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RELATIVE EFFICACY OF IMAGERY, PERSUASION, AND EMPATHIC MESSAGES FOR INDUCING COMMITMENT TO POSTHUMOUS ORGAN DONATION

by

Nina Parisi-Rizzo

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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Date

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Abstract

RELATIVE EFFICACY OF IMAGERY, PERSUASION, AND EMPATHIC MESSAGES FOR INDUCING COMMITMENT TO POSTHUMOUS ORGAN DONATION

by

Nina Parisi-Rizzo

Adviser: Professor Irwin Katz

Dramatic biotechnical advances are establishing organ transplantation as a practical life-saving procedure. However, there are not enough people who are willing to donate their organs for posthumous use. An attitude change study was designed to promote willingness to sign posthumous donation pledges by arousing positive attitudes (i.e., altruistic sentiments) and reducing negative attitudes (i.e., fear of bodily mutilation and inadequate medical treatment). Furthermore negative attitudes about organ donation were thought to reflect two different psychological processes: affective and cognitive. It was argued that fear of posthumous mutilation was less amenable to reduction by means of a cognitive appeal than was fear of premature death due to medical neglect. Therefore, to reduce the former type of fear an emotive imagery technique was devised, and to reduce the latter type a persuasive message containing appropriate information was employed. In addition a promotional appeal was written that was intended to arouse prodonation beliefs by creating an empathic role set. Each promotional appeal was designed to create a specific psychological state that would mediate donation behavior: 1) positive

appeal--empathic concern; 2) affectively-based fear reduction message--anxiety reduction; and 3) cognitively-based fear reduction message--skepticism reduction.

One hundred and seventeen corporation employees listened to one of four tape-recorded donation messages. Tape 1 contained the empathic role set appeal. Tape 2 contained the empathy appeal plus emotive imagery instructions to allay fear of posthumous mutilation. Tape 3 contained the empathy appeal plus a persuasive message to reduce fear of inadequate medical treatment. Tape 4 was a combination of all three messages: (a) imagery, persuasion, and empathy appeals. Two control groups, who engaged in filler tasks, were included to provide baseline data. Within a one-way analysis of variance framework(4 experimental plus 2 control groups), a priori contrasts revealed a significant interaction effect such that subjects who received a prodonation appeal combined with a double fear reduction message revealed the highest commitment to donate. The single fear messages (Tapes 2 and 3) yielded the lowest commitment to sign a donor card. The results suggest that to promote commitment to posthumous organ donation, it is best to either emphasize the positive aspects of donation or reduce both types of fear simultaneously. Also, strong anxious and skeptical feelings were associated with decreased willingness to donate, whereas strong empathic feelings were associated with an increased willingness to donate. The results demonstrate the efficacy of differentiating fears based on rational (i.e., empirically testable) beliefs from fears based on nonrational (i.e., empirically nontestable) beliefs in designing interventions to

increase willingness to donate. The relatively small proportion of participants who actually signed donor cards suggests that fear of posthumous mutilation and inadequate medical care mirror a much more basic fear--namely, fear of personal death. Further recommedations for promoting organ donation are offered.

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Most importantly, I would like to thank my husband, Tom, for never minimizing my work, as do most professionals of the "hard sciences." His staunch support of my research has made me feel proud of this work.

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Statement of the Problem

Dramatic biotechnical advances are establishing organ transplantation as a practical life-saving procedure. However, because there are not enough people who are willing to donate their organs for posthumous use, many patients in need of transplants are not receiving them. For example, the Pittsburgh Transplant Foundation (cited in Dunn, 1984) reported that in the United States some 10,000 patients were waiting for kidneys, 300 were waiting for livers, and 120 were waiting for hearts. A recent Gallup (1985) poll documented the widespread reluctance to participate in organ donation programs; although 93% of the national adult population were aware of organ transplantation as a medical procedure, only one quarter (27%) said they were not opposed to having their own organs removed after death and only 17% indicated they had already signed an organ donor card. As Simmons and Simmons (1971) and others have pointed out, it appears that the rate of technological advancement associated with organ transplantation has exceeded society's capacity to set norms of behavior to guide people in making donation commitments.

Organ donation as a contemporary issue of normative uncertainty would benefit from a stronger empirical data base in order to guide promotional campaigns. But effective educational programs require information about the public's present views. Experts need to know more about the feelings and beliefs that either strengthen or impair people's willingness to sign donor cards. Only a limited number of previous studies have explored these attitudes, and virtually none have employed an integrated design for assessing how

positive elements (such as altruistic sentiments) and negative elements (such as fear of bodily mutilation) are related to each other and to decisions people make about volunteering.

Parisi and Katz (1986) specifically sought to determine the relationship between positive and negative attitudes toward organ donation. Verbal attitude scales were constructed and resulted in the reliable measurement of two independent dimensions, pro and anti donation. It seems that the typical person's attitude toward organ donation is not simply favorable, critical, or neutral, but rather tends to have both positive and negative elements at the same time. That is, the attitude tends to be to some degree ambivalent. As revealed in a cluster analysis, the pro dimension involves feelings of pride experienced by the donor. The anti dimension reflects fears of receiving inadequate medical treatment when one's life is at risk. Using these scales it was discovered that those subjects who had both strong positive attitudes and weak negative attitudes were especially willing to sign donor cards. This study offered clues for structuring information for donor recruitment campaigns.

Given that commitment to donate is strongest when positive scores are high and negative scores are low, interventions should be directed at changing attitudes to match this attitude profile. Specifically, the strategy should be to increase positive attitudes and decrease negative attitudes. Within this framework, the proposed research is aimed at developing an intervention strategy to change attitudes about organ donation using a two-dimensional attitude approach as a structural model.

Furthermore it appears that negative attitudes about organ donation reflect two

different psychological processses: affective and cognitive. I will argue later that fears of body mutilation seem to be an affectively-based reaction, whereas fears of inadequate medical care seem to be a cognitively-based reaction. One of the implications of this hypothesized distinction between cognitive and affective systems is that each component may need to be altered individually and by different methods if attitude change is to occur.

In summary, the present study seeks to change attitudes toward donation by enhancing positive and reducing negative donation beliefs. The conceptual content of the promotional appeals is based upon the public's beliefs about organ donation as revealed in the study by Parisi and Katz (1986). Specifically, the positive appeal emphasizes feelings of heroism that result following the decision to donate, and the negative appeals allay fears of posthumous body mutilation and fear of premature death. Following the administration of promotional appeals, an actual behavioral measure of donor behavior-signing an organ donor card-will be obtained. Finally, the effectiveness of various communications in changing attitudes about donation will be evaluated.

The proposed study would apparently be the first empirical attempt to design an intervention strategy using psychological principles to change attitudes toward organ donation and to obtain an actual behavioral measure--signing a donor card. Previous studies have either assessed intentions to donate (Cleveland & Johnson, 1970), examined attitudes of donors after the decision to donate was made (Simmons, Fulton, & Fulton, 1972), or measured spontaneous donation rates without attempting to modify donation attitudes (Claxton, 1975; Carducci & Deuser, 1984). Also it is not known how many people who sign donor cards actually carry them. The present study aims at providing an

estimate of card-carrying donors.

The present attitude change study adds to the psychological literature by examining the efficacy of differentiating emotionally and intellectually based fears in predicting willingness to sign a donor card. This study distinguishes two basic modes of attitude change. The first strategy involves an affect-oriented approach where attitudes are altered by reducing emotionally-arousing attributes, through a vicarious conditioning procedure. The second strategy involves a cognitive-oriented approach where beliefs are modified through persuasive communications. This design allows one to test which change in attitude component: affective or cognitive leads to greater behavioral prediction.

The identification of an effective promotional campaign has important social policy implications. In practice, physicians seek consent from the next of kin to remove organs usually in an attempt to avoid lawsuits. Without consent, organs are not removed. An effective attitude change program that increases donor card signing may reduce the physician's reluctance to suggest donation to the family and make families aware of what the patients' wishes were.

Review of Previous Research

Before describing our approach, we will review the findings of earlier investigations. A few studies have dealt with demographic variables. Cleveland and Johnson (1970), Gallup (1985), and Simmons, Fulton, and Fulton (1972) found that signers of donor cards tend to be relatively affluent, better educated adults. Simmons et al. (1972) also observed that young females as a group were especially likely to be signers. Religious affiliation, as observed by Cleveland (1976), was not related to donation behavior, except with

respect to membership in the Jehovah's Witnesses society, who reject posthumous donation.

Other investigators have looked for psychological correlates of pro or anti decisions about donation of body parts. Willingness to volunteer has been shown to be related to humanitarian and charitable feelings, and to secular religious beliefs (i.e., private moral codes independent of established religious doctrine)(Cleveland & Johnson, 1970; Simmons et al., 1972; Pessemier, Beammoar & Hanssens, 1977) as well as to restitution motives (Callender, Bayton, Yeager, & Clark, 1982). Not wanting to be a donor appears to be associated with the following: fear that as a card signer one may receive inadequate medical treatment in a life-or-death emergency (Callender et al., 1982); belief in an afterlife, anxiety about body integrity and death, preference for a ground burial (Cleveland & Johnson, 1970; Cleveland, 1975a; Simmons et al., 1972; Pessemier et al., 1977; Gallup, 1983); and a restricted willingness to donate particular body parts, especially heart and eyes (Comazzi & Invernizzi, 1974). As for personality differences between potential donors and nondonors, Cleveland (1975b) found that donors tended to be internally directed, believing that they control their fate, whereas nondonors were more likely to ascribe their event outcomes to luck or chance.

The attitudinal studies suggest that both altruism and fear influence decisions about posthumous organ donation, simultaneously generating opposing impulses to approach and avoid such acts of commitment as the signing of a donor card. Miller (1959) and other motivational theorists have argued that coexisting approach and avoidance tendencies based on attraction and fear have distinctive internal mechanisms and are measurable as

separate variables. Similarly, Katz, Wackenhut, and Hass (1986) have demonstrated that social attitudes may have both positive and negative components that are unrelated or weakly related to one another. They found that in the domain of intergroup relations, members of the majority, commonly, are ambivalent toward various minority groups, rather than unambiguously sympathetic or hostile. The literature on subjective well-being has found that happiness is composed of two independent components - positive and negative affect - and that each is differentially correlated with other variables that reflect fundamentally different processes (Bradburn, 1969; Reich & Zautra, 1983; Warr, Barter, & Brownbridge, 1983; for review see Diener, 1984). For example, Bradburn's (1969) measure of negative affect is found to be associated with indexes of distress (e.g., anxiety, worry, and poor health) whereas positive affect is found to be associated with recent positive experiences (e.g., participation in new activities and frequent social contact). In addition, factor-analytic studies of mood structures have consistently identified a two-dimensional configuration of positive and negative affect that represents the major dimensions of emotional experience (for review, see Watson & Tellegen, 1985). We believe that, by the same token, a two-dimensional approach to the study of attitudes toward organ donation will lead to better predictions of commitment decisions than an approach assuming a single underlying dimension of pro-to-anti disposition.

The notion that one is likely to have both favorable and unfavorable feelings and beliefs about organ donation accords with what is known about mass media content on this topic. Newspapers, magazines, and television broadcasts carry contradictory reports

about the costs and benefits of transplantation surgery, along with conflicting opinions from experts about the medical, ethical, and economic ramifications of the procedure. Many popular articles have been written about the life-giving potential of organ transplantation (e.g., Jacoby, 1983; Clark & Witherspoon, 1983; Heiman, 1984; Owen, 1983; and "New Beginnings," 1985) whereas other articles have detailed the dangers and liabilities, such as the possibility that signers of donor cards will receive inadequate medical care, high financial costs, and negative side effects of which recipients are not fully informed in advance (e.g., Capron, 1981; Bazell, 1985; Golden, 1985; Levenson, 1985). Many journalistic evaluators of transplantation treatment have accorded it a mixed review (e.g., Friedrich, 1984; O'Neil, 1985; Adler, Huck, & McAlevey, 1984; Wallis & Holmes, 1984; Krauthammer, 1984; Clark et al., 1984).

Continuing exposure to inconsistent messages about transplantation is likely to foster ambivalence and doubt, resulting in an inability to make a firm commitment to posthumous donation. Suggestive evidence that such internal conflict is commonplace was obtained by Callender et al. (1982) in an interview study. Feelings of empathy for the potential recipient of an organ and fear of negative consequences for the donor were expressed by the same respondents. Similar expressions of ambivalence and decisional uncertainty were obtained by Simmons, Klein and Thornton (1973) and Bernstein and Simmons (1974) in studies of family decision making patterns when choosing a kidney donor. Although many family members readily decided to donate or not to donate their kidney, others expressed both aversion and attraction to the prospect of donation. Often the individual delayed for several weeks before making what was supposed to be a final

decision, and then oscillated between volunteering and withdrawing. In another investigation, this one of blood donation, Pomazal and Jaccard (1976) observed that both intenders and nonintenders believed that donation of blood would have positive outcomes. However, nonintenders also strongly believed that giving blood would have negative consequences, such as fainting.

Except for these few studies, the possible role of ambivalence in decisional behavior relating to organ donation has received virtually no attention in the empirical literature. Yet research on other types of decision making has shown that unresolved conflicts about possible outcome can disrupt the cognitive process (Janis, 1982); and induce delay (Kaltreider, 1973), avoidance (Anderson, 1978), and post-decisional regret (Friedman, Greenspan, & Mittleman, 1974).

Organ Donation Questionnaire

Parisi and Katz (1986) sought to ascertain whether favorable and unfavorable attitudes about organ donation tended to be present in people as opposing, relatively independent, dispositions. The attempt was to develop reliable scales of positive and negative attitude and then test for low or nonexistent correlations between the two measures.

A questionnaire was constructed that reliably measured two apparently independent dimensions of attitude about organ donation, one positive and the other negative. Cluster analysis of the instrument revealed that the positive dimension stressed the humanitarian benefits of organ donation and the feelings of personal satisfaction and pride experienced by the donor. The negative dimension revealed fears of bodily mutilation and of receiving inadequate medical treatment when one's life is at risk. Positive and negative attitude

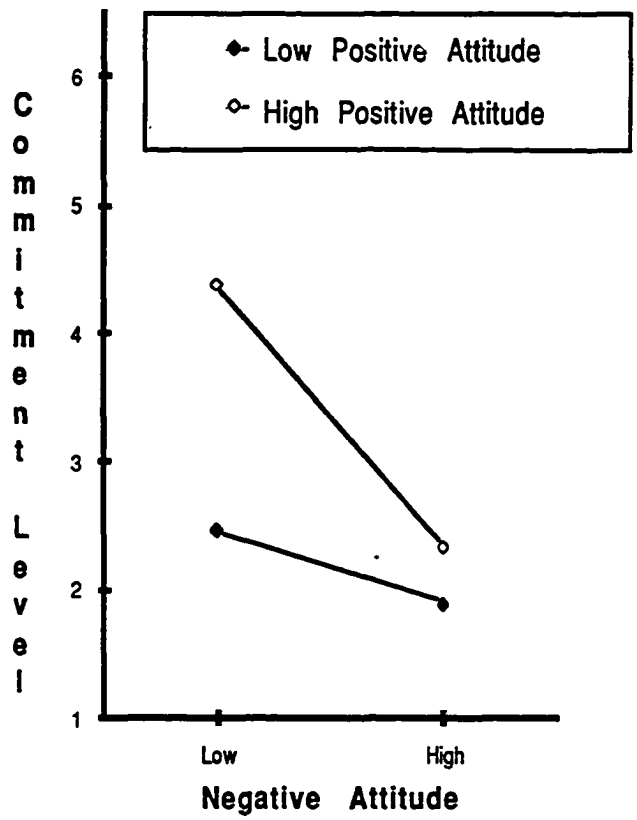
scores were each predictive of people's apparent willingness to sign a donor card, and when taken together the two types of scores predicted more accurately than did either by itself. An obtained interaction effect indicated that those subjects who had both strong positive and weak negative attitudes were especially willing to sign donor cards.

The results were consistent with the notion that a large proportion of people have attitudes about donating organs for transplantation that are to some extent ambivalent, in the sense that their overall views are at least moderately weighted on both the favorable and unfavorable sides. Also, the obtained interaction suggested that over and above the discrete influences of positive and negative attitudes, the ambivalence limited one's readiness to make a prodonation commitment - perhaps because the ambivalence impaired one's decision-making ability. As seen in Figure 1, the variation in positive attitude scores had relatively little relationship to commitment to sign unless the negative scores were low and variation in the level of negative attitude was strongly related to commitment only when the positive scores were high.

Parisi and Katz's (1986) study has implications for the designing of effective educational campaigns to promote organ donation. Inasmuch as those who express willingness to sign a donor card are especially likely to have both strong positive attitudes and weak negative attitudes, it follows that interventions should be aimed at increasing the number of people who have this attitude profile. Specifically, educational efforts should attempt to increase positive attitudes and decrease negative ones. Organizations interested in promoting organ donation, however, have usually emphasized only the reduction of

Figure 1

Interaction Effect of Positive and Negative Attitudes on Commitment



negative attitudes, neglecting the positive side. For example, the National Kidney Foundation, the Living Bank, and the Anatomical Gift Registry publish pamphlets that focus attention on the fears associated with donation.

Indeed, the Living Bank (1985) pamphlet may actually arouse fear of premature death when it suggests to readers that "upon entering a hospital, request your donor card be attached to your medical chart" (p. 3). Doubts may be raised about whether a physician is more interested in procuring an organ for transplanation or in saving a patient's life. In a similar vein, a brochure of the Anatomical Gift Registry (1985) pointed out that medical schools may "refuse any body that has been autopsied or embalmed or donated to organ banks" (p. 3). This statement may strengthen beliefs that the body is severely disfigured by the excision of organs. Another apparent instance of a fear-arousing message is found in a booklet put out by the National Kidney Foundation of New York (1985) titled "If You Needed a Kidney or Other Vital Organ to Live ..... Would You Be Able to Get One?" The appeal focused attention on one's own demise, rather than on the life-giving potential of donation. Such information seems inappropriate and anxiety provoking. Most importantly, these messages do not include reasons why someone should sign a donor card. The New York Regional Transplant Program's (1985) pamphlet, "Life .... Keep It Going" mentions organ donation benefits in statments such as "By giving life to someone else, we know we, ourselves can continue to live" (p. 1,5). But even this publication does not stress more immediate rewards, such as feelings of personal satisfaction.

