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Linguistic markers of association as persuasive devices in mediated appeals

Hall, John Robert, Ph.D.
The University of Arizona, 1992
LINGUISTIC MARKERS OF ASSOCIATION AS PERSUASIVE DEVICES
IN MEDIATED APPEALS

by

John Robert Hall

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1992
As members of the Final Examination Committee, we certify that we have read the dissertation prepared by John Robert Hall entitled LINGUISTIC MARKERS OF ASSOCIATION AS PERSUASIVE DEVICES IN MEDIATED APPEALS and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copy of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

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SIGNED: John R. Hall
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ABSTRACT

The framework developed and tested in this study argues that the success of mediated persuasive appeals can be partially explained by the interaction among linguistic and extra-linguistic variables. It was predicted that sources would be most persuasive when the topic was of little importance and the source was liked by the viewer and that sources using intense language would be evaluated as believing the arguments presented more than sources using less intense language. These predictions were supported. The study also supported a predicted interaction between familiarity and liking such that familiarity works to the advantage of liked sources and to the disadvantage of disliked sources. It was also posited that intensity would have a differentially effective role for liked and disliked sources such that it works to the advantage of liked sources and to the disadvantage of disliked sources. This hypothesis was solely supported in proattitudinal appeals when intensity was operationalized using structural criteria and in counterattitudinal appeals when intensity was operationalized as perceived by the viewer. Finally, a 3-way interaction was predicted suggesting that familiarity and intensity would combine such that high familiarity results in increases in attitude change with the use of language that is more intense than expected for liked sources and decreases in attitude change for disliked sources. This hypothesis was not supported. In fact, both highly familiar sources benefited from use of language that was less intense than expected.
CHAPTER 1
RATIONALE AND RESEARCH HYPOTHESES

Language plays a central role in human communication and, consequently, in communication research. However, a lack of consensus reigns regarding communication researchers' appropriate domain of concern. Certainly, philosophers of language and linguists assert legitimate claims over central language questions -- philosophy of language being concerned primarily with "meaning" and linguistics being concerned predominantly with language structure (Austin, 1970; Benders, 1987; Grice, 1975, 1985; Kripke, 1977, 1980; Searle, 1969, 1975, 1979). Yet, both disciplines recently have demonstrated interest in the social use of language. However, philosophers and linguists overlook, for the most part, a functional concern of communication researchers: How do messages affect, rather than reflect, attitudes, intentions, and social relationships? This manuscript proposes a framework leading to testable hypotheses regarding the role of language variables in videotaped persuasive messages. As will be discussed later, video presentation by known narrators may provide a close approximation of interpersonal communication in many respects; therefore, the role of language variables in face-to-face persuasion situations will be examined first.

Persuasive speech acts comprise propositions composed of referents and predications, with illocutionary force signaled by syntactic structure (word order), context, choice of words (mood, tense, and lexical items with various connotations), and intonation (for spoken acts) or punctuation (for written acts). Furthermore, it will be
suggested that these speech acts include a "social sense" that predictably facilitates or inhibits persuasive effects. The term "social sense" is used in a Fregean (Frege, 1980) manner to denote the "mode of presentation" of an utterance that makes manifest the relational identities of the speaker and hearer presumed by the speaker. Additionally, it will be proposed that this social sense can be embedded in "linguistic markers of association" which speakers employ and receivers interpret, responding by yielding or bolstering attitudes. Thus, the argument includes claims about interactions between linguistic and extra-linguistic variables in determining attitude change. To make such claims, the definition of "attitude" must be made clear.

Attitudes

Several sources provide comprehensive, communication-oriented reviews of attitude research from the late 1800's to present (Fishbein & Ajzen, 1975; Himmelfarb & Eagly, 1974; McGuire, 1969, 1986; Miller, M. Burgoon, & J. Burgoon, 1984). Such a review is beyond the scope of the present inquiry; however, a brief synopsis will highlight differences in traditional treatments of the construct and the definition employed here.

Originally, attitudes were defined conceptually as attentional sets -- a readiness-to-respond in a predetermined manner (Allport, 1935; Himmelfarb & Eagly, 1974; McGuire, 1969; Miller et al., 1984). During the 1930's and 1940's, additional emphasis was placed on the evaluative dimension to differentiate the construct from habitual action (Krech & Crutchfield, 1948; Thurstone, 1929, 1931). Concurrently, drive-
reductionist theorists supplied the motive force lacking in readiness-to-respond explanations (J. Burgoon, M. Burgoon, Miller, & Sunnafrank, 1981; Doob, 1940, 1947; Staats & Staats, 1958). In the 1950's and 1960's, a components-of-attitudes approach gained favor in which attitudes were considered to include three elements: cognitive, affective, and behavioral (Himmelfarb & Eagly, 1974; Katz & Stotland, 1959; McGuire, 1969). The present consensus within communication literature suggests that an attitude is best viewed as a consistent evaluation, either positive or negative, of some object or topic (Insko, Songer, & McGarvey, 1974; Oskamp, 1977; Petty & Cacioppo, 1981). From this perspective, attitudes can be conceptualized at a mid-point on a continuum of evaluative cognitions -- from opinions, which may be extremely transient, to values, which should be enduring (Miller et al., 1984; Rokeach, 1973).

Here, attitudes are assumed to include three components: (1) **content** (beliefs, assertions, or propositions), (2) **evaluation of content** (including polarity, magnitude, and centrality), and (3) **conative force** (predisposition to act in a way consistent with the evaluation of content). Clearly, to change a receiver's attitude, one must compel the receiver to modify one or more of these three dimensions. The present framework concentrates on the evaluative dimension of attitudes since this component most likely determines which beliefs one holds and the degree to which one acts consistently with those beliefs.
Within the evaluative component, "polarity" will refer to the direction of assessment on a dichotomous scale, positive or negative, while "magnitude" will denote the amplitude of that polarity. "Centrality" will refer to the degree to which the belief is important to the individual: Central beliefs (or values) represent the most "core" assumptions adopted by the individual (Rokeach, 1973). While polarity, magnitude and centrality are often collapsed into an overall "valence," the terms will be kept separate to emphasize how one might hold with certainty unexamined or trivial beliefs or, conversely, feel ambivalent about moral issues with important consequences. The separation also will help to explain the varying willingness of a hearer to invest effort in considering propositions offered by a speaker.

From this perspective, opinions, attitudes, and values differ solely along the centrality dimension. Consequently, the term "attitude" is used to refer to all three. Those attitudes that are held most positively or negatively and that are most central to the person's core assumptions -- values -- are presumed to be most difficult to change. When unnecessary to differentiate between magnitude and centrality, the two dimensions will be collapsed and referred to as "strength" of an attitude.

While use of the term "attitude" or "opinion" seems conversationally appropriate for both propositional and non-propositional targets, a distinction will be made here. In the case of the propositional target, the evaluative object is an assertion or belief -- a cognitive, linguistic representation of a state-of-affairs
in the world-of-interest. Thus, "attitude" may be usefully viewed as an evaluation of probabilistic judgments -- beliefs -- about that state-of-affairs (Fishbein, 1963; Fishbein & Ajzen, 1975). In this instance, the evaluative target is an intrinsic component of the attitude. In the case of a non-propositional object, the evaluative object is extrinsic to the cognitive representation. Although non-propositional targets (e.g., speakers) may be judged along the same evaluative dimensions of polarity, magnitude, and centrality, keeping the two cases distinct will help clarify the role of propositional content later in this manuscript. Used in the latter sense, "attitude" is synonymous with "evaluation," "assessment," or "impression." Since the two senses of "attitude" are not synonymous, they will not be used interchangeably. For a non-propositional object, the term "evaluation" or "assessment" will be used. For a propositional object, the term "attitude" will be used.

It is assumed that speakers can effect attitude change by asserting propositions. If the hearer is motivated to entertain a proposition, it may be judged to conform or clash with held beliefs or evaluations of beliefs. When a counterattitudinal proposition does not relate to core assumptions (secondary beliefs), ancillary factors such as "speaker reward value" may represent the best predictors of persuasive effects. Conversely, when such propositions pertain to core assumptions (central beliefs), speakers may encounter significant resistance (Brandt, 1979; Chaiken, 1980; Feather, 1982a; Festinger & Maccoby, 1964; Fishbein & Ajzen, 1981; Kelman, 1961; McCroskey, 1969; Petty & Cacioppo, 1986; Triandis, 1980). In both cases (secondary and
central beliefs), language variables may provide a mechanism to encourage attitude adoption by sending a social or relational message consistent with hearer preferences. From this perspective, "messages" are assumed to include more than propositional content; they include a "command" function that predictably affects hearer inferences (Ervin-Tripp, 1971; Scotton, 1983; Watzlawick, Beavin & Jackson, 1967).

Messages

M. Burgoon, Jones, and Stewart (1974) and J. Burgoon, Buller, and Woodall (1989) have called for message-based approaches to the study of human communication. This appeal has evolved from difficulties inherent in identifying speaker intentions (a central concern to philosophers of language) or consistent receiver inferences (a central concern of psychologists and psycholinguists). The hope persists that message attributes can be specified that consistently lead to communicative effects. Consequently, many researchers attempt to identify effects attributable to language variables such as language intensity and verbal immediacy (Bowers, 1963; Bradac, Bowers, & Courtright, 1979, 1980; Bradac & Wisegarver, 1984; Miller & Basehart, 1969; Wiener & Mehrabian, 1968). Frequently, however, communication researchers eschew past work in linguistics, psychology, philosophy, and cognitive science to arrive at behavioristic predictions or post hoc causal models, without benefit of reasonable axioms to explain observed effects. If the claims presented here are correct, any search for linguistic variables whose main effects consistently account for attitudinal change is futile. Rather, interactions between language and extra-linguistic variables
should more consistently explain persuasive outcomes. To make such a claim, the question must be posed, "What constitutes a 'message'?"

**Defining 'Message'**

The term 'message' can be used to denote anything from iconic representation to spiritual revelation. Within the present work, the term refers to a tri-partite cluster of inferences drawn by the hearer on the basis of speaker actions. It is suggested that "what a speaker *means* by such-and-such" can be restated as "what the speaker intends for the hearer to understand from the utterance (spoken or written). This includes the propositional content entailing reference and predication, linguistic and lexical choices used to express those propositions, and inferences that are normatively and relationally drawn regarding rights and obligations incurred or enjoyed by making these statements using such linguistic or lexical choices." In philosophical terms, messages are derived from three meaning components: linguistic, pragmatic, and social.

**Linguistic, Pragmatic, and Social Meaning as Components of Message**

Linguists have traditionally been interested in the phonologic, morphologic, syntactic, and semantic components of language. Most linguists reasonably conclude that language is rule-governed and that any competent speaker learns to use correctly at least one dialect of the native language (Allan, 1986; Chomsky, 1975, 1980; Lightfoot, 1982). Communication researchers have been most interested in understanding how this rule-governed code functions -- how it accomplishes communicative work (Jacobs, 1985). Certainly, linguistic code provides a medium for
eliciting thoughts in hearers, however, much debate remains concerning the fidelity of the match between speaker intentions and hearer inferences. Part of a reasonable explanation lies in the deterministic information embedded in the code -- linguistic meaning.

**Linguistic meaning**

Implicitly since ancient Greek philosophers and explicitly, at least, since John Locke's (1959) essay originally published in 1691, the *code model* has provided a simple, mechanistic explanation of human communication. Updated by Shannon and Weaver (1949), the paradigm suggests that a source symbolically encodes a meaningful message, the symbols are transmitted through a channel, and the receiver decodes the symbols to recover meaning. From this perspective, meaning, like language itself, is rule-governed and deterministic: There are certain allowable sounds that count as words that stand for meanings that are shared by senders and receivers. The goal of the competent speaker is to expand the linguistic knowledgebase to enable use of the greatest number of well-formed code instantiations; the larger the knowledgebase, the better the ability to encode and transfer meaning. While few reject cases of direct, literal, code-based communication, especially imperatives, several problems remain with the model (Akmajian, Demers, & Harnish, 1980; Bach & Harnish, 1979; Green, 1989; Jacobs, 1985; Leech, 1983; Sperber & Wilson, 1986).

First, linguistic expressions are frequently ambiguous (Allan, 1986; Donnellan, 1966; Kripke, 1977, 1980). The hearer must determine which possible meaning is appropriate in a given context. Second, the
code model applies to computer algorithms as well as human communication. Such a view ignores a uniquely purposeful human element often called the "communicative intention"; under normal circumstances, the speaker wants the hearer to understand what is to be communicated (Bach & Harnish, 1979; Grice, 1985; Searle, 1984; Sperber & Wilson, 1988). Third, the generativity of language calls into question the ability of a speaker to store all possible permutations of a code. Although language could hypothetically evolve under such a model, the competent speaker must memorize the expanding code and learn to employ it properly. The toll on memory would be enormous (Sperber & Wilson, 1988). Fourth, the message model does not explain how non-literal language is understood or how language can mean more than what is said (Searle, 1975). For example, the ironic expression, "Nice day, isn't it?" uttered to a friend after a car accident is not intended to be taken literally, whereas the semantic meaning could refer to weather conditions.

Clearly, some mechanism allows language to function as a pointer to meaning, without determining sense. Several authors suggest that inferential processes provide a reasonable explanation. The hearer "works out" or infers what the speaker means using contextually available information (Bach & Harnish, 1979; Grice, 1975; Jacobs, 1985). The study of how hearers rely upon context to "work out" meaning exemplifies the domain of pragmatics.
Pragmatic meaning

Any utterance (utterance is taken as spoken or written) can be analyzed functionally at several levels. John Searle's typology is sufficient for present use (Searle, 1969). He suggests that four acts can occur with any statement:

The **locutionary act** is the phonological production of sounds representing words; the **propositional act** comprises reference, which picks out objects, and predicates; the **illocutionary act** makes clear how the utterance is being used (e.g., request, assertion, or question); and the **perlocutionary act** represents a consequence of the utterance (e.g., persuasion). Obviously, the perlocutionary act operates at a different level of analysis than other acts as effects are not under the direct control of the speaker.

At a global level, any verbally based persuasive attempt employs, at least, locutionary, propositional and illocutionary acts: An utterance must be pronounced, assert propositions to be judged, and do so either directly or indirectly. Yet, holding content (proposition) constant, one still has a wide range of linguistic options. For example, one can choose between direct and indirect request or between polite and tactless accusation (a difference in illocutionary force). In addition, speakers can employ lexical items that vary in connotation, from poetic to profane. Clearly, similar communicative work can be performed using a variety of utterances, yet some explanatory mechanism must account for the hearer's inferences regarding speaker's choices. Many linguists and
philosophers of language suggest that a pragmatic, inferential process relying upon the Cooperative Principle drives these inferences.

Introduced by Grice (1975), the Cooperative Principle prescribes one directive to all speakers: "Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged" (p. 45). Subsumed by the Cooperative Principle are a number of Conversational Maxims that implore speakers to make sense: (1) Make the contribution only as informative as required for the current purposes, (2) try to make the contribution one that is true, (3) be relevant, and (4) avoid obscurity and ambiguity, while being brief and orderly. Obviously, the Principle and related Maxims pertain to hypothetical speakers who rationally and sincerely participate in information-sharing conversations.

Linguists generally suggest that hearer inferences are derived from the Cooperative Principle and Conversational Maxims along with conventional meaning of words and references employed, context, background information representing mutual knowledge or assumptions, and the fact that all these expectations are mutually presumed by participants (Allan, 1986; Green, 1989; Leech, 1983; Lewis, 1983; Searle, 1979). Given that participants operate under such normative guidelines, the Gricean Maxims create a reasonable model for discovery of speaker meaning: Inferences are drawn based on violation, avoidance, or flouting of these expectations to arrive at "conversational implicatures" (Grice, 1975). However, the Principle and Maxims were
never intended to address contexts other than information sharing. Grice explicitly excludes the persuasive situation -- the area of interest here. Still, it is taken as axiomatic that meaning is derived not only from linguistic information, the deterministic code, but also inferential processes based on context, mutual assumptions and knowledge, conventions, and norms that allow speakers and hearers to employ language indirectly and non-literally to convey meaning.

Most linguists and philosophers of language stop at this point, suggesting that meaning is derived once the hearer infers speaker intentions; propositions are recovered and the hearer can respond. Such a model of human interaction would be sufficient if no social expectations or relational aspirations existed between speakers and hearers. However, hearers consistently judge not only propositions, but also the mode of presentation used to convey those propositions, given the nature of the assertion, the context, and the speaker's "reward value." "Mode of presentation," a term borrowed from the English translation of Frege's work (Frege, 1980), will represent "the sum of choices made regarding the use of grammatical constructions, lexical items, illocutionary force, and non-verbal cues"; the mode of presentation can be considered the "style" in which propositional content is delivered. It will be argued that the mode of presentation often determines the social or relational meaning extracted by the hearer, thereby affecting the perlocutionary effect of persuasive attempts.
Social meaning

The term "social meaning" will be used here to refer to any message-based information that provides clues regarding the social or relational identities presumed by the speaker or hearer. Frege (1980) argued that utterances, like words, have "completing senses" that determine referents comprising truth values. Later philosophers (Donnellan, 1966; Kripke, 1977; Putnam, 1973) argued that the Fregean sense does not explain deictic tokens such as "I," "here," or "now." No universal referents are denoted by these words. Thus, they have no universal "completing senses." Consequently, deictic expressions leave truth-value of an expression indeterminate until "setting" (Allan, 1986) and context of the speech event can be determined. It is assumed that, like deictic expressions, verbal suasory attempts can be seen as self-referential. Just as the tokens "I," "here," and "now," stand in relation to speaker, place, or time of utterance, linguistic choices made to present propositions complete the "sense" of the utterance by sending a socio-relational message to the hearer.

The inferred combination of linguistic, pragmatic, and social meanings will be termed the hearer's "derived message." The derived message represents the hearer's assessment of speaker intentions and appropriateness of those intentions given the content, context, and speaker's reward value. In other words, it is assumed that hearers both derive and evaluate speaker intentions to construct a "message." Furthermore, it is assumed that hearers generally find derived messages most appropriate when they appear neither to discount the hearer's
already-held beliefs nor to convey an offensive social meaning. However, such a conclusion begs the question of how linguistically based social meaning is derived. Probably the most reasonable explanation is that, like linguistic and pragmatic meaning, hearers make inferences on the basis of expectations.

