ORGAN DONATION, ARE YOU IN?

The persuasiveness of message framing and evidence types in messages

Master Thesis Communication Studies

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SUMMERY

In today's society there is still a considerable lack of organ donors. Too many people are waitlisted compared to the amount of donors available. Although, an increase in public information and awareness about organ donation could enhance the registry participation, little research is conducted about effective communication towards potential donors.

This study investigated the effectiveness of messages in order to persuade people to register as organ donor. A 2(message framing: positive versus negative) x 2(evidence type: statistical versus narrative) x 2(registration status: registered versus not registered) between subjects design was used. To investigate the effectiveness of messages, four differently manipulated versions of a message regarding organ donation were evaluated by 248 respondents. An online questionnaire randomly showed one of these four messages. After reading the message the attitude towards donor registration, the attitude towards the message, the willingness to donate and the emotions anxiety, moral obligation and guilt were measured.

The hypotheses were that negative message framing was more effective than positive message framing, and narrative evidence was more effective than statistical evidence in concerning the dependent variables. Only one significant result was found for message framing. As expected, a negative frame was more effective to enhance the attitude towards organ donation than a positive frame. Furthermore, evidence types had no effect on all dependent variables. Hence, no conclusions can be drawn as to whether statistical or narrative evidence is more persuasive to enhance the registry participation. Significant results for registration status showed that participants who were already registered as organ donor had a more positive attitude towards organ donation, felt les anxious of the consequences of organ donation, felt a higher level of moral obligation and felt less guilty than participants who were not registered. Moreover, a three way interaction effect was found for *message framing x evidence types x registration status*; positive framing combined with narrative evidence seemed to be most effective to enhance the attitude towards the message. However, this interaction effect was difficult to interpret and the conclusion cannot be determined with certainty.

These findings offer insights into the influences of message framing and evidence types in persuasive messages, which could help Dutch organizations committed to organ donation to create effective communication expressions and campaigns to enhance the registry participation.

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INTRODUCTION

This study investigates the effectiveness of messages and will be carried out in the domain of organ donation consent. There is still a considerable lack of organ donors. In the Netherlands each year about 1300 people are waitlisted for donor transplantation, while only 250 organ donors are available (Transplantatiestichting, 2013). Although an increase in public information and awareness about organ donation will likely lead to a rise in the consent of organ donation, little research is conducted about how to communicate to potential donors in order to improve the willingness to donate (Studts et al., 2010). Instead, most studies focused on demographic and psychological information of people related to organ donation (Weber et al., 2006).

People are often exposed to messages in order to persuade them to act or behave in a certain way. In order to make these messages as effective as possible, these messages are often manipulated or framed in a specific way. For instance, a message can be framed positively or negatively or may contain evidence types. Many studies are conducted to investigate when a message is most effective, but despite these studies there is still no clear answer to this question. This study will investigate when a message is most effective with reference to message framing (positive versus negative) and evidence types (narrative versus statistical).

So far, three studies have been conducted to investigate effective communication in this domain. Kopfman et al. (1998) investigated the affective reaction to messages with either statistical evidence or narrative evidence and found both evidence types seemed to have the ability to increase the attitude towards organ donation and the intention to donate. More recent studies showed that narrative evidence is more effective than statistical evidence (Weber et al., 2006; Studts et al., 2010). In the area of message framing and organ donation no research has been conducted for as for as we know. However, generally a lot of research is done in the field of message framing and evidence types, but due to the fact that each study applied and interpreted these theories in different ways, there are very divergent results which are difficult to compare and apply to other topics. Thus, due to the lack of research in this field, it is very important to investigate how to communicate effectively towards (potential) organ donors, in order to improve campaigns and communication expressions which would likely increase registry participation (Studts et al., 2010).

To investigate the effectiveness of messages, messages will be manipulated with reference to positive and negative message framing and narrative and statistical evidence. This lead to a 2x2 research design. By manipulating these messages, the attitude towards donor registration, the

attitude towards the message, the willingness to donate and the emotions of anxiety, moral obligation and guilt will be measured. This lead to the following research question:

> **RQ:** To what extent are manipulated messages, with reference to message framing and evidence types, effective in persuading people to consent to organ donation?

The purpose of this study is to find out which message frame, which evidence type, and which combination of these two manipulation factors is most effective to enhance the registry participation of organ donors.

1 THEORETICAL FRAMEWORK

1.1 Framing

Framing is a concept which is commonly used in the field of marketing and communication (Chang & Lee, 2009). It is used to approach consumers in an effective way. According to Chong and Druckman (2007) framing in communication is important, because it affects the attitudes and behaviours of the consumers. Moreover, it can significantly influence judgements and decisions of consumers (Levin, Schneider & Gaeth, 1998; Ganzach & Karsahi, 1995). Framing can be described as a message which can be presented in various ways, without changing the information of the message. Thus, framing is the context in which information is presented (Donovan & Jalleh, 1999). Chong and Druckman (2007) described the framing theory as an "issue that can be viewed from a variety of perspectives and be construed as having implications for multiple values or considerations" (p. 104). Framing can indicate two outcomes of decision makers, it can indicate an outcome of positive or gain terms, or an outcome in negative or loss terms (Donovan & Jalleh, 1999).

1.2 Framing manipulations

There are different ways to frame messages. Levin et al. (1998) made a distinction between three various types of valence framing effects. Basically, valence framing presents the same information in a positive or a negative way (Kahneman & Tversky, 1979). For instance; 80 percent of the students passed the exam (positive), or 20 percent of the students failed the exam (negative). The three types Levin et al. (1998) distinguished are risky choice framing, attribute framing and goal framing.

Risky Choice Framing

The first manipulation is risky choice framing, which can be labelled as the standard framing effect (Levin et al., 1998). Instead of framing a message positively or negatively, it can be explained in terms of risky and riskless framing. This is also called the "Asian disease problem" by Tversky and Kahneman (1981). This theory implies that positive and negative framing can influence the choice between a risky and riskless choice option, while the consequences of these options are equal. Tversky and Kahneman (1981) found that people are more likely to choose the safe outcome when messages are framed positively (eg. lives saved), whereas people are more likely to choose the risky option when messages are framed negatively (eg. lives lost). This type of framing emphasizes the degree of risk in a message. When messages are framed negatively people tend to take more risk compared to positively framed messages. This phenomenon is called "choice reversal" or "risky shift" and can be explained by the prospect theory of Tversky and Kahneman (1979). This theory states that the decision-making of people will be influenced when risk is involved in the framing process and thus the behaviour of people is not always rational. Moreover, it explains that people are risk

averse; losses seem to have a larger impact than gains (Tversky & Kahneman, 1991). This can be related to the "choice reversal" as well. For example a loss of 20 Euros has a larger impact than a gain of 20 Euros.

Attribute Framing

Attribute framing is the simplest form of framing and emphasizes the characteristics of an object or event (Levin et al., 1998). Here, a key attribute of an object or event will be framed in a positive or negative way (Levin et al., 2002). The framing effect occurred using attribute framing is the evaluation of the object or event which can be either positive or negative. Positive framing mostly elicit positive evaluations instead of negative framing which mostly elicits negative evaluations (Levin et al., 1998). Thus, attribute framing involves the favourability or unfavourability of an object or event and thus the evaluation of accepting or rejecting an object or event (Levin et al., 1988). An example of attribute framing is the study of Levin and Gaeth (1988) where ground beef was labelled as 75% lean or 25% fat. They found the positively labelled beef (75% lean) was evaluated more favourably than the negatively labelled beef.

Goal framing

Goal framing is a third type of framing, in which the goal is framed to enhance a certain behavior or act to achieve a particular goal (Levin et al., 1998). The impact of the framing depends on whether it emphasizes the positive or negative consequences of performing a certain behavior. The positive frame emphasizes the positive consequences, while the negative frame emphasizes the negative consequences. It is important that both framing options stress the same end result. Levin et al. (1998) conclude that in most cases the negative frame is more persuasive than the positive frame. An explanation of this outcome could be due to the negativity bias, which will be explained later in this paragraph. For example, a study of Meyerowitz and Chaiken (1987) showed that presenting the negative consequences of not performing breast self-examination (BSE) is more effective than presenting the positive consequences of performing BSE, in order to stimulate women to apply BSE.

Goal framing is the type of framing which fits best with the current study regarding organ donation registration. In this current study the negative and positive consequences of organ donation will be emphasized to influence the end behaviour of the respondents; the intention to register for organ donation. This corresponds to the major assumptions of goal framing as described in the paragraph above. The question is whether a positive or a negative frame is most effective to enhance or change the behaviour to achieve the goal of donor registration.

1.3 Positive or negative

To persuade people to register for donor registration, messages can be framed either negatively or

positively enhancing the same goal. Many studies focused on framing effects and investigated whether positively or negatively framed messages are more persuasive. The results are contradictory and are very diverse. A study of Rothman et al. (1993) examined the behaviour of people on the influence of message framing to improve health behavior and to prevent skin cancer. This research showed that women who read positively framed texts were more likely to request sunscreen with an appropriate sun protection than women who read negatively framed texts. Further research of Detweiler et al. (1999) to stimulate the use of sunscreen showed similar results; gain-fraimed messages were more likely to persuade than loss-framed messages. The study of Gallagher and Updegraff (2012) of health message framing effects showed that gain-framed messages were significantly more likely to promote prevention behaviour than loss-framed messages. In addition, Levin and Gaeth (1988) found that a product which is labelled positively (75% lean beaf) elicited more positive attitudes toward the beef than a product which is labelled negatively (25% fat beef).

In contrast, Meyerowitz and Chaiken (1987) stated in their study of the attitude toward breast self-examination (BSE) that a negatively framed message of not performing BSE is more persuasive than a message which is positively framed and emphasizes the positive consequences of BSE. In addition, Banks et al. (1995) found that a negatively framed message is more persuasive for women to encourage to have a mammography screening. In a study of Ganzach and Karsahi (1995) of the buying behaviour with a credit card, negative framing was found to be more persuasive; results showed that the loss condition leads to a significant higher amount of credit card users. Homer and Yoon (1992) found similar results in their study. These studies are all examples of goal framing studies (Levin et al., table 4, 1998). It is noteworthy that the majority of these studies focusing on goal framing found negative framing more persuasive than positive framing (Levin et al., table 4, 1998). More recent studies showed similar results. Chang and Lee (2009) found advertising is more effective when messages are framed negative. Besides effective persuasion, Hilbig (2012) indicate that negative framing enhance higher truth judgements as well. Mann, Sherman and Updegraff (2004) examined the congruency hypothesis on flossing behavior and found that negatively framed messages are more effective to avoidance oriented people and positively framed messages are more effective to approach oriented people. Thus, besides studies which showed positive or negative framing is most effective, other studies showed a link between the way of framing and personal traits of the receiver (Mann, Sherman and Updegraff, 2004; Keller, Lipkus & Rimer, 2003).

Explanation of Persuasiveness; Negativity Bias
There are several explanations for the persuasiveness of negatively framed messages. A commonly used explanation is the negativity bias, which is discussed in various studies (i.a.: Levin et al., 1998;

Meyerowitz & Chaiken, 1987). According to Peeters and Czapinski (1990) the negativity effect can be defined "as a greater impact of evaluatively negative than of equally intense positive stimuli on a subject" (p. 33). This means that negative stimuli compared to positive stimuli have more influence on cognition, affect and behaviour and causes more emotional and social responses (Taylor, 1991; Hilbig, 2009). Thus, the negative frame has more impact than the positive frame according to the negativity bias. The negativity bias can be related to the prospect theory of Tversky and Kahneman (1979), who stated that losses seem to be larger than gains.

The results from previous studies shows that it is hard to find an unequivocal answer whether negative or positive framing is more effective and persuasive. An explanation of the various results of previous studies could be due to the fact that each study investigated message framing within its own topic and with a different target group. In the field of organ donation, so far, no research has been conducted regarding message framing to enhance the effectiveness of messages on donor consent. Therefore, it is important to investigate what is most effective regarding message framing to enhance registration to become a potential donor.

