

To Match or Mismatch? That is Only One Important Question

Betty H. La France and Franklin J. Boster

This study examined the experiential attitude function—an attitude based on past experience(s)—and tested whether a message targeted at this function would elicit attitude change. Each of 139 undergraduates was assigned randomly to one of four conditions in which a fictitious Executive Committee for Academic Integrity (ECAI) report, written for a university president, supplied strong or weak arguments. Furthermore, these messages either argued that tenure should be abolished (anti-tenure) or that tenure should continue (pro-tenure). Results indicated that, although the functional target of the message was not related to posttest attitudes, conformity to message recommendations was contingent upon the discrepancy between the respondent's initial attitude and the position advocated in the message. Interestingly, the mean attitude change in every experimental condition was negative, indicating that regardless of the position advocated in the message, respondents' attitudes became increasingly anti-tenure. **Key words:** Attitude Change, Functional Theory, Experimental Design

The 1999 Harvard School of Public Health College Alcohol Study found that 44% of undergraduate students were binge drinkers (defined as consuming four or five drinks in a row within the past two weeks), and 47% of these students were younger than 24 years of age. Wechsler and his colleagues (2000) also found a significant increase in the frequency of binge drinking among students who were binge drinkers in high school. Research funded by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) found that teens who drink alcohol were more likely to suffer negative consequences such as problems with school-related activities, engaging in unprotected sex, and becoming sexually active at an earlier age. Teens who consume alcohol also were more likely to become victims of violent crime (including rape, aggravated assault, and robbery). Driving accidents, drowning, fires, suicides, and homicides that are linked with alcohol are also major causes of disability and even death among teens.

Binge drinking on college campuses is a health issue. The reasons why undergraduate students binge drink vary. Some students may drink to indicate their association with important referent groups. Others may drink because drinking helps them to relax and forget their problems. Still others may drink because it is symbolic of becoming an adult. In order to reduce the frequency of binge drinking, these reasons must be addressed in messages designed to change the attitudes—and consequently the behavior—of this targeted audience. In essence, this approach to persuasion means that certain arguments in messages will motivate attitude change in some people but not in others. For example, a message that encourages alternative ways to

Betty H. La France (Ph.D., Michigan State University, 1998) is an Assistant Professor in the Department of Communication at University of Missouri-St. Louis. Franklin J. Boster (Ph.D., Michigan State University, 1978) is a Professor in the Department of Communication at Michigan State University. A previous version of this manuscript was presented to the Interpersonal Communication Division of the International Communication Association Annual Convention, San Francisco, 1999. The manuscript is adapted from the first author's dissertation, which was directed by the second author. The authors would like to thank Sandi Smith, Charles Atkin, David Imig, and the anonymous reviewers for their comments. Correspondence concerning this manuscript should be forwarded to the first author.

relax and unwind will persuade only those students for which that message is salient—or is relevant to the reason for holding the attitude.

This “functional” approach to attitudes and their change offers communication scholars a fresh perspective that explicates *how* persuasive messages will be processed. The current paper answers Dillard’s (1993) call to increase attention “towards understanding the relationship between messages and attitudes” (p. 95). It is only through knowledge of how attitudes are formed can scholars begin to understand the ways in which attitudes can be changed.

The primary purpose of the current project is to test the hypothesis that messages that correspond with an attitude function (match) will be perceived as more persuasive than messages that do not correspond with that function (mismatch). The functions that will be studied here are two generated by Herek (1986): The experiential-schematic and experiential-specific functions. In the next sections the functional and neofunctional perspectives will be described, and the experiential functional process will be detailed. Next, three features of message content will be discussed: the functional target of the message (i.e., schematic or specific), the strength of the argument in the message (i.e., strong or weak), and the position advocated in the message (i.e., proattitudinal or counterattitudinal).

The Functional Perspective

One fundamental tenet of the functional approach is that attitudes are held because they serve a purpose or purposes. Although several scholars have identified various functions (Clary, et al., 1998; Gastil, 1992; Herek, 1986; Katz, 1960; Shavitt, 1990; Smith, Bruner, & White, 1956), many of these functions are consistent across typologies, sharing the same content if not the same label.

Herek’s (1986) neofunctional theory views all attitudes as inherently utilitarian in the sense that they, “are strategies for satisfying psychological needs” as well as gaining some type of benefit from either possessing or expressing the attitude (p. 99). In addition, he suggests that people hold specific attitudes for their symbolic or instrumental value. Symbolic attitudes meet personal needs that are satisfied by the *expression* of such attitudes. Instrumental attitudes, Herek (1986) argues, are evaluative; they are based on whether the attitude object is detrimental or beneficial to the self. He arranges these two different types of attitudes (symbolic/instrumental) as a taxonomy where the need for each is considered and used subsequently to determine the type of benefit gained.

Two types of attitude functions that Herek (1986) classifies as evaluative are the experiential-specific and experiential-schematic functions. Herek (1986) distinguishes between the two experiential functions because, although each is based upon an encounter with an attitude object, the attitude formed from that interaction differs. Specifically, a function that is experiential and *specific* is one in which “... after interacting with a particular instance of the attitude object category, it is treated as a unique entity, differentiated from its membership in the larger category, and evaluated in terms of its individual utility for the person” (Herek, 1986, p. 105). This function can be contrasted with a function that is experiential and *schematic* where the attitude object is seen as, “... representative of a larger category perceived as either beneficial or detrimental to oneself. In this case, past experiences with representatives of the category have lead to the development of a cognitive

schema that guides subsequent interactions with members of the category” (Herek, 1986, p. 105). Whereas Herek (1986) describes each of the experiential functions, he does not describe the *process* by which people develop either an experiential-specific or experiential-schematic attitude function. This process is described below.

The Process

Although Herek (1986) does not outline the conditions under which people’s attitudes are classified as either experiential-schematic or experiential-specific, his definitions conceptually parallel stimulus generalization and stimulus discrimination, respectively. Miller and Steinberg (1975) describe stimulus generalization as the process of abstraction during which commonalities between and among a group of objects are recognized and differences between these same objects are ignored. Conversely, to the extent that distinguishable characteristics between attitude objects are sought, stimulus discrimination occurs. This is a process of stimulus evaluation where stimulus discrimination and stimulus generalization are anchors of a continuum.

The process for the development of experiential attitude functions may mirror this continuum theory of stimulus generalization and discrimination. Conceptualizing the experiential functions in a similar manner (i.e., as anchors of a continuum) might be more useful than thinking of them as two distinct, independent functions. Similar to the continuum theory of stimulus evaluation, the degree to which people are willing to generalize their attitudes may vary depending on the attitude object being considered.

According to this experiential function continuum, contact with a particular attitude object would lead respondents first to try to determine the extent to which an attitude object is similar to other objects. As cognitive misers, people attempt to categorize objects first (Fiske, Neuberg, Beattie, & Milberg, 1987)—initially ignoring the differences among those objects. Then, the potential dissimilarity between these characteristics is assessed. To the extent that *similarity* is perceived, people will form attitudes based on the comparison of attitude objects. Thus, the attitude toward the object would be the same as the attitude held regarding comparable objects. Alternatively, to the extent that *dissimilarity* is perceived, people would discriminate between attitude objects. In this situation, people would form their attitudes based on that individual object—attitudes toward other objects would not be considered because the individual does not perceive those objects to be related or similar to one another.

It is not difficult to think of instances in which the function may be *more or less* experientially-schematic or experientially-specific. For example, participation in American politics—as an attitude object—could be generalized under a single broad category (this would be at the highest level of abstraction according to Miller & Steinberg, 1975). Alternatively, people also may have subcategories in which they place their attitude towards participating in politics (e.g., local, national). Therefore, certain categories (local) of politics could be discriminated from other categories (national) of politics. This cognitive process would lead to a function that is experientially-schematic; however, the generalization is less broad.