Expectations

Cognitive Expectations

The notion that we conduct our lives with elaborate expectations seems uncontroversial. Based on typical occurrences and over-practiced routines, patterns congeal into "schemata" and "scripts" that are instantiated in relevant situations (Abelson, 1981; Langer, 1978; Nisbett & Ross, 1980; Reeves, Chaffee, & Tims, 1982; Roloff & Berger, 1982; Rumelhart 1981; Schank & Abelson, 1977; Tolman, 1948). Relying upon cognitive schemata and scripts, we predict what will occur next. As our cognitive map evolves, we generally become better, though not clairvoyant, at predicting frequent or algorithmic occurrences. From this perspective, our interpretation of life events becomes gradually automatic as our cognitive map becomes increasingly enriched. Nisbett and Ross (1980) argue that, once unitized, scripts become extremely resistant to change or decomposition. We assimilate discrepant information into existing schemata, in effect selectively perceiving or interpreting phenomena so as not to threaten previous learning (Abelson, 1981; Langer & Imber, 1980).

Other authors suggest, however, that people make allowances for situational differences (Hewes & Planalp, 1982; Neisser, 1976); we can
learn to reexamine schemata when properly cued. Moreover, expectancy-value theorists claim that we actively problem-solve in daily life, frequently performing cognitive cost/benefit analyses as we go (Feather, 1982a; Fishbein & Ajzen, 1981; Raynor, 1982; Triandis, 1980). Still, even subjective-expected utility models allow for mindless processing when information is neither relevant nor novel; we are willing to exert mental energy to explain stimuli when we recognize some instrumental or terminal value in doing so (Feather, 1982b). Thus, it seems reasonable to conclude that different propositions and different styles of expressing those propositions affect the degree of perceived importance of any linguistic act and that varying levels of perceived importance elicit varying levels of attention to information.

**Attention**

"Attention" has been employed with two distinct meanings: Certain phenomena command attention. Berlyne (1960) identified several collative features that spontaneously elicit interest. These properties (novelty, complexity, and relevance) effect an involuntary surge of arousal: an orienting response, reflex, or reaction (Kahneman, 1973). In this context, attention implies a "grabbing" of one's attention.

Another common use of "attention" connotes voluntary focusing — concentration. Used in this sense, the term implies an interpretive process, trying to understand or explain, rather than a somatic, orienting reflex. Concentration can be elicited by an orienting response that begs interpretation (e.g., violation of linguistic expectations such as counterattitudinal assertions) or an induced need
to understand (e.g., forewarning that an issue is of central importance) (Kahneman, 1973; Neisser, 1976; Salomon, 1981; Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977; Treisman, 1960). Assuming either motivation to attend, what processes determine how stimuli are understood?

**Understanding**

A tradition of physiological and psychological literature supports the notion of dual methods of "knowing" (Andersen, 1986; Bogen, 1969; Gardner, 1985; Gould, 1984). While nomenclature is important, no time will be spent arguing appropriate labels. Instead, it is accepted that humans learn either through phylogenetic inheritance or ontogenetic development. Although evidence is strong supporting the thesis that phylogenetic reactions are expressed automatically (Hanna, 1970), there appear to be two options for processing information filtered through ontogenetic systems such as propositional thought.

Schneider and Shiffrin (1977) suggest that information can be processed either automatically, using parallel, "intuitive" processing, or more effortfully, using controlled, thoughtful, serial processing. Any phenomenon that is mapped with "automatic detection flags," like one's own name, elicits automatic or script-driven reactions, even in a crowd. Conversely, when confronted with a stimulus that is not mapped with "automatic detection flags," is novel or complex, or is evaluated as important to the individual's self-esteem, controlled processing takes place. The challenge remains to explain how stimuli become mapped with "automatic detection flags," promoting intuitive processing and
then, for present purposes, to understand how this intuitive processing can be used strategically to effect persuasion.

Brainerd and Reyna (1990) explain the process in terms of fuzzy trace theory. They propose that humans rely either upon "gist" or verbatim information to understand the world. Gist reflects vague, impoverished representations of order -- algorithmic information. The authors posit that gist extraction reflects a universally applied "reduction to essence" principle in human information processing. They speculate that these cognitive templates evolve in one of two ways. Gist may result from effortful processing of verbatim information that is "mined for its essence." As information is processed, patterns, principles, and algorithms are extracted and later applied. Alternatively, using a neural network metaphor, gist might represent the preservation of internodal activation beta weights. In this scenario, learning represents conditioning of neural activity configurations; when the same nodal connections are re-activated at similar strengths to conditioned patterns, one "recognizes" stimuli as previously learned.

Regardless of the extraction mechanism, patterns, once learned, represent schemata -- cognitive expectations -- for the individual in relevant situations. When incoming data do not conflict with these expectations, the individual can rely upon this algorithmic information to explain stimuli. Conversely, when incoming data conflict with expected patterns, fuzzy traces might represent "automatic detection flags" that trigger violations of expectations. In this case, the person must either ignore the stimulus, discount the fidelity of the
instantiation to the template, or modify the template. But violations of expectations need not be viewed as an all or nothing proposition (Bostrom, 1981; Osgood & Tannenbaum, 1955). People differentiate between small and large as well as positive and negative deviations from expectations. The present theory suggests that speakers can employ linguistic devices that (1) reduce the likelihood of violations occurring, or when violations do occur, (2) increase the likelihood that those violations will be judged as positive or (3) decrease the magnitude of negative violations of expectations.²

**Linguistic Expectations**

Again, held beliefs (propositions) can be considered cognitive expectations about the state-of-affairs regarding the world-of-interest. In persuasive situations, speakers overtly or covertly ask hearers to accept propositions. Those propositions may be newly considered or associated with set attitudes. In the first case, the speaker's goal is to motivate the hearer to accept a belief with an evaluation similar to the speaker's. In the latter, the speaker's goal is to induce the hearer to accept a different belief or to change an evaluation of a belief by modifying the associated polarity, magnitude, or centrality.

Given a proposition as incoming stimulus, it is presumed that assertions that conflict with already-held beliefs or evaluations represent violations of these cognitive expectations, eliciting some degree of attention. In addition, it is assumed that, as with other types of information, the more central the proposition to the individual, the greater the likelihood that the proposition will gain
the hearer's sustained attention: More central beliefs correlate to a wider "latitude of rejection" for competing propositions (Sherif, Sherif, & Nebergall, 1965) as well as an increased likelihood of reactance-induction (Brehm, 1976).

Evidence suggests that such concentration -- using controlled processes -- requires greater cognitive effort than automatic processing; it simply takes more time to use controlled processes (Schneider and Shiffrin, 1977). This phenomenon may work to the advantage of persuasive speakers. As per McGuire's "cognitive miser" principle (McGuire, 1969), Zipf's (1949) work on word frequency, dissonance theory (Festinger, 1957), and research on mindless information processing (Langer, 1978, 1985; Langer & Imber, 1980; Langer & Piper, 1987), it is assumed that people tend to choose the path of least cognitive effort, all else being equal. Thus, there is a presumed preference and predisposition to process information "intuitively," given an opportunity (Brainerd & Reyna, 1990). This predisposition might be used strategically to mitigate the perceived discrepancy between assertions and already-held attitudes by shifting focus to more easily processed speaker characteristics, thereby encouraging acceptance of counterattitudinal assertions.

Distraction literature supports the notion that inducing listeners to process counterattitudinal arguments intuitively may generate more persuasion than when counterattitudinal propositions are interpreted using controlled processing (Baron, Baron, & Miller, 1973; Buller, 1986; M. Burgoon, Fraedrich, & Bachman, 1979; Festinger & Maccoby, 1964;
Osterhouse & Brock, 1970; Petty, Wells, & Brock, 1976). Hovland, Janis, and Kelley (1953), as well as McGuire (1966, 1969) argue that persuasion is dependent upon two factors: comprehension and yielding. One must understand a message before persuasion can occur with long-term attitudinal change. Yet personal variables (e.g., self-esteem, cognitive self-efficacy, and intelligence) may account for differing inclinations to comply (Bem, 1974; Bowers, 1963; Himmelfarb & Eagly, 1974; McGuire, 1966, 1969). Investigators suggest that creating communication-relevant distractions can actually encourage yielding (Buller, 1986). For example, inducing receivers to focus on the speaker's personality, rather than message, can increase short-term persuasive effects (M. Burgoon et al., 1979). This redirection of attention is assumed to impair counterarguing -- an hypothesized sub-vocal, critical answering of speakers' arguments. Alternatively, distraction may focus a hearer's attention away from uncompelling evidence toward positive speaker attributes and simplistic conclusions. In this explanation, distraction may selectively affect the hearer's comprehension of propositional content. In either explanation, the receiver presumably bases compliance decisions more on speaker characteristics than on examination of evidence. Although simple compliance or identification routes to attitude change may be short-lived (Kelman, 1961), self-attributions or dissonance reduction on the part of the hearer, along with sequential arguments that provide supporting evidence, may encourage attitude adoption on a more permanent basis. Assuming that source characteristics play such an important role,
it is essential to understand how such information might be extracted by the hearer and play a part in determining the social meaning of a persuasive appeal.

**Hearers' expectations of speakers**

It is acknowledged that many human actions provide social information, including non-verbal cues displayed by a speaker. However, the domain of interest here focuses on that information embedded in linguistic utterances.

If a behavior typically occurs in certain situations and is typically judged as appropriate and expected, one might reasonably consider that behavior normative. Relying upon Bach and Harnish (1979), a formal definition of a norm can be constructed such that an act (A) is a norm in the language community (LC) when the members of LC (1) do A in a particular context (C), (2) it is mutually believed by LC that members of LC do A in a particular context, and (3) it is mutually believed in LC that the members of LC should do A in C. This definition does not mean that all members of the language community behave appropriately for the same reason. Some may do so out of cultural impetus, others may do so to receive social approval or to avoid detection during deception. Moreover, there is no need to assume that an overt sanction attaches to all norms. The sole argument is that a native speaker is expected to perform a particular behavior by the language community in certain circumstances and that performing the unexpected draws attention to the act.
In this framework, two norms are assumed to exist related to linguistic choices that speakers make. First, it is expected that non-deceptive speakers reserve the use of linguistic devices that accentuate ownership of a proposition, such as direct or intense language, for those instances in which the speaker is, in fact, committed to that position. While the statement appears platitudinous, this sincerity condition represents an important foundation upon which to base certain inferences.

A second norm is derived from sociolinguistic and pragmatic literature: Hearers expect non-deceptive speakers to use linguistic devices that reflect their presumed social or relational identity with the hearer (Brown & Levinson, 1978, 1987; Comrie, 1975; Ervin-Tripp, 1976; Goody 1978; Grice, 1985; Labov, 1972; Lambert & Tucker, 1976; Scotton, 1983; Searle, 1969; Sinclair & Coulthard, 1975). If the speaker is positively valued by the hearer, the speaker may be granted greater license to use devices that might be construed as offensive, presumptuous, or patronizing by a speaker for whom the hearer holds little respect.

For instance, speakers and hearers certainly develop preferences regarding pragmatic forms; the license to employ various illocutions relies upon presumed social and relational identities. Certainly, not everyone in our society enjoys equal rights in expressing particular propositions or illocutions. The child who tells the parent to "shut up" violates presumed rights as does the employee who tells the boss to "find a new job." In the persuasive situation, there is an implicit or
explicit request for action and there are, presumably, hearer expectations about how those requests should be framed given the nature of assertion, context, and speaker reward value.

In support of such a view, Scotton (1983) has offered a pragmatic theory of markedness and code choice given specific relationships. Within linguistics, "markedness" is viewed as the degree to which an expression deviates from conventionalized or normative use. Thus, an expression that is unmarked is considered expected, appropriate, or normative, while an expression that is marked is considered unexpected, inappropriate, or non-normative.

Like Grice, Scotton suggests that there is one general principle and several maxims that guide speakers' language choices in conversation. The Negotiation Principle directs the speaker "to choose the form of your conversational contribution such that it symbolizes the set of rights and obligations which you wish to be in force between speaker and addressee for the current exchange" (p. 115). From this perspective, there exists a presumption that speakers purposefully choose their mode of presentation to reflect their presumed rights and obligations. In the example above, the employee's imperative violates an identity role in which employers reserve the right to fire employees, rather than the reverse. Thus, the employer could reasonably evaluate such an utterance as a violation of expectations based on social norms.

Brown and Levinson (1978) embrace a similar view when they propose that politeness is used to redress verbal impositions by the speaker. Politeness purportedly addresses hearers' "face needs": Positive face
refers to the hearer's wish to have wants and desires appreciated; negative face refers to the desire not to be imposed upon. They argue that linguistic devices that acknowledge these desires are more likely to send a positive relational message to the hearer as compared to linguistic devices that do not. However, a speaker with high reward value for a specific hearer may enjoy a significantly increased range of acceptable behaviors.

Although Scotton's and Brown and Levinson's theories pertain to the interpersonal domain, a similar view for the one-to-many context of videotape presentations is supported here: No message is socially neutral. The social or relational meaning of the message is an integral component of the hearer's derived message. As proposed by Brown and Levinson, there may be "good reasons" for much communication behavior, even if those reasons are no longer consciously examined. However, unlike Brown and Levinson, the hypothetical speaker used as a model here does not need to assess the rationality of language use in each new instance. Both the proscriptive dimension of norms as well as the proposed cognitive processes discussed earlier support the notion that speakers employ linguistic devices and hearers interpret these devices in consistent ways (Scherer & Giles, 1979), depending upon the nature of the assertion, context, and speaker reward value.

Assertions vary with respect to the magnitude of any deviation from held attitudes and perceived self interest -- the greater the deviation, the less direct the preferred style of expressing the assertion (M. Burgoon & Miller, 1971; Franzwa, 1969; McEwen & Greenberg,
1970; Mehrley & McCroskey, 1970). Context provides important clues to expected language use. Linguistic behavior that might be appropriate in the presence of friends could well be inappropriate in front of parents (Goffman, 1959, 1981; Meyrowitz, 1985). Speaker reward value can determine the bandwidth of acceptable behaviors with the most positively valued sources receiving the greatest leeway (J. Burgoon & Hale, 1988; M. Burgoon & Miller, 1985). In fact, high speaker reward value may override expectations based on content and context. Obviously, one cannot reasonably determine the meaning of a message, and its effects on hearers, by solely examining linguistic meaning.

Based on existing literature (Bostrom, 1981; Brown & Levinson, 1978, 1987; Scotton, 1983) and paralleling the two norms described above, it is proposed that persuasive utterances are judged along two dimensions to arrive at social meaning: (1) a commitment dimension (i.e., the degree to which the speaker appears to be guided by reasoned values or principles; non-deceptive speakers are expected to reserve the strongest, most direct language for positions to which they are truly committed) and (2) an imposition dimension (i.e., the degree to which the speaker appears to presume license to impose his or her belief on the hearer; speakers are expected to assert counterattitudinal positions less strongly than congruent positions unless the speaker has the social right to impose). Thus, strongly stated counterattitudinal propositions might be construed as a reflection of (1) speaker commitment to a position, (2) presumed license on the part of the speaker to impose a position upon the hearer, or (3) some combination of both. Obviously,
in this society, effective speakers should rate high on the commitment dimension and low on the imposition dimension (Brown & Levinson, 1978, 1987). The mode of presentation (i.e., choice of illocutionary force, intonation, lexical items) in concert with the given content, context, and speaker attributes probably plays an important role in determining how utterances are evaluated along these two dimensions.

Ultimately, verification that speakers and hearers believe that utterances reflect social meanings as well as confirmation of the existence of specific expectations regarding the mode of presentation represent empirical questions. However, several authors provide support for the assumption (Ervin-Tripp, 1976; Goody 1978; Labov, 1972; Lambert & Tucker, 1976; Sinclair & Coulthard, 1975). For now, it is assumed that language choices reveal speaker presumptions about the speaker/hearer relationship and that hearers use such information to attribute speaker intent and to construct social meaning. Of particular importance here is one presumed class of language variables: linguistic markers of association.

Linguistic Markers of Association

In this work, "linguistic markers of association" is defined as linguistic variables that emphasize ownership of propositions. (Conversely, "linguistic markers of disassociation" is occasionally used to denote linguistic variables that de-emphasize ownership of the assertions.) Emphasizing ownership implies removing ambiguity about whether the speaker believes a proposition. In other words, these linguistic devices enhance the link between speaker and proposition.
Bostrom (1981) suggests that this assertion strength increases the "pressure" of the speaker's persuasive utterances and should be included in congruity models.

Both linguistic and communication literature support the claim that variations in the mode of presentation affect hearers' inferences. While the specific surface structure of these devices may change over time (e.g., "bad" may mean "good" at times), the underlying function of the devices remains one of enhancement or diminution of speaker association with propositional content. Brown and Levinson propose that the politeness phenomenon permeates our cultural expectations: (1) all hearers have positive and negative face, (2) all hearers are rational -- that is they choose means that will meet their goals -- and (3) it is of mutual interest to the speaker and hearer to maintain each other's face (Brown & Levinson, 1978, 1987). At those times when the speaker's goals clash with hearer's face needs, speakers are expected to minimize face threat by reducing the apparent directness of the assertion. Speakers can accomplish this by using a variety of politeness devices, from extremely direct (bald-on-record) to intentionally vague (off-record). Speakers apparently walk a relational tightwire between accomplishing goals and acknowledging hearer's face, using less redressive techniques at their own risk.

Likewise, ambiguous utterances such as circumlocution and hedges may reduce perceived threat by speakers (Comrie, 1975; Insko, Murashima, & Saiyadain, 1966; Weiser, 1974). **Circumlocution**, by indirectly revealing the strength of the speaker/proposition link, demonstrates a
reluctance on the part of the speaker to take full responsibility for assertions. Hedges, whereby speakers avoid aligning themselves with specific assertions, obscure speakers' beliefs, thereby encouraging hearers to postpone evaluation of source (Bach & Harnish, 1979; Lakoff, 1972).

Devices demonstrating the role of speaker association with assertions abound in psychology and communication literature. Wiener and Mehrabian (1968) suggest that one channel of lexical variation, "verbal immediacy," represents a powerful channel for expression of affect. Immediacy variations are assumed to reflect relationships between the speaker and objects to which the speaker refers, attitudes toward addressees, or affect associated with the communication situation; the more direct the statement, the more positive the affect toward statement, addressee, or situation. The degree of speaker directness is purportedly embedded in four sets of variables (Donohue, Diez, Stahle & J. Burgoon, 1983).

Bradac et al. (1979) summarize main effects for immediacy regarding addressee inferences toward the speaker (p. 262):

1) Verbal immediacy is directly related to receiver attributions of positiveness of source affect.

2) Verbal immediacy is directly related to receiver judgments of source competence.

3) Verbal immediacy is directly related to receiver judgments of source character.
However, the theory is suspect. First, it seems unlikely that negatively valued sources enhance their perceived status by taking strong ownership of counterattitudinal assertions. Moreover, Mehrabian (1966, 1967), Wagner and Pease (1976), and Kuiken (1981) report reliable increases in non-immediacy with positive evaluations of the speaker. Mehrabian (1966) comments:

The incidental finding of inter-individual differences in the extent of overall non-immediacy of communication although not unexpected cannot be easily explained. Mehrabian's (1964) study suggested that the overall level of non-immediacy in a person's communications may be positively correlated with his intelligence or socioeconomic level. However, there may be additional determining factors of the overall level of non-immediacy, such as an individual's extent of generalized withdrawal from his environment. (p. 91)

Another glaring problem lies in the disjunctive proposition "or" found in the explanation. Wiener and Mehrabian offer no a priori prediction of when propositional content, hearers' relationships with speakers, or context will drive use of immediacy. It is at least unclear when each elicits immediate expressions; at worst, the explanation is unfalsifiable.