Not only have donor recruitment campaigns tended to overlook the importance of

building positive attitudes toward organ donation, but the messages employed to reduce negative attitudes have not taken sufficient account of the psychological bases of fear. In the Parisi & Katz study, cluster analysis of subjects' responses to questionnaire items revealed that negative attitudes about donation involve two specific fears-namely, fear of bodily mutilation after death and fear of dying prematurely due to medical neglect. On general grounds, it seems reasonable to assume that these two types of fear are mediated by somewhat different processes. Thus, fear of posthumous mutilation would seem to be deeply rooted in the unconscious and to have relatively little cognitive content. In a theoretical exposition Schilder (1950) suggested that all people have a general fear about the integrity of the body or a general dismembering motive and fear. This fear of mutilation is based upon the narcissistic self-love of the whole body. Danger to the unity of the body image represents a threat to life and motivates a person to defend oneself against death. Because the facts about excision of organs from the corpse are relatively simple and unambiguous, it seems improbable that misconceptions about the surgical procedure and the extent of alteration of the body are an important factor in fear of mutilation. More likely, this emotion involves religious, mystical, or superstitious beliefs that would not be much influenced by the presentation of empirical information. Hence, an educational message alone would probably not have a major impact. Also needed would be an intervention technique that focuses directly on the negative affect as such, for example, a desensitization procedure which presents cues associated with the fear-arousing image under conditions that elicit responses (e.g., relaxation or approach) antagonistic to the original fear reaction (Wolpe, 1973; Bandura, Blanchard, &

Ritter,1969).

On the other hand, the second type of fear-of dying prematurely as a consequence of medical neglect-involves a set of beliefs that can be examined for accuracy and logical soundness. Hence an information message correcting for donation myths might be more fear-reductive than a less cognitive procedure such as desensitization. For some people, however, these beliefs may arise as rationalizations for an antipathy against donation. That is, they may provide a cognitive overlay for less rational sources of fear, such as superstition. For this group, presenting educational materials relating only to the issue of medical treatment of donor card holders should be relatively ineffective.

Whenever multiple attitudes contribute to a behavior, different promotional campaigns may be differentially effective for people exhibiting contrasting attitude profiles. As discussed earlier, for some people the cognitively-based fear may be dominant, and, in other cases, the affectively-based fear may be dominant and primary. The focus of this study is not to tailor communications based on people's idiosyncratic attitude profiles, but rather to identify one message combination that will be most effective in changing the attitudes of most adults. Identifying a single communication is believed to have more applied and practical value than tailoring messages to an audience. It would still seem desirable, however, to use both types of fear-reduction strategies until it has been ascertained whether one or both are needed.

The procedure of differentiating affectively-based and cognitively-based processes has been useful in elucidating a very different kind of phenomenon--depression (Kovacs & Beck, 1979). Cognitive elements in depression refer to a patient's distorted, erroneous,

and exaggerated way of viewing events. Affective elements denote a patient's subjective feeling of sadness and dysphoria. Therapy centers on correcting mistaken perceptions of reality with the assumption that by simply altering cognitions, negative affect will dissipate.

The primacy and dominance of cognition in achieving attitude and behavior change is a viewpoint stressed by Lazarus (1984), who argues that affect requires some form of cognitive processing. Thus, affective reactions are always post-cognitive. An affective reaction is possible only after the stimulus features have been identified, evaluated, and weighted for their contributions (Lazarus, 1984). Since attitudes consist of cognitive representations of object features, with affect attached to them, attitude change necessitates providing information that will influence the person's evaluation of these features. After a change in object evaluation, there will be a marked change in affect (Lazarus, 1984).

The idea that behavior and/or attitudes can be changed by altering cognitive supports is not without controversy. In recent discussions, Zajonc (1980) and Tomkins (1982) have proposed that cognitive and affective processes are relatively independent. These authors argue that affective reactions are not always accompanied by cognitive representations, rather they may occur initially, and remain encoded only as visceral or muscular cues. If attitudes are to be changed, Zajonc (1982) advises that both affective and cognitive elements be examined, but stresses that, in the end, it is the affective elements that must be changed.

As a preliminary compromise, affectively-based and cognitively-based fears about

organ donation are considered to be conceptually separate and independent systems. One of the implications of this hypothesized independence of affective and cognitive systems is that each component must perhaps be altered independently and by different methods if attitude change is to occur. In this way, it can be ascertained whether one or both types of interventions are needed to allay donation fears. However, as will be discussed in more detail later, it is predicted that both affectively-based and cognitively-based interventions will be needed to produce a significant amount of attitude and behavior change.

Pilot Study

Following this line of reasoning, I designed an intervention study in a questionnaire format that sought to arouse positive attitudes and reduce negative attitudes. Negative attitudes were conceived as having two components: affectively-based fears (posthumous body mutilation) and cognitively-based fears (inadequate medical care). There were two independent variables: (a) presence or absence of an affectively-based fear message and (b) presence or absence of a cognitively-based fear message. Figure 2 describes the factorial design. Four combinations of donation appeals were written: 1) positive appeal only; 2) positive appeal combined with affectively-based fear reduction message; 3) positive appeal combined with cognitively-based fear reduction message; and 4) positive appeal combined with affectively-based fear and cognitively-based fear reduction messages. Following each appeal package, willingness to donate was measured using Claxton's (1975) behavioral commitment scale.

The scripts were administered to 95 respondents, who were drawn from a variety of

Figure 2

Experimental Design--Independent Variables

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	Positive Only	Affectively-Based Fear Appeal + Positive Appeal
	Present	Cognitively-Based Fear Appeal + Positive Appeal Positive Appeal	Affectively Based + Cognitively Based + Fear Appeals +

occupations. Forty percent were low level managers of several corporations in the New York City metropolitan area, 20% were students, personnel, and instructors at Brooklyn College, 16% were firefighters, 14% were medical personnel, and 10% were homemakers. The respondents were primarily white (81%) and Catholic (59%). Fifty five percent had at least some college education. There was a skewed distribution of females (70%) and males (30%). Participants ranged in age from 19 to 66, with a mean of 33, and earned on the average $25,000 yearly.

Each appeal was written to create specific emotional states. The positive appeal was aimed at eliciting empathic experiences of happiness, pride, and self-esteem. Empathic arousal has been consistently shown to mediate helping behavior (Coke, Batson, & McDavis, 1978; Davis,1983; Hoffman,1981; and Krebs,1975). Indeed sharing in another's successes and happiness has been demonstrated to increase helping behavior (Aderman & Berkowitz, 1970, Aronfreed, 1970, Stotland, 1969). Most importantly, empathy arousing communications have produced significant and lasting positive attitude change toward the disabled (Clore & Jeffery, 1971), and toward endangered animal species (Shelton & Rogers, 1981). It has also been effective in reducing smoking behavior (Janis & Mann, 1965). Empathy may be defined as "an emotional response elicited by and congruent with the perceived welfare of someone else" (Batson & Coke, 1981, p. 169). Empathy exists when one's feelings match those of another, so that one experiences positive emotions when the other's condition is pleasant and negative emotion when it is unpleasant. It includes emotions of warmth, concern, and compassion for others (Batson, O'Quinn, Vanderplas, & Isen, 1983; Davis, 1983).

In my pilot study it was hypothesized that a message that arouses empathic concern by having subjects imagine themselves as experiencing feelings of pride, admiration, and heroism would enhance subjects' willingness to sign a donor card. All participants read testimonals of organ recipients expressing gratitude to donors for having given them a second chance at life and of donor card signers sharing personal reasons for donating. To insure that the positive appeal would have emotional impact, participants were instructed to adopt the perspective of the characters described in the story and to share their emotional experiences. Instructions to imagine oneself in the place of another have been quite successful in arousing empathic responses (Stotland, 1969; Aderman & Berkowitz, 1970; Coke, Batson, & McDavis, 1978).

As shown in Figure 2, following the positive appeal, some subjects read a message intended to reduce affectively-based negative attitudes, involving fear of posthumous body mutilation, or some subjects read a message relating to cognitively-based negative attitudes, involving fear of inadequate medical treatment, and some subjects read both types of fear-reduction messages. Given that it was hypothesized that there is a fundamental difference between these two types of donation fears and that the conditions for facilitating attitude change in persons with these two types of fears need to be different, separate attitude change techniques were used. Since fear of mutilation is conceived as primarily an affectively-based fear independent of information-based beliefs, a method with direct emotional influence was used to reduce this fear. Emotive imagery, a simulated desensitization procedure, was chosen to diminish negative emotional arousal. In this classic anxiety-reduction procedure, anxiety-provoking images are

repeatedly paired with stimuli known to induce muscular or mental relaxation considered to be antagonistic to arousal. The basic assumption of affective imagery is that the imagining of fearful events produces changes in physiological systems such as heart rate, skin conductance, and respiration rate which correspond to that brought about by actual contact with the anxiety-eliciting stimulus. Further, repeated imagining of emotionally arousing events is supposed to lead to a progressive decrease in these autonomic responses (Wolpe, 1973). Emotive imagery has been successful in accessing and altering phobias, such as fears of snakes (Lang, Melamed, & Hart, 1970; Lang, Levin, Miller, and Kozak, 1983), dental treatment (Hermecz & Melamed, 1984), public speaking (Borkovec & Sides, 1979; Lang, Levin, Miller, and Kozak, 1983), and test taking (Harris & Johnson, 1983).

Others have conceptualized (e.g., Blanchard, 1970 and Kazdin, 1974) imaginal systematic desensitization as a covert self-modeling paradigm, where one imagines oneself performing effectively in situations that would normally be avoided. Usually, modeling involves observing a live or filmed model performing target behaviors (Bandura et al. 1969). Cautela (cited in Cautela, Flannery, and Hanley, 1974) has suggested that modeling can be performed by having subjects imagine a model engage in behaviors they wish to develop (i.e., covert modeling). Kazdin (1974) has expanded this concept to include covert self-modeling, which involves imagining oneself engage in target behaviors, and found that skills can be more easily learned if the model is the self.

Bandura (1977) proposed that psychotherapeutic methods such as desensizitation and/or modeling are efficacious because they produce change by altering an individual's

expectations in self-efficacy. Thus, an individual's perceived ability to cope with anxiety is an important determinant of approach or avoidance behavior. Investigators have shown that imagining oneself as initially anxious but able to cope with the anxiety led to a reduction of snake fears (Kazdin, 1974) and test anxiety (Harris & Johnson, 1980; 1983).

The imagery technique used in the pilot study was characterized as a self-modeling coping procedure in which subjects were encouraged to develop personalized images of competency in the face of anxiety about donating various body parts for transplantation. Subjects imagined scenes in which they were hesitant about signing a donor card, yet successfully coped with the request to sign a donor card.

The imagery technique used in the pilot study was also guided by Lang's (1977, 1979) psychophysiological theory of affective imagery. This view presumes that affective images are elaborated verbal descriptions containing sets of propositions functionally related to behavior. Lang proposed that emotional images can be distinguished in terms of stimulus propositions which describe specific stimulus features of the imagined scene (e.g., "You see a huge yellow jacket inside your car") and response propositions which are assertions about behavior (e.g., "You feel your heart pounding"). Imagery scripts that present both stimulus and response propositions, that arouse emotional images, and that evoke changes in autonomic activity consonant with self-reports of anxiety will lead to positive therapeutic change.

The pilot study's imagery script was written with close reference to Lang's stimulus and response propositions. The script depicted three scenes thought to be anxiety

provoking--imagining plans to donate eyes, kidneys, and heart. Participants were asked to experience calming sensations in cardiovascular and respiratory systems at the scene's introduction and immediately following each anxiety-provoking description. It was hypothesized that a message that counterconditioned organ donation anxiety with efficacious coping behavior would increase willingness to sign a donor card.

To ensure therapeutic success, visualization procedures usually require formal training sessions in order to increase both imagery vividness and responsiveness to instructions. However, many investigators (e.g., Bauer & Craighead, 1979; Carroll, Marzillier, & Watson, 1980; and Carroll, Marzillier, & Merian, 1982) have been successful in producing physiological reactivity without prior training in imagery generation.

Fear of inadequate medical treatment, on the other hand, is conceived as cognitively-based anti-donation beliefs. In order to facilitate change of cognitions, a cognitive method of attitude change was employed: persuasion. Factual information was presented concerning the criteria necessary to be considered as a donor candidate. Subjects were assured that their life would not be jeopardized as a result of donation plans. It was hypothesized that a message that enhanced confidence in the medical profession and its associated donation procedures would allay fears and would increase posthumous donation pledges.

Relationships between donation appeals and commitment. The means of commitment level in each appeal cell of the 2 X 2 design (Cognitive Fear Reduction X Affective Fear Reduction) are presented in Table 1. The analysis of variance performed on the

Table 1

Mean Scale Scores of Behavioral Commitment Toward Organ Donation and to Request for Name and Address

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	3.30 (n=21)	2.71 (n=23)
	Present	2.64 (n=24)	3.58 (n=25)

commitment scores disclosed that the Cognitive Fear Reduction by Affective Fear Reduction interaction effect approaches significance, $F(1,92) = 3.58$, $p < .06$; main effects are negligible (p's = .55). The results provide some support to the prediction that both types of fear, affectively-based and cognitively-based, must be considered in order to produce behavioral change in the direction of increased willingness to sign a donor. Although subjects who received all three messages yielded the highest level of donor commitment ($M = 3.58$), subjects who received the positive only message produced comparable levels of donor commitment ($M = 3.30$); albeit slightly lower. It seems that the positive only appeal may be as effective as the more complex three-pronged message. Such a simpified communication may have more applied value. However, the long term attitudinal and behavioral consequences for each of these message combinations may not be identical. For example, a one-sided message about the rewards of being an organ donor may not be as effective as a two-sided message that exposes people to opposing viewpoints as an innoculation devise (McGuire, 1964). When people are exposed to counterarguments and their refutation (as in the three-pronged message), people may build up a defense against future counterattitudinal attacks (McGuire, 1964). Subjects receiving the positive only appeal may be more vulnerable to counterattitudinal arguments than subjects receiving the three-pronged message, causing a regression in donation attitudes and behavior to pre-appeal levels. The maximum-induction group (positive appeal combined with both affectively- and- cognitively based fear reduction messages), because it is bolstered with defenses against counterattitudinal influences, may maintain its commitment to organ donation over time better than the other groups.

In addition, it was discovered that the positive appeal combined with either the Cognitively-Based Fear Reduction Message (M = 2.64) or the Affectively-Based Fear Reduction Message (M = 2.96) produced the lowest commitment scores. It seems that alleviating only one of the donation fears, fear of body mutilation or fear of inadequate medical treatment, may actually reduce the level of donor commitment. It seems as though the discussion of only one type of fear may have increased the saliency of the unmentioned type of fear, thereby increasing one's level of anxiety and decisional conflict. In summary, it may be best either to emphasize the positive aspects of donation only or to reduce both types of donation fears simultaneously. Discussion of each fear in isolation from the other may exacerbate anxiety and avoidance behavior.

Strategy of the Present Research

Before firm conclusions can be drawn about the efficacy of the foregoing messages, systematic replication using a sounder methodology should be performed. Specifically, it is desirable to employ an experimental design that permits one to make statements of causality, measure attitudinal change, and obtain an actual behavioral measure--signing an organ donor card. For a number of reasons, a randomized posttest-only control group design seems an appropriate procedure. First, random assignment of subjects to conditions is necessary if any differences observed in the behavior of subjects are to be attributed to the intervention.

Second, the use of control groups would reveal how participants would have behaved had they not been exposed to the promotional messages. One of the main problems with the pilot study is that there was no neutral control group. Therefore a group that received no

donation messages but instead engaged in a filler task was added as a baseline measure against which to assess the effects of all donation appeals. The filler task involved the discussion of positive and negative aspects of public speaking, using the same attitude change techniques proposed for organ donation. This public speaking control corresponded to the organ donation maximum induction condition. Another control group was added in which participants only completed the dependent measures. This questionnaire control group would show how participants would have behaved without exposure to any type of mood manipulation or promotional message about organ donation.

Third, the posttest measure of attitude will be administered following the delivery of the promotional messages and, again, two weeks later. The first posttest administration will assess the amount of immediate attitude change induced by the intervention treatments and the later test will assess the persistence of the treatment.

Finally, a common methodological practice is to counterbalance the presentational order of the appeals across conditions. This would rule out the alternative explanation that a response on the part of the subject was determined by the order of conditions, rather than from a true differential effect of the appeals. However, I plan not to vary the order of the appeals. I think it is best to arrange the order of the appeals in the following manner: (1) affectively-based fear reduction appeal; (2) cognitively-based fear reduction appeal; and (3) positive donation appeal. I offer this new presentational scheme, because without the initial elimination of the donation fears, participants may be so overwhelmed with fearful emotions that they may be unable to attend to messages concerning the positive aspects of donation. The affectively-based fear reduction message

will always be presented first, because I believe the affectively-based fear to be a stronger factor in preventing donation than the cognitively-based fear. Elimination of fears of posthumous body mutilation will prepare participants to receive the cognitively-based fear reduction message.

A question left unanswered by the pilot study is whether the appeals were truly successful in achieving their intended emotional effects. As stated earlier, each attitude change technique was designed to create a specific psychological state that would mediate donation behavior: 1) positive appeal--empathic concern; 2) affectively-based fear message--anxiety reduction; and 3) cognitively-based fear message--confidence. In order to assess the underlying emotional states, three mood scales will be added. First, the Empathic Concern scale, derived from Batson and Coke's (1981) factor analytic studies, will measure the respondent's immediate feelings of warmth, concern, and compassion for others. Second, the Tension-Anxiety subscale of the Profile of Moods States (McNair, Lorr & Droppleman, 1971) will measure a respondent's fear level. Third, the Skepticism subscale of the Mood Adjective Checklist (Nowlis, 1965) will assess a respondent's level of trust in the quality of medical treatment following the decision to donate.

