BRIDGING THE GAP

HOW MESSAGE VALENCE, TYPE OF SPOKESPERSON, AND SPOKESPERSON'S GENDER IN ORGAN DONATION CAMPAIGNS INFLUENCE THE INTENTION TO SIGN AN ORGAN DONATION CARD AMONG YOUNG GERMANS

Final thesis submitted for the degree of Master of Science in Communication Studies

FACULTY OF BEHAVIORAL SCIENCE

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11.02.2015

Summary

Organ donation is one of the most discussed medical topics in Germany at the moment. Recent scandals including physicians who favored several patients for different reasons led to worldwide attention. But already before the scandals, the number of German organ donors was already low in comparison to other European countries like Spain or Croatia. An often used means of German health organizations in order to improve organ donation's reputation and to increase the number of organ donors are organ donation campaigns.

The low number of people who signed an organ donation card is especially observable for the group of young Germans between the age of 14 to 25. Whereas 80% belonging to this group have a positive attitude towards organ donation, only 23% do own an organ donation card. Because of that the target group of the current study were German's who do not own an organ donation card in the age between 16 and 25. The present study investigated the effects of the campaign's *message valence*, the presented *type of spokesperson*, and the *spokesperson's gender*. A 2 (*message valence*: positive versus negative) x 2 (*type of spokesperson*: lay versus celebrity) x 2 (*spokesperson's gender*: female versus male) experimental design was used in order to measure effects on the dependent variables *attitude towards the campaign, personal distress, empathic concern, moral obligation, intention to sign an organ donation card*, and *intention to communicate about organ donation*. To investigate these effects, each of the 239 respondents was confronted with one out of eight different campaign posters. The online survey randomly assigned the conditions to the respondents.

The results showed that *attitude towards the campaign* is influenced by *message valence*. A negative *message valence* led to a better *attitude towards the campaign* in comparison to the positive *message valence*. In addition, a two-way interaction on *attitude towards the campaign* was found for *type of spokesperson* x *spokesperson's gender*. Furthermore, the results indicated a main effect for *message valence* on *personal distress*. The message with a negative valence scored significantly higher than the message containing a positive valence. In addition, effects of the *type of spokesperson* on *personal distress* were found and showed that a lay spokesperson is of higher influence in comparison to a celebrity spokesperson. The findings further indicated that *message valence* has main effects on *empathic concern*. The negative *message valence* scored significantly higher on *empathic concern* than the positive *message valence*. No main effects of the independent variables on the dependent variables *moral obligation, intention to sign an organ donation card*, and *intention to communicate about organ donation* were found. In addition, by means of a regression analysis effects of *empathic concern* and *moral obligation* on *intention to sign an organ donation card*, and *intention to communicate about organ donation* were found.

The results of the study offer insights into the effects of organ donation campaign characteristics, which could help German health organizations to create effective campaigns in order to raise the number of organ donors.

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1. Introduction

Organ donation is one of the most discussed medical topics in Germany. In 2012, the German organ donor scandal received worldwide attention (BBC News, 2013). The *Süddeutsche Zeitung* uncovered massive manipulations in the German organ donation system, in which physicians favored certain patients for different reasons (Berndt, 2012). In 2014, the topic was "hotter" than ever. In August 2014, in one of the biggest cardiac centers in Berlin, a new scandal was uncovered. Physicians manipulated waiting lists of organ recipients in order to prioritize several patients (Spiegel online, 2014).

In comparison to other countries, Germany has a very low rate of organ donation and after the scandal the rate has constantly fallen dramatically (Deutsche Stiftung Organtransplantation, 2013a). In 2013, there were just 10.9 donors per one million residents (Deutsche Stiftung Organtransplantation, 2013a). This is a further decrease in comparison to 2012, where 12.8 out of one million residents were organ donors. In comparison, other European countries like Croatia (36.5 donors per one million residents) and Spain (35,1 donors per one million residents) had explicitly higher post mortem donation rates in 2012 (Deutsche Stiftung Organtransplantation, 2013a).

To some extent, the low rate of organ donation, in comparison to countries like Spain and Croatia, can be ascribed to the German opt-in system, where citizens need to actively sign an organ donation card when they want to be registered in the donor system (Gevers, Janssen, & Friele, 2004). Other countries, like Spain, Croatia and Belgium, are using the contrary opt-out system, where citizens need to make an objection that they do not want to donate organs after death (Gevers, Janssen, & Friele, 2004). According to a statistic of the *Deutsche Stiftung Organtransplantation* (*DSO*) (2013b), 25% of German citizens who do not own a donor card stated that one reason was that they do not want to think about their own death.

Statistics of the *Bundeszentrale für gesundheitliche Aufklärung* (2014) have shown that German citizens overall have a positive attitude towards organ donation. However, the percentage of citizens who own a donor card is extremely low, only 28% of German citizens own an organ donation card (Bundeszentrale für gesundheitliche Aufklärung, 2014). The highest discrepancy between attitude and behavior can be observed among young people between the age of 14 and 25. Although, 80% of people of this group have a positive attitude (passive acceptance) towards organ donation and 68% are willing to donate organs (active acceptance), only 23% own a donor card (Bundeszentrale für gesundheitliche Aufklärung, 2014).

After the scandal, it could be observed that campaigns for organ donation got more prominent in Germany. One aspect which is of important influence and needs to be considered in those kinds of campaigns is the type of spokesperson (Cram et al., 2003; Dillard & Main, 2013; Misra & Beatty, 1990), because spokespersons are an often used component of organ donation campaigns. Likewise, the kind of message of the campaign is of crucial importance. Previous research investigated the

influence of message valence in (health-) campaigns (Gallagher & Updegraff, 2012; Gerend & Sias, 2009; Jones, Sinclair, & Courneya, 2003; Nan, 2012; Rothman, Salovey, Antone, Keough, & Martin, 1993; Uskul, Sherman, & Fitzgibbon, 2009).

In the last years, German campaigns have been very diverse according to their contents and their types of spokespersons. The *Bundeszentrale für gesundheitliche Aufklärung* (*BZgA*) is one of the most active organizations responsible for designing campaigns for organ donation cards. In their campaigns launched in 2013, the organization used both celebrities and lays as spokespersons in their campaign. The lay persons were people of all groups of ages and gender. *Image 1* and *image 2* are showing two examples of the campaign.

Image 1: Advertisement of the BZgA's campaign in 2013 using a female lay spokesperson

Image 2: Advertisement of the BZgA's campaign in 2013 using a male lay spokesperson

Another campaign of the *BZgA* in 2013 used lay spokespersons as well, but they formulated a different goal. The campaign did not only try to convince people to sign a donor card, but also to do a lot of persuading for organ donation in their social environment in order to be a so-called "*Organpate*". *Image 3* and *image 4* are examples of that campaign.

Image 3: Advertisement of the BZgA's campaign "Organpate" in 2013using a female lay spokesperson

Image 4: Advertisement of the BZgA's campaign "Organpate" in 2013 using a male lay spokesperson

In 2013 the *BZgA*'s started a campaign with German celebrities, which was presented on billboards, websites and magazines. The celebrities are currently active as TV personalities, musicians, and athletes. The spokespersons were also a mix of female and male celebrities. *Image 5* and *image 6* are two examples of the campaign of the *BZgA* in the year 2013.

Image 5: Advertisement of the BZgA's campaign in 2013 using a female celebrity spokesperson (Kati Wilhelm)

Image 6: Advertisement of the BZgA's campaign in 2013 using a male celebrity spokesperson (Markus Lanz)

Another interesting campaign, in the year 2010, developed by the *Deutsches Herzzentrum Berlin* (*DHZB*), used fictive comic superheroes as spokespersons for their campaign. Two examples of this campaign can be seen in the *image 7* and *image 8*.

