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If everyone's not doing it, I won't either": social proof and organ donation attitudes "

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"IF EVERYONE'S NOT DOING IT, I WON'T EITHER":
SOCIAL PROOF AND ORGAN DONATION ATTITUDES

Thesis

Submitted to

The College of Arts and Sciences of the
UNIVERSITY OF DAYTON

In Partial Fulfillment of the Requirements for

The Degree

Master of Arts in Communication

By

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UNIVERSITY OF DAYTON

Dayton, Ohio

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ABSTRACT

"IF EVERYONE'S NOT DOING IT, I WON'T EITHER": SOCIAL PROOF AND ORGAN DONATION

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The purpose of the current study was to examine the effects of the principle of social proof on reported attitudes toward organ donation. Data were collected from 1603 participants via a nonprobability snowball sampling technique administered by second- and third-year undergraduate students at a small midwestern university. Results showed that social proof did impact reported attitudes toward organ donation, though not fully according to the pattern suggested by the literature. For example, it was assumed but not supported that respondents receiving messages stating most people have positive attitudes toward organ donation would have higher reported attitudes than respondents receiving messages stating most people have negative attitudes toward organ donation. The results, though mixed, have implications for future investigations into organ donation attitudes and the heuristic of social proof.

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TABLE OF CONTENTS

APPROVAL PAGE.....	ii
ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	vii

CHAPTER

I. REVIEW OF LITERATURE.....	1
The Organ Donation Situation	
Organ Donation Attitudes	
Social Proof	
Hypotheses and Research Question	
II. METHOD.....	37
Participants	
Instrumentation	
Procedures	
Data Analysis	
III. RESULTS.....	42
IV. DISCUSSION.....	56

APPENDICES

APPENDIX A – Organ Donation Messages.....	72
APPENDIX B – Organ Donation Survey.....	74

REFERENCES..... 82

VITA.....95

LIST OF TABLES

1. Factor Analysis of Organ Donation Attitude Measure.....	44
2. Descriptive Statistics of Organ Donation Attitude Measure.....	45
3. Hypothesis One.....	47
4. Hypothesis Two.....	48
5. Research Question.....	49
6. Hypothesis Three.....	53
7. Hypothesis Four.....	55

Chapter One

Review of Literature

The Organ Donation Situation

Each day up to 74 individuals are granted a higher quality of living or even a new chance at life due to organ donation and transplantation services in the U.S. according to the Department of Health and Human Services (HHS). Around 89,000 other individuals are waiting for the same kind of help. A brief review of the organ donation and transplantation literature will convey to those interested and invested in the topic that organ donation is a positive advancement in both the fields of medicine and science and that more can and should be done to address the gap between donation and subsequent transplantation.

The issues surrounding organ donation are not unique to the United States. Numerous countries around the globe experience the same dilemmas. The goal remains the same for each nation, which is to bring to every waiting individual the benefit of the donated organ or tissue that individual needs. The same dilemmas are faced by the Netherlands

(Gevers, Janssen, & Friele, 2004; Reubsaet, Brug, de Vet, & Van den Borne, 2003), Italy (Piccoli et al., 2004), France (Girandola, 2002), the United Kingdom (Hayward & Madill, 2003), Spain (Martinez et al., 2001; Matesanz, 2004), Singapore (Schmidt & Lim, 2004), the fourteen countries of the Asian Transplant Registry (Ota, 2004; Vathsala, 2004), Mexico (Carbajal & Cabriales, 2003), Brazil (Garcia, Garcia, & Santiago-Delpin, 2003), Saudi Arabia (Shaheen & Souqiyyeh, 2004; Medina-Pestana et al., 2004), Croatia (Brkljačić, Ferić, & Rihtar, 2003), and Iran (Larijani, Zahedi, & Taheri, 2004). Organ donation can no longer be considered a problem facing a single nation. Organ donation is a problem facing practically every nation on Earth.

Solutions to the organ donation problem include better training for medical professionals (Maloney & Altmaier, 2003; Sque, Long, & Payne, 2005), expanding donor criteria to include donors once considered marginal (Haberal & Dalgic, 2004), more effective brain death detection mechanisms (Mizraji, Pérez, & Alvarez, 2004), school-based educational efforts (Reubsaet, Reinaerts, Brug, van Hooff, & van der Borne, 2004), true autonomy for adolescents regarding organ donation consent (Sirois, Sears, & Marhefka, 2005), new coordinating mechanisms within the administrative framework (Manyalich, Paredes, Cabrer, & Manyalich, 2004; Schweiger et al., 2004), and even—despite its continuing moral, ethical, and pragmatic dilemmas—paid organ procurement (Burrows,

2004; Daar, 2004). Another solution to raising organ donation rates in the U.S. has been centered on changing the opt-in system—or explicit consent system—now in use (Kaserman & Barnett, 2002). Such a change, though, faces the difficulties of public reception, the medical community's consent, and the legal movements necessary at the federal level. Crowley-Matoka and Arnold (2004) caution that any policy change that alters current law like changing the system or re-defining brain death may have serious consequences in regard to public trust, the potential result being even lower donation rates. The same caution was highlighted by Siminoff, Burant, and Youngner (2004) in regard to brain death vis-à-vis the dead donor rule.

Many scholars, though, have focused their attention elsewhere. Much attention has been paid to implementing public communication campaigns aimed at the goal of raising awareness of the organ donation situation, presenting information that is either new to the public or corrects misinformation, and motivating behavior in the eligible donation population, as well as their family and loved ones.

Organ Donation Attitudes

One step toward motivating donation behavior has been to explore the public's attitude toward organ donation and transplantation. In their model of organ donation, Radecki and Jaccard (1997) argue that

beliefs determine attitudes, which then determine stated willingness. Beliefs about organ donation include religious beliefs, cultural beliefs, knowledge beliefs, altruistic beliefs, and normative beliefs. Organ donation attitudes are either favorable or unfavorable to a degree. Stated willingness is whether or not an individual actually intends on donating organs after death.

Radeski and Jaccard (1997) suggested a general strengthening of attitude measures. A special note was for a increase in attention to be paid to replication studies. The current study utilizes the Morgan and Miller (2001) measurement of organ donation attitudes in an attempt to follow the replication suggestion.

A review of the literature on organ donation attitudes might suggest an avoidance of any expenditure of resources aimed at affecting attitudes. Cossé and Weisenberger (2000) found that over a four-year period (1994-1997) in which millions of dollars were spent in the media no significant change in attitude was found. One change that did occur was a significant increase in those respondents who had reported having signed an organ donor card. The authors' suggestion is to focus not on changing attitudes but on translating those attitudes into actions. One difference in attitude that should be taken into consideration is that African-Americans exhibit a disproportionate need for organs while at the

same time having a less positive attitude toward organ donation than whites.

Morgan and Miller (2001) studied the effects of knowledge, attitudes, and values on willingness to communicate about organ donation with family members. The suggestion is that the relationship between attitude, knowledge, values, and resulting behavior has not been fully understood. Understanding that relationship would be necessary for any future public communication campaigns. The authors' review of the literature leads them to state that attitudes have been seen as strong predictors of behavior and behavioral willingness. They find the belief that attitudes and behaviors are connected from persuasive theories such as the Theory of Reasoned Action (Fishbein & Ajzen, 1975). The researchers did find that attitudes were related to a respondent's willingness to communicate with his or her family about organ donation.

Rumsey, Hurford, and Cole (2003) found that knowledge of transplantation procedures was associated with more positive attitudes toward organ donation, suggesting that public communication campaigns using messages designed to increase a respondent's knowledge may also work to increase the respondent's attitude toward organ donation. Also, having people who have benefited from organ transplantations might serve as effective spokespeople since the researchers also found that knowing someone who gave or received an

organ was associated with positive attitudes toward organ donation. They also found a respondent's attitude toward organ donation to be related to the respondent's religious beliefs. Based on their review of the literature and the results of their study, the researchers suggest that although attitude is not an assurance of a particular behavior, it is potentially a necessity for it.

Morgan, Miller, and Arasaratnam (2003) explored the similarities and differences between the attitudes of African-Americans and European Americans. They found that the majority of people support organ donation, regardless of race or ethnicity. Even though such a premise holds true across most studies, the researchers found that African Americans held significantly less positive attitudes toward organ donation and that message campaigns should be aimed at activating specific attitude levels in specific portions of the population. Across race and ethnicity, the researchers found a significant relationship between attitude and intention to sign an organ donor card, as well as a relationship between attitude and willingness to talk to a family member about organ donation.

In their study of the psychosocial profile in favor of organ donation, Conesa, Rios, Rodriguez, Rivas, Canteras, and Parrilla (2003) found negative attitudes toward organ donation to be associated with low levels of education, ages over 40, few prosocial activities, no previous

experience with organ donation or transplantation, no knowledge of the brain death concept, false religious beliefs, and a rejection of cadaver manipulation. Their conclusion would be for any campaign designer to address those issues in order to then affect negative attitudes. Differences between those with positive versus those with negative attitudes toward donation fit the same profile as that found by Sehgal (2004), who also reported wide gaps in such areas as socioeconomic status and age.

Against the prevailing belief that the majority of people support organ donation, Siminoff, Burant, and Youngner (2004) claimed that it is not universal that organ donation has been accepted by most to be a community good and that the public trusts the system. Their review of the literature cautioned against necessarily considering ethnic minorities to be the same as white donors, who have been shown to support organ donation with more positive attitudes than any other racial or ethnic group. As such, ethnic and racial minorities could be appropriate targets of communication campaigns aimed at stimulating more positive attitudes.

Sirois, Sears, and Marhefka (2005) highlighted an important note about organ donation attitudes in that, though positive attitudes do influence donation behaviors, positive attitudes are present in the steps between the initial learning about organ donation and actually deciding to engage in donation activity—signing an organ donor card or talking to

one's family about the donation decision. Still, in their study attitudes—in conjunction with knowledge about organ donation and communication frequency—were able to significantly discriminate between adolescent donors and nondonors.