Another relative weakness of the pilot study concerns the dependent variable. Willingness to donate was measured with Claxton's (1975) Guttman-type set of statements representing a hierarchy of behavioral commitment from definite refusal to sign a donor card to definite willingness. Participants were simply asked to check their desired level of commitment; they were never asked to sign a donor card. It is realized

that verbal reports of intentions are an indirect measure of the dependent variable. There may be only partial correspondence between what people say they will do and what they actually do. A more direct measure of donor behavior would be more useful than stated intentions. For this reason, willingness to donate will be measured with a five point scale that increases along a continuum from definite refusal to sign a donor card (Alternative 1), to actual signing of a donor card plus agreeing to distribute donation materials to family and friends (Alternative 5). Table 2 presents the new version of the Donor Commitment scale.

In addition, it is not known whether those who have signed a donor card will actually carry it. Signing a donor card without carrying it may reflect a continuing, unresolved conflict about donation. The revised study aims at providing an estimate of card-carrying donors, which will determine the stability of the attitude-change treatments.

The results of the pilot study also highlighted the possibility that discussion of either type of donation fear in isolation from the other may actually reduce a person's intention to donate organs posthumously. Dispelling only one fear may increase the saliency of the unmentioned fear, exaggerating its importance in donation decisions. This hypothesis will be tested directly. Following the request to sign a donor card, subjects will be given the Organ Donation Attitude Questionnaire (Parisi & Katz, 1986). Items from the Negative Attitude subscale will be categorized as cognitively- or- affectively based donation fears. In this way it can be ascertained which category of fears is preventing donor card signing.

Finally, it seems that the pilot study was weak in experimental impact. Reading donation appeals may be uninvolving for subjects, so that the emotional impact of the

appeal is diluted. To strengthen the impact of the promotional appeals, instead of using written appeals, I will have a live experimenter conduct the research. Donation messages will be tape recorded and an experimenter will play them for the audience.

Independent Variables

To summarize, two independent variables will be employed: (1) presence or absence of an affectively-based fear reduction message and (2) presence or absence of a cognitively-based fear reduction message. The design will be a 2 X 2 factorial, plus two additional control groups. The content control group receives information about public speaking, and the questionnaire control group does not receive any messages, but, rather, completes the Behavioral Commitment Scale, the Mood Adjective Checklist and the Organ Donation Attitude Questionnaire (Parisi & Katz, 1986). In all there will be six conditions: (1) positive donation appeal only; (2) positive donation appeal combined with affectively-based fear reduction message; (3) positive donation appeal combined with cognitively-based fear reduction message; (4) positive donation appeal combined with both affectively- and- cognitively-based fear reduction messages; (5) content control condition; and (6) questionnaire control condition.

Dependent Variables

Donor Commitment. In the treatment session, participants in all six conditions will be asked to state their intention to donate and an actual opportunity to sign donor cards will be provided. Willingness to donate will be measured with a five-point behavioral scale ranging from definite refusal to sign a donor card (Alternative 1) to actual signing of a donor card plus agreeing to distribute organ donation materials (Alternative 5, see

Table 2). Participants agreeing to distribute donation materials will be given 2 sets of pamphlets published by the New York Regional Transplant Program and organ donor cards. The organ donor cards will be stapled to an index card. The index card will provide a space to write in the name and telephone number of the people to whom the donor materials will be given. Inasmuch as those who provide the names and phone numbers realize that their friends may be contacted by the experimenter, it is reasonable to assume that their level of commitment is higher than those of people who do not provide this information. By providing such information, respondents expose their friends to pressure to sign a donor card. Approximately two weeks later, the number of card-carrying donors will be counted.

Mood Scales. After stating intention to donate, participants in all conditions will be asked to complete a mood adjective checklist measured by means of 15 31-point bipolar-adjective rating scales. Adjectives were selected from three pre-existing mood scales--Empathic Concern (Batson & Coke, 1981), Tension-Anxiety (McNair, Lorr & Droppleman, 1971), and Skepticism (Nowlis, 1965)--and then modified into a semantic differential format (Osgood, Suci, and Tannenbaum (1957). In responding to each mood adjective, the participant checks the extent to which the given adjective characterizes his or her present mood.

Organ Donation Attitudes. The Organ Donation Attitude Questionnaire (Parisi & Katz, 1986) will be administered to all experimental and control groups immediately after completing the mood adjective checklist, and, again, appromixately two weeks later. The questionnaire consists of 46 statements measuring positive and negative dimensions about

Table 2

Behavioral Commitment Toward Organ Donation Scale

Would you be willing to sign an agreement of donate one of your body organs at death?

_____ I prefer not to sign a donor card, and I do not wish to have any further contact.

_____ I don't think I would like to sign a donor card now, but I may sometime later.

_____ I am interested in signing a donor card, but first I would like to have additional information sent to me. (Please provide name and address)

Name: _____

Address: _____

_____

_____ I definitely want to sign an organ donor card now.
(Notify the presenter)

_____ I definitely want to sign an organ donor card now, and I want to distribute organ donation pamphlets and organ donor cards to my family and friends.
(Notify the presenter)

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organ donation. Participants are asked to rate each of the statements, using a six-point scale ranging from strongly agree to strongly disagree without a neutral point.

Hypotheses

Commitment Level. There will be an interaction effect of the two independent variables such that the highest commitment level will be observed when both fear reduction appeals are present, the next highest when neither fear reduction appeal is present, and the lowest in the two conditions where only one fear reduction message is present. The two control groups--public speaking and questionnaire controls will reveal commitment levels that are the same or slightly lower than the positive appeal only condition. Figure 3 shows the expected order of mean commitment levels.

The three message combination condition should produce the strongest willingness to sign a donor card, because it fulfills the necessary criteria hypothesized for attitude change by increasing positive attitudes and decreasing all negative attitudes. As demonstrated by Parisi and Katz (1986), the highest level of commitment behavior is expressed by subjects with strong positive attitudes and weak negative attitudes (Parisi & Katz, 1986), it follows that a promotional message that enhances positive attitudes and tackles negative attitudes should be most effective in increasing intention to donate (i.e., maximum-induction appeal).

The positive only appeal would be minimally sufficient at changing attitudes, with mean commitment levels falling at an intermediate range, because this message does not run the risk of arousing donation fears. However, in the long-term, the positive-only appeal may lose its initial effectiveness due to its vulnerability to future

counterattitudinal attacks. Failure to discuss donation fears may result in maintaining fears at their current strength level. The single fear reduction message conditions would yield the lowest level of commitment, because discussion of each fear in isolation may act as a reminder of the unmentioned fear, exaggerating its importance and leading to greater anxiety and decisional conflict. The questionnaire and content control groups would yield the same or slightly lower commitment levels than the positive appeal only because donation attitudes remain unaltered.

Empathy Mood Profile. Given that the empathy induction is given in all the experimental conditions, mean ratings on the Empathic Concern scale (Batson & Coke, 1981) are expected to yield nonsignificant main and interaction effects. However planned contrasts comparing differences in mean empathy levels of the experimental groups versus the control groups should be significant, such that higher empathy levels will always be observed within the experimental groups. Figure 4 shows the expected order of mean empathy levels. The observational set to attend to the emotions of organ recipients and future organ donors is predicted to induce pleasant empathic feelings which may function as a mediating variable reminding people that donating organs at death can actually be a rewarding experience. Therefore empathy ratings are expected to be positively correlated with commitment to donate within the experimental groups.

Anxiety and Skepticism Mood Profiles. For each of the dependent variables, anxiety and skepticism, there will be an interaction effect of the two independent variables, such that the lowest anxiety and skepticism levels will be observed when both fear reduction appeals are present, the next lowest when neither fear reduction appeal is present, and

the highest in the two conditions where only one fear reduction message is present. Figure 5 shows the expected order of mean Anxiety and Skepticism levels. The fear reduction techniques of emotive imagery and persuasion are expected to act as mediator variables allaying anxiety and building confidence only in the three-pronged message conditions, thereby making participants more willing to tolerate fears associated with donation. However, the fear reduction techniques will be ineffective in the single fear message conditions given that the unmentioned fear may take on greater prominence in donation decisions. In conclusion, anxiety and skepticism ratings are expected to be negatively related to donation in the maxium induction condition, whereas, anxiety and skepticism ratings are expected to be positively related to donation in the single fear message conditions.

Figure 3

Hypothesis of Order of Means for Donor Commitment

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	2	3
	Present	3	1

Public Speaking Control	Questionnaire Control
2	2

Note. Order of means: 1= highest, 3 = lowest

Figure 4

Hypothesis of Order of Means for Empathy Mood Ratings

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	1	1
	Present	1	1
		Public Speaking Control	Questionnaire Control
		2	2

Note. Order of means: 1= highest, 2 = lowest

Figure 5

Hypothesis of Order of Means for Anxiety and Skepticism Mood Ratings

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	2	1
	Present	1	3

Public Speaking Control	Questionnaire Control
2	2

Note. Order of Means: 1= highest, 3 = lowest

METHOD

Participants

The sample consisted of 117 participants, 67% drawn from an advertising corporation in Mid-Mahatten and 33% drawn from lower to middle management positions of several financial corporations in the Wall Street area of New York City. The participants were predominantly white (84%) and Catholic (50%). There were slightly more females (60%) than males (40%). Eighty-four percent had at least some college education. Participants ranged in age from 18 to 58 years, with a mean of 30 years, and earned on the average $35,000 yearly.

Voluntary cooperation was obtained by having the experimenter telephone each employee asking for their cooperation. The Geers Gross Corporation agreed to let their employees be tested. A letter written by Nancy Joe Kimmerle, Vice President of Marketing Research expressing her approval of the project preceded the experimenter's telephone call requesting voluntary participation. Participants were run in groups of 5 and each group were assigned randomly to conditions.

Procedure

Session1. All meetings were held in a corporation conference room. When all the participants arrived, the following introductory statement was given to all experimental groups.

> As stated in Ms. Kimmerle's letter, my research involves evaluating the educational merit of promotional messages concerning health issues. For this session, I want to discuss the issue of posthumous organ donation. I would like to have you listen

to a tape recorded message about organ donation and get your reactions to it. I'd also like you to know that in a few weeks I will want to contact you again to ask you to complete a questionnaire. However, the questionnaire can be answered at your desk. I hope that if you agree to participate today, you also be willing to answer my questionnaire in a few weeks time.

Introductory remarks were modified for the control groups as follows:

Public Speaking Control. As stated in Ms. Kimmerle's letter, my research involves evaluating the educational merit of promotional messages concerning health issues. For this session, I want to discuss the fear of public speaking. Fear of public speaking causes a lot of people and undue amount of stress. As is widely known, excessive amounts of stress lead to physical and psychological pain. I would like to have you listen to a tape recorded message about fears of public speaking. I'd also like you to know that in a few weeks I will want to contact you again to ask you to complete a questionnaire. However, the questionnaire can be answered at your desk. I hope that if you agree to participate today, you also be willing to answer my questionnaire in a few weeks time.

Following public speaking message. (It was made clear that the end of the tape-recorded message concluded the discussion of public speaking fears.) I am also running sessions in which I discuss the issue of posthumous organ donation. In order to obtain complete information from all my groups, I would appreciate if you would complete a questionnaire about organ donation.

Questionnaire Control. As stated in Ms. Kimmerle's letter, my research involves evaluating the educational merit of promotional messages concerning health issues. For this session, I want to discuss the issue of posthumous organ donation. I would like you to complete a number of questionnaires that measure your attitudes toward donating your body parts after death. I'd also like you to know that in a few weeks I will want to contact you again to complete an additional questionnaire. However, this questionnaire can be answered at your desk. I hope that if you agree to participate today, you also be willing to answer my questionnaire in a few weeks time.

Following the promotional messages, participants were given the Donor Commitment

Scale. Subjects who agreed to sign donor cards were immediately given organ donor cards. Only participants who indicated desire to receive additional information about organ donation were mailed pamphlets from the New York Regional Transplant Program and organ donor cards one week after participation.

After participants completed the Donor Commitment Scale, they were asked to answer the mood adjective checklist, and the Organ Donation Attitude Questionnaire (Parisi & Katz, 1986). Each scale was administered individually and collected before subsequent scales were distributed. Session 1 lasted no longer than 40 minutes.

Session 2. Approximately two weeks later, participants were again asked to fill out the Organ Donation Questionnaire (Parisi & Katz, 1986) in order to assess attitude change and/or stability. The questionnaire was administered at the participants' work stations. At that time, I checked if participants who had been mailed donor cards had indeed signed them. The Organ Donation Questionnaire (Parisi & Katz, 1986) had an item added at the end asking participants to indicate whether or not they had signed the donor card (see Appendix C). In addition, I checked whether or not participants carried thie signed donor cards. Every donor card given to participants had a unique serial number printed on the back. The last item on the questionnaire packet provided a space for participants to record their serial number (see Appendix C). By this method, only those participants who carried the donor card could provide this information. After this task was completed, all participants were debriefed. A letter was written explaining the theoretical and applied purposes of the study and described the different types of promotional strategies that were used. This session took a half hour to complete.

Stimulus Materials

Affective Fear Reduction Manipulation. Negative emotional arousal caused by fears of body mutilation intended to be reduced by emotive imagery (see Appendix A for complete script). Participants in the experimental groups only were instructed to imagine themselves as agreeing to donate their eyes, kidneys, and heart. To induce relaxation, reference was made to calming changes in several physiological systems, such as reduction in cardiovascular activity, muscle tension and respiratory rate. The treatment attempted to restructure attitudes about organ donation in such a way that participants would come to believe (a) that they could cope with donation anxiety and (b) that at death body parts become useless mechanical objects devoid of emotional significance.

To induce active participation in the imagery scenes, participants were given the following instructions prior to anxiety-provoking scene descriptions:

> I'm going to describe a scene. I want you to visualize the scenes as if you were actually in them. When each scene is described to you try to get a good, clear image of it. As soon as you have done this, focus your attention on how your body would react if you were actually in the scene. Try to answer for yourself the following question: How would I feel if I were actually in the scene?

Cognitive Fear Reduction Manipulation. Fear of inadequate medical care was removed through persuasive communication (see Appendix A for complete script). Information about the legalities of organ donation was provided. The criterion of brain death was explained. Participants in the experimental groups only were told that a potential donor had the added advantage of increased medical attention. The life of a donor was prolonged in

order to care for the body organ. In case of a diagnosis mistake, a potential donor had a greater chance to be saved than a nondonor.

Positive Appeal Strategy. A tape-recorded message heard by the experimental groups only emphasized the immediate positive consequences of donation, such as feelings of pride and honor for being responsible for saving the life of another (see Appendix C for complete script). The experimenter reported on testimonials provided by donor card signers, organ recipients, and families of donors documenting their confidence in transplantation therapy and the beneficial difference it made it their lives.

To induce empathic concern, participants were given the following instructions prior to listening to the tape-recorded message:

> Try to imagine how the people who are described in these case histories feel about the situation and how it has affected their lives. While listening, trade places with the characters and share in the same emotions.

Public Speaking Appeal. A tape-recorded message reducing fears of public speaking was received by the public speaking control group (see Appendix B for complete script). The techniques used were identical to the organ donation appeals. Emotive imagery was used to reduce emotional arousal caused by fear of public speaking. Participants were instructed to image themselves as delivering a speech. Relaxation was induced by referring to calming sensations in various cardiovascular and respiratory systems. Persuasive communication was given about techniques to overcome fear of public speaking. Finally, an empathic message emphasizing the positive consequences of public speaking, such as feelings of accomplishment and success was received.

Data Analysis

Relationships between promotional appeals and commitment. The main question to be answered by this study was which message was most effective in eliciting the highest level of donor commitment. Participants ratings of how willing they would be to sign donor cards were analyzed by a one-way analysis of variance (ANOVA; 4 experimental plus 2 control groups). A priori hypotheses about differences among experimental groups (e.g., interaction effects) and between experimental and control groups were tested by planned contrasts within one-way analysis of variance framework.

Relationships between promotional appeals and mood. To determine whether the promotional messages (i.e., donation appeals and public speaking appeal) were effective in producing their respective mood states, two pilot studies were conducted using independent samples of subjects. Students from the Brooklyn College introductory psychology course who volunteered for an experiment "Evaluations of Health Programs" in partial fulfillment of an experimental participation requirement were used. A one-way multivariate analysis of variance (MANOVA; 4 experimental and 2 control groups) was performed with Empathic Concern (Batson & Coke, 1981), Tension- Anxiety (McNair, Lorr, & Droppleman, 1971), and Skepticism (Nowlis, 1965) as the dependent measures. A priori hypotheses about differences among experimental groups (e.g., interaction effects) and between experimental and control groups were tested by planned contrasts within the one-way analysis of variance framework. Correlations between mood and donor behavior within conditions were also conducted.

Relationships between promotional appeals and donation fear levels. To determine whether the single fear reduction message indeed increased the saliency of the unmentioned donation fear, a one-way multivariate analysis of variance (MANOVA; 4 experimental plus 2 control groups) was performed with the Negative Attitude subscale scores (affectively and cognitively categorized items) as the dependent measures.

Attitude change scores. To assess whether the effects of the promotional appeals on organ donation attitudes persisted from Session 1 to Session 2, one-way repeated measures analysis of variance (ANOVA; 4 experimental plus 2 control groups) was performed.

RESULTS

Pilot Studies

Pilot Study I

A pilot study was conducted to determine (a) whether the promotional messages (i.e., donation appeals and public speaking appeal) were effective in producing their respective mood states and (b) whether mood (empathy, anxiety, and skepticism) facilitated commitment behavior. An independent sample of 83 Brooklyn College students, who participated as partial fulfillment of an introductory psychology course research requirement, were randomly assigned to experimental and control conditions.

Subjects listened to a tape-recorded message about organ donation which was accompanied by a slide show. I created a slide show to further enhance the impact of the recorded messages. The slides (a) depicted a nature scene matching the content of the affectively-based fear message, (b) reproduced typed paragraphs identical to the tape-recorded content of the cognitively-based fear message, and (c) showed pictures of the people in the positive appeal message and revealed their identity. Immediately following the message, subjects completed a mood adjective checklist, which measured three mood states: empathy, anxiety and skepticism. Subjects rated how they were feeling at the moment on a scale with endpoints labeled 1 (not at all) and 4 (extremely). Afterwards they stated their intention to sign an organ donor card.

