
Message Agreement	.21	.69
Message Disagreement	.06	.27
Effectiveness Positive	.10	.30
Effectiveness Negative	.13	.34
Importance Positive	.29	.76
Importance Negative	.09	.40
Sarcasm	.11	.35
Presentation Positive	.48	.80
Presentation Negative	.40	.75
Source Positive	1.15	1.23
Source Negative	1.50	1.72
Message Positive	5.01	2.62
Message Negative	2.70	1.91

Hypothesis 1b predicted a positive linear relationship between argumentativeness and the generation of counterarguments. Where counterarguments were defined as those responses specifically attacking and countering the arguments contained in the message. A multiple regression analysis was used to assess the impact of argumentativeness and cynicism on counterarguing. These analyses indicated that argumentativeness had only a slight positive impact on the generation of counterarguments (r=.07, t(102)=.91, B=.05, p >.05). Cynicism, was also found to have a small, positive, and non-significant effect on the generation of counterarguments (r=.09, B=.09, t(102)=.91, p >.05). Thus, it appears that neither argumentativeness nor cynicism have strong direct effects on the generation of counterarguments. These findings were inconsistent with the predictions made by hypothesis 1b, and thus it was rejected.

A similar analysis was conducted on negative message oriented responses, those traditionally referred to as counterarguments. These responses were rated as being both targeted at the message and negative in nature. The multiple regression analysis yielded a multiple regression coefficient of R=.18, which did not attain statistical significance at the .05 level. Argumentativeness had a small positive effect on the generation of negative message oriented responses (r=.17, t(102)=1.74, B=.17, p <.05). Such that as argumentativeness increased, the number of negative message oriented responses

increased slightly. These results are also consistent with the predictions made by hypothesis 1b. Cynicism had little direct effect on the generation of negative message oriented responses (r=.05, B=.03, $t(102)$=.51, p>.05).

A related question pertains to relationship between argumentativeness, cynicism, and the generation of cognitive responses in general. All positively and negatively oriented thoughts were summed to construct measures of general positive and negative thoughts. These categories were combined to create a measure of total response activity. A series of correlational analyses examined the impact of argumentativeness and cynicism on the generation of positive, negative, and total thoughts (Table 5). Argumentativeness and cynicism had no statistically significant affect on the number of positive, negative, or total thoughts generated (p>.05).

An additional analysis examined the percentage of positive and negative thoughts relative to the total number of thoughts generated by each subject. A correlation between the percentage of positive thoughts and argumentativeness revealed a statistically significant relationship (r=-.20, $t(102)$= -2.06, p<.05), as did the relationship between argumentativeness and the percentage of negative thoughts (r=.20, $t(102)$=2.06, p<.05). These results indicate that as subjects' argumentativeness increases, they are more likely to produce negative thoughts, and are less likely to produce positive cognitive responses. Conversely, cynicism had

little effect on the percentage of positive (r=-.05, t(102)= -.51, p>.05) or negative thoughts (r=.05, t(102)= .51, p>.05) generated.

Hypothesis 2b predicted a positive linear relationship between cynicism and the generation of thoughts that attacked the credibility and/or derogated the source. To test this hypothesis a multiple regression analysis was used to assess the relative effect of both cynicism and argumentativeness on the generation of negative credibility-based cognitive responses.

Consistent with the predictions made by hypothesis 2b, cynicism had a small positive effect on the generation of negative credibility responses (r=.14, B=.13, t(102)= 1.43, p>.05), but this effect was not statistically significant. Argumentativeness had no affect on the generation of these responses (r=.03, B=.03, t(102)=.30, p>.05). Hence, hypothesis 2b is rejected.

Table 5 displays the correlations between the individual difference variables and categories of cognitive response. Both argumentatives and cynics appeared to generate fewer positive credibility thoughts, and a greater number of negative thoughts in general. Furthermore, cynics tended to derogate the source by producing greater numbers of negative credibility responses. A finding reflected in the correlation between cynicism and negative thoughts targeted at the source. None of these relationships were statistically significant (p

>.05). In contrast, argumentatives did produce more negative message oriented thoughts (r=.17, t(103)= 1.75, p<.05), and more sarcastic responses (r=.20, t(103)= 2.13,p<.05). Furthermore, Cynics exhibited less disagreement (r=.19, t(103)= 1.93 , p<.05) and responded with sarcasm (r=-.17, t(103)=-1.73, p<.05) more frequently. However, due to the number of significance tests performed these finding could be attributed to chance.

Table 5

Correlations between Argumentativeness, Cynicism, and Cognitive Response Categories

Category	Correlation with Personality Variable	
	ARGUMENT	CYNIC
CREDIBILITY POSITIVE	-.1401	-.1397
CREDIBILITY NEGATIVE	.0474	.1354
LIKE	.0966	.0104
DISLIKE	-.0911	-.0221
SUPPORTING ARGUMENTS	-.0062	.0719
COUNTERARGUMENTS	.0672	.0937
MESSAGE ATTRIBUTION +	.0343	-.0165
MESSAGE ATTRIBUTION -	.0366	.0000
AGREEMENT	-.1147	-.0133
DISAGREEMENT	.0553	-.1720*
EFFECTIVENESS +	.1609	.1258
EFFECTIVENESS -	.0437	.1157
PRESENTATION +	-.0677	.0072
PRESENTATION-	.1280	-.0131
IMPORTANCE +	-.1238	-.1586
IMPORTANCE -	.0783	-.0499
SARCASM	.2070*	.1929*

SOURCE POSITIVE	-.0832	-.1069
SOURCE NEGATIVE	.0390	.1519
MESSAGE POSITIVE	-.0594	-.0004
MESSAGE NEGATIVE	.1736*	.0537

POSITIVE THOUGHTS	-.0864	-.0444
NEGATIVE THOUGHTS	.1491	.1323
TOTAL # OF THOUGHTS	.0414	.0622

Minimum pairwise N of cases: 105 *p<.05

Hypothesis 3a predicted that cognitive responses would mediate the relationship between argumentativeness and attitudes. This model was tested using ordinary least squares (OLS) estimates of the parameters. The correlations used in this and other models may be found in Appendix B. Figure 3. presents the path model specified by hypothesis 3a.