Based on the explanation of the negativity bias and the literature of Levin et al. (1998) which shows that goal framing generally is more effective when messages are framed negatively, the following hypotheses are drawn:

> H1: Negatively framed messages will be more effective than positively framed messages to enhance the attitude towards the presented message.

> H2: Negatively framed messages will be more effective than positively framed messages to enhance the attitude towards organ donation.

> H3: Negatively framed messages will be more effective than positively framed messages to enhance the willingness to donate.

1.4 Message framing and emotions

Message framing could affect people's emotions, Chang and Lee (2009) stated that negatively framed messages can respond to the feelings of people who read the message. These messages often evoke emotions such as guilt, sympathy, consciousness and self-relevance; emotions which emphasize negative outcomes (Chang & Lee, 2009). These feelings can ensure a need for information which reflects the motivation of people to process the message. This need for information is also called an interacting state (Chang & Lee, 2009). Thus, showing negative consequences may increase

the feeling of guilt, consciousness or other emotions which emphasize negative outcomes, and can lead to concerning about loss aversion. This implies that donors may give to avoid negative affective outcomes.

Thus, (negative) message framing could evoke emotions which emphasize negative outcomes. However, the topic organ donation may affect emotions as well. Sanner (1997) reported an overview of anti-donation factors and pro-donation factors. This overview distinguishes negative and positive motives of people to register for organ donation. In this overview altruism is the most important factor for people to register. In addition, Horton and Horton (1991) stated that altruism seems to be an aspect for people to register for organ donation too. To measure altruism, the term moral obligation will be used in this study. According to Haines et al. (2008) moral obligation is "a decision-making sub-process that occurs after an individual makes a moral judgment and prior to establishing a moral intention" (p. 391). In addition, Darwall (2010) mentioned that moral obligation is related to moral responsibility and answerability people have to each other. Factors deterring donation mostly include death anxiety and fear of chaos (Sanner, 1997). The study of Sanner (1994) showed that anxiety is highly associated with the topic organ donation. Reasons for anxiety could include being afraid of being declared death too soon or distrust of the medical system. Thus, anxiety could deter the willingness to donate. The emotion guilt could affect the willingness to register as well. Horton and Horton (1991) stated that guilt is one of the characteristics of people which may contribute to the willingness to register for organ donation. Despite the fact that guilt could affect the willingness to register, little is known about the emotion guilt in the field of organ donation. With regard to the emotions message framing and the topic organ donation could evoke, this study assumed that a combination of message framing and organ donation could evoke the emotions altruism (moral obligation), anxiety, and guilt.

Overall, several studies found emotions regarding message framing and organ donation which can affect the willingness to register for organ donation. Altruism (moral obligation) is a pro-donation factor, because altruism is a reason for people to consent to organ donation (Sanner, 1997). Guilt is a pro-donation factor as well, because people want to avoid feeling guilty. In contrast, anxiety is an anti-donation factor (Sanner, 1997), because this emotion withholds people to consent to organ donation. Based on the information of these emotions, which are associated with organ donation and could affect the willingness to donate, the following hypotheses are drawn:

> H4a: Negatively framed messages evoke a greater level of moral obligation than positively framed messages.

H4b: Negatively framed messages evoke a greater level of guilt than positively framed messages.

H4c: Negatively framed messages evoke a greater level of anxiety than negatively framed messages.

1.5 Evidence types

Thus far, it has been argued that message framing can affect the persuasiveness of messages. In the field of organ donation, a negative frame seemed to be most effective to enhance the persuasiveness of messages. Moreover, it is also possible to evaluate the effectiveness of messages by means of evidence types. Using evidence is a manner to persuade consumers. Allen and Preiss (1997) provide a description of evidence: "Evidence provides the supporting material(proof) that asks the message receiver to accept the conclusions of the communicator" (p. 125). Thus, evidence types are used to support messages by means of using proof. Two evidence types which are commonly used in previous research are statistical evidence and narrative evidence (Allen et al., 2000; Allen & Preiss, 1997). Statistical evidence contains the use of quantitative information (Allen et al., 2000), it is a numerical abstract of a number of cases or examples (Rieke & Sillars, 1984). Narrative evidence contains the use of case stories and examples to support a message (Allen et al., 2000) and it includes a specific case or example (Rieke & Sillars, 1984).

1.6 Narrative or statistical

Statistical evidence and narrative evidence are often compared to investigate which evidence type is more persuasive. Studies in the 70's and 80's showed that narrative evidence is more persuasive, to support this claim, Kopfman et al. (1998) mentioned several studies with this finding (Harte, 1976; Koballa, 1986; Nisbett & Ross, 1980; Sherer & Rogers, 1984; Taylor & Thompson, 1982). In contrast, Allen and Preiss (1997) found that using statistical evidence in messages is more persuasive than narrative evidence. In their meta-analysis they compared messages including statistical and narrative evidence across 15 investigations (Allen and Preiss, 1997). More studies in the 90's and more recent studies stated that statistical evidence is more persuasive than narrative evidence as well (Baesler, 1991; Baesler & Burgoon, 1994; Allen et al., 2000; Hoeken & Hustinx, 2002; Hoeken & Hustinx, 2009). Thus, recent studies showed that statistical evidence is more effective than narrative evidence. An explanation for the effectiveness of statistical evidence may be due to the large sample of statistical information; statistical evidence contains a high number of sample sizes to support a claim, in contrast to narrative evidence which generally uses the opinion of one individual (Baesler & Burgoon, 1994). Baesler and Burgoon (1994) stated that "sample size could operate as a heuristic favouring the

persuasiveness of statistics because a claim based on a large sample should have more of an impact than an identical claim based on a small sample" (p. 584).

1.7 Evidence types and organ donation

The above mentioned studies have not been conducted in the field of organ donation and are therefore not directly applicable to the current study. In the domain of organ donation little research has been carried out to investigate whether messages including narrative or statistical evidence are more effective to persuade people to consent to organ donation. Most studies focused on demographic and psychological information and the attitude towards organ donation (Weber et al., 2006). A study carried out by Kopfman et al. (1998) investigated the affective reaction to messages with either statistical evidence and narrative evidence in the field of organ donation. Both evidence types seemed to have the ability to increase the attitudes and the intention to donate organs (Kopfman et al., 1998). Recently, researchers have shown the opposite. Weber et al. (2006) examined the persuasiveness of messages in order to enhance donor consent. They found narrative messages seemed to be more effective than statistical messages to allow people to sign an organ donor card. Furthermore, they indicated messages containing humour were more effective than messages including a sad tone of voice. In addition, Studts et al. (2010) compared emotional appeals to rational appeals to investigate which approach is most effective to persuade people to register for the National Marrow Donor Program (NMDP). An emotional appeal significantly led to a higher rate of individuals who agreed to register for the NMDP than individuals who received a rational appeal (Studts et al., 2010). The rational appeal in the study of Studts et al. (2010) emphasized statistical information, whereas the emotional appeal contained a narrative story, and hence, these appeals correspond to statistical and narrative evidence described in this paragraph.

The findings of previous studies are overall inconclusive. There are several explanations to clarify the divergent results of studies examining the effectiveness of evidence types. Visser (2012) argued the factors argument type, length of the text and vividness as factors that may influence the effectiveness of statistical and narrative evidence. A study of Hoeken and Hustinx (2009) demonstrated that the argument type seemed to affect the persuasiveness of evidence types. They stated that statistical evidence is more persuasive than narrative evidence when an argument by generalization is involved. Narrative evidence seemed to be more persuasive when a message is advocated by an argument by analogy (Hoeken & Hustinx, 2009). Meuffels and Schulz (2011) stated that the length of the text is of importance regarding the persuasiveness. They argue that narrative evidence generally needs more words than statistical evidence to say the same thing. This could clarify the difference of the persuasiveness, because a longer text may contain more arguments and

more arguments can lead to a more persuasive message (Meuffels & Schulz, 2011). The third aspect is vividness. Visser (2012) stated that the persuasiveness of narrative messages can be due to the vividness and anecdotes of narrative messages, in contrast to statistical evidence.

As cited in Visser (2012), Nisbett and Ross (1980) defined vividness as "information that's emotionally interesting, concrete and imagery provoking, proximate in a sensory, temporal or spatial way" (p. 45). Visser (2012) mentioned that Nisbett and Ross (1980) distinguish different determinants of vividness; concreteness, proximity and emotional interestingness. They stated that messages including these determinants are vivid. Thus, there are different factors which can affect the persuasiveness of the evidence types. With regard to the inconsistent results, Reynolds and Reynolds (2002) stated that the use of evidence types needs to be weighed within a broader context; it is not possible to use a similar application of evidence types in any situation. Messages should be designed according to the specific topic, situation and audience (Reynolds & Reynolds, 2002; Weber et al., 2006)

Although recent studies stated that messages including statistical evidence are more persuasive than messages including narrative evidence, these results are not applicable to the topic of this study. Therefore this study assumes that narrative evidence is more persuasive than statistical evidence. This assumption is strengthened by the findings of the studies carried out in the field of organ donation (Weber et al., 2006; Studts et al., 2010) and the explanation of vividness to clarify the effectiveness of narrative evidence. Given these theoretical support the following hypothesis is drawn:

> H5: Messages containing narrative evidence will be more effective than messages containing statistical evidence to enhance the attitude towards the presented message.

> H6: Messages containing narrative evidence will be more effective than messages containing statistical evidence to enhance the attitude towards organ donation.

> H7: Messages containing narrative evidence will be more effective than messages containing statistical evidence to enhance the willingness to donate.

1.8 Evidence types and emotions
As mentioned in the previous paragraph, narrative evidence is often related to vividness. Tayler and Thompson (1982) stated that vivid information is considered as impactful and persuasive. In their

study towards the effect of vividness, they found information that presented vividly as more persuasive than non vivid information (Tayler & Thompson, 1982). An explanation of this finding is that narrative messages are generally more concrete, imaginary and emotional interesting (Baesler & Burgoon, 1994; Nisbett & Ross, 1980; Taylor & Thompson, 1982). Furthermore, vivid information could evoke an emotional response to the receiver (Taylor & Thompson, 1982). In contrast to statistical messages, which are generally more abstract and contains a number of cases to support a claim (Rieke & Sillars, 1984; Baesler & Burgoon, 1994). Here, vivid information, such as narrative messages, is more persuasive and could evoke a higher level of emotions than statistical evidence.

Here, the same applies as for message framing; not only the manipulation factor of a message could evoke emotions, but the topic organ donation could evoke emotions as well. As discussed in the paragraph of message framing and emotions, the emotions altruism (moral obligation), anxiety and guilt are related and associated to the topic organ donation. These emotions will be investigated in this current study. Strengthened by the theory of vividness, the expectation is that narrative evidence is more persuasive than statistical evidence and that narrative evidence evoke a higher level of emotions than statistical evidence as well.

> H8a: Messages containing narrative evidence evoke a greater level of anxiety than messages containing narrative evidence.

> H8b: Messages containing narrative evidence evoke a greater level of moral obligation than messages containing statistical evidence.

> H8c: Messages containing narrative evidence evoke a greater level of guilt than messages containing statistical evidence.

1.9 Interaction effects between message framing & evidence types

This study combines message framing and evidence types in messages to investigate which manipulation is most effective. Little research has been conducted concerning this combination. Meuffels and Schulz (2011) combined anecdotic and statistical evidence with gain- and loss framing in their research to enhance campaigns for convincing women to participate into preventive breast cancer screening. They found anecdotal messages are more comprehensible than statistical messages. Even though no significant differences were found for persuasiveness, anecdotal evidence seemed to be more persuasive than statistical evidence (Meuffels & Schulz, 2011). Unfortunately, they found no significant effects for evidence types combined with gain- and loss framing. Another research which combined message framing and evidence types is the study of Das et al. (2008), who

investigated the effectiveness of fundraising messages. They found statistical information combined with a negative frame is most effective, in contrast to narrative information, which was found to be most effective combined with a positive frame (Das et al., 2008). Chang and Lee (2009) stated in their study about message framing towards charity advertising that it is interesting to investigate manipulations of vivid and statistical information. The current study will investigate this combination in the field of organ donation. In the domain of organ donation, the combination of message framing and evidence types has never been investigated, to our knowledge.