Scores on the three mood subscales (empathy, anxiety, and skepticism) were used as the dependent variables in a one-way multivariate analysis of variance (MANOVA; 4 experimental and 2 control groups). The multivariate and univariate results for each of

the dependent variables indicated nonsignificant differences among the experimental and control groups (*p*'s > .05).

Correlations were computed among mood subscales (empathy, anxiety, and skepticism) and commitment behavior. Empathy was the only mood subscale that was significantly related to commitment, $r(70) = .39$, $p < .01$. The more empathic participants were feeling, the greater their willingness to sign a donor card.

Failure to demonstrate the hypothesized mood relationships led to several revisions and a second pilot study. First, the slide show was eliminated, because I believed it may have distracted the viewers, rather than enhance the impact of the taped messages. The slides, which lacked sophistication, may have stifled imaginal processes and resulted in boredom. Second, the taped messages were eliminated temporarily, because the recorded voice did not sound professional. For the second pilot study, the donation messages were read aloud.

Pilot Study II

In order to determine whether the slide show and the quality of the tape-recorded messages were indeed disruptive, a second pilot study was conducted. An additional 35 subjects drawn from an introductory psychology class were randomly assigned to one of two conditions: maximum induction or questionnaire control. Subjects listened to the experimenter read aloud the maximum induction donation appeal, without the slide show. Then the subjects completed the mood adjective checklist, followed by the commitment scale.

Subscale scores on the mood adjective checklist were analyzed individually with

t-tests. Significant effects were revealed for empathy, $t(33) = 6.06$, $p < .01$, and anxiety, $t(33) = 2.31$, $p < .03$. Subjects in the maximum induction group felt more empathic ($M = 15.78$) than the questionnaire control ($M = 11.00$). However, subjects in the maximum induction group experienced more anxiety ($M = 13.50$) than the questionnaire control ($M = 10.47$), suggesting that exposure to discussion of organ donation led to an increase in anxiety level. No differences were revealed for skepticism ($p > .05$). The maximum induction group was not more skeptical ($M = 5.94$) than the questionnaire control ($M = 5.71$).

Correlations were again computed among mood subscales (empathy, anxiety, and skepticism) and commitment behavior. Empathy was the single mood subscale that was significantly related to commitment, $r(33) = .40$, $p < .01$.

Indeed, the slide show and the poor quality of the recording of the messages seemed to reduce the impact of the promotional messages. Based on these results, final modifications were made in the main experimental method for testing the hypothesis. The slide show was eliminated completely. New tape-recordings were made by a male English teacher with professional experience in recording short stories for the reading handicapped. Lastly, the mood adjective checklist was revised to a 31-point bipolar semantic differential format.

Main Study

Effects of Promotional Appeals on Commitment

Hypothesis 1. There will be an interaction effect of the two independent variables such that the highest commitment level will be observed when both fear reduction appeals

are present, the next highest when neither fear reduction appeal is present, and the lowest in the two conditions where only one fear reduction message is present. The two control groups--public speaking control and questionnaire control--will reveal commitment levels that are the same or slightly lower than the positive appeal only condition.

As expected, commitment means were all in the predicted direction, with levels for the control groups significantly lower than for the positive only appeal (see Table 3). The maximum induction group had the highest commitment (M = 2.75) and the cognitively-based fear message group had the lowest (M = 1.90). One of the single fear groups, cognitively-based fear reduction message, was remarkably similar to both the public speaking (M = 1.90) and questionnaire (M = 1.95) control groups. As predicted, eliminating a single fear, namely fear of improper medical care, did not increase commitment behavior. However, commitment in the affectively-based fear message group (M = 2.50) was only slightly lower than in the group that received only the positive message (M = 2.55).

To further investigate this hypothesis, participants' ratings of how willing they would be to sign donor cards were analyzed by means of a one-way analysis of variance (ANOVA; 4 experimental plus 2 control groups). The univariate F ratio was highly significant ($F(5, 116) = 5.62$, $p < .001$). More precise tests of the hypothesis were provided by a priori contrasts. In accord with the hypothesis, a significant interaction effect between affectively-based and cognitively-based fear reduction messages was found, $t(111) = 2.82$, $p < .006$ (two-tailed t-test). Figure 6 shows that when both fear reduction messages were received, an extra facilitation of commitment was obtained.

Table 3

Mean Commitment Scores by Experimental Condition

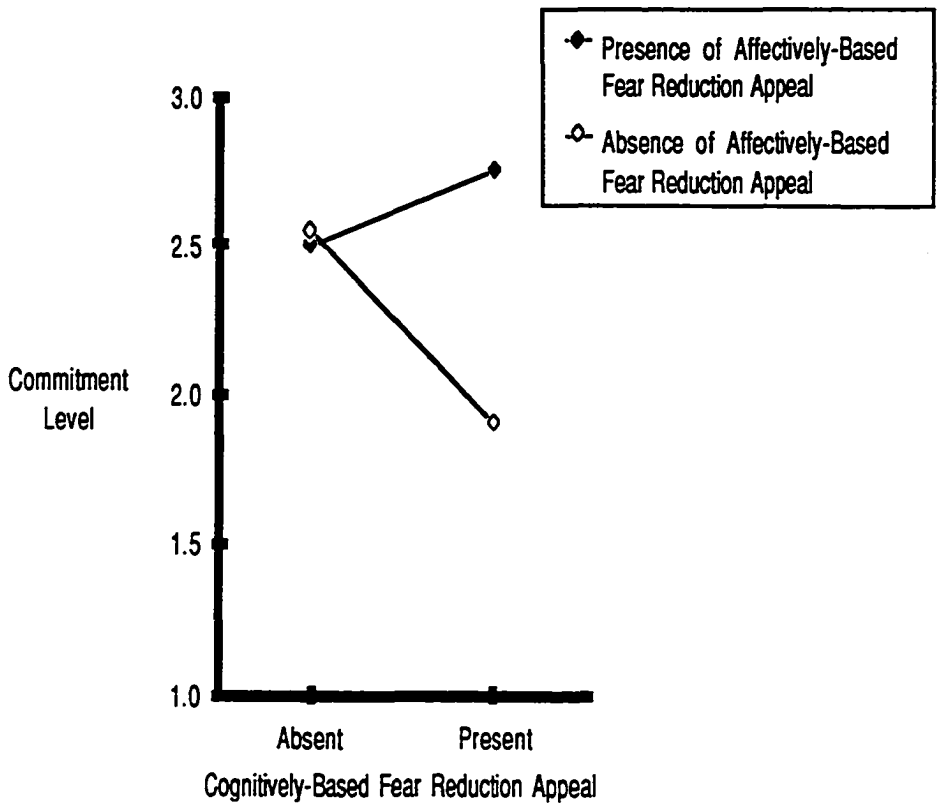
		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	2.55^{b} (20)	1.90^{a} (20)
	Present	2.50^{b} (18)	2.75^{b} (20)

Public Speaking Control	Questionnaire Control
1.95^{a} (20)	1.95^{a} (19)

Note. Numbers in parentheses are cell Ns. Means that have the same superscript letter are not significantly different at the .05 levely by two-tailed a priori tests. The higher the score the greater the willingness to donate.

Figure 6

Interaction Effect of Affectively-Based and Cognitively-Based Fear Reduction Appeals on Commitment



Number of Participants Signing a Donor Card. Participants in all six conditions were asked to state their intention to donate and an actual opportunity to sign donor cards was provided. Table 4 presents the number of participants choosing each alternative on the Donor Commitment Scale. A total of eight participants signed donor cards. Greater numbers of participants in the positive appeal only and the double fear appeal chose higher levels of commitment as compared to the participants in the single fear appeals and the control groups.

Relationships Between Promotional Appeals and Donation Fear Levels

Hypothesis 2. Discussion of a single fear (fear of body mutilation or fear of inadequate medical care when one's life is at risk) will increase the saliency of the other, unmentioned fear.

To determine whether a single fear reduction message indeed caused the unmentioned donation fear to become exaggerated, 14 items were selected, in advance, from the Negative Attitude subscale and categorized into (affectively-based) fear of posthumous body mutilation and (cognitively-based) fear of receiving inadequate medical care. Item selection was based on a cluster analysis configuration presented by Parisi and Katz (1986).

Before combining items into composite scales, all attitude statements were submitted again to Hartigan's (1979) Cluster Analysis subprogram, using a hierarchical, single-linkage algorithm to generate the cluster structure. The measures of similarity used in the analysis were correlation coefficients. The cutoff values for deciding which clusters to retain were determined by examining (a) a tree diagram which illustrates the

Table 4

Responses to Scale of Behavioral Commitment Toward Organ Donation

	Commitment Level				
	Do not prefer to sign	Not now, sometime later	First mail additional information	I want to sign now	I want to sign and convince others to sign
Promotional Groups					
1. Positive Appeal Only	2	6	11	1	0
2. Affectively-Based Fear	1	9	6	4[a]	0
3. Cognitively-Based Fear	4	14	2	0	0
4. Maximum Induction	0	8	9	3	0
5. Public Speaking Control	4	13	3	0	0
6. Questionnaire Control	6	8	5	0	0

Note. [a]Two of these subjects signed donor cards two weeks later.

sequence of clusters formed and (b) a summary table for the clustering process. Only those clusters were retained in which the average correlation within clusters was greater than .50. By this method, two coherent negative attitude subclusters were identified.

One negative attitude cluster reflected fear of receiving inadequate medical treatment. Items within this cluster were identical to those retained in Parisi and Katz (1986). Therefore, a composite scale of seven items was constructed combining these attitude statements. The following are examples of items: "A person is less likely to receive adequate medical care after signing an organ donor card; "There is a good chance that doctors will be more likely to prematurely declare the death of an organ donor;" and "By signing a donor card, doctors might do something to me before I'm really dead." The alpha for the seven-item Inadequate Medical Treatment scale was .90. Table 5 lists the items for this scale.

The second negative attitude subcluster reflected fear of body mutilation. The configuration of this cluster was different from that reported in Parisi and Katz (1986). In the present study, the Organ Donation Attitude Scale was revised to include additional items that reflected a theme of body mutiliation. All newly written items formed a distinct subcluster. However, items reported in the earlier body mutilation subcluster (Parisi & Katz, 1986) failed to cluster. These items reflected religious beliefs that the body must not be mutilated (e.g., "An intact body is needed for the Life Hereafter"). Given that the Organ Donation Attitude Scale (Parisi & Katz, 1986) is relatively new, some item instability is to be expected. A stable cluster configuration may become apparent only after several administrations. For this reason, a composite scale reflecting fear of body

mutilation was constructed by combining items retained in cluster configurations produced in both the present cluster analysis and in the Parisi and Katz (1986) cluster solution. The following are examples of items: "An intact body is needed for the Life Hereafter" (old item); "When I die I want to be buried whole and with all my original parts" (new item); and "The thought of my body being cut up or taken apart after I'm gone makes me feel uneasy" (new item). The alpha for the seven-item Body Mutilation scale was .86. Table 6 lists the items for this scale.

Scores on the two negative attitude subclusters were used as the dependent variables in a one-way multivariate analysis of variance (MANOVA) with the promotional appeal groups as the independent variable. The multivariate F ratio was significant, $F(10, 222) = 2.59$, $p < .006$. Univariate tests revealed a significant effect only for fear of inadequate medical treatment ($p < .006$). Cell means are presented in Table 7. As predicted, a significant interaction effect between affectively-based and cognitively-based fear messages was found $t(111) = 2.52$, $p < .01$. As shown in Figure 7, fears of inadequate medical treatment were more pronounced when the affectively-based fear reduction message (addressed to posthumous mutilation fears) was given to the exclusion of the cognitively-based fear reduction message (addressed to inadequate medical treatment fears). In addition, subjects who received only a message reducing fears of posthumous body mutilation demonstrated significantly higher fear of inadequate medical treatment scores than the public speaking control group $t(111) = 2.32$, $p < .05$, but had only slightly (nonsignificantly) higher scores than the questionnaire control group.

The univariate F ratio for the mutilation subscale was not significant,

Table 5

Components of Inadequate Medical Treatment Scale

a. Extraordinary medical techniques will not be used to save the life of an organ donor.

b. A person will be less likely to receive adequate medical care after signing an organ donor card.

c. There is a good chance that doctors will be more likely to prematurely declare the death of an organ donor.

d. A donor's impending death will be met by pleasure rather than vigorous medical treatment by physicians.

e. A person who intends to donate their body parts at death increases the likelihood that he or she will be pronounced dead even though one is still alive.

f. If I sign a donor card, doctors might do something to me before I'm really dead.

g. Even if special precautions are taken to protect the life of an organ donor, there is still a chance that their life will be taken to save the life of a rich or important person.

Table 6

Components of Mutilation Scale

a. An intact body is needed for the Life Hereafter.

b. Transplanting organs is against God's will.

c. Organ donation should not be considered because the body is sacred and has religious meaning, even after death.

d. Pledging my organs upon my death makes me feel uncomfortable.

e. When I die, I want my whole body to die with me.

f. The thought of my body being cut up or taken apart after I'm gone makes me feel uneasy.

g. When I die I want to be buried whole and with all my original parts.

Table 7

Mean Fear of Inadequate Treatment by Experimental Condition

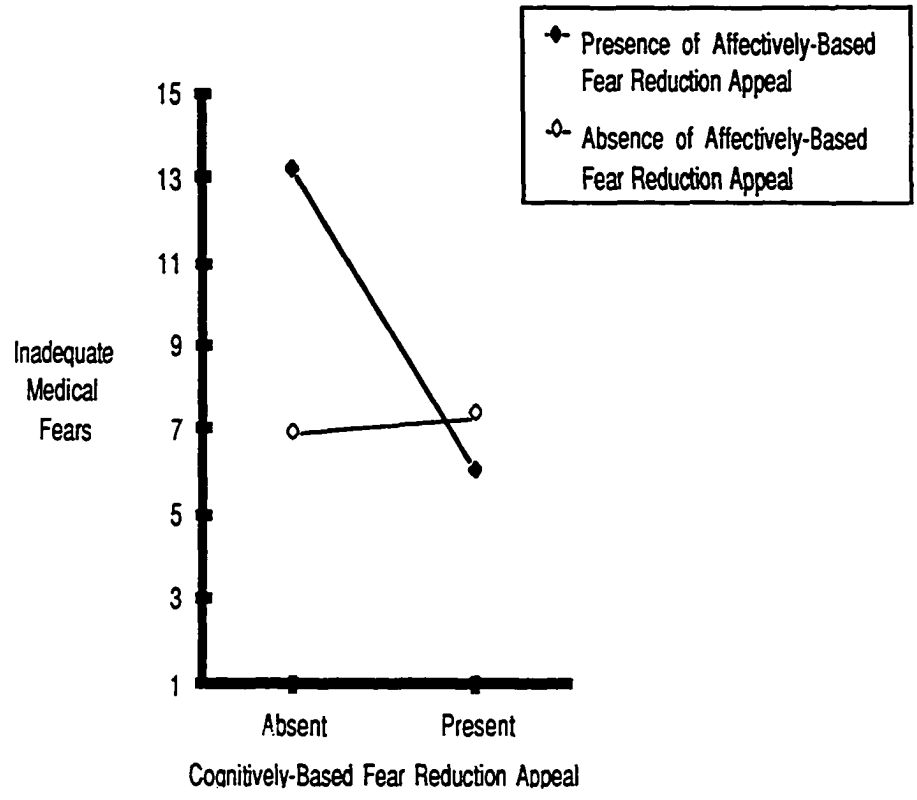
		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	6.85^{b} (20)	7.30^{b} (20)
	Present	13.17^{a} (18)	5.95^{b} (20)

Public Speaking Control	Questionnaire Control
8.10^{b} (20)	11.53^{a} (19)

Note. Numbers in parentheses are cell Ns. Means that have the same superscript letter are not significantly different at the .05 level by a priori tests. The higher the score the more fear of inadequate treatment.

Figure 7

Interaction Effect of Affectively-Based and Cognitively-Based Fear Reduction Appeals on Inadequate Treatment Fears



$F(5,111) = 1.55$, $p < .18$. Although the contrasts of interest did not achieve statistical significance, Table 8 shows that the mean for the cognitively-based fear reduction condition was in the expected direction as compared to means in all other experimental conditions. In summary, when only a single fear reduction message was received, the unmentioned fear tended to increase in prominence.

Effects of Promotional Appeals on Mood

Hypothesis 3. Mean empathy levels of the experimental groups will be higher than the mean empathy levels of each control group given that the empathy induction is given in all the experimental conditions.

Hypothesis 4. There will be an interaction effect of the two independent variables on anxiety, such that the lowest anxiety levels will be observed when both fear reduction appeals are present, the next lowest when neither fear reduction appeal is present, and the highest in the two conditions where only one fear reduction message is present.

Hypothesis 5. There will be an interaction effect of the two independent variables on skepticism, such that the lowest skepticism levels will be observed when both fear reduction appeals are present, the next lowest when neither fear reduction appeal is present, and the highest in the two conditions where only one fear reduction message is present.

Hypotheses 3, 4 and 5 were tested by means of a one-way multivariate analysis of variance (MANOVA; 4 experimental and 2 control groups). Analysis of the three mood scores showed a significant overall effect, $F(15, 333) = 2.33$, $p < .004$. Univariate tests revealed a significant effect only for Empathy, $F(5,111) = 3.38$, $p < .007$.

Table 8

Mean Fear of Mutilation by Experimental Condition

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	12.50 (20)	15.15 (20)
	Present	13.28 (18)	11.05 (20)

Public Speaking Control	Questionnaire Control
12.25 (20)	15.42 (19)

Note. Numbers in parentheses are cell Ns. The higher the score the more of posthumous mutilation.

To interpret the significant univariate test for Empathy, planned contrasts were done. It was predicted that significantly higher empathy levels would always be observed within the experimental conditions as compared with the control groups. As expected, there were no interaction effects. Comparisons of each control group, public speaking and questionnaire with all experimental groups yielded a significant effect for public speaking, $t(111) = 3.80$, p .001. As seen in Table 9, participants in the public speaking control condition had the lowest empathy scores as compared with the experimental groups. Although the questionnaire control group had lower empathy scores than the experimental groups, the differences were not significant.