Organ Donation Message Research

Organ donation message research has taken on several forms. Ford and Smith (1991) suggested that one of the main roles of organ donation campaign messages should be education intended to address misunderstandings and misinformation regarding all aspects of the donation process, as well as to address fears associated with organ donation. Such messages are often referred to in the literature as refutational messages. Specifically, public education would take the form of persuasive messages that would increase information seeking and subsequent signing of organ donor cards. The goal of the study was to explore the potential forms of those persuasive messages by evaluating one-sided versus refutational persuasive messages with a focus on attitude schemata and the content of knowledge structures. One-sided messages are also referred to in other studies as typical or traditional messages, which have usually served as awareness raising tools or as calls to action. The guiding theories used were Petty and Cacioppo's Elaboration Likelihood Model (1986) and Graesser and Nakamura's

Scheme-Copy-Plus-Tag Model (1982). Another underlying focus of the study was on the messages' effect on memory in light of the usual gap in time that would be expected to occur between message exposure and behavioral opportunity.

The method Ford and Smith (1991) used was to present a one-sided message to one group and a refutational persuasive message to another group, followed by a two-day delay after which all respondents were tested for memory recognition and given the opportunity to receive more information regarding the organ donation process. Results showed that the refutational persuasive messages failed to produce higher recognition rates than the one-sided message, though the refutational persuasive messages did lead to higher request rates for further information about organ donation.

One issue that Ford and Smith (1991) found that called for further study applies directly to the current study—the presence of refutational elements in the refutational persuasive messages seemed to activate refutational arguments against organ donation instead of lessening the effects of such arguments. That is, the attempt to refute an argument against organ donation did the opposite, in that it activated the argument against organ donation. Ford and Smith suggest campaign designers should utilize formative evaluation of messages to locate in a particular audience what arguments need refutation, since the act of

refuting an unfamiliar argument may unwittingly stimulate that argument's retention in the minds of audience members.

Jasper, Harris, Lee, and Miller (1991) addressed communication between members of the medical and transplant community and donor families with a particular focus of the problematic nature of the term "brain dead." A guiding belief is that transmitted messages may suffer from the public's understanding or misunderstanding of terms relating to the organ donation process. The method employed was to present alternating messages that used the term "brain dead" with no explanation and then the use of the term with an explanation. The essential question was whether or not an accompanying explanation would increase willingness to donate organs.

Jasper, Harris, Lee, and Miller (1991) found that including an explanation with the term "brain dead" did not increase donation. In their review of literature, though, they did find that confusion still surrounds the term, especially as it might suggest to an audience that the individual who is brain dead is somehow less than dead, and thus able to return to normal life. Their suggestion was for the development of a less ambiguous language that gives the donor family an exact moment of death from which the potential donor cannot be revived. They also bring attention to the problematic nature of the phrase "life support," which might be misleading. A more practical and less confusing terminology might be

"organ support," which does not necessarily give the false impression that a potential organ donor may somehow be revived.

Smith, Morrison, Kopfman, and Ford (1994) built on Ford and Smith's (1991) study, cited above, by exploring the influence of prior thought and intent about organ donation on the effectiveness of persuasive organ donation message strategies. The study used typical versus atypical messages. The typical message presented positive aspects of organ donation, whereas the atypical messages presented both positive and negative aspects, while displaying refutational arguments against the negative consequences. An example of a typical message would be to present stories of lives saved by organ donation. An example of an atypical message might present the same information, while at the same time providing factual information that counteracts a false belief like doctors failing to consider all life-saving measures upon the receipt of the knowledge that the patient is an organ donor.

Smith, Morrison, Kopfman, and Ford (1994) found the same false-alarm rates associated with the refutational message strategies as did Ford and Smith (1991). Those respondents who received the refutational messages had higher fear and anxiety rates than those respondents who received the typical one-sided message. The authors did find that for both message conditions, those high in prior thought and intent were more likely to evidence positive thoughts about organ donation and were more

likely to take organ donor cards than those low in prior thought and intent. The implication is that for any campaign, the level of prior thought and intent should be evaluated before the construction of any particular message strategy. Also, further research should be aimed at how best to reach those members of a population low in prior thought and intent in order to change the population's beliefs, attitudes, and behaviors in a positive direction.

Birkimer, Barbee, Francis, Berry, Deuser, and Pope (1994) also explored the effects of refutational messages on signing organ donor cards, along with the effects of thought provocation and decision deadlines. A guiding belief of their study was that any effective message strategy must refute false beliefs about the negative consequences of organ donation. A traditional message might simply state that a need is present for organs or that organ donors save lives. A refutational message, on the other hand, must solve the problem of false beliefs held by potential donors. The results of the study were somewhat ambiguous, since both the experimental group and the control group showed similar increases in willingness to donate. The reason for this was considered to be attributable to all participants being informed of the study relating to organ donation and communication with one's family.

Birkimer *et al.* (1994) believed that simply giving members of a population time for reflection accompanied by a structured opportunity

to sign a donor card might preclude the need for persuasive message strategies, since it might be the case that most people have never given any concerted thought to actually signing an organ donor card. The opportunity to do so might be incentive enough for actual signing. One important variable of particular interest to the present study is that the impact of perceived social norms did correlate with willingness to sign an organ donor card. One message strategy that might be explored further is one that promotes a concrete decision, whether for or against signing, instead of those message strategies aimed at increasing positive attitudes in the population, which might be unnecessary in the face of what seems to be a ceiling effect on positive attitudes in almost the entirety of organ donation attitude research.

Kopfman and Smith (1996) advised that any message strategy aimed at an audience should be designed to target more homogeneous sets of audience members than larger heterogeneous portions. The belief is that smaller pools of an overall population of potential organ donors are more likely to share specific needs that one campaign might be able to address than is an audience with diverse needs. As such, audience analysis must be coupled with message creation. Audience members could be separated along the lines of pre-existing attitudes, ranging from highly positive to uncertain or fearful.

In their study, Kopfman and Smith (1996) found that an understanding of individual beliefs and needs allows for the creation of more effective campaign messages and that measuring a portion of the target population according to psychological variables such as altruism, knowledge, attitude, fear, and subjective norms could lead to the development of significantly different group profiles. Group profiles could save campaign resources and potentially result in more successful organ donation requests.

Skumanich and Kintsfather (1996) echoed Ford and Smith (1991) in recognizing the need for message campaigns designed to educate the public with the goal of increased responsiveness to organ shortages. Also echoing Ford and Smith's study design, Skumanich and Kintsfather utilized ELM as a guiding theory in their causal model of understanding message effects. Their model traced a path from values to empathy arousal and involvement with an overall look at impact on attitude. Two message conditions were created. Both conditions presented positive statements about organ donation, as well as refutational messages. One message contained an empathy arousal cue. Values and involvement were both found to be consistent with the model, but empathy arousal was nonsignificant. Overall, the researchers found ELM to be a useful model in the study of organ donation messages, and that their developed model informed an understanding of message effects.

Rothman and Salovey (1997) studied the impact of message framing's ability to motivate healthy behavior. By employing Tversky and Kahneman's (1981) prospect theory, the researchers found that communication campaigns emphasizing a particular aspect of a healthy behavior can alter the saliency of a given health issue. They note that any health-related information can be constructed through message creation to highlight either the benefits of that issue or the costs associated with it.

The import of Rothman and Salovey's (1997) research to the current study is that the behavioral responses to framed information should not be wholly dependent on pre-existing attitudes, but also to the framing manipulation. Message framing is a complex undertaking in that the context of the message delivery also plays a role. One important note that the researchers make is that for any given health behavior, when using message framing, campaign designers should evaluate the extent to which a given audience believes the health decision to be safe or risky.

Kopfman, Smith, Yun, and Hodges (1998) studied affective and cognitive reactions to organ donation messages framed with a highlight on narrative evidence versus statistical evidence, as well as prior thought and intent. The organ donation messages were designed to motivate people to carry signed and witnessed organ donor cards. The researchers note that statistical evidence messages and narratives about people who have become organ donors have both been shown to be persuasive, but

the two have not been compared together. The key differences found were that statistical evidence had a greater influence on cognitive reactions and that narrative evidence had a greater influence on affective reactions. As with Smith, Morrison, Kopfman, and Ford's (1994) exploration of prior thought and intent, Kopfman, Smith, Yun, and Hodges found that all messages were rated lower in effectiveness and credibility by audience members low in prior thought and intent. Low ratings of persuasive messages by those low in prior thought and intent suggests the need for the development of different message strategies to achieve the desirable health behavior outcome.

A main implication for future practical applications of the Kopfman, Smith, Yun, and Hodges (1998) study is that health communication campaign designers should pay attention to the cognitive and affective reactions instilled by the messages they create. For example, if the desired health behavior is distant in time, cognitive reactions might serve better than affective reactions, which fade as time passes. Messages that stimulate affective reactions, though, might be more effective when the decision is relatively close in time from the message delivery.

Farsides (2000) supported the notion that social marketing should play a clear factor in the development of organ donation communication campaigns. Groups of potential organ donors do not belong to one homogeneous group of individuals. Organ donation

campaigns messages not developed with a grounding in social marketing may fail to resonate with or be fully rejected by the wrong segment of the potential donor population.

Farsides (2000) offers several recommendations to the designers of organ donation messages. One is that messages should not be developed in the model of bodies as gardens or machines. Rather, it may be more effective to construct a model where bodies are viewed as extensions of self. For example, if the body is conceived of as part of an individual self, an organ donation message should not convey an image where the body—and thus the self—is lessened, but is instead enhanced by donation. Benefits to the self and to significant others should also be more effective than simply pointing out benefits to some anonymous other.

Lauritzen, McClure, Smith, and Trew (2001) noted that the main metaphor that has shaped most public discussions of organ transplantation in the U.S. has been the "gift of life" metaphor. They also note that the largest effort of organ donation appeals has used "gift of life" and has proven to be persuasive. The persuasive outcomes, though, have been in terms of public awareness, and not in a resulting increase in organs. One potential reason for the failure to increase actual organ donations could be that terminology of the "gift of life" metaphor is removed from the biomedical framework of organ transplantation that

uses a much different language. If the difference in terminology does have such an impact, then it lends credence to further exploration of message framing.