Image 7: Advertisement of the DHZB's campaign using a female comic character

Image 8: Advertisement of the DHZB's campaign using a male comic character

Surprisingly, at the moment there are only a few studies into the effectiveness of different components of organ donation campaigns (Kopfman & Smith, 1996; Morgan, 2009; Morgan & Cannon, 2003; Morgan & Miller, 2002). Thus, the objective of the present study is to investigate the influence of the *message's valence*, the *type of spokesperson*, and the *spokesperson's gender* on *attitude towards the campaign, empathic concern, personal distress, moral obligation, intention to sign an organ donation card,* and *intention to communicate about organ donation*. In order to realize these objectives, an experimental study was elaborated. Based on the objectives, the following main research question was formulated:

RQ: To what extent do message valence, type of spokesperson, and spokesperson's gender in organ donation card campaigns influence attitude towards the campaign, personal distress, empathic concern, moral obligation, intention to sign an organ donation card, and intention to communicate about organ donation among young Germans in the age between 16 and 25?

In the following sections, a theoretical framework will discuss the topic of organ donation and campaign characteristics. After that, the research method will be described. Additionally, the results of the experimental survey will be presented and a discussion based on the results and their implications for theory and practice will be hold.

It is important to notice that the current study is focused only on posthumous organ donation and not on living organ donation.

2. Theoretical background

In the following a theoretical framework regarding to the topic of the present study will be discussed. At the beginning, the general situation regarding to organ donation, especially in Germany, will be discussed. Further, previous literature regarding to the three independent variables *message valence*, *type of spokesperson*, and *spokesperson's gender* will be presented. Also, the connection between the dependent variables *attitude towards the campaign*, *personal distress*, *empathic concern*, and *moral obligation* with the two behavioral intention variables *intention to sign an organ donation card* and *intention to communicate about* organ *donation* will be examined. At the end of the chapter, a research model and hypotheses respectively a research question regarding to the variables will be formulated.

2.1 Organ donation campaigns in Germany

The German organ donation scandal previously mentioned, earned a lot of attention in the German society. In 2013, the *DSO* analyzed the reasons why people are signing an organ donation card and why not (Deutsche Stiftung Organtransplantation, 2013b). 60% of respondents who did not own an organ donation card stated that they fear abuse through organ trafficking, 53% feared that organs are not distributed equitably, and 43% feared that physicians will let them die earlier when owning an organ donation card. These statements indicate that people associate risks with the idea of signing an organ donation card.

In consequence of the reasons mentioned above and the German "opt-in" system, it is necessary to actively convince the German population to sign an organ donation card. Recently, German health organizations like the *BZgA* or several health insurances try to improve the image of organ donation and to raise the number of people who sign an organ donation card. One of the means to reach these goals are organ donation campaigns. According to the literature, the *message (valence)* (Ferguson, Farrell, & Lawrence, 2008; Meyerowitz & Chaiken, 1987), the *type of spokesperson* (Cooper, 1984; Dillard & Main, 2013; Plapler, 1974), and the *spokesperson's gender* (Perse, Nathanson, & McLeod, 1996) are important factors that need to be considered when developing a campaign.

Obviously, the content of campaigns is of importance for their effectiveness. According to the Elaboration Likelihood Model (Petty & Cacioppo, 1986), a good combination of spokesperson and message is an appropriate means to change attitude via the central route, because individuals are sensitive to the trustworthiness and credibility of the source of a message (Walster, Aronson, & Abrahams, 1966), and also pay a lot of attention to the content of the persuasive message (Gleitman, Gross, & Reisberg, 2010).

The present study examines the influence of the independent variables *message valence*, *type of spokesperson*, *spokesperson's gender* on the dependent variables *attitude towards the campaign*,

personal distress, empathic concern, moral obligation, intention to sign an organ donation card, and *intention to communicate about organ donation*.

2.2 Message valence

People hold beliefs about almost everything in the everyday life. These beliefs hold motivational components, which can evoke emotions and are referred to as attitudes. The belief that defines an attitude is strongly connected with "emotional feelings and a predisposition to act in accordance with the belief and feelings" (Gleitman, Gross, & Reisberg, 2010, p. 514).

But, how do individuals form attitudes? Some attitudes are created based on observance of facts (Gleitman, Gross, & Reisberg, 2010), which can for example be transferred by means of a message: Then, individuals make a comparison between the pros and cons about a certain topic and create an attitude about it.

Sometimes, people even form attitudes based on different forms of learning, like classical conditioning (Cacioppo, Marshall-Goodell, Tassinary, & Petty, 1992), operant conditioning, or observational learning (Gleitman, Gross, & Reisberg, 2010).

One possibility to influence attitudes is the transfer of messages. As mentioned before, the Elaboration Likelihood Model (Petty & Cacioppo, 1986) is a good predictor of changing someone's attitude. The combination of spokesperson and message is an effective means in changing attitudes via the central route. According to the message, strong arguments will be more effective in changing attitudes than weak arguments, because individuals pay more attention to the content of the persuasive message in the central route (Gleitman, Gross, & Reisberg, 2010).

In health-and marketing-campaigns, gain-/ loss-framed messages are an often used means. Additionally, gain-/ loss-framed messages are adequate for transferring strong messages in just one sentence, what is important for the design of campaigns. Whereas a gain-framed message accentuates the positive outcomes of a certain behavior, a negative-framed message accentuates the negative outcomes of not performing that behavior (Gerend & Sias, 2009). According to Rothman's and Salovey's (1997) prospect theory, the effectiveness of the two valences depends on the perceived risk, threat, and uncertainty of acting out a certain behavior. According to this, the type of health behavior is important for the effects of *message valence*. Furthermore, they state that people are more willing to take a risk, when the message is formulated in terms of losses and avoid risk, when there is a message with a positive valence.

A study by Meyerowitz and Chaiken (1987) into the effects of gain-/ loss-framed breast self-examination messages found that loss framed messages led to more positive attitudes, intentions, and behaviors. The authors claimed that their findings are consistent with prospect theory's framing postulate (Kahneman & Tversky, 1979), which states that loss framed messages are maximizing risk-seeking behavior. Thus, after reading a negative framed message, people are more willing to perform risky behaviors in order to avoid negative outcomes for themselves.

Rothman et al. (1993) state that whereas messages containing a positive valence are more suitable for influencing intentions for prevention behaviors; messages with a negative valence are more suitable to influence intentions about detection behaviors. The authors further claim that the type of message valence needs to be sensitive to the promoted type of behavior.

In order to stimulate the target group's involvement, generating empathic sentiment by means of an organ donation message is essential (Skumanich & Kintsfather, 1996). Former studies determined that people feel aroused when observing the harm of others (Dovidio, 1984; Hoffman, 1982; Piliavin, Dovidio, Gaertner, & Clark, 1982). Batson and Coke (1981) state that there exist two distinct types of arousal: *personal distress* and *empathic concern*.

Personal distress refers to self-oriented feelings of anxiety, alarm, or worry (Skumanich & Kintsfather, 1996). In that case, the observer acts out a certain behavior in order to reduce the negative emotions after perceiving the distress of others. The two means of reducing this behavior are escaping or helping. In this case helping is called "egoistic helping", because it is "motivated by a desire for personal gain (e.g. material rewards, praise) or a desire to avoid personal pain (e.g. private guilt, punishment, shame)"(Skumanich & Kintsfather, 1996, p. 403). Thus, the helping behavior "has as its end goal the preservation of the welfare of the bystander rather than the victim" (Skumanich & Kintsfather, 1996). Supportive, a study by Ferguson, Farell, and Lawrence (2008) found that blood donation is partly selfish and not just influenced by altruistic factors.