The main effects expected in this study (negative framing and narrative evidence) are contrary to the findings in the study of Das et al. (2008), who showed that statistical evidence combined with negative framing, and narrative evidence combined with positive framing is most effective. Due to this contrast and the lack of research in this field, it is impossible to draw expectations of which combination of message framing and evidence type is most effective. Since no assumptions can be made, the following question arises: which combination of message framing and evidence type will be most effective? This study will investigate this question.

1.10 Research model

This study focuses on the effectiveness of messages manipulated by message framing and evidence types. A 2(message framing: positive versus negative) x 2(evidence types: statistical versus narrative) research design is used. One message will be manipulated regarding these manipulation factors, this results into four different versions of this message. The dependent variables are: attitude towards the message; attitude towards organ donation, willingness to donate and the emotions guilt, moral obligation and anxiety. Based on the theory, a research model is developed (see Figure 1).

Figure 1. Research model.
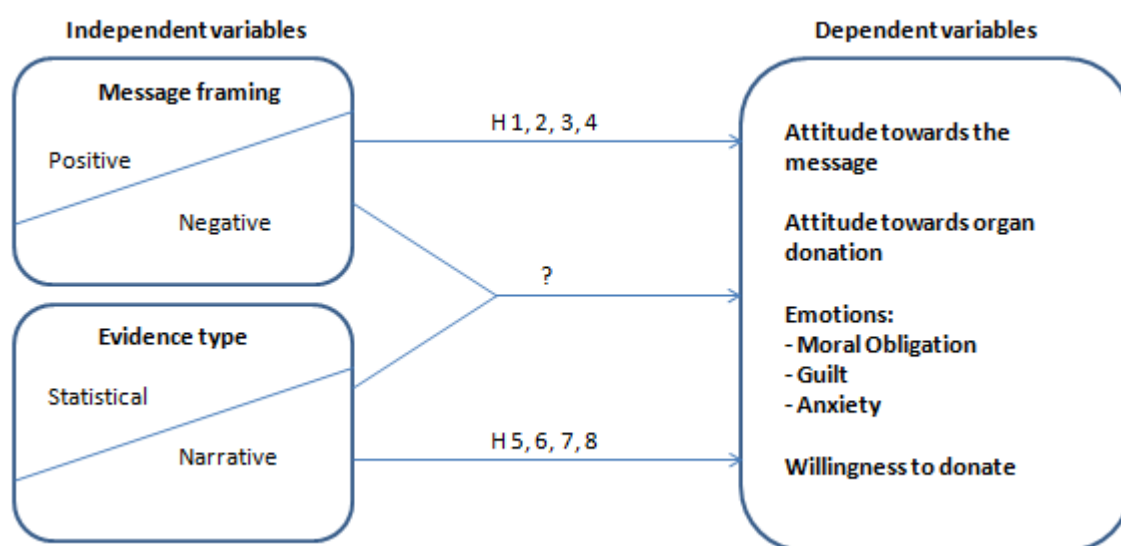
2 METHOD

To answer the research question and the sub questions a pre-test and a main study were conducted. In this chapter the pre-test and the main study will be discussed. The goal of the main study was to answer the research question and the eight hypotheses. The main study was conducted through an online questionnaire.

This chapter provides information about the stimulus material. Furthermore, the participants, the design and procedure, and the measurements used in this study will be discussed.

2.1 Stimulus material

The stimulus materials used in this study were the manipulated messages. The manipulated messages were based on the independent variables; message framing and evidence types.

In this study, four messages were investigated to examine which message is most effective to persuade people to register for organ donation. Each of the messages provided the same information; the importance of signing an organ donor card. The way in which the information was presented was manipulated by message framing and two evidence types. The messages were framed positively or negatively and provided statistical or narrative evidence.

The positively framed messages emphasized the benefits and positive consequences of signing on organ donor card and the negatively framed messages emphasized the disadvantages and negative consequences of not signing an organ donor card. Furthermore, the information in the message was framed positively or negatively by manipulated the final sentence of each message. This sentence was adopted from the messages used in the study of Koppelaar (2012) to persuade people to sign for organ donation. For instance, the positive and statistical manipulated message contained the sentence "Each year 750 patients receive a new organ. 80% of these transplantations are successfully carried out", whereas the negative statistical manipulated message contained the sentence "Each year, 160 patients pass away because not enough organs are available in time. In 20% of the patients who will receive an organ donor, the transplantation will not succeed".

Apart from message framing, the messages were manipulated on statistical evidence or narrative evidence. The statistical messages used were based on information of De Transplantatiestichting (2013), a Dutch foundation dedicated to organ donation which published annual statistics of organ donation. The narrative message used in this study was based on a true story (Legerstee, 2003). This message told the story of a man who was waitlisted for a liver and emphasized how long it could take before it was a patient's turn for transplantation. The messages can be found in Appendix A.

Pre-test

A pre-test was conducted to investigate whether the messages were actually perceived to be in positive or negative terms and narrative or statistical terms. The four manipulated messages were assessed by a group of respondents (N=8). The messages were randomly presented to the respondents, in the end every respondent read each message. A manipulation check was carried out and the respondents had the opportunity to provide substantive feedback. The respondents evaluated the messages as comprehensible, clear and legible. The manipulation check consisted of two statements which the respondents had to answer; "the information in the message was based on positive aspects versus negative aspects" (1 = very positive, 7 = very negative), "the information in the message was based on statistics versus a narrative" (1 = very statistical, 7= very narrative). An one way ANOVA was conducted to assess whether significant differences consisted between positive and negative framing and statistical and narrative evidence.

Results

To test the differences for message framing and evidence types an ANOVA was conducted. Significant differences were found for message framing as well as evidence types. Positive and negative message framing differed significantly ($F_{(1, 31)}=158.28$, $p < .001$) and there was a significant difference between statistical and narrative evidence as well ($F_{(1, 31)}=211.73$, $p < .001$). What is interesting in this data is that there was no interaction effect between message framing and evidence types. This indicates that message framing and evidence types differed mutually independent. Thus, based on the manipulation check the messages were found to be significantly different.

2.2 Participants

The respondents were gathered through an online questionnaire which was distributed via e-mail, Facebook and Twitter. Altogether 248 respondents participated in this research. Each message was read by at least 56 to 66 respondents. Of these respondents 161 (64,9%) were women and 83 (33,4%) were men. The age of the participants varied from 18 to 70 years old. The average age was 34 with a standard deviation of 14. Of the respondents 30 (12,1%) knew someone who was on the waiting list for an organ donor, and 213 (85,9%) did not know anyone who was on the waiting list. Of the respondents 54 (21,8%) knew someone who received an organ donor, and 190 (76,6%) did not know anyone who received an organ donor. Table 2 provides information about the respondents, the information is classified per message.

Table 1. Demographic information of the participants.

	Message 1*			Message 2			Message 3			Message 4		
	N	%	M(SD)	N	%	M(SD)	N	%	M(SD)	N	%	M(SD)
Gender												
Male	24	37		18	33		19	30		22	36	
Female	41	63		37	67		44	70		39	64	
Registration												
Yes	43	65		30	54		37	59		36	57	
No	23	35		26	46		26	41		27	43	
Age			35(14)			34(15)			34(14)			33(15)
Place of residence**												
Groningen	5	7,9		3	5,7		1	1,7		0	0	
Friesland	1	1,6		2	3,8		0	0		1	1,7	
Overijssel	7	11,1		3	5,7		9	15,5		6	10	
Gelderland	30	47,6		27	50,9		24	41,4		37	61,7	
Utrecht	10	15,9		7	13,2		9	15,5		6	10	
Noord-Holland	3	4,8		1	1,9		5	8,6		2	33,3	
Zuid-Holland	4	6,4		5	9,4		5	8,6		2	33,3	
Noord-Brabant	1	1,6		1	1,9		1	1,7		1	1,7	
Limburg	0	0		2	3,8		3	5,2		5	8,3	
Abroad	2	3,1		2	3,8		1	1,7		0	0	
Education***												
VMBO	3	4,6		4	7,3		1	1,6		4	6,7	
HAVO	4	6,2		2	3,6		6	9,7		2	3,3	
VWO	3	4,6		2	3,6		1	1,6		5	8,3	
MBO	10	15,4		15	27,3		10	16,1		9	15	
HBO	25	38,5		16	29,1		21	33,9		25	41,7	
WO	20	30,8		16	29,1		23	37,1		15	25	
Religion												
Dutch Reformed	16	24,6		7	12,7		14	22,2		8	13,4	
Roman Catholic	10	15,4		13	23,6		11	17,5		11	18,3	
Islam	1	1,5		1	1,8		0	0		1	1,7	
None	36	55,4		31	56,4		32	50,8		38	63,3	
Other	2	3,1		3	5,5		6	9,5		2	3,3	
Total**	66	100		56	100		63	100		63	100	

*Grouping messages: Message1 = positive and statistical, Message2 = negative and statistical, Message3 = positive and narrative, Message4 = negative and narrative.

**The place of residence is divided into the provinces of the Netherlands.

***Dutch education level.

****The total amount of participants per variable vary, because some of the respondents did not filled in all the demographic variables.

2.3 Design & procedure

Initially, this research included a 2x2 research design; message framing x evidence types. During the data collection, this design was modified and changed into a 2x2x2 research design. The variable registration status was added, because more and more people are becoming an organ donor and it is interesting to compare the results between participants who are and who are not registered as organ donor. As shown in figure 2, the final research design is: message framing x evidence types x registration status.

Figure 2. Final research model.
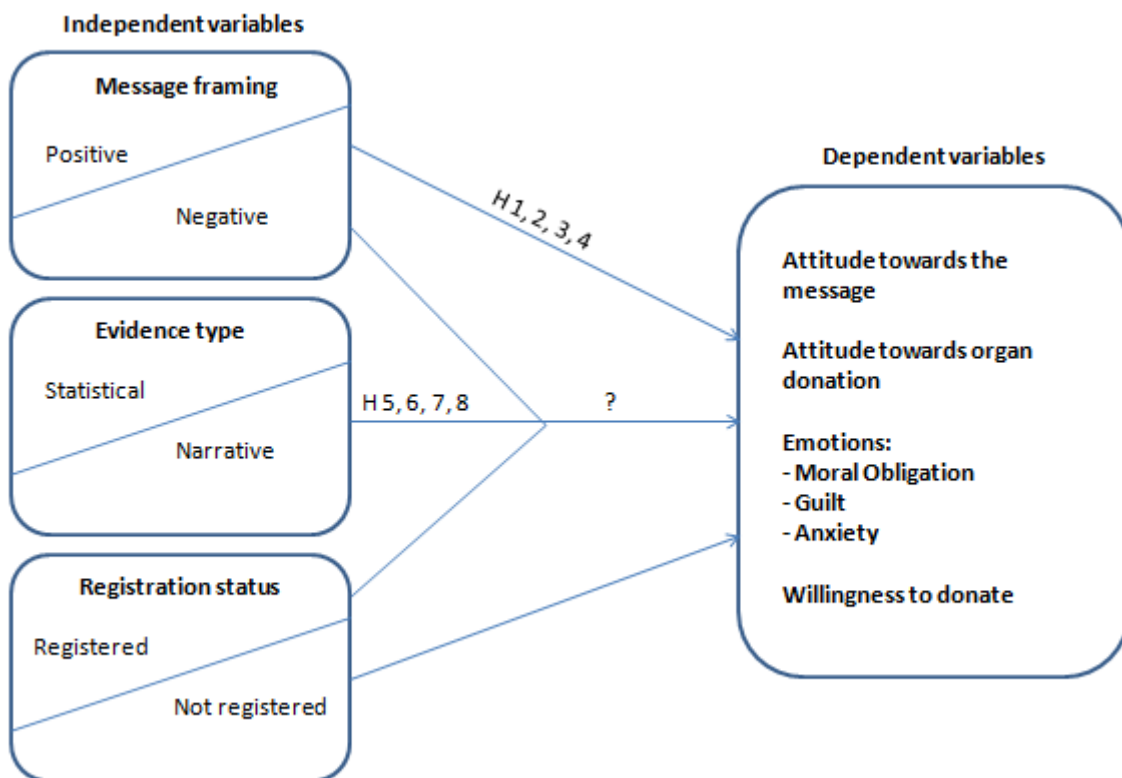
This research was conducted through a questionnaire which was distributed online. The questionnaire contained four different versions, each version included one of the four manipulated messages. The messages were manipulated with regards to positive or negative framing and by providing statistical or narrative evidence. The manipulation resulted in the following four types of messages: (a) statistical evidence and a positive frame, b) statistical evidence and a negative frame, (c) narrative evidence and a positive frame, (d) narrative evidence and a negative. Respondents randomly received one of these four versions. After reading the message, the respondents had to answer two control questions to check whether the respondents had read the message carefully. After the control questions, all participants received the same questionnaire and were asked to indicate the attitude towards donor registration, attitude towards the message, willingness to donate

and to what extent the emotions guilt, moral obligation and anxiety were evoked after reading the message. Finally, the respondents had to supply some demographic information. This information consisted of age, gender, place of residence, education level, religion and the questions whether they knew anyone who is waitlisted for a donor organ or has received a donor organ. The purpose of the study was revealed after the respondents completed the questionnaire to ensure respondents were completely independent and were not influenced by the purpose of the study during their participation.