Lauritzen, McClure, Smith, and Trew (2001) also note that messages meant to result in signed organ donor cards should not be created in the same vein as those messages meant to address family decision-making. That is, the decision to sign a donor card and the decision to donate one's organs are not the same decision and do not follow the same decision process. The reasoning is that one is an individual's choice and the other is a group choice (the family). Messages designed to motivate an individual to act in a certain fashion will not necessarily work to achieve group action. Messages should either be designed to address one or the other action, or messages could begin to establish any organ donation decision from the signing of an organ donor card to the actual donation as a communal effort.

With attention to the importance of developing group profiles or group segmentation with the hope of increased message effectiveness, Kopfman, Smith, Morrison, Massi, and Yoo (2002) studied the effects of organ donation messages on cognitive and affective reactions according to race. Messages have helped to create a positive attitude toward organ donation in the U.S., but card signing and actual donation by African-Americans has not been as high as with the Caucasian

population. It was hypothesized that messages specific to the African-American population should be developed since African-Americans are understood to find organ donation messages less credible, less effective, and more likely to increase anxiety. Results showed that no differences existed in Caucasian and African-American responses to the different message conditions, even though African-Americans were significantly less likely to have signed an organ donor card and less likely to exhibit prior thought and intent than Caucasians. The key to an increase in signed organ donor cards on the part of the African-American community might be message construction meant to produce a greater number of favorable thoughts in the African-American population. The ultimate goal would be to find a more effective message strategy to address the discrepancy between African-American donors and recipients.

In regard to myths about organ donation, Morgan and Miller (2002) noted a clear lack of national messages addressing the baseless fears potential donors and their families harbor. They note that myths and misconceptions are sometimes bolstered by messages from a variety of media sources, from television programs to news. In their review of the literature, Morgan and Miller found little evidence as to whether particular types of messages have had actual effects on segments of the population. Messages aimed at educating the public, they find, remain

the most potentially effective strategy, though overcoming fears in portions of the population should also be addressed. The next major step was considered to be finding the links between awareness of the organ donation situation, positive attitudes, and then actual transplantations.

Cantarovich (2002a) also supported a greater focus on public education, even to the point of its inclusion in school curricula. Previous messages with their focus on solidarity, altruism, and generosity have failed to achieve greater donation rates. Cantarovich's suggestion is to include in organ donation campaign messages a focus on the health of all humankind and the notion of sharing, which might possibly be more effective in influencing people's behavior than slogans such as "gift of life" and "helping to live through organ donation." Cantarovich (2002b) also found that shorter phrases rather than longer phrases might be more effective messages. Phrases that focus on important concepts with a design for conveying and illustrating new ideas might be helpful.

Moloney and Walker (2002) highlighted the importance of understanding the organ donation issue from both the perspective of the medical community but also from the perspective of those outside the medical community. This tension between the medical community and the lay community has been noted by Sharf and Vanderford (2003) in their research on illness narratives, in which they label the medical community the bio-world and the lay community the life-world. Organ

donation, if it is to be conveyed to a society, must be conceptualized in terms of the interactions and exchanges within that society, or as Sharf and Vanderford conceptualize it, the life-world. As organ donation has become defined less from the perspective of the medical world and more from the perspective of the society, it has, however, become invested with knowledge and beliefs that perhaps need to be overcome. The implication for message designers is that message construction must address transplantation with a keener sense of how any given segment of the population might respond, which is generally not from a biomedical context.

Two conflicting representations that Moloney and Walker (2002) found that function within the public messages about organ donation create a tension that may hinder public reception. The two representations are the "gift of life" message and those messages of the mechanical body with a focus on the "removal and replacement of body parts." Paying attention to this tension could help message construction that avoids the latter biomedical focus, which potentially places the donor into a passive role of body-garden. Moloney and Walker suggested that more potential fears and anxieties are associated with a biomedical framework than with a "gift of life" representation. It was found that the conceptualization of organ donation in regards to social representation is not static and that context plays a crucial role in public reception.

Morgan, Miller and Arasaratnam (2002) found that tests of message strategies aimed at affecting public willingness to donate were increasing, though the summative evaluation of actual campaigns as lacking. Also, if message research should continue, the goal of affecting attitudes might be unnecessary due to the high ceiling of positive attitudes in the U.S., a more important goal being to see a rise in donated organs. They concluded that attitudes and behaviors can be changed in regards to organ donation through campaign efforts. Such campaign efforts should include a mass media component and an interpersonal component.

Taub (2003) focused on the subtext of organ donation messages, those aspects of messages like verbal metaphors and graphic representations. The "gift of life" metaphor of the past several decades has succeeded in helping the public view organ donation as morally acceptable by bringing attention to altruism and voluntarism. More recent messages have stressed reciprocity, perhaps in an attempt to invest a sense of community in the organ donation process. These recent messages have also raised the importance of communicating with one's family or loved ones. Campaigns must focus on both that aspect of the organ donation process where the individual is of concern—actually making the choice—and also that aspect where the family is of concern—actually making the donation. The main advice is that

campaigns should exert more efforts at developing and evaluating how messages function.

With the goal of developing leaflets to promote and increase tissue and organ donation in Croatia, Brkljačić, Ferić, and Rihtar (2003) tested attitudes, knowledge, and intentions in a population to which a year after testing they gave actual leaflets based on initial findings. The guiding belief is that any message must be based on empirical evidence gathered from the relevant population. The resulting leaflets were found to generally be successful, though not all measures were significant. The necessary warning, though, was that any single message intervention would likely not be sufficient, and that promotional interventions designed to be long-term might be more effective at increasing donation behavior.

Marshall and Feeley (2004) examined the effect organ donation messages might have on the activation of injunctive norms that would affect an individual's attitudes, intentions, and willingness to communicate about organ donation. Messages were framed according to work derived from Kahneman and Tversky's (1979) research into gain and loss framed message categories. Some messages were constructed with a positive valence and others with a negative valence, the hypothesis being that positively framed messages should result in more positive attitudes and higher willingness than negatively framed messages. The hypothesis was mainly unsupported. One explanation is

that organ donation attitudes were already high enough that no message manipulation could do further work in that area. Results for the framing aspect of the study, though, highlighted the important role message framing might play in future campaigns. The suggestion is that messages that highlight the gains in the area of donation might be more valuable to campaign designers than highlighting the more negative aspects of the donation situation: organ shortage and thousands of individuals in need.

Cantarovich (2005) suggested campaign messages should be aimed at three areas of organ donation information. First, the public should know that any given person is just as likely to be an organ receiver as an organ donor in her or his lifetime. Second, organs from the deceased are sources of health for the community as a whole and that their use does not mean disrespect for the human body after death. Finally, giving of the self is an act of sharing prolonged health with everyone. Overall, message campaigns should stress the acceptance of using body parts after death.

As can be noted from the above review, a rich amount of research has been invested in the use of campaign messages to affect various changes in the public in regards to organ donation. An additional avenue, as yet unexplored, presents itself in the form of messages that might make use of the principle of social proof.

Social Proof Literature Review

Cialdini (2001) begins his discussion of the principle of social proof by asking the question, "What is it about canned laughter on television shows that convinces executives and producers to use it despite audience, directors, writers, and actors all calling for its removal?" The answer is that the executives and producers know that the research has shown canned laughter causes audiences to laugh longer and harder than without it, especially in regards to poor jokes. What, though, is the mechanism by which canned laughter produces its effect?

The answer to the above question is the principle of social proof. By finding out what other people do and what other people think is right, a person can come to a conclusion about what to do and what to think. Behavior can be viewed as appropriate to the extent that it can be determined others act out that behavior (Cialdini, 2001). That is, fewer mistakes can be made, as a rule, by following the behavioral patterns of others. Social proof is social evidence. Social evidence leads to conclusions about socially acceptable behavior.

Cialdini (2001) offers several anecdotal examples of social proof at work besides the use of canned laughter in television situation-comedies. He states that bartenders often place a few dollars in the tip jar before opening the doors and that evangelical preachers often spread "ringers"

throughout their audience who know when to come forward to testify and give donations. A joke told often by Jerry Seinfeld concerns the marketing slogan used by the McDonald's fast food chain. The joke proceeds along these lines: "What's the deal with the McDonald's sign? Over a billion sold? What do they want? For cows to start coming to the doors, giving in, admitting they have little chance? Shouldn't McDonald's simply tell us that they're doing very well? I mean, come on. We get it by now." Just like canned laughter, the principle of social proof can work to affect subsequent behavior. As Cialdini states, advertisers do not need to convince the individuals that the product for sale is any good at all. Advertisers need to convince individuals that other individuals think the product is good.

Beyond the anecdotal evidence offered, Cialdini's (2001) review of the literature displays experiments aimed at overcoming specific phobias in which children who were afraid of dogs watched other children play with dogs (Bandura, Grusec, & Menlove, 1967), which resulted in an increased willingness by those with phobias to have physical contact with dogs, even when left alone in a room with the animal. The effect remained even when the children were tested one month later. In a follow-up experiment (Bandura & Menlove, 1968), researchers found that live demonstrations of children playing with dogs were not needed to

have an effect. Rather, seeing video clips of children playing with dogs produced the same results.

Cialdini (2001) also recounts an experiment by psychologist Robert O'Connor (1972) in which severely socially withdrawn and isolated children were shown clips of the same type of child deciding to participate in normal school activities with groups of outgoing children. After watching the film clips, the isolated children began participating at a level equal to that of normal children. Upon visiting the school six weeks later, the once isolated children were found to still be active, even exceeding normal social activity.

The mechanisms that seem to function within the principle of social proof do not always function toward a positive end. Cialdini (2001) cites an experiment by Liebert and Baron (1972) in which children were shown depictions of people intentionally harming others. After viewing the depictions, the children acted in a more aggressive manner toward each other.

Certain conditions lead to an increased susceptibility to the influence of social proof (Cialdini, 2001). One condition is uncertainty. That is, social proof is predicted to have an increased influence on behavior when a person is either unsure or the situation is unclear or ambiguous. Though the social evidence of the actions of others might be present for an individual, the potential problem is that the individual fails to recognize

that others are evaluating the same social evidence, which can lead to what Cialdini calls pluralistic ignorance.