The second kind of arousal that emerges when observing the distress of others is e*mpathic concern* (Batson & Coke, 1981). It includes feelings of compassion for the victim and is rather oriented towards the victim than self-oriented (Skumanich & Kintsfather, 1996). Thus, the observer acts out helping behavior for altruistic reasons and has "as its end goal the welfare of the victim (although altruistic helping may produce feelings of personal satisfaction or relief, personal gain is regarded as a by-product of the behavior rather than an end goal)" (Skumanich & Kintsfather, 1996, p.403). Thus, *empathic concern* instigates the performance of an altruistic behavior.

Linked to the present study, the message containing a negative valence seems to be able to influence *personal distress*, because it accentuates the negative outcomes of not signing an organ donation card and thus it can trigger people to perform "egoistic helping". However, the message with a positive valence can be of positive influence on *empathic concern*, because it accentuates the positive outcomes for other persons (people who are in need of an organ will survive).

Ferguson, Farrell, and Lawrence (2008) examined the topic of blood donation in relation to benevolent (which is equal to personal distress) and altruistic (equal to empathic concern) behaviors. The researchers found that "the presentation of a benevolent message, compared with an altruistic message, increased the willingness to donate for those who had made a commitment to donate." (p.334).

2.2.1 Hypotheses *message valence*

Based on the literature, the following hypotheses were formulated for the independent variable *message valence*:

H1: A message containing a negative valence is of positive influence on the receiver's attitude towards the campaign

H2: A message containing a negative valence is of positive influence on the receiver's personal distress with regards to organ donation

H3: A message containing a positive valence is of positive influence on the receiver's empathic concern with regards to organ donation

H4: A message containing a negative valence is of positive influence on the receiver's moral obligation with regards to organ donation

H5: A message containing a negative valence is of positive influence on the receiver's intention to sign an organ donation card

H6: A message containing a negative valence is of positive influence on the receiver's intention to communicate about organ donation

2.3 Type of spokesperson

Spokespersons are an often used instrument for marketing- and health campaigns (Dillard & Main, 2013). Cohen (2014, p.4) defines a spokesperson as a "character [who] must be an agent of the brand, who in some way verbally advocates for it, explains it, brings credibility to it, or otherwise delivers brand messaging that may persuade the receiver of the information to view the brand favorably".

The influence of the type of spokesperson can be seen in a study by Priester and Petty (1995), who found that when information is presented by an untrustworthy endorser it will be elaborated thoughtfully, but when information is presented by a trustworthy endorser, it will be unthinkingly accepted. Thus, the determination of the spokesperson is of crucial importance in order to develop a successful campaign.

Social Cognitive Theory states that people get confidence about their ability to act out a new behavior when they observe another person successfully performing that behavior (Bandura, 1986). Thus, the more the receiver judges the spokesperson as similar to himself, the more likely will the former imitate the behavior of the latter (for instance the behavior of signing a donor card). Thus, one can hypothesize that lay spokespersons would be more effective for an organ donation campaign than celebrities, because they are more similar to the receivers of the campaign in terms of income, lifestyle, and status. Additionally, Dillard and Main (2013) explored that a higher degree of

identification is positively associated with knowledge and behavioral intentions.

However, the use of celebrity spokespersons is popular in marketing- and health campaigns. Different studies state that the use of a famous spokesperson has several positive outcomes, like credibility of the advertisement, ad attention, ad memorability, and positive affect towards the brand (Cooper, 1984; Plapler, 1974).

Research has shown that the use of a celebrity endorser potentially leads to positive financial outcomes for the company (Erdogan, Baker, & Tagg, 2001; Farrell, Karels, Monfort, & McClatchey, 2000). McCracken (1989) states that famous spokespersons add value to a company, brand, or product through meaning transfer. The meaning-transfer-model claims that celebrities develop a persona by means of the roles they play in society and the way they are presented in the media. Then, society gives meaning to the celebrities and the company intends that this meaning transfer to the company, brand, or product (Erdogan & Bakker, 2000). Thus, when people are identifying with the celebrity, they purchase the product in hope that the meanings are also transferred to their own lives (McCracken, 1989). To be effective, the source (and this is valid for as well celebrity as lay spokespersons) needs to be credible, which largely depends on the expertise and trustworthiness of the spokesperson.

Baxter, Ilicic, and Kulczynski (2014) suggested that the match-up between the spokesperson and the object they are promoting is very important for the effectiveness of a campaign. The match-up-hypothesis suggests that the fit between endorser and brand respectively product is of influence on the effectiveness of the campaign (Till & Busler, 1998). Research examined that celebrity spokespersons are able to create awareness and initial interest, but that the receiver's attitude is not necessarily changed (Ohanian, 1991). The match-up-hypothesis states that physical attractiveness of the popular spokesperson will only have a positive influence on brand/ product evaluations if there is a fit between brand respectively product characteristics and celebrity image (Khatri, 2006).

Furthermore, the spokesperson's perceived credibility depends on visual cues, like attractiveness, and whether the receivers judge the spokesperson as believable, skilled, and knowledgeable (Baxter et al., 2014).

A study by Cram et al. (2003) examined the topic of cancer screening, because of the suboptimal participation of the public and found that the use of a celebrity spokesperson can increase public participation in preventive health care programs. The findings suggest that a celebrity spokesperson does not need to suffer from a specific disease, but can nevertheless have substantial impact on public behavior with regards to that disease.

The perceived credibility of a spokesperson influences the receiver's beliefs, opinions, attitudes, and behavior (Erdogan, 1999). Research shows that source credibility influences attitude towards the advertisement (Kamins, 1990), attitude towards the product (Priester & Petty, 2003), and purchase intentions (Ohanian, 1991).

A study by Harmon and Coney (1982) about source credibility in commercials has shown that

the effects on attitude and behavioral intention depend on the context and the content of the commercial. However, a study by Bush, Martin, and Bush (2004) discovered that sport celebrity spokespersons are of influence on teenage receivers' behavioral intentions. The use of a celebrity spokesperson is effective in order to reach a teenage target group, because celebrities act as role models for the young people and teenagers are orienting on their role models in order to see what is "cool" and which brands or products they are using.

Adapted to Petty and Cacioppo's Elaboration Likelihood Model (1986), the type of spokesperson is of crucial importance when using the peripheral route to change people's attitudes. The peripheral route is used when people do not care much about a certain topic (Gleitman, Gross, & Reisberg, 2010). In contrast to the central route, content and arguments are not very important. Instead, it counts how a message is introduced and who presents it (Petty & Brinol, 2008).

One model that can explain the influence of a spokesperson on behavioral intention is the Theory of Planned Behavior (TPB, Ajzen, 1985). According to TPB, behavioral intention is created by means of three influencers: *attitude*, *subjective norm*, and *perceived behavioral control* (*PBC*, Ajzen, 1985).

Subjective norm is the individual's belief that other persons expect that he or she performs a certain behavior (or not). Adapted to the present study people from the target group can be influenced by seeing that the spokesperson owns an organ donation card and thus feel some kind of moral obligation to also sign an organ donation card. *PBC* refers to the individual's evaluation if he/ she is able to act out the target behavior. Linked to the present study it can be claimed that people judge themselves as able to sign an organ donation card, because they see that the spokesperson also already signed one.

As mentioned before, *moral obligation* is a possible factor in the decision making process whether or not to sign an organ donation card, because moral obligation is a predictor of intentions (Haines, Street, & Haines, 2008). According to Gorsuch and Ortberg (1983), the intention of people to help other people is more influenced by moral obligation than by attitudes or social norms.