Language intensity, the quality of language which indicates the degree and direction of deviation from neutrality, also has received significant attention from researchers (Bowers, 1963; Bradac et al., 1979). There is evidence that speakers, through social conditioning or prior experience, come to the persuasive situation knowing what level of intensity is appropriate. Franzwa (1969) concludes that speakers use less intense words when preparing a message for a hostile audience. Likewise, M. Burgoon and Miller (1971) conclude that speakers use less
intense language when delivering counterattitudinal arguments. Thus, there exists some common motivation for speakers to reduce the directness of counterattitudinal assertions. Speakers appear to realize that they would offend by making strong counterattitudinal assertions.

Hearers also appear to have consistent expectations for use of intensity. Several studies demonstrate that message effectiveness is contingent upon a preferred inverse relationship between use of intensity and degree of incongruence with held attitudes (McEwen & Greenberg, 1970; Mehrley & McCroskey, 1970). Speakers are more effective when they encode counterattitudinal assertions with low intensity compared to attitudinally-congruent assertions. Bradac et al. (1979) conclude that intensity interacts with message congruence such that "intensity in congruent messages enhances, but in discrepant messages inhibits, attributions of source similarity." (p. 202). Such perceived source similarity should enhance persuasion. Yet, M. Burgoon, Jones, and Stewart (1974) conclude that this effect must be qualified: Credible sources can use more intensity with positive effects while the reverse obtains with less credible speakers, regardless of deviation from held beliefs. Apparently, highly valued speakers have the right to impose.

Bowers (1963), like Mehrabian above, argues that personologic variables may explain some discrepancies. He argues that the effectiveness of intensity demonstrates a linear relationship with hearer introversion. Miller and Lobe (1967) suggest that closed- and open-mindedness are the variables-of-choice. While relying upon
personalogic variables such as introversion, self-monitoring, open-/closed-mindedness and self-esteem provide interesting correlations, there may be a more reasonable explanation.

The Importance of Centrality

In any specific situation, either propositional content or speaker is likely to be judged as more central to the hearer. Propositional centrality was discussed above. Speaker centrality is used in a similar manner. Central speakers are those who have had significant effects on the hearer's life. Those effects can be physical, psychological, spiritual, or emotional, either positive or negative. In all cases, the central speaker is known to the hearer. Thus, hearers' expectations are based on knowledge of previous speaker behavior, whereas secondary sources are judged on the basis of social norms (J. Burgoon & Hale, 1988).6

In brief, it is assumed that whichever is most central to the hearer, speaker or proposition, drives inferences made by the receiver. If the proposition in question is value-related, attitude change is difficult. If the speaker is a courted lover, influence is likely. Working under such assumptions, a simple matrix can be constructed reflecting varying combinations of polarity and centrality of propositions and speaker (see Figure 1).
There is nothing unique about predicting that linguistic variables can differentially affect persuasive outcomes in various cells of the matrix. However, if the function of those variables is to accentuate or attenuate the speaker/proposition link and, subsequently, hearers judge the speaker's right to do so, many disparate predictions and causal path analyses might be subsumed under this more global explanation with greater precision. In addition, new variables of interest can be examined with theoretical underpinnings. Of particular theoretical interest here is the role of speaker influence during persuasion.
The positively-valued central source

As suggested by the communication research above and attribution literature (Kelley, 1971), positively valued central sources have the greatest leeway in linguistic behavior. Since the polarity and centrality of speaker evaluation is based on a history that the receiver values, such speakers seemingly can do no wrong. With a known speaker, the hearer expects a mode of presentation that is more or less intense "as a rule" for that speaker. If the speaker's history is based on a normally intense style, the speaker will not violate expectations by strongly asserting counterattitudinal propositions. Since the speaker is already valued given this expected mode of presentation, there is no reason to expect that he or she will be less effective in subsequent attempts using a similar style. The speaker is likely to be judged as committed to the position (a positive attribution) rather than imposing on the hearer. Social identities and status differentials are reinforced when this speaker takes the liberty to express counterattitudinal assertions. However, this speaker also seems to have the option of asserting less intensely than expected, thereby creating a positive violation of expectations on the basis of diminished imposition (M. Burgoon, Birk, & Hall, 1991).

If, on the other hand, this speaker's reward value is based on a less intense style, strong assertions may violate expectations, but are likely to be judged as a reflection of atypically intense commitment, rather than imposition. Alternatively, conforming to stylistic expectations of minimal intensity conforms to a style that has already
resulted in a high evaluation by the hearer. Thus, continued success is reasonably predictable.

This does not mean that credible speakers can get away with anything; it simply implies that such speakers have a wider bandwidth of acceptable behavior (M. Burgoon, 1983). If, however, the counterattitudinal proposition is more central than the speaker, the source might do well to use less intense language. But, when the proposition is secondary relative to the speaker's reward value, these sources can use either intense or non-intense language.

The negatively-valued central speaker

On the other hand, the negatively-valued central speaker has an uphill battle. There is a presumption of imposition from the start. If expectations are formed based on an historically intense style, matching expectations solely confirms expectations of speaker abrasiveness (imposition). If expectations are based on a minimally intense style, strong assertions exacerbate the expected imposition. Consequently, negatively valued central sources have but one choice: make counterattitudinal assertions as non-intensely as possible to minimize imposition.

Figure 2 summarizes the various combinations of theoretical interest in this research.
**Figure 2.** 2 (Expected Intensity) by 2 (Enacted Intensity) by 2 (Speaker Evaluation) Design of Theoretical Interest.

<table>
<thead>
<tr>
<th>Expected Intensity</th>
<th>Intense</th>
<th>Non-intense</th>
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<td><strong>Speaker +</strong></td>
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<tr>
<td><strong>Intense</strong></td>
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<tr>
<td><strong>Speaker -</strong></td>
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<tr>
<td><strong>Non-intense</strong></td>
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<tr>
<td><strong>Speaker +</strong></td>
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<tr>
<td><strong>Non-intense</strong></td>
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In summary, it has been suggested that (1) attitudes are propositionally based, (2) derived messages are constructed from linguistic, pragmatic, and social meanings, (3) certain types of messages are expected in particular situations, (4) speakers or propositions can be more or less central to the hearer's life, (5) the most central of the two foci will predispose the hearer to respond in specific ways to persuasive attempts, contingent upon the polarity of the evaluation, and (6) linguistic variables can be used strategically to effect persuasion by emphasizing or de-emphasizing the link between the speaker and the proposition, thereby taking advantage of speaker reward value. In addition, it was argued that persuasive assertions are judged as expressions of (1) commitment, (2) apparent presumption of a right to impose or command or (3) some combination of the two. When
speakers are more central than the proposition (have an historically
greater impact on the hearer's life), the positively-valued speaker may
use either intense or non-intense, immediate or non-immediate, direct or
indirect language, without imposing unduly. However, the negatively
valued speaker must employ linguistic markers of disassociation to avoid
significant imposition.

To refine the specification of proposed relationships, claims will
be stated in a more formal format, leading to testable hypotheses within
the media context.

Theory of Linguistic Markers as Persuasive Devices in Mediated
Persuasive Messages

Conditions

As Meyrowitz (1985) states, television has revealed "backstage"
behavior to the point that we feel acquainted with television
personalities. The resulting para-social relationship that is
established between speaker and hearer suggests that interpersonal
communication theory might provide a useful model with which to examine
many attempts at mediated persuasion (Horton & Wohl, 1956; Meyrowitz,
1985; Pfau, 1989). Yet, there remain obvious differences. Hearers have
the ability to "tune out" a speaker or to stare at a source, both
socially inappropriate behaviors in the interpersonal context. However,
such differences do little to override the predicted effects of one-shot
messages by known speakers; these contextual differences are more likely
to affect attention and comprehension. Consequently, for theory
construction, a captive audience is presumed with some degree of para-
social affiliation with the source. Only after such controlled situations are understood should external distractions be factored into the equation to reflect naturalistic environments.

It also is acknowledged from the start that many variables affect a person's willingness to change behavior or attitudes. Any comprehensive review of social influence lists myriad micro- and macro-analytic explanations for effective persuasion (M. Burgoon, 1989; Petty & Cacioppo, 1981). However, the domain of interest here rests on the role of speaker influence through use of language variables. It will be argued that one of the primary uses of language variables is to establish a degree of speaker association with public statements and that hearers interpret these "linguistic markers of association" as reflecting the degree to which the speaker takes ownership of the expressed propositional content. Evaluation of the persuasive acts is contingent upon the hearer's judgment regarding the appropriateness of such explicit ownership.

The theory is intended to be tested under reasonable parameters. One must have some boundary-defining felicity conditions or build into the theory complex adjustments for incredulity, insincerity, and absurdity. It is assumed that all examples represent reasonable arguments, as judged a priori. Comparisons must be based on examples that match quantity of evidence, message order, organization, repetition of arguments, and other micro- and macro-level variations. Ideally, the constructed messages would all be novel, plausible and, to varying degrees, important to hearers (Morley & Walker, 1987).
A somewhat more troublesome condition is that all linguistic markers are assumed to fall within a range of normative expectations in a given persuasive environment. There is sufficient evidence that profanity, while representing a linguistic marker of association, is not considered appropriate behavior for many speakers within the public speaking context (Bostrom et al., 1973). However, if this proposal is correct, an extremely positive and central speaker should be able to incorporate profane linguistic markers of association. This conclusion is predicated on the assumption that an evaluation of speaker centrality can only be built on prior speaker/hearer interaction and, thus, any positive entering evaluation of source may include an expectation for such displays. Still, if profanity were used as an example of linguistic markers of association, care would have to be taken to establish hearer expectations regarding use of such lexical items given the relational identity of the speaker. For present purposes, profanity will be excluded from the theory on the basis that it represents not only a linguistic marker of association, but a relational message of disrespect for many persons within our society. Such a confound will not provide a useful test of the theory.

**Context**

The domain of this theory is the one-to-many context of mass media, specifically videotaped persuasive appeals by known narrators.

**Definitions**

*Speaker/proposition link* - "a theoretical construct describing the degree to which speakers take ownership of propositions." From an
operational viewpoint, such a link might be evaluated as the degree to which the speaker appears to believe the proposition he or she asserts, ranging from weakly to strongly.

**Utterance or speech act** - this primitive within the propositional framework includes propositional content, lexical variation, and non-verbal expression. Using Searle's terms (1969), speech acts incorporate locutionary, propositional, and illocutionary acts within well-formed linguistic constructions.

**Speaker or source** - "person who utters propositional content." For discussion purposes, the speaker and source are assumed to be the same person. Obvious complexities are introduced when the two differ. However, Meyrowitz has argued that the mediated, video context has significantly reduced the role of author and highlighted the role of messenger (Meyrowitz, 1985).

**Speaker reward value** - "a summated evaluation of the speaker's authority, dominance, status, attraction, and expertise as perceived by the hearer." Based on the work of J. Burgoon, this term is intended to capture an overall evaluation of the speaker's net worth to the hearer. Like propositions, reward value is assumed to be judged along three dimensions: polarity, magnitude, and centrality. Again, high reward value may be due to low self-esteem on the part of the hearer, high credibility, power differentials, or attractiveness. The etiology of hearer perceptions is not important for the explanation. It is assumed that a speaker who is positively valued with high magnitude and central importance is a high reward speaker; a person who is negatively valued
with high magnitude and central importance represents a low reward speaker. (See "Centrality of Evaluation" below.)

Hearer or receiver - "person/s to whom speech acts are directed."

Propositions or propositional content - "assertions made in utterances." This includes both referring and predicating in Searle's (1969) speech-act theory.

Linguistic markers of association - "language variables that intensify or accentuate source ownership of assertions." As discussed above, prototypic examples include intensity and verbal immediacy. The uniqueness of this theory is that both mechanisms are presumed to be explained by a more global functional mechanism.

Linguistic markers of disassociation - "language variables that attenuate or equivocate source ownership of assertions." Examples include non-immediate and non-intense language, as well as hedges, circumlocutions, and passive voice constructions.

Beliefs - "probabilistic judgments about the veracity of propositional content."

Entering evaluations - "assessment relating to a speaker or proposition before the communication event of interest occurs." Entering evaluations possess a positive or negative polarity and magnitude as compared to "beliefs" which are generally considered neutral and probabilistic (Fishbein & Ajzen, 1975).

Polarity of evaluation - "the direction of assessment regarding beliefs on a dichotomous scale, positive or negative."

Magnitude of evaluation - "the amplitude of polarity."
**Centrality of evaluation** - "the degree to which the evaluative object is important to the hearer's life." When the evaluative target is propositional, it is assumed that a central belief relates to "core" assumptions. When the evaluative target is a speaker, it is assumed that centrality implies *familiarity*.5

**Polarized magnitude of evaluation** - "the combined polarity and amplitude of an entering evaluation." This represents the "valencing" often used by other authors and is considered a continuous rather than a dichotomous variable like polarization.

**Strength of evaluation** - "the magnitude and centrality of entering evaluations." The strongest held opinions and attitudes are presumed to be most important to the hearer.

**Congruent assertions** - "assertions with which the receiver agrees."

**Incongruent assertions** - "assertions with which the receiver disagrees."

**Exigency to modify attitudes** - "the subjective force compelling one to modify initially held beliefs or evaluations of beliefs once a persuasive attempt occurs."

**Propositional Framework**

It is suggested that the "balance" of the communicative event is determined by an interaction between propositional content, illocutionary force, and entering evaluations regarding proposition and speaker. If a liked source offers propositional content that is incongruent with hearer beliefs or if a disliked source offers congruent
assertions, an imbalanced situation arises and must be resolved. Linguistic variation may decrease the perceived difficulty of resolution for the receiver by accentuating or attenuating the speaker/proposition link. This may make congruity easier to obtain by emphasizing social meaning in the derived message, thereby giving the hearer a less effortful manner in which to resolve imbalance. With speakers of secondary importance, expectations for appropriate behavior are based on social norms. In this case, speaker reward value tends to represent an outcome variable driven by speaker behavior. On the other hand, central speakers come to the communication event with a history; their reward value vis-a-vis the hearer represents a predictor variable that can determine appropriate linguistic behavior.

The present framework is most interested in centrally-valued speakers. Narrators and sponsors of well-financed advertisements, advertorials, and public service announcements are chosen on the basis of presumed positively valued credibility. Thus, understanding the latitude that such speakers enjoy is important for effective message construction. However, many times, negatively-valued central speakers (e.g., an unpopular politician or boss) have no choice but to create mediated persuasive messages. In these cases, the linguistic options may be constricted and inappropriate use of language can be abrasive, exacerbating the receiver's skepticism. Thus, the practical implications of the study go beyond the simple prescriptive maxim, "find a credible speaker and present your message." It suggests why certain forms of talk are ineffective with certain speakers and audiences.
The judicious use of linguistic markers of association and dissociation are predicted to function in the following manner:

Assumptions

The following summarizes the assumptions made for theory-building purposes:

1) Evaluations of beliefs can be either positive or negative.
2) Evaluations of beliefs differ in amplitude from highly positive to highly negative.
3) Beliefs embedded in attitudes vary along a continuum of centrality, from secondary (beliefs that are not judged as particularly important) to central (beliefs that are judged as extremely important).
4) When a belief is central to the hearer, the hearer is less likely to entertain counterattitudinal assertions than when the belief is of secondary importance to the hearer.
5) Evaluations of speakers are more influential than evaluations of propositions in creating a motive force to adopt new beliefs and modify evaluations of old beliefs. This assumption of speaker preeminence is based on attribution literature which demonstrates the propensity to judge source as causal agent, credibility literature which reveals the power of perceived speaker status, and expectancy-value theories which consistently show the predominant influence of the social normative component (Hovland et al., 1953; McCroskey & Young, 1981; Fishbein & Ajzen, 1981; Tedeschi & Bonoma, 1972; Triandis, 1980). Speakers represent extremely salient stimuli during a persuasive event. Such a presumption should come as no
surprise to anyone who assumes that the primary motivation for human communication is to establish and preserve social relationships (Brown & Levinson, 1978, 1987; Scotton, 1983; Sperber & Wilson, 1988). However, there is no attempt to gloss over the potentially troubling nature of this axiom. It represents a crucial assumption which, if wrong, negates many of the arguments made here.

6) Evaluations of speakers can be either positive or negative.

7) Evaluations of speakers differ in amplitude from highly positive to highly negative.

8) Speakers vary along a continuum of centrality for the hearer, from secondary to central.

9) When a speaker enjoys a high reward value (positive polarity, high magnitude, and central importance), the hearer is more likely to entertain speaker propositions than when the speaker is associated with a low reward value (negative polarity, high magnitude, and central importance).

10) Speakers use linguistic devices that emphasize or de-emphasize their association with assertions.

11) Hearers can differentiate among varying levels of association with assertions on the part of speakers.

12) Strongly stated assertions (e.g., language intensity) increase the degree to which speakers appear to take ownership of those assertions.
13) Weakly stated assertions (e.g., circumlocutions and hedges) decrease the degree to which speakers appear to take ownership of those assertions.

14) Taking strong ownership of assertions will be judged as reflecting (1) speaker commitment to the position, (2) speaker presumption of license to impose a position on the hearer or (3) some combination of the two.

15) Commitment to a position is more highly valued in American society than exercising license to impose a position upon a hearer.

16) Hearers are more likely to adopt positions that a source with high reward value appears to believe than positions that a source with high reward value does not appear to believe. Again, highest reward value is represented by the positively valued central source. With this source, the hearer finds a way to rationalize almost any behavior. If strong assertions are expected, the speaker can be effective by matching expectations or by violating them with less intense language. Alternatively, strong assertions by speakers with normally less intense styles will be judged as a reflection of commitment whereas matching expectations conforms to a style that the hearer already values.

17) Hearers are more likely to adopt positions that a source with low reward value appears not to believe than positions that a source with low reward value appears to believe. These speakers are predicted to be most successful when making counterattitudinal assertions with less intense styles.
Propositions

Given these assumptions, the following propositions identify key relationships among variables:

1) For incongruent assertions, the exigency to modify attitudes to a position congruent with the source's is inversely related to the centrality of held beliefs.

2) The exigency to modify attitudes to a position congruent with the source's interacts with polarized magnitude of the hearer's entering evaluation of source such that there is a linear relationship for positive sources and an inverse relationship for negative sources between motivation to change attitude and the magnitude of the entering evaluation.