The effects of pluralistic ignorance can be seen in the notion, albeit intuitively awkward, that an individual is more likely to receive help in a public emergency if only one person is available for help than if a crowd is available for help. Cialdini (2001) cites an example from the *New York Times* in which a woman in her late twenties was attacked three times over 35 minutes before finally being killed (Ganzberg, 1964). The incident took place while 38 of her neighbors watched without one calling the police for help. The interpretation seemed to be that, because no one saw anyone else acting to help the woman, the situation was transformed from emergency to non-emergency.

In an effort to approach pluralistic ignorance, and by connection social proof, Cialdini (2001) cites Darley and Latané's experiment (1968) in which the researchers tested observable emergency events by either a single individual or a group of five individuals. The emergency consisted of a student who seemed to be having an epileptic fit. The results were that single individuals came to the aid of the student 85% of the time, whereas the group of individuals came to the student's aid only 31% of the time.

Though the examples above display alarming notions about any given group of individuals' willingness to help in an emergency situation, it is essential to note that social proof appears to have the most influence

on decision-making in unclear or ambiguous situations. When the same experiment is used in which the emergency is clear and not ambiguous, aid is given by bystanders 90-100% of the time. So it is not that bystanders are necessarily unwilling to give aid. Rather, bystanders are unlikely to give aid if they are unsure aid is needed or if they are unsure they are responsible for action.

Besides uncertainty, the second condition under which social proof has an increased effect on the behavior of individuals is similarity. Cialdini (2001) cites Festinger's (1954) theory of social comparison processes to argue that social proof's most powerful operation comes when an individual observes action on the part of another individual who is like that individual.

Cialdini (2001) cites two experiments in support of the similarity condition of social proof. First, Hornstein, Fisch, and Holmes (1968) placed a wallet containing money, a check, and information on the wallet's owner in a public area. Also with the wallet was a letter from someone who had found the wallet and was attempting to return the wallet through the mail to the owner. Apparently, the good Samaritan had then also lost the wallet. The letter was written either in plain English by a seemingly average American or broken English by someone who had just arrived from a foreign country. The researchers found that the wallet was returned 70% of the time when the individual viewed the good Samaritan

to be like themselves, and only 30% when the individual felt otherwise. The second cited study was a school-based antismoking initiative by Murray, Leupker, Johnson, and Mittlemark (1984). Positive results were obtained only when the researchers used same-age peer leaders as observable models.

Social proof, then, seems to function in situations ranging from the mundane following of canned laughter to the extremely serious context of murder or suicide (Cialdini, 2001). At times, social proof offers individuals valid information on appropriate behavior, while at other times the information has been purposefully concocted—advertising by the use of actors portraying average citizens purchasing an item. Under conditions of uncertainty and in the presence of similar others, social proof has its greatest influence. In situations, though, where an individual is highly invested in the decision, social information may simply not be enough, such as the decision to donate the organs of a loved one. Social proof may be an effective tool in increasing the signing of organ donor cards and the willingness of individuals to discuss that decision with their family and loved ones.

Cialdini (2001) argues that the decision to follow the evidence provided by social proof is a decision to follow what other people are doing. The potential effect this may have on organ donation stems from the fact that messages frequently convey information noting the failure of

eligible donors to actually donate their organ upon death. Perhaps such a message also implicitly conveys that eligible non-donors refuse to donate because they are somehow privy to information that convinced them the decision not to donate was the correct decision to make. More appropriate messages might be constructed that highlight those who have donated and their reasons for doing so, since social proof has been shown to stimulate compliance in such a fashion.

In regard to the growing popularity of yellow ribbons during the Persian Gulf war, Dunn (1991) explored the public response as the yellow ribbons came to be seen everywhere from buildings to clothing to bumper stickers. Dunn's contention was that the underlying process was one of social validation, or social proof. The widespread adoption of the ribbons appeared to be akin to a domino effect as more and more of the public, even those with no family ties to service members, began following suit. What may have once been a reference from a 1970's song, as Dunn contends, became a normative response to war through social influence. Though it was noted that particular groups—profit and nonprofit alike—may have pushed for the use of the yellow ribbons in some situation, many Americans were likely affected by more subtle persuasive elements.

In a more theoretical exploration, Kuran (1993) explored the fundamental reasons for and functioning of the heuristic of social proof. Based on any particular set of cognitive limitations that affect a given

individual, attempting to make sense of small portions of reality can be strenuous. Further, the actual practice of developing a set of understandings about the world will rarely be based solely on one person's efforts. Kuran's contention was that coping with cognitive limitations is accomplished through the use of the (supposed) knowledge of others. For example, an individual might have confidence in the platform of a politician because, based on polls, the agenda is popular. A clear majority is not necessary for social proof to work. Even in cases where an issue is contended and the electorate is divided, Kuran argues that individuals still believe because large segments of the population seem to believe. Though individuals may make fewer mistakes when acting on the basis of what many people do, false or misinformed beliefs and actions can demonstrate a more negative aspect of social proof.

In an effort to better understand the effects of social proof on compliance, it was hypothesized that those in a collectivist culture like Poland would be more influenced by a request in which the intensity of social actions was varied—all performed the action, some performed the action, none performed the action—than those from an individualistic culture like America (Cialdini, Wosinska, Barrett, Butner, & Gornik-Durose, 1999). The hypothesis that social proof would exhibit an impact on an individual's decision to comply with a request was supported for the "all" (high intensity social proof) and "some" (moderate intensity social proof)

conditions. The moderating variable was found to be an individual's individualistic or collectivistic rating in that those individuals with a high collectivistic rating were more influenced by the social proof manipulation than those with a more individualistic rating. The effect for social proof was, however, present regardless of individualistic or collectivistic tendencies.

Summary

What should be implied by the above literature review is the potential for a message to have an effect on organ donation attitudes if the level of social proof is manipulated. Research into social proof suggests that higher levels of social proof lead to higher levels of agreement, such that evidence that many people have negative attitudes toward organ donation should lead to a measurable effect on reported attitudes toward organ donation. One condition will frame organ donation as being considered either a negative or positive issue in the public's eye. For example, messages will either mention negative or positive attitudes toward organ donation in order to test for an effect for framing. Another condition will signify intensity of social proof, such that messages will state either many people hold a particular attitude, some people hold a particular attitude, or few people hold a particular attitude.

Hypotheses and Research Question

H1 and H2 are put forward based on the evidence that high levels of social proof had effects on compliance in the Cialdini *et al.* (1999) study noted above. Though the moderate intensity social proof condition was also significant in the Cialdini *et al.* study, the use of RQ1 seems equally appropriate to test all other conditions for significant differences. Essentially, the overall expectation is that organ donation attitudes will follow those attitudes noted in each message condition. Six message conditions were created to serve as the social proof manipulation in the study. Message conditions are a result of combining three levels of social proof with two levels of attitude valance. A message will say either that almost everyone in a local population holds a particular attitude (high intensity social proof), that half of the local population holds a particular attitude (moderate intensity social proof), or that no one in the local population holds a particular attitude (low intensity social proof). Also, the message conditions will highlight the particular attitude as being either positive or negative toward organ donation. The message conditions are further detailed in the methods section of this study, as well as in the appendix.

H1: More positive organ donation attitudes will be reported in the high intensity social proof positive message condition than any other message condition.

H2: More negative organ donation attitudes will be reported in the high intensity social proof negative message condition than any other message condition.

RQ1: What differences among message conditions will be observed on organ donation attitudes?

As was noted in the review of the organ donation attitude research, especially the Conesa *et al.* (2003) study, the general profile of an individual with positive organ donation attitudes is someone with higher levels of education and who is around the age of 40. That is, the more education a person has, the higher the likelihood the individual will hold positive attitudes toward organ donation. Also, as an individual ages toward 40, positive attitudes increase, after which they gradually decrease.

H3: Positive attitudes toward organ donation attitudes will be associated with higher levels of reported education.

H4: More positive organ donation attitudes will be observed in individuals under the age of 40 than in those above the age of 40.

The hypotheses and research question will be tested in order to examine if and how the principle of social proof affects attitudes toward organ donation. The specific manner of testing will be addressed in the methods section.

Chapter Two

Method

Participants

Participants were 1,603 individuals living around a small midwestern university. Participants were selected via a nonprobability snowball sampling technique. Two inclusion criteria were set in order to increase the likelihood of an equal ratio of males to females, as well as in regard to age. Survey administrators were asked to first deliver a survey to one gender and then a survey to the other gender. Half of the survey administrators were asked to begin with a female, while the other half was asked to begin with a male. Due to those surveys using undergraduate students as survey administrators, most participants are of undergraduate age, 18-24. Survey administrators were asked to locate participants having already obtained an undergraduate degree in order to decrease the likelihood of having an overwhelming proportion of participants in the 18-24 age range. This inclusion criteria was not adequately met in the study.

The gender ratio was 50.5% female and 49.5% male. It can be assumed that the gender inclusion criteria was adequately met in the study. The age breakdown consisted of 82.1% of respondents between

the ages of 18-24, 10.1% between the ages of 25-34, 4.6% between the ages of 35-49, and 3.2% ages of 50 and older. The major concentration of ages 18-24 likely results from the use of the convenience sample.

Instrumentation

The survey was designed to measure participants' attitudes toward organ donation in response to certain messages, as well as to collect demographic information (age, gender, and education). The survey can be found in Appendix B. The measure of organ donation attitudes was taken from Morgan and Miller (2001) and had demonstrated high reliability in their research (Cronbach's $\alpha = .88$). The organ donation attitude measure was composed of eight semantic differential scales with responses ranging from 1=Strongly Disagree to 7=Strongly Agree. Each survey was accompanied by one of six organ donation message conditions. Each organ donation message condition had either a positive or negative valence, as well as one of three intensity levels of social proof. A positive valence signifies the discussion of positive attitudes toward organ donation. A negative valence signifies the discussion of negative attitudes toward organ donation. High intensity social proof signifies the discussion of what a majority of individuals feel about organ donation. Moderate intensity social proof signifies what half of the individuals feel about organ donation. Low intensity social proof signifies what a small

portion of individuals feel about organ donation. All message conditions were developed based on the preceding review of the literature in regard to organ donation message research and social proof research. Each organ donation message condition was as follows: (1.) positive, high intensity social proof, (2.) positive, moderate intensity social proof, (3.) positive, low intensity social proof, (4.) negative, high intensity social proof, (5.) negative, moderate intensity social proof, and (6.) negative, low intensity social proof. Full examples of each message condition can be found in Appendix A.