2.3.1 Hypotheses *type of spokesperson*

Based on the literature, the following hypotheses for the independent variable *type of spokesperson* were formulated:

H7: A lay spokesperson is of more positive influence on the receiver's attitude towards the campaign in comparison to a celebrity spokesperson

H8: A lay spokesperson is of more positive influence on the receiver's personal distress with regards to organ donation in comparison to a celebrity spokesperson

H9: A lay spokesperson is of more positive influence on the receiver's empathic concern with regards to organ donation in comparison to a celebrity spokesperson

H10: A lay spokesperson is of more positive influence on the receiver's moral obligation with regards to organ donation in comparison to a celebrity spokesperson

H11: A lay spokesperson is of more positive influence on the receiver's intention to sign an organ donation card in comparison to a celebrity spokesperson

H12: A lay spokesperson is of more positive influence on the receiver's intention to communicate about organ donation in comparison to a celebrity spokesperson

2.4 Spokesperson's gender

Another decision that organ donation organizations need to make regarding to their campaigns is the gender of the spokesperson. A study by Edwards and la Ferle (2009) discovered that gender congruency between the receiver and a celebrity spokesperson has the potential to influence attitudes, but was not of influence on processing negative information about the celebrity.

Brownlow and Zebrowitz (1990) stated in a study about facial expressions of TV spokespersons, that female spokespersons are perceived as more trustworthy, but male spokespersons are perceived as authoritative experts.

Furthermore, Carli (2001) stated that "people assume that men are more competent and knowledgeable than women are, that women are warmer and more communal than men are, that men have more right to act as authorities than woman do, and that women must communicate communal motivation more than men." (p.726). Additionally, Carli (2001) claims that people are generally more open to the influence of a man and that women's influence is more conditional in terms of using an influence style that corresponds to the stereotypical female role. But, she also states that gender differences in influence are depending on the context of the interaction and the behavior displayed by the influencer.

In addition, the product's nature or the issue are also interacting with the spokesperson's gender (Feldman-Summers, Montano, Kasprzyk, & Wagner, 1980). This means that, when a product or issue is associated with a certain type of gender, promotion will be better by a spokesperson of that gender (e.g. make-up and female spokesperson). According to the match-up hypothesis, the better the fit between the spokesperson and the product or object, the greater the persuasive effects (Baxter et al., 2014). For the present study this may imply that congruency in gender between spokesperson and receiver will create a positive attitude towards organ donation and towards signing a donor card. Because organ donation is not a typical male or female stereotyped object, it was doubtful whether this effect can be measured in the present study.

Another study by Perse et al. (1996) found no differences between male and female

spokespersons according to their effectiveness in a campaign for condom use. Thus, results of former studies regarding to effects of the *spokesperson's gender* vary.

Although, there seem to be only few studies into the relation between the gender of the spokesperson and behavioral intention, there may at least exist an indirect connection between both. This can be claimed, because, as previously mentioned, the *spokesperson's gender* can influence the receiver's attitude. And furthermore, attitude is of influence on behavioral intention.

According to a study of Diekman and Eagly (2000) communality is one of the moderators of gender differences in social influence. The authors assumed that women are perceived as warmer and nicer than men. Communal behaviors are behaviors like smiling, agreement expression, and showing support of others (Carli & Eagly, 1999), but also "explicitly stating that one is motivated to help or benefit others" (Carli, 2001, p. 733). This fact is interesting, because it can be linked to the dependent variables *personal distress* and *empathic concern*, where people for different altruistic or egoistic reasons are motivated to help others (Batson & Coke, 1981). Thus, because of communality, female spokespersons may be more effective in order to evoke feelings of *personal distress* and/ or *empathic concern*.

2.4.1 Research question *spokesperson's gender*

For the independent variable *spokesperson's gender*, no hypotheses were formulated, because there was not enough existing scientific evidence in order to formulate well-founded hypotheses. Instead, a research question was formulated in order to determine the influence of the independent variable *spokesperson's gender* on the dependent variables formulated for this study. The following research-question was formulated in order to examine the influence of the factor *spokesperson's gender*.

To what extent differs the influence of using a female or a male spokesperson with regards to their effects on the dependent variables attitude towards the campaign, personal distress, empathic concern, moral obligation, intention to sign an organ donation card, intention to communicate about organ donation?

2.5 The relation between attitude towards the campaign, personal distress, empathic concern, moral obligation and intention to sign an organ donation card, and intention to communicate about organ donation

Based on previous studies, it can be assumed that the dependent variables *attitude towards the campaign*, *personal distress*, *empathic concern*, and *moral obligation* are of influence on the dependent variables regarding to behavioral intention (*intention to sign an organ donation card*; *intention to communicate about organ donation*).

There are several theories claiming that *attitude* is of influence on behavioral intention. One of

the most famous theories about this topic is the Theory of Planned Behavior (TPB) (Ajzen & Fishbein, 1980). This theory is an influential social cognitive model with the goal to reveal the processes that lead to the performance of behavioral intention. According to the TPB, intention is created by means of two influencers: attitude, and subjective norm (Ajzen & Fishbein, 1980). Later, perceived behavioral control (PBC) (Ajzen, 1985) was added to the existing model. According to Ajzen and Fishbein (1980), attitude refers to the individual's evaluation of acting out the behavior.

Gorsuch and Ortberg (1983) extended the TPB by the component *moral obligation.* In their study, they added *moral obligation* to the existing TPB and tested the influence of the variables on behavioral intention. With the result that in "moral situations" the variable *moral obligation* had a significantly higher influence on behavioral intention than attitude or social norms.

According to Skumanich and Kintsfather (1996), also *personal distress* and *empathic concern* are of influence on behavioral intention. In their study about persuasion effects of several factors for organ donation cards they stated that empathy arousal is an important influencer of the behavioral intention to sign an organ donation card. According to the authors, there are two different types of empathy arousal: *personal distress* and *empathic concern*. Based on *personal distress*, people form behavioral intentions because of self-oriented emotions (e.g. anxiety, alarm, worry). This helping-behavior is referred to as egoistic helping, in which "helping [is] motivated by a desire for personal gain (e.g. material rewards, praise) or a desire to avoid personal pain (e.g. private guilt, punishment, shame)" (p.403).

In contrary, people form behavioral intentions based on *empathic concern* out of feelings of compassion for the victim. Thus, a person who forms a behavioral intention out of feelings of *empathic concern* "is motivated to reduce the victim's distress and behaviorally engages in altruistic helping" (p.403).

2.5.1 Hypotheses about the influence of the dependent variables on behavioral intention

H13: The receiver's *attitude towards the campaign* is of influence on the intention to *sign an organ donation card*

H14: The receiver's *attitude towards the campaign* is of influence on the *intention to communicate about organ donation*

H15: The degree of the receiver's *personal distress* is of influence on the *intention to sign an organ donation card*

H16: The degree of the receiver's *personal distress* is of influence on the *intention to communicate about organ donation*

H17: The degree of the receiver's *empathic concern* is of influence on the *intention to sign an organ donation card*

H18: The degree of the receiver's *empathic concern* is of influence on the *intention to communicate about organ donation*

H19: The degree of the receiver's *moral obligation* is of influence on the *intention to sign an organ donation card*

H20: The degree of the receiver's *moral obligation* is of influence on the *intention to communicate about organ donation*

2.6 Interaction between the independent variables

The present study combines the factors *message valence*, *type of spokesperson*, and *spokesperson's gender* in order to examine the effectiveness of the manipulations.

One of the most famous models explaining the relation between message and message source is the Elaboration Likelihood Model (Petty & Cacioppo, 1986). The model states that a good combination of message and message source is effective in changing attitudes. Further, Petty & Cacioppo (1986) state that in the model's central route, individuals are sensitive to as well the content of the message and the source of the message.

Other studies showed that the appropriate use of advertisement elements maximizes the advertising effectiveness. McCracken (1989) found that celebrity spokespersons can transfer meanings to brands, and the message is distorting consumers in their decision making process (Cleland, Gross, Koss, Daynard, & Muoio, 2002).

A study by Wu, Linn, Fu, and Sukoco (2012) examined effects of endorser type, message framing and rewards on the effectiveness of dietary supplement advertisements. The researchers found responses to the ad as most favorable when the ad was presented by a celebrity endorser, with an extrinsic reward and a positive framed message.