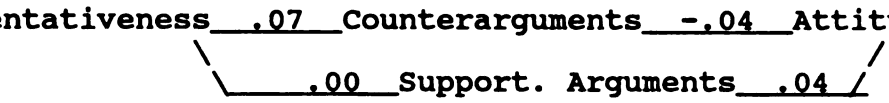

Figure 3. Model predicted by hypothesis 3a.

A goodness of fit test indicated that there were statistically significant deviations between the predictions made by the model in hypothesis 3a, and the observed relationships (X^2=10.82, df=1, p<.05). The predicted model contained several deficiencies.

First, the tests examining hypothesis 1a found argumentativeness to have a statistically significant direct effect on attitudes (r=-.18, t(102)= -1.85 p<.05). Even when the direct impact of argumentativeness on attitudes were incorporated into the model, the predictions still deviated significantly from the observed relationships (X^2=7.59, df=1, p<.05). Second, the size of the path coefficients between

counterarguments, supporting arguments, and attitudes were extremely small, indicating little if any direct effect of these variables on attitudes. Therefore, the model posited by hypothesis 3a was rejected.

A similar model was tested using general message oriented positive and negative thoughts (correlations among cognitive response categories and attitudes can be found in Appendix B). Again, the direct link between argumentativeness and attitudes was included. The resulting model, with path coefficients, can be seen in Figure 4.

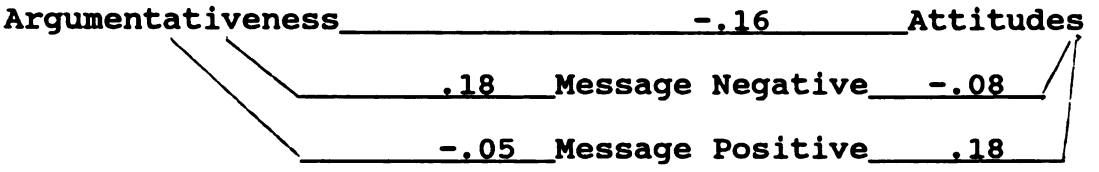

Figure 4. A modified path model of the relationship between argumentativeness and attitudes.

This model did not deviate significantly from the observed relationships (X^2=1.04, df=1, p<.05), but the weak direct effects of argumentativeness on positive message oriented thoughts, and the small effect for negative message oriented thoughts on attitudes, indicated that the model required modification. An examination of the correlations between general positive thoughts and attitudes and negative thoughts and attitudes (Appendix B.) indicated that the number of positive thoughts generated had a positive impact on attitudes

(r=.22, t(102)= 2.27, p<.05). Figure 5 details a model in which argumentativeness impacts attitudes directly and indirectly.

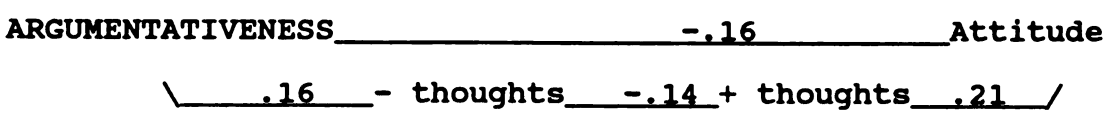

Figure 5. A path model of the relationship between argumentativeness, positive and negative thoughts and attitudes.

This model was tested and yielded a small insignificant chi-square (X^2=.39, df=2, p>.05), which indicates that the model fits the data fairly well. A multiple regression analysis regressing attitudes onto argumentativeness and positive thoughts revealed that both variables impact attitudes (R=.27, F(102)= 4.02, p>.05). While the effect for positive thoughts was significant (B=.21, p<.05), the effect for argumentativeness only approached significance (B=-.16, p=.09). This model implies that argumentativeness impacts attitudes directly, but also has an indirect effect on attitudes by affecting negative thoughts. As the number of negative thoughts increases the number of positive thoughts tends to decrease, which, in turn, decreases agreement with message recommendations.

Hypothesis 3b examined the mediational role that cognitive responses play in the relationship between cynicism and attitude change. This hypothesis predicted that as cynicism increased, negative credibility responses would increase. These responses would, in turn, have a negative impact on attitudes. Figure 6 details the model tested by hypothesis 3b, including the computed path coefficients.

CYNICISM .13 CREDIBILITY NEGATIVE .05 ATTITUDES

Figure 6. A path model of the relationships predicted by hypothesis 3b.

The tests of this model indicated a non-significant chi-square ($X^2(1)=.04$, $p>.05$), but the small positive effect size for credibility negative responses was counter to the predictions made by hypothesis 3b, because the small effect size indicated that these responses had little direct effect on attitudes. The model posited by hypothesis 3b was rejected.

A series of alternate models were explored. The model that provided the best explanation for the effect of cynicism on attitudes focused on the effects of general source-oriented positive and negative messages, ratings of trustworthiness, and attitudes. The alternative model tested is presented in Figure 7.

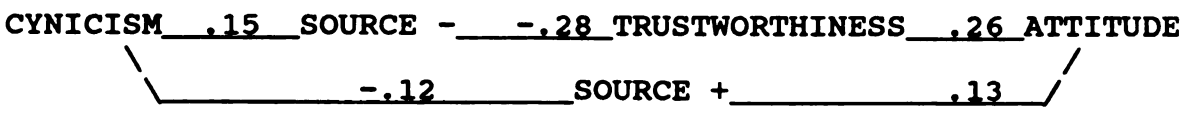

Figure 7. A path model of the relationship between cynicism, source oriented cognitions, and attitudes.

Consistent with the predictions made by hypothesis 3b, this model predicted that cynics would produce greater numbers of negative thoughts targeted at the source, and fewer source-oriented positive thoughts. In addition, this model predicted that the effect of the negative source oriented messages would be to decrease perceived trustworthiness. Again, this model predicted no direct effect for cynicism on attitudes. The predicted model fit the data fairly well, yielding an insignificant chi-square of 2.49 (df=5, $p>.05$). A multiple regression analysis yielded a multiple regression coefficient of .30 ($F=4.81$, $p<.05$). Trustworthiness had the largest impact on attitudes ($B=.26$, $F=7.41$, $p<.05$), while positive source cognitions had only a small positive nonsignificant effect ($B=.13$, $F= 1.72$, $p>.05$). Interestingly, positive source oriented thoughts had little impact on perceptions of trustworthiness ($r=.06$, $t(102)=.61$, $p>.05$). Overall, it appears that both positive and negative source cognitions, as well as trustworthiness mediate the relationship between

cynicism and attitudes.