3) Centrality of source interacts with polarized magnitude of source evaluations to determine exigency to modify attitudes such that there is a linear relationship for positive sources and an inverse relationship for negative sources between motivation to change attitudes and source centrality to the hearer.

4) Use of linguistic devices determines speaker's apparent affiliation with assertions such that there is a linear relationship between use of linguistic markers of association and the degree to which the source appears to take ownership of assertions.

5) Polarity of the hearer's evaluation of source interacts with centrality and linguistic markers of association such that for positive sources the more central the speaker, the more effective the use of linguistic markers of association while for negative sources the more
central the speaker, the less effective the use of linguistic markers of association.

**Hypotheses**

The following hypotheses are derived from the assumptions and propositions. The hypotheses are intended to be tested in the mediated context and therefore are expressed in those terms.

1) The more important the topic or issue of a persuasive mediated appeal to the receiver, the less likely that there will be attitude change in the direction advocated by the source of that appeal.

2) The more positively the source of a mediated appeal is evaluated, the more likely the receiver will modify his/her attitude on the topic toward the direction advocated by the source of that appeal.

3) Sources of mediated appeals using high intensity language will be evaluated as more strongly believing the arguments they present than sources using low intensity language.

4) Familiarity works to the advantage of liked sources in mediated appeals and to the disadvantage of disliked sources such that a highly familiar positive source will be most effective in persuading viewers while the highly familiar negative source will be least effective in persuading viewers.

5) Intensity has a differentially effective role for liked and disliked sources of mediated appeals such that it works to the advantage of liked sources and to the disadvantage of disliked sources. Thus, the liked, intense source should be the most successful persuader and the disliked intense source should be the least successful persuader.
6) Familiarity and intensity combine such that high familiarity results in increases in attitude change with the use of language that is more intense than expected for liked sources and decreases in attitude change for disliked sources.

Of further interest in this research are the cumulative effects of employing strong, direct language. If predictions are correct, liked sources using language that is more intense than expected may be persuasive. However, when these sources argue with unexpected intensity, they might also suffer more negative attributions (being pushy, abrasive, etc.) than the liked source using language that is less intense than expected. This may have longer-term effects on the source's credibility or liking rating. Conversely, disliked sources may enhance their credibility or liking rating when they use language that is less intense than expected. Thus, a research question will be examined: Are there any effects on credibility or liking that accrue to a source who deviates from expected language intensity?
CHAPTER 2

METHOD

Hypotheses were tested using a pretest-posttest design to measure the effectiveness of one-shot video messages regarding a controversial topic given various combinations of source liking, familiarity, expected verbal intensity, and enacted intensity.

Subjects

Subjects were drawn from thirteen sections of an organizational communication class composed predominantly of upper-division business majors and two sections of a lower-division communication survey class. Four hundred and seventy two students participated in time-1 (T1) measurement and volunteered for the time-2 (T2) treatment and assessment, which took place anywhere from one to three weeks after T1. Although 399 subjects participated at time 2, data from 16 subjects were discarded due to a computer programming error, invalidating their responses. Thus, 383 subjects completed both T1 and T2 measures. The composition of the subject pool was one freshman, 43 sophomores, 162 juniors, 173 seniors, three master's level students, and one missing value.

Design

The study employed a pretest-posttest design with T1 measurement consisting of a paper-and-pencil instrument administered in class and T2 measurement consisting of the treatment and post-treatment measures administered individually by computer in a communication research laboratory. Subject assignment to treatment conditions was performed to
create a 2 (liked or disliked source) by 2 (expected high or low intensity messages) by 2 (enacted high or low intensity messages) design (see Figure 2).

Procedure and Instruments

Two instruments were constructed to test the hypotheses: a paper-and-pencil instrument for T1 measurement and a computer-based application for the treatment and post-treatment measurement instrument at T2.

**Time-1 instrument**

The T1 instrument was designed to assess the subject's pre-treatment attitude toward source (current or past president of the university) of the message that would be received at T2 and topic of the message (physician-assisted suicide). To reduce the likelihood that subjects would focus undue attention on the prospective source and topic between T1 and T2, relevant questions were embedded in a list of questions about six other sources and six additional topics (see Appendix C for full text of survey).

Three scales were used to assess the subject's opinion of source. One two-item seven-interval scale assessed the subject's liking of source ("What is your opinion of Dr. Pacheco/Dr. Koffler?" bounded by strongly dislike/strongly like; and "Would you want Dr. Pacheco/Dr. Koffler as a friend?" bounded by not at all/absolutely yes). A three-item seven-interval scale was used to assess the subject's familiarity with source ("How familiar are you with Dr. Pacheco/Dr. Koffler?" bounded by not familiar at all/very familiar; "How frequently have you
heard Dr. Pacheco's/Dr. Koffler's name mentioned in the last month?" bounded by not mentioned at all/mentioned frequently; and "Would you consider Dr. Pacheco/Dr. Koffler one of the most well known persons in Tucson?" bounded by not at all/absolutely yes). A four-item seven-point semantic differential measure was used to assess expected intensity (not outspoken at all/very outspoken, not verbally assertive at all/very verbally assertive, not domineering at all/very domineering, not intense at all/very intense).

Reliabilities for these measures using Cronbach's (1951) coefficient alpha were .81 for liking of source, .51 for familiarity with source, and .88 for expected intensity.

To examine the research question, the T1 instrument included measures using seven-interval semantic differential scales for four dimensions of credibility: competence, consisting of uninformed/informed, incompetent/competent, and stupid/bright; character, consisting of unbelievable/believable, dishonest/honest, and untrustworthy/trustworthy; sociability, consisting of unfriendly/friendly, cold/warm, unpleasant/pleasant; and extroversion, consisting of timid/bold, meek/aggressive, and silent/talkative. Two items from the composure dimension were inadvertently deleted on the time-1 instrument leaving only one item, tense/relaxed, thereby precluding measurement of this dimension. Reliabilities for the credibility dimensions were .85 for competence, .92 for character, .92 for sociability, and .83 for extroversion.
To measure the attitude toward topic, a three-item, seven-interval measure was used ("I believe that physician-assisted suicides should be permitted under certain conditions," "Physician-assisted suicide is immoral," and "I think that Arizona should pass a law allowing physician-assisted suicides in certain cases"). All items were bounded by I strongly disagree/I strongly agree. Cronbach's alpha for the scale was .86.

Demographic data were also collected.

**Time-2 materials**

Time-2 materials included a) the treatment message and b) computer-administered survey to assess changes in attitude toward topic and source occurring between time 1 and time 2.

**Treatment**

A computer program was written that allowed for entry of data from T1 for each subject. Based on this pretest data, subjects were assigned to treatment cells within the design.

**Source assignment.** Two sources were used for the treatment. If the subject held a stronger opinion about one source, that source was chosen since he provided the best test of the theoretical framework. When sources were valued similarly, either positively or negatively and within two points of absolute value, or fell within the neutral range of the evaluation scale (between -2 and +2 on a scale ranging from -6 to +6), the source was alternately assigned. This alternating assignment was overridden only when one source accumulated greater than five more assignments than the other source within the overall design.
Referendum position assignment. Under conditions of strong opinion about the issue of physician-assisted suicide (less than -3 or greater than +5 on a scale ranging from -9 to +9), subjects were assigned counterattitudinal arguments to allow for movement on the attitude-toward-topic scale. The lower end of the range was set at -3 rather than -5 due to the skewed distribution of subjects in favor of the proposed referendum at time 1. When scaled values for attitude toward topic fell between -3 and +5, subjects were alternately assigned in-favor-of- or against-referendum messages.

Enacted intensity assignment. Expected intensity was evaluated at T1. Those subjects whose averaged rating was greater than 4 on a 7-point interval rating scale were labeled as expecting high intensity. Those subjects whose averaged score was equal to or less than 4 were evaluated as expecting low intensity. Enacted intensity, high or low, was alternately assigned.

Manual override of cell assignments. Thirty-two cell assignments were overridden to balance cell counts within the design. For instance, if a subject expressed liking for one source over another greater than two scale points, automatic assignment dictated that the more polarized evaluation be chosen. However, certain cells within the design filled quickly (e.g., positive source with expected high intensity and enacted high intensity) using the automatic assignment algorithm. Thus, some subjects were forced into treatment cells that represented legitimate assignments based on experimental criteria (e.g., enacted low intensity...
might be forced when the count on high intensity enactment would have been automatically assigned by the alternating algorithm).

The information was exported to a data file that could be queried by the computer at the start of treatment to retrieve the appropriate cell assignment and videotaped message at T2 based on the entered subject identification number.

**Message construction.** The topic of physician-assisted suicide was chosen because the subject was frequently mentioned in nightly news broadcasts and newspapers during the time of the research. Dr. Jack Kevorkian had recently assisted in the suicide of two women and Proposition 119 was placed on the ballot in the state of Washington -- a proposition that would, for the first time, allow physicians to assist legally in the suicide of patients who had less than six months to live.

Opposing messages were constructed arguing in support and against a hypothetical referendum to appear on a November ballot in the state of Arizona that would, like Proposition 119, allow for physician-assisted suicide. A high intensity and low intensity version for each of the two positions were created (see Appendix A for complete scripts). Variations in intensity were based on literature from pragmatics, sociolinguistics, and communication (Bostrom, 1981; Bowers, 1963; Bradac, Bowers, & Courtright, 1979, 1980; Bradac & Wiseagarver, 1984; Brown & Levinson, 1978, 1987; M. Burgoon & Miller, 1971; Franzwa, 1969; Scotton, 1983) such that the high intense messages included more direct language as well as fewer hedges and circumlocutions. Messages were constructed and
revised until they were similar on several readability measures. Comparisons on those readability measures are detailed in Table 1.

### Table 1

**Readability Measures of Scripted Messages**

<table>
<thead>
<tr>
<th>Message</th>
<th>Total Words</th>
<th>Flesch Reading Ease</th>
<th>Flesch Grade Level</th>
<th>Flesch Kincaid</th>
<th>Gunning Fog Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Against High Intensity</td>
<td>239</td>
<td>46.9</td>
<td>13.5</td>
<td>10.7</td>
<td>13.4</td>
</tr>
<tr>
<td>Against Low Intensity</td>
<td>246</td>
<td>45.4</td>
<td>13.7</td>
<td>11.4</td>
<td>14.4</td>
</tr>
<tr>
<td>In Favor High Intensity</td>
<td>269</td>
<td>49.6</td>
<td>13.1</td>
<td>11.2</td>
<td>13.8</td>
</tr>
<tr>
<td>In Favor Low Intensity</td>
<td>270</td>
<td>49.7</td>
<td>13.0</td>
<td>11.6</td>
<td>14.2</td>
</tr>
</tbody>
</table>

A manipulation check was subsequently conducted to ensure perceived differences in intensity and message effectiveness (see Appendix B for manipulation check instrument). The manipulation instrument was completed by 127 students from a survey class in communication. Of those, 63 received the high and low intensity versions of the message arguing against the proposed proposition and 64
received the high and low intensity versions of the message arguing in favor of the proposed proposition.

In both groups, the structurally more intense script was perceived as such (in-favor-message group: high intensity script rating $M = 3.77$ on a 5-point scale, low intensity script $M = 2.47$, correlated-samples $t(63) = 10.35, p < .001$; against-message group: high intensity $M = 3.58$, low intensity $M = 2.60$, $t(61) = 8.47, p < .001$).

In addition, the messages were persuasive. Those who received the messages in favor of the proposition were more likely to think suicide should be permitted than the against-messages group (in-favor group $M = 6.03$ on a 7-point scale, against-group $M = 5.21$, $t(124) = 2.94, p < .01$) and that Arizona should pass the proposed referendum (in-favor group $M = 5.54$, against $M = 4.32$, $t(123) = 3.99, p < .001$). Unsurprisingly, pro-referendum subjects were less likely to characterize physician-assisted suicide as immoral (against-referendum $M = 3.21$, in-favor $M = 2.48$, $t(124) = 2.62, p < .01$).

Sources. The two sources were chosen on the basis of their familiarity to subjects, presumed credibility, and similarities on several other variables. One source was the current president of the University of Arizona and the other was the past-president of the same institution. Both narrators had been highly visible over the last year, both were highly educated males, and both had slight accents representing their cultural and ethnic backgrounds. Each narrator videotaped four messages (one high-intensity arguing for the proposition, one low-intensity arguing for the proposition, one high-
intensity arguing against the referendum, and one low-intensity arguing against the referendum). The eight messages (four by each narrator) were recorded on 3/4"-SP videotape in a broadcast-quality studio. A professional videographer, audio technician, lighting director, and technical director were used during the recording session. In addition to the treatment messages, two versions of a disclaimer statement (one for each narrator) were recorded by a professional narrator to be viewed by subjects at the end of T2. The disclaimer stated that the message viewed by the subject was a contrived message regarding a hypothetical referendum. The videotaped messages were sent to Crawford Communications in Atlanta, Georgia to create a "draw" videodisc, thereby allowing for random access to the messages for playback during treatment.

A computer-based application was created to control the videodisc playback of the appropriate message dependent upon cell assignment of the subject within the design and to automatically administer the post-treatment survey items after the subject viewed the video segment. The application was created using Asymetrix Toolbook, an object-oriented Microsoft Windows application that allows for creation of graphical user interfaces to control screen behavior. An IBM PS2 Model 80 (Intel 80386) computer with an M-Motion card was used for treatment administration. The M-Motion card allowed video from the laserdisc to be viewed on the computer screen, eliminating the need for a separate television monitor.
The application's presentation to the subject began with an explanation of how to use the computer mouse (if the subject requested instructions) and a practice screen explaining how to indicate opinions on a Likert-type scale display for each survey question. After subjects successfully navigated the instructional screens, they were presented with a screen that asked them to put on earphones to test the laserdisc. A short video segment was then played, appearing on the computer screen. The segment was an excerpt from the disclaimer that each subject viewed at the end of the program and stated "Due to the nature of this experiment, we ask that you do not discuss anything about the messages you view today with anyone else who is participating as a subject in this research." The program then asked the subject if the system worked properly. If there was a problem, subjects were told to summon the facilitator. Four computer problems were reported during administration that required facilitator intervention including two persons who had not put on headphones to hear the audio and two malfunctions of the laserdisc player. Given the assurance of functioning video, the subject was next instructed to click on a graphical button to play the appropriate video segment. Screen instructions informed subjects that the segment would last between one and three minutes and requested that the subjects concentrate on the segment as they would be asked questions about it afterwards. The appropriate segment was then displayed on the computer screen. After the segment was completed, the survey portion of the application began.
**Time-2 survey instrument**

The computer administered survey presented after viewing the assigned video segment contained five sets of questions related to a) attitude toward source, b) attitude toward physician-assisted suicide, c) credibility, d) production quality of the video segment and e) comprehension. Each section included an introductory screen reinforcing the appropriate use of the scales and informing the subject as to the general nature of the questions to follow.

Two scales used at T1 were embedded within the series of questions to assess post-treatment liking of source (α=.77) and attitude toward topic (α=.87). The scale used to measure perceived enacted intensity employed the same items as T1 expected intensity. However, the questions focused on the source as he appeared in the video segment. This perceived intensity scale had a Cronbach alpha of .84. Reliabilities of the credibility dimensions at T2 were .79 (competence), .90 (character), .84 (sociability), and .83 (extroversion).

In addition, other scales were included to assess the research question and to provide manipulation checks of the quality of the video segment. Narrator effectiveness included four items ("Dr. Pacheco/Dr. Koffler was effective in this video segment," "Dr. Pacheco/Dr. Koffler's language was appropriate in the video segment," "Dr. Pacheco/Dr. Koffler was persuasive in the video," "The arguments in the video were well developed") with a reliability of .85. Source's apparent commitment was operationalized with four items ("Dr. Pacheco/Dr. Koffler seemed sincere in the video segment," "Dr. Pacheco/Dr. Koffler seemed genuinely
committed to the position he was advocating," "Dr. Pacheco/Dr. Koffler persuasively presented his position," and "Dr. Pacheco/Dr. Koffler strongly supports the position he presented") with a reliability of .80. Source abrasiveness included four items ("Dr. Pacheco/Dr. Koffler seemed to be imposing his views on me," "Dr. Pacheco/Dr. Koffler was pushy in the video," "Dr. Pacheco/Dr. Koffler has no right to make the arguments presented in the video" and "Dr. Pacheco/Dr. Koffler seemed abrasive in the video") with a Cronbach alpha of .71. Production quality included four items ("There were no audio problems with the video segment," "The camera work in the video segment was of professional quality," "The lighting for the video segment was good," and "The video segment appeared professionally produced") with a reliability of .83.

Finally, three items were included to evaluate the subjects' opinion of the computer-based survey administration tool ("I prefer to take surveys using a computer like this rather than a paper-and-pencil method." "I found this program difficult to use," "I had difficulty using the computer mouse"). Due to the invariance of one item, this scale was unreliable (α=.31).

Administration

Time 1

At the beginning of the class, the teaching assistant announced that the Department of Communication was sponsoring a survey on important issues and recognizable sources within the community and that the students' participation would be appreciated. Participation was optional, however, the survey would take only about ten minutes to
complete and each student would have the opportunity to earn extra 
credit if he or she chose to participate in the second part of the 
experiment. To participate in part two, a unique identifying number had 
to be provided on the appropriate line so that responses could be 
tracked. In addition, the student was required to sign up for an 
appointment in a sign-up notebook that was passed around the class. The 
sign-up sheets included a listing of available times for each of fifteen 
experiment days between April 15 and May 3, 1992. Students indicated 
their preferred times by providing a name, unique identifying number, 
and phone number where they could be reached for a reminder telephone 
call. After completing the surveys, students returned them to the 
instructor.

**Time 2**

To participate in Time-2 measurement, subjects arrived at the 
Communication Research Laboratory at The University of Arizona, a large, 
comfortable room within the Department of Communication. A sign posted 
on the door requested that subjects wait outside until the facilitator 
came to get them.

The subject was ushered into the room and asked to sign a sheet 
that would ensure the promised extra credit. The subject was then asked 
to sit down at the computer table where the computer application was 
located. The facilitator then entered the subject's unique identifier 
which was used to retrieve cell assignment data from the disc drive. 
Subjects were asked if they had used a computer mouse. If not (23 of 
399 subjects had no experience with a mouse), they were told that
instructions would be given on the screen to explain optional use of the keyboard to control the program (seven subjects chose to use the keyboard). Subjects were next instructed to follow the directions on the screen and to put on the earphones when asked to do so by the program. Control of audio volume using a small audio mixer was demonstrated and subjects were advised to inform the facilitator if they had any problem with the program. The facilitator then retired across the room to a distance that would ensure inability to see subjects' responses while allowing for detection of problems with the program. The facilitator often left the room during the post-treatment measurement to reinforce disinterest in the subject's responses.