2.4 Measures

The questionnaire started with two control questions to check whether the respondents had read the message carefully. These control questions were substantive questions about the message, for example: "which organ for a transplantation did the main character in the message need?" Each message contained two control questions. The questions of message one were answered correctly by 98,5% and 92.4% of the respondents, the questions of message two by 98.2% and 82.1% of the respondents, the questions of message three both by 98,4% of the respondents, and the questions of message four by 98,1% and 98,4% of the respondents. After the control questions a screening question followed: "Are you currently registered as an organ donor?" If the answer was yes, participants skipped the scale 'willingness to donate'. The questionnaire consisted of seven different scales. On every scale participants had to indicate on a 7-point Likert scale to what extent they agreed with the items. After the scales the participants were asked some personal questions to get more insight into their background. Below, the construction of the scales will be described extensively per scale. The questionnaire based on this scales can be found in Appendix B.

Attitude towards the message. After reading the message the attitude towards the presented message was measured. Participants were asked to indicate to what extent they found the message to be credible and effective. The scale consisted of six items which were conducted from a study of Kopfman et al. (1998). Items on this scale for example were: "I felt the message was appropriate" and "I felt the message was reliable". The items form a reliable scale (α = .87).

Attitude towards donor registration. A 7-item measurement scale was used to measure the attitude towards donor registration. These items were conducted from a study of Feeley and Servoss (2005), but were also used in other previous studies regarding organ donation (Horton & Horton, 1991; Morgan & Miller, 2002). Two items were removed to give the scale a higher reliability. The items "I view organ donation as a negative procedure" and "I believe that organ donation is an unselfish act" were removed. This resulted in a Cronbach's Alpha of .70.

Willingness to register for organ donation. This scale measured the willingness and intention to register for organ donation. Only respondents who indicated not being registered as organ donor at that moment filled in this scale. The scale consisted of five items and was conducted from a study of Feeley and Servoss (2005). Feeley and Servoss (2005) based this scale on items used in a study of Horton and Horton (1991) and Skumanich and Kintsfather (1996). The scale has a high reliability (α = .85).

Moral obligation. This 6-item measurement scale was partially taken from an existing study and partially self developed. The first two items were conducted from the scale 'moral obligation to donate', which was used in a study of Oosterhof, Heuvelman and Peters (2009). The last four items were self developed in this study. One item was removed to increase the reliability, which resulted in an Alpha of .77.

Anxiety in general. This scale measured the emotion anxiety, after having read the message. The scale contained four items and was conducted from a study of Kopfman et al. (1998). One item was removed to improve the reliability, this resulted in a Cronbach's Alpha of .76.

Anxiety of the consequences of organ donation. This scale was a self developed scale, according to specific fears which were described by Kopfman et al. (1998) and Sanner (1997). In particular, this concerned fears associated with the consequences of organ donation. These were anxieties such as death anxiety, body mutilation, and distrust of health care when registered as organ donor. The scale existed of five items and formed an acceptable reliable scale (α = .67).

Guilt. De scale of guilt which was used in this study, was based on a scale which was used in a study of Coulter and Pinto (1995). This scale contained seven items which each were based on an aspect of guilt. Aspects used in this scale were: accountable, guilty, ashamed, bad, irresponsible, uneasy and upset. The items formed a reliable scale (α = .91).

3 RESULTS

ANOVA analyses were conducted to test main effects of message framing, evidence types, registration status and interaction effects on the dependent variables: attitude towards the message, attitude towards organ donation, moral obligation, anxiety in general, anxiety of the consequences of organ donation and guilt.

3.1 Attitude towards the message

An ANOVA analysis was conducted to test main effects for message framing, evidence types and registration status at the dependent variable attitude towards the message. Contrary to the expectations, no significant differences were found for message framing, evidence types and registration status. This means that no conclusions can be drawn as to whether these independent variables affect the attitude towards the message and whether positive or negative message framing or statistical or narrative evidence was most effective to enhance the attitude towards the message for both, respondents who were and who were not registered as organ donor. The mean values of the attitude towards the message are shown in Table 2.

However, a three way interaction effect was found for *message framing x evidence type x registration status* (F(1, 247) = 5.43, p = 0.021). This three way interaction was difficult to interpret and the conclusion cannot be determined with certainty. The differences between message framing, evidence types and registration status can be viewed from various ways. The most notable differences were found between registration status. The message with positive framing combined with statistical evidence showed that registered participants had a higher attitude towards the message (5.05, 0.87) than participants who were not registered (4.62, 1.13), in which 1 = negative attitude towards the message, 7 = positive attitude towards the message. Positive framing combined with narrative evidence was most effective for respondents who were not registered (5.07, 1.06). For negative framing it was the opposite; negative framing combined with statistical evidence was most effective for respondents who were not registered (4.83, 1.08), despite of the slight difference compared to respondents who were registered (4.81, 1.23). Overall, negative framing combined with narrative evidence resulted into significantly highest attitude towards the message for respondents who already were registered as organ donor (5.07, 0.97). For the respondents who were not registered, positive framing combined with narrative evidence was found to be most effective to enhance the attitude towards the message (5.07, 1.06). The differences between registration status of the three way interaction effect could be seen in Figure 3 and Figure 4.

Table 2. Mean attitude towards the message (standard deviation); the mean scores of the eight conditions are highlighted.

		Statistical Evidence type	Narrative Evidence type	Total
Positive Message framing	Registered	**5,05 (0,87)**	**4,56 (0,99)**	4,82 (0,95)
	Not registered	**4,62 (1,13)**	**5,07(1,06)**	4,86 (1,10)
	Total	4,90 (0,98)	4,77 (1,04)	4,84 (1,01)
Negative Message framing	Registered	**4,81 (1,23)**	**5,07 (0,97)**	4,95 (1,09)
	Not registered	**4,83 (1,08)**	**4,75 (1,22)**	4,79 (1,14)
	Total	4,82 (1,15)	4,93 (1,09)	4,88 (1,11)
Total	Registered	4.95 (1.03)	4.81 (1.00)	4.88 (1.02)
	Not registered	4.73 (1.10)	4.91 (1.14)	4.82 (1.12)
	Total	4,86 (1,06)	4,85 (1,06)	4,86 (1,06)

Figure 3. The three way interaction effect attitude towards the message.

Estimated Marginal Means of AttitudeTowards the Message
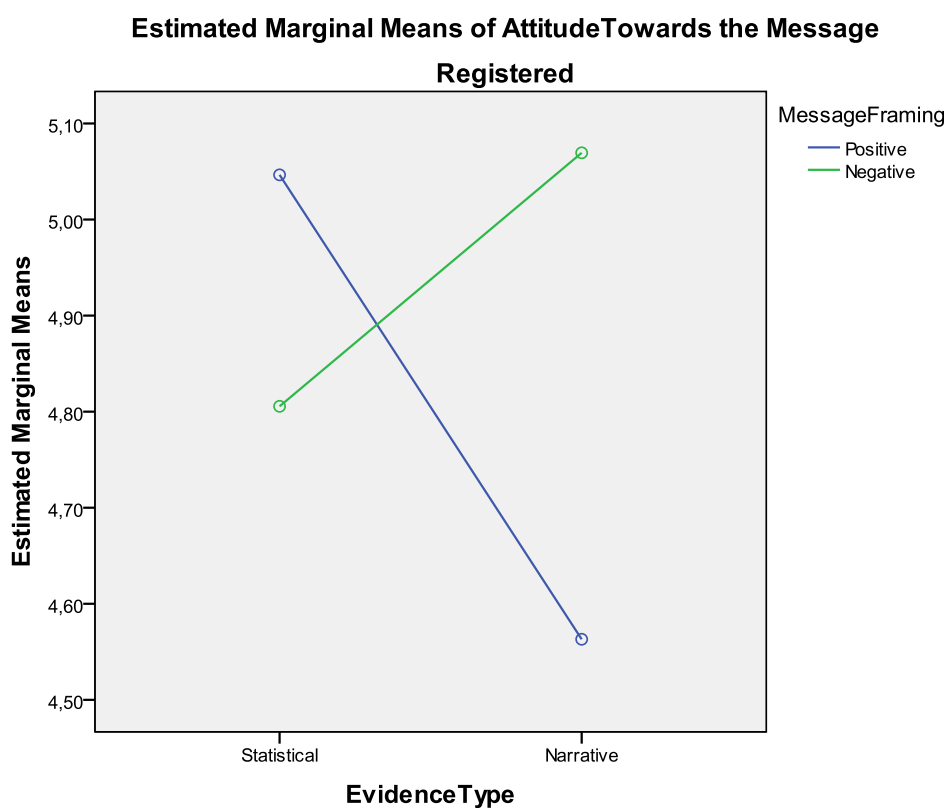
Figure 4. The three way interaction effect of attitude towards the message.
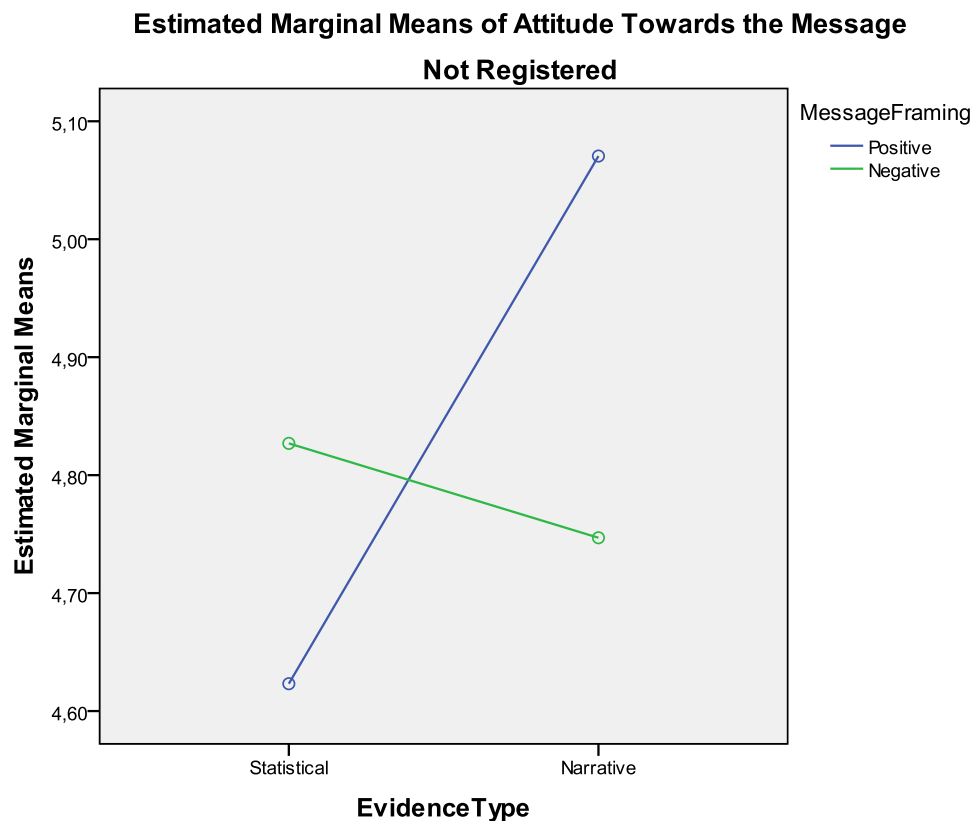
3.2 Attitude towards organ donation

The results of the ANOVA analysis to test main effects of message framing, evidence types and registration status of the attitude towards organ donation showed that a main effect was found for message framing ($F(1, 247) = 5.74$, $p = 0.017$). The negatively framed messages resulted in a significantly higher attitude towards organ donation than the positively framed messages. The negatively framed message had a mean of 5,65 (0,81) and the positively framed message had a mean of 5,44 (0,89), in which 1 = negative attitude towards the message, and 7 = positive attitude towards the message. Both framings provided a very positive attitude, but considering the results negative framing was more effective to enhance the attitude towards donor registration than positive framing.