Messages were pretested, and significant differences were found between the expected messages at the .001 significance level. Six message conditions were constructed, and then tested according to a set of questions to determine whether or not the conditions significantly differed, but also if the messages were actually conveying the intended information. The pretest ANOVA controlled for both an individual's judgment of the message's credibility and how important the issue of organ donation is for that individual. The total number of pretest participants was 174. Those messages with no significant differences were 1 and 6, 2 and 5, and also 3 and 4. Those message conditions are equivalent in terms of content. For example, saying that half a population has positive attitudes toward organ donation is equal to saying half a population has negative attitudes toward organ donation. The same can

be said for the lack of difference between saying a majority of people in a population have positive attitudes toward donation and saying a minority of people in the population hold negative attitudes toward organ donation. The inclusion of the conditions with nonsignificant differences is to analyze the potential differences in effect based on a manipulation in the framing of the message. No differences should result between conditions 1 and 6, but if differences are present, the influence is perhaps a result of the message framing and not the content.

Procedure

Students in a third-year interviewing communication course and a second-year communication theory course were trained on how to verbally administer organ donation messages and how to then deliver survey materials to willing participants. Each interviewer was to verbally deliver each organ donation message associated with the measure of organ donation attitudes and demographic information, since each interviewer delivered each message in order. That is, each survey administrator was to find a willing participant and then deliver one of the organ donation messages. The next participant would receive the next organ donation message, and so on. Upon finding a willing participant based on the two criteria listed above and explaining the anonymous status of each willing participant, the interviewer verbally delivered the

organ donation message and then handed the participant the survey, which included the verbally delivered organ donation message at the top of the survey.

Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS). Effects of the organ donation message conditions were analyzed according to a 2x2x3 one-way analysis of variance design (gender by positive/negative valence by high/moderate/low intensity of social proof) with the dependent variable organ donation attitude. Education and age were also tested using a one-way analysis of variance with the dependent variable of organ donation attitude. Significance was determined at the .05 alpha level.

Chapter Three

Results

The dependent variable of organ donation attitude was taken from Morgan and Miller (2001), which has shown high reliability (Cronbach's $\alpha = .88$). A four item control measure for social desirability (Cronbach's $\alpha = .74$) was taken from Agne, Thompson, and Cusella (2000), since social desirability may affect how respondents self-report. The eight item attitude measure was re-examined through principle components factor analysis with varimax rotation. Factor analysis confirmed the use of the measure in the study, as all items loaded on one factor. A composite score to be used as the dependent variable of the study was created by adding seven of the items and subtracting one. The result of the factor analysis can be found in Table 1. Descriptive statistics of the eight organ donation attitude items and the four social desirability items can be found in Table 2. Means indicate a high level of positive attitudes toward organ donation across the eight items, considering that one item (I view organ donation as a negative procedure) is an indicator of a more positive attitude as the mean approaches a lower score. This item was subtracted from the composite score for organ donation attitude based on the results from the principle

components factor analysis with varimax rotation. Social desirability means indicated a typically "unsure" trend across the four items where responses ranged from strongly disagree to disagree to not sure to agree to strongly agree.

Resulting demographic information from the administered survey, as reported earlier, is as follows. The age breakdown consisted of 82.1% between the ages of 18-24, 10.1% between the ages of 25-34, 4.6% between the ages of 35-49, and 3.2% ages of 50 and older. The major concentration of ages 18-24 likely results from a majority of respondents attending the small Midwestern university having been attained through the use of the convenience sample.

As reported earlier, the gender breakdown was 50.5% female and 49.5% male. In terms of education, 1.5% had not completed high school, 9.4% had completed high school, 73.6% had completed some college work, 10.5% had obtained a college degree, 2.5% had completed some graduate work, and 2.5% had obtained a graduate degree.

Both hypothesis one (high intensity positive vs. high intensity negative) and hypothesis two (moderate intensity positive vs. moderate intensity negative) were tested by use of t-tests, since both predicted specific types of differences between the message conditions. To address the research question, a 2x3 (positive/negative valence and intensity level of social proof) analysis of covariance controlling for social desirability was

Table 1, factor analysis of eight item organ donation attitude measure

Component Matrix^a

	Component
	1
I support the idea of organ donation for transplantation purposes	.794
I view organ donation as a negative procedure	-.606
I believe that organ donation is an act of compassion	.607
I believe that organ donation is an unselfish act	.725
I see organ donation as a natural way to prolong life	.714
I view organ donation as a benefit to humanity	.827
Organ donation is important to me	.750
Donating a loved one's organs upon death would bring meaning to an otherwise tragic experience	.735

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 2, Descriptive statistics of the eight item organ donation measure

Descriptive Statistics

	N	Mean	Std. Deviation
I support the idea of organ donation for transplantation purposes	1602	5.52	1.753
I view organ donation as a negative procedure	1600	2.73	1.944
There have been times when I felt like rebelling against people in authority even though I knew they were right	1592	3.44	1.189
I believe that organ donation is an act of compassion	1598	5.39	2.369
There have been occasions when I took advantage of someone	1576	3.37	1.180
I believe that organ donation is an unselfish act	1599	5.35	1.665
I see organ donation as a natural way to prolong life	1601	4.87	1.825
I sometimes try to get even, rather than forgive and forget	1574	3.30	1.236
I view organ donation as a benefit to humanity	1598	5.40	1.623
Organ donation is important to me	1576	4.91	1.716
I am always courteous, even to people who are disagreeable	1582	3.32	1.165
Donating a loved one's organs upon death would bring meaning to an otherwise tragic experience	1595	5.12	1.998
Valid N (listwise)	1495		

used. Results for those three tests can be found in Tables 3, 4, & 5.

Hypothesis one predicted that more positive organ donation attitudes would be reported in the high intensity social proof positive message condition than in the high intensity social proof negative message condition. Hypothesis one was not supported [$t(533) = 1.38, p > .17$]. The means, which are found in Table 4, indicate that the high intensity social proof positive message condition had a higher mean ($M = 34.1, SD = 9.6$) than did the high intensity social proof negative message conditions ($M = 32.9, SD = 10.2$).

Hypothesis two predicted that more positive organ donation attitudes would be reported in the moderate intensity social proof positive message condition than in the moderate intensity social proof negative message condition. Hypothesis two was supported [$t(508) = 2.47, p < .05$]. Respondents in the moderate intensity social proof positive message condition displayed more positive attitudes ($M = 34.8, SD = 10.2$) than did respondents in the moderate intensity social proof negative message condition ($M = 32.4, SD = 11.9$).

Testing research question one through the 2x3 analysis of covariance resulted in an interaction effect between positive/negative valence and intensity level of social proof [$F(2,1487) = 7.32, p < .01$]. No main effect was found, though social desirability was found to be a

Table 3, Hypothesis One

Group Statistics

Organ Donation Messages		N	Mean	Std. Deviation	Std. Error Mean
overall organ	high intensity positive	211	34.1327	9.55493	.65779
donation attitude	high intensity negative	324	32.9228	10.15592	.56422

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
overall organ donation attitude	Equal variances assumed	1.015	.314	1.378	533	.169	1.2099	.87786	-.51463	2.93436
	Equal variances not assumed			1.396	467.984	.163	1.2099	.86662	-.49308	2.91281

Table 4, Hypothesis two

Group Statistics

Organ Donation Messages		N	Mean	Std. Deviation	Std. Error Mean
overall organ donation attitude	moderate intensity positive	299	34.8060	10.17774	.58859
	moderate intensity negative	258	32.4651	11.95162	.74408

Independent Samples Test

		Levene's Test for Equality of Variance		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
overall organ donation attitude	Equal variances assumed	16.494	.000	2.497	555	.013	2.3409	.93765	.49912	4.18268
	Equal variances not assumed			2.467	507.790	.014	2.3409	.94873	.47698	4.20483

Table 5, Research question

Descriptive Statistics

Dependent Variable: overall organ donation attitude

Positive or Negative	Intensity Level of Social	Mean	Std. Deviation	N
positive	high intensity	34.2745	9.61030	204
	moderate intensity	35.2554	10.06170	278
	low intensity	33.2886	10.17774	201
	Total	34.3836	9.98265	683
negative	high intensity	33.1299	10.19338	308
	moderate intensity	32.7262	11.86782	252
	low intensity	35.3147	10.28672	251
	Total	33.6806	10.81256	811
Total	high intensity	33.5859	9.97141	512
	moderate intensity	34.0528	11.01988	530
	low intensity	34.4137	10.27662	452
	Total	34.0020	10.44377	1494

Levene's Test of Equality of Error Variances

Dependent Variable: overall organ donation attitude

F	df1	df2	Sig.
3.441	5	1488	.004

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design:

Intercept+SOCIAL+ATTITUDE+SOCIALPR+ATTITUDE *
SOCIALPR

Tests of Between-Subjects Effects

Dependent Variable: overall organ donation attitude

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power ^a
Intercept	341880.531	1					
Error		b					
SOCIAL	3362.169	1	3362.169	31.672	.000	31.672	1.000
Error	157851.637	1487	106.154 ^c				
ATTITUDE	167.075	1	167.075	.216	.688	.216	.060
Error	1551.407	2.001	775.239 ^d				
SOCIALPR	42.186	2	21.093	.027	.974	.054	.051
Error	1554.205	2.000	777.286 ^e				
ATTITUDE * SOCIALPR	1553.410	2	776.705	7.317	.001	14.633	.938
Error	157851.637	1487	106.154 ^c				

a. Computed using alpha = .05

b. Cannot compute the error degrees of freedom using Satterthwaite's method.

c. MS(Error)

d. .998 MS(ATTITUDE * SOCIALPR) + 2.185E-03 MS(Error)

e. 1.001 MS(ATTITUDE * SOCIALPR) - 8.674E-04 MS(Error)

significant covariant at the .01 significance level. Post hoc tests were not significant at the .05 significance level.