Missing data during time-2 assessment were precluded since subjects could not proceed to a new screen on the survey without first indicating an opinion on the present item. All subject data were automatically entered into an ASCII data file along with information about cell assignment and elapsed time of administration. When subjects completed the program, they were thanked for their participation and ushered out of the room.
CHAPTER 3
RESULTS

All hypotheses were tested using one-tailed statistical tests. Post hoc, exploratory examinations employed two-tailed tests.

Hypothesis 1

Hypothesis 1 predicted that the more important the issue is to the receiver, the less likely that there will be attitude change in the direction advocated by the source. A Pearson product-moment correlation was computed between the single item "How important is the topic of physician-assisted suicide to you?" and attitude change in the direction advocated by the speaker. As predicted, there was an inverse relationship, \( r = -0.15, p < 0.01, r^2 = 0.02 \). However, communication researchers (e.g., M. Burgoon, 1983) suggest differentiating between attitude movement away from pre-existing positions -- the traditional operationalization of attitude change -- and attitude bolstering. Certainly, one would expect more reactance to counterattitudinal messages as compared to proattitudinal messages.

Examining those cases in which the source argued proattitudinally, \( N = 119 \), the correlation between importance and attitude change was not statistically significant, \( r = -0.07, p > 0.05 \), while in counterattitudinal cases, \( N = 238 \), the inverse relationship was confirmed, \( r = -0.20, p < 0.01, r^2 = 0.047 \). To examine attitude change scores, two groups were created: those subjects who ranked the importance of the issue less than 4 on the three-item seven-interval attitude-toward-topic scale and those who ranked the importance of the issue above 4. Those who ranked the
importance of the topic below 4 on the scale demonstrated a mean
textbook change in the advocated direction of 1.11, \( N = 83 \), whereas
those who ranked the importance of issue above 4 demonstrated a mean
textbook change in the advocated direction of .68, \( N = 201, t(282) = 2.89, p < .01 \). For counterattitudinal cases, mean attitude change in the
direction of advocacy was 1.23, \( N = 47 \), for the low importance group and
.72, \( N = 146 \), for the high importance group, \( t(191) = 2.64, p < .01 \). Thus,
hypothesis 1 was supported overall, apparently due primarily to the
inverse relationship between topic importance and counterattitudinal
advocacy.

Hypothesis 2

Hypothesis 2 predicted a positive linear relationship such that
the more positively the source is evaluated, the more likely the
receiver will modify his or her attitude in the direction advocated by
the source.

The hypothesis was supported overall by a Pearson product-moment
correlation of +.17, \( p < .01 \), \( r^2 = .03 \), between pre-treatment source
liking and attitude change in the direction advocated by the source.
Once again, differences between proattitudinal and counterattitudinal
cases were examined. For proattitudinal subjects, \( N = 109 \), the product-
moment correlation was +.18, \( p < .05 \), \( r^2 = .03 \), and for counterattitudinal
subjects, \( N = 222 \), the correlation was +.14, \( p < .05 \), \( r^2 = .02 \).

To examine mean attitude changes for descriptive purposes,
nominalized groups were again established on the basis of pre-treatment
liking of the source below the mid-point on the two-item liking-of-
source scale as opposed to pre-treatment liking equal to or above the midpoint. Subjects who expressed pre-treatment liking for the source conformed their attitude to the source's position to a greater degree, $M = +.96$ units change on the seven-unit scale, $N = 185$, than those expressing disliking, $M = +.64$, $N = 168$, $t(351) = 2.63$, $p<.01$. In proattitudinal cases, mean change in attitude toward the position argued by the source was +.79 for liked sources, $N = 58$, and +.42 for disliked sources, $N = 51$, $t(107) = 1.91$, $p<.05$. In counterattitudinal cases, the mean change in attitude toward the liked source's position was +.99, $N = 114$, compared to +.72 for disliked sources, $N = 108$, $t(220) = 1.69$, $p<.05$.

Hypothesis 3

The third hypothesis posited that sources employing high intensity language would be evaluated as more strongly believing the arguments presented than would sources using low intensity language. To test this hypothesis, a t-test was calculated between the apparent belief in the position (apparent commitment scale) by sources using high intensity and those using low intensity. The subjects who received a high intensity message, regardless of position on the issue, rated the source as believing the arguments to a greater degree, $M = 5.20$, than those who received a low intensity message, $M = 5.00$, $t(381) = 1.69$, $p<.05$. The correlation between message intensity and the source's apparent belief in the message reveals a modest relationship of +.09, $p<.05$, $r^2 = .01$. Thus, the hypothesis was supported using structural intensity as the
independent variable, though the variance accounted for was extremely small.

However, message intensity was operationalized as perceived, as well as structural, with the perceived-enacted-intensity scale. When two groups were created on the basis of those who perceived the message to be high intensity (greater than the mid-point on the four-item perceived-enacted-intensity scale) and those who perceived the message to be low intensity (less than the mid-point), the relationship between intensity and apparent source commitment became clearer. Those who felt they viewed a high intensity message evaluated the source as believing the arguments presented significantly more, $M = 5.45$, $N = 280$, than those who thought they viewed a low intensity message, $M = 4.05$, $N = 83$, $\chi^2(361) = 11.06$, $p < .001$. In this case, the Pearson product-moment correlation was $+.59$, $p < .01$, $r^2 = .35$. Consistent with this overall effect, the high intensity group in the proattitudinal cases evaluated the speaker as believing the arguments to a greater degree, $M = 5.61$, $N = 90$, than the low intensity group, $M = 4.65$, $N = 25$, $\chi^2(113) = 4.52$, $p < .01$ with a correlation between perceived intensity and apparent speaker commitment of $+.56$, $p < .01$, $r^2 = .31$. In the counterattitudinal cases, a similar pattern emerged: high intensity, $M = 5.32$, $N = 169$, compared to low intensity, $M = 3.75$, $N = 54$, $\chi^2(221) = 9.95$, $p < .01$, with a product-moment correlation of $+.62$, $p < .01$, $r^2 = .38$. Thus, when using the perceived-enacted-intensity scale as the independent variable, the hypothesis was clearly and strongly supported.
Hypothesis 4 predicted an interaction between familiarity and liking such that familiarity works to the advantage of liked sources and to the disadvantage of disliked sources. Specifically, it was predicted that the highly familiar positive source would be most effective while the highly familiar negative source would be least effective.

To test this hypothesis, attitude change in the direction of source advocacy was regressed on source familiarity and liking using a hierarchical model. Since a significant two-way interaction was predicted by the hypothesis, the multiplicative term composed of source liking and source familiarity was forced into the model first and found to be statistically significant $F(1,351) = 9.86$, $p<.01$, $R^2 = .039$. Subsequent analyses revealed significant interaction terms for both proattitudinal $F(1,107) = 3.87$, $p=.05$, $R^2 = .04$ and counterattitudinal advocacy $F(1,220) = 4.32$, $p<.05$, $R^2 = .02$. When the main effect for liking was subsequently entered into the equation, both the interaction term and main effect for liking became non-significant, likely due to significant multicollinearity between the two components. The familiarity main effect exceeded tolerance criteria for entry into the equation. Alternatively, when familiarity was the first main effect entered into the equation, only the interaction remained significant with a semi-partial correlation of $.16$, $t = 2.99$, $p<.01$. The results of varying order of entry are depicted in Tables 2 and 3.
Table 2

Summary of Regression Analysis Steps Regressing Attitude Change on Liking and Familiarity with Order of Entry as (1) Liking x Familiarity, (2) Liking, and (3) Familiarity

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>Semi-T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step Number 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liking x Familiarity</td>
<td>.021</td>
<td>.007</td>
<td>.165</td>
<td>.165</td>
<td>3.139</td>
</tr>
<tr>
<td>Constant</td>
<td>.476</td>
<td>.121</td>
<td></td>
<td>3.925</td>
<td>.001</td>
</tr>
<tr>
<td>Overall $F(1,351) = 9.85, p &lt; .01$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple $R = .165$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2 = .027$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step Number 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liking x Familiarity</td>
<td>.010</td>
<td>.014</td>
<td>.084</td>
<td>.041</td>
<td>.770</td>
</tr>
<tr>
<td>Liking</td>
<td>.073</td>
<td>.086</td>
<td>.093</td>
<td>.045</td>
<td>.851</td>
</tr>
<tr>
<td>Constant</td>
<td>.367</td>
<td>.177</td>
<td></td>
<td>2.076</td>
<td>.038</td>
</tr>
<tr>
<td>Overall $F(2,350) = 5.29, p &lt; .01$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple $R = .171$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2 = .029$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step Number 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Tolerance (0.10) exceeded. Familiarity not entered into equation.
Table 3

Summary of Regression Analysis Steps Regressing Attitude Change on Liking and Familiarity with Order of Entry as (1) Liking x Familiarity, (2) Familiarity, and (3) Liking

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>Semi</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step Number 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liking x Familiarity</td>
<td>.021</td>
<td>.007</td>
<td>.165</td>
<td>.165</td>
<td>3.139</td>
<td>.002</td>
</tr>
<tr>
<td>Constant</td>
<td>.476</td>
<td>.121</td>
<td></td>
<td></td>
<td>3.925</td>
<td>.001</td>
</tr>
<tr>
<td>Overall $E(1,351) = 9.85$, $p&lt;.01$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple R</td>
<td>.165</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.027</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step Number 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liking x Familiarity</td>
<td>.027</td>
<td>.009</td>
<td>.216</td>
<td>.157</td>
<td>2.986</td>
<td>.003</td>
</tr>
<tr>
<td>Familiarity</td>
<td>.073</td>
<td>.068</td>
<td>.074</td>
<td>.054</td>
<td>1.029</td>
<td>.304</td>
</tr>
<tr>
<td>Constant</td>
<td>.669</td>
<td>.223</td>
<td></td>
<td></td>
<td>2.995</td>
<td>.003</td>
</tr>
<tr>
<td>Overall $E(2,350) = 5.45$, $p&lt;.01$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple R</td>
<td>.174</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.030</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step Number 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolerance (0.10) exceeded. Liking not entered into equation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examining the correlations among the model's variables reveals the significant multicollinearity, especially between liking and the cross-products term, which likely accounts for significant difference in results depending upon order of entry (see Table 4).
Table 4

Correlations between Liking x Familiarity, Familiarity, and Liking

<table>
<thead>
<tr>
<th></th>
<th>Liking</th>
<th>Familiarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liking x Familiarity</td>
<td>.876**</td>
<td>.688**</td>
</tr>
<tr>
<td>Liking</td>
<td>.304**</td>
<td></td>
</tr>
</tbody>
</table>

** = p<.01

However, since the interaction was theoretically specified a priori, it was decided that the means would be examined to determine if the pattern of cell differences matched predictions. This protocol is followed throughout: When a predicted interaction is specified a priori, statistical significance of the interaction term when subjected to forced entry into the regression model is taken as a valid test of the presence of the interaction. While it is acknowledged that some authors prefer use of an alternate method (i.e., significant incremental variance accounted for by the interaction above and beyond the model with all main effects entered), other researchers consider the method used here appropriate (J. K. Burgoon, personal communication, September 3, 1992; L. M. Aleamoni, personal communication, September 3, 1992).

Still, a concern remained: Over one-half of the subjects clustered in the neutral range of the familiarity scale which suffered from an unacceptable reliability, α = .51. To assess the extremes of familiarity where error is reduced and the scale reached a satisfactory
Cronbach alpha of .88, two groups were created on the basis of ratings falling below 3 and above 5 on the three-item seven-interval familiarity scale. As before, source liking was nominalized into groups on the basis of pre-treatment liking below the mid-point of the scale compared to pre-treatment liking equal to or above the midpoint. Given these groups, the pattern of means displayed in Table 5 was observed. The pattern conformed to predictions of hypothesis 4: The liked source was aided by familiarity whereas the disliked source was hindered by familiarity.

Table 5

<table>
<thead>
<tr>
<th></th>
<th>Disliked</th>
<th>Liked</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source</strong></td>
<td><strong>Source</strong></td>
<td></td>
</tr>
<tr>
<td>Low Familiarity</td>
<td>.64</td>
<td>.42</td>
</tr>
<tr>
<td>(N = 36)</td>
<td>(N = 23)</td>
<td></td>
</tr>
<tr>
<td>(SD = .96)</td>
<td>(SD = .95)</td>
<td></td>
</tr>
<tr>
<td>High Familiarity</td>
<td>.48</td>
<td>1.07</td>
</tr>
<tr>
<td>(N = 29)</td>
<td>(N = 53)</td>
<td></td>
</tr>
<tr>
<td>(SD = .97)</td>
<td>(SD = 1.12)</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Planned interaction comparison: \( t(137) = 2.44, p = .01. \)

A planned interaction comparison was conducted by performing a one-way ANOVA with the highly familiar sources coded as 1 and -1 and the
low familiarity sources coded as zeros. This coding system was chosen to reflect the focus of this theory -- highly familiar sources. The interaction was significant, $t(137) = 2.44, p=.01$. A plot of mean change scores is presented in Figure 3.

Figure 3. Graph of Mean Change Scores in Attitude in the Direction Advocated by the Source as a Test of Interaction between Familiarity and Source Liking.

Hypothesis 5

Hypothesis 5 predicted a pattern similar to that demonstrated in hypothesis 4: Intensity would have a differentially effective role for liked and disliked sources such that it works to the advantage of liked sources and to the disadvantage of disliked sources. A hierarchical
A regression model again was used entering the cross products of liking and intensity (structurally high or low intense message) into the equation first. The predicted interaction was not significant $F(1,351) = 3.52, p = .06$.

As before, differences that might occur between proattitudinal and counterattitudinal advocacy were examined. When the three-way term of high intensity/low intensity by liking/disliking by counterattitudinal/proattitudinal was entered first in a hierarchical model, the term was significant: $F(1,329) = 5.51, p = .01, R^2 = .02$. Consequently, patterns of means for proattitudinal and counterattitudinal cases were examined separately for this hypothesis.

Liking was, as always, split at the mid-point of the scale (with mid-point responses considered liked sources). Structurally low or high intensity was determined on the basis of cell assignment within the experimental design. Table 6 details the pattern of means for proattitudinal messages. Once again, an interaction comparison was made using a one-way ANOVA with the high intensity cells coded as 1 and -1 and the low intensity cells coded as zeros. This reflects the theoretical prediction made in chapter one that the most effective source should be the high intensity liked source and the least effective should be the high intensity disliked source. The interaction comparison was significant, $t(105) = 2.04, p < .05$. 
Table 6

Mean Change Scores in Attitude in the Direction Advocated by Source as a Test of Interaction between Intensity and Source Liking Under Conditions of Proattitudinal Advocacy

<table>
<thead>
<tr>
<th>Source</th>
<th>Disliked</th>
<th>Liked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Intensity</td>
<td>.42</td>
<td>.57</td>
</tr>
<tr>
<td>(N = 28)</td>
<td>(N = 28)</td>
<td></td>
</tr>
<tr>
<td>(SD = .99)</td>
<td>(SD = 1.15)</td>
<td></td>
</tr>
<tr>
<td>High Intensity</td>
<td>.42</td>
<td>.99</td>
</tr>
<tr>
<td>(N = 29)</td>
<td>(N = 30)</td>
<td></td>
</tr>
<tr>
<td>(SD = .97)</td>
<td>(SD = .73)</td>
<td></td>
</tr>
</tbody>
</table>

Note. Planned interaction comparison: $t(105) = 2.04, p < .05$.

Although the interaction comparison was significant, it is obvious that the disliked source was not hurt by use of intensity though the liked source did benefit from its use in the proattitudinal case. A plot of the results is presented in figure 4.
Figure 4. Graph of Mean Change Scores in Attitude in the Direction Advocated by Source as a Test of Interaction between Intensity and Source Liking Under Conditions of Proattitudinal Advocacy.

In the case of counterattitudinal advocacy, a pattern consistent with a main effect for liking appeared, however, it did not reach statistical significance, $\chi^2(218) = 1.69, p=.09$. 
Table 7

Mean Change Scores in Attitude in the Direction Advocated by Source as a Test of Interaction between Intensity and Source Liking Under Conditions of Counterattitudinal Advocacy

<table>
<thead>
<tr>
<th>Source</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Intensity</td>
<td>High Intensity</td>
</tr>
<tr>
<td>Disliked</td>
<td>Liked</td>
</tr>
<tr>
<td>.68</td>
<td>1.01</td>
</tr>
<tr>
<td>(N = 54)</td>
<td>(N = 53)</td>
</tr>
<tr>
<td>(SD = 1.20)</td>
<td>(SD = 1.20)</td>
</tr>
<tr>
<td>.74</td>
<td>.97</td>
</tr>
<tr>
<td>(N = 54)</td>
<td>(N = 61)</td>
</tr>
<tr>
<td>(SD = 1.14)</td>
<td>(SD = 1.27)</td>
</tr>
</tbody>
</table>

Thus, using structural intensity of the message as the predictor variable, the hypothesis is only partially supported: In proattitudinal situations, liked sources benefited from use of intensity.

Again, these results of operationalizing intensity as a structural attribute of the message were compared to those seen when operationalizing intensity as perceived by the viewer. When perceived intensity of the message was regressed on liking, the term created by the cross products was significant, \( F(1,351) = 6.84, p < .01, R^2 = .02 \).
### Table 8

**Mean Change Scores in Attitude in the Direction Advocated by Source as a Test of Interaction between Intensity and Source Liking Using Perceived Intensity Scale**

<table>
<thead>
<tr>
<th>Source</th>
<th>Low Intensity</th>
<th>High Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disliked</td>
<td>.67 (N = 51)</td>
<td>.60 (N = 107)</td>
</tr>
<tr>
<td>Liked</td>
<td>.91 (N = 27)</td>
<td>.97 (N = 151)</td>
</tr>
<tr>
<td></td>
<td>(SD = 1.18)</td>
<td>(SD = 1.17)</td>
</tr>
<tr>
<td></td>
<td>(SD = 1.15)</td>
<td></td>
</tr>
</tbody>
</table>

Note. Planned interaction comparison: $\chi^2(332) = 2.45$, $p = .01$.

A pattern consistent with predictions emerged when means were examined: The disliked source was less effective and the liked source was more effective with use of intense language. The planned interaction comparison was significant, $\chi^2(332) = 2.45$, $p = .01$. 


Figure 5. Graph of Mean Change Scores in Attitude in the Direction Advocated by Source as a Test of Interaction between Intensity and Source Liking Using Perceived Intensity Scale.