Valence of the Experiential Function

Conceptualizing the experiential function along a vertical continuum, with the valence of an attitude object aligned perpendicular to that continuum, offers an explanation as to why a valence is not attached to the experientially-specific function. Consider an attitude object that is the basis of an experientially-schematic function. Whatever attitude, positive or negative, that is associated with an object will be generalized to the other objects evaluated to be alike. For example, if a student believed a professor was lazy, did not like students, and was unfair, and this attitude served an experientially-schematic function, then the attitude toward all other professors also would be negative.

Conversely, an attitude object that was the foundation for an experientially-specific function will not be generalized and therefore any valence, positive or negative, attached to the object will not be generalized either. Using the above example, a student who viewed a professor as lazy, did not like students, and was unfair, and this attitude served an experientially-specific function, could not positively nor negatively evaluate all professors. As such, in this case, evaluation of the attitude object is limited to that *specific* object.

In these cases, the attitude valence of the category is at issue. This consideration has an important implication for the effects of messages on conformity to message recommendations. According to the explanation given above, a positive or negative evaluation of an object is the same as the valence associated with the set of comparable objects, which can occur only with people whose attitude functions experientially and schematically. Thus, the valence assigned to the object's *comparable category* (all those objects perceived to share similar characteristics) should be neutral for respondents whose attitude functions experiential-specifically.

The main purpose of the current study is to identify which messages are more persuasive given that an attitude is more experiential-specifically or experiential-schematically based. As stated earlier, a fundamental assumption of the functional approach is that attitudes serve a purpose. Another fundamental tenet of this approach, however, is related directly to the content of persuasive messages. In essence, in order for a message to elicit conformity to message recommendations, that message must contain information relevant to the function of the attitude. Furthermore, strong messages that contain function-relevant information should have a greater suasive impact. Thus, the issue of message design, including the functional target of the message, argument strength, and message advocacy, is discussed subsequently.

Message Design

Functional target of message. It is predicted that messages whose content appeals to a particular function served by that attitude will be more persuasive than messages that do not address the function (Clary et al., 1998; Herek, 1987; Katz, 1960; Shavitt, 1990). For example, someone who has joined The 700 Club because of the need to demonstrate a certain level of religiosity (e.g., value-expressive) will be persuaded more by a message whose content addresses this need for identification with religious groups than a message targeting psychodynamic processes (e.g., ego-defensive).

Message-function matching produces more persuasion because the arguments in the message are processed in a biased fashion. Specifically, messages that target a

person's attitude function are scrutinized more closely than messages that do not target the function (Lavine & Snyder, 1996; Petty & Wegener, 1998). Therefore, respondents become more susceptible and responsive to messages that are functionally relevant (Snyder & De Bono, 1985).

Research investigating this matched versus mismatched hypothesis has focused largely on the expressive or defensive functions. For instance, Snyder and De Bono (1985) found that high self-monitors, hypothesized to have attitudes based on the social-adjustive/expressive function, were persuaded by messages that appealed to an object's image. Alternatively, low self-monitors, hypothesized to have attitudes based on the value-expressive function, were found to be persuaded by messages containing information about the quality of a product. In short, messages that targeted the object's image persuaded high self monitors, while messages that targeted the object's quality persuaded low self monitors. Moreover, Petty and Wegener (1998) found that strong messages were particularly persuasive if they matched respondents' underlying social-expressive (high self-monitors) or value-expressive (low self-monitors) functions. Conversely, when weak messages were used, matched messages were less persuasive than mismatched messages due to greater message scrutiny.

Katz, McClintock, and Sarnoff (1957) investigated the impact of messages on people who were classified as high, moderate, or low ego-defensives. The content of these messages described the cognitive, psychodynamic process of defense mechanisms as they related to prejudice. Using several different measures of ego-defensiveness (including TAT cards, a subscale of the MMPI, the F Scale, and the Bogardus Social Distance Scale), Katz et al. (1957) provided some evidence that suggested respondents who were classified as moderately ego-defensive did demonstrate some attitude shifts about African Americans after receiving the message (message-function match). Katz et al. (1957) argued that low ego-defensives would not be persuaded because the ego-defensive function was not the basis of their attitudes. Alternatively, high ego-defensives would be too stimulated by any material regarding prejudice resulting in a heightened level of defensiveness. As predicted, low and high ego-defensives showed little or no attitude change.

Arguing that certain attitude objects tend to serve a single function, Shavitt (1990) demonstrated that attitudes about air conditioners and coffee were primarily utilitarian based; whereas attitudes regarding greeting cards served more of a social-expressive function. A fourth product, perfume, was based equally from utilitarian and social-expressive functions. Furthermore, Shavitt (1990) found that advertisements for those products that contained function-*relevant* information were perceived by respondents as being more persuasive than advertisements that included function-*irrelevant* information.

Message effectiveness regarding the experiential functions has not enjoyed widespread empirical investigation. Therefore, the current study attempts to fill this void by investigating message persuasiveness via the experiential function. Based on previous research, it is hypothesized that messages that address a person's attitude function (match) will be perceived as more persuasive than messages that do not address that attitude function (mismatch) (Clary et al., 1998; Katz, McClintock, & Sarnoff, 1957; Snyder & De Bono, 1989). This hypothesis is consistent with Petty and Wegener's (1998) findings; they noted, however, that strength of the message can either enhance or detract from the functional match or mismatch of a particular

message. Therefore, in addition to the functional target of the message, argument strength is hypothesized to have an impact on effectiveness. Thus, argument strength is discussed next.

Argument strength. Another element of a persuasive message is the strength of the arguments presented in the message. Not only is it important for a message to target the function of an attitude, but also that it is critical that the message be cogent. Although the impact of argument quality on attitude functions has been examined (Petty & Wegener, 1998), what constitutes a strong argument has varied.

Allen and Burrell (1992) distinguish between evaluating the structure of an argument and the persuasiveness of an argument. The former refers to formal logic in which a conclusion follows or does not follow probabilistically from premises. A strong argument is an argument in which a conclusion follows necessarily from premises, and the premises are corroborated with evidence.

The latter criterion, the persuasiveness of an argument, Allen and Burrell (1992) state as the concern with whether or not the receiver decides to believe that conclusion reached in the message. The persuasiveness of the message is defined as the degree to which respondents conform to message recommendations. Alternatively, Cacioppo, Petty, and Morris (1983) have measured argument quality asserting that strong arguments evoke more favorable than unfavorable statements and weak arguments elicit more unfavorable than favorable statements on thought listing tasks. In previous work, however, Petty and Cacioppo (1979) constructed strong messages by incorporating evidence such as statistics and relevant studies and constructed weak messages using quotations and opinions.

Both argument structure and content comprise argument strength. Specifically, strong arguments are those that are sound. That is, they are logically valid if deductive or logically strong if inductive, and their content includes compelling evidence for the premises. Accordingly, the degree to which a message is perceived as being persuasive is hypothesized to be impacted by the functional target of the message, argument strength, and the position advocated (proattitudinal or counterattitudinal). The current study hypothesizes that strong arguments will enhance the persuasiveness of a matched message (Petty & Wegener, 1998). Alternatively, a weak and matched message will produce less conformity to message recommendations than a strong and matched message. Mismatched messages are expected to produce no change. The third and last element of message design to be discussed is the position advocated in the message, and it is described next.

Message advocacy. A third factor hypothesized to affect the suasive impact of messages is the position advocated by the message. A proattitudinal message contains a statement or statements with which the receiver is generally in accord; conversely, a counterattitudinal message contains information that challenges the receiver's position on a topic.

French (1956) suggests a linear discrepancy model of attitude change where the greater the distance between an initial position and the position advocated in the message, the greater the attitude change toward the message's position. For example, if a student was moderately in favor of universities retaining tenure for its faculty members, and the student was presented with a counterattitudinal message (e.g., a message that advocated the abolishment of tenure), that person's attitude would

| | | Experiential-Schematic Message | | | |
|------------------------|-----------|---|------|---------------------|--|
| | | Weak Argument | | Strong Argument | |
| Function | | Message Discrepancy | | Message Discrepancy | |
| | | Low | High | Low | High |
| Experiential-Schematic | No change | <u>Some conformity to message recommendations</u> | | No change | <u>Conformity to message recommendations</u> |
| Experiential-Specific | No change | No change | | No change | No change |

FIGURE 1
STUDY PREDICTIONS.

change toward the message so that the student would be less in favor of tenure for university faculty.