In addition, Erdogan (1999) found that the effectiveness of a celebrity spokesperson is, amongst others, moderated by the type of message.

Furthermore, Freiden (1984), and Reidenbach and Pitts (1986) found that any type of spokesperson is of influence on the persuasiveness of the message and affects the response of the consumer.

Based on the literature mentioned above, the following research question could be formulated:

Which combination of message valence and type of spokesperson is most effective in influencing the dependent variables attitude towards the campaign, personal distress, empathic concern, moral obligation, intention to sign an organ donation card, and intention to communicate about organ donation?

Although there are several studies which were examining the interaction between the message and the spokesperson's gender, no studies could be found which were examining the interaction between message valence and the gender of the spokesperson.

For instance, a study by Brownlow and Zebrowitz (1990) indicated that whereas male spokespersons are more effective in delivering expert messages, female spokespersons are more effective in delivering trustworthy messages.

For the interaction between message valence and spokesperson's gender, the following research question was formulated:

Which combination of message valence and spokesperson's gender is most effective in influencing the dependent variables attitude towards the campaign, personal distress, empathic concern, moral obligation, intention to sign an organ donation card, and intention to communicate about organ donation?

According to the interaction effect of *type of spokesperson* and *spokesperson's gender*, several previous studies have examined which characteristics of spokespersons are most effective, with different results (Erdogan, 1999; Misra & Beaty, 1990; Till & Busler, 1998). One theory that best explains the diverse findings is the match-up hypothesis (Till & Busler, 1998). According to the match-up hypothesis, the characteristics of the spokesperson need to match to the endorsed product or object in order to be persuasive (Baxter et al., 2014). Adapted to the present study, this implies that the combination of *type of spokesperson* and *spokesperson's gender* needs to match to the topic of organ donation in order to persuade the receivers.

Thus, for the interaction of these two independent variables, the following research question was formulated:

Which combination of type of spokesperson and spokesperson's gender is most effective in influencing the dependent variables attitude towards the campaign, personal distress, empathic concern, moral obligation, intention to sign an organ donation card, and intention to communicate about organ donation?

According to a possible three-way interaction between message valence, type of spokesperson, and spokesperson's gender, little research has focused on possible interaction effects between these three variables.

However, a study of Andsager, Bemker, Choi, and Torwel (2006) indicated that the receiver's perceived similarity to the message endorser (for instance according to status and gender) influences the message's effectiveness. Adapted to the current study, this may imply that congruence of the receiver and the spokesperson according to type (or status) and gender positively influences the effectiveness of the message.

Accordingt to the three-way interaction, the following research question was formulated:

Which combination of message valence, type of spokesperson ,and spokesperson's gender is most effective in influencing the dependent variables attitude towards the campaign, personal distress, empathic concern, moral obligation, intention to sign an organ donation card, and intention to communicate about organ donation?

2.7 Research model

In order to illustrate the structure of the present study, the following research model (*Figure 1*) was built.

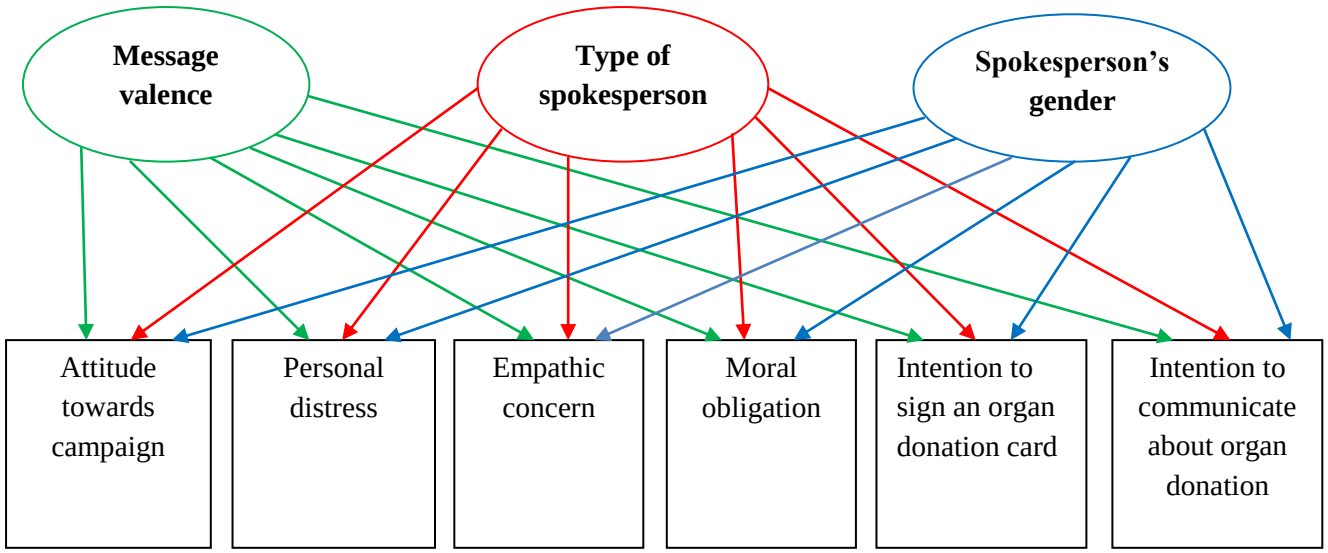

Figure 1: The research model

3. Method

In the following section, an overview of the methodology of the present study will be given. The section will discuss the study's design, data collection and procedure, scale development, and respondents.

3.1 Design

The design of the present study was a 2 (positive vs. negative message valence) x 2 (lay vs. celebrity spokesperson) x 2 (female vs. male spokesperson) experimental manipulation in combination with an online survey. The respondents were randomly assigned to one of eight different conditions and had to fill in the survey afterwards. The conditions differed in terms of the campaign elements presented in the campaign posters shown to the research participants.

3.1.1 Scale development

Most of the items used in this study were adapted from earlier studies. The items were translated from English into German and adapted to the context of the present study. All items were supposed to measure the different constructs after the respondent was already confronted with the campaign poster.

3.1.1.1 Scales *attitude towards organ donation in general*

In the original concept of the current study, the dependent variable *attitude towards organ donation in general* was included. Unfortunately, the scale earned a low score for Cronbach's Alpha (α= .46). Also, removing several items did not lead to an acceptable value for α. Thus, this construct had to be removed from the study. Because of that, this variable was removed from the analysis and also in this research report.

The items for the construct *attitude towards organ donation in general* were gained from a study by Morgan and Miller (2002). In their study, the authors identified *attitude* as a predictor of behavior in the context of organ donation campaigns. Thus, the items perfectly fitted to the context of the present study. The items did not need to be adjusted to the context of the present study. In the following, two examples of items for *attitude towards organ donation in general*:

- *I support the idea of organ donation for transplantation purposes*
- *I view organ donation as a negative procedure (-)*

3.1.1.2 Scales *attitude towards the campaign*

The items used to measure *attitude towards the campaign* were gained from a study by Nan (2006). Nan (2006) did research on the influence of two affective cues *called attitude toward the parent brand* and *attitude toward the extension ad on brand-extension evaluation*. The four items formulated to

measure attitude towards the extension ad were *pleasant/unpleasant, interesting/ boring, likeable/ unlikeable* and *good/ bad.* They are often used items in studies where attitudes towards advertisements are measured and thus they suited well to the present study. The item *credible/ non-credible* is added by the researcher of this study, because a study by Harmon and Coney (1982) has shown that context and content of a commercial are influencing attitude and behavioral intention.

In the current study, the scale earned a high score for Cronbach's alpha (α=.87). Thus the data of the items belonging to this scale can be judged as reliable.