Cynics were also predicted to focus on the motives of the source and to make attributions concerning those motives. A negative relationship was predicted between cynicism and negative evaluations of the source's motives. The correlation between cynicism and perceptions of the sources motives indicated a trivial negative relationship (r=-.07, t(102)= -.71), that was not statistically significant (p>.05). Interestingly perceptions of a sources motives had a small positive impact on the attitudes of subjects (r=.16, t(102)= 1.64, p>.05). Based on these findings the hypothesis regarding the relationship between cynicism and motives is rejected.

In addition, the original 31 category coding scheme allowed the identification of more specific cognitive responses targeted at the source's motives, and the attributions made about those motives. These responses were correlated with cynicism. Cynics tended to generate less positive thoughts about the source's credibility (r=-.15, t(102)= -1.53, p>.05), the source's motives (r=-.04, t(102)= -.40, p>.05), and the source's perceived trustworthiness (r=-.03, t(102)= -.30, p>.05). Furthermore, cynics generated greater numbers of negative cognitive responses about the source's credibility (r=.12, t(102)= 1.22, p>.05), motives (r=.10, t(102)= 1.02, p>.05), and trustworthiness (r=.05, t(102)= .51, p>.05). None of the relationships achieved

statistical significance. These data indicate that cynics do not focus on the motives of a source as predicted.

An examination of Table 6 suggests that overall positive thoughts (r=.22, p <.05) were the strongest predictors of post-test attitudes. As the number of positive thoughts increased, agreement with message recommendations also increased. For the original coding scheme, Importance positive was the strongest predictor of post-test attitudes (r=.25, p <.05), followed by negative credibility responses (r=.16, p>.05). Positive message oriented responses were the best predictors of attitudes (r=.18, p<.05) when using the traditional two-dimensional coding schemata.

Table 6

A Table of Correlations Between Cognitive Responses and Post-Test Attitudes

COGNITIVE RESPONSE	ATTITUDE
Credibility +	.16
Credibility -	-.04
Counterarguments	-.03
Supporting Arguments	.03
Like	-.01
Dislike	-.06
Message Attribution +	.05
Message Attribution -	-.08
Presentation +	.11
Presentation -	-.10
Importance +	.25*
Importance -	.01
Source Effectiveness +	-.11
Source Effectiveness -	.08
Agreement	.06
Disagreement	.02
Sarcasm	.01

Source +	.14
Source -	.05
Message +	.18*
Message -	-.08

Positive Thoughts	.22*
Negative Thoughts	-.04
Total Thoughts	.15

*p <.05

Hypothesis 4a predicted that certain cognitive responses such as counterarguments may have a different impact on attitudes depending upon the argumentativeness of the receiver. Put differently, the moderation hypothesis predicts

that cognitive responses such as counterarguments and supporting arguments may impact attitudes in a different manner for highly argumentative persons than for low argumentatives.

To test hypothesis 4a subjects were divided into three groups based upon their argumentativeness scores. Subjects were categorized as having either a high, moderate, or low level of argumentativeness. Natural breaks in the distribution of argumentativeness scores allowed the three groups to be approximately equal.

Subjects scoring between 16 and 31 on the argumentativeness scale were placed in the low condition, accounting for 33% of the scores. Those individuals who scored between 32 and 38 on the measure were placed in the moderate condition, placing approximately 29% of the subjects. Subjects who scored between 39 and 55 were rated as being highly argumentative, accounting for 37% of the total sample.

To test the moderation hypothesis a series of Fisher (Cohen and Cohen, 1983) r to z transformations were conducted on the correlations between counterarguments, supporting arguments, and attitudes for both the low and high argumentative subjects (Table 6). To better contrast the behaviors of the low and high argumentatives, subjects in the moderate condition were omitted from these analyses. The differences between these z scores for each group were then tested for statistical significance. Specifically, the

correlation between attitudes and counterarguments for the high argumentatives (r=-.14, z=.14), did not differ from the correlation between attitudes and counterarguments for the low argumentative (r=.11, z=.11)(Z=1.04, p>.05). A similar analysis was performed for supporting arguments. High argumentatives' supporting arguments had a positive effect on attitudes (r=.14, z=.14), and the supporting arguments generated by low argumentatives had little impact on agreement with the message (r=-.01, z=.01). Again the difference between these relationships was not statistically significant at the .05 level (z=.63, p>.05).

Similar tests were conducted on a number of cognitive responses the results of which are presented in Table 7. None of the comparisons yielded a significant difference in z-scores. This may have been due in part to the low number of subjects placed in the high and low conditions, after the moderates were removed from the analyses. A second series of z-tests using a median split was also conducted. Again, no statistically significant differences were found to exist between the high and low argumentatives, or the high and low cynics. Overall, these tests suggest that the data were inconsistent with the moderation hypothesis (4a).

Table 7

A Table of z-tests Comparing the Relationship Between Cognitive Responses and Attitudes of Low versus High Argumentatives

Response	LOW ARGUMENTATIVES Attitude (r)	z	HIGH ARGUMENTATIVES Attitude(r)	z	Z
Credibility +	.10	.10	.09	.09	.04
Credibility -	.19	.19	-.22	-.22	1.71
Counter arg.	.11	.11	-.14	-.14	1.04
Support arg.	-.01	-.01	.14	.14	.63
Mes. Atrib. +	.03	.03	.17	.17	.58
Mes. Atrib. -	.03	.03	-.12	-.12	.63

Source +	.12	.12	.01	.01	.46
Source -	.18	.18	-.23	-.23	1.71
Message +	.21	.21	.31	.32	.46
Message -	.05	.05	-.11	-.11	.66

Positive	.23	.23	.29	.30	-.29
Negative	.15	.15	-.23	-.23	1.58
Total	.27	.28	.06	.06	.92

* denotes $p<.05$

Hypothesis 4b made similar predictions regarding the moderating effect of cynicism on the relationship between cognitive responses which focus on the credibility and/or motives of the source and attitudes. Specifically, this hypothesis predicted that responses that derogate the source's motives and/or credibility will have a greater impact on the attitudes of cynics, than on the attitudes of their less cynical counterparts. A series of z-tests was again used to test this hypothesis (See Table 8).