Hypothesis 4 predicted that there would be an interaction effect on anxiety, and Hypothesis 5 predicted an interaction effect on skepticism. Only the univariate test for Skepticism approached significance, $F(5,111) = 2.05$, $p < .07$. More precise tests of the hypotheses were provided by a priori contrasts. As predicted, a significant interaction of affectively-based and cognitively-based fear reduction appeals was revealed for skepticism, $t(111) = 2.25$, $p < .03$. Figure 8 shows that the interaction was produced as a result of the increments in skepticism levels when only one fear reduction message was present.

Comparisons of each experimental condition with the control groups revealed that the maximum induction group differed significantly from the public speaking, $t(111) = 2.09$, $p < .03$ and the questionnaire control groups, $t(111) = 1.67$, $p < .06$. As seen in Table 10, participants in the maximum induction condition had significantly lower skepticism scores as compared with the control groups.

Table 9

Mean Empathy Scores by Experimental Condition

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	120.00[a] (20)	109.80[a] (20)
	Present	118.22[a] (18)	119.30[a] (20)

Public Speaking Control	Questionnaire Control
94.35[b] (20)	110.79[a] (19)

Note. Numbers in parentheses are cell Ns. Means that have the same superscript letter are not significantly different at the .05 level by two-tailed a priori tests. The higher the score the more empathic the ratings.

Figure 8

Interaction Effect of Affectively-Based and Cognitively-Based Fear Reduction Fear Appeals on Skepticism

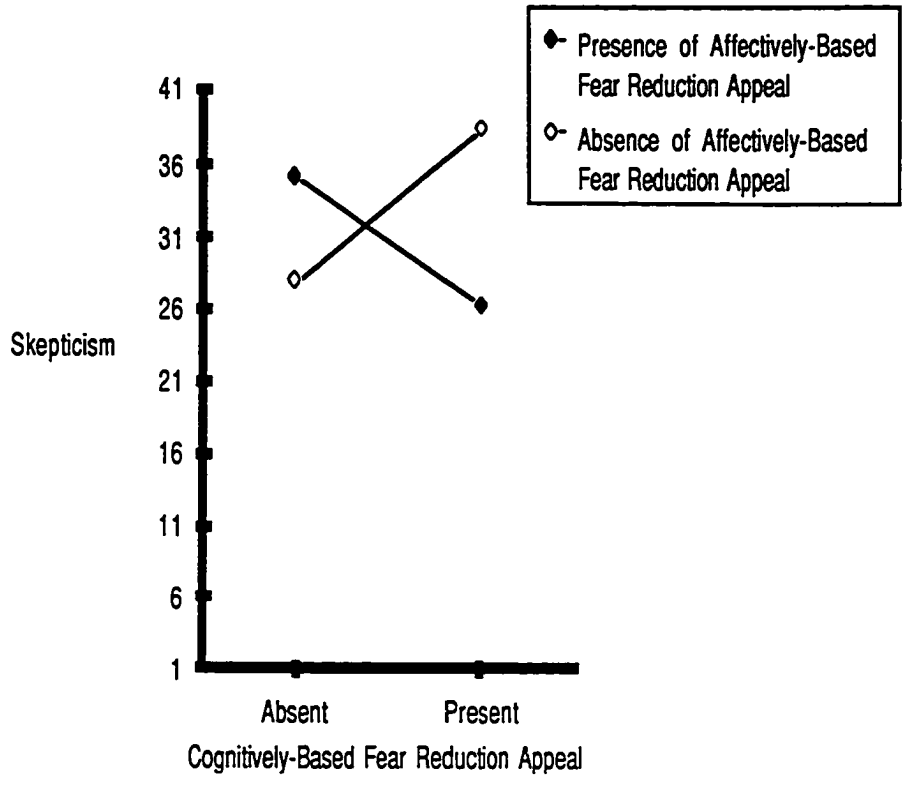


Table 10

Mean Skepticism Scores by Experimental Condition

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	27.75^{bc} (20)	38.30^{a} (20)
	Present	35.00^{ac} (18)	26.10^{b} (20)

Public Speaking Control	Questionnaire Control
41.80^{a} (20)	36.32^{ac} (19)

Note. Numbers in parentheses are cell Ns. Means that have the same superscript letter are not significantly different at the .05 level by two-tailed a priori tests. The higher the score the more skeptical the ratings.

Contrary to expectations, there was no interaction effect of the two types of fear reduction messages on anxiety levels. Comparisons of the control groups with experimental groups revealed no significant differences.

Correlations Between Mood and Commitment

Pearson correlations were computed between each mood scale (empathy, anxiety and skepticism) and commitment behavior, within each experimental and control condition. Table 11 presents the correlations within conditions. As regards the Pearson correlations for empathy, it can be seen that with the exception of public speaking control, no correlations were significant ($p > .05$). This may have been due to the small sample size. However, among the experimental conditions, the maximum induction group had the strongest positive relationship between empathic feelings and willingness to sign a donor card ($r = .27$), while the cognitively-based fear message group had the strongest negative relationship ($r = -.21$).

Correlations between mood states of anxiety and skepticism and commitment show that participants who received only a single fear reduction message, anxiety and skepticism scores were inversely related to donor commitment, with three of the four correlations being significant or nearly significant.

Pooled within cell correlations were computed by combining within cell correlations across cells, correcting for differences in mean between those cells. Table 12 shows that mood states revealed reliable and stable relationships with commitment. Overall, participants who were feeling more empathic demonstrated a willingness to sign a donor card. Also, participants who were feeling more skeptical and anxious expressed

Table 11

Within Condition Correlations Between Commitment Scale and Mood Subscale Scores

	Mood Scores		
Promotional Message	Empathy	Anxiety	Skepticism
Positive Appeal Only	.15	.09	-.12
Affectively-Based Fear	.01	-.36*	-.55***
Cognitively-Based Fear	-.21	-.33*	-.25
Maximum Induction	.27	-.06	-.21
Public Speaking Control	.44**	-.04	-.33*
Questionnaire Control	-.21	-.15	-.01

Note. Probability values are for one-tailed tests.

*p < .10. **p < .05. ***p < .01

Table 12

Pooled Intercorrelations Between Behavioral Commitment and Mood Subscale Scores

Variable	2	3	4
1. Commitment	.19**	-.15*	-.33***
2. Empathy		-.24**	-.58***
3. Anxiety			.52***
4. Skeptical			

Note. Probability values are for one-tailed tests.

*p < .05. **p < .01. ***p < .001

unwillingness to sign a donor card.

Additional Analyses

Organ Donation Attitude Scale Reliabilities

The Organ Donation Attitude Scale (Parisi & Katz, 1986) was constructed with two subscales, Positive (i.e., prodonation) and Negative (i.e., antidonation). The scales proved to have adequate internal consistency in the present sample, as shown by the following alpha coefficients: Positive scale = .93 and Negative scale = .90, closely replicating previous subscale reliabilities (Parisi & Katz, 1986).

In a theoretical exposition, Parisi and Katz (1986) expected that the Positive and Negative scales would measure relatively independent attitude dimensions about organ donation. The attitude subscales were found in the present study to have a small but significant negative correlation, $r(115) = -.26$, $p < .002$. The correlation of attitude subscales originally reported by Parisi and Katz (1986) was near zero ($r = .003$). Although the present correlation was somewhat higher than that obtained by Parisi and Katz (1986), the total amount of explained variance (5%) is not very large.

Effect of Promotional Appeals on Positive and Negative Attitudes

The Positive and Negative subscale scores were used to investigate how various promotional appeals affected organ donation attitudes. Group differences were tested by a one-way multivariate analysis of variance followed by *a priori* tests. Multivariate ($F(10,222) = 2.83$, $p < .002$) and univariate tests revealed that the groups differed reliably on Positive attitude ($F(5,111) = 2.84$, $p < .002$), and marginally for Negative attitude ($F(5,111) = 2.05$, $p < .09$).

Although a priori contrasts did not reveal an interaction effect for Positive attitude, additional contrasts were performed on all possible comparisons of paired means. As shown in Table 13, participants in all experimental conditions, except for the cognitively-based fear message condition, had significantly higher prodonation feelings than participants in the control groups, t's(111) = ≥ 1.84, p's ≤ .07.

A significant interaction of affectively-based and cognitively-based fear appeals for Negative attitude was revealed, $t(111) = 2.25$, $p < .03$. Figure 9 shows that when both fear reduction messages were present, lowered Negative attitudes were obtained. A priori contrasts for Negative attitude resulted in significant differences between the maximum induction group and the questionnaire control $t(111) = 1.87$, $p < .06$, but not the public speaking control. Table 14 shows that the means for Negative attitude formed a familiar pattern. The lowest antidonation attitude scores were observed when both fear reduction appeals were present, the next lowest when neither fear reduction appeal was present, and the highest in the two conditions where only one fear reduction message was present.

Positive and Negative attitude scores were combined to form a Net Positive attitude score (Positive minus Negative). A one-way univariate F ratio for the Net Positive attitude score was significant, $F(5,111) = 3.45$, $p < .006$. The theoretically familiar pattern appeared. An interaction effect of the two independent variables on Net Positive attitude was obtained, $t(111) = 2.34$, $p < .01$. Figure 10 shows that the highest Net Positive attitude score was observed when both fear reduction appeals were present, the next highest when neither fear reduction appeal was present, and the lowest in the two conditions where only one fear reduction message was present. Post hoc analyses revealed

Table 13

Mean Positive Attitude Scores by Experimental Condition

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	76.40^{ab} (20)	67.70^{a} (20)
	Present	81.44^{b} (18)	82.95^{ab} (20)

Public Speaking Control	Questionnaire Control
67.00^{a} (20)	67.16^{a} (19)

Note. Numbers in parentheses are cell Ns. Means that have the same superscript letter are not significantly different at the .05 level by two-tailed a priori tests. The higher the score the more favorable the ratings.

Figure 9

Interaction Effect of Affectively-Based and Cognitively-Based Fear Reduction Appeals on Negative Attitude

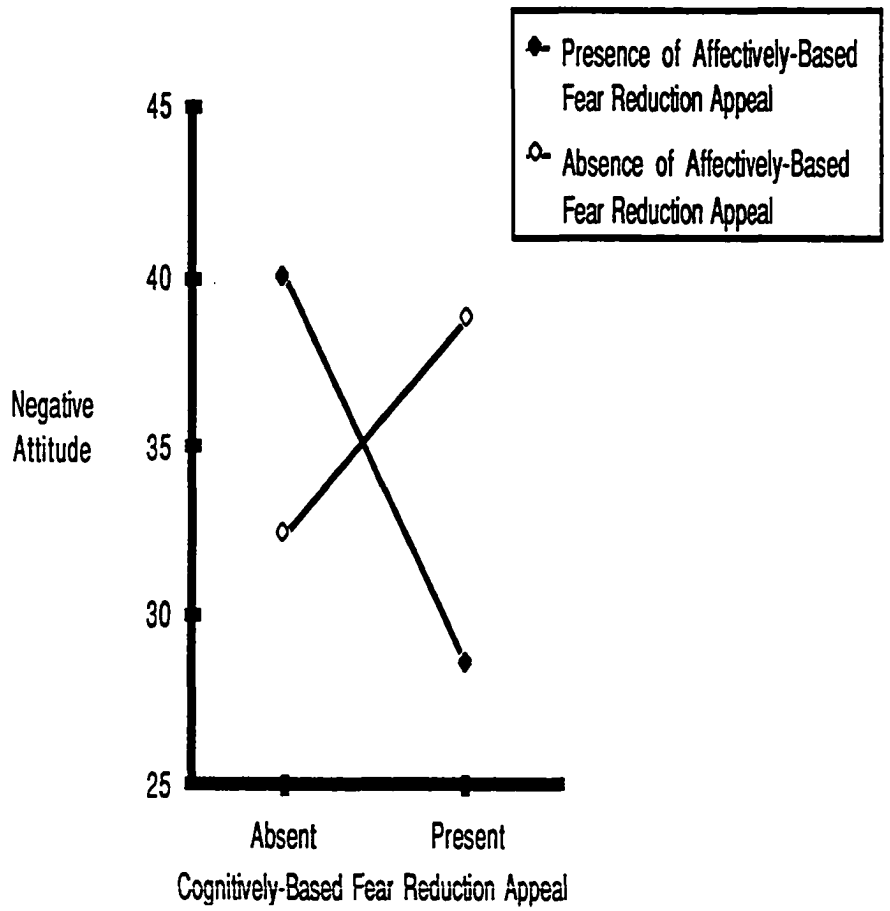


Table 14

Mean Negative Attitude Scores by Experimental Condition

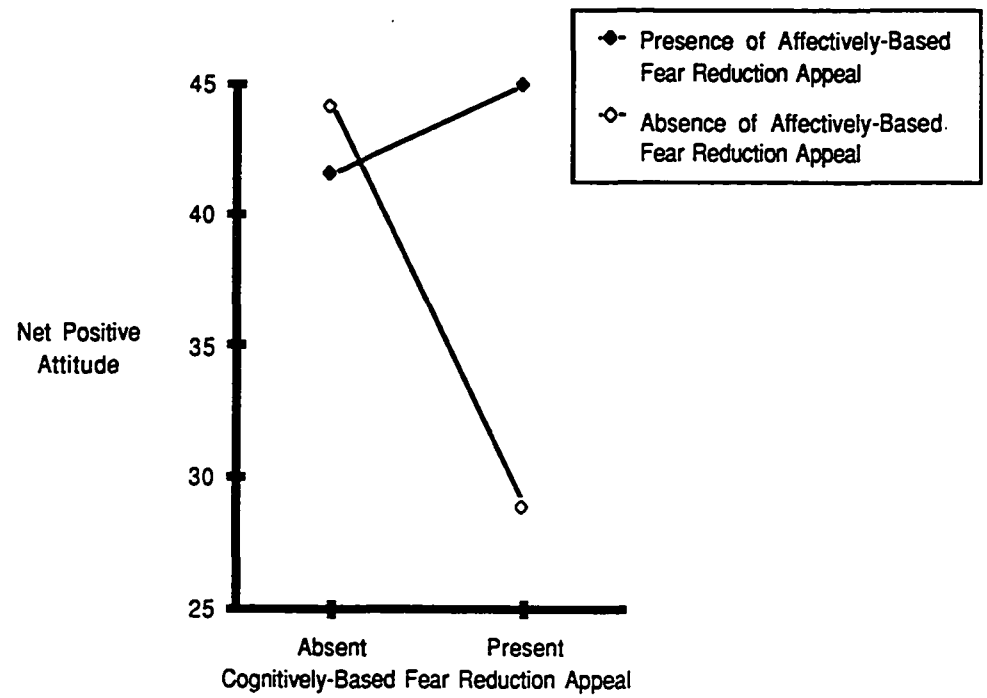
		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	32.35^{ab} (20)	38.75^{ac} (20)
	Present	39.93^{ac} (18)	28.50^{b} (20)

Public Speaking Control	Questionnaire Control
32.75^{ab} (20)	43.16^{c} (19)

Note. Numbers in parentheses are cell Ns. Means that have the same superscript letter are not significantly different at the .05 level by two-tailed a priori tests. The higher the score the more unfavorable the ratings.

Figure 10

Interaction Effect of Affectively-Based and Cognitively-Based Fear Reduction Appeals on Net Positive Attitude



significant differences among promotional appeals. As seen in Table 15, subjects in the maximum induction group expressed significantly higher overall Net Positive attitude scores than subjects in the cognitively-based fear reduction message and questionnaire control.

A preliminary attempt was made to quantify ambivalence. Ambivalence was defined as the product of the participant's Positive and Negative subscale scores. This multiplicative index accounts for both the level and similarity of the participant's Positive and Negative scores, so that participants who are relatively high on both tend to have higher ambivalence scores than participants who are high on only one, and participants who are low on both tend to have the lowest ambivalence scores.

A one-way univariate F ratio for the ambivalence score did not approach significance, $F(5,111) = 1.62$, $p < .16$. Post hoc analyses revealed that no two groups were significantly different. However, as can be seen in Table 16, the affectively-based fear message yielded the highest ambivalence score. The suggestion, then, is that the affectively-based fear reduction message tended to create a condition of enhanced ambivalence.

Relationships Between Commitment and Positive and Negative Attitudes

The Commitment Scale was used to provide a behavioral measure for testing the predictive validity of the Positive and Negative scales. For the pooled within-cell correlation between commitment level and positive attitude, $r(115) = .33$, $p < .001$; and for commitment level and negative attitude, $r(115) = -.49$, $p < .001$. For the multiple correlation of commitment level versus both attitudes, $r(115) = .53$, $p < .001$.

Table 15

Mean Net Positive Attitude Scores (Positive Minus Negative) by Experimental Condition

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	44.05^{ab} (20)	29.95^{a} (20)
	Present	41.51^{ab} (18)	54.45^{b} (20)

Public Speaking Control	Questionnaire Control
34.25^{a} (20)	27.98^{a} (19)

Note. Numbers in parentheses are cell Ns. Means that have the same superscript letter are not significantly different at the .05 level by two-tailed a priori tests. The higher the score the more favorable the ratings.

Attitude Change

No specific hypotheses about persistence of promotional appeal effects on organ donation attitudes were proposed. Positive, Negative, and Net Positive attitude scores were used as the dependent variables in a series of one-way univariate repeated measures design of the responses of the respective promotional appeal groups in order to determine whether the treatment effects persisted over time.

It should be noted that a small amount of attrition occurred. Twenty-five percent of subjects who participated in the first research session failed, at the two-week follow-up, to complete the Organ Donation Attitude Scale (Parisi & Katz, 1986). To determine whether there were differences between respondents and nonrespondents on attitude profiles, t-tests were performed. The t-test analysis indicated that only in the maximum induction condition was there a significant difference in Positive attitude, $t(18) = 2.08$, $p < .05$ and Negative attitude, $t(18) = 2.92$, $p < .009$ between respondents and nonrespondents. As can be seen in Table 17, nonrespondents in the maximum induction group were more likely to have stronger Negative attitudes and lower Positive attitudes than respondents. That is, subjects less favorably disposed to organ donation failed to respond at follow-up. Respondents in all other experimental and control groups had similar donation attitudes as nonrespondents.