Figure 1 shows the predictions for this study. Overall, the following two main predictions are made. First, the greatest conformity to message recommendations is expected: (a) when the function and message is matched, (b) the discrepancy between initial attitude and the message advocated is large, and (c) when messages are strong. Second, matched weak messages, in which there is little discrepancy from respondents' initial positions, will produce little conformity to message recommendations.

If the data are consistent with these hypotheses, then those respondents in the strong, highly discrepant message condition should experience the greatest conformity to message recommendations (Petty & Wegener, 1998). Respondents in the weak, highly discrepant message condition should only display little conformity (French, 1956). There should be no conformity to message recommendations in the mismatched conditions.

Method

The functional target of the message was controlled in the study. Specifically, messages were designed so that all respondents would respond to a message that contained statements reflecting an experientially-schematic function. These statements advocated a particular position for *all* attitude objects that comprised a given category.

One suggestion for functional research is that an induction will be most successful if it focuses on an attitude object with which respondents are unfamiliar (Shavitt, 1989). The challenge of the current study was that having experience with an attitude object was a necessary prior condition to test the hypotheses regarding an experiential function. Because the attitude object in the current study had to be something with which all possible respondents had some prior interaction, professors were particularly salient. The position advocated in the message was that universities should either continue to grant tenure or that they should abolish tenure for all faculty members.

Pretesting

Four messages, created by the authors, were pretested to determine the extent to which they contained either strong or weak arguments, and the degree to which the

messages were perceived as being either pro-tenure or anti-tenure. Participants' perceptions of argument strength and message advocacy, then, served as evidence that the messages did in fact vary with respect to their strength and position advocated.

Argument strength. Unlike the instrumentation used by Cacioppo, Petty, and Morris (1983), strong arguments were created so that conclusions followed probabilistically from realistic premises that were corroborated by evidence. Conversely, weak arguments were created so that conclusions did not follow from premises. Moreover, no cogent evidence was offered to corroborate the premises. Respondents rated the messages using seven semantic-differential dimensions (compelling/not compelling, convincing/unconvincing, logical/illogical, reasonable/unreasonable, sound/unsound, believable/not believable, and plausible/not plausible) arrayed along a seven-point scale. The standardized item alpha for this measure was $\alpha = .94$.

Results from this pretest demonstrated that the weak argument was perceived as weak ($M = 3.55$, $SD = 1.44$) and the strong argument was perceived as fairly strong ($M = 4.98$, $SD = 1.18$), ($t(33) = -3.23$, $r = .49$, $p = .003$). In addition to strength, arguments were generated so that they were either proattitudinal or counterattitudinal. Therefore, message advocacy is discussed next.

Pro-tenure/anti-tenure message. To create messages that were either proattitudinal or counterattitudinal, an attitude regarding a specific aspect of professors was used. A topic that was anticipated to elicit highly variable attitudes from the targeted respondents of the study was the abolishment or continuation of tenure for professors. Accordingly, the messages detail a fictitious Executive Committee for Academic Integrity (ECAI) report that had been created for the president of the university to either continue or abolish tenure for faculty members. Students were asked to judge the degree to which the author of the message was either pro-tenure or anti-tenure using six, seven-point Likert-type items (e.g., The author of the message opposes professors being granted tenure; The author of the message is in favor of abolishing tenure for all faculty; The author believes that abolishing tenure would be a good thing for the university). The standardized item alpha for this scale was $\alpha = .96$.

The pretest demonstrated that respondents did perceive that messages designed to advocate the continuation of tenure of faculty were pro-tenure ($M = 5.87$, $SD = .84$, where a value of seven indicated the most pro-tenure attitude) and the messages constructed to espouse the abolishment of tenure were perceived as being anti-tenure ($M = 1.36$, $SD = .47$), ($t(26) = -4.51$, $r = .96$, $p = .000$). These four messages, then, were used for the main data collection (see Appendix A for the messages).

Respondents

A total of 139 respondents took part in the main data collection. Individuals volunteered to participate in the study, and all were students enrolled in undergraduate courses at a large, Midwestern university. Respondents were assigned randomly to receive either a strong or weak message, and a message that was either pro-tenure or anti-tenure for all university faculty members.

The mean age in years for the sample was 22.50 and the modal year in school was senior. In addition, participants reported that they had had an average of 24 professors for various university courses in the past. Fifty-nine (42%) participants

were male and 79 (57%) were female; the remaining 1% of participants did not respond to this item.

Design

Although conceptualizing the current study as a 2 (argument strength; strong, weak) \times 2 (message discrepancy; high, low) \times 2 (functional target of message: match, mismatch) was useful for illustrative purposes, it was necessary for regression analyses to dichotomize the experiential function measure. How these and other relevant variables were assessed is discussed next.

Instrumentation

Except where noted, all measures were comprised of seven-point, Likert-type items. An open-ended question appeared at the end of the questionnaire asking students to make any additional comments regarding professors or tenure that they may have had.

The items measuring attitude (pretest and posttest), function (pretest and posttest), perceptions of argument strength and message advocacy (to abolish or grant tenure) were factor analyzed. Given that specific items were specified a priori to measure one and only one factor, confirmatory factor analysis—which consists of internal consistency and parallelism—was employed to test the measurement model (Hunter & Gerbing, 1982). A six-factor solution was obtained with a reduced set of indicators (see Appendix B for these indicators). Internal consistency tests showed that the errors calculated between items measuring the same construct were generally within sampling error. The parallelism test demonstrated similar results; the errors calculated between items measuring different constructs also were within sampling error.

Attitude. The pretest attitude and posttest attitude measures were comprised of four items where 1 indicated the most anti-tenure and 7 indicated the most pro-tenure attitudes. The reliability for these scales were $\alpha = .86$ ($M = 4.70$, $SD = 1.53$) and $\alpha = .82$ ($M = 4.01$, $SD = 1.55$), respectively.

Function. In accordance with the conceptualizations of the experiential-schematic and experiential-specific continuum, the pretest function and posttest function instruments were comprised of five items where 1 demonstrated the most experientially-specific function and 7 indicated the most experientially-schematic function. Additionally, despite some methodological problems with the instrument, an adaptation of Herek's (1987) Experiential-Schematic subscale of the Attitude Function Inventory also was included (Herek's items begin with the phrase "My opinions about . . ."). The pretest function scale achieved a reliability of $\alpha = .45$ ($M = 2.24$, $SD = .79$), and the posttest function measure had a reliability of $\alpha = .55$ ($M = 2.43$, $SD = .93$).

Argument strength. Argument strength was calculated with five semantic-differential items where 1 indicated that respondents perceived the message to be extremely weak and 7 indicated that the message was very strong. The standardized item alpha for this measure was $\alpha = .85$ ($M = 4.20$, $SD = 1.27$).

Pro-tenure/anti-tenure message. Six items were used to determine respondents' perceptions of the degree to which the messages were either pro-tenure or anti-tenure. The reliability of this scale was $\alpha = .94$ ($M = 3.78$, $SD = 2.26$).

TABLE 1
THE CORRELATIONS BETWEEN CONSTRUCTS

| Construct | Attitude | Function | Argument Strength | Message Advocacy | Message Discrepancy | Attitude Change |
|---------------------|----------|----------|-------------------|------------------|---------------------|-----------------|
| Attitude | | | | | | |
| Function | -15 | | | | | |
| Argument strength | .06 | .11 | | | | |
| Message advocacy | -.25** | -.05 | -.11 | | | |
| Message discrepancy | -.69** | .04 | -.11 | .87** | | |
| Attitude change | -.33** | .10 | -.03 | .34** | .44** | |
| Function change | -.09 | -.23** | -.05 | .04 | .07 | .06 |

** Correlation is significant at the $p = .01$ level.

Need for cognition. The Need for Cognition scale (Cacioppo & Petty, 1982) was included to provide filler items. It too had an acceptable reliability of $\alpha = .78$ ($M = 4.85$, $SD = .98$). This instrument was comprised of eight items where 1 indicated a low need for cognition and 7 indicated a high need for cognition.