A series of procedures similar to those used to test hypothesis 4a were used to divide the subjects into three categories of cynicism. Again, when possible naturally occurring breaks were used to assign subjects to their respective groups. Subjects who scored between 11 and 18 on the cynicism scale measure were placed into the low category, accounting for 35% of the scores. Subjects scoring 19-21 on the scale were placed into the moderate category, capturing approximately 25% of the scores. Subjects scoring between 22 and 32 were rated as being highly cynical, and approximately 40% of the subjects fell into this category.

A comparison of the relationship between negative credibility cognitive responses and attitudes for the low and high cynics found that they had a negative impact on the attitudes of those low in cynicism (r=-.12, t(34)=.70, p>.05) and a positive impact on the attitudes of highly cynical individuals (r=.19, t(35)=1.14, p>.05). These findings are contrary to the predictions made by hypothesis 4b. Furthermore, these differences were not statistically significant at the .05 level (Z=1.29, p>.05).

Table 8

A Table of z-tests Comparing the Relationship Between Cognitive Responses and Attitudes for Individuals who are either High or Low in Cynicism

	LOW CYNICISM		HIGH CYNICISM		
Response	Attitude (r)	z	Attitude(r)	z	Z
Credibility +	.25	.26	.00	.00	1.13
Credibility -	-.12	-.12	.19	.19	-1.29
Counter arg.	-.08	-.08	.13	.13	- .88
Support arg.	-.20	-.20	.11	.11	-1.29
Mes. Atrib. +	-.03	-.03	-.07	-.07	.13
Mes. Atrib. -	.00	.00	-.10	-.10	.42

Source +	.18	.18	-.01	-.01	.79
Source -	.13	.13	.16	.16	-.13
Message +	.08	.08	.08	.08	.00
Message -	-.09	-.09	.01	.01	-.42

Positive	.14	.14	.06	.06	.33
Negative	-.18	-.18	.11	.11	-1.21
Total	.03	.03	.14	.14	-.46

* denotes $p<.05$

These data also indicated that for those subjects low in cynicism the number of counterarguments, supporting arguments, general negative message oriented thoughts, and general negative thoughts, had a negative effect on attitudes. The opposite was true for those subjects who scored high in cynicism, but these differences were not statistically significant ($p > .05$). Therefore, the data were inconsistent with the moderating relationship predicted by hypothesis 4b, and hypothesis 4b was rejected.

Demographic information, such as age and gender was also collected. Moreover, data regarding media usage patterns were

obtained.

A series of correlational analyses found a negative relationship between age and both cynicism (r=-.14, t(103)= -1.43), and argumentativeness (r=-.17, t(103)= -1.75), although neither relationship attained statistical significance (p>.05).

Gender had a statistically significant impact on argumentativeness (r=-.18, t(104)= -1.86, p<.05) and cynicism (r=-.24, t(103)= -2.51, p<.01). Males tended to be slightly more argumentative than females, and exhibited less cynicism.

An analysis of media usage patterns found no significant relationships between argumentativeness, cynicism, and consumption of news or print media. Cynics did however, report watching more hours of television per week than their less cynical counterparts (r=.21, t(103)= 2.15, p<.05).

Discussion

This paper examined the impact of argumentativeness and cynicism on resistance to persuasion. The first set of hypotheses examined the effects of argumentativeness and cynicism on attitudes and specific categories of cognitive responses. These hypotheses predicted that argumentatives and cynics would be more resistant to persuasion, and thus would exhibit less agreement with message recommendations. The data were consistent with this hypothesis for argumentatives, but not for cynics.

Predictions were also made concerning the impact of argumentativeness and cynicism on the generation of specific categories of cognitive responses. Subjects cognitive responses were coded in two ways, a 17 category scheme and the more familiar two dimensional coding scheme. Highly argumentative individuals were predicted to generate greater numbers of specific counterarguments than their less argumentative counterparts. This relationship was not found, but a negative relationship was found between argumentativeness and general negative message oriented responses. Conversely, cynicism had no effect on the generation of either specific counterarguments or negative message oriented responses. A positive relationship was predicted between cynicism and negative credibility responses,

those which derogate the credibility and motives of the source. Again, cynicism appeared to have little effect on this category of responses. Similarly, argumentativeness failed to influence the generation of these responses significantly.

The third set of hypotheses made predictions about the mediating effects of cognitive responses on the relationship between the personality traits and attitudes. The relationship between argumentativeness and attitudes was predicted to be mediated by a positive relationship with specific counterarguments and a negative relationship with supporting arguments. The data were inconsistent with this model. First, argumentativeness had a direct negative impact on attitudes. Second, an alternative model, incorporating the direct link and positing that argumentatives produce greater numbers of negative thoughts which, in turn, decrease the generation of positive thoughts, fit the data. However, the small path coefficient between argumentativeness and attitudes suggests the presence of some other mediator, whose effects were not assessed within the scope of this investigation. One possibility may be to examine the degree to which the argumentative individuals cognitive counterargumentation impacts attention to the message. Perhaps it is the case that while the argumentative person is engaged in counterarguing they are not attending to the message, thus lowering retention levels, which tend to be positively related to agreement with

message recommendations. The end result would be a net decrease in the persuasiveness of the message. Measuring retention would allow for a test of this explanation.

The relationship between cynicism and attitudes was predicted to be mediated by the number of negative credibility responses generated, but the data were inconsistent with this model. An alternate model in which cynicism had a positive effect on the generation of source specific negative messages, and a negative effect on source positive messages was tested. This model also posited that perceptions of trustworthiness mediated the relationship between negative source oriented thoughts and attitudes. The data were consistent with this model. Interestingly, the number of negative source oriented thoughts generated did not seem to have an effect on the number of source positive oriented thoughts produced. These data seem to indicate that only negative source oriented cognitions seem to impact perceptions of trustworthiness. It may be the case that if one perceives a source to be trustworthy, one focuses cognitive efforts elsewhere. If the receiver perceives the source to be untrustworthy, she or he may focus subsequent cognitive efforts on the trustworthiness of the speaker.

A related prediction dealt with the cynics perceptions of the motives of the source, and the attributions made about the sources' actions. Perceived motive ratings did not have a large impact on the attitudes of cynical individuals.