Though the 2x3 analysis of covariance did not produce significant post hoc tests, the means can still be discussed. It can be assumed that since certain conditions have equivalent content that the corresponding means should be the same. For example, the high intensity social proof positive message condition conveys the same information as the low intensity social proof negative message conditions. The former says that the majority of people have positive attitudes toward organ donation, while the latter says practically no one has negative views toward organ donation. The former had a mean of 34.3 (SD = 9.6), while the latter has a mean of 35.3 (SD = 10.3). The low intensity social proof negative message condition had a higher mean than the high intensity positive social proof message condition. Both the moderate intensity social proof positive and the moderate intensity social proof negative message conditions conveyed the same information. The former highlights that half the population has positive attitudes, while the latter highlights that half the population has negative attitudes. Each message implicitly states its opposite. If a person reports that half the children are female, then it must be true that half the children are male. The mean for the former was 35.3 (SD = 10.1), while the mean for the latter was 32.7 (SD = 11.9). The implication is that highlighting the positive rather than the term negative

led to higher reported attitudes, regardless of there being no difference in the content of the messages; that is, they both conveyed the same information. Finally, the low intensity social proof positive message condition conveyed the same information as the high intensity social proof negative message condition. The former had a mean of 33.3 (SD = 10.2), while the latter had a mean of 33.1 (SD = 10.2). These means were essentially equal.

The highest reported mean from the 2x3 analysis of covariance was found in the low intensity social proof negative message condition ($M = 35.3$, $SD = 10.3$). The lowest mean was found in the moderate intensity social proof negative message condition ($M = 32.7$, $SD = 11.9$). All means across the six message conditions were high, suggesting positive attitudes were reported regardless of message conditions, though Table 5 displays differences in those levels.

Hypothesis three predicted that as level of education increases, organ donation attitudes would become more positive. Results from the analysis of variance can be found in Table 6. The analysis of variance was significant [$F(5,1474) = 6.50$, $p < .001$]. The hypothesis, however, was not supported in that as education increased from the first three levels (I did not complete high school, I did complete high school, and I have completed some college work), organ donation attitudes did increase. As education increased from the third level, though, organ donation

attitudes decreased across two levels (I have obtained a college degree and I have completed some graduate work), while increasing again at the final education level (I have obtained a graduate degree). Post hoc tests were not significant at the .05 significance level. Though post hoc tests were not significant, the means can still be discussed. As Table 6 shows, there was not a consistent rise in means as levels of education increase. Means did increase through the first three levels of education—albeit by a miniscule portion from the second to the third—dropped for two, and then rose again in the last level. As was expected, the lowest organ donation attitude was reported in the education level signifying the lowest amount of education ($M = 23$, $SD = 7.2$). As level of education moved from not having completed high school to having graduated from high school, means increased by 11 points to 34.4 ($SD = 11.2$). The increase from the second level (I have completed high school) to the third level (I have completed some college work), the mean increase was only by .08, a very small amount. From level four (I have completed some college work) to level four (I have obtained a college degree), means dropped by from 34.5 ($SD = 10.2$) to 32.7 ($SD = 10.6$). From level four (I have obtained a college degree) to level five (I have completed some college work) means dropped from 32.7 ($SD = 10.6$) to 31.9 ($SD = 11.1$). Finally, as from level five to level six (I have obtained a graduate degree), means rose to 33.5 ($SD = 11.4$).

Table 6, hypothesis 3

Descriptive Statistics

Dependent Variable: overall organ donation attitude

What best describes your	Mean	Std. Deviation	N
I did not complete high school	23.0000	7.17452	20
I graduated from high school	34.4130	11.22024	138
I have completed some college work	34.4959	10.16022	1091
I have obtained a college degree	32.7226	10.57044	155
I have completed some graduate work	31.9459	11.07035	37
I have obtained a graduate degree	33.5250	11.42195	40
Total	34.0574	10.41627	1481

Levene's Test of Equality of Error Variances^a

Dependent Variable: overall organ donation attitude

F	df1	df2	Sig.
2.131	5	1475	.059

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+SOCIAL+EDUCATIO

Tests of Between-Subjects Effects

Dependent Variable: overall organ donation attitude

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^a
Corrected Model	6389.460 ^b	6	1064.910	10.180	.000	.040	61.081	1.000
Intercept	191887.595	1	191887.595	1834.391	.000	.554	1834.391	1.000
SOCIAL	3264.464	1	3264.464	31.207	.000	.021	31.207	1.000
EDUCATIO	3399.472	5	679.894	6.500	.000	.022	32.498	.998
Error	154188.662	1474	104.606					
Total	1878399.000	1481						
Corrected Total	160578.122	1480						

a. Computed using alpha = .05

b. R Squared = .040 (Adjusted R Squared = .036)

Hypothesis four predicated that as age increases, organ donation attitudes would become more positive. Results from the analysis of variance can be found in Table 7. The analysis of variance was significant [$F(3, 1478) = 14.75, p < .001$]. The hypothesis, however, was not supported in that as age increased across the four levels, an increase in organ donation attitudes was present for each level except those between the ages 25-34. Though the hypothesis was not supported, the means can be discussed. Though it was expected that organ donation attitudes typically increase with age, one level displayed a decrease in organ donation attitudes. From level one (18-24) to level two (25-34) means fell from 34.5 (SD = 10.4) to 28.9 (SD = 10.6). From level two to level three (35-49) means rose to 35.1 (SD = 9.6). From level three to level four (50 and older) means rose to 36.3 (SD = 8.5).

Table 7, hypothesis 4

Descriptive Statistics

Dependent Variable: overall organ donation attitude

What is your age	Mean	Std. Deviation	N
18-24	34.5342	10.38772	1215
25-34	28.8600	10.57287	150
35-49	35.1268	9.56770	71
50 and older	36.2766	8.50243	47
Total	34.0438	10.45607	1483

Levene's Test of Equality of Error Variances^a

Dependent Variable: overall organ donation attitude

F	df1	df2	Sig.
1.142	3	1479	.331

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+SOCIAL+AGE

Tests of Between-Subjects Effects

Dependent Variable: overall organ donation attitude

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^a
Corrected Model	7771.264 ^b	4	1942.816	18.615	.000	.048	74.461	1.000
Intercept	239501.841	1	239501.841	2294.797	.000	.608	2294.797	1.000
SOCIAL	3130.769	1	3130.769	29.998	.000	.020	29.998	1.000
AGE	4617.656	3	1539.219	14.748	.000	.029	44.244	1.000
Error	154254.887	1478	104.367					
Total	1880797.000	1483						
Corrected Total	162026.151	1482						

a. Computed using alpha = .05

b. R Squared = .048 (Adjusted R Squared = .045)

Chapter Four

Discussion

The current study sought to test the potential effects of the principle of social proof on self-reported attitudes toward organ donation. Where a given public communication campaign designs messages to motivate an audience toward a particular kind of donation behavior, those messages should be examined to highlight information in the messages that gives audience members reasons to not donate. That is, pro-donation messages might work against their goal by providing social evidence that organ donation is a bad choice. For example, if an organ donation campaign message intends to raise awareness of a lack of organ donors in the eligible donor population to motivate the receiver toward some pro-donation behavior, it is a potential outcome that the individual then uses the principle of social proof to judge the donation behavior as socially inappropriate by the number of similar others behaving in a particular way. The result is a message that conveys two pieces of information. First, the message states that the organ donation

situation represents a problem that needs to be resolved. Second, the message states that most people do not donate their organs. The latter message may counter the goal of the former message by allowing an individual audience member to reject the behavior on the grounds that most people find it, for whatever reason, to be an unacceptable choice.

Hypothesis one tested the possible effects of social proof on self-reported attitudes toward organ donation. If social proof influences attitudes, then messages that convey the information that many people hold a positive attitude toward organ donation should lead to higher levels of positive attitudes reported by individuals in that condition as opposed to other conditions. As such, those messages conveying the information that many people hold negative attitudes toward organ donation should lead to lower level of reported positive attitudes toward organ donation. Hypothesis one was constructed on the premise that many current organ donation messages tend to highlight the problem of the organ donation as being, at least to a degree, an issue of insufficient donor numbers. If many people refuse to donate, then messages conveying that information might work against the proposed action of signing an organ donor card or speaking with family members about the donation decision. A receiver of such messages may be able to immediately construct a counter-argument for donating one's organs on the social evidence of many people choosing to not donate.

Though hypothesis one was not supported by a significant statistical test, the means in the two conditions were reported in accordance with hypothesis one's prediction. Those individuals in the message condition stating many similar individuals hold positive attitudes toward organ donation did report more positive attitudes toward organ donation than those individuals in the message condition that stated many similar others hold negative attitudes toward organ donation. The means were, however, very close, which might signify that social information about general attitudes toward organ donation does not affect to any great extent how individuals report their own attitudes toward organ donation. Since hypothesis one was not significant, though, these implications should be explored further if they are to be considered credible statements about the impact of social proof on message reception.

Hypothesis two tested whether or not the manner in which social information is framed might affect reported attitudes toward organ donation when the factual content of the information is held constant between the framed messages. Two messages were constructed that conveyed the same information but that highlighted different social information. The two conditions of concern are the moderate intensity social proof positive message and the moderate intensity social proof negative message. The former states that half of those individuals in the respondent's local area reported positive attitudes toward organ

donation. The latter states that half of those individuals in the respondent's local area reported negative attitudes toward organ donation. Both messages convey the same factual information about the overall attitudes of the respondent's community in that both say the community is split on reported attitudes toward organ donation. The only difference is that one message highlights positive attitudes, while the other highlights negative attitudes. Consider it to be similar to the difference between seeing a cup half-full and a cup half-empty. Both statements are correct. The implication of hypothesis two would have a direct impact on the decision of how best to highlight the need for organ donation. This need has been highlighted by stating the low numbers of donors. Messages can, however, convey information about those who have donated from the perspective of families. The former incorporates information that may be used as social evidence and work against the goal of increasing donation numbers: "No one else is donating, and thus I will not donate." The latter avoids the potential problem of the principle of social proof by more carefully supplying a different type of social evidence: "Families have accepted the donation decision and have benefited from that choice."