Message discrepancy. Message discrepancy was not manipulated; students could perceive varying levels of discrepancy regardless of which message they received. In order to determine whether the messages were either proattitudinal or counterattitudinal, respondents' existing attitudes toward tenure for professors were subtracted from their perception of the attitude of the author of the messages. Absolute values were not used. Instead, a negative value of this index indicated the degree to which the position advocated in the message deviated from the respondents' attitudes such that the message's position was more anti-tenure than the respondent's attitude. Alternatively, a positive value indicated that the position in the message was perceived as more pro-tenure than the respondent's own attitude. This variable had a mean of $-.92$ ($SD = 3.03$).

Attitude change. Attitude change was calculated by subtracting respondents' initial attitude score from their posttest attitude score. This index was then reverse scored so that a negative value indicated the degree to which respondents' attitudes changed and became more anti-tenure for professors; whereas, a positive value indicated the degree to which respondents' attitudes became more pro-tenure. The mean of this index was $-.68$ ($SD = 1.07$). The test-retest correlation was $r = .76$, with standardized item $\alpha = .59$.

Function change. To determine if there was any function change, an index was created so that a negative value indicated that a respondent's function became more specific; where, a positive value suggested that a respondent's function changed toward the experientially-schematic end of the continuum. The distribution of this variable was skewed slightly with $M = .19$ ($SD = .69$) and had a test-retest correlation of $.69$, with standardized item $\alpha = .26$. The correlations between all the measures utilized are presented in Table 1.

Procedure

After reading the directions for completing the questionnaire, the following definition of tenure was provided:

"Tenure is a procedure through which a faculty member's job performance is reviewed against departmental guidelines approximately six years after the individual has been hired by the

university. These guidelines include assessment of various duties that a professor is expected to perform, including teaching, research, and community service. Once tenure is granted by the university, a professor's dismissal from that university only occurs under one of three conditions, moral perversion, insubordination, or gross incompetence (e.g., Alzheimer's Disease)."

Respondents then completed a total of seven measures. First, respondents were presented with the pretest attitude and function measures. Then, each participant was presented with one of four experientially-schematic messages that included a strong or weak argument that either advocated the continuation or abolishment of tenure for university faculty. Respondents then completed the argument strength measure, indicated the degree to which the message presented supported the continuation or abolishment of tenure for faculty, and were assessed on their level of need for cognition. Measurements assessing respondents' posttest attitudes and posttest functions were taken last.

Results

Induction Check

Perceptions of argument strength. The means of the responses to the five bipolar items tapping respondents' perceptions of the strength of the argument within the message were averaged to form the perceived argument strength index. This index was distributed normally with a mean of 4.20 and a standard deviation of 1.27 ($N = 139$). The reliability of this measure was estimated by Cronbach's alpha, and was found to be $\alpha = .85$.

The perceived argument strength index was broken down by the advocacy induction and the argument strength induction. A two-way analysis of variance performed on these data indicated that there was a statistically significant and substantial main effect for the argument strength induction ($F(1,135) = 24.49, p < .05, r = .39, r' = .42$), such that strong arguments were perceived as stronger ($M = 4.77$) than weak arguments ($M = 3.77$). Neither the advocacy induction main effect nor the argument strength \times advocacy interaction effect were statistically significant. Moreover, neither effect size was substantial. Thus, the data are consistent with the hypothesis that the argument strength induction, and only the argument strength induction, was effective in inducing levels of perceived argument strength that varied in the anticipated direction.

Perceptions of message advocacy. The means of the responses to the six items tapping respondents' perceptions of the position advocated in the message were averaged to form the perceived message advocacy index. This index was distributed bimodally with a mean of 3.78 ($Mdn = 4.00$, mode = 1.00) and a standard deviation of 2.26 ($N = 139$). The reliability of this measure was found to be $\alpha = .94$.

The perceived message advocacy index was broken down by the advocacy induction and the argument strength induction. A two-way analysis of variance performed on these data indicated that there was a statistically significant and substantial main effect for the advocacy induction ($F(1,135) = 446.87, p < .05, r = .87, r' = .90$), such that the pro-tenure argument was perceived as more pro-tenure ($M = 5.84$) than the anti-tenure arguments ($M = 1.85$). Neither the argument strength induction main effect nor the argument strength \times advocacy interaction effect were statistically significant. Furthermore, they were not substantial. Thus, the data are consistent with the hypothesis that the advocacy induction,

TABLE 2
THE PREDICTION FOR THE RELATIONSHIP BETWEEN DISCREPANCY AND ATTITUDE CHANGE

| | Pro-tenure Message Initial Attitude | | |
|-------------------|-------------------------------------|-------------|----------------|
| | Anti-tenure (2) | Neutral (4) | Pro-tenure (6) |
| Discrepancy | 4 | 2 | 0 |
| Attitude change | 2 | 1 | 0 |
| Posttest attitude | 4 | 5 | 6 |

| | Anti-tenure Message Initial Attitude | | |
|-------------------|--------------------------------------|-------------|----------------|
| | Anti-tenure (2) | Neutral (4) | Pro-tenure (6) |
| Discrepancy | 0 | -2 | -4 |
| Attitude change | 0 | -1 | -2 |
| Posttest attitude | 2 | 3 | 4 |

and only the advocacy induction, was effective in inducing levels of perceived advocacy that varied in the anticipated direction.

Pretest Attitudes

The mean of the responses to the four items measuring respondents' initial attitudes toward tenure were averaged to form the pretest attitude index. The distribution of this index approximated closely the normal distribution. The mean of the index was 4.70 with a standard deviation of 1.53 ($N = 139$). The reliability of this measure was found to be $\alpha = .86$.

The pretest attitude index was broken down by the advocacy induction and the argument strength induction. A two-way analysis of variance performed on these data indicated that there was a statistically significant main effect for the advocacy induction ($F(1,135) = 5.24, p < .05$), such that those in the pro-tenure message condition were less pro-tenure initially ($M = 4.37$) than those in the anti-tenure message condition ($M = 4.96$). Although statistically significant, the effect size for this variance component was small ($r = -.18, r' = -.19$). Neither the argument strength induction main effect nor the argument strength \times advocacy interaction effect were statistically significant. Furthermore, they were not substantial. Therefore, the data indicate that pretest attitudes were not distributed uniformly across conditions as one would expect given random assignment. Consequently, it was necessary to control for pretest attitude in subsequent analyses. This goal was accomplished either by treating pretest attitude as a covariate or examining attitude change scores or both.

Evaluating the Hypotheses

To the extent that the matching hypothesis is correct, the relationship between discrepancy and conformity to message recommendations, as measured by posttest attitude, will have a negative slope when the message and the functional base of the attitude matches, i.e., the basis of the participants' attitude is schematic. This prediction is illustrated in Table 2.

On the top one-half of the table the discrepancy-posttest attitude relationship is illustrated for the pro-tenure message. These calculations assume that the pro-tenure message is perceived as advocating a position of 6 on a 7-point scale, that those holding an anti-tenure view have a pretest attitude of 2, those holding a neutral

TABLE 3
MEAN ATTITUDE CHANGE BROKEN DOWN BY THE ADVOCACY AND ARGUMENT STRENGTH INDUCTIONS

| Argument Strength | Message Advocacy | |
|-------------------|--|---|
| | Pro-tenure | Anti-tenure |
| Strong | $M = -.31$ $SD = .95$ $N = 26$ $t = -1.66, p > .05$ | -1.23 1.13 32 $-6.06, p < .05$ |
| Weak | $-.54$ 1.03 40 $-3.27, p < .05$ | $-.63$ 1.03 39 $-3.77, p < .05$ |

attitude have a pretest attitude of 4, and those holding a pro-tenure attitude have a pretest attitude of 6. Discrepancy is calculated by subtracting pretest attitude from the position advocated in the message (6). Attitude change is then computed by assuming that persons change one-half of the way toward the message. Finally, posttest attitude is the sum of pretest attitude and attitude change. The bottom one-half of the table illustrates the relationship for anti-tenure message. The only difference in this portion of the table is that the anti-tenure message is assumed to advocate a position of 2 on a 7-point scale. Comparing the first and third rows of each half shows the negative relationship between discrepancy and posttest attitude.