Similarly, neither cognitive responses pertaining to specific perceptions of distrust nor those indicating negative attributions impacted the attitudes of cynical individuals in a systematic manner.

The weak relationships between cognitive responses such as counterarguments, source derogations, negative message oriented responses and attitudes facilitated the rejection of the apriori mediational models. However, these findings are consistent with the research of Miller and Colman (1981, p.116), who note the wide range of effect sizes reported for the impact of such cognitive responses on attitudes.

Tests of the moderation hypothesis found no differences for the effects of cognitive responses on attitudes when comparing high and low argumentatives. Similarly, no differential effect was found when comparisons where made between those subjects high or low in cynicism. Hence, these data were not consistent with the moderating models.

Limitations

There were several limitations that may impact the generalizability of these findings. The first was the use of college students. Although this study investigated the impact of personality characteristics on cognitive response and attitude change, traits and processes that would appear to be distributed equally and act homogeneously across populations, one could question the generalizability of these findings to a

larger population.

However, the diverse nature of the subjects in this experiment, who varied greatly in age, educational background, and major does add some confidence to the representativeness of these findings.

Responses to the Anheuser Busch James Worthy advertisement may have been affected by historical events. Unknown to the experimenter James Worthy was arrested for immoral conduct in Los Angeles several months before the start of the experiment. This information became known to the principal investigator during the first post-experimental debriefing and discussion session. At that time, and at every session thereafter subjects were asked if they knew about the incident and if it influenced their judgments. Only one subject indicated that prior knowledge of the incident influenced his decision, and this subject was dropped from the analysis. All subjects (a total of 8) who had prior knowledge of the incident were asked to mark their questionnaires in a non-identifying manner. An analysis of those subjects who knew of the Worthy incident revealed no impact for knowledge of the incident on attitudes (r=.01), perceptions of trustworthiness (r=-.04) or expertise (r=.00). Furthermore, no reference of the incident was found in any of the cognitive responses. Based on these findings it appeared that knowledge of the incident did not impact the results of this investigation.

Implications

There are a number of important implications of these findings. First, consistent with the findings of recent studies examining the impact of personality variables on attitudes, this investigation found effects for argumentativeness and cynicism on message processing and subsequent attitude change. The implication is that these variables must be accounted for in studies examining attitude change. A variable such as argumentativeness which impacts an individual's resistance to persuasive attempts, could pose a threat in the form of extraneous variance to the statistical power of tests used in such studies. Additionally, the threat of a selection x treatment interaction would also threaten the generalizability of their findings.

Research using the cognitive response paradigm is one genre of research susceptible to the impact of personality variables such as argumentativeness. As noted in the introduction, these studies often examine variables that impact the motivation, opportunity, and the ability to process message information. Argumentative individuals tend to be internally motivated to process the message, as well as process heuristic source cues. Thus, argumentativeness may be a potential confound in studies that use the cognitive response paradigm.

A second implication and perhaps an area for future investigation lies in a more applied setting. In a judicial

setting some communication research has focused on the variables surrounding the decision making processes that occur in jury deliberation. A recent investigation by Boster, Hunter, & Hale (1991) tested a mathematical model of jury decision making, which predicted that the opinion of the jury would be a function of the opinions of the foreperson, and the jury deliberation.

The findings of this study suggest that the selection of highly argumentative individuals for a jury may have a significant impact on jury deliberation and decision making. The highly argumentative individual has been conceptualized as one who enjoys arguing and views controversy as a challenge. The argumentative individual is also more likely to pursue aggressively his or her opinion. Thus, the argumentative juror may impact jury decisions in several ways.

First, the high argumentative may be more likely to seek a leadership position or challenge another for the position of foreperson. Boster et al. (1991) report that the opinion of the foreperson has a significant impact on jury decision. Furthermore, Boster et al's study found that foreperson influence increased with jury size. The argumentative in the role of foreperson may be better able to sway others' by combining both counterargumentation skills and discussion control techniques. That is, the argumentative juror, after stating an opinion, may attack the positions of other jurors, and persuade other jury members. Second, the argumentative

foreperson may also attempt to limit the input of others who disagree via procedural tactics, and by dominating the discussion.

If the argumentative individual does not attain the role of foreperson, he or she may still disproportionally impact the decision. By advancing more arguments, and countering the arguments of others, the argumentative may be more influential. Research in the area of minority influence on group decisions has shown that a vocal minority can influence majority decisions, especially if the opinions of the minority remain consistent (Moscovici, 1976; Moscovici & Faucheux, 1972). In addition, the inclusion of an argumentative on a jury may also significantly increase the time needed for a jury to reach a decision, especially if a consensus is required. Increases in deliberation periods may lead to a greater probability of a hung jury, especially if the highly argumentative individual is part of the minority.

Research is needed test the impact of argumentativeness on jury decision making. Although the findings of this research may appear to be limited to laboratory research, as opposed to an actual trial setting, it should be noted that asking potential jurors questions about their argumentativeness would be possible during jury selection procedures. Furthermore, one might expect the impact of argumentativeness to be more pronounced in an active communication setting, as opposed to a passive listening

situation.

This investigation found argumentative individuals to be more critical, and their attitudes to be impacted by positive and negative thoughts. Cynical individuals' attitudes were a function of perceived trustworthiness and positive source cognition. This study examined the impact of argumentativeness and cynicism on the cognitive responses of the individual, but not the types of information that triggered those responses. A related area of research requires examining message variables that either trigger counterargumentation, or focus upon or counterargumentation. One such variable may be negative information. Recent research (Kellerman, 1989) has attempted to explain the negativity effect, whereby negative information tends to be weighted more heavily in decision making processes than positive information. To the argumentative individual negative information, especially information that reinforces a strongly held position, may act as a trigger for counterargumentation. Furthermore, the argumentative may weight this information more heavily in the decision making process than the low argumentative.

A related question for future research involves stopping the argumentative from generating large numbers of negative message oriented responses. The results of this study indicate that the argumentative is more resistant to persuasion, and that resistance stems from the generation of

negative message and source-oriented cognitive responses. Derailing the counterargumentation and derogation processes may prove challenging. One suggestion may be found in the literature examining the effectiveness of certain types of evidence. The findings of a recent study by Kazoleas (1990), suggest that the use of qualitative types of evidence may affect the extent to which receivers are critical of a persuasive message. The use of case histories, examples, testimonials, and personal anecdotes may make it more difficult for the argumentative to counterargue. It may be difficult to doubt the veracity of claims supported by case histories and testimonials, and the use of personal anecdotes and stories may make the argumentative less able to play the devils advocate role.