The univariate repeated measures analysis of variance for Positive attitude indicated that at Session 2 the promotional appeals continued to have a significant effect from first to second administrations, $F(1,81) = 11.97$, $p < .001$. Table 18 present the means for subjects' postmanipulation donation attitudes. Two weeks later, the maximum induction

group and the positive only appeal retained their position as the highest prodonation attitude groups and the single fear appeals as the lowest antidonation attitude groups.

The univariate repeated measures analysis of variance for Negative attitude indicated that at Session 2 the promotional appeals did not continue to have a significant effect from first to second adminstrations, $F(1,81) = 1.12$, $p < .29$. Table 19 presents the means for subjects' postmanipulation antidonation attitudes. Although the positive only appeal and the maximum induction group still maintained their position as the lowest antidonation at second administration, the pattern of negative attitude scores was not statistically significant.

However, the univariate F ratio for Net Positive attitude was significant at second administration, $F(1,81) = 10.53$, $p < .002$. Table 20 shows that at postadministration the maximum induction group maintained its position as having the highest Net Positive attitude scores, while the single fear appeal groups maintained their positions as the lowest.

Delayed Decision to Sign an Organ Donor Card. Participants were asked at follow-up whether or not they had signed a donor card during the two week interim. Two people reported signing donor cards; both of whom had been in the affectively-based fear reduction group. After the experimenter spoke briefly with these participants, they both confessed that it was only after discussing their fears of improper medical care with coworkers, that they decided to sign an organ donor card.

Relationship Between Signing and Carrying an Organ Donor Card. The present study aimed at providing an estimate of how many signers of donor cards would actually carry

them. Six people signed donor cards during the experimental sessions and two people signed at postmanipulation. All eight people provided the serial number printed on the donor card at follow-up, indicating that they were carrying the donor card.

Table 16

Mean Ambivalence Scores by Experimental Condition

		Cognitively-Based Fear Appeal	
		Absent	Present
Affectively-Based Fear Appeal	Absent	2386.50[a] (20)	2655.25[a] (20)
	Present	3156.78[b] (18)	2313.75[a] (20)

Public Speaking Control	Questionnaire Control
2099.65[a] (20)	2805.53[ab] (19)

Note. Ambivalence score computed as Positive X Negative. Numbers in parentheses are cell Ns. Means that have the same superscript letter are not significantly different at the .05 level by two-tailed a priori tests. The higher the score the ambivalent the ratings.

Table 17

Mean Total Experimental Participant Versus Missing Data Attitudes Toward Organ Donation

	Mean Experimental Session Attitude Scores			
	Positive Scores		Negative Scores	
Promotional Group	Experimental	Missing	Experimental	Missing
1. Positive Appeal Only	76.80 (15)	75.20 (5)	29.87 (15)	39.80 (5)
2. Affectively-Based Fear	80.43 (14)	85.00 (4)	43.86 (14)	26.00 (4)
3. Cognitively-Based Fear	73.17 (12)	59.50 (8)	40.08 (12)	36.75 (8)
4. Maximum Induction	85.67* (15)	74.80* (5)	23.73* (15)	42.80* (5)
5. Public Speaking Control	67.06 (18)	66.50 (2)	30.94 (18)	49.00 (2)
6. Questionnaire Control	69.69 (13)	61.67 (6)	37.69 (13)	55.00 (6)

Note. Numbers in parentheses are cell Ns. Mean pairs that have an asterisk are significantly different at the .05 level by two-tailed t-tests.

Table 18

Mean Immediate (Session 1) and Later Post-Experimental (Session 2) Positive Attitude Scores by Experimental Conditions

	Mean Positive Subscale Scores	
	Session 1	Session 2
Promotional Group		
1. Positive Appeal Only	76.80 (15)	76.00 (15)
2. Affectively-Based Fear	80.43 (14)	74.64 (14)
3. Cognitively-Based Fear	73.17 (12)	64.25 (12)
4. Maximum Induction	85.67 (15)	82.00 (15)
5. Public Speaking Control	67.06 (18)	65.33 (18)
6. Questionnaire Control	69.69 (13)	69.54 (13)

Note. Numbers in parentheses are cell Ns.

Table 19

Mean Immediate (Session 1) and Later Post-Experimental (Session 2) Negative Attitude Scores by Experimental Condition

	Mean Negative Subscale Scores	
	Session 1	Session 2
Promotional Group		
1. Positive Appeal Only	29.87 (15)	32.20 (15)
2. Affectively-Based Fear	43.86 (14)	40.07 (14)
3. Cognitively-Based Fear	40.08 (12)	37.42 (12)
4. Maximum Induction	23.73 (15)	27.47 (15)
5. Public Speaking Control	30.94 (18)	34.72 (18)
6. Questionnaire Control	37.69 (13)	39.38 (13)

Note. Numbers in parentheses are cell Ns.

Table 20

Mean Immediate (Session 1) and Later Post-Experimental (Session 2) Net Positive Attitude Scores by Experimental Condition

	Mean Net Positive Subscale Scores	
	Session 1	Session 2
Promotional Group		
1. Positive Appeal Only	46.93 (15)	43.80 (15)
2. Affectively-Based Fear	36.57 (14)	34.57 (14)
3. Cognitively-Based Fear	33.08 (12)	26.83 (12)
4. Maximum Induction	61.93 (15)	54.53 (15)
5. Public Speaking Control	36.11 (18)	30.61 (18)
6. Questionnaire Control	32.00 (13)	30.15 (13)

Note. Numbers in parentheses are cell Ns.

DISCUSSION

Review of Findings

An intervention strategy was designed to change attitudes about posthumous organ donation by arousing positive attitudes and reducing negative attitudes. Previously, Parisi and Katz (1986) found that a large proportion of people in their sample had attitudes about donating organs for transplanation that were to some extent ambivalent, in the sense that they expressed both pro and anti beliefs. In that study, subjects who had both strong positive attitudes and weak negative attitudes were found to be especially willing to sign donor cards. The present research was aimed at developing an intervention strategy directed toward changing attitudes about organ donation to match this attitude profile. Specifically, the strategy was to arouse prodonation beliefs and reduce donation fears. The pro dimension involves belief in the humanitarian benefits of organ donation and feelings of pride experienced by the donor. The anti dimension reflects fears of posthumous body mutilation and of receiving inadequate medical treatment when one's life is at risk. A commitment to donate scale that included a measure of actual donor behavior--signing an organ donor card--was employed.

The results of this study provide some support for the main prediction relating to commitment to posthumous organ donation. Hypothesis 1 predicted an interaction effect of the two independent variables on commitment to donate such that the double fear appeal would elicit the most commitment, the positive appeal only condition the next most, and the two single fear appeals the least. The two control groups were expected to reveal commitment levels that were the same or slightly lower than the positive appeal only

condition. The predicted interaction effect was obtained, with the expected rank ordering of commitment means in the experimental conditions. However, the affectively-based fear condition produced somewhat higher commitment than anticipated.

The prediction of Hypothesis 2 was that by reducing only one type of donation fear, fear of inadequate medical treatment or of posthumous body mutilation, the other, unmentioned fear would increase in importance. The prediction was supported for the affectively-based fear reduction condition. That is, subjects who received only a message reducing fear of posthumous body mutilation (affectively-based fear reduction) demonstrated significantly stronger fear of inadequate medical treatment than subjects in all other experimental conditions. In addition, subjects in the affectively-based fear reduction condition had significantly higher fear of inadequate medical care scores than subjects in the public speaking control group, but only slightly (nonsignificantly) higher scores than in the questionnaire control group.

Although Hypothesis 2 was not statistically supported for the cognitively-based fear reduction appeal only, there was a slight tendency for subjects in this condition (who received only a message intended to reduce fears of inadequate medical treatment) to reveal the highest mean level of mutilation fear as compared to all other experimental subjects and the public speaking control group.

The prediction of Hypothesis 3 was that mean empathy levels would be higher in all experimental conditions than in the control groups. As predicted, empathy means across the experimental groups were significantly higher than empathy scores within the public speaking control group. However empathy scores in the experimental groups were only

slightly (nonsignificantly) higher than scores in the questionnaire control group.

The predictions of Hypotheses 4 and 5 were that for the mood states of anxiety and skepticism, there would be an interaction effect such that the lowest anxiety and skepticism levels would be observed when both fear reduction appeals were present, the next lowest when neither fear reduction appeal was present, and the highest in the two conditions where only one fear reduction message was present. The prediction was supported for skepticism. Subjects expressed significantly less skepticism in the condition when they received both fear reduction messages. The prediction for anxiety was not statistically supported. However, subjects tended slightly to report lower anxiety in the maximum-induction condition.

Hypotheses 3, 4, and 5 were formulated to determine whether mood (empathy, anxiety, and skepticism) facilitated commitment behavior. Within-condition correlations provided additional evidence on relationships between mood and commitment. When computed, these correlations revealed complex effects. Anxiety and skepticism were negatively related to commitment only in the single fear appeal groups. The more anxious and skeptical participants were feeling the less their willingness to sign a donor card. Empathy was more strongly related to commitment in the double fear appeal group. The more empathic participants were feeling the greater their commitment to donate.

The pooled correlations show more straightforward relationships between the three mood measures and commitment. All three mood subscales, especially skepticism were related to willingness to donate. Overall, strong skeptical and anxious feelings were associated with decreased willingness to donate, whereas strong empathic feelings were

associated with an increased willingness to donate.

The effect of the promotional appeal on attitudes toward organ donation was also investigated. An interaction was obtained such that subjects who received both fear reduction messages revealed the lowest Negative attitude score. Although, an interaction effect was not obtained for Positive attitude, when Positive and Negative attitude scores were combined by subtracting Negative from Positive to form a Net Positive attitude score, significant differences were obtained. There was an interaction effect such that the highest Total attitude score was observed in the maximum induction condition, the next highest when neither fear reduction appeal was present, and the lowest in the two conditions where only one fear reduction message was present. Net Positive attitude scores in the maximum induction group were higher than scores in the control groups.

The effect of the promotional appeals on persistence of treatment effects on organ donation attitudes from first to second administration was investigated. Overall, postmanipulation attitudes revealed that the effects of the promotional appeals persisted over time. Subjects who had received the positive appeal only or the maximum induction appeal continued to demonstrate higher Positive and Net Positive attitude scores and lower Negative attitude scores relative to the single fear appeals.

The major conclusion to be drawn for this study is that to promote commitment to posthumous organ donation a prodonation appeal combined with a double fear reduction appeal is most effective. Evidence for this conclusion is taken from the fact that a number of predicted interactions were significant. First, the interaction effect on commitment revealed that the highest commitment was in the maximum induction condition. Subjects

in the maximum induction group had higher commitment than subjects in the control groups. Second, the interaction effect on fear of inadequate medical treatment revealed that the lowest fear of inadequate treatment was in the maximum induction condition. Subjects in the maximum induction group had lower fear of improper treatment than subjects in the questionnaire control group, but not the public speaking control. Third, the interaction effect on skepticism revealed that the lowest skepticism was in the maximum induction condition. Skepticism scores in the maximum induction group were also significantly lower than the control groups. Fourth, the interaction effect on Negative attitude revealed the lowest Negative attitude score in the maximum induction condition. Negative attitude scores were significantly lower than the questionnaire control, but not the public speaking control. Finally, the interaction effect on Net Positive attitude revealed the highest Total attitude score in the maximum induction condition. Net Positive attitude scores in the maximum induction group were significantly higher than the questionnaire control, but not the public speaking control. However, it should be noted that the Negative attitude scale included the items of the two fear subscales (i.e., fear of inadequate medical treatment and fear of posthumous mutilation) plus additional antidonation statements. Therefore, the Negative attitude scale and the two fear subscales were not independent, and the findings for the respective scales are somewhat redundant.

The results also suggest, as was predicted, that the single fear appeals, fear of inadequate medical treatment (cognitively-based) and fear of posthumous body mutilation (affectively-based)--are relatively ineffective in promoting commitment to posthumous donation. First, subjects who received only the cognitively-based fear reduction message

have the lowest level of donor commitment, with levels comparable to the control groups. Second, the highest fear of inadequate medical treatment was in the single fear, affectively-based fear reduction message. Third, the highest skepticism scores were revealed in both the single fear reduction appeals, but they were not higher than the control groups.

Finally, there is evidence of the mediating influence of mood and attitude on commitment behavior. For instance, anxiety was negatively related to commitment only for the single fear reduction appeals. Also, skepticism was negatively related to commitment only for the affectively-based, single fear reduction appeal. Pooled correlations revealed that mood states of empathy, anxiety, and skepticism were associated with commitment behavior. Overall, empathic feelings were associated with an increase willingness to donate, whereas, anxious and skeptical feelings were associated with a decreased desire to donate. Lastly, the multiple correlation between Positive and Negative attitude on one hand, and willingness to donate on the other, was strong.

In summary, the results, while complex, suggest that in order to promote commitment to posthumous organ donation it is best either to emphasize the positive aspects of donation or to reduce both types of fears simultaneously.

Methodological Implications

At this time, some methodological comments are appropriate. First, the public speaking control group revealed a number of puzzling effects. In was expected that the public speaking control and the questionnaire control would yield comparable results on all the dependent measures. Although the two control groups had similar commitment scores, the

public speaking control group had lower fear of inadequate medical treatment, lower empathy levels, and lower negative attitude scores than the questionnaire control. I recall that the public speaking condition was a very awkward session to run, because participants were confused about the connection between public speaking and organ donation. Although I made it quite clear to participants that the self-improvement tape marked the end of our discussion of public speaking, they were annoyed that the questionnaires concerned attitudes towards organ donation and not to public speaking. It is possible that this nonsequitur caused participants in the public speaking control to feel more skeptical and less empathic than participants in the questionnaire control group.

Second, it is necessary to comment on why commitment effects were not stronger. Only eight people chose to sign organ donor cards. No one endorsed the highest commitment level indicating a desire to solicit family members and friends to sign an organ donor card. Before concluding that the appeals are not very effective in eliciting commitment to donate, it should be noted that the delivery of the appeals took less than twenty minutes, in which time a little less than ten percent of the population signed a donor card. In fact, immediately after receiving the appeals, more people signed a donor card in the double fear appeal (N = 3) than in any other condition, which is the appeal predicted to be most effective. Perhaps repeated exposure to the messages is needed to increase willingness to sign a donor card. In several laboratory investigations, Zajonc (for review, see Zajonc & Markus, 1982) reports that when objects are presented to the individual on repeated occasions, the mere exposure is capable of making the individual's attitude toward these objects more positive. The effects of exposure appears to be quite well understood in

advertising. Indeed, repeated exposure to donation messages may solve the problem of the temporary changes in donation attitudes revealed in this present study.

Another question relating to the relatively weak commitment effects is whether the commitment scale had too low a "ceiling" (i.e., signing a donor card) or the processes that were supposed to mediate commitment were not strongly enough activated. The messages may not have been sufficiently strong to overcome donation fears. However, the lack of large differences on mood measures between the double fear appeal and the positive appeal only argues against the ceiling effect interpretation of the commitment results. In order for a ceiling effect interpretation to be valid, differences in process measures (e.g., mood measures) should be large, but differences in behavioral measures (e.g., signing a donor card) should be small.

Theoretical Implications

The procedure of differentiating organ donation fears into affectively-based and cognitively-based processes has provided empirical data relevant to the controversy regarding the independence of affective and cognitive systems. Contemporary cognitive psychology regards affect as post-cognitive, which suggests that affect is generated after the individual components and features of an object are evaluated (Lazarus, 1984). According to this view, attempts to change attitudes require identification of object attributes and information inputs to influence the person's evaluation of these features. Once evaluations of stimulus features have been changed, concommitant changes in affect will occur.

In contrast to this view, Zajonc (1980) suggests that affective responses may be

fairly independent of cognition. Indeed, affect may come as the first experience, with cognitions actually occurring afterwards--perhaps as a justification. Changes in affects do not necessarily produce changes in cognitions, and changes in cognitions do not automatically result in changes in affects. Zajonc and Markus (1982) argue that to change attitudes both affective and cognitive elements must be examined, but in the end, it is the affective element that must be altered.

Quite convincingly, the present study demonstrates that dispelling cognitively-based fears of inadequate medical treatment is not effective in producing either behavioral or attitudinal change towards organ donation. Although Lazarus (1984) has argued that altering objective evaluations of a stimulus results in affective change, the present study clearly demonstrates that changes in the cognitive component of donation fears yields low behavioral commitment and strong antidonation attitudes such as elevated fears of body mutilation and strong Negative attitude scores. The cognitively-based, single fear reduction appeal may have elicited less commitment than the affectively-based, single fear reduction appeal because increasing willingness to donate involves overcoming strong negative affect by means of direct affective interventions. Attitudes toward organ donation seem to be an issue in which affective factors may be more dominant and primary. The covert-modeling, imaginal desenizitation technique may have successfully reduced the negative affect associated with organ donation. Attempting to change attitudes by means of cognitive factors alone--for example, giving a person persuasive information appears to have been ineffective.

It should be noted that the single fear, cognitively-based fear reduction appeal does

not raise posthumous mutilation fear, while the single fear, affectively-based fear reduction appeal does raise fear of inadequate medical treatment. An examination of Table 7 suggests that perhaps fear of posthumous mutilation was already too high to show differences between groups.

However, before concluding that the cognitively-based, single fear reduction appeal is detrimental, one must consider the possibility that the appeal lacked persuasive impact. Perhaps stronger arguments would dispel fear of inadequate medical care and cause commitment to increase to the level of the affectively-based, single fear reduction appeal.

Although Zajonc and Markus (1982) advise that changing affective elements is most important, it is revealed that reducing only the (affectively-based) fear of body mutilation yields slight behavioral increase in willingness to donate. Moreover, it is not accompanied by favorable attitudinal change. Subjects receiving a message aimed only at reducing the affective component of donation fears show elevated fears of inadequate medical treatment and strong Negative attitude scores toward organ donation. Although commitment to posthumous donation is considered to be an affectively-based behavioral phenomenon, it appears to have extracognitive supports (i.e., fear of inadequate medical treatment) which may require cognitive methods to eliminate. Therefore it seems that both affectively-based and cognitively-based interventions are needed to produce a significant amount of attitude and behavior change towards organ donation.