The responses to the four items measuring respondents' attitude after receiving the message were averaged to form the posttest attitude index. The distribution of this index approximated closely the normal distribution. The mean of the index was 4.01, and a standard deviation of 1.55 ($N = 137$) was found. The reliability of this measure was found to be $\alpha = .82$.

The posttest attitude index was broken down by the advocacy induction and the argument strength induction. A two-way analysis of covariance, with pretest attitude as the covariate, performed on these data indicated that there was a statistically significant main effect for the covariate ($F(1,132) = 184.72, p < .05$). Thus, if persons had pro-tenure pretest attitudes they tended to have relatively pro-tenure posttest attitudes, and if they had anti-tenure pretest attitudes they tended to have relatively anti-tenure posttest attitudes ($r = .76$). Moreover, there was a statistically significant main effect for the advocacy induction ($F(1,132) = 4.20, p < .05$). This main effect was overridden, however, by the advocacy \times argument strength interaction ($F(1,132) = 4.45, p < .05$).

These results are paradoxical. They reflect, however, the impact of controlling for pretest attitude scores that are not distributed uniformly across experimental conditions. The pattern of this interaction can, therefore, be viewed more clearly by observing change scores. These data are presented in Table 3. A two-way analysis of variance using attitude change as the dependent variable was performed on these data and showed that there was a statistically significant main effect for the advocacy induction ($F(1,133) = 7.78, p < .05, r = .21, r' = .27$), indicating that those exposed to the anti-tenure message changed more in a negative direction ($M = -.93$) than did those who were exposed to the pro-tenure message ($M = -.43$). This main effect was overridden by the statistically significant advocacy \times argument strength interaction effect ($F(1,133) = 5.38, p < .05$).

TABLE 4
UNSTANDARDIZED SLOPES OF POSTTEST ATTITUDE ON MESSAGE DISCREPANCY

| Argument Strength | Function | |
|-------------------|---|---|
| | Specific | Schematic |
| Strong | $B = -.18$ $r = -.41$ $N = 24$ $t = -2.11 (p < .05)$ | $-.21$ $-.41$ 30 $-2.36 (p < .05)$ |
| Weak | $-.25$ $-.51$ 38 $-3.52 (p < .05)$ | $-.16$ $-.29$ 33 $-1.67 (p > .05)$ |

Observing the means in Table 3 suggests that for weak messages there is little difference in attitude change between the pro-tenure and anti-tenure conditions, but that for strong arguments there was substantially more attitude change in the anti-tenure direction in the anti-tenure condition than in the pro-tenure condition. Correlational analyses are consistent with this interpretation. The correlation between the advocacy induction and attitude change is only $r = .04 (p > .05$, one-tailed test) in the weak argument condition, but is $r = .40 (p < .05$, one-tailed test) in the strong argument condition.

An additional striking feature of Table 3 is that all of the mean change scores are negative. Hence, on the average, attitudes changed in an anti-tenure direction. Within cell one-sample t -tests demonstrated that, statistically, change scores were significantly lower than zero with the exception of the strong argument/pro-tenure message, which did not differ significantly from zero. The reason for these outcomes could not be predicted from the other variables measured in this experiment.

Recall that two main predictions were made. First, the greatest conformity to message recommendations was predicted to occur when arguments were strong, functionally-relevant, and highly discrepant from respondents' initial attitudes. Second, matched weak arguments that differ little from respondents' initial attitudes will have little effect on conformity to message recommendations. To test these hypotheses, the functional type measure was dichotomized by dividing it at the median ($Mdn = 11$), excluding those participants who scored at the median. It is notable that the median was relatively low, 11 on a scale that ranged potentially from 5–35, indicating that the functional basis of the attitude for the vast majority of participants was specific, rather than schematic. The regression of posttest attitude on discrepancy was then calculated for each of the four combinations of functional type (specific/schematic) and argument strength (weak/strong).

The unstandardized slopes, correlation coefficients, number of participants, and tests of the significance of the unstandardized slopes are presented in Table 4. From this table it can be seen that, in general, the data are inconsistent with the matching hypothesis. Given that all the messages were schematic, the matching hypothesis would predict no change in the specific conditions. Contrary to this prediction, however, discrepancy *did* exert a substantial effect on posttest attitudes in both specific conditions. Moreover, inconsistent with the argument strength hypothesis, the effect of discrepancy on posttest attitudes was marginal in the schematic/weak argument condition.¹

Change in the Basis of the Attitude

Although functional attitude theorists emphasize that attitudes develop for various reasons, and others examine the manner in which matched or mismatched messages change attitudes, little consideration is given to the manner in which messages might affect the reasons, or functions, for which persons hold their attitudes. Because the functional bases of attitudes toward tenure were measured twice in this experiment, it was possible to examine if there was any change in the functional basis of the attitude as a function of receiving schematic messages regarding tenure.

The distribution of the change in the functional basis of the attitude exhibited a slight positive skew, and was leptokurtic. The mean of this distribution was .19 (mode = 0, 26.8% changing negatively or specifically and 44.2% changing positively or schematically), with a standard deviation of .69, and a reliability of $\alpha = .55$. A one-sample t -test on these data indicate that the mean differs significantly from zero ($t(137) = 3.22, p < .05$). Thus, overall, participants became more schematic from the pretest to the posttest.

Neither argument strength nor position advocated nor discrepancy affected directly the change in the functional basis measure. Nevertheless, perceptions of the position advocated in the message did correlate substantially with this variable, depending upon whether the participants received a pro-tenure or anti-tenure message. For those in the pro-tenure condition, the correlation between perceived message advocated and change in the functional basis of the attitude toward tenure was $-.30$ ($p < .05$, two-tailed test, $P(-.52 \leq \rho \leq -.08) = .95$); whereas, for those in the anti-tenure condition this correlation was $.14$ ($p > .05$, two-tailed test, $P(-.10 \leq \rho \leq .38) = .95$). The difference between these two correlations was both substantial and statistically significant ($z = 2.58, p < .05$, two-tailed test). Hence, for those who were exposed to the pro-tenure message, the more pro-tenure they perceived this message (i.e., the more accurate was their perception of the message) the more specific became the basis of their attitude. And, for those exposed to the anti-tenure message, there was a trend in the opposite direction. That is, the more accurately one perceived the anti-tenure message the more schematic became the basis of one's attitude.

Moreover, attitude change correlated differentially with the change in the functional basis of the attitude, contingent upon whether participants were exposed to the weak or strong argument. For those participants in the weak argument condition there was a slight tendency for an increase in attitude change to be accompanied by becoming more schematic ($r = .20, p > .05$, two-tailed test, $P(-.02 \leq \rho \leq .42) = .95$); whereas, for participants in the strong argument condition there was a slight tendency for an increase in attitude change to be accompanied by becoming less schematic ($r = -.14, p > .05$, two-tailed test, $P(-.39 \leq \rho \leq .11) = .95$).

In sum, becoming more schematic was associated with perceiving the pro-tenure message inaccurately or the anti-tenure message accurately. Moreover, it was associated with greater attitude change when one read the weak argument, but less attitude change when one read the strong argument. Becoming more specific was associated with perceiving the pro-tenure message accurately or the anti-message inaccurately. Furthermore, it was associated with less attitude change when exposed to the weak argument, but greater attitude change when exposed to the strong argument. Notably the causal direction of these data is unclear. That is, function change might be antecedent to the accuracy of the perception of message advocacy,

or consequent to it. Similarly, attitude change could be either antecedent or consequent to function change.