The independent variable registration status revealed a significant difference as well. This means that a difference between participants who were registered and participants who were not registered as organ donor was found ($F(1, 247) = 42.73$, $p < 0.001$). Although both groups revealed a positive attitude towards organ donation, participants who were already registered showed a significantly higher attitude towards organ donation (5.81, 0.73) than participants who were not registered (5.15,

0.88), in which 1 = negative attitude towards the message, and 7 = positive attitude towards the message. The mean values of the attitude towards organ donation are shown in Table 3.

No significant results were found for evidence types and no interaction effects were found. This means no conclusions can be drawn as to whether statistical or narrative evidence in messages is more effective to enhance the attitude towards donor registration. This also implies to the interaction effects, no conclusions can be drawn as to whether combinations of the independent variables affect the attitude towards donor registration.

Table 3. Mean attitude towards organ donation (standard deviation); the mean scores of the four conditions are highlighted.

		Statistical Evidence type	Narrative Evidence type	Total
Positive Message framing	Registered	5,64 (0,64)	5,72 (0,84)	5,68 (0,73)
	Not registered	5,04 (1,11)	5,05 (0,89)	5,05 (0,99)
	Total	5,43 (0,88)	5,45 (0,92)	**5,44 (0,89)**
Negative Message framing	Registered	5,93 (0,73)	6,00 (0,67)	5,97 (0,70)
	Not registered	5,24 (0,75)	5,26 (0,80)	5,25 (0,77)
	Total	5,61 (0,81)	5,68 (0,81)	**5,65 (0,81)**
Total	Registered	5.76 (0.69)	5.86 (0.77)	**5.81 (0.73)**
	Not registered	5.15 (0.93)	5.16 (0.84)	**5.15 (0.88)**
	Total	5,51 (0,85)	5,57 (0,87)	5,54 (0,86)

3.3 Anxiety in general

For the dependent variable anxiety in general, only message framing was found to be significant ($F_{(1, 247)}$ = 5.45, p = 0.02). The positively framed messages (6.13, 0.93) evoked significantly less general anxiety than negatively framed messages (5.80, 1.27). Thus, as expected, positive messages were evaluated less anxious than negative messages. The mean values of anxiety in general are shown in Table 4.

No significant difference was found for registration status. This means it can be assumed that respondents who were registered and respondents who were not registered experienced general anxiety in the same way. For evidence types no significant difference was found either. Hence, no conclusion can be drawn as to whether statistical or narrative evidence evokes more or less general anxiety. Also, no interaction effects were found, which means that combinations of the independent

variables were not significant and no conclusions can be drawn as to whether a combination of message framing, evidence types and/or registration status evoked more or less general anxiety. Thus, combinations of the independent variables did not affect the general anxiety.

Table 4. Mean anxiety in general (standard deviation); the mean scores of the two conditions are highlighted.

		Statistical Evidence type	Narrative Evidence type	Total
Positive Message framing	Registered	6,00 (0,95)	6,23 (0,87)	6,11 (0,92)
	Not registered	5,99 (1,19)	6,35 (0,69)	6,18 (0,96)
	Total	5,99 (1,03)	6,28 (0,80)	**6,13 (0,93)**
Negative Message framing	Registered	5,71 (1,32)	5,81 (1,31)	5,76 (1,30)
	Not registered	5,86 (1,19)	5,84 (1,32)	5,85 (1,24)
	Total	5,78 (1,25)	5,82 (1,30)	**5,80 (1,27)**
Total	Registered	5.88 (1.12)	6.02 (1.12)	5.95 (1.12)
	Not registered	5.92 (1.18)	6.09 (1.08)	6.01 (1.12)
	Total	5,90 (1,14)	6,05 (1,10)	5,97 (1,12)

3.4 Anxiety of the consequences of organ donation

An ANOVA was conducted to test main effects for message framing, evidence types and registration status on the anxiety of the consequences of organ donation. Here, only registration status was found to be significant ($F(1, 247) = 20.98$, $p < 0.001$). Respondents who were registered as organ donor (5.69, 0.95) felt less anxious of the consequences of organ donation than respondents who were not registered as organ donor (5.05, 1.16), in which 1 = very anxious and 7 = not anxious. However, both groups did not felt very anxious of the consequences after having read the message, but considering the results, respondents who were not registered as organ donor were more anxious of the consequences of organ donation than respondents who were already registered. Furthermore, it was striking that respondents who were not registered evaluated anxiety of the consequences (5.05, 1.16) as more anxious than anxiety in general (6.01, 1.12). The mean values of anxiety of the consequences of organ donation are shown in Table 5.

No significant differences were found for message framing and evidence types. This means no conclusion can be drawn as to whether positive or negative message framing or statistical or narrative evidence evoke more or less anxiety of the consequences of organ donation. Also, no

interaction effects were found, which means that combinations of the independent variables were not significant and no conclusions can be drawn as to whether a combination of message framing, evidence types and/or registration status evoked more or less general anxiety. Thus, combinations of the independent variables did not affect anxiety of the consequences of organ donation.

Table 5. Mean anxiety of the consequences of organ donation (standard deviation); the mean scores of the two conditions are highlighted.

		Statistical Evidence type	Narrative Evidence type	Total
Positive Message framing	Registered	5,63 (0,92)	5,81 (0,84)	5,72 (0,88)
	Not registered	5,20 (1,24)	5,28 (1,17)	5,24 (1,19)
	Total	5,48 (1,05)	5,59 (1,01)	5,54 (1,03)
Negative Message framing	Registered	5,37 (1,24)	5,89 (0,75)	5,65 (1,03)
	Not registered	4,98(1,04)	4,78 (1,20)	4,88 (1,12)
	Total	5,19 (1,16)	5,41 (1,11)	5,31 (1,13)
Total	Registered	5.53 (1.06)	5.85 (0.79)	**5.69 (0.95)**
	Not registered	5.09 (1.13)	5.03 (1.20)	**5.05 (1.16)**
	Total	5,35 (1,11)	5,50 (1,06)	5,43 (1,08)

3.5 Moral obligation

For the dependent variable moral obligation, only registration status was found to be significant ($F(1, 247) = 82.46$, $p < 0.001$). The variable moral obligation showed that participants who were registered as organ donor felt a significantly higher moral obligation after having read the message (5.57, 0.84) than respondents who were not registered (4.41, 1.14), in which 1 = do not feel moral obligation, and 7 = feel moral obligation. Participants who were not registered felt a moderate moral obligation and respondents who were registered felt a high moral obligation. The mean values of moral obligation are shown in Table 6.

For the independent variables message framing and evidence types no significant differences were found. This means no conclusions can be drawn as to whether positive or negative message framing or statistical or narrative evidence evoked a higher or lower moral obligation. Also, no interaction effects were found, which means that combinations of the independent variables were not significant and no conclusions can be drawn as to whether a combination of message framing,

evidence types and/or registration status evoked a higher or lower moral obligation. Thus, combinations of the independent variables did not affect moral obligation.

Table 6. Mean moral obligation (standard deviation); the mean scores of the two conditions are highlighted.

		Statistical Evidence type	Narrative Evidence type	Total
Positive Message framing	Registered	5,65 (0,70)	5,45 (1,01)	5,56 (0,86)
	Not registered	4,40 (1,14)	4,38 (1,19)	4,39 (1,16)
	Total	5,21 (1,06)	5,01 (1,20)	5,11 (1,13)
Negative Message framing	Registered	5,66 (0,90)	5,53 (0,78)	5,59 (0,83)
	Not registered	4,39 (0,77)	4,47 (1,42)	4,43 (1,14)
	Total	5,07 (1,05)	5,08 (1,21)	5,07 (1,13)
Total	Registered	5.65 (0.78)	5.49 (0.90)	**5.57 (0.84)**
	Not registered	4.40 (0.95)	4.43 (1.30)	**4.41 (1.14)**
	Total	5,15 (1,05)	5,04 (1,20)	5,09 (1,13)

3.6 Guilt

An ANOVA is conducted to test main effects for message framing, evidence types and registration status on the emotion guilt. Only registration status was found to be significant ($F(1, 247) = 40.61$, $p < 0.001$). Respondents who were registered as organ donor felt less guilty (1.68, 0.87) than respondents who were not registered as organ donor (2.57, 1.31), in which 1 = not feeling guilty, and 7 = feeling guilty. However, the results showed that respondents who were not registered did not felt very guilty after reading the message either. The mean values of guilt are shown in Table 7.

For the independent variables message framing and evidence types, no significant differences were found. This means no conclusions can be drawn as to whether positive or negative message framing or statistical or narrative evidence evoked more or less guilty feelings. Also, no interaction effects were found, which means that combinations of the independent variables were not significant and no conclusions can be drawn as to whether a combination of message framing, evidence types and/or registration status evoked more or less guilty feelings . Thus, combinations of the independent variables did not affect guilt.

Table 7. Mean guilt (standard deviation); the mean scores of the two conditions are highlighted.

		Statistical Evidence type	Narrative Evidence type	Total
Positive Message framing	Registered	1,60 (0,82)	1,66 (0,82)	1,63 (0,81)
	Not registered	2,62 (1,39)	2,29 (1,24)	2,44 (1,31)
	Total	1,95 (1,15)	1,92 (1,05)	1,94 (1,10)
Negative Message framing	Registered	1,81 (1,02)	1,68 (0,89)	1,74 (0,95)
	Not registered	2,95 (1,34)	2,44 (1,26)	2,69 (1,31)
	Total	2,34 (1,30)	2,01 (1,12)	2,16 (1,22)
Total	Registered	1.68 (0.91)	1.67 (0.85)	**1.68 (0.87)**
	Not registered	2.80 (1.36)	2.37 (1.24)	**2.57 (1.31)**
	Total	2,13 (1,23)	1,97 (1,08)	2,05 (1,16)

3.7 Willingness to donate

An ANOVA is conducted to test main effects for message framing and evidence types on the willingness to donate. No main effects were found at all. This means no conclusions can be drawn as to whether positive or negative message framing or statistical or narrative evidence enhance the willingness to donate of respondents who were not registered as organ donor. Also, no interaction effects were found, which means that combinations of the independent variables were not significant and no conclusions can be drawn as to whether and which combination of message framing and evidence types could enhance the willingness to donate. Thus, combinations of the independent variables did not affect the willingness to donate.

However, the results showed that the total mean score was average (4.46, 1.41), in which 1 = negative willingness to donate, and 7 = positive willingness to donate. Respondents were neutral in whether they want to register themselves as organ donor after reading the message. The combination of a positive frame and statistical evidence had the highest mean score (4.65, 1.50), but unfortunately, this result was not significant and the other conditions were very close. The mean values of the willingness to donate are shown in Table 8.