3.1.1.3 Scales *personal distress* and *empathic concern*

The items used to measure *personal distress* and *empathic concern* were originally formulated in a study by Davis (1980). The researcher developed a multidimensional individual difference measure for empathy. In total, four scales were formulated; including *empathic concern* and *personal distress*. The items were adjusted to the context of this study. The following items are examples for the scales for *personal distress*:

- *I feel helpless*
- *I remain calm (-)*

Two examples of items used to measure the construct *empathic concern*:

- *I feel the need to help people who are in need for an organ*
- *I don't feel very much pity for people who are in need for an organ (-)*

In the present study, both scales earned acceptable scores for Cronbach's alpha. Thus, the items belonging to the constructs *personal distress* (α= .79) and *empathic concern* (α= .82) can be seen as reliable.

3.1.1.4 Scales *moral obligation*

The items used to measure *moral obligation* were based on a study by Beldad, Snip, and van Hoof (2014). The researchers identified determinants responsible for repeating donation intentions. Items were adapted to the context of the present study. Two examples of items for the measurement of *moral obligation*:

- *I feel the moral obligation to donate organs post mortem*
- *I think it is egoistic not to donate organs post mortem*

For the current study, the scale for *moral obligation* earned a sufficient high score for Cronbach's alpha (α= .83). Thus, no items belonging to this scale had to be removed.

3.1.1.5 Scales *intention to sign an organ donation card*

The items used to measure *intention to sign an organ donation card* were also gained from the study by Beldad, Snip, and van Hoof (2014). One item was added by the researcher of the present study:

- *I do not have the intention to sign a donor card (-)*
- *I am intending to sign a donor card in the near future*

The scale for *intention to sign an organ donation card* scored very high on Cronbach's alpha (α= .93). Thus, no items belonging to this construct had to be removed in order to raise the value for Cronbach's alpha.

3.1.1.6 Scales *intention to communicate about organ donation*

The items for *intention to communicate about signing an organ donation card* were originally formulated by Bresnahan et al. (2007). The content of the study was to determine the willingness of Americans, Japanese, and Koreans to sign an organ donation card by means of the theory of planned behavior. The items were adjusted to the present study. One item was added by the researcher of the present study. Two examples of items meant to measure *intention to communicate about signing an organ donation card*:

- *I would feel comfortable talking to people from my social network (family, friends, acquaintances, colleagues etc.) about signing an organ donation card*
- *I will recommend to sign an organ donation card to people from my social environment*

For the present study, this scale earned an acceptable score for Cronbach's alpha (α= .78). Thus, the items belonging to this construct can be judged as reliable.

3.1.2 Pilot test

In order to test the research instrument, a pilot test with eight respondents was executed. The aim was to identify ambiguities and comprehension questions. *Appendix D* gives a summary of the pretest's annotations. Based on the annotations, some adjustments were made. Two items were rephrased in order to be more understandable for the respondents. Additionally, for the question about the respondents' place of residence, a button was added for Germans, who are currently living abroad.

3.2 Data collection and procedure

The survey was created online by means of the online survey software Qualtrics. The online questionnaire was disseminated to respondents through social media and via e-mail. To reach as many respondents as possible, the snowball sampling technique (Atkinson & Flint, 2001) was employed. The researcher sent the link to the survey to friends and acquaintances via the social network

Facebook and then it was further disseminated. Furthermore, schools, professional schools, and universities were contacted via e-mail in order to share the survey's link with their students.

The time to fill in the survey was not limited; respondents had as much time as needed.

3.2.1 The pretest: Determination of the spokesperson

To determine the male and female celebrity spokespersons presented in the campaigns, two Q-sort pretests were conducted. The respondents were confronted with pictures of 16 female, and 16 male German celebrities, and were asked to sort them according to their perceived credibility for a campaign for organ donation cards. The celebrities who formed the Q-sort were chosen conscientiously and had to fulfill several requirements in four different categories. *Table 1* gives an overview of the different requirements.

Table 1: Requirements for the determination of the Q-sort's Q-set

Category	Requirements
Sports	participant of the last Olympic Games (Winter 2014, Summer 2012); medal winner; individual discipline; 18-35 years
Musicians	Solo- artists; the four highest German acts in the German top 100 charts of the year 2013; 18 -35 years
Actors	Leading part in a movie that was in the top 5 of German cinema charts in 2013/ 2014; 18-35 years
TV-hosts	host of a TV-show within the last two years (2013,2014); because of the large number of possible persons, the four youngest per category were chosen; 18-35 years

With the aid of the analysis program *PCQ*, a factor analysis and a correlational analysis were conducted in order to indicate the degree of correspondence between respondents. Based on the determined factor groups, it can be claimed that the target group prefers actors or sport-stars as a male spokesperson for organ donation card campaigns. Based on the results of the pretest, sportsman Fabian Hambüchen is the most credible male celebrity out of the male p-set. Additionally, the pretest for female celebrities showed that athletes and actresses were judged as most credible for such a

campaign. Based on the pretest, the actress Jasmin Gerat is the most credible female celebrity for a campaign for organ donation cards. The results of both factor analyses supported the SPSS mean calculations.

Based on the results of the pretests, two lay persons who are closely similar to the celebrities, with regards to age, appearance, facial expressions and bearing, were chosen. The researcher expected that this makes the comparison of the results of lay respectively celebrity spokespersons more reliable. An overview of the Q-sort's data can be seen in *Appendix A.*

3.3 Materials

Before conducting the study, several materials had to be created and to be analyzed. The eight stimulus materials had to be created. The flow and content of the survey had to be determined. After the data collection, the reliability of the several constructs was calculated.

3.3.1 Development of stimulus material

The different posters were created by means of the graphics editor GIMP. The structure of the posters was inspired by the campaign of the *Bundesministerium für Gesundheit* (*BMG*) and the *Bundeszentrale für gesundheitliche Aufklärung*(*BZgA*) in 2013. Names and professions of the lay spokespersons are imaginary; their pictures were bought from the stock photo agency 123rf. *Image 9* and *Image 10* are showing the original pictures as bought from 123.rf [1]

Image 9: Female lay spokesperson

Image 10: Male lay spokesperson

The names of the lay persons were chosen based on the most popular names of the year of birth of their celebrity counterpart. Fabian Hambüchen is born in 1987; the most popular first name for boys born in that year is Christian (Nübling, 2009). The female celebrity, Jasmin Gerat, is born in 1978; the most popular first name for girls born in that year is Sandra (Nübling, 2009). For the surname it was chosen for Müller, which is the most common name in Germany at the moment (Kohlheim &

[1] http://www.123rf.com

Kohlheim, 2005).

The creation of the messages was also inspired by real campaigns of the *BMG* and *BZgA*. The messages had to be indicated as a quote from the spokesperson and had to consist of just one sentence with a clear message. *Image 11* gives an example of the real campaign of *BMG* and *BZgA*, whereas *Image 12*is an example of the stimulus material for the present study.

Image 11: Poster of the campaign by BMG and BZgA in 2013

Image 12: Poster of the present study (condition 5)

In total, eight different poster versions (differing in *message valence*, *type of spokesperson*, and *spokesperson's gender*) were developed. *Table 2* gives an overview of the different version's content. The created stimulus material can be seen in *Appendix C*.

The analysis of the data has shown that the manipulation check was successful. For the manipulation check, the respondents were asked to answer questions regarding to the content of the message and the characteristics of the spokesperson. As well the question about the content of the message (p= 0.000), about the type of spokesperson (p= 0.000), as the question about the gender of the spokesperson (p= 0.000) were successful. Therefore, no further data had to be deleted, and the manipulations can be judged as successful.