If both statements in the two message conditions for hypothesis two convey the same factual information about the respondent's community, then no difference would be expected between the two message

conditions. Hypothesis two, however, assumes that social proof will impact receivers of the two messages differently. Hypothesis two predicted that higher reported attitudes would be associated in the message condition highlighting those members of the respondent's community as having positive attitudes rather than the negative attitudes toward organ donation. Hypothesis two was supported, suggesting that in the initial phase of any public communication campaign practitioners must be aware of how social proof might suggest to a respondent what attitude might be most appropriate to hold. Though no difference existed between the conditions in terms of the information given to the respondents, the respondents' reported attitudes seem to have been affected by the social proof manipulation. One way to further explore how social proof is framed in such statements may be to also include a message that highlights both positive and negative attitude holders. For example, a message that says half of a given population holds one attitude and also that the other half holds the opposite attitude might nullify the effect of social proof. Perhaps, then, organ donation messages could highlight with equal or more attention those individuals who do donate their organs, as well as those families who hold positive attitudes toward organ donation after the individual decision to donate.

Though hypothesis two directly stated a difference would exist between two specific conditions, overall differences between the six

conditions were tested through research question one. Research question one was supported through statistical analysis with a significant result.

Though no significant post hoc tests were found, looking at the means might offer important information as to how such messages might be tested in the future, while keeping in mind the lack of generalizability.

One outcome of note is that though hypothesis two did find a significant difference in regard to the expected direction of the influence of social proof between two messages of equal content, other conditions that should have mirrored those results did not produce the same effect. For example, the high intensity social proof positive message condition conveys the same information as the low intensity social proof negative message condition. The former says most people have positive attitudes toward organ donation, while the latter says almost no one has negative attitudes toward organ donation. Though no difference in means should have been found—while also keeping in mind the difference was not significant—the latter condition displayed a slightly higher mean than did the former. In this case, the only difference between the conditions was highlighted positive attitudes versus negative attitudes. If there were to be a difference, perhaps it could be predicted that the mentioning of positive attitudes would lead to higher reported positive attitudes than mentioning negative attitudes, but this was not the case. Perhaps, then, since one of the messages demonstrated a small portion of the

community as holding a particular attitude, respondents might feel more inclined to not behave in that manner to avoid being in the minority proportion. It might be that when using social evidence, respondents are more inclined to be affected not by what most people do but by how the fewest people act.

An important note about the means associated with each message condition for research question one is that the means were very close. The implication is that if effects were present due to the social proof manipulation, the effects were small. The highest reported mean was associated with the low intensity social proof negative message condition ($M = 35.3$, $SD = 10.3$). The lowest reported mean was associated with the moderate intensity negative message condition ($M = 32.7$, $SD = 11.9$). Social proof did not consistently work as predicted in hypotheses one and two.

One way to better see if social proof had consistent effects would be to look at those messages mentioning positive attitudes and those mentioning negative attitudes in isolation. That is, if social proof is working "across the board" to affect reported attitudes, the means should decrease from high intensity social proof positive condition to the moderate intensity social proof positive condition, with the lowest mean associated with the low intensity social proof positive condition. This was not the case. The higher attitudes were associated with the moderate intensity social proof positive message condition ($M = 35.3$, $SD = 10.1$), with

the high intensity social proof positive following as the second highest of this set ($M = 34.3$), and finally the low intensity social proof positive condition as the lowest mean ($M = 33.3$, $SD = 10.2$).

Examining the three negative message conditions, the same inconsistency was present as had appeared in the positive conditions. Though the highest mean was associated with the low intensity social proof negative condition ($M = 35.3$, $SD = 10.3$), the high intensity social proof negative condition had a higher mean ($M = 33.1$, $SD = 10.2$) than did the moderate intensity social proof negative condition ($M = 32.7$, $SD = 11.9$).

The overall consideration of hypothesis one, hypothesis two, and research question one is that social proof does not function in a direct manner to influence attitudes toward organ donation as tested in the current study. Conclusions drawn about the effects of the principle of social proof from the present patterns should be tentative. Further implications and considerations will be discussed below.

Hypothesis three attempts to add to the proposition grounded in the literature that more positive attitudes toward organ donation will be associated with higher levels of education. Hypothesis three was supported. Education was significantly associated with organ donation attitudes, but the reported means did not wholly follow the pattern suggested by the hypothesis. As the literature had suggested, as

education increased to the point where respondents had completed some college work, organ donation attitudes did increase. The increase across the three conditions was from a reported mean of 23.0 ($SD = 7.17$) in the condition where respondents had not completed high school to a reported mean of 34.4 ($SD = 11.2$) for those completing high school to a reported mean of 34.5 ($SD = 10.2$) for those having completed some college work. It seems to make intuitive sense that people with more education would understand or have the capacity to understand the organ transplantation process better than those with lower levels of education, though education is by no means the only or even most important variable of consideration.

Instead of rising across higher levels of education, results from hypothesis three demonstrated that reported organ donation attitudes were not consistent across the conditions. After the condition of those having completed some college work ($M = 34.5$, $SD = 10.2$), no subsequent condition obtained an equal or higher mean score. Means decreased to 32.7 ($SD = 10.6$) for those having obtained a college degree to 31.9 ($SD = 11.1$) for those having completed some graduate work, to finally rise to 33.5 ($SD = 11.4$) for those having obtained a graduate degree.

Post hoc tests were not significant for education, so the differences discussed cannot be assumed to be generalizable outside the current

sample. The implication of the current results, though, is that the pattern suggested in the literature holds to an extent. A more even distribution of respondents across education levels would need to be acquired in order to raise the generalizability of the results. In the current case, those respondents in the condition of having completed some college work ($N = 1091$) far outnumbered those in other categories. Those not having completed high school ($N = 20$), those having completed some graduate work ($N = 37$), and those having obtained a graduate degree ($N = 40$) had the lowest number of respondents.

In conjunction with hypothesis three, hypothesis four attempted to examine what has been a prevalent pattern in the literature. Organ donation attitudes rise until somewhere between the ages of 40-50 and then decline. The highest attitudes toward organ donation are typically found in individuals between the ages of 30-40. Hypothesis four was supported with significant results, but the pattern displayed by the reported means did not follow the expected trend.

The highest reported attitudes toward organ donation were found in those ages 50 and older ($M = 36.3$, $SD = 8.5$), while the lowest were found in those ages 25-34 ($M = 28.9$, $SD = 10.6$). That such low attitudes would be associated with those ages 25-34 represents an abnormal occurrence in regards to results across the organ donation literature and may be due to the heavily uneven distribution of respondents in the

conditions. Those respondents ages 18-24 ($N = 1215$) far outnumbered those ages 25-34 ($N = 150$), those ages 35-49 ($N = 71$), and those ages 50 and older ($N = 47$).

Social proof seems to have had an effect on reported attitudes toward organ donation. The effect followed the suggested pattern in some cases, and in others it followed an unexpected pattern. To a certain extent, then, it can be said social proof has an effect, but further testing would be necessary to address the specific nature of that influence.

Limitations and Implications

One limitation to the present study was mentioned in the above discussion. In regard to hypothesis three and hypothesis four, respondents per condition were heavily uneven. The failure to produce significant post hoc tests can testify to an extent to the need to have equal or nearly equal numbers of respondents per condition to best have confidence in the generalizability of the results. It is difficult to propose having much knowledge about the attitudes toward organ donation held by individuals who have obtained a graduate degree when the sample size consists of 40 individuals as compared with a sample size of 1091 for those having completed some college work.

A second limitation is that the overall goal was not to propose an explanatory model to combine the effects of social proof with other traditionally established variables like education and age. The reason for this is that the effects of social proof are still uncertain, in that the expected trends did not unfold in the results. Social proof seems to have affected attitudes toward organ donation, but the mechanics of the principle are not yet fully understood.

A third limitation is that the messages constructed, though successfully pretested, should not represent touchstone examples of social proof at work as much as they represent one potential type. To bolster the considerations of the present investigation a thorough content analysis of organ donation messages from many media should be undertaken to conclude what types of social information is being conveyed. If it is determined that the social information that constitutes social proof is not present, then social proof should not be considered in any explanatory or predictive model of organ donation decision-making. Researchers interested in social proof should also produce messages in a more rigorous and controlled fashion to determine if and how social proof functions as an avenue of attitude formation.

A fourth limitation concerns organ donation attitudes. If it is true as some literature suggests that organ donation attitudes have hit a ceiling, that the majority of individuals have a positive view toward organ

donation, and that donation rates are still low, then perhaps a reevaluation of the role of organ donation attitudes must take place. A need exists to further examine how attitudes toward organ donation are related to actual donation behavior. Scholars, researchers, and health professionals must be confident that the manner in which attitudes are used to study or understand organ donation must speak to measurable behaviors. Perhaps it has been the case the studies have used global or general attitudes toward the organ donation process when those attitudes toward the individual actually donating should be the issue of greatest concern. A global attitude concerns how someone feels generally about an attitude object, and an example would concern how a person feels about organ donation as a positive or negative medical option. A specific attitude toward organ donation would concern how the individual feels about the possibility she or he will actually donate their own organs. As such, global attitudes toward organ donation may offer little benefit to the study donor behavior.

If attitudes toward organ donation are to be used in the study of donation behavior, one important implication for future research concerns how these attitudes are formed. The principle of social proof, being more a heuristic than systematic manner of processing, seems more likely to function if attitudes toward organ donation are formed in real-time—on the spot—as opposed to being something formed through

repeated exploration or exposure thus stored in memory. If organ donation attitudes are formed more in the moment than constructed over time, then the case for social proof will be strengthened. The assumption is that social evidence present in a given health communication campaign will appear less relevant to someone invested in the process of organ donation attitude formation who processes the information in a more systematic fashion.

In regard to further consideration of how variables such as age and education are related to attitudes toward organ donation, researchers should not dismiss their value. This should especially be the case since those individuals who are most likely to die in situations where the organs are retrievable tend to be young. Therefore, it makes intuitive sense that those are the individuals who should be targeted by campaigns in order to increase their individual awareness and acceptance of organ donation, as well as to motivate them to speak with family members and loved ones.