The last area of future research to be discussed is the cognitive response paradigm. One of the purposes of this paper was to develop a more useful method of categorizing cognitive responses. Where usefulness is defined as the ability to predict attitudes. Upon observing the types of cognitive responses generated by subjects in this investigation (See Appendix A.) it is clear that there is more information contained in those responses than simple affect and targeting. A comparison of the coding schemes abilities to predict attitudes will be addressed in a forthcoming paper using the data obtained in this investigation as a foundation.

Conclusion

In conclusion, argumentatives behaved in a manner consistent with the way they were conceptualized. That is they were more resistant to persuasion. Both positive and negative cognitive responses did appear to mediate the relationship between this trait and attitudes.

For cynics, the findings are not as clear. The relationship between attitudes and cynicism was mediated by both positive and negative source cognitions as well as perceptions of trustworthiness. Nevertheless, cynics did not make attributions about the motives of the source as they were predicted, nor did they focus on source to the exclusion of the message. It appears that the cognitive processing patterns of cynics may be more complex than predicted.

Notes

1. A preliminary concern was that summing across advertisements would potentially mask or decrease effect sizes. An examination of the mean correlation among argumentativeness and attitudes and cynicism and attitudes, found stronger effects for the traits on attitudes when using the summed attitude measure. (Argumentativeness $\underline{M}$=-.09; Cynicism $\underline{M}$=.02).

2. A confirmatory factor analysis was conducted on the two-dimensional coding scheme, using the unique categories generated in this study as items. The responses were coded along both schemes to enhance generalizability. However, little relationship was found among specific responses within each of the four major categories (source positive, source negative, message positive, message negative). These data suggest that these categories are not uni-dimensional in nature, and as such summing across responses within each category may mask the effects of certain thought processes.

APPENDIX A.

APPENDIX A.

CODING CATEGORIES

Cognitive response categories are organized by the two-dimensional (target, valence) traditional coding scheme.
* Denotes a situation where differentiations were made between certain classes of cognitive responses for the alternate or more traditional category scheme, but were not made for the initial classification analysis.

SOURCE POSITIVE-Targeted at the source and positive in nature.

1. Credibility + (Source Positive). Favorable or positive statements made about the sources credibility and/or motives. Statements dealing with such issues as perceptions of trustworthiness, expertise and/or the sources motives were coded into this category. e.g. This was a credible source, James Worthy was a good source to use etc.

2. Liking* Statements indicating the subject liked something about the source. e.g. I liked the source, or I like James Worthy.

3. Source Effectiveness + (Source Positive). Statements dealing with the perceived effectiveness of the source in a positive manner. e.g. James Worthy was convincing, or this was an effective ad in convincing people to do x.

SOURCE NEGATIVE-Targeted at the source and negative in nature.

1. Credibility (-) Negative or unfavorable statements made about the credibility and/or motives of the source. This category contained statements which eluded to the sources expertise motives and/or trustworthiness. e.g. Who is the CAWG, They don't know what they are talking about, Another dumb jock etc.

2. Dislike* Statements indicating the subject disliked something about the source. e.g. I don't like James Worthy, or I don't like the way the source spoke.

3. Source Effectiveness (-) The opposite of source effectiveness, these are statements which indicate the source or the message wasn't convincing or effective. i.e. James worthy wasn't convincing, the ad didn't convince me that this was a problem.

MESSAGE POSITIVE-Targeted at the message and positive in nature.

1. Supporting Arguments. Arguments or statements which either repeat or support the statements made in the ads. e.g. I think the environment should be our top concern. Heavy drinking should be moderated etc..

2. Message Attributes (+). Positive Statements made about the message. e.g. I found the message interesting, exciting, dynamic, attention grabbing.

3. Agreement. Statements indicating agreement with the positions or arguments forwarded in the message. e.g or I agree that the drinking and driving should be controlled.

4. Presentation/Setting (+). Positive statements made about the setting of the ads or the layout or physical features of the ads. e.g. The burning money caught my attention, the bold print caught my eye, A basketball court symbolizes winners etc.

5. Importance (+). Statements indicating that the issue dealt with was important. e.g. I think controlling drinking is an important undertaking.

6. Liking*. Statements indicating that the subject liked something about the message. e.g. I like the idea that we can save the environment and jobs too.

MESSAGE NEGATIVE-Targeted at the message and negative in nature.

1. Counterarguments. Arguments which advocated positions opposite the ones contained in the message, as well as specific criticisms of the actions advocated by the presentation. e.g. We don't need clean air at any cost because the environment is not more important than jobs. I don't think that moderate exposure leads to skin cancer etc...

2. Disagreement. Statements indicating disagreement with the arguments or positions advocated in the advertisements. e.g. I disagree with the idea that we need to pass the clean air act, I disagree with wearing cloths in the sun etc.

3. Message Attributes (-). Negative statements made about the message. e.g. I found the message boring, uninteresting, undynamic, etc.

4. Presentation/Setting (-). Negative statements made about the setting or the physical features of the ad's. i.e. the ad was too dark, why use a basketball court etc.

5. Importance (-). Statements indicating that the issue dealt with was not important. e.g. I don't think clean air is an important issue, or heavy drinking is no big deal...

6. Sarcasm . Sarcastic responses made by the individual. e.g. Well, now I know I've got skin cancer, or I guess I'll start wearing winter clothes in the summer.

7. Dislike*. Statements indicating that the subjects did not like some part of the message. e.g. I don't like the idea of having to wear long pants when it's hot out.

APPENDIX B

APPENDIX B.
Appendix of Correlations Between Traits, Dependent Measures and Cognitive Responses.

Note: Correlations between original coding categories, and traditional two dimensional categories are separated by a blank line for each matrix. Positive, Negative, and Total thoughts are summed categories.