Discussion

To Match or Mismatch

According to the functional approach to attitudes, messages that target an attitude function should be more persuasive than messages that contain function-irrelevant information. This study was conducted to test whether this matched hypothesis could be demonstrated with the experiential function as it had in the past with other functions (Clary et al., 1998; Katz, McClintock, & Sarnoff, 1957; Petty & Wegener, 1998; Snyder & De Bono, 1985). These data were not consistent with this relationship; attitude function did not contribute to attitude change.

Shavitt (1989) asserts that some attitude objects are based on multiple functions, although one function may take precedence over the others. The attitude object here, tenure, was conceptualized more as a personal characteristic (Herek, 1986), assuming that students' attitudes about their professors would be based largely on their *experiences* with professors. The inaccuracy of this assumption may explain the lack of effect for the functional target of the message. For instance, it is reasonable to expect that some students would have a utilitarian function with regard to their attitudes about tenure, asking themselves, "What benefits do I receive from professors being granted tenure?" A social-expressive function, where students are pro-tenure or anti-tenure in order to align themselves with important referent groups, seems equally plausible as well. One suggestion for future research would be to have research participants rate the extent to which they perceive that their attitudes toward a particular object are based on different functions.

Discrepancy

Not only was the functional target of the message expected to motivate respondents to comply with message recommendations, but the discrepancy between students' initial positions and the position advocated in the message also was predicted to stimulate conformity to message recommendations. Table 2 demonstrated that if a linear discrepancy model of attitude change existed (French, 1956), the data would produce a negative slope when posttest attitude scores were regressed onto message discrepancy. Although there was conformity to message recommendations when students experienced discrepancy between their own attitudes and the perceived attitudes of the author of the message, this relationship existed for all experimental conditions (contrary to the matched hypothesis). This indicates that neither argument strength nor advocacy contributed systematically to conformity to message recommendations. In other words, it did not matter if students received a weak/strong or pro-tenure/anti-tenure message; message discrepancy, and message discrepancy alone, led to conformity to message recommendations.

Analysis of variance results indicated that respondents did perceive both the strength and advocacy of the message accurately. Why, then, did argument strength not affect posttest attitudes? Perhaps one answer to this question lies within the students themselves. It may have been the case that this was the first opportunity students had to actually think about their own positions regarding tenure. Although a definition of tenure was provided to the participants of this study, it cannot be

determined whether or not they knew what tenure was prior to reading that definition. Therefore, regardless of argument strength, the topic alone stimulated students to evaluate the message in relation to the position advocated in the message. In other words, merely exposing students to a message regarding tenure may have provided enough stimulation, argument strength notwithstanding, to experience attitude change.

Positive Attitude, Negative Attitude Change

Results indicated that students' initial attitudes toward tenuring professors generally was positive ($M = 4.70$), although those in the anti-tenure condition were more pro-tenure initially. This can be compared to how attitudes changed after receiving the message. The data demonstrated that, in general, after receiving a message regarding the tenuring of university faculty, attitudes became more anti-tenure, regardless of argument strength or message advocacy. Both these findings were interesting. Considering both simultaneously, however, was perplexing. How do initial positive attitudes change and become more negative, despite the actual position advocated in the message?

One explanation for these results can be explained partially by the boomerang or contrast effect (Hovland, Harvey, & Sherif, 1957). This effect is grounded in a latitude of rejection. Hovland and his colleagues argue that when respondents are given a message, the position advocated in the message is compared to their own position. If the position advocated falls within the respondent's latitude of acceptance, then the position is assimilated and little attitude change takes place. Alternatively, if the respondent perceived the position advocated was markedly different than his or her own position, then that message falls into the latitude of rejection, where there is reinforcement of an attitude already held.

In the present study, however, there was a change in attitude. Extending the findings of Hovland, Harvey, and Sherif (1957), what if advocating a perceived extreme position motivated respondents to generate internal messages? These internal messages, in turn, would move the respondent's attitude further away from the extreme position advocated. For example, a woman who initially identifies herself as pro-choice and receives a message advocating for banning abortions nationwide would generate internal messages against that recommended position and become more pro-abortion.

Although this explains how the respondents in the anti-tenure conditions reacted, it does not address the change experienced by students in the pro-tenure conditions. What stimulated the people in this latter condition to become more *anti-tenure*? None of the variables measured in the current study accounted for this change.

One explanation for these data, however, is what might be called a rebellion of absolutes in which students were opposed radically to continue granting tenure to faculty because what their *perceptions* of tenure were, rather than what was the actual definition of tenure. After receiving a message advocating that tenure should be granted to all faculty (schematic message), students accessed other beliefs associated with tenure. For example, some beliefs regarding tenure is that once a faculty member receives tenure, that member ceases to care about students, becoming rather lazy and uninvolved with university activities. Because the vast generalization of the pro-tenure message, it stimulated students to access their own beliefs (stereotypical perhaps) to react negatively to the message and become anti-tenure. In short, the

pro-tenure message enacted another generalization about professors and tenure, and this generalization was negative.

Another possible explanation for the anti-tenure attitude change in every experimental condition is the negativity effect. People favor and give more weight to negative information than to positive information when forming impressions of others (De Bruin & Van Lange, 2000). Therefore, students exposed to information that—in any way—could be perceived as negative experienced an attitude shift in the anti-tenure direction. For example, the strong argument/pro-tenure message contained information that discussed the “predominant research role” of university faculty and went on to detail the number of articles faculty had published. Although faculty may view this as a positive argument, students could feel otherwise. In fact, some students may believe that productivity is the sole concern of most faculty, and that this desire to publish detracts from the teaching environment.

What? Functions Change?

One of the most fundamental tenets of the functional approach is the assumption of function stability—perhaps more stable than attitudes themselves. These data indicate that a persuasive message *can* impact attitude functions, a finding which calls into question the stability of functions. Specifically, it was found that positive attitudes were associated with the experientially-specific function and negative attitudes were associated with the experientially-schematic function. Hence, students who were relatively pro-tenure based this attitude on individual interactions and did not generalize this attitude to include all professors. Alternatively, students who had more anti-tenure attitudes *were* more likely to generalize to other professors.

Based on this evidence, a reconceptualization of the functional approach to attitudes and their change is in order. This result is exciting particularly because it indicates that targeting attitude change might be premature, instead focusing on *why* the attitude is held (its function) would be more useful. Knowing how to change functions could then, in turn, help change attitudes. For example, ego-defensives often are prejudice toward specific samples of the population including homosexuals (Herek, 1987) and African-Americans (Katz, McClintock, & Sarnoff, 1957). To change an attitude that serves an ego-defensive function is a difficult task because mere exposure to any message regarding this type of attitude object will serve to increase the respondent’s defensiveness. Instead, a fruitful option would be to attempt to change the function for which the attitude is held. Thus, generating messages that stimulate change from an ego-defensive function to a value-expressive function would facilitate attitude change in the long run because then one could target the value-expressive function in an attempt to change the attitude. This finding added another important dimension to message design.

Limitations

One limitation of the current study to be reiterated is the restriction in range for the attitude function measure. The highest score on this measure was 4.20 (where 1 indicated more of an experientially-specific function and 7 indicated more of an experientially-schematic function). This finding was surprising particularly in that it suggests that students do not generalize across professors, rather their experientially-based attitudes are formed from independent interactions with different professors.

Another limitation that should be discussed is the attitude object of the study. The

attitude measure contained items regarding tenuring professors; whereas the function measure consisted of statements regarding professors in general. Initially, this was done assuming that if functions were the basis of an attitude, than that attitude would be contingent upon the function it served. Specifically, if one had a experientially-schematic function in which professors were perceived positively, than attitudes toward tenuring professors should also be positive, based on the conceptualization of the functional approach. This assumption was premature. The attitudes students have toward professors refer to a more generalized attitude; whereas, the attitudes students have toward the different aspects or dimensions of a professor, such as tenure, are more specific. Therefore, respondents' attitudes toward the tenure system for faculty may be negative; however, they simultaneously may have positive attitudes regarding professors in general.