Table 2: An overview of the design of the different experimental conditions

Condition	Characteristics	Content
1	positive message valence, lay, male	"Christian Müller", "Owning an organ donation card saves lives"
2	negative message valence, lay, male	"Christian Müller", "Not owning an organ donation card lets people die"
3	positive message valence, lay, female	"Sandra Müller", "Owning an organ donation card saves lives"
4	negative message valence, lay, female	"Sandra Müller", "Not owning an organ donation card lets people die"
5	positive message valence, celebrity, male	Fabian Hambüchen, "Owning an organ donation card saves lives"
6	negative message valence, celebrity, male	Fabian Hambüchen, "Not owning an organ donation card lets people die"
7	positive message valence, celebrity, female	Jasmin Gerat, "Owning an organ donation card saves lives
8	negative message valence, celebrity, female	Jasmin Gerat, "Not owning an organ donation card lets people die"

3.3.2 Flow and content of the survey

The survey started with a short introductionary text about the topic, and objectives of the study. Additionally, statements about procedure, anonymity, and information (name, university, e-mail) about the responsible researcher were made. Furthermore, the respondents were informed that they are free to stop the survey at any time.

Before the confrontation with one of the posters, respondents had to provide several demographic and personal information such as age, gender, ownership of organ donation card, place of residence, religion, education and profession.

After the confrontation with one of the eight conditions, the dependent variables were measured on 7-point-Likert scales (Allen & Seaman, 2007). In addition, questions regarding to the credibility of as well message and spokesperson were included. In order to eliminate manipulations and bias, some manipulation check questions regarding to status and gender of the spokesperson, and the content of the message were formulate

The English version of the survey can be seen in *Appendix B.*

3.4 Respondents

The target group consisted of German people in the age between 16 and 25. This decision was made because in Germany it is possible to sign a donor card when a person has reached the age of 16. Furthermore, research has shown that the group of German people in the age between 14 and 25 has the highest discrepancy between attitude and behavior regarding to the topic of organ donation (Bundeszentrale für gesundheitliche Aufklärung, 2014). Additionally, this was also the reason why the population was limited to people who do not own an organ donation card yet. The mean age of the respondents from the cleaned dataset was 20,67 years. *Table 3* gives an overview of the respondents' distribution of age.

Table 3: Respondents distribution of age (including frequencies, percentages, and total mean, n= 239)

Age	Frequency	Percentage	Mean
16	17	7.1	
17	17	7.1	
18	20	8.4	
19	28	11.7	
20	44	18.4	
21	20	8.4	
22	28	11.7	
23	18	7.5	
24	19	7.9	
25	28	11.7	
Total	239	100	20.67

Because respondents were underage, they had to give their informed consent by starting the survey after reading the introduction. Furthermore, respondents were informed about the possibility to stop at any time. In addition, the ethical committee of the University of Twente checked the case of the present study and agreed to survey underage respondents.

In total 239 respondents participated in the present study. 169 respondents were female and 70 were male. Thus, 70.71% of respondents were female and 29.29% were male.

Respondents were also asked regarding to their place of residence. Most respondents derived from North Rhine-Westphalia (n=174). Thus, 72.8% of respondents were deriving from this German state. *Table 4* gives an overview of the respondents' places of residence.

Table 4: Respondents place of residence (German state) (including frequencies and percentages, n= 239)

Place of residence	Frequency	Percentage
Baden-Württemberg	8	3.3
Bavaria	8	3.3
Berlin	2	0.8
Brandenburg	0	0.0
Bremen	2	0.8
Hamburg	0	0.0
Hesse	5	2.1
Mecklenburg-West Pomerania	2	0.8
Lower Saxony	14	5.9
North Rhine-Westphalia	174	72.8
Rhineland-Palatinate	5	2.1
Saarland	1	0.4
Saxony	1	0.4
Saxony-Anhalt	0	0.0
Schleswig-Holstein	1	0.4
Thuringia	0	0.0
Abroad	16	6.7
Total	239	100

Another demographic question was asking for the religion of the respondents. Most respondents were Roman Catholic (n=120), 66 respondents were Protestants. Thus, 77.8% of the respondents were Christians, 17.2% of respondents were undenominational and 5% were worshipping other religions. *Table 5* is an overview of the respondents' distribution of religions.

Table 5: Distribution of respondents' religion (including frequencies and percentages, n= 239)

Religion	Frequency	Percentage
Roman Catholic	120	50.2
Protestant	66	27.6
Muslim	4	1.7
Jewish	1	0.4
Buddhist	1	0.4
Hindu	1	0.4
Other	5	2.1
Undenominational	41	17.2
Total	239	100

In addition, the respondents were asked to report their current level of education. All in all, it can be said that the respondents have a high level of education. 82.1% of respondents have at least a advanced technical college entrance qualification (Fachhochschulreife), the general qualification for university entrance (allgemeine Hochschulreife) or a higher education (Bachelor, Master, doctor's degree). *Table 6* gives an overview of the respondents' distribution educations.

Table 6: Respondents' current distribution of educations (including frequencies and percentages, n= 239)

Education	Frequency	Percentage
No graduation	6	2.5
Hauptschulabschluss (English: CSE)	2	0.8
Realschulabschluss (English: GCSE)	31	13.0
Fachhochschulreife/ Hochschulreife (English: ATCEQ/ HEEC)	166	69.5
Bachelor	26	10.9
Master	3	1.3
Doctor's degree	1	0.4
Other	4	1.7
Total	239	100

Additionally, the respondents reported their current profession. Most of the respondents who participated in the present study were university students (64.4%). *Table 4* presents the current professions of the respondents. *Table 7* is an overview over the current professions of the respondents.

Table 7: Current professions of respondents (n=239)

Profession	**Frequency**	**Percentage**
Pupils	44	18.4%
University students	154	64.4%
Job seekers	3	1.3%
Employees	21	8.8%
Self-employed workers	1	0.4%
Other	16	6.7%

4. Results

In order to test the effects of the independent variables of *message valence*, *type of spokesperson*, and *spokesperson's gender* on the dependent variables *attitude towards the campaign*, *personal distress*, *empathic concern*, *moral obligation*, *intention to sign an organ donation card*, and *intention to communicate about organ donation* a MANOVA analysis was conducted. In addition, a regression analysis was done in order to test the effects of *attitude towards the campaign*, *personal distress*, *empathic concern*, and *moral obligation* on the two behavioral intention variables. At the end of the section, an overview of the respondents' annotations about the content of the campaign will be given.

4.1 Analysis

In order to evaluate the data of the present study, the data were analyzed by means of the software package IBM SPSS Statistics 21.

The data collected by means of the software tool Qualtrics could directly be imported into the SPSS dataset. Datasets which were not filled in completely, or were filled in by respondents not belonging to the target group had to be removed in order to gain a cleaned dataset. In total 416 subjects participated in the current study. After cleaning the dataset, there were 239 respondents left.

After cleaning the dataset, descriptives and frequencies of the data were calculated, like the number of men and women, the mean-age of the respondents, the respondents' profession, and so on. Additionally, the distribution of respondents per condition was determined. *Table 8* gives an overview of the number of respondents per condition, which were almost equally distributed.

Table 8: The number of respondents per condition (n=239)

Condition	Number of respondents
1 (male, lay, positive message valence)	34
2 (male, lay, negative message valence)	28
3 (female, lay, positive message valence)	33
4 (female, lay, negative message valence)	31
5 (male, celebrity, positive message valence)	29
6 (male, celebrity, negative message valence)	26
7 (female, celebrity, positive message valence)	30
8 (female, celebrity, negative message valence)	31
Total	239

4.2 Attitude towards the campaign

A MANOVA was conducted in order to test the main effects of the independent variables *message valence*, *type of spokesperson*, and *spokesperson's gender* on the dependent variable *attitude towards the campaign*.

As expected before, *message valence* had main effects on the *attitude towards the campaign* (F (1, 231) =7.57, p=0.006). The message with the negative valence (*M*= 4.52, *SD*= 0.12) had a significantly higher mean score for *attitude towards the campaign* than the message containing a positive valence (*M* = 4.07, *SD* = 0.12). Both valences led to a positive mean score for *attitude towards the campaign*, but the message containing a negative valence was more effective.