	ARGUMENT	CYNIC	ATTIT	TRUST	EXPERT	MOTIVE
ARGUMENT	1.0000	.1628	-.1800	-.1192	-.0697	-.0565
CYNIC	.1628	1.0000	-.0008	-.1133	-.0668	-.0689
ATTIT	-.1800*	-.0008	1.0000	.2673*	.1847	.1601
TRUST	-.1192	-.1133	.2673*	1.0000	.7379*	.5325*
EXPERT	-.0697	-.0668	.1847*	.7379*	1.0000	.4424*
MOTIVE	-.0565	-.0689	.1601	.5325*	.4424*	1.0000
INVOLVE	-.1478	.1347	.2087*	.6087*	.5207*	.2844*
EFFCTP	.1609	.1258	-.1070	-.0780	-.1366	-.0672
EFFCTN	.0437	.1157	.0759	-.2691*	-.1846*	-.2284*
IMPP	-.1238	-.1586	.2515*	.1247	-.0037	.0548
IMPN	.0783	-.0499	.0111	-.0384	-.0717	-.0173
AGREE	-.1147	-.0133	.0631	.1106	.0320	.1375
DISAGRE	.0553	-.1720*	.0216	.1518	.1364	.1348
SARCASM	.2070*	.1929*	.0082	-.0706	-.1900*	-.1003
CREDPOS	-.1401	-.1397	.1595	.0799	-.0483	-.1153
CREDNEG	.0474	.1354	.0462	-.2284*	-.1824*	-.2318*
LIKE	.0966	.0104	-.0053	.1315	.0943	-.0063
DISLIKE	-.0911	-.0221	-.0623	-.0488	-.0899	.0153
SUPPORT	-.0062	.0719	.0279	.1850*	.2094*	.2310*
COUNTER	.0672	.0937	-.0258	-.0817	-.0937	-.1060
MATTRIBP	.0343	-.0165	.0489	.1660*	.2002*	.0416
MATTRIBN	.0366	.0000	-.0725	-.0265	-.0323	.0963
SORPOS	-.0832	-.1069	.1417	.0636	-.0869	-.1459
SORNEG	.0390	.1519	.0476	-.2846*	-.2285*	-.2765*
MESPOS	-.0594	-.0004	.1802*	.3658*	.3719*	.2637*
MESNEG	.1736*	.0537	-.0900	-.0791	-.0971	.0031
POSITIVE	-.0864	-.0444	.2171*	.3468*	.2888*	.1710*
NEGATIVE	.1491	.1323	-.0351	-.2323*	-.2103*	-.1682*
TOTAL	.0414	.0622	.1467	.1028	.0727	.0113

	INVOLVE	EFFCTP	EFFCTN	IMPP	IMPN	AGREE
ARGUMENT	-.1478	.1609	.0437	-.1238	.0783	-.1147
CYNIC	.1347	.1258	.1157	-.1586	-.0499	-.0133
ATTIT	.2087*	-.1070	.0759	.2515*	.0111	.0631
TRUST	.6087*	-.0780	-.2691*	.1247	-.0384	.1106
EXPERT	.5207*	-.1366	-.1846	-.0037	-.0717	.0320
MOTIVE	.2844*	-.0672	-.2284*	.0548	-.0173	.1375
INVOLVE	1.0000	-.0934	-.1591	.0974	-.1723	.2258
EFFCTP	-.0934	1.0000	-.0318	.0062	-.0707	-.0991
EFFCTN	-.1591	-.0318	1.0000	-.0745	-.0143	.0844
IMPP	.0974	.0062	-.0745	1.0000	.1426	.0686
IMPN	-.1723*	-.0707	-.0143	.1426	1.0000	-.0666
AGREE	.2258*	-.0991	.0844	.0686	-.0666	1.0000
DISAGRE	.1158	-.0687	.0207	-.0804	-.0461	.2439*
SARCASM	-.0490	.1737	.0323	.0209	.2076*	.0194
CREDPOS	.1167	-.1116	.0858	.2641*	-.0630	.2345*
CREDNEG	-.0470	.0128	-.0110	-.1345	-.0429	.0137
LIKE	.0646	.1889*	-.0913	-.0197	-.0508	-.0711
DISLIKE	-.0657	-.0687	-.0830	-.0335	-.0461	-.0646
SUPPORT	.2643*	-.0722	-.0401	-.0904	-.0078	.0670
COUNTER	.0624	-.1567	.0295	-.0992	-.0771	-.0875
MATTRIBP	.0867	-.0341	-.1072	-.0337	-.0978	-.1643
MATTRIBN	-.2743*	-.0106	-.0854	-.1089	.0316	.0091
SORPOS	.1042	.1715*	.0656	.2628*	-.0864	.2001*
SORNEG	-.0873	.0009	.1815*	-.1546	-.0490	.0252
MESPOS	.3444*	-.1132	-.1520	.1686*	-.0752	.1588
MESNEG	-.1663*	-.0503	-.0187	-.1223	.1908*	-.0195
POSITIVE	.3443*	-.0286	-.1062	.2561*	-.1015	.2216*
NEGATIVE	-.1735*	-.0357	.0984	-.1834*	.1072	.0015
TOTAL	.1400	-.0488	-.0114	.0672	-.0013	.1758*