Before accepting this final conclusion, it should be noted that the affectively-based fear reduction message used in this study is not a pure emotion-based intervention. Although the appeal focuses mainly on desensitizing fear of posthumous mutilation, it also

attempts to persuade participants that at death their body organs become useless mechanical objects devoid of emotional significance. Future research should separate the component parts of the affectively-based fear reduction appeal to determine whether one or both are needed to promote commitment.

The Problem of Public Resistance

The question remains as to why commitment is not stronger. Fears of posthumous body mutilation and inadequate medical treatment may mirror a much more basic fear--namely, fear of personal death. Discussion of organ donation may act as a reminder of death. The organ donor card, as a document, may symbolize "death in one's pocket." Indeed, Cleveland (1975) has reported that nondonors express stronger anxiety about personal death than donors. Fulton (1976) has taken the view that avoidance and denial are important elements in America's attitude toward death. In modern society, death is seen as an "accident," something to be avoided or prevented, rather than "natural." Death is considered as an infringement upon the right to life and to the pursuit of happiness (Fulton, 1976).

Modern America emphasizes youth, health, longevity. Medical science discoveries and technological innovations are supported in order to guarantee a prolonged and high quality life. This general "life-oriented" attitude reinforces an aversion to death and death-related issues. Therefore discussion of organ donation confronts people with their most dreaded fear--that of personal death.

Yet some practices that are clearly associated with death have gained acceptance by the general public. For example, autopsies are regarded as an important means of

advancing medical science, and in some cases, as a source of comfort for family members when the cause of death of a loved one is unknown. In fact, autopsies have gained such an aura of respectability that a television program based on the life of a coroner named Quincy became very popular in the early 1980's. Other common practices that are associated with death that have gained acceptance are the purchase of life insurance and the preparation of a will. Such practices reflect a desire to protect loved ones from economic disaster.

If indeed donation fears reflect a more pervasive fear of death, direct attempts to eliminate death anxiety may not be the best way to promote organ donation. Instead, societal-based changes, such as introduction of a "presumed consent" law, may enhance willingness to sign a donor card. This law states that unless a person explicitly states that the person does not want his or her organs donated, transplant surgeons can automatically remove organs without family permission or fear of legal reprisals. Such laws have been passed in Austria, Denmark, France, Italy, Israel, Poland, Norway, Spain, Sweden, Switzerland, and Czechoslovakia. Although it would be difficult to get suport for a presumed consent law in this country, because it violates central tenets of individual freedom of choice, such legislation may be passed if voluntary contributions continue to be inadequate.

A more pragmatic approach to the promotion of organ donation is aggressive public education beginning in the elementary school years combined with early religious instruction to help clarify organ donation as behavior consistent with Christian and Jewish law. Upon reaching adult status, each person is presented with the choice of organ

donation, so that signing a donor card is seen as a "rite of passage."

A more immediate intervention to increase voluntary donations is to commission mass media efforts. The goal of media ventures would be to make people aware of the organ shortage problem and suggest ways individuals can help overcome the problem. Another immediate tactic is to foster social pressure. For example, members of transplantation organizations could request help of corporations. Organ donation drives would be arranged within organizations to elicit support for the cause and urge employees to cooperate. This has been a successful strategy in soliciting blood donations.

The problem of relieving the organ shortage cannot simply be overcome by making individual citizens aware of donation. Recovering organs from patients depends heavily upon the friendliness of institutional and personal relations. Sociological paradigms could be helpful in changing the daily operations of health systems. Instead of staff indifference toward the need for donor organs and resentment for the added burden of obtaining consent, a structural change could be instituted in which surgical residents rotate through hospital transplant centers in an effort to be taught how to identify potential donors. Yet, even when doctors are ready to suggest organ donation and families are eager to donate, doctors sometimes do not know whom to contact. As a result many organs are poorly matched to recipients or lost due to deterioration. Governmental legislation to centralize organ procurement agencies via computer networks may be another viable strategy to meet the demand for organs. Organ procurement agencies could also benefit from anthropological writings on the differential symbolic meanings various body parts and functions have for different cultures (Blacking, 1977). In this way, organ recovery coordinators would be

better able to understand and deal persuasively with people's reluctance to donate particular organs. Therefore, interdisciplinary efforts of psychologists, sociologists, anthropologists, and political scientists could all be used productively to solve the donor shortage.

The problem of getting more organs cannot be overcome simply by asking people to sign donor cards. As organ transplants become more successful, societal-based approaches, such as those outlined above, may be needed to change attitudes toward organ donation.

APPENDIX A -- Organ Donation Audio Tape Script

Affectively-Based Organ Donation Fear Reduction Appeal

Medical advances have made it possible to transplant numerous tissues and organs from one human being to another to improve and save lives. Human organ transplants have become so successful that the operations are viewed as routine. Despite the advances in transplantation surgery, the need for organs for tranplants surpasses the number donated each year. Today, in the United States some 4,000 people are waiting for corneas, 8,000 are waiting for kidneys, 300 are waiting for livers, and 100 are waiting for hearts. America has a shortage problem. Not enough people are willing to donate their organs for posthumous use.

The decision to donate body organs at death is not a simple one. Initial revulsion at being asked to donate organs is a common reaction. The fear of mutilating or disfiguring the body after death is one of the most important factors contributing to the shortage of body organs. A possible way to overcome this fear is to re-think what is involved in organ donation. Try the following excercise.

> I'm going to describe several scenes. I want you to visualize the scenes as if you were actually in them. When each scene is described to you try to get a good, clear image of it. As soon as you have done this, focus your attention on how your body would react if you were actually in the scene. Try to answer for yourself the following question: How would I FEEL if I were actually in the scene?

It's your day off from work and you finally have a chance to enjoy a spring day. It's a sunny day and you are outdoors. A cool breeze glides over your face. You take a deep breath, hold it for a second, and exhale. You lazily walk to the neighborhood park to read

that novel you've put off for so long. Your eyes dart across the park searching for a shaded area. Across the park you see a huge tree with long outstretched branches filled with green leaves. You unfold a large brown blanket, lay it down and sit with your back against the tree. You stretch out your legs and arms. You shift your body to find a comfortable reading position. Your whole body feels warm and comfortable.

Off in the distance, you hear muffled sounds of cheering. You look up and see a group of teenagers holding banners. You squint to read the banners and read "Give the Gift of Life." A teenager hands you a white booklet about organ donation and an organ donor card. You read the pamphlet which explains that organ donation does not interfere with funeral or burial arrangements and that an open casket is possible. You stop to consider which, if any, body parts to donate. A particle of dust enters your eye. You rub your eye vigorously. A vision of the eye as a camera fills your head. You hear yourself saying, "Both the eye and a camera have a lens, which focuses an image. People with defective corneas can't see because light can't get through for the brain to register. When the cornea is removed, the eye itself remains intact. Major surgery isn't involved. Besides the eyes are closed at death. You slide out the donor card, pull out a pen from your pocket, write down the word eyes on the donor card.

You go back to reading. It was a good idea to spend the day in the cool outdoors. You feel your heart beating slowly now. You feel peaceful. A light breeze turns the pages of your book. You lazily search for the page you last read and your mind drifts to thoughts of organ donation. You hear yourself asking, "What other organs would I not mind giving? Kidney transplantation is common. But, what exactly does a kidney do?" You hear your old

high school biology teacher lecturing, "The kidney works like a filter. Blood passes through the kidney and collects the body's waste products." You think, "For my kidney to work in someone else's body, it must be removed very cleanly." You pick up the donor card and pen and write in kidneys.

You pick up your novel. You read a couple of pages and are becoming very sleepy, and you can hardly keep your eyes open. Your breathing becomes very slow. In a trance, you use your donor card to mark your place in the book. Floating in your mind, you hear a news report about heart transplantation explaining that although artifical hearts are being manufactured, a heart recipient has a better chance of surviving if the heart is from another human being." You carry on a debate with yourself. One half of you says, " No, the heart is the symbol of my personality including my deep emotions. The other half says, "You're being silly. The heart is just a hollow muscle that acts like a pump. It contracts to maintain the circulation of the blood. The debate stops. You realize your heart is beating quietly and your pulse is normal. You pick up your pen and write down the word heart to your list of body organs to be donated. You stand up, stretch your arms outward toward the blue sky and stand on the tip of your toes. You take a few deep breaths and head for home.

Cognitively-Based Organ Donation Fear Reduction Appeal

Medical advances have made it possible to transplant numerous tissues and organs from one human being to another to improve and save lives. Human organ transplants have become so successful that the operations are viewed as routine. Despite the advances in transplantation surgery, the need for organs for tranplants surpasses the number donated each year. Today, in the United States some 4,000 people are waiting for corneas, 8,000 are waiting for kidneys, 300 are waiting for livers, and 100 are waiting for hearts. America has a shortage problem. Not enough people are willing to donate their organs for posthumous use.

The decision to donate body organs at death is not a simple one. A major obstacle that contributes to the unwillingness to donate organs at death is the fear that the physician will not do everything in his or her power to save a donor's life. People worry that a doctor might hasten the death of a potential donor to obtain organs for transplantation, rather than properly care for the patient. A way to overcome this fear of uncertainty is to realize that most of us have a personal physician, or a family doctor, who we rely on to keep us in good health while we live, someone in whom we have enough confidence to trust with our life. It is unlikely that our personal doctor would sacrifice our **own life** in the hope of saving an unknown stranger. In fact, in order to avoid such questions from arising, extra peple are sent in to **save** a donor's life just to prevent family members from experiencing any doubts about the quality of medical care. Greater attempts at resuscitation are undertaken for organs donors to protect their lives so long as there is hope.

This fear of inadequate medical treatment extends to situations in which a donor is not under the care of a private physician. Many people believe that in emergency situations, donors would be left to die, so that organs could be taken. The truth is that paramedics do not screen accident victims into categories of donors and nondonors. The more seriously injured receive immediate medical attention. Even if the priority is to obtain organs for transplant, it would still be medically necessary to care for the donor **first**, because organs begin to deteriorate within minutes of death, and, without immediate medical attention to save the donor's life, their organs would become useless for transplantation.

Others fear that a potential donor will be pronounced dead before death has occurred. To calm people's fears, safeguards have been introduced. It is the law that two separate physicians, who are not involved in the ultimate transplantation, must agree totally that the donor is deceased. The transplantation team **cannot declare** a donor's death. Legal criteria exist for the determination of death. Physicians in collaboration with lawyers and clergymen have updated the definition of death. The concept of "brain death" determines the diagnosis of death. Using this definition, a person is dead when the brain has permanently stopped functioning; respiration and blood pressure can be maintained only by mechanical devices. With this procedure, there is no room for error. The declaration of brain death determines the need to withdraw the mechanical respirator. To be considered a potential organ donor is the best safeguard against being pronounced dead while still alive, because as stated earlier, death must be confirmed by at least two doctors.

Brain death is not mercy killing. It is a medical diagnosis, made by doctors not

associated with transplantation in accordance with strict medical requirements. Doctors emphasize the difference between brain dead patients and those patients who are hopelessly comatose but retain a fraction of brain function--such as the late Karen Ann Quinlan. Under present law, patients such as Quinlan cannot be declared brain dead even thouth they have no hope of regaining consciousness, because there is activity in the brain.

However, one should not get the impression that the deaths of potential organ donors are always clouded with uncertainty. Most deaths do not involve decisions about whether or not to maintain life support systems. In fact, many deaths exclude the possiblity of organ donation. **Only** about **1%** of all people who die are potential organ donors. The reason is that a suitable donor for any organ transplantation is that rare individual who had been healthy prior to the illness or accident that caused death. The cause of death should not have been associated with infection, malignancy or prolonged low blood pressure. These stipulations exclude most patients dying in hospitals from being organ donors. Suitable donors will have died from accidents, particularly head injuries, primary brain tumors, and sudden brain hemorrhages. But none of these obstacles should discourage you if you are inclined to donate part of your body to save the life of another person. The point here is that you need not worry that as soon as doctors discover that you are a future organ donor they will be so eager to get hold of your organs that you will receive poor quality medical care or be pronounced dead before actual death has occurred.

Organ Donation Positive Appeal

We have spent a great deal of time discussing the fears associated with resistance to donate organs posthumously. Organ donation may seem more appealing if we consider it as an opportunity to help give life to our fellow man. One can take pride and pleasure in the act of donating, because it not only helps mourning family members find meaning in the death of a loved one, but it gives new hope for life to so many others waiting for vital organs. To discover how being an organ donor touches the lives of others is to feel the joy and gratitude felt by an organ recipient and the solace experienced by grieving family members and friends when they agree to donate the organs of a loved one. Please try the following excercise.

> I'm going to describe several case histories. Close your eyes and try to imagine how the people who are described in these case histories FEEL about the situation and how it has affected their lives. While listening, trade places with the characters and SHARE in the same emotions.

Ann Warner found comfort following the decision to donate her sons organs after his tragic death in an automobile accident. She tells her story, "When my 15 year old son was killed in an auto accident, my husband and I made the decision to will his organs. At first, I was angry when the surgeon mentioned donation, but we now know that five other people have a better life because of David's death. We received a follow-up letter from the hospital that transplanted my son's kidneys into two teenagers. One of the recipient's had just graduated from college; another is entering next fall. I cried when I got the letter. I cried with the sadness that David will never go to college and with the joy that those two

other kids are alive and doing well. Each of them carry part of David with them everyday. Having donated David's organs makes me feel his death is something less than a waste."

Jean Carter, a 49 year old mother of four, is grateful to all donors, not just the ones who helped her to see again. Her eye problems started when she was 18 years old. Her eyesight progressively deteriorated. A cornea transplant was tried. Jean wanted desperately to see, because her first grandchild was expected and she wanted to see the baby. It was a glorious moment for the entire family when the operation was successful. The thoughtful planning of an organ donor made this moment possible!

Charles Fiske went on network TV to plead for the life of his 9-month-old daughter, Jamie. Fiske explained that Jamie had a fatal liver disease and urgently needed a liver transplant. He talked about Jamie's favorite toy--a stuffed Mother Goose that played "You Are My Sunshine." Slowly he recited the lyrics.

You are my sunshine,
My only sunshine.
You make me happy
When skies are gray.
You'll never know, dear,
How much I love you.....

He stopped before uttering the song's last line. "She is my sunshine," and I love her," he said softly.

Charles Fiske's speech saved Jamie's life. Mr. Bellon of Alpine, Utah, saw Charles Fiske on TV. A day later Mr. Bellon's 6-year-old son died in a car accident, and he donated

the child's liver to Jamie. Jamie Fiske is now at home and doing fine.

A heartwarming example of a person's desire to help others in need of body organs comes from a letter written to Dear Abby.

Dear Abby: I am 76, alone, and have been blessed with good health and God's love and mercy. Last week I realized I should rewrite my will. Am I too old to give my body parts? I have seen the beauty of the world, the kindness of people, the sweetness of innocent children and the adoration in the eyes of my beloved late husband. Can someone perhaps benefit from my eyes or parts of my body? Please advise me, Abby--signed GREAT GRANDMOTHER

Dear Grandmother--and your ARE great; Bless you for your good sense and eagerness to contribute to humanity. You need a Uniform Donor's Card. Eyes and kidneys are urgently needed. There are long waiting lists for both. Just think how wonderful it would be if you could give sight or added years to a stranger after you have departed this world.

The poet Robert Test expresses his sentiments about organ donation in a poem:

> At the moment my life has stopped....
> Give my sight to the man who has never seen a sunrise, a baby's face, or love in the eyes of a woman.
> Give my heart to the person whose own heart has caused nothing but endless days of pain.
> Give my blood to the teenager who was pulled from the wreckage of his car, so that he may live to see his grandchildren play.

Give my kidneys to one who depends upon a machine to exist from week to week.
Take my bones and try to find a way to make a crippled child walk.
Give what is needed so that a speechless boy will shout at the crack of a bat and a deaf girl will hear the sound of rain against her window.
If you must bury something, let it be my faults, my weaknesses, and my prejudices against my fellow man.
Give my sins to the devil, give my soul to God. If by chance you wish to remember me, do it with a kind deed.

Introduction to Organ Donation Appeals

Medical advances have made it possible to transplant numerous tissues and organs from one human being to another to improve and save lives. Human organ transplants have become so successful that the operations are viewed as routine. Since 1975 the number of transplants performed has soared. This can be attributed to the discovery in 1979 of a drug known as cyclosporine. Cyclosporine prevents the rejection of transplanted organs without destroying the body's ability to fight infection. Just a decade ago an average of 80 percent of transplant patients died within a year. Now nearly 80% of kidney and heart transplant recipients survive two years or longer. The one year survival rate for recipients of liver transplants has risen from 30% to 65%.

Despite the advances in transplantation surgery, the need for organs for tranplants surpasses the number donated each year. Today, in the United States some 4,000 people are waiting for corneas, 8,000 are waiting for kidneys, 300 are waiting for livers, and 100 are waiting for hearts. America has a shortage problem. Not enough people are willing to donate their organs for posthumous use.

Closing to Organ Donation Appeals

The problem of getting more organs is not going to go away. As organ transplantations become more successful, the demand for donated organs is expected to soar. Each of us has the freedom to decide while we are still aware and alive, what is to be done with our remains. Organ donation is a gift of continuing life. A way to will all or part of your body after death for transplantation is to carry a Uniform Donor Card. It protects your wishes and provides legal authority in the event of an emergency.

Donating one's body organs is an act of courage. Signing a donor card is one way we can give the gift of life to another human being. This is a choice only you can make!

APPENDIX B -- Public Speaking Audio Tape Script

Affectively-Based Public Speaking Fear Reduction Appeal

Fear of public speaking causes its victims a high degree of mental anguish. It may in extreme cases practically paralyze thought processes, and even in mild cases disturb the efficiency of memory. A possible way to overcome this fear is to visualize oneself as delivering a speech. Try the following excercise.

> I'm going to describe several scenes. I want you to visualize the scenes as if you were actually in them. When each scene is described to you try to get a good, clear image of it. As soon as you have done this, focus your attention on how your body would react if you were actually in the scene. Try to answer for yourself the following question: How would I FEEL if I were actually in the scene? Let's start.