Future functional research in this area would benefit from elucidating the relationship between an attitude function regarding a general versus specific aspect of an attitude object. This suggestion might be difficult to pursue pragmatically depending upon the attitude object of interest. If two constructs are inextricably linked, the specific versus general distinction would be tenuous. For example, assessing attitude functions regarding HIV/AIDS with certain samples of the population would be so strongly associated with homosexuals that respondents would be unable or unwilling to make the distinction between their general or specific attitudes about those two constructs.

This illustration can be contrasted with another example in which respondents easily distinguish between general attitudes toward an attitude object and specific attitudes toward that same object. For instance, a person who has a generally positive attitude about drinking alcoholic beverages could have an equally negative attitude about driving while intoxicated. Thus, research examining attitudes and their functions must examine the relationship between general versus specific attitudes and their functions.

Selecting the tenuring of professors as the attitude object for this study might have been problematic for another reason. When students think of the label professor, a myriad of characteristics are accessed. Intelligent, fair, old, nerd, hard working, research, outdated, uncaring, and egocentric are all characteristics that students may associate with being a professor. Tenure, however, may not be a readily accessible characteristic that students associate with being a professor because in their perception being a "tenured" professor has little or nothing to do with them personally. Future work would benefit by conducting focus groups to gain knowledge of the most salient characteristics identified with professors and using those traits to examine the functional basis of the attitudes regarding professors.

The last limitation to be addressed is the finding that initial attitudes were not uniformly distributed across experimental conditions despite randomization. This result was surprising but statistically controlled for using the pretest attitude measure as a covariate when evaluating the hypotheses.

In summary, the data were not consistent with the matched hypothesis predicted from past research regarding other attitude functions (Clary et al., 1998; Katz, McClintock, & Sarnoff, 1957; Snyder & De Bono, 1989). Attitude function was not associated with conformity to message recommendations. Moreover, argument strength did not predict whether or not respondents conformed to message recommendations; *both* weak and strong arguments stimulated attitude change. Confor-

mity to message recommendations was contingent upon the discrepancy between the respondent's initial attitude and the position advocated in the message. Interestingly, the mean attitude change in every experimental condition was negative, indicating that regardless of the position advocated in the message, respondents' attitudes became increasingly anti-tenure.

Last, despite the conceptual stability associated with functions, these data demonstrated that functions can and do change. Although the causal direction of change is ambiguous, it may be the case that a longer causal string exists with message advocacy and function change as mediator variables and argument strength and attitude change as independent and dependent variables, respectively. This latter finding offers fertile ground for future empirical investigations.

Notes

¹Because the range of the measure of the functional basis of the attitude was truncated, another method of testing the hypothesis is to dichotomize the discrepancy measure and examine the regression of posttest attitude on the attitude's functional basis. These analyses were performed, and produced results which require one to draw the same conclusions as presented in the text. These additional analyses were not presented here because they were redundant.

References

- Allen, M., & Burrell, N. (1992). Evaluating the believability of sequential arguments. *Argumentation and Advocacy*, 28, 135–144.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42, 116–131.
- Cacioppo, J. T., Petty, R. E., & Morris, K. J. (1983). Effects of need for cognition on message evaluation, recall, and persuasion. *Journal of Personality and Social Psychology*, 45, 805–818.
- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*, 74, 1516–1530.
- De Bruin, E. M., & Van Lange, P. M. (2000). What people look for in others: Influences of the perceiver and the perceived on information selection. *Personality and Social Psychology Bulletin*, 26, 206–219.
- Dillard, J. P. (1993). Persuasion past and present: Attitudes aren't what they used to be. *Communication Monographs*, 60, 90–97.
- Fiske, S. T., Neuberg, S. L., Beattie, A. E., & Milberg, S. J. (1987). Category-based and attribute bases reactions to others: Some information conditions of stereotyping and individuating processes. *Journal of Experimental Social Psychology*, 23, 399–427.
- French, J. R. (1956). A formal theory of social power. *Psychological Review*, 63, 181–194.
- Gastil, J. (1992). Why we believe in democracy: Testing theories of attitude functions and democracy. *Journal of Applied Social Psychology*, 22, 423–450.
- Herek, G. M. (1987). Can functions be measured? A new perspective on the functional approach to attitudes. *Social Psychology Quarterly*, 50, 285–303.
- Herek, G. M. (1986). The instrumentality of attitudes: Toward a neofunctional theory. *Journal of Social Issues*, 43, 99–114.
- Hovland, C. I., Harvey, O. J., & Sherif, M. (1957). Assimilation and contrast effects in reactions to communication and attitude change. *Journal of Abnormal and Social Psychology*, 55, 242–252.
- Hunter, J. E., & Gerbing, D. W. (1982). Unidimensional measurement, second order factor analysis, and causal models. *Research in Organizational Behavior*, 4, 267–320.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24, 163–204.
- Katz, D., McClintock, C., & Sarnoff, I. (1957). The measurement of ego-defense as related to attitude change. *Journal of Personality*, 25, 465–474.
- Lavine, H., & Snyder, M. (1996). Cognitive processing and the functional matching effect in persuasion: The mediating role of respondents' perceptions of message quality. *Journal of Experimental Social Psychology*, 32, 580–604.
- Miller, G. R., & Steinberg, M. (1975). *Between people: A new analysis of interpersonal communication*. Chicago: Science Research Associates, Inc.
- National Institute on Alcohol Abuse and Alcoholism (2000). *Make a difference: Talk to your child about alcohol*. National Institutes of Health, publication no. 00-4314.

- Petty, R. E., & Cacioppo, J. T. (1979). Issue involvement can increase or decrease persuasion by enhancing message-relevant cognitive responses. *Journal of Personality and Social Psychology*, 37, 1915–1926.
- Petty, R. E., & Wegener, D. T. (1998). Matching versus mismatching attitude functions: Implications for scrutiny of persuasive messages. *Personality and Social Psychology Bulletin*, 24, 227–240.
- Shavitt, S. (1989). Operationalizing functional theories of attitude. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), *Attitude structure and function* (pp. 311–338). Hillsdale, NJ: Erlbaum.
- Shavitt, S. (1990). The role of attitude objects in attitude functions. *Journal of Experimental Social Psychology*, 26, 124–148.
- Smith, M. B., Bruner, J. S., & White, R. W. (1956). *Opinions and Personality*. New York: Wiley.
- Snyder, M., & De Bono, K. G. (1985). Appeals to image and claims about quality: Understanding the psychology of advertising. *Journal of Personality and Social Psychology*, 49, 586–597.
- Snyder, M., & De Bono, K. G. (1989). Understanding the functions of attitudes: Lessons from personality and social behavior. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), *Attitude structure and function* (pp. 361–381). Hillsdale, NJ: Lawrence Erlbaum.
- Wechsler, H., Lee, J. E., Kuo, M., & Lee, H. (2000). College binge drinking in the 1990s: A continuing problem—results of the Harvard School of Public Health 1999 college alcohol study. *Journal of American College Health*, 48, 199–210.

Appendix A

Messages

Strong, Pro-tenure Message

“We, the members of the Executive Committee for Academic Integrity, support the present tenure system at [the university]. We have reached this conclusion based on the following four critical criteria our analysis identified.

First, the faculty members at [the university] are some of the best professors in the state. This fact is clearly demonstrated each semester by the computerized evaluations (SIRS forms) completed by students who rate their professors favorably.

A second factor we have identified is the predominant research role of our faculty. Last year, our approximately 2,000-member faculty published 5,634 articles in prestigious academic journals, helping to make [the university] one of the top-ranked universities in the Big Ten.

A third criterion to be discussed is the faculty’s continued active role in our community. Over 90 percent of professors on campus have donated their time and expertise to help community organizations in Michigan, focusing on issues that alleviate important technological, agricultural, and social problems.

Fourth, tenure provides faculty members the security and freedom to express unpopular points of view. This freedom is critical to professors’ and students’ academic pursuits. If the university continues to grant tenure, students are assured of being exposed to different views, not only to socially acceptable opinions, from all types of faculty.