	DISAGRE	SARCASM	CREDPOS	CREDNEG	LIKE	DISLIKE
ARGUMENT	.0553	.2070*	-.1401	.0474	.0966	-.0911
CYNIC	-.1720*	.1929*	-.1397	.1354	.0104	-.0221
ATTIT	.0216	.0082	.1595	.0462	-.0053	-.0623
TRUST	.1518	-.0706	.0799	-.2284*	.1315	-.0488
EXPERT	.1364	-.1900	-.0483	-.1824*	.0943	-.0899
MOTIVE	.1348	-.1003	-.1153	-.2318*	-.0063	.0153
INVOLVE	.1158	-.0490	.1167	-.0470	.0646	-.0657
EFFCTP	-.0687	.1737*	-.1116	.0128	.1889*	-.0687
EFFCTN	.0207	.0323	.0858	-.0110	-.0913	-.0830
IMPP	-.0804	.0209	.2641*	-.1345	-.0197	-.0335
IMPN	-.0461	.2076*	-.0630	-.0429	-.0508	-.0461
AGREE	.2439*	.0194	.2345*	.0137	-.0711	-.0646
DISAGRE	1.0000	-.0697	-.0322	-.1041	-.0493	-.0448
SARCASM	-.0697	1.0000	-.1178	.1945*	.0725	-.0697
CREDPOS	-.0322	-.1178	1.0000	-.0215	-.0673	.1414
CREDNEG	-.1041	.1945*	-.0215	1.0000	-.0916	-.1249
LIKE	-.0493	.0725	-.0673	-.0916	1.0000	-.0493
DISLIKE	-.0448	-.0697	.1414	-.1249	-.0493	1.0000
SUPPORT	.1078	.0396	-.1027	-.1278	-.0083	-.1393
COUNTER	-.0553	.2563*	-.1362	.1059	-.1253	-.0846
MATTRIBP	-.0084	-.2287*	.0275	-.0938	.1621	.1646
MATTRIBN	.0307	-.1196	-.0434	.0086	.1521	.1651*
SORPOS	-.0551	-.0410	.9422**	-.0153	.1189	.1176
SORNEG	-.1027	.1939*	.0046	.9766**	-.1130	-.0614
MESPOS	.0804	-.1593	.0869	-.2251*	.2275*	-.0143
MESNEG	.1262	.3617**	-.1865*	.1117	.0222	.0555
POSITIVE	.0478	-.1565	.4643**	-.2036	.2484*	.0359
NEGATIVE	.0276	.3800**	-.1314	.6824**	-.0536	.0022
TOTAL	.0580	.1559	.2696*	.3410**	.1565	.0299

	SUPPORT	COUNTER	MATTRIBP	MATTRIBN	SORPOS	SORNEG
ARGUMENT	-.0062	.0672	.0343	.0366	-.0832	.0390
CYNIC	.0719	.0937	-.0165	.0000	-.1069	.1519
ATTIT	.0279	-.0258	.0489	-.0725	.1417	.0476
TRUST	.1850*	-.0817	.1660	-.0265	.0636	-.2846*
EXPERT	.2094*	-.0937	.2002	-.0323	-.0869	-.2285*
MOTIVE	.2310*	-.1060	.0416	.0963	-.1459	-.2765*
INVOLVE	.2643*	.0624	.0867	-.2743*	.1042	-.0873
EFFCTP	-.0722	-.1567	-.0341	-.0106	.1715*	.0009
EFFCTN	-.0401	.0295	-.1072	-.0854	.0656	.1815*
IMPP	-.0904	-.0992	-.0337	-.1089	.2628*	-.1546
IMPN	-.0078	-.0771	-.0978	.0316	-.0864	-.0490
AGREE	.0670	-.0875	-.1643*	.0091	.2001	.0252
DISAGRE	.1078	-.0553	-.0084	.0307	-.0551	-.1027
SARCASM	.0396	.2563*	-.2287*	-.1196	-.0410	.1939
CREDPOS	-.1027	-.1362	.0275	-.0434	.9422*	.0046
CREDNEG	-.1278	.1059	-.0938	.0086	-.0153	.9766**
LIKE	-.0083	-.1253	.1621	.1521	.1189	-.1130
DISLIKE	-.1393	-.0846	.1646*	.1651*	.1176	-.0614
SUPPORT	1.0000	.2668*	-.2975*	-.1191	-.1025	-.1431
COUNTER	.2668*	1.0000	-.0861	-.0043	-.1790*	.1066
MATTRIBP	-.2975*	-.0861	1.0000	.1185	.0319	-.1109
MATTRIBN	-.1191	-.0043	.1185	1.0000	-.0372	.0109
SORPOS	-.1025	-.1790*	.0319	-.0372	1.0000	.0049
SORNEG	-.1431	.1066	-.1109	.0109	.0049	1.0000
MESPOS	.5324**	.1064	.5112**	.0386	.0861	-.2579*
MESNEG	.1081	.5935**	-.0064	.6140**	-.1985*	.1143
POSITIVE	.4244*	.0195	.4612**	.0185	.4874*	-.2240*
NEGATIVE	-.0103	.4931*	-.0729	.4489*	-.1399	.6986*
TOTAL	.3271*	.3779*	.3101*	.3446*	.2816*	.3369*

	MESPOS	MESNEG	POSITIVE	NEGATIVE	TOTAL
ARGUMENT	-.0594	.1736*	-.0864	.1491	.0414
CYNIC	-.0004	.0537	-.0444	.1323	.0622
ATTIT	.1802*	-.0900	.2171	-.0351	.1467
TRUST	.3658*	-.0791	.3468*	-.2323*	.1028
EXPERT	.3719*	-.0971	.2888*	-.2103*	.0727
MOTIVE	.2637*	.0031	.1710*	-.1682*	.0113
INVOLVE	.3444*	-.1663*	.3443*	-.1735*	.1400
EFFCTP	-.1132	-.0503	-.0286	-.0357	-.0488
EFFCTN	-.1520	-.0187	-.1062	.0984	-.0114
IMPP	.1686*	-.1223	.2561*	-.1834*	.0672
IMPN	-.0752	.1908*	-.1015	.1072	-.0013
AGREE	.1588	-.0195	.2216*	.0015	.1758*
DISAGRE	.0804	.1262	.0478	.0276	.0580
SARCASM	-.1593	.3617*	-.1565	.3800*	.1559
CREDPOS	.0869	-.1865*	.4643*	-.1314	.2696*
CREDNEG	-.2251*	.1117	-.2036*	.6824*	.3410*
LIKE	.2275*	.0222	.2484*	-.0536	.1565
DISLIKE	-.0143	.0555	.0359	.0022	.0299
SUPPORT	.5324*	.1081	.4244*	-.0103	.3271*
COUNTER	.1064	.5935*	.0195	.4931*	.3779*
MATTRIBP	.5112*	-.0064	.4612*	-.0729	.3101*
MATTRIBN	.0386	.6140*	.0185	.4489*	.3446*
SORPOS	.0861	-.1985*	.4874*	-.1399	.2816*
SORNEG	-.2579*	.1143	-.2240*	.6986*	.3369*
MESPOS	1.0000	.0901	.9119*	-.0940	.6501*
MESNEG	.0901	1.0000	-.0028	.7906*	.5790*
POSITIVE	.9119*	-.0028	1.0000	-.1401	.6858*
NEGATIVE	-.0940	.7906*	-.1401	1.0000	.6246*
TOTAL	.6501*	.5790*	.6858*	.6246*	1.0000

Minimum pairwise N of cases: 101
*p <.05

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