Contrary to the expectations of the researcher, no significant results were found for the independent variables *type of spokesperson*, and *spokesperson's gender* on a*ttitude towards the campaign.*

In addition, a two-way interaction was found for *type of spokesperson* x *spokesperson's gender* (F (1, 231) = 5.51, p=.020). The highest mean score (*M)* for *attitude towards the campaign* was found for the male lay spokesperson (*M* = 4.59, *SD*= 0.16). But, also the female celebrity spokesperson (*M*= 4.38, *SD* = 0.17), the female lay spokesperson (*M*= 4.11, *SD* = 0.16), and the male celebrity spokesperson (*M* =4.09, *SD*= 0.17) led to a positive *attitude towards the campaign*.

Table 9 presents the mean scores for *attitude towards the campaign*. *Figure 2* illustrates the two-way interaction of *type of spokesperson* x *spokesperson's gender* on *attitude towards the campaign.*

Table 9: Mean scores for attitude towards the campaign (n= 239)

Type of spokesperson	Spokesperson's gender	Message valence: Positive *M (SD)*	Negative *M (SD)*	Total *M (SD)*
Lay	Female	3.99 (0.23)	4.23 (0.23)	4.11 (0.16)
	Male	4.44 (0.22)	4.74 (0.24)	4.59 (0.16)
	Total	4.22 (0.16)	4.48 (0.17)	4.35 (0.11)
Celebrity	Female	3.99 (0.24)	**4.77 (0.23)**	4.38 (0.17)
	Male	3.84 (0.24)	4.34 (0.26)	4.09 (0.17)
	Total	3.91 (0.17)	4.56 (0.17)	4.24 (0.12)
Total	Female	3.99 (0.16)	4.50 (0.16)	4.25 (0.12)
	Male	4.14 (0.16)	4.54 (0.18)	4.34 (0.12)
	Total	4.07 (0.12)	4.52 (0.12)	4.29 (0.08)

Note: The highest mean score is highlighted

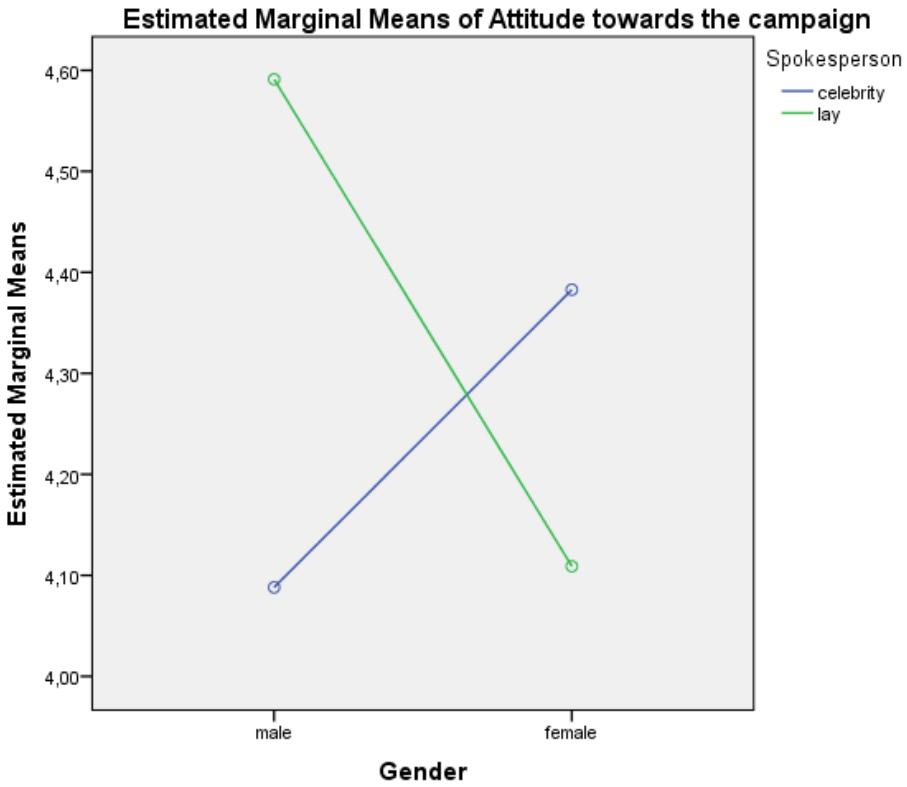

Figure 2: The two-way interaction effect for attitude towards the campaign (Estimated marginal means)

4.3 Personal distress

A MANOVA was conducted to test the effects of the independent variables *message valence*, *type of spokesperson*, and *spokesperson's gender* on the dependent variable *personal distress*.

The results showed a main effect for *message valence* on *personal distress* (F (1, 231) = 10.24, p= 0.002). The message with the negative valence (*M*= 2.93, *SD* = 0.09) scored significantly higher on *personal distress* than the message containing a positive valence (*M* = 2.54, *SD*= 0.09). However, both valences led to a low score of *personal distress*.

Additionally, main effects were found for the *type of spokesperson* (F (1, 231) = 8.14, p= 0.005). The lay spokesperson (*M* = 2.91, *SD* = 0.09) scored significantly higher on *personal distress* than the celebrity spokesperson (*M* = 2.56, *SD* = 0.09). In total, both conditions scored low for the degree of *personal distress*. *Table 10* gives a detailed overview of the several mean scores for *personal distress*.

No significant differences could be found for the effect of the independent variable *spokesperson's gender* on the dependent variable *personal distress*.

Additionally, no interaction effects of the several independent variables on *personal distress* were found.

Table 10: Mean scores for personal distress (n= 239)

		Message valence		
Type of spokesperson	Spokesperson's gender	Positive *M (SD)*	Negative *M (SD)*	Total *M (SD)*
Lay	Female	2.65 (0.17)	3.10 (0.17)	2.87 (0.12)
	Male	2.72 (0.16)	**3.17 (0.18)**	2.95 (0.12)
	Total	2.68 (0.12)	3.13 (0.12)	2.91 (0.09)
Celebrity	Female	2.22 (0.18)	2.75 (0.17)	2.49 (0.12)
	Male	2.57(0.18)	2.70 (0.19)	2.64 (0.13)
	Total	2.39 (0.12)	2.73 (0.13)	2.56 (0.09)
Total	Female	2.44 (0.12)	2.92 (0.12)	2.68 (0.09)
	Male	2.64 (0.12)	2.94 (0.13)	2.79 (0.09)
	Total	2.54 (0.09)	2.93 (0.09)	2.73 (0.06)

Note: The highest mean score is highlighted

4.4 Empathic concern

The effects of the independent variables *message valence*, *type of spokesperson*, and *spokesperson's gender* on the dependent variable *empathic concern* were tested by means of a MANOVA.

The results showed significant main effects for *message valence* on *empathic concern* (F (1, 231) = 5.81, p= 0.017). In contrast to the expectations before, the positive valence was not scoring higher on the degree of *empathic concern* than the message containing a negative valence. Instead, the results showed a reverse effect, where the negative message valence (*M* = 5.11, *SD* = 0.10) scored significantly higher than the positive message valence (*M* = 4.77, *SD* = 0.10). But, it has to be mentioned that both valences led to high mean scores. *Table 11* gives an overview of the several mean scores for *empathic concern*.

The results showed no significant effects for the independent variables *type of spokesperson*, and *spokesperson's gender* on the dependent variable *empathic concern*.

Additionally, no interaction effects on *empathic concern* were found. Thus, combinations of the independent variables had no significant effects and no conclusions can be formulated regarding to that topic.

Table 11: Mean scores for empathic concern (n= 239)

		Message valence		
Type of spokesperson	Spokesperson's gender	Positive