Table 8. Mean willingness to donate (standard deviation); the mean scores of the two conditions are highlighted.

Message framing	Statistical Evidence type	Narrative Evidence type	Total
Positive	**4,65 (1,50)**	4,48 (1,42)	4,56 (1,44)
Negative	4,38 (1,33)	4,36 (1,44)	4,37 (1,38)
Total	4,51 (1,40)	4,42 (1,42)	**4,46 (1,41)**

4 DISCUSSION

The current research was to give insight in effective messages to enhance the consent to organ donation. To investigate the effectiveness, messages were manipulated by message framing (i.e. positive and negative framing) and evidence types (i.e. statistical and narrative evidence). This research investigated the effect of the manipulations on attitude towards the message, attitude towards organ donation, anxiety in general, anxiety of the consequences of organ donation, guilt and moral obligation. Besides, a distinction was made between people who were and who were not registered as organ donor. In this Chapter, a critical look was given on the results of this study. First, the results will be discussed regarding the hypotheses and regarding previous studies. Then, future research directions will be discussed. Finally, the conclusion and practical implications will be given based on the findings of the present study.

4.1 Discussion of results

Influence of message framing

As expected, a message with a negative frame was more effective to enhance the attitude towards organ donation than a message with a positive frame. This result is congruent with previous studies which stated that negative message framing was more effective than positive message framing (Meyerowitz & Chaiken, 1987; Ganzach & Karsahi, 1995; Banks et al., 1995; Homer & Yoon, 1992.). These studies are all studies which used goal framing as a manner to frame the messages (Levin et al., 1998), just as the current study. This implies that the messages used in these studies are all framed in the same way; the positive frame emphasized the positive consequences of performing a certain behaviour, whereas the negative frame stressed the negative consequences of not performing a certain behaviour. In these studies the goal was framed to influence the end behaviour of the respondents; in the case of this study the intention to register for organ donation. In the study of Meyerowitz and Chaiken (1987), for example, the goal of performing breast self-examination (BSE) was framed. This could explain why the results of these previous studies correspond to the result of this study which showed that a negative frame enhanced the attitude towards organ donation.

This result is also reinforced by the negativity bias (Levin et al., 1998; Meyerowitz & Chaiken, 1987); negative information seemed to have a greater impact than positive information. This result is reinforced by the prospect theory of Tversky and Kahneman (1991) as well, who stated that losses seemed to have a greater impact than gains. The topic organ donation is related to losses and negative information, it is related to death and the donation of one's own organs. Regarding the negativity bias, these losses and negative information may have a greater impact than the positive

frame and gain of giving someone a new organ. A negative frame created a greater impact on the receiver of the message, and therefore it was more effective to enhance the attitude towards organ donation than a positively framed message. Apparently, a message that stressed the negative consequences of not being registered as organ donor was more effective to enhance the attitude towards organ donation than a message that stressed the positive consequences of being registered as organ donor.

The results of this study showed a significant difference for anxiety in general as well. As expected, a negative frame created more anxiety in general than a positive frame. This result is in line with the study of Chang and Lee (2009) who stated that negatively framed messages can respond to the feelings of the receivers of the message. The positively framed messages evoked less anxiety and were evaluated less anxiously than negative framed messages. Despite the significant difference, both types of message framing evoked a low level of anxiety. This means that message framing, as well as the topic organ donation caused little anxiety among the receivers of the messages. This is contrary to previous studies, which stated that anxiety is highly associated with organ donation (Sanner, 1994; Sanner, 1997). Reubsaet et al. (2001) found that respondents with negative outcome beliefs, such as anxiety, were less willing to register as organ donor. Kopfman et al. (1998) stated that people who were low in prior thought and intent experienced messages regarding organ donation as more anxious than people who were high in prior thought and intent. It is possible that the respondents in this study had a high and positive prior thought and intent about organ donation, and therefore they did not experienced a high level of anxiety. But, despite the low level of anxiety evoked, negatively framed messages were significantly evaluated as more anxious. Since anxiety is considered as an anti-donation factor, it is reasonable to assume that positively framed messages will be more effective than negative framed messages to enhance the consent of organ donation, because they create a lower level of anxiety. Little research has been conducted regarding message framing and anxiety, more research on this topic is needed to get more insight and knowledge of the effect of message framing on anxiety and the other way around.

However, the results for attitude towards organ donation and anxiety in general were consistent with the negativity bias, the results of the other variables were not congruent. Message framing did not significantly affect the attitude towards the message, the willingness to donate, anxiety of the consequences of organ donation, moral obligation and guilt. These results were contradictory with the expectations of this study. This study expected negatively framed messages were more effective than positively framed messages to enhance the attitude towards the message, the willingness to donate, and evoke a greater level of all emotions. But given the results, message framing did not affect these variables and had no influence. It is difficult to conclude why these variables were not

significant, because this is the first study which investigated message framing in combination with organ donation. The results of the study of Weber et al. (2006) are contrary to the findings of this study. They used aspects of negative en positive framing to frame a message; humour and sadness. They showed that the positive frame was more effective than the negative frame (Weber et al., 2006). An explanation of these contradicting results compared to this study could be due to the use of specific aspects of positive and negative framing. Humour could be seen as a positive aspect and sadness as a negative aspect. Even though they could be seen as aspects of positive and negative framing, the differences could be explained by the fact that humour and sadness are very specific aspects.

In the field of organ donation, no previous studies have examined the effect of message framing in order to enhance the registry participation. Previous studies that examined the effectiveness of message framing were carried out in very different areas and showed contradictory results. Examples of areas of these studies are health (Rothman et al., 1993; Detweiler et al., 1999; Gallagher & Updegraff , 2012; Meyerowitz & Chaiken, 1987; Banks et al., 1995), buying behaviour (Ganzach & Karsahi, 1995; Homer & Yoon, 1992) and charity (Chang & Lee, 2009). An explanation of the various results of previous studies could be related to the diversity of topics of the studies which investigated message framing. The target group used in the study could be of influence as well, studies in other cultures are hard to generalize to other cultures. For example, studies are conducted in New England (Detweiler et al., 1999), United States (Banks et al., 1995; Homer & Yoon, 1992) and Israel (Ganzach & Karsahi, 1995).

Influence of evidence type
For evidence types, no significant differences were found in this study. This means that the type of evidence included in a message does not affect the emotions, attitudes and the willingness to donate of the participants and thus seemed to have no influence at the effectiveness of a message. It cannot be said whether statistical or narrative evidence was more effective. However, previous studies in the field of organ donation showed significant results of evidence types. Kopfman et al. (1998) found both evidence types seemed to have the ability to enhance the attitudes and intention to donate. Other research showed that narrative evidence was more effective than statistical evidence to enhance the registration for organ donation (Weber et al., 2006; Studts et al., 2010).

The findings of previous studies were overall inconclusive. There are several explanations to clarify the divergent results of studies which examined the effectiveness of evidence types. Visser (2012) argued the factors argument type, length of the text and vividness as factors that may influence the effectiveness of statistical and narrative evidence. Hoeken and Hustinx (2009) showed that argument

type affects the persuasiveness of evidence types. They stated that statistical evidence was more persuasive than narrative evidence when an argument by generalization was involved. Narrative evidence was more persuasive when a message was advocated by an argument by analogy (Hoeken & Hustinx, 2009). Rieke and Sillars (1984) explained an argument by generalization as a general principle that originates by a number of examples. In the current study an argument by generalization was only used in the messages containing statistical evidence, for example: "There are 1,300 people on the waiting list for a donor transplantation, while only 250 organ donors are available annually". An argument by analogy "compared two situations which you believe to have the same essential characteristics, and reason that a characteristic which exists in a situation can be reasoned to also exist in the analogous situation" (Rieke and Sillars, 1984, p. 76)**.** In the current study this type of argument was used in messages including both statistical and narrative evidence, it contained the phrase "Your absence on this donor registration list could leave up to 10 patients in uncertainty on this transplantation waiting list" or "Your application to the donor registration list could get up to 10 individuals of this transplantation waiting list and save their lives". Thus, the use of arguments in the current is not in line with the theory of Hoeken and Hustinx (2009). The type of argumentation was not considered in this study. This could be an explanation of the lack of significant results for evidence types in this study. Meuffels and Schulz (2011) stated that the length of the text is of importance regarding the persuasiveness. They argued that narrative evidence generally needs more words than statistical evidence to say the same thing. This could be a problem, because a longer text may contain more arguments and more arguments can lead to a more persuasive message (Meuffels & Schulz, 2011). This explanation is not applicable to the current study, because the messages in this study had the same length overall and did not differed considerably in length. The third aspect is vividness. Visser (2012) stated that the persuasiveness of narrative messages can due to the vividness and anecdotes of narrative messages, in contrast to statistical evidence. The pre-test conducted in this study showed significant differences for evidence types. However, the degree of vividness in narrative messages was not investigated. Thus, it is possible that the degree of vividness in the narrative messages was not sufficient. This could be an explanation of the lack of significant evidence for evidence types. Studies in the future could include the length of the message, the type of argumentation and vividness to explore their influences on the effectiveness of evidence types and to ensure the messages are consistent.

Influence of registration status
The results of the registration status provide important insights into the differences between participants who were and who were not registered as organ donor. The variables attitude towards organ donation, anxiety of the consequences of organ donation, moral obligation and guilt were

found to be significant different for registration status. Participants who were registered as organ donor had a more positive attitude towards organ donation and had more positive emotions than respondents who were not registered. In general, both registered and not registered participants experienced a low level of guilt and anxiety of the consequences of organ donation, and a moderately high level of moral obligation. Besides, both groups had a positive attitude towards organ donation. But considered the results, there is still a significant difference between both groups.

The results showed significant differences for four out of seven variables. As mentioned before, a high or low prior intent and thought could affect the willingness to donate. Kopfman et al. (1998) found in their study towards organ donation that people with low prior thought and intent felt a higher level of anxiety and had more negative thoughts and emotions after reading the message than people high in prior thought and intent. These results are in line with the results of this study concerning respondents who were not registered. It could be assumed that respondents who were not registered had a low prior thought and intent. In contrast to respondents who were already registered, who can be assumed to be high in prior thought and intent. High prior thought and intent implies someone has a positive thought and intent with regard to organ donation, it is likely that this concerns people who are committed to organ donation and hence are already registered. Thus, it is reasonable that the respondents who were not registered in this study had a low prior thought and intent, and the respondents who were already registered had a high prior thought and intent. This could clarify the differences between registration status.

Moreover, moral obligation and guilt were considered to be pro-donation factors, and anxiety as an anti-donation factor. Therefore, it is reasonable that the level of guilt is lower among respondents who were registered, that the level of anxiety is higher among respondents who were not registered, and that moral obligation exists more among respondents who were registered as organ donor as organ donor. Nevertheless, it is also striking that respondents who were registered still felt a high level of moral obligation. It is reasonable that the decision to register might spare them from the feeling that they still have to do something in relation to organ donation. An explanation might be that these respondents felt morally obliged in general, or that this emotion still evoke when reading messages related to this topic.

Influence of interaction effect
However, a three way interaction was found for *message framing x evidence type x registration status* on the variable attitude towards the message. This interaction effect was difficult to interpret and the differences between these variables could be viewed from various ways. However, this three way interaction effect could compared with the findings of Das et al. (2008). They found statistical

information combined with a negative frame was most effective, and in contrast, narrative information combined with a positive frame was most effective in order to create effective fundraising messages. This is in line with the three way interaction effect which showed that messages combining positive framing with narrative evidence were evaluated most positive for respondents who were not registered as organ donor.

Apart from this three way interaction effect, no interaction effects were found for message framing and evidence types in this study. The current study differed on two aspects compared to the study of Das et al. (2008). First, the topic used was different. This study focused on the registration participation of organ donation, whereas the study of Das et al. (2008) focused on donating money to the Dutch Leprosy Foundation. Second, besides message framing and evidence types, Das et al. (2008) manipulated the messages on a third aspect; goal attainment. They found that messages that included charity goal attainment caused higher donation intentions than messages that did not included charity goal attainment (Das et al., 2008). This result showed that including goal attainment affect the intention to donate. This could be an explanation of the lack of significant results on interaction effects in the current study. Future research in the field of organ donation could consider the aspect of goal attaining in messages to explore the effect of this aspect on the attitudes and intention to donate.