For proattitudinal cases, the pattern was consistent with a main effect for liking, however, it was not statistically significant when subjected to a contrast between the levels of liking, \( F(332) = 1.91, p=.06. \)

In counterattitudinal cases, the predicted pattern of means again appeared.
Table 9

Mean Change Scores in Attitude in the Direction Advocated by Source as a Test of Interaction between Intensity and Source Liking Using Perceived Intensity Scale in Cases of Counterattitudinal Advocacy

<table>
<thead>
<tr>
<th>Source</th>
<th>Disliked</th>
<th>Liked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Intensity</td>
<td>.81</td>
<td>.71</td>
</tr>
<tr>
<td></td>
<td>(N = 33)</td>
<td>(N = 17)</td>
</tr>
<tr>
<td></td>
<td>(SD = 1.17)</td>
<td>(SD = 1.23)</td>
</tr>
<tr>
<td>High Intensity</td>
<td>.64</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>(N = 68)</td>
<td>(N = 92)</td>
</tr>
<tr>
<td></td>
<td>(SD = 1.19)</td>
<td>(SD = 1.22)</td>
</tr>
</tbody>
</table>

Note. Planned interaction comparison, $\chi^2(206) = 2.08$, $p<.05$.

As predicted, the liked source benefited and the disliked source suffered from use of intense language. Once again, the interaction comparison was significant, $\chi^2(206) = 2.08$, $p<.05$. These relationships are graphed in Figure 6.
Thus, using perceived intensity as the predictor variable, hypothesis 5 was partially supported, this time in the counterattitudinal case in which the liked source benefited from and the disliked source suffered from use of intense language.

Hypothesis 6

Hypothesis 6 stated that familiarity and intensity combine such that high familiarity results in increases in attitude change with the use of language that is more intense than expected for liked sources and decreases in attitude change for disliked sources. The three-way term of familiarity by liking by perceived deviations from expected intensity...
(difference between expected intensity and rating of enacted intensity in the video segment) was entered into the regression model first and found to be significant, $F(1,324) = 6.19$, $p < .05$, $R^2 = .02$.

To retain sufficient power to examine the means, a different coding system for familiarity had to be used for this hypothesis. Rather than excluding the midrange of the scale, scores above 4 on the seven-interval scale represented the high familiarity group while scores below 4 represented the low familiarity group. The Cronbach alpha using these subjects was .57.

The pattern of means confirmed that highly familiar, disliked sources were more effective employing language that is less intense than expected. However, the pattern of means for liked sources was exactly the same and counter to predictions. Since the pattern of means differed from hypothesized, a post hoc examination of the most effective source (liked, high familiarity using less-intensity-than-expected) with all other cells was conducted using Tukey's Honestly Significant Difference test as suggested by Shavelson (1988). No two groups differed significantly from each other using this comparison.
Table 10

Mean Change Scores in Attitude in the Direction Advocated by Source as a Test of Predicted 3-way Interaction Using Extremes of Familiarity Scale

<table>
<thead>
<tr>
<th></th>
<th>Disliked Source</th>
<th></th>
<th>Liked Source</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less Intense</td>
<td>More Intense</td>
<td>Less Intense</td>
<td>More Intense</td>
</tr>
<tr>
<td>Low Familiarity</td>
<td>.51</td>
<td>.69</td>
<td>.62</td>
<td>.92</td>
</tr>
<tr>
<td>High Familiarity</td>
<td>.74</td>
<td>.64</td>
<td>1.47</td>
<td>.93</td>
</tr>
</tbody>
</table>

Since changing coding schemes between hypotheses begs the question of consistency and because unreliability continued to plague the familiarity scale, an additional analysis was run using the single item "How familiar are you with Dr. Pacheco/Dr. Koffler?" to represent familiarity. This was the only alternative method of employing a reliable measure without sacrificing power. The pattern of means was similar to that seen with the three-item scale and the overall ANOVA model was significant, $F(7,263) = 1.98, p=.05$. Again using Tukey's HSD test, the familiar liked source using less-than-expected intensity differed significantly from one other group.
Table 11

**Mean Change Scores in Attitude in the Direction Advocated by Source as a Test of Predicted 3-way Interaction Using One-item Familiarity Scale**

<table>
<thead>
<tr>
<th>Source</th>
<th>Less Intense</th>
<th>More Intense</th>
<th>Less Intense</th>
<th>More Intense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disliked Source</td>
<td>.30°</td>
<td>.75</td>
<td>1.02</td>
<td>.88</td>
</tr>
<tr>
<td>Liked Source</td>
<td>.67</td>
<td>.63</td>
<td>1.48*</td>
<td>.93</td>
</tr>
</tbody>
</table>

* = Significantly different than groups indicated by °, p<.05 by Tukey's HSD test.

The results of these analyses suggest that hypothesis 6 was not supported. In fact, counter to predictions, both liked and disliked familiar sources benefited from using language that was less intense than expected. Unfamiliar, disliked sources benefited when employing verbal intensity in both analyses and liked sources benefited from use of intensity when the three-item scale was used.

**Research Question**

The research question posed in this study was, "Are there any effects on credibility or liking that accrue to a source who deviates from expected language intensity?" It was argued in chapter one that the balance theory explanation embedded in this framework suggests that speakers could be effective in the short-term but suffer long-term
detrimental effects. Specifically, it was posited that sources using
language that is more intense than expected might be persuasive but
diminish their credibility and liking.

To examine this question, change from T1 to T2 ratings of
credibility and liking were assessed given language that was more or
less intense than expected. A series of one-way comparisons was
performed, with Bonferroni corrections, to detect significant changes.
Given the seven examinations made, a significance level of .007 (0.05/7
for two-tailed tests) was established.

The competence dimension of credibility exhibited marked changes
between time 1 and time 2, dependent upon the intensity of messages
viewed. The mean scale unit change in competence rating on the three-
item, seven-interval scale from pre-exposure to post-exposure was +.76
(N = 237) for the higher-than-expected intensity group and +.26 for the
lower-than-expected intensity group, (N = 91), F(1,326) = 13.64, p<.007.
The extroversion dimension, not surprisingly, showed a marked change
dependent upon enacted intensity. Those who perceived a higher-
intensity-than-expected message showed a +.55 (N = 237) increase on the
summed seven-interval extroversion scale while those who perceived a
lower intensity message showed a decrease (M = -.68, N = 90), F(1,325) =
71.71, p<.007. The two remaining dimensions of credibility that were
measured, sociability and character, showed no significant changes
between time 1 and time 2.

Changes in liking of narrator associated with different levels of
intensity did not reach significance, F(1,325) = 3.30, p=.07.
Following the argument advanced in chapter one, intensity may also have indirect, cumulative consequences on speaker credibility and liking if the source is viewed as pushy or abrasive, even though the source may be persuasive. As predicted, higher intensity sources were viewed as pushier ($M = 3.26$ on a 7-point scale, $N = 237$) than their lower intensity counterparts ($M = 2.82$, $N = 91$), $F(1,326) = 10.87$, $p < .007$. The Pearson product-moment correlations between perceived intensity and perceived abrasiveness was $+.31$, $r^2 = .10$. There was an inverse relationship between this perceived abrasiveness and liking of narrator as he appeared in the video segment, $r = -.21$, $p < .01$, $r^2 = .04$. Subsequent analyses of proattitudinal and counterattitudinal cases revealed that speaker pushiness was statistically significant solely in the counterattitudinal condition: high intensity $M = 3.35$, $N = 155$, low intensity $M = 2.78$, $N = 52$, $F(1,205) = 10.65$, $p = .001$.

Speaker abrasiveness was inversely related to attitude change, though the effect was small, $r = -.12$, $p < .05$, $r^2 = .01$. When correlations for liked and disliked speakers were examined separately, solely liked speakers demonstrated a statistically significant inverse relationship between persuasiveness and abrasiveness, $r = -.19$, $p < .05$, $r^2 = .04$. Likewise, only the liked narrator showed a statistically significant inverse correlation between perceived abrasiveness and liking of the source as he appeared in the video segment, $r = -.21$, $p < .01$, $r^2 = .04$. All of these findings are consistent with the unexpected superiority of low intensity language for liked, familiar sources detected in hypothesis 6.
Secondary Analyses

Additional analyses were conducted to answer two questions: (1) Will the viewer be willing to admit that the narrator was effective in the video, even if the viewer does not immediately declare a change in his or her attitude, and (2) will the viewer be willing to admit that the video was effective, even if the viewer does not immediately declare a change in his or her attitude on the topic. These two inquiries are motivated by the fact that video effectiveness and narrator effectiveness accounted for more variance in attitude change than any other variables examined in this study.

Narrator Effectiveness

Effectiveness of the narrator was positively correlated with attitude change, $r = +.27$, $p < .01$, $r^2 = .07$. While the coefficient of determination is admittedly modest, narrator effectiveness accounted for more variance in attitude change than any other variable in this study, including any credibility dimension (e.g., competence, $r^2 = .02$). Thus, it seems productive to identify factors affecting narrator effectiveness for subsequent studies.

By far, apparent narrator commitment accounted for the most variance in narrator effectiveness of any single predictor. Overall, speaker's apparent belief in the argument was demonstrated a Pearson product-moment correlation of $.80$, $p < .01$, $r^2 = .64$. The relationship for liked sources was similar to the overall pattern, yet, even for disliked sources, apparent belief in the argument accounted for a majority of the variance in narrator effectiveness, $r = .75$, $p < .01$, $r^2 = .
.56. Consistent with the results for hypothesis 3 in which perceived intensity was the single best predictor of the narrator's belief in the argument, the Pearson product-moment correlation between narrator effectiveness and perceived intensity was statistically significant, $r = .55$, $p < .01$, $R^2 = .30$.

As a further exploration, narrator effectiveness was substituted for attitude change as the dependent variable in a three-way design similar to that of hypothesis 6. When liking, familiarity, and deviation from expected intensity, along with the various cross-products, were entered simultaneously into a regression model, solely the interaction between liking and familiarity along with the main effect for intensity deviations remained in the model.
### Table 12

**Summary of Regression Analysis Regressing Narrator Effectiveness on Liking, Familiarity, and Deviations from Expected Intensity**

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>B</th>
<th>SEB</th>
<th>Beta</th>
<th>SEMI</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liking x Familiarity</td>
<td>0.042</td>
<td>0.006</td>
<td>0.333</td>
<td>0.330</td>
<td>7.121</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Intensity Deviations</td>
<td>0.297</td>
<td>0.042</td>
<td>0.328</td>
<td>0.325</td>
<td>7.004</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Constant</td>
<td>4.050</td>
<td>0.110</td>
<td></td>
<td></td>
<td>36.862</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Overall $F(2, 350) = 57.19, p < .01$

Multiple $R = .496$

Adjusted $R^2 = .242$

The means for the various conditions are depicted in table 13.

Using Scheffe's post hoc comparisons between the liked, high intensity source and the seven remaining cells, significant differences appeared only in cells of low familiarity sources.
Table 13

Display of Means for 2 (Liking) by 2 (Familiarity) by 2 (Deviations of Intensity) with Narrator Effectiveness as Dependent Measure

<table>
<thead>
<tr>
<th></th>
<th>Disliked Source</th>
<th>Liked Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower Intensity</td>
<td>Higher Intensity</td>
</tr>
<tr>
<td>Low Familiarity</td>
<td>3.56</td>
<td>4.54</td>
</tr>
<tr>
<td>High Familiarity</td>
<td>4.44</td>
<td>4.98</td>
</tr>
</tbody>
</table>

* = Significantly different than shaded cells by Scheffe's comparisons, p<.001.

In contrast to hypothesis 6, presenting the arguments with more intense styles was more likely to be judged effective for all narrators. In addition, familiarity appeared to have an enhancing effect: All familiar sources were more effective than their less familiar counterparts.

Video Effectiveness

The perceived effectiveness of the video segment demonstrated a similar relationship as narrator effectiveness with attitude change, $r = .25$, p<.01, $r^2 = .06$. Again, the speaker's apparent belief in the arguments accounted for the largest proportion of variance in video effectiveness of any single variable, $r = .70$, p<.01, $r^2 = .49$. Perceived intensity was strongly correlated with video effectiveness at
\( r = .47, p < .01, \ r^2 = .22 \). As before, an exploratory regression analysis was generated regressing video effectiveness on liking, familiarity, and intensity deviations. Again, substantial amounts of variance were accounted for, with the only components to remain in the equation being the interaction between liking and familiarity and the main effect for deviations from expected intensity. As above, intensity had an enhancing effect for all narrators.

Table 14
Summary of Regression Analysis Regressing Video Effectiveness on Liking, Familiarity, and Deviations from Expected Intensity

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>B</th>
<th>SE R</th>
<th>Beta</th>
<th>Semi</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liking x Familiarity</td>
<td>.043</td>
<td>.006</td>
<td>.312</td>
<td>.309</td>
<td>6.551</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Intensity Deviations</td>
<td>.303</td>
<td>.046</td>
<td>.311</td>
<td>.309</td>
<td>6.546</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Constant</td>
<td>3.912</td>
<td>.120</td>
<td></td>
<td></td>
<td>32.591</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
| Overall \( F(2,350) = 49.16, p < .01 \) 
Multiple \( R = .468 \) 
Adjusted \( R^2 = .219 \)
Table 15
Display of Means for 2 (Liking) by 2 (Familiarity) by 2 (Deviations of Intensity) with Video Effectiveness as Dependent Measure

<table>
<thead>
<tr>
<th></th>
<th>Lower Intensity</th>
<th>Higher Intensity</th>
<th>Lower Intensity</th>
<th>Higher Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Familiarity</td>
<td>3.29*</td>
<td>4.44</td>
<td>3.97</td>
<td>5.16</td>
</tr>
<tr>
<td>High Familiarity</td>
<td>4.35</td>
<td>4.88</td>
<td>4.77</td>
<td>5.48</td>
</tr>
</tbody>
</table>

* = Significantly different than shaded cells by Scheffe's comparisons.
CHAPTER 4
DISCUSSION

Summary of Findings

The theoretical framework presented in the first chapter posited that liking and familiarity represent important predictors of the effectiveness of linguistic markers of association. In this study, language intensity was employed as a typical marker of association. Most hypotheses were, at least partially, supported. Hypothesis 6 was not supported; on the contrary, it requires reexamination of some basic theoretical assumptions. However, the results of this study highlight the role that speaker attributes play in language appeals.

The framework presumed that balance theory would explain some movement in attitude from time 1 to time 2. To test this assumption, hypothesis 2 investigated the degree to which source liking predicted attitude change. Approximately three percent of the variance in attitude change was accounted for by knowledge of source liking. While the practical implication of accounting for such modest covariance is problematic, pre-treatment liking invariably accounted for the largest amounts of variance in all factorial analyses (a more global discussion of effect sizes is included later). Moreover, the two-item liking scale was as good or better a predictor of attitude change as the two most commonly employed dimensions of credibility, competence and character (McCroskey, 1981). Certainly, all indications are that the affective dimension of attitudes are extremely important.
Another assumption embedded in the theoretical framework was that attitudes toward objects are composed of both a polarized magnitude and a centrality component. Most communication research collapses these two components, relying solely upon a valenced summation of an attitude.

The support provided for hypothesis 1 suggests that topic importance creates an anchoring effect on attitudes. This study was not designed to fully explore the role of topic importance and obviously, with only four percent of the variance in attitude change accounted for in the best case, topic importance will not reliably predict attitude change. However, measurement of topic importance may provide a practical gauge as to how intense of a message will be tolerated or required, especially when that information is coupled with knowledge of subjects' familiarity with the source.

Several hypotheses indicate that source familiarity has an amplifying effect on source evaluation. Hypothesis 4 most clearly demonstrated the combined role of familiarity (source centrality as operationalized in this study) in combination with source liking. As predicted, familiarity appears to provide a multiplicative effect such that liked sources benefit with increased familiarity, especially when compared to the highly familiar disliked sources. Though beyond the scope of this study, further investigation might reveal an appropriate weighting factor for familiarity that could provide a more precise prediction of narrator effectiveness when applied to source liking or credibility measures.
The theory also predicted an increase in "conative force" when a source appears to truly believe what he is arguing and that the single most effective way of making a source appear to believe the advocated position would be to use highly intense language.

Hypothesis 3 tested whether sources using highly intense language are perceived to believe arguments to a greater degree than sources employing low intensity. Relying upon the structural attributes of messages served only as a rough predictor of the source's apparent belief in the arguments. This may reflect more about the specific messages used in this research than intensity itself. For when intensity was operationalized as perceived, rather than structural, it accounted for a significant portion of the variance in apparent source commitment ($r^2 = .35$). This apparent commitment dimension may play an important role in persuasion; the Pearson product-moment correlation between narrator effectiveness and apparent commitment was $r = .80$, $p < .01$, $r^2 = .64$ suggesting that a believable narrator can be an effective narrator.

Given the emerging picture consistent with predictions in the first four hypotheses, hypothesis five provided the first direct test of whether intensity had a combinatory effect with source liking. Results were mixed in this investigation when structural language attributes represented the independent variable: Only in the case of proattitudinal messages did liked sources benefit from use of intensity.

In contrast, when perceived intensity was examined, the predicted interaction emerged such that liked sources using high intensity were
most successful, significantly more than disliked sources using the same language. However, this held only in the counterattitudinal scenario.

The sixth hypothesis investigated the fully saturated model representing all variables contained in the framework. Moreover, it provided the first test of what happens when one not only employs intensity of a given level, but also matches or violates the viewer's expectations for intensity. Unfamiliar, disliked sources benefited by using language that was more intense than expected, as did liked unfamiliar sources in one of the two analyses. In contrast, familiar, liked sources and familiar, disliked sources benefited from language that was less intense than expected. This ran counter to predictions for the liked source. The finding strongly supports the assertion by M. Burgoon (1983) that liked sources can be very effective by creating positive violations of expectations using language that is less intense than expected. It is important to keep in mind that this positive source must be well known, probably with a history of using intense language in the past, before one can truly take advantage of this violation of expectation. Thus, the importance of gauging source familiarity is again reinforced.

As several authors have argued (J. Burgoon et al., 1989; Jacobs, 1985; Sperber & Wilson, 1988), communication must be viewed as a dynamic process. The one-shot message has its effects, to be sure. Yet, the techniques employed to gain attention and attitude change may subsequently compromise the source's effectiveness. Exploration of the research questions supported the notion that speakers can be seen as
pushy and abrasive when they use language that is more intense than expected in counterattitudinal appeals. Thus, it seems advisable that unfamiliar narrators reserve intense language for appeals that truly warrant its use. Moreover, it seems wise for familiar narrators who have earned a reputation for intense language to employ low intensity language in all cases, thereby deriving both the advantages of increased persuasion and less imposition.

While eliciting a public commitment to attitude change is certainly the most satisfying indicator of message effectiveness, one should not rule out other considerations. Attitude change may be difficult to demonstrate on a survey instrument one or two weeks after publicly declaring one's position on a topic. Still, it seems promising if the viewer is willing to admit that the narrator was effective in the video segment. Subsequent messages may demonstrate a cumulative effect leading to eventual attitude change on the topic. Thus, narrator effectiveness was examined to see if persons would be willing to praise either the narrator or the public service announcement, even if they were not yet ready to yield attitudinally.