It is for these reasons that the Executive Committee for Academic Integrity strongly supports and advocates that [the university] retain its present tenure policy.”

Weak, Pro-tenure Message

“We, the members of the Executive Committee for Academic Integrity, support the present tenure system at [the university]. We have reached this conclusion based on the following four critical criteria our analysis identified.

First, the faculty members at [the university] consistently state how much they enjoy the atmosphere on campus, noting the size and pleasant color of most of the offices in their departments. In addition, most of the offices have relatively large windows that provide them with pleasing views of campus.

A second factor we have identified is the role our faculty take keeping up with research. Last year, our faculty reported they enjoyed watching research documentaries on television. In addition, the subject that many of these documentaries focused on included historical events, biological and physical marvels, and people's psychological health.

A third criterion is the faculty's attitude toward our community. Approximately one-third of professors at [the university] live in the community in which they teach. Many drive from areas such as East Lansing and Okemos. As such, they can relate better to one another as well as have shorter, more time-saving commutes to campus.

Fourth, tenure provides professors with security so that they feel less pressured and stressed. A majority of professors want tenure because it makes them feel good about themselves and raises their self-esteem. Tenure will promote self-esteem and professors will be happy as a result.

It is for these reasons that the Executive Committee for Academic Integrity supports that [the university] retain its present tenure policy."

Strong, Anti-tenure Message

"We, the members of the Executive Committee for Academic Integrity, believe that the present tenure system at [the university] should be abolished. We have reached this conclusion based on the following four critical criteria our analysis identified.

First, the faculty members at [the university] are some of the worst professors in the state. This fact is clearly demonstrated each semester by the computerized evaluations (SIRS forms) completed by students who rate their professors poorly.

A second factor we have identified is the subordinate research role of our faculty. Last year, our approximately 2,000-member faculty only published 402 articles. In addition, these articles appeared in popular magazines rather than in prestigious academic journals, failing to make [the university] one of the top-ranked universities in the Big Ten.

A third criterion to be discussed is the faculty's continued inactive role in our community. Less than 10 percent of professors on campus have donated their time and expertise to help community organizations in Michigan, directing research toward esoteric theoretical issues and not toward important technological, agricultural, and social problems.

Fourth, tenure provides professors with the security not to work as hard as they once did. Studies show that 79 percent of professors who were granted tenure from their universities tended to decrease their workload by not teaching as many classes nor conducting as much research after they had received tenure.

It is for these reasons that the Executive Committee for Academic Integrity strongly supports and advocates that [the university] abolish its present tenure policy."

Weak, Anti-tenure Message

"We, the members of the Executive Committee for Academic Integrity, believe that the present tenure system at [the university] should be abolished. We have reached this conclusion based on the following four critical criteria our analysis identified.

First, the faculty members at [the university] consistently state how much they dislike the atmosphere on campus, noting the small size and plain color of most of

the offices in their departments. In addition, most of the offices have relatively small windows that only provide them with views of other buildings on campus.

A second factor we have identified is the role our faculty take in scarcely keeping up with research. Last year, our faculty reported they did *not* enjoy watching research documentaries on television. The subject that many of these documentaries focused on included historical events, biological and physical marvels, and people's psychological health.

A third criterion is the faculty's attitude toward our community. Less than one-third of professors at [the university] live in the community in which they teach. Many faculty commute from areas such as Ann Arbor, Battle Creek, and Grand Rapids. As such, they fail to relate to one another as well as have longer, more time-consuming commutes to campus.

Fourth, tenure only provides professors with a false sense of security, which has little to do with their actual work teaching or conducting research. This, in turn, may lead to feelings of helplessness in that faculty will no longer feel that they can control their own destiny. This would result in professors feeling more stressful and pressured.

It is for these reasons that the Executive Committee for Academic Integrity supports that [the university] abolish its present tenure policy."

Appendix B

Confirmatory Factor Analysis Results

| Item | <i>F</i> | <i>M</i> | <i>SD</i> | <i>N</i> |
|---|----------|----------|-----------|----------|
| PRETEST ATTITUDE | | | | |
| 1. I oppose professors being granted tenure. | .69 | 4.57 | 1.83 | 139 |
| 2. Tenuring deserving professors is something of which I am in favor. | .91 | 4.81 | 1.81 | 139 |
| 3. I believe that abolishing tenure would be a good thing for the university. | .81 | 4.42 | 1.88 | 139 |
| 4. I think that tenure should be granted to deserving faculty. | .71 | 5.01 | 1.76 | 139 |
| POSTTEST ATTITUDE | | | | |
| 1. I oppose professors being granted tenure. | .80 | 4.32 | 1.95 | 137 |
| 2. Tenuring deserving professors is something of which I am in favor. | .81 | 4.38 | 1.83 | 137 |
| 3. I believe that abolishing tenure would be a good thing for the university. | .91 | 4.35 | 1.94 | 137 |
| 4. I think that tenure should be granted to deserving faculty. | .44 | 2.97 | 1.98 | 137 |
| PRETEST FUNCTION | | | | |
| 1. One is likely to make errors when thinking that all professors are the same. | .31 | 1.78 | 1.26 | 139 |
| 2. My opinions about professors mainly are based on whether or not someone I care about is a professor. | .38 | 1.67 | 1.26 | 138 |

| Item | F | M | SD | N |
|---|-----|------|------|-----|
| 3. It is useful for students to make generalizations about professors based on professors they have had for classes in the past. | .36 | 3.47 | 1.80 | 139 |
| 4. Students are generally right when they assume that all professors are the same. | .55 | 1.83 | 1.30 | 139 |
| 5. It is useful for students to form attitudes about professors based on specific incidences rather than overall generalizations. | .27 | 2.44 | 1.47 | 139 |

POSTTEST FUNCTION

| | | | | |
|---|-----|------|------|-----|
| 1. One is likely to make errors when thinking that all professors are the same. | .47 | 2.45 | 1.58 | 138 |
| 2. My opinions about professors mainly are based on whether or not someone I care about is a professor. | .48 | 1.86 | 1.40 | 138 |
| 3. It is useful for students to make generalizations about professors based on professors they have had for classes in the past. | .40 | 3.38 | 1.92 | 138 |
| 4. Students are generally right when they assume that all professors are the same. | .62 | 2.03 | 1.37 | 137 |
| 5. It is useful for students to form attitudes about professors based on specific incidences rather than overall generalizations. | .25 | 2.45 | 1.52 | 138 |

PERCEIVED ARGUMENT STRENGTH

I believe the report is:

| | | | | |
|------------------------------|-----|------|------|-----|
| 1. Convincing/unconvincing | .83 | 3.97 | 1.76 | 139 |
| 2. Reasonable/unreasonable | .83 | 4.28 | 1.64 | 138 |
| 3. Unsound/Sound | .71 | 4.13 | 1.62 | 139 |
| 4. Believable/not believable | .64 | 4.29 | 1.60 | 139 |
| 5. Not plausible/plausible | .63 | 4.34 | 1.34 | 138 |

PERCEIVED MESSAGE ADVOCACY

The author . . .

| | | | | |
|---|-----|------|------|-----|
| 1. of the message opposes professors being granted tenure. | .94 | 4.00 | 2.76 | 139 |
| 2. of the message is in favor of abolishing tenure for all faculty. | .91 | 4.02 | 2.75 | 138 |
| 3. of the message thinks that professors should be granted tenure if they merit it. | .72 | 3.71 | 2.39 | 138 |
| 4. of the message is in favor of tenuring professors. | .97 | 4.01 | 2.65 | 139 |
| 5. believes that abolishing tenure would be a good thing for the university. | .93 | 4.13 | 2.70 | 139 |
| 6. thinks that tenure should be granted to all faculty. | .62 | 2.87 | 2.14 | 139 |

Received: October 6, 2000

Accepted: March 20, 2001

Copyright © 2003 EBSCO Publishing

Copyright of Communication Monographs is the property of Taylor & Francis Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.