4.2 Future research directions

Because little research is conducted on the topic organ donation and message framing in combination with evidence types, a lot of opportunities are available to investigate this topic to get more insight into the effectiveness of messages to enhance the willingness to donate. Primarily, further research could only use participants who are not registered as organ donor. A limitation of the current research is the division between respondents who are and who are not registered as organ donor at the moment they participated in the study. A larger group of participants who are not registered as organ donor could influence the significance level, and give a better insight in the way how to approach these specific group of participants. This is important, because this is the group who have to be influenced by the messages to encourage them to register as organ donor. Further research could focus more on this specific target group.

Moreover, this study was conducted in the Netherlands, and hence the respondents in this study were all Dutch participants, which makes it difficult to apply the results to other countries and cultures. Furthermore, the majority of the respondents were women (64,9%) and highly educated people (36% HBO and 30,6% WO). In future research a more diverse target group can be used to make the results more applicable. In order to create a more diverse target group, demographic

aspects as gender and education level could be more evenly distributed among the group of respondents.

To gain even more insight into what extent the messages affect the attitudes, emotions and willingness to donate, future research could include the factor prior thought and intent of the receivers of the messages. To investigate which type of message was most effective the different messages were compared in this study, but the prior thought and intent of the respondents was not measured. The purpose of this study was to measure the attitudes, emotions and the willingness to donate. However, these variables were only measured after respondents read the message, and not before the message was presented. Hence, it is not possible to compare the prior thought and intent of the respondents to the thought and intent they had after they read the message. It is possible that respondents who were not registered already had the intention to register before they participated in this study, and hence their attitude was already positive or negative. Thus, because the initial position of the respondents was not measured, it cannot be said with certainty whether and to what extent the messages actually affected the attitudes, emotions and willingness to donate of the respondents. Kopfman et al. (1998) measured in their study the prior thought and intent of the respondents concerning organ donation. They made a distinction between a high and low prior of thought. Kopfman et al. (1998) mentioned that previous research of Smith et al. (1993; 1994), "found that level of prior thought and intent demonstrated a strong influence on both cognitive and affective outcomes after individuals read a persuasive message about organ donation" (p.286). By measuring the prior thought and intent, further research in this field could determine better to what extent a message affect the attitudes, emotions and willingness to donate of the respondents and which messages actually change these variables.

As mentioned in the paragraph Discussion of Results, more attention could be paid towards the aspect of vividness at evidence types, especially for narrative evidence. Future research should focus more on the definition of evidence types and could include the aspect of vividness. For example according to the aspects of Nisbett and Ross (1980) as cited in Visser (2012); concreteness, proximity and emotional interestingness. In this study no significant differences for evidence types were found at all. A more well described definition of both evidence types might increase the level of significance. However, the pre-test conducted in this study showed a significant difference between statistical and narrative evidence; messages were rated on the level of statistical and numerical information (statistical evidence), and on the level of a storytelling (narrative evidence). Nevertheless, future research could focus more on specific aspects of statistical and narrative evidence, in order to create a more clear definition of the evidence types and to create a higher level of significance.

Another important part of this research concerns the emotions measured in this study. Previous studies stated that messages containing message framing, evidence types, or the topic organ donation were able to evoke emotions at receivers of the message (Sanner, 1994; Sanner, 1997; Chang & Lee, 2009; Horton & Horton, 1991). This study showed that mainly registration status affects the level of emotions after reading the message. However, it is still unclear when an emotion is effective and persuasive. Do the emotions evoked have a positive or a negative affect on the receiver, and how could these emotions be applied to enhance the effectiveness of the messages? Future studies could focus more on emotions which may evoke after reading a message in the field of organ donation, message framing and evidence types, and could especially focus on how these emotions could be deployed. In particular the emotion anxiety, which is shown to have a strong association with organ donation (Sanner, 1994; 1997). This study distinguished between two types of anxiety, anxiety in general and anxiety of the consequences of organ donation. In future studies, it could be investigated which types of anxiety exists and how best to manage this emotion in persuasive messages in order to reduce and avoid anxiety at the receivers.

4.3 Conclusion & practical implications

This study gives more insights into the influences of message framing and evidence types in relation to the willingness to become an organ donor. This study contributes to the knowledge of previous studies and the lack of research to create more effective messages and campaigns to persuade people to register as organ donor. The main conclusion of this research is that a negative frame is more effective than a positive frame to enhance the attitude towards organ donation. Besides, an important finding is that no conclusions can be drawn whether statistical or narrative evidence is more persuasive. To use evidence types to its fully potential, more research is needed in this area. The factors argument type, length of the message and vividness should be considered in future research. In relation to message framing, further research is needed as well, especially since this study was the first study which investigated message framing to enhance the effectiveness of messages regarding organ donor consent.

Organizations in the Netherlands committed to organ donation can use this knowledge to create effective messages in order to persuade people to become an organ donor. Thes are organizations such as the Dutch Government, the Nederlandse Transplantatie Stichting, the Stichting Transplantatie Nu! and the Nierstichting. In order to persuade people to register as organ donor it is important to communicate effectively towards this target group. According to the findings of this study it is recommended to use a negative frame to create messages which enhance the attitude towards organ donation. Logically, I think a positive attitude can lead to a higher degree of

willingness to donate. Thus, to enhance the attitude towards organ donation, which in turn could increase the willingness to donate, negatively framed message are considered to be most effective.

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APPENDIX A – STIMULUS MATERIAL

Message 1: positive framing – statistical evidence
In Nederland is er een grote vraag naar orgaandonoren. Jaarlijks zijn er 250 orgaandonoren beschikbaar, dat zijn er niet genoeg voor de 1300 mensen die op de wachtlijst staan voor een donortransplantatie. Er zijn nog steeds lange wachtlijsten, waardoor ook patiënten die bovenaan de wachtlijst staan niet altijd snel geholpen kunnen worden.

Per jaar krijgen 750 patiënten een nieuw orgaan. Bij 80% van de patiënten verloopt deze transplantatie succesvol. Meer donorregistraties zorgen ervoor dat de wachtlijsten kleiner worden, dat er meer patiënten geholpen kunnen worden en dat zij een leven met meer zekerheid krijgen.

Mensen die geregistreerd staan als orgaandonor geven deze patiënten de kans op een nieuw leven. Jouw aanmelding op de donorregistratielijst kan tot wel 10 patiënten van deze transplantatiewachtlijst halen en zo hun leven redden.

Message 2: negative framing – statistical evidence
In Nederland is een groot tekort aan orgaandonoren. Er staan 1300 mensen op de wachtlijst voor een donortransplantatie, terwijl er jaarlijks maar 250 orgaandonoren beschikbaar zijn. Er zijn nog steeds lange wachtlijsten, waardoor ook patiënten die bovenaan de wachtlijst staan, vaak nog lang moeten wachten voordat zij geholpen kunnen worden.

Per jaar overlijden 160 mensen doordat er niet op tijd een donororgaan voor hen beschikbaar is. Bij 20% van de patiënten die wel een donororgaan krijgen, lukt de transplantatie niet. Door het tekort aan donorregistraties worden de wachtlijsten langer, kunnen er niet genoeg patiënten geholpen worden en zitten zij lang in onzekerheid.

Mensen die niet geregistreerd staan als orgaandonor verkleinen voor deze patiënten de kans op een nieuw leven. Jouw afwezigheid op deze donorregistratielijst kan tot wel 10 patiënten op deze transplantatiewachtlijst langer in onzekerheid laten.

Message 3: positive framing – narrative evidence
Zes april 2010 kreeg ik de mededeling dat ik op de wachtlijst was geplaatst voor een levertransplantatie. De verwachting was dat ik aan het einde van het jaar aan de beurt zou zijn voor deze transplantatie en dat ik 2011 in kon gaan met een nieuwe nier en een goede gezondheid. Maanden vol hoop volgden voor mijn vrouw, mijn drie kinderen en voor mij.

Na een jaar stond ik bovenaan de lijst, maar steeds kregen patiënten met een hogere urgentie voorrang, omdat zij in kritieke toestand verkeerden. Ik bleef hoop houden. Na in totaal twee jaar gewacht te hebben, kreeg ik mijn niertransplantatie. Inmiddels heb ik mijn leven weer opgepakt. Ik ben weer aan het werk en ik geniet van mijn vrouw en mijn drie kinderen.

Mensen die geregistreerd staan als orgaandonor geven patiënten zoals ik de kans op een nieuw leven. Jouw aanmelding op de donorregistratielijst kan tot wel 10 patiënten van deze transplantatiewachtlijst halen en zo hun leven redden.

Message 4: negative framing – narrative evidence

Zes april 2010 kreeg ik de mededeling dat ik op de wachtlijst was geplaatst voor een levertransplantatie. De verwachting was dat ik aan het einde van het jaar aan de beurt zou zijn voor deze transplantatie en dat ik 2011 in zou kunnen gaan zonder leverproblemen en zonder een slechte gezondheid. Maanden vol onzekerheid volgden voor mijn vrouw, mijn drie kinderen en voor mij.

Na een jaar stond ik bovenaan de lijst, maar steeds kregen patiënten met een hogere urgentie voorrang, omdat zij in kritieke toestand verkeerden. Langzaam sloeg de wanhoop toe. Na in totaal twee jaar gewacht te hebben, sta ik nog steeds op de wachtlijst voor een transplantatie. Inmiddels lig ik in het ziekenhuis en ik weet niet of ik ooit nog een normaal leven zal kunnen leiden.

Mensen die niet geregistreerd staan als orgaandonor verkleinen voor patiënten zoals ik de kans op een nieuw leven. Jouw afwezigheid op deze donorregistratielijst kan tot wel 10 patiënten op deze transplantatiewachtlijst langer in onzekerheid laten.

APPENDIX B – QUESTIONNAIRE

Beste respondent,

Mijn naam is Irene Coenders, student Communication Studies aan de Universiteit Twente. Momenteel ben ik bezig met een onderzoek naar het gedrag van mensen rondom orgaandonatie.

Voor het onderzoek heb ik een aantal gegevens nodig, daarom wil ik u vriendelijk verzoeken om de volgende enquête in te vullen. Deze gegevens worden volledig anoniem verwerkt en worden uitsluitend voor dit onderzoek gebruikt.

De enquête begint met een korte tekst, waarvan ik u wil vragen deze goed te lezen. Vervolgens dient u de vragenlijst in te vullen. Houdt de tekst goed in gedachten bij het beantwoorden van de vragen. Het invullen van deze vragenlijst zal vijf tot tien minuten duren.

Mocht u vragen of opmerkingen hebben over de vragenlijst, dan bent u vrij om contact met mij op te nemen via i.a.l.coenders@student.utwente.nl.

Alvast bedankt voor uw tijd en moeite!

Door op 'volgende' te klikken, geeft u toestemming voor uw deelname aan dit onderzoek.

Q1A Lees de onderstaande tekst alstublieft aandachtig door.

In Nederland is er een grote vraag naar orgaandonoren. Jaarlijks zijn er 250 orgaandonoren beschikbaar, dat zijn er niet genoeg voor de 1300 mensen die op de wachtlijst staan voor een donortransplantatie. Er zijn nog steeds lange wachtlijsten, waardoor ook patiënten die bovenaan de wachtlijst staan niet altijd snel geholpen kunnen worden.

Per jaar krijgen 750 patiënten een nieuw orgaan. Bij 80% van de patiënten verloopt deze transplantatie succesvol. Meer donorregistraties zorgen ervoor dat de wachtlijsten kleiner worden, dat er meer patiënten geholpen kunnen worden en dat zij een leven met meer zekerheid krijgen.