As a variable, education needs to be better understood, not from the perspective of a general demographic profile of a donor but from the perspective that particular types of education may play different roles. For example, it has been the norm in organ donation scholarship to use a general measure of education in explanatory models. A general measure of education does not, however, speak to someone's knowledge about

the organ donation process and the potential false beliefs the individual may hold. A highly educated individual may have a total unwillingness to donate her or his own organs based on a myriad of myths held by the public. For example, the highly educated individual may believe that being an organ donor will necessarily lead to the organ donor receiving a lower standard of health care in order to obtain the needed organs.

The overarching need in terms of organ donation research is a more comprehensive explanatory model as opposed to the myriad of approaches available. In part this entails a deeper grounding of the basic questions like where do individuals receive their information about the organ donation process? Though much research has been completed to date, no summation has taken place to provide guiding principles for what has shown promising results and what has not. To be sure, organ donation is a complicated issue, and examinations will often approach the subject from diverse vantage points. Such examinations should still learn from the past twenty years what has shown promise and what has proven ineffective.

Conclusion

The decision to become an organ donor and to speak with important social others like family and friends about organ donation issues and decisions represents a potentially complex process. The process is

complex both from the perspective of the potential donor and also from the perspective of the scholar, researcher, and health professional. It should not be assumed that one variable or one avenue of influence will best explain or predict donation behaviors. Constructing an explanatory or predictive model must, however, begin with manageable variables in controlled situations. Though a more rigorous testing of the principle of social proof must be established, the present results suggest that it does have the potential to affect the attitudes an individual holds about organ donation.

If organ donation attitudes are formed in the moment as opposed to being something well established in an individual's mind, then the use of social evidence as proposed by the principle of social proof may very well signal an important avenue of research. Social proof may supply an individual with arguments against pro-donation behavior. Still, social proof presumably does not work in isolation from other important variables like age and education, and as such, calls for further attention.

The hope of any investigation into organ donation is to eventually produce information that can be used to stimulate higher donation rates. If social proof functions in health communication campaign messages, then controlling for that influence should be a major concern for a concerned professional.

Appendix A Organ Donation Messages

High intensity social proof negative message: In recent years, organ donation has been the subject of much research. I am interested in your views on the topic. One major problem with the success of organ donation is that people are unwilling to donate their organs. When it comes time to make a decision about one's own body or the body of a loved one, most people see it as a bad choice. A recent Gallup poll determined that almost all Americans have negative views on organ donation. Also, they feel it to be a burden on the health care system. In a recent survey of the Ohio community, almost all of those asked shared these attitudes.

Please take the time to share your attitudes about organ donation. The responses are anonymous. Inquiries can be sent to me at the address below.

High intensity social proof positive message: In recent years, organ donation has been the subject of much research. I am interested in your views on the topic. A recent Gallup poll determined that almost all Americans have positive views on organ donation and feel it is not a burden on the health care system. In a recent survey of the Ohio community, almost all of those asked shared that attitude.

Please take the time to share your attitudes about organ donation. The responses are anonymous. Inquiries can be sent to me at the address below.

Moderate intensity social proof negative message: In recent years, organ donation has been the subject of much research. I am interested in your views on the topic. A recent Gallup poll determined that about half of all Americans have negative views on organ donation and feel it is a burden on the health care system. In a recent survey of the Ohio community, the division of opinions about organ donation was the same. Half the people have negative views on organ donations.

Please take the time to share your attitudes about organ donation. The responses are anonymous. Inquiries can be sent to me at the address below.

Moderate intensity social proof positive message: In recent years, organ donation has been the subject of much research. I am interested in your views on the topic. A recent Gallup poll determined that about half of all Americans have positive views on organ donation and feel it is not a burden on the health care system. In a recent survey of the Ohio community, the division of opinions about organ donation was the same. Half the people have positive views on organ donation.

Please take the time to share your attitudes about organ donation. The responses are anonymous. Inquiries can be sent to me at the address below.

Low intensity social proof negative message: In recent years, organ donation has been the subject of much research. I am interested in your views on the topic. A recent Gallup poll determined that almost none of those asked across America had negative views on organ donation or feel it is a burden on the health care system. A recent survey of the Ohio community showed very similar results. Practically no one had negative views toward organ donation.

Please take the time to share your attitudes about organ donation. The responses are anonymous. Inquiries can be sent to me at the address below.

Low intensity social proof positive message: In recent years, organ donation has been the subject of much research. I am interested in your views on the topic. One major problem with the success of organ donation is that people are unwilling to donate their organs. When it comes time to make a decision about one's own body or the body of a loved one, most people do not have positive views on organ donation. A recent Gallup poll determined that almost none of those asked across America had positive views on organ donation and feel it is not a burden on the health care system. A recent survey of the Ohio community showed very similar results. Practically no one had positive views toward organ donation.

Please take the time to share your attitudes about organ donation. The responses are anonymous. Inquiries can be sent to me at the address below.

Appendix B Organ Donation Survey

1. I support the idea of organ donation for transplantation purposes.

strongly disagree ___ ___ ___ ___ ___ ___ strongly agree

2. I view organ donation as a negative procedure.

strongly disagree ___ ___ ___ ___ ___ ___ strongly agree

3. There have been times when I felt like rebelling against people in authority even though I knew they were right.

strongly disagree disagree not sure agree strongly agree

4. I believe that organ donation is an act of compassion.

strongly disagree ___ ___ ___ ___ ___ ___ strongly agree

5. There have been occasions when I took advantage of someone.

strongly disagree disagree not sure agree strongly agree

6. I believe that organ donation is an unselfish act.

strongly disagree ___ ___ ___ ___ ___ ___ strongly agree

7. I see organ donation as a natural way to prolong life.

strongly disagree ___ ___ ___ ___ ___ ___ strongly agree

8. I sometimes try to get even, rather than forgive and forget.

strongly disagree disagree not sure agree strongly agree

9. I view organ donation as a benefit to humanity.

strongly disagree ___ ___ ___ ___ ___ ___ strongly agree

10. Organ donation is important to me.

strongly disagree ___ ___ ___ ___ ___ ___ strongly agree

11. I am always courteous, even to people who are disagreeable.

strongly disagree disagree not sure agree strongly agree

12. Donating a loved one's organs upon death would bring meaning to an otherwise tragic experience.

strongly disagree ___ ___ ___ ___ ___ ___ strongly agree

13. What is your age?

(a.) 18-24 (b.) 25-34 (c.) 35-49 (d.) 50 and older

14. What is your gender? female male

15. What best describes your educational situation?

(a.) I did not complete high school (b.) I graduated from high school
(c.) I have completed some college course work (d.) I have obtained a college degree
(e.) I have completed some graduate work (f.) I have obtained a graduate degree

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Institution	Major	Degree	Date
University of Dayton	Communication	M.A.	2006
Iowa State University	English	M.A.	2002
University of South Alabama	English	B.A.	1999

PROFESSIONAL EXPERIENCE

2002- Present	Teaching Assistant with extended duties as a Research Assistant
	University of Dayton Courses: CMM 351: The Art of Public Speaking CMM 322: Interviewing for Communication and Business CMM 202: Foundations of Communication Theory and Research CMM 113: Interviewing CMM 112: Persuasive Public Speaking CMM 111: Informative Public Speaking CMM 110: Group Decision Making
2000-2002	Teaching Assistant
	Iowa State University Courses: Sp Cm 212: Introduction to Public Speaking

PROFESSIONAL SERVICE

Editorial and Reviewer Responsibilities:

Reviewer, *Health Communication* (2006-present)

Assistant Editor, *Health Communication* (2002-2006)

Submissions Editor (poetry), *Sketch* (2001-2002)

Submissions Editor, *Negative Capability* (1998-1999)

University of Dayton Service and Administration:

Graduate Representative to the Academic Senate (2004-2005)

Member, Executive Committee to the Academic Senate (2004-2005)

Awards:

Outstanding Teaching Award, International Communication Association, June 2004

Teaching Excellence Award, Iowa State University, May 2002

Organizational Membership:

Popular Culture Association

PUBLICATIONS AND PAPERS

Book Chapters:

Thompson, T.L., Pecchioni, L., & Anderson, D.J. (in press). Family communication and health. In L. Turner & R. West (Eds.), *Sourcebook in family communication*. Thousand Oaks, CA: Sage.

Thompson, T.L., Robinson, J.D., Anderson, D.J., & Federowicz, M. (in press). Health communication: Where have we been and where can we go? In K. Wright & S. Moore (Eds.), *Applied health communication: A sourcebook*. Cresskill, NJ: Hampton Press.

Convention Papers:

Anderson, D. J. (2006, April). *Toward the Idea of Accountability in Heroic Action: Considering the post-9/11 Superhero in the Context of U.S. Governmental (Ab)uses of Power*. Paper presented at the Joint Conference of the National Popular Culture and American Culture Associations, Atlanta.

Anderson, D.J. (2005, November). *Social Proof and organ donation messages*. Paper presented at the Annual Convention of the National Communication Association, Boston.

Thompson, T. L., Robinson, J. D., Anderson, D. J., & Federowicz, M. (2006, May). *"Be a hero to my kids!" Gender differences in response to male vs. female and narrative vs. rational organ donation profiles*. Paper presented at the Annual Conference of the International Communication Association, New York.

Thompson, T.L., Robinson, J.D., King, A., Anderson, D.J., Moss, T., Dafler, J., Wiget, N., & Benac, C. (2005, May). *Responses of men and women to organ donation messages: Applications of Frame Analysis and Standpoint Theory*. Paper presented at the Annual Convention of the International Communication Association, New York.

Thompson, T.L., Robinson, J.D., King, A., Anderson, D.J., Moss, T., Dafler, J., Wiget, N., & Benac, C. (2004, June). *Evaluating the responses of women and men to various organ donation messages: An exploration of Frame Analysis and Standpoint Theory*. Paper presented at the International Conference on Languages and Social Psychology, Penn State University.

Thompson, T.L., Robinson, J.D., & Anderson, D.J. (2004, May). *Motivations for and responses to organ donation messages*. Paper presented at the Annual Convention of the International Communication Association, San Diego.

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