Narrator effectiveness accounted for more variance in attitude change than any other variable in this study, including the competence dimension of credibility measures. Both liked and disliked sources were seen as effective whenever they appeared to truly believe the arguments they presented and this apparent commitment was elicited whenever high intensity was perceived. In fact, the means for narrator effectiveness reflect a pattern at odds with attitude change. It is possible that
subjects judged the sources against a standard of professional narrators in this case. A source could be viewed as delivering a message effectively (e.g., good pacing and good eye contact) -- a delivery that might be convincing if the source were unknown to the viewer -- without being persuasive. The viewer probably considers the familiar source's historical appeal before inferring a social meaning of the message and before yielding to an appeal; at least this interpretation is consistent with the arguments presented earlier.

In summary, the study supports the argument that to change an attitude, highly intense language is best employed by unfamiliar sources. This conclusion is consistent with many studies of verbal intensity which generally rely upon credible, but unknown, sources. However, the attributions of abrasiveness ascribed to sources who employ intense language should be taken into account. The possible reduction in narrator effectiveness for subsequent appeals may outweigh the need for intensity in some situations.

In contrast, highly familiar sources -- both liked and disliked -- were more effective when they employed language that was less intense than expected. The fact that findings were opposite for familiar and unfamiliar sources supports the important role of familiarity along with credibility or liking measures for prospective narrators of mediated appeals.

Significance and Limitations of the Claims

The framework examined here relates to recent discussions in communication journals debating presumed message-by-treatment
interactions. Jackson and Jacobs (1983) argue that interactions between linguistic variables and messages are pervasive. Conversely, Hunter, Hamilton, and Allen (1989) argue that no evidence supports this presumption. The argument suggested here is that both are concerned with a spurious relationship. If interactions do exist between message topic and linguistic variables, they do so not because of an intrinsic attribute of the topic (unless time is always considered a variable); topics of interest change. Rather, effects appear because of interactions between extra-linguistic variables such as centrality of issue, source liking, and source familiarity, in conjunction with linguistic variables.

Although much of the nomenclature relating to centrality appears to overlap with the Elaboration Likelihood Model, differences exist between this research and that offered by Petty and Cacioppo (1986). They suggest that central route persuasion occurs when the hearer is ego-involved in the issue and compelling reasons for changing evaluations are present. Conversely, if the hearer is not ego-involved in an issue, peripheral cues such as the room environment or speaker attributes may persuade. In the present theory, there are no claims about compelling arguments. Just as language variables remain in the conceptual error term of Petty and Cacioppo (M. Burgoon, 1989), reasoning faculties are of little concern here. In fact, there may be good reasons for processing speaker information thoughtfully -- speaker attributes may represent central cues in particular situations -- however, the primary motivation is to maintain attitudinal consistency
considering the source and topic, rather than to accept logical arguments. Moreover, Petty and Cacioppo conceptually equate involvement with predicted outcome effects. They assume that central issues impact the hearer's freedom to act rather than freedom to hold certain attitudes (Johnson & Eagly, 1989). Here, the focus rested on Johnson and Eagly's "value-relevant involvement."

The most important findings were that (1) viewers of mediated appeals make judgments about those appeals not only on the basis of reasoning, but also on the basis of affect toward the narrator, (2) viewers come to mediated appeals with varying expectations of sources dependent upon familiarity with the source, which has a significant impact on the outcome, and (3) familiar sources are different than the unfamiliar sources frequently used in social influence studies. When the source is known to the viewer, many results are more consistent with interpersonal communication literature than with the literature focusing on social influence or mass media.

One of the larger methodological problems in this study was the familiarity scale. Part of the problem might well be the operationalization of familiarity. The familiarity scale was intended to tap the construct of source centrality. In relational communication, a central source could be viewed as one with whom a person has an influential relationship in one of several arenas (e.g., work, school, legal system, or social). In the mediated context, narrators elicit their influence on viewers through a para-social relationship. The viewer chooses whether or not to maintain an influential relationship.
Thus, it was reasoned that the more a viewer had chosen to expose him or herself to a mediated source, the greater the familiarity with that source would be. Consequently, familiarity would provide an indirect measure of source centrality. However, since both sources in this study had been president of the university where the research was conducted, it is very likely that subjects would have little choice but to be familiar with the narrators. This casts doubt on the ability of a familiarity scale to indirectly measure source centrality as intended. In addition, the manipulations with the familiarity scale to overcome its unreliability beg other questions. In one instance, only the extremes of familiarity were included while in another only one-item was used to gauge the construct. Clearly, further work must be done to construct a valid and reliable familiarity scale, after which similar studies could be completed.

The operationalization of intensity also raised questions. In all instances, intensity was viewed as both structural and as perceived by the viewer. The goal of this research was to identify structural attributes of language that account for attitude change. Thus, the ideal would be to employ solely structural criteria for labeling a message as intense. However, it is possible that the manipulation check was not sufficiently rigorous to claim that the high intensity message would be viewed as such by a majority of subjects. The only assertion that can be made is that it was viewed as more intense than the low intensity message. Thus, it seemed reasonable to use the perceived-enacted-intensity scale to examine what happens when a message is perceived as
highly intense. The major pitfall of this approach, however, is that post hoc attributions of intensity are intertwined with several other factors including non-verbal presentation. Thus, one does not truly know if a perception of high intensity is due to structural attributes, individual delivery styles of the narrators, or other confounding variables that ultimately become labeled by the viewer as an intense message. In subsequent studies, a manipulation check must provide independent measures of intensity levels of each message, rather than comparative measures, so that structural criteria can be identified.

In addition, there is no hiding the fact that the proportion of variance accounted for was small in most instances. Many of the small effect sizes associated with the newly created interaction terms probably can be attributed to the overwhelming effect of source liking. However, effects sizes in the four percent range can still account for 20% increases in success rate on binomial distributions. Given a political election in the balance or life-or-death issues related to healthcare, these increases can have practical importance. As an example, a Pearson product-moment correlation of .20 would account for only 4% of the variance. However, when tabled as a binomial effect size display (Rosenthal & Rubin, 1982), one can appreciate the practical implications.
Table 16

Hypothetical Example of Election Results with a Political Message Accounting for only 4% of Variance

<table>
<thead>
<tr>
<th></th>
<th>Candidate X</th>
<th>Candidate Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>With message accounting for 4% of variance in favor of Candidate X</td>
<td>600</td>
<td>400</td>
</tr>
<tr>
<td>Control without benefit of 4% variance accounted for by message</td>
<td>400</td>
<td>600</td>
</tr>
</tbody>
</table>

Another significant problem within the theory is the level of analysis. Persuasive communication is dynamic. To be truly useful, a theory must address probable shifts in speaker reward value during the course of communication. For instance, once a source violates expectations several times, what recommendations can be made given the newly created expectations. A time-series study would provide more useful information on this issue.

Finally, it is proposed that while the functional explanation of linguistic devices will remain constant over time, the surface structure of language changes. Thus, to be truly useful, the empirical nomination of devices that act as linguistic markers of association must be constantly reassessed. Any new study must include careful manipulation checks that confirm differences between high and low intensity. Whereas intense language may function as a marker of association today, such
surface structure may revert to disassociation as language evolves, especially within specific subcultures.
FOOTNOTES

1. "Speaker reward value," as used by J. Burgoon, refers to such characteristics as source authority, dominance, status, and expertise as perceived by the hearer. Thus, the term can be considered similar to attitudes in that it represents an overall evaluation of a target in terms of polarity, magnitude, and centrality. See J. Burgoon (1978) and J. Burgoon & Hale (1988). Here, "speaker reward value" is used to connote the relative importance of the speaker to the hearer's life. As will be demonstrated later, those speakers who are judged positively and considered central to a hearer are considered to possess high speaker reward value. This reward value may be based either on attraction or credibility assets.

2. The terminology related to violations of expectations is based on the work of M. Burgoon (expectancy theory) and J. Burgoon (non-verbal expectancy violations). The concept of violations of expectations is not fully developed in this model because the framework is most concerned with the manner in which initial expectations are formed and linguistic assertions processed. However, many of the predictions offered by expectancy theory and theory of non-verbal expectancy violations are assumed to hold here, should such violations occur. Specifically, expectancy theory supports the notion that highly credible sources have a much wider bandwidth of acceptable behaviors than negatively valued sources. This theory supports the notion that such credible speakers can be very effective when employing the extremes of this bandwidth. On a more micro-analytic, psychological level, the
theory of non-verbal expectancy violations supports the notion that centrality determined through prior interaction of speakers and hearers plays an important role in determining linguistic expectations.

3 As an example, several utterances could reveal dislike for a hearer; the referent, hearer, and the predication, dislike, can be expressed in a variety of ways. Language such as "I hate you!" or "I really despise your guts!" is unambiguous. However, the same proposition can be implied: "You know, it's possible that I just don't like being around you."

4 As stressed throughout this manuscript, intensity is but one linguistic marker of association. Others include immediate or direct language. To simplify the semantic qualifications throughout this section, however, language intensity is taken as the prototypical example of linguistic markers of association.

5 "Familiarity" is used in the same sense that a proposition can be said to occupy a disproportionate amount of cognitive concern; the speaker occupies a disproportionate amount of "cognitive space" in the hearer because of previous exposure. It may be useful to keep in mind a prototypic speaker for each permutation of centrality. A central, positive source who can effect immediate consequences in a hearer's life might be a major professor. A central, negatively valued source could be an incompetent boss. The highly positive secondary source might be an academician with whom the hearer has had little contact but admires (e.g., John Searle for many linguists). The negatively valued secondary source might be an actor for whom the hearer has no respect.
6 This does not imply that secondary sources can not be effective speakers in videotaped messages. For a greater discussion of language variables as employed by secondary sources, see M. Burgoon & Miller (1985).

7 The study was not designed to balance proattitudinal and counterattitudinal cases. However, due to the sample size, there was sufficient power to examine these differences in most instances.

8 For all analyses, liking was operationalized as a lack of disdain. Thus, a neutral score was included in the positive liking group. This decision was made to avoid reducing the power of tests which would have occurred if neutral subjects had been dropped from analyses.

9 All reports of $R^2$ are adjusted for shrinkage.
Hello, I'm (Dr. Manuel Pacheco/Dr. Henry Koffler), (President/Past President) of The University of Arizona.

Next November, the voters of Arizona must make a choice -- a crucial choice: Whether or not Arizona physicians should be allowed to help patients commit suicide when the patient has less than six months to live.

The arguments pro and con are complex, but, for me, the choice is absolutely clear.

Physicians must not be permitted to honor patient-requests for assistance even when those requests come from rational patients suffering from severe pain associated with terminal cancer, AIDS, and other diseases from which there is no hope of recovery.

Why do I feel this way? Because I, like many Americans, am concerned about the inevitable abuses. A recent report demonstrates what happens in a society where assisted suicides are tolerated. According to a Dutch government report, almost one-half of the cases of assisted suicide involved patients who had submitted no explicit request for such assistance. I consider it unconscionable to risk killing patients who have no desire to die.

As a physician who treats AIDS patients recently argued: "There is a fine line between assisting suicide and committing murder -- a line defined solely by the physician's intentions and physicians' intentions vary just as all of ours do." I, in good conscience, can never support a proposition that requires us to rely on unwavering good intentions.

Vote "no" on proposition 230 on November 4. I will.
Against Message, Low Intensity

Hello, I'm (Dr. Manuel Pacheco/Dr. Henry Koffler), (President/Past President) of The University of Arizona.

Next November, the voters of Arizona can make a choice -- an important choice: Whether or not Arizona physicians should be allowed to help patients commit suicide when the patient has less than six months to live.

The arguments pro and con are complex, but I've made my choice.

I think that physicians should not be permitted to honor patient-requests for assistance even when those requests come from rational patients suffering from excruciating pain associated with terminal cancer, AIDS, and other ravaging diseases from which there is no hope of recovery.

Why do I feel this way? Because I, like many Americans, am concerned about the possible abuses. A recent report demonstrates what can happen in a society where assisted suicides are tolerated. According to a Dutch government report, almost one-half of the cases of assisted suicide involved patients who had submitted no explicit request for such assistance. I consider it unacceptable to risk killing patients who have no desire to die.

As a physician who treats AIDS patients recently commented: "There is a fine line between assisting suicide and committing murder -- a line defined solely by the physician's intentions and physicians' intentions vary just as all of ours do." I do not feel like I can support a proposition that requires us to rely on unwavering good intentions.

I hope you too will consider voting "no" on proposition 230 on November 4.
Pro Message, High Intensity

Hello, I’m (Dr. Manuel Pacheco/Dr. Henry Koffler), (President/Past President) of The University of Arizona.

Next November, the voters of Arizona must make a choice -- a crucial choice: Whether or not Arizona physicians should be allowed to help patients commit suicide when the patient has less than six months to live.

The arguments pro and con are complex, but, for me, the choice is absolutely clear.

Physicians must be permitted to honor patient-requests for assistance when those requests come from rational patients suffering from the excruciating pain associated with terminal cancer, AIDS, and other ravaging diseases from which there is no hope of recovery.

Why do I feel this way? Because I, like most Americans, demand the right to die with dignity. In a recent nationwide survey, over 87% of Americans polled indicated that they want to have the choice of ending their lives if physicians are no longer able to control the pain of a terminal illness. The greatest fear cited by the respondents was that doctors are often forced by legal considerations to artificially prolong lives that are no longer endurable, intensifying the pain for both patient and family and threatening the dignity of all.

As a physician who treats AIDS patients recently argued: "I'll vote for the proposition myself, not because I am a doctor, but because I'm a human being and I want to know that option exists for me." I too am compelled to support this proposition which allows physicians to help patients manage their own medical care, even during that most difficult of circumstances.

Vote "yes" on proposition 230 on November 4. I will.
Pro Message, Low Intensity

Hello, I'm (Dr. Manuel Pacheco/Dr. Henry Koffler), (President/Past President) of The University of Arizona.

Next November, the voters of Arizona can make a choice -- an important choice: Whether or not Arizona physicians should be allowed to help patients commit suicide when the patient has less than six months to live.

The arguments pro and con are complex, but I've made my choice.

I think physicians should be permitted to honor patient-requests for assistance when those requests come from rational patients suffering from severe pain associated with terminal cancer, AIDS, and other diseases from which there is no hope of recovery.

Why do I feel this way? Because I, like most Americans, want the right to die with dignity. In a recent nationwide survey, over 87% of Americans polled indicated that they want to have the choice of ending their lives if physicians are no longer able to control the pain of a terminal illness. The greatest fear cited by the respondents was that doctors often are forced by legal considerations to artificially prolong lives that are no longer endurable, increasing the pain for both patient and family and threatening the dignity of all.

As a physician who treats AIDS patients recently commented: "I'll vote for the proposition myself, not because I am a doctor, but because I'm a human being and I want to know that option exists for me." I too am inclined to support a proposition that allows physicians to help patients manage their own medical care, even during that most difficult of circumstances.

I hope you too will consider voting yes on Proposition 230 on November 4.
APPENDIX B

MANIPULATION CHECK INSTRUMENT

Message Survey Form #1

Instructions
Thank you for your help on this survey. Attached to this survey, you will find two versions of a video script arguing against a hypothetical referendum for physician-assisted suicide. Please read both scripts carefully now, then return to this page and continue.

1. Which of the two scripts seemed to include the most intense language about the issue? (circle one answer only)
   A. Script #1
   B. Script #2
   C. They were the same

2. Which of the two scripts seemed to use the strongest language about the issue? (circle one answer only)
   A. Script #1
   B. Script #2
   C. They were the same

3. Which of the two scripts, if any, appeared to be delivered by the person most committed to the issue? (circle one answer only)
   A. Script #1 seemed to be delivered by the person most committed to the issue
   B. Script #2 seemed to be delivered by the person most committed to the issue
   C. The two persons seemed equally committed to the issue

4. How would you rate the verbal intensity of the language in script #1? (circle one answer only)
   A. Not intense at all
   B. Slightly intense
   C. Moderately intense
   D. Very Intense
   E. Extremely Intense

5. How would you rate the verbal intensity of the language in script #2? (circle one answer only)
   A. Not intense at all
   B. Slightly intense
   C. Moderately intense
   D. Very Intense
   E. Extremely Intense
In this last section, you are presented with statements about the issue of physician-assisted suicide. Please indicate how much you agree with each statement by circling the corresponding number on each scale, where -3 indicates strong disagreement, +3 indicates strong agreement, and 0 indicates that you are neutral about the statement.

1. The issue of physician-assisted suicide is very important to me.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

2. I believe that physician-assisted suicides should be permitted under certain conditions.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

3. I believe that government has the right to intervene in suicide attempts.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

4. Physician-assisted suicide is immoral.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

5. I condemn any physician who participates in a physician-assisted suicide.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

6. I would consider physician-assisted suicide myself under certain circumstances.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

7. If requested, I would help a family member commit suicide to stop the pain associated with the final stages of AIDS.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

8. I believe that people should take responsibility for their own health concerns.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

9. The people of Arizona should pass the proposed referendum allowing physician-assisted suicide.
   I Strongly Disagree -3 -2 -1 0 1 2 3 I Strongly Agree

Please hand in your survey now. Thank you for your time.
Script #1

Next November, the voters of Arizona must make a choice -- a crucial choice: Whether or not Arizona physicians should be allowed to help patients commit suicide when the patient has less than six months to live.

The arguments pro and con are complex, but, for me, the choice is absolutely clear.

Physicians must not be permitted to honor patient-requests for assistance even when those requests come from rational patients suffering from severe pain associated with terminal cancer, AIDS, and other diseases from which there is no hope of recovery.

Why do I feel this way? Because I, like many Americans, am concerned about the inevitable abuses. A recent report demonstrates what happens in a society where assisted suicides are tolerated. According to a Dutch government report, almost one-half of the cases of assisted suicide involved patients who had submitted no explicit request for such assistance. I consider it unconscionable to risk killing patients who have no desire to die.

As a physician who treats AIDS patients recently argued: "There is a fine line between assisting suicide and committing murder -- a line defined solely by the physician's intentions and physicians' intentions vary just as all of ours do." I, in good conscience, can never support a proposition that requires us to rely on unwavering good intentions.

Vote "no" for proposition 230 on November 4. I will.

Script #2

Next November, the voters of Arizona can make a choice -- an important choice: Whether or not Arizona physicians should be allowed to help patients commit suicide when the patient has less than six months to live.

The arguments pro and con are complex, but I've made my choice.

I think that physicians should not be permitted to honor patient-requests for assistance even when those requests come from rational patients suffering from severe pain associated with terminal cancer, AIDS, and other diseases from which there is no hope of recovery.

Why do I feel this way? Because I, like many Americans, am concerned about the possible abuses. A recent report demonstrates what can happen in a society where assisted suicides are tolerated. According to a Dutch government report, almost one-half of the cases of assisted suicide involved patients who had submitted no explicit request for such assistance. I consider it unacceptable to risk killing patients who have no desire to die.

As a physician who treats AIDS patients recently commented: "There is a fine line between assisting suicide and committing murder -- a line defined solely by the physician's intentions and physicians' intentions vary just as all of ours do." I do not feel like I can support a proposition that requires us to rely on unwavering good intentions.

I hope you too will consider voting "no" for proposition 230 on November 4.
APPENDIX C

TIME-1 INSTRUMENT

Recognizable Sources and Important Issues Study

Thank you for participating in this research project. The project is sponsored by the Department of Communication at The University of Arizona. We are gathering opinions about important issues and recognizable people in the Tucson area. We ask that you complete the survey on the next few pages, making sure that your social security number or other unique identifying number is included on the line below. Your social security number is used solely for tracking data; it will not be used for any other purpose. If you prefer to use a different unique identifying number, you may do so but you must remember the number should you agree to participate in the follow-up session of this study.

Write your social security number here: _________

After you complete this survey, you will be asked to participate in a follow-up session that requires approximately 15 minutes of your time. Your participation in this session is voluntary; however, you will be granted extra credit for your class, as detailed by your instructor, should you decide to participate. If you agree to participate, you will be assigned a time to arrive at the Department of Communication Research Laboratory, room 113 of the Speech Building, where you will be asked to complete a computer-administered survey.

Recognizable Sources

The following survey takes only about 10 minutes to complete, so please take your time to answer all questions completely and honestly.

On the following scales, please give us your opinion of the identified person by completing the related rating scales. Each scale uses two descriptive adjectives representing the extremes of a judgment about the person. Please put an "X" on the scale location that most closely approximates where your opinion falls in relation to these extremes.

For example, if you were asked how attractive you think the person is and you considered the person to be of average attractiveness, you might put an "X" near the center of the scale:

Not Attractive at All | ______ | ______ | ______ | ______ | ______ | ______ | Very Attractive

Start Survey Here:

For Patty Weiss, news anchor for KVOA channel 4 television:

A. How familiar are you with Patty Weiss? (Please put an "X" at the appropriate location on the scale.)

Not Familiar at All | ______ | ______ | ______ | ______ | ______ | ______ | Very Familiar
If you indicated that you are not familiar at all with Patty Weiss, please skip to the evaluation of the next person on page 3.

B. How frequently have you heard Patty Weiss' name mentioned in the last month?
   Not Mentioned at All | __ | __ | __ | __ | __ | __ | __ | __ | Mentioned Frequently

C. What is your opinion of Patty Weiss?
   Strongly Dislike | __ | __ | __ | __ | __ | __ | __ | __ | Strongly Like

D. Would you consider Patty Weiss one of the most well known persons in Tucson?
   Absolutely Not | __ | __ | __ | __ | __ | __ | __ | __ | Absolutely Yes

E. Would you want Patty Weiss as a friend?
   Not at All | __ | __ | __ | __ | __ | __ | __ | __ | Absolutely Yes

On each line below, you are again presented with two adjectives reflecting extreme opinions about Patty Weiss. Please indicate where on this scale your impression of her falls by putting an "X" at the appropriate place on the scale. For example, if the adjectives were small and large and you considered her height to be slightly above average, you might put an "X" just to the right of the center of the scale:

Small | __ | __ | __ | __ | X | __ | __ | __ | Large

What are your impressions of Patty Weiss?

Uninformed | __ | __ | __ | __ | __ | __ | __ | __ | Informed
Incompetent | __ | __ | __ | __ | __ | __ | __ | __ | Competent
Stupid | __ | __ | __ | __ | __ | __ | __ | __ | Bright
Unbelievable | __ | __ | __ | __ | __ | __ | __ | __ | Believable
Dishonest | __ | __ | __ | __ | __ | __ | __ | __ | Honest
Untrustworthy | __ | __ | __ | __ | __ | __ | __ | __ | Trustworthy
Tense | __ | __ | __ | __ | __ | __ | __ | __ | Relaxed
Unfriendly | __ | __ | __ | __ | __ | __ | __ | __ | Friendly
Cold | __ | __ | __ | __ | __ | __ | __ | __ | Warm
Unpleasant | __ | __ | __ | __ | __ | __ | __ | __ | Pleasant
Timid | __ | __ | __ | __ | __ | __ | __ | __ | Bold
Meek | __ | __ | __ | __ | __ | __ | __ | __ | Aggressive
Silent | __ | __ | __ | __ | __ | __ | __ | __ | Talkative
Not Outspoken at all | __ | __ | __ | __ | __ | __ | __ | __ | Very Outspoken
Not Verbally Assertive at all | __ | __ | __ | __ | __ | __ | __ | __ | Very Verbally Assertive
Not Domineering at all | __ | __ | __ | __ | __ | __ | __ | __ | Very Domineering
Not Intense at all | __ | __ | __ | __ | __ | __ | __ | __ | Very Intense
For Dr. Manuel Pacheco, President of The University of Arizona:

A. How familiar are you with Manuel Pacheco? (Please put an "X" at the appropriate location on the scale.)

Not Familiar at All  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Very Familiar

If you indicated that you are not familiar at all with Manuel Pacheco, please skip to the evaluation of the next person on page 4.

B. How frequently have you heard Manuel Pacheco's name mentioned in the last month?

Not Mentioned at All  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Mentioned Frequently

C. What is your opinion of Manuel Pacheco?

Strongly Dislike  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Strongly Like

D. Would you consider Manuel Pacheco one of the most well known persons in Tucson?

Absolutely Not  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Absolutely Yes

E. Would you want Manuel Pacheco as a friend?

Not at All  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Absolutely Yes

What are your impressions of Manuel Pacheco?

Uninformed  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Informed

Incompetent  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Competent

Stupid  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Bright

Unbelievable  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Believable

Dishonest  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Honest

Untrustworthy  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Trustworthy

Tense  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Relaxed

Unfriendly  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Friendly

Cold  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Warm

Unpleasant  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Pleasant

Timid  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Bold

Meek  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Aggressive

Silent  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Talkative

Not Outspoken at all  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Very Outspoken

Not Verbally Assertive at all  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Very Verbally Assertive

Not Domineering at all  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Very Domineering

Not Intense at all  | ______ | ______ | ______ | ______ | ______ | ______ | ______ | Very Intense
For Virginia Yrun, Director of Tucson Planned Parenthood:

A. How familiar are you with Virginia Yrun? (Please put an "X" at the appropriate location on the scale.)

Not Familiar at All | | | | | | | | | Very Familiar

If you indicated that you are not familiar at all with Virginia Yrun, please skip to the evaluation of the next person on page 5.

B. How frequently have you heard Virginia Yrun's name mentioned in the last month?

Not Mentioned at All | | | | | | | | | Mentioned Frequently

C. What is your opinion of Virginia Yrun?

Strongly Dislike | | | | | | | | | Strongly Like

D. Would you consider Virginia Yrun one of the most well known persons in Tucson?

Absolutely Not | | | | | | | | | Absolutely Yes

E. Would you want Virginia Yrun as a friend?

Not at All | | | | | | | | | Absolutely Yes

What are your impressions of Virginia Yrun?

Uninformed | | | | | | | | | Informed
Incompetent | | | | | | | | | Competent
Stupid | | | | | | | | | Bright
Unbelievable | | | | | | | | | Believable
Dishonest | | | | | | | | | Honest
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Silent | | | | | | | | | Talkative
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Not Verbally Assertive at all | | | | | | | | | Very Verbally Assertive
Not Domineering at all | | | | | | | | | Very Domineering
Not Intense at all | | | | | | | | | Very Intense
For Dr. Henry Koffler, Past President of The University of Arizona:

A. How familiar are you with Henry Koffler? (Please put an "X" at the appropriate location on the scale.)

| Not Familiar at All | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Very Familiar |

If you indicated that you are not familiar at all with Henry Koffler, please skip to the evaluation of the next person on page 6.

B. How frequently have you heard Henry Koffler's name mentioned in the last month?

| Not Mentioned at All | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Mentioned Frequently |

C. What is your opinion of Henry Koffler?

| Strongly Dislike | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Strongly Like |

D. Would you consider Henry Koffler one of the most well known persons in Tucson?

| Absolutely Not | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Absolutely Yes |

E. Would you want Henry Koffler as a friend?

| Not at All | ____ | ____ | ____ | ____ | ____ | ____ | Absolutely Yes |

What are your impressions of Henry Koffler?

| Uninformed | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Informed |
| Incompetent | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Competent |
| Stupid | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Bright |
| Unbelievable | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Believable |
| Dishonest | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Honest |
| Untrustworthy | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Trustworthy |
| Tense | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Relaxed |
| Unfriendly | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Friendly |
| Cold | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Warm |
| Unpleasant | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Pleasant |
| Timid | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Bold |
| Meek | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Aggressive |
| Silent | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Talkative |
| Not Outspoken at all | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Very Outspoken |
| Not Verbally Assertive at all | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Very Verbally Assertive |
| Not Domineering at all | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Very Domineering |
| Not Intense at all | ____ | ____ | ____ | ____ | ____ | ____ | ____ | Very Intense |
For Robert Hirsch, Tucson lawyer:

A. How familiar are you with Robert Hirsch? (Please put an "X" at the appropriate location on the scale.)

- Not Familiar at All
- Very Familiar

If you indicated that you are not familiar at all with Robert Hirsch, please skip to the evaluation of the next person on page 7.

B. How frequently have you heard Robert Hirsch' name mentioned in the last month?

- Not Mentioned at All
- Mentioned Frequently

C. What is your opinion of Robert Hirsch?

- Strongly Dislike
- Strongly Like

D. Would you consider Robert Hirsch one of the most well known persons in Tucson?

- Absolutely Not
- Absolutely Yes

E. Would you want Robert Hirsch as a friend?

- Not at All
- Absolutely Yes

What are your impressions of Robert Hirsch?

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- Very Dishonest
- Very Untrustworthy
- Very Tense
- Very Unfriendly
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- Very Timid
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- Very Silent
- Very Not Outspoken at all
- Very Not Verbally Assertive
- Very Not Domineering at all
- Very Not Intense at all

- Very Informed
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- Very Dishonest
- Very Untrustworthy
- Very Tense
- Very Unfriendly
- Very Cold
- Very Unpleasant
- Very Timid
- Very Meek
- Very Silent
- Very Not Outspoken at all
- Very Not Verbally Assertive
- Very Not Domineering at all
- Very Not Intense at all
For George Miller, Mayor of Tucson:

A. How familiar are you with George Miller? (Please put an "X" at the appropriate location on the scale.)

Not Familiar at All | __ | __ | __ | __ | __ | __ | __ | __ | Very Familiar

If you indicated that you are not familiar at all with George Miller, please skip to page 8 of this survey.

B. How frequently have you heard George Miller's name mentioned in the last month?

Not Mentioned at All | __ | __ | __ | __ | __ | __ | __ | __ | Mentioned Frequently

C. What is your opinion of George Miller?

Strongly Dislike | __ | __ | __ | __ | __ | __ | __ | __ | Strongly Like

D. Would you consider George Miller one of the most well known persons in Tucson?

Absolutely Not | __ | __ | __ | __ | __ | __ | __ | __ | Absolutely Yes

E. Would you want George Miller as a friend?

Not at All | __ | __ | __ | __ | __ | __ | __ | __ | Absolutely Yes

What are your impressions of George Miller?

Uninformed | __ | __ | __ | __ | __ | __ | __ | __ | Informed
Incompetent | __ | __ | __ | __ | __ | __ | __ | __ | Competent
Stupid | __ | __ | __ | __ | __ | __ | __ | __ | Bright
Unbelievable | __ | __ | __ | __ | __ | __ | __ | __ | Believable
Dishonest | __ | __ | __ | __ | __ | __ | __ | __ | Honest
Untrustworthy | __ | __ | __ | __ | __ | __ | __ | __ | Trustworthy
Tense | __ | __ | __ | __ | __ | __ | __ | __ | Relaxed
Unfriendly | __ | __ | __ | __ | __ | __ | __ | __ | Friendly
Cold | __ | __ | __ | __ | __ | __ | __ | __ | Warm
Unpleasant | __ | __ | __ | __ | __ | __ | __ | __ | Pleasant
Timid | __ | __ | __ | __ | __ | __ | __ | __ | Bold
Meek | __ | __ | __ | __ | __ | __ | __ | __ | Aggressive
Silent | __ | __ | __ | __ | __ | __ | __ | __ | Talkative
Not Outspoken at all | __ | __ | __ | __ | __ | __ | __ | __ | Very Outspoken
Not Verbally Assertive at all | __ | __ | __ | __ | __ | __ | __ | __ | Very Verbally Assertive
Not Domineering at all | __ | __ | __ | __ | __ | __ | __ | __ | Very Domineering
Not Intense at all | __ | __ | __ | __ | __ | __ | __ | __ | Very Intense
Important Issues

In the following section, you will be presented with two common views on several controversial healthcare/legal issues. The views do not represent all sides of the issue nor do they necessarily suggest the best arguments for or against; they simply clarify what issue we are discussing.

You will then be asked for your opinion regarding the controversial issue. Please indicate how much you agree with each statement by again placing an "X" on the scale at the location that best represents your opinion in relation to the extremes.

Issue: Equal access to healthcare for all persons

Views: Many people feel that all people should have equal access to healthcare regardless of ability to pay for services while many others feel that healthcare is just too expensive to pay for all possible expenses associated with equal access.

1. The issue of equal access to healthcare is very important to me.
   [Scale]
   [Strongly Disagree] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [Strongly Agree]

2. I believe all people should have equal access to healthcare regardless of ability to pay.
   [Scale]
   [Strongly Disagree] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [Strongly Agree]

3. I believe that government must guarantee equal access to healthcare for all people.
   [Scale]
   [Strongly Disagree] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [Strongly Agree]

4. Not insuring equal access to healthcare is immoral.
   [Scale]
   [Strongly Disagree] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [Strongly Agree]

5. I think that Arizona should pass a law that guarantees equal access to health care.
   [Scale]
   [Strongly Disagree] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [Strongly Agree]

Issue: Physician-assisted suicide

Views: Many feel that people should have access to physician assistance in committing suicide if they are terminally ill and suffering from great pain while others consider physician assisted suicide as immoral.

6. The issue of physician-assisted suicide is very important to me.
   [Scale]
   [Strongly Disagree] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [Strongly Agree]
7. I believe that physician-assisted suicides should be permitted under certain conditions.
   | Strongly Disagree | I Strongly Agree
   | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
   | Strongly Agree

8. I believe that government does NOT have the right to intervene in suicide attempts.
   | Strongly Disagree | I Strongly Agree
   | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
   | Strongly Agree

9. Physician-assisted suicide is immoral.
   | Strongly Disagree |
   | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
   | Strongly Agree

10. I think that Arizona should pass a law allowing physician-assisted suicides in certain cases.
    | Strongly Disagree |
    | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
    | Strongly Agree

Issue: Abortion

Views: Many people feel that women should have total freedom to determine reproductive matters while others argue that abortion is immoral.

11. The issue of abortion is very important to me.
    | Strongly Disagree |
    | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
    | Strongly Agree

12. I believe that abortion should be permitted under certain conditions.
    | Strongly Disagree |
    | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
    | Strongly Agree

13. I believe that government does NOT have the right to intervene in abortion cases.
    | Strongly Disagree |
    | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
    | Strongly Agree

14. Abortion is immoral.
    | Strongly Disagree |
    | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
    | Strongly Agree

15. I think that abortion "on demand" should be legal in the United States.
    | Strongly Disagree |
    | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ | ______ |
    | Strongly Agree
Issue: Temporary insanity defense

Views: Many people feel that a defense of temporary insanity is appropriate in some circumstances while others feel that the temporary insanity defense usually represents an attempt to circumvent justice.

16. The issue of temporary insanity defense in cases of murder is very important to me.
   I Strongly Disagree | I____|I____|I____|I____|I____|I____|I____| I Strongly Agree

17. I believe that a temporary insanity defense should be permitted under certain conditions.
   I Strongly Disagree | I____|I____|I____|I____|I____|I____|I____| I Strongly Agree

18. I believe that government SHOULD permit temporary insanity defense in cases of murder.
   I Strongly Disagree | I____|I____|I____|I____|I____|I____|I____| I Strongly Agree

19. Allowing a temporary insanity defense is immoral.
   I Strongly Disagree | I____|I____|I____|I____|I____|I____|I____| I Strongly Agree

20. I think that Arizona should pass a law preventing the use of the insanity defense for murder.
   I Strongly Disagree | I____|I____|I____|I____|I____|I____|I____| I Strongly Agree

Issue: Sale of tobacco products

Views: Many people feel that individuals have a right to smoke if it doesn't directly affect others while others feel that selling tobacco products is tantamount to legalized drug sales.

21. The issue of the sale of tobacco products is very important to me.
    I Strongly Disagree | I____|I____|I____|I____|I____|I____|I____| I Strongly Agree

22. I believe that the sale of tobacco products should NOT permitted.
    I Strongly Disagree | I____|I____|I____|I____|I____|I____|I____| I Strongly Agree
23. I believe that government does NOT have the right to intervene in tobacco sales.

I Strongly Disagree  I Strongly Agree

24. Selling tobacco products is immoral.

I Strongly Disagree  I Strongly Agree

25. I think that Arizona should pass a law prohibiting the sale of tobacco products.

I Strongly Disagree  I Strongly Agree

Issue: Fetal tissue research

Views: Tissue from aborted fetuses has shown promise in treating Parkinson's disease. Some people feel that more research should be conducted to see if fetal tissue can arrest the progression of this disease while others feel that the practice promotes additional abortions.

26. The issue of fetal research is very important to me.

I Strongly Disagree  I Strongly Agree

27. I believe that fetal research should NOT permitted.

I Strongly Disagree  I Strongly Agree

28. I believe that government does NOT have the right to intervene in medical research that saves lives.

I Strongly Disagree  I Strongly Agree

29. Conducting fetal research is immoral.

I Strongly Disagree  I Strongly Agree

30. I think that the federal government should pass a law allowing fetal tissue research on patients with Parkinson's disease.

I Strongly Disagree  I Strongly Agree
The following information is used solely to group responses. Please complete all questions.

31. **What is your gender (circle appropriate response)?**
   - Female
   - Male

32. **What is your major in school?**

33. **What is your class standing? (put a check mark next to the appropriate response)?**
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - Graduate (Masters)
   - Graduate (Doctorate)
   - Other (Please Specify) _____________ 

34. **What was the date of your first attendance at The University of Arizona?**
   - Month and Year: ________________ 

35. **How many hours of television do you normally watch per week?** _____ hours/week

36. **What is your age, please?** _____ years

37. **How would you describe yourself (put a check mark next to the appropriate response)?**
   - Anglo
   - Asiatic
   - African American
   - Hispanic
   - Other (Please Specify) ________________

*End of Survey. Thank you for your time!*
REFERENCES