Mensen die geregistreerd staan als orgaandonor geven deze patiënten de kans op een nieuw leven. Jouw aanmelding op de donorregistratielijst kan tot wel 10 patiënten van de transplantatiewachtlijst halen en zo hun leven redden.

◯ Ik heb de tekst goed gelezen

Q1B Lees de onderstaande tekst alstublieft aandachtig door.

In Nederland is een groot tekort aan orgaandonoren. Er staan 1300 mensen op de wachtlijst voor een donortransplantatie, terwijl er jaarlijks maar 250 orgaandonoren beschikbaar zijn. Er zijn nog steeds lange wachtlijsten, waardoor ook patiënten die bovenaan de wachtlijst staan, vaak nog lang moeten wachten voordat zij geholpen kunnen worden.

Per jaar overlijden 160 mensen doordat er niet op tijd een donororgaan voor hen beschikbaar is. Bij 20% van de patiënten die wel een donororgaan krijgen, lukt de transplantatie niet. Door het tekort

aan donorregistraties worden de wachtlijsten langer, kunnen er niet genoeg patiënten geholpen worden en zitten zij lang in onzekerheid.   Mensen die niet geregistreerd staan als orgaandonor verkleinen voor deze patiënten de kans op een nieuw leven. Jouw afwezigheid op de donorregistratielijst kan tot wel 10 patiënten op de transplantatiewachtlijst langer in onzekerheid laten.

○ Ik heb de tekst goed gelezen

Q1C Lees de onderstaande tekst alstublieft aandachtig door.

Zes april 2010 kreeg ik de mededeling dat ik op de wachtlijst was geplaatst voor een levertransplantatie. De verwachting was dat ik aan het einde van het jaar aan de beurt zou zijn voor deze transplantatie en dat ik 2011 in kon gaan met een nieuwe lever en een goede gezondheid. Maanden vol hoop volgden voor mijn vrouw, mijn drie kinderen en voor mij.

Na een jaar stond ik bovenaan de lijst, maar steeds kregen patiënten met een hogere urgentie voorrang, omdat zij in kritieke toestand verkeerden. Ik bleef hoop houden. Na in totaal twee jaar gewacht te hebben, kreeg ik mijn levertransplantatie. Inmiddels heb ik mijn leven weer opgepakt. Ik ben weer aan het werk en ik geniet van mijn vrouw en mijn kinderen.

Mensen die geregistreerd staan als orgaandonor geven patiënten zoals ik de kans op een nieuw leven. Jouw aanmelding op de donorregistratielijst kan tot wel 10 patiënten van de transplantatiewachtlijst halen en zo hun leven redden

○ Ik heb de tekst goed gelezen

Q1D Lees de onderstaande tekst alstublieft aandachtig door.

Zes april 2010 kreeg ik de mededeling dat ik op de wachtlijst was geplaatst voor een levertransplantatie. De verwachting was dat ik aan het einde van het jaar aan de beurt zou zijn voor deze transplantatie en dat ik 2011 in zou kunnen gaan zonder leverproblemen en zonder een slechte gezondheid. Maanden vol onzekerheid volgden voor mijn vrouw, mijn drie kinderen en voor mij.

Na een jaar stond ik bovenaan de lijst, maar steeds kregen patiënten met een hogere urgentie voorrang, omdat zij in kritieke toestand verkeerden. Langzaam sloeg de wanhoop toe. Na in totaal twee jaar gewacht te hebben, sta ik nog steeds op de wachtlijst voor een transplantatie. Inmiddels lig ik in het ziekenhuis en ik weet niet of ik ooit nog een normaal leven zal kunnen leiden.

Mensen die niet geregistreerd staan als orgaandonor verkleinen voor patiënten zoals ik de kans op een nieuw leven. Jouw afwezigheid op de donorregistratielijst kan tot wel 10 patiënten op de transplantatiewachtlijst langer in onzekerheid laten.

○ Ik heb de tekst goed gelezen

Q2A Control questions message 1 (positive – statistical)

Geef aan of de onderstaande bewering juist of onjuist is: De tekst geeft aan dat er een grote vraag is naar orgaandonoren in Nederland

❍ Juist
❍ Onjuist

Bij hoeveel procent van de patiënten verloopt de orgaantransplantatie succesvol?

❍ 35%
❍ 57%
❍ 80%

Q2B Control questions message 2 (negative – statistical)

Geef aan of de onderstaande bewering juist of onjuist is: De tekst geeft aan dat er een groot tekort aan orgaandonoren is in Nederland

❍ Juist
❍ Onjuist

Bij hoeveel procent van de patiënten die een donororgaan krijgen lukt de transplantatie niet?

❍ 7%
❍ 20%
❍ 33%

Q2C Control questions message 3 (positive – narrative)

Welk orgaan heeft de hoofdpersoon in de tekst nodig voor zijn transplantatie?

❍ Lever
❍ Huid
❍ Hart

Geef aan of onderstaande bewering juist of onjuist is: De hoofdpersoon is aan het einde van het verhaal geholpen met een nieuw orgaan en heeft zijn leven weer opgepakt

❍ Juist
❍ Onjuist

Q2D Control questions message 4 (negative – narrative)

Welk orgaan heeft de hoofdpersoon in de tekst nodig voor zijn transplantatie?

❍ Lever
❍ Hart
❍ Huid

Geef aan of onderstaande bewering juist of onjuist is: De hoofdpersoon is aan het einde van het verhaal nog niet geholpen en staat nog op de wachtlijst voor een transplantatie

❍ Juist
❍ Onjuist

Q3 Staat u momenteel geregistreerd als orgaandonor?

❍ Ja
❍ Nee

Q4 Geef aan in hoeverre de volgende kenmerken van toepassing zijn op de tekst

	Helemaal mee oneens	-	-	Neutraal	-	-	Helemaal mee eens
Ik vind de tekst passend	❍	❍	❍	❍	❍	❍	❍
Ik vind de tekst effectief	❍	❍	❍	❍	❍	❍	❍
Ik vind de tekst betrouwbaar	❍	❍	❍	❍	❍	❍	❍
Ik vind de tekst deskundig	❍	❍	❍	❍	❍	❍	❍
Ik vind de tekst geloofwaardig	❍	❍	❍	❍	❍	❍	❍
Ik vind de tekst grondig (zorgvuldig en diepgaand)	❍	❍	❍	❍	❍	❍	❍

Q5 Geef aan in hoeverre u het eens bent met onderstaande stellingen nu u de tekst heeft gelezen

	Helemaal mee oneens	-	-	Neutraal	-	-	Helemaal mee eens
Ik voel me verantwoordelijk	❍	❍	❍	❍	❍	❍	❍
Ik voel me schuldig	❍	❍	❍	❍	❍	❍	❍
Ik voel me beschaamd	❍	❍	❍	❍	❍	❍	❍
Ik voel me slecht	❍	❍	❍	❍	❍	❍	❍
Ik voel me onverantwoordelijk	❍	❍	❍	❍	❍	❍	❍
Ik voel me ongemakkelijk	❍	❍	❍	❍	❍	❍	❍
Ik voel me overstuur	❍	❍	❍	❍	❍	❍	❍

Q6 Geef aan in hoeverre u het met de onderstaande stellingen eens bent

	Helemaal mee oneens	-	-	Neutraal	-	-	Helemaal mee eens
Ik voelde me bedreigd toen ik de tekst las	❍	❍	❍	❍	❍	❍	❍
Ik voelde me bang toen ik de tekst las	❍	❍	❍	❍	❍	❍	❍
Ik voelde me ongerust toen ik de tekst las	❍	❍	❍	❍	❍	❍	❍
Ik voelde me gerustgesteld toen ik de tekst las	❍	❍	❍	❍	❍	❍	❍

Q7 Geef aan in hoeverre u het eens bent met de volgende stellingen nu u de tekst heeft gelezen

	Helemaal mee oneens	-	-	Neutraal	-	-	Helemaal mee eens
Ik ben bang voor de dood	O	O	O	O	O	O	O
Ik ben bang dat mijn lichaam niet meer toonbaar is nadat het gebruikt is voor orgaandonatie	O	O	O	O	O	O	O
Ik ben bang dat ik minder goede medische zorg krijg in kritieke situaties als ik geregistreerd sta als orgaandonor	O	O	O	O	O	O	O
Ik vind het een enge gedachte als iemand voortleeft met mijn organen na mijn dood	O	O	O	O	O	O	O
Ik ben bang dat ik in de toekomst een donororgaan nodig zou kunnen hebben	O	O	O	O	O	O	O

Q8 Geef aan in hoeverre u het eens bent met de volgende stellingen nu u de tekst heeft gelezen

	Helemaal mee oneens	-	-	Neutraal	-	-	Helemaal mee eens
Ik voel de morele verplichting om me te registreren als orgaandonor	O	O	O	O	O	O	O
Het registreren als orgaandonor komt overeen met mijn principes	O	O	O	O	O	O	O
Het registreren als orgaandonor maakt mij een beter mens	O	O	O	O	O	O	O
Het registeren als orgaandonor is een goede	O	O	O	O	O	O	O

ethische daad							
Als ik me niet registreer als orgaandonor zie ik dit als een slechte daad	○	○	○	○	○	○	○
Registreren als orgaandonor is goed om te doen	○	○	○	○	○	○	○

Q9 Geef aan in hoeverre u het eens bent met de volgende stellingen

	Helemaal mee oneens	-	-	Neutraal	-	-	Helemaal mee eens
Ik vind het belangrijk dat mensen aangeven orgaandonor te zijn	○	○	○	○	○	○	○
Ik zie orgaandonatie als een negatieve procedure	○	○	○	○	○	○	○
Ik ondersteun orgaandonatie	○	○	○	○	○	○	○
Ik vind orgaandonatie een daad uit medelijden	○	○	○	○	○	○	○
Ik vind orgaandonatie een niet-egoïstische daad	○	○	○	○	○	○	○
Ik zie orgaandonatie als een natuurlijke manier om het leven te verlengen	○	○	○	○	○	○	○
Orgaandonatie is een voordeel voor de mensheid	○	○	○	○	○	○	○

Q10 Geef aan in hoeverre u het eens bent met de volgende stellingen

	Helemaal mee oneens	-	-	Neutraal	-	-	Helemaal mee eens
Ik heb de mogelijkheid overwogen om orgaandonor te worden	○	○	○	○	○	○	○
In de toekomst ben ik van plan om orgaandonor te worden	○	○	○	○	○	○	○
Ik ga mij registreren als orgaandonor	○	○	○	○	○	○	○
Ik heb niet de intentie mij te registreren als orgaandonor	○	○	○	○	○	○	○
Ik zou niet aarzelen om mij te registreren als orgaandonor	○	○	○	○	○	○	○

Q11 Wat is uw geslacht?

○ Man
○ Vrouw

Q12 Wat is uw leeftijd?

Q13 Wat is uw woonplaats?

Q14 Wat is uw hoogst genoten of huidige opleidingsniveau?

○ VMBO
○ HAVO
○ VWO
○ MBO
○ HBO
○ WO

Q15 Wat is uw geloofsovertuiging?

○ Gereformeerd
○ Nederlands hervormd
○ Rooms katholiek

○ Protestantse kerk Nederland
○ Islam
○ Het Jodendom
○ Geen
○ Anders, namelijk:

Q16 Kent u of bent u iemand die op de wachtlijst staat voor een orgaandonatie?

○ Ja
○ Nee

Q17 Kent u of bent u iemand die een orgaandonor heeft ontvangen?

○ Ja
○ Nee

Bedankt voor het invullen van de enquête.

Doel onderzoek
Voor dit onderzoek zijn vier verschillende teksten gemanipuleerd door negatieve of positieve aspecten te benadrukken en door de inhoud van de tekst op een verhalende of een statistische manier weer te geven. Één van deze vier teksten heeft u gezien. Het doel van dit onderzoek is om te kijken wanneer een tekst het meest effectief en overtuigend is, met als doel om mensen te overtuigen zich te registreren als orgaandonor.

Als u geïnteresseerd bent in de uitslagen van dit onderzoek, kun u contact met mij opnemen via i.a.l.coenders@student.utwente.nl.