It's an early weekday morning. You are lying in bed. You are so comfortable it seems as though you are lying on a cloud. You gently rub your eyes open, slowly sit up, and raise your arms toward the ceiling stretching your muscles. As you step outside your front door, a cool breeze glides over your face. You take a deep breath, hold it for a second, and exhale. You lazily walk to the office. It slowly dawns on you that in about an hour you will be delivering a 40-minute speech to top-level executives. You close your eyes for a moment to block out that thought. To make sure you're completely at ease before arriving at work, you take a detour through the neighborhood park. It is so quiet and serene you have the feeling of being the only person in the world. You notice everything about the park: the huge trees with long outstretched branches filled with green leaves, the flowers of every type imaginable, and the tiny pond with lily pads that seem to cover the pond like

a security blanket.

As you walk a little further you can see the gray office building in full view. You walk up to the entrance and stand before it. You push the heavy, gold-colored revolving door and walk through it. You ride the elevator to the tenth floor. As you walk to your desk, all your colleagues are wishing you good luck with the presentation, and assuring you that you will be successful. You see your boss pointing to the wall clock signalling you to go inside the conference room. Inside the conference room everyone is seated but they are busily talking to their neighbors in loud voices. You walk in unnoticed. By your seat is a steaming cup of coffee. You sip the coffee. As you swallow the coffee you can feel it glide down your throat. It's calming you down. You close your eyes for a few seconds and release the tension in your shoulders. You repeat to yourself, "I know I can do this. I'm going to do very well."

You hear someone calling the meeting to order and hear your name being announced as the first speaker of the day. You take a deep breath, hold it for half a second, stand up, and look out at the audience. You pick out two people whose expressions communicate friendliness and support. You reach for a long, wooden pointer with a black tip to help you illustrate your charts and graph. You hear your voice. You realize you have begun your speech. As you get past the introductory remarks, you see the audience nodding in agreement with your statements. Your boss nods approvingly at you, which sends a surge of confidence running through your body. Suddenly you realize that you can't remember what to say next. You stammer. The audience moves to the edge of their seats. You take a deep breath, throw back your shoulders, take a sip of coffee, and begin speaking again. The

audience slumps back into the brown cushion leather chairs. Your breathing becomes steady again and your nervousness is gone.

You hear everyone applauding. The presentation is over. Time went by very quickly. You slowly sit down. You realize your heart is beating quietly and your pulse is normal. You hear your stomach growling. You are hungry. You smile to yourself realizing that you hadn't had a thing to eat. You look down into your coffee cup. Fortunately there is a sip left. You raise your cup and swallow that last delicious drop. You glance over to your boss and you see him upraise his thumb in victory.

Cognitively-Based Public Speaking Fear Reduction Appeal

Fear of public speaking has characteristics that are similar to other kinds of fear. If allowed to continue, without attempts to overcome it, this fear will grow in intensity and strength. Only by facing the problem, can it be overcome.

As stated earlier, every speaker experiences nervous symptoms before a speech. It is only when nervousness becomes so excessive that it results in a person mumbling and stuttering, that it must be dealt with. There are three main fears speakers experience prior to giving a speech. First, there is the fear of failure. The fear of failure stems from some past catastrophe one would just as soon forget. But the fear of failure can also be based upon past successes. For example, because one has succeeded in the past, increased perfection is demanded of oneself with each new performance. This unreasonable demand for better and better performance fuels the fear of failure.

Second, there is the fear of looking foolish. A person delivering a speech may feel exposed, vulnerable, and in danger of being hurt and humiliated. This fear is partly brought about by incomplete preparation of one's speech, but more generally by inexperience as a speaker.

Third, there is fear caused by conflicting mental attitudes. As the time approaches when one is to deliver a speech, one's mind becomes the battlefield for two contending forces. The first is a feeling of pleasure, the other anxiety. Pleasure results from being the center of attention. Anxiety, results as already mentioned from fears of failing and of appearing foolish. When the two feelings struggle for control of the speaker's consciousness, the result is the confused emotional state that we know as stage fright.

The most important fact a person must remember is that these fears are common to practically everyone. Most of us have the habit of thinking that when we suffer from something we are the only one to suffer in this way. We need to realize that our neighbor feels exactly the same.

One of the best ways to reduce fears of failure and of appearing foolish is to prepare one's speeches adequately. Begin the preparation of your speech early. Nothing but superficiality may be expected from the person who puts off preparation until the day before the speech is to be given. A speech which has been long in the process of preparation delivers itself. You find your ideas and words flowing with unaccustomed ease, and the result is pleasant and stimulating for both you and your audience.

Another way to extinguish fears of public speaking is to begin a program of positive attitude training. This consists for the most part of taking a positive and optimistic attitude toward your ability to meet and overcome your problems. Positive attitude statements such as "I worked long and hard on this presentation, so I'm sure I'll do weil," may cause you to think of yourself as a success and enable you to speak confidently.

Finally, you can relieve your public speaking anxiety by thinking of the audience as a group of individuals. Single out one person. Look at him or her straight in the eye and talk right to that person for a few moments. Do it with another, then another. Some of these individuals with whom you make eye contact will begin to nod at what you say. When they do, you will know you have connected. Your message is getting through. Your self-confidence will increase accordingly.

It should be pointed out that there are some positive advantages resulting from the

fear of public speaking. Some degree of emotional excitement may enhance performance, because it pumps more adrenaline into your system, making you more alert and motivated. When nervous tension is controlled but not completely eliminated, it provides the necessary energy to keep the speech moving. While eliminating the evils of fear, the speaker should never go so far as to become tranquil and completely assured on the eve of a speech. For even worse than fright is the danger of not being stimulated enough.

The major points to remember are as follows:

(1) Every speaker feels nervous before a speech;

(2) Such nervous excitement can actually enhance one's performance; and

(3) All you want to do is rid yourself of your excessive nervous tension, while holding on to that excited feeling before a speech.

Public Speaking Positive Appeal

To discover how not yielding to the fear of speaking in public has affected the lives of others is to share in the rewards and joys experienced by public speakers. Please try the following excercise.

> Try to imagine how the people who are described in the case histories feel about the situation and how it has affected their lives. While listening, trade places with the characters and share in the same emotions.

Paul Marcus is a 35 year old accountant who is fully aware of how difficult it was for him to speak up for his rights. He has been working for the same firm for 5 years without any recognition of his talents. Paul has this to say, "I work late three or four evenings every week and many times sacrifice my weekends to make sure there was no work backlog. The other accountants don't care. When five o'clock rolls around, they all run out the door. I know I should have asked for a raise months ago, but I don't have the courage to speak up."

To boost his courage, Paul spent several evenings writing down all his positive qualities. He was going to march into the boss' office and ask for a raise. Although he detoured to the water cooler a number of times, he finally got up enough courage to walk into the boss' office. As soon as Paul began his prepared speech, he became so determined in covering every point on his list, that his boss could not get a word in edgewise. Paul is now supervisor of his division with a hefty salary increase.

Ann Warner found success after overcoming her fear of public speaking. She tells

her story. "I was with the company only 6 months when my manager asked me to brief the company's top executives on the progress of the new project I was involved in. Terror ran through my entire body as I heard myself agree to the assignment. I was so insecure of my abilities, because I had only recently returned to work after a leave of over 12 years to raise my children. For the next week, I prepared furiously, making sure everything was perfect. The day came for me to give my speech. I stuttered and stammered in the beginning, but, as I talked on, I forgot my nervousness, and, before I knew it, I was done. Shortly after my presentation, I was given a raise and promotion to Project Leader. My family is so proud of me, and, to be perfectly honest, I'm proud of myself.

Robert Brock is finally climbing the corporate ladder. For many years Robert declined invitations to compete for top-level management positions, because the interview process required a prospective applicant to deliver a seminar informing the selection panel about past project involvements. Robert knew from past experiences that his public speaking ability was poor. So he avoided applying for any positions that involved frequent speaking engagements. As the years passed, many of Robert's colleagues advanced in their careers, but he lagged far behind. Following a New Year's Day celebration, Robert resolved to overcome his fear and enrolled in a public speaking night course. After building up both his courage and skill, Robert interviewed for many top-level positions. Today, he is an effective corporate executive.

Jean Carter is grateful to all her coworkers for being responsible in getting her to

realize her full potential. It wasn't until she was chosen as head spokeswoman for the workers' grievance committee that she discovered her fear of public speaking. Jean's fellow co-workers decided it was about time that the office manager learned that they were unhappy with the working conditions. But, they needed someone to express the workers grievances. Jean was nominated. Jean succintly summarized the problems affecting the workers. She also suggested some solutions to the problems. Management took the workers' grievances seriously enough to implement some of Jean's suggestions. Impressed with the results, management has now asked Jean to organize a team of which she is the head to investigate problems in other work stations within the company.

Introduction to Fear of Public Speaking

Fear of public speaking is essentially a state of heightened emotion. In its extreme forms it shows practically the same physicai characteristics as any other extreme form of emotion. That is, the muscles become tense, the sweat glands increase their activity, the heart pumps at a faster rate than normal, and, as a result of these physiological changes, the body trembles, beads of perspiration stand out on the forehead, the face becomes flushed, the mouth becomes dry, and the breath stream is jerky and uncertain. The individual experiencing these symptoms feels himself or herself to be in a state of uneasiness and excitement.

The fear of public speaking is very nearly universal. There is no reason why you should not expect to have it, or be especially fearful because of it. However, you do need to know the principal causes of this fear in order to more intelligently work to get it under control.

Public Speaking Closing

The ability to speak well helps people in all walks of life to achieve success, and is an essential quality for corporate life. Practice in public speaking will also help you to communicate your ideas more clearly and concisely, no matter what the setting.
You may have been held back because of your lack of confidence in your conversational ability. I hope some of the techniques I offered in this lecture series will help you to overcome your fears and give you the confidence needed to deliver a speech.

APPENDIX C -- Dependent Measures Instruments

Organ Donation Commitment Scale

Would you be willing to sign an agreement of donate one of your body organs at death? CHECK ONLY ONE CHOICE.

_____ I prefer not to sign a donor card, and I do not wish to have any further contact.

_____ I don't think I would like to sign a donor card now, but I may sometime later.

_____ I am interested in signing a donor card, but first I would like to have additional information sent to me.

Name: _____

Address: _____

_____

_____ I definitely want to sign an organ donor card now.
(Ask the Presenter for an Organ Donor Card.)

_____ I definitely want to sign an organ donor card now, **and** I want to distribute organ donation pamphlets and organ donor cards to my family and friends.
(Ask the Presenter for an Organ Donor Card and Organ Donation Pamphlets.)

Mood Adjective Check Lists

Empathy was measured by the sum of items 1, 4, 8, 12, and 15, Anxiety was measured by the sum of items 2, 5, 6, 9, 10, 13, 14, and Skepticism was measured by the sum of items 3, 7, and 11.

Items 1, 5, 7, 8, 10, 13, and 15 were reversed for scoring purposes.

Mood Adjective Checklist

For each of the adjectives, Circle ONE dot that best characterizes YOUR present mood.

1.	Concerned	Disinterested
2.	Calm	Nervous
3.	Confident	Dubious
4.	Cold	Warm
5.	Tense	Relaxed
6.	Tranquil	Worried
7.	Skeptical	Believing
8.	Empathic	Unempathic
9.	Firm	Shaky
10.	On Edge	Serene
11.	Trustful	Suspicious
12.	Cold-hearted	Soft-hearted
13.	Jittery	Steady
14.	Peaceful	Anxious
15.	Compassionate	.Uncompassionate

Organ Donation Attitude Scale

Positive attitudes toward organ donation were measured by the sum of items 1, 3, 6, 8, 9, 11, 13, 15, 18, 19, 22, 24, 26, 28, 30, 32, 33, 36, 39, 41, 43, 45, and 46. Negative attitudes toward organ donation were measured by the sum of items 2, 4, 5, 7, 10, 12, 14, 16, 17, 20, 21, 23, 25, 27, 29, 31, 34, 35, 37, 38, 40, 42, and 44.

Affectively-based organ donation fears were measured by the sum of items 2, 5, 7, 12, 23, 31, 34, 38, 40, and 44. Cognitively-based organ donation fears were measured by the sum of items 4, 14, 17, 20, 21, 29, 35, 37, and 42.

Organ Donation Scale

We are interested in determining the public's view on donating their body parts at the time of their own death for transplant to living people. The information gained will be useful in guiding further transplant policy. The research is being conducted by a team of social psychologists at the City University of New York. Your cooperation in filling out this questionnaire will be appreciated. **The confidentiality of your replies will be fully protected.**

Name (or last 4 digits of social security #)_____

Age _____ Sex: Male _____ Female _____

Education: 0-8 ____ Some High School ____ Completed High School ____
Some College _____ Completed College ____
Post Graduate _____

Occupation _____

Religious Affiliation:
_____ a. Protestant
_____ b. Catholic
_____ c. Jewish
_____ d. None
_____ e. Other (please specify) _____

Ethnic Background:
_____ a. White of European descent
_____ b. Black
_____ c. Hispanic
_____ d. Asian
_____ e. Other (please specify) _____

Estimated Family Income:
_____ a. Less $10,000
_____ b. $10,000 - $20,000
_____ c. $21,000 - $30,000
_____ d. $31,000 - $40,000
_____ e. $41,000 - $50,000
_____ f. over $50,000

Attitudes Towards Organ Donation

Given below are statements of people's beliefs about organ donation at the time of death. Please read each statement and decide the extent to which you agree of disagree with it. Indicate the extent of your agreement or disagreement with a statement by selecting one of the following:

Agree Strongly	+3
Agree	+2
Agree Slightly	+1
Disagree Slightly	-1
Disagree	-2
Disagree Strongly	-3

For example, if you agree strongly, you would write +3 in the margin to the left of the statement, but if you disagree with it a little, you would put -1.

_____ 1. A person willing to donate is almost a hero.

_____ 2. Organ donation leaves the body disfigured.

_____ 3. Donating a body part would enable that part of myself to remain alive after my death.

_____ 4. Organ donors cannot control which organs will be taken even when specified in advance.

_____ 5. An intact body is needed for the Life Hereafter.

_____ 6. To donate one's organs after death is an act of charity.

_____ 7. Organ donation interferes with an open-casket funeral and burial services.

_____ 8. By agreeing to donate organs at death one sets a good example for others to follow.

_____ 9. Deciding to donate one's organs at death adds extra meaning to life.

_____ 10. Other members of my family would object to my signing an organ donor card.

_____ 11. Organ donation endows death with more meaning and worth.

_____ 12. Transplanting organs is against God's will.

Agree Strongly	+3
Agree	+2
Agree Slightly	+1
Disagree Slightly	-1
Disagree	-2
Disagree Strongly	-3

_____ 13. Pledging organs at death is a highly moral act.

_____ 14. Medical school researchers who remove organs do not treat the deceased body in a dignified manner.

_____ 15. Pledging organs at death makes one more respected and admired by family and friends.

_____ 16. Preparing to become an organ donor brings to mind unpleasant thoughts of my own death.

_____ 17. Extraordinary medical techniques will not be used to save the life of an organ donor.

_____ 18. Organ donation is a way of honoring God.

_____ 19. Organ donation is a way to atone for past wrong-doings.

_____ 20. A person will be less likely to receive adequate medical care after signing an organ donor card.

_____ 21. There is a good chance that doctors will be more likely to prematurely declare the death of an organ donor.

_____ 22. Hearing testimonials of people whose lives were saved after the receipt of an organ makes me think about the importance of donating my organs after my death.

_____ 23. Organ donation should not be considered because the body is sacred and has religious meaning, even after death.

_____ 24. Willing organs at death is a way of putting some parts of the body to beneficial use.

Agree Strongly	+3
Agree	+2
Agree Slightly	+1
Disagree Slightly	-1
Disagree	-2
Disagree Strongly	-3

_____ 25. The surest way to bring about my own death is to make plans for it like signing an organ donor card.

_____ 26. The donor who offers a part of his or her body for transplantation is making an inestimable precious gift.

_____ 27. It is unnatural to prolong life with body replacements.

_____ 28. People have a moral responsibility to donate some of their body parts to people in need.

_____ 29. A donor's death will be met by pleasure rather than vigorous medical treatment by physicians.

_____ 30. By agreeing to donate my organs after my death, I am giving some people hope for survival.

_____ 31. Pledging my organs upon my death makes me feel uncomfortable.

_____ 32. Organ donors are special people.

_____ 33. Organ donation benefits the whole of humanity.

_____ 34. When I die, I want my whole body to die with me.

_____ 35. A person who intends to donate their body parts at death increases the likelihood that he or she will be pronouced dead even though one is still alive.

_____ 36. Life is much too valuable to be cut short by a bad heart or kidneys especially when organ donation can help solve the problem.

_____ 37. By signing a donor card, doctors might do something to me before I'm really dead.

Agree Strongly	+3
Agree	+2
Agree Slightly	+1
Disagree Slightly	-1
Disagree	-2
Disagree Strongly	-3

_____ 38. A person with someone else's heart, eyes, kidneys, etc. is not the same person.

_____ 39. By donating a body part after my death, I could keep another person living.

_____ 40. The thought of my body being cut up or taken apart after I'm gone makes me feel uneasy.

_____ 41. By donating an organ at death, one can offer someone a better chance of being cured.

_____ 42. Even if special precautions are taken to protect the life of an organ donor, there is still a chance that their life will be taken to save the life of a rich or important person.

_____ 43. Pledging to donate an organ after my death would make me feel proud of myself.

_____ 44. When I die I want to be buried whole and with all my original parts.

_____ 45. It is a shame to deny a person the organs he or she needs to keep the body functioning.

_____ 46. Pledging to donate is a true and unselfish gift.

Additional items included in the Organ Donation Questionnaire at two-week follow-up.

Check One Choice

47. Before participating in the "health issues" research, had you signed an organ donor card or the back of your driver's license stating your intention to donate body organs at your death?

_____ Yes _____ No

48. Did you sign an organ donor card during the "health issues" research?

_____ Yes _____ No

49. Have you signed a donor card since our first meeting?

_____ Yes _____ No

50. For my bookkeeping records, I had written a four digit serial number on the back of the organ donor card. Can you please write down that number in the space provided below.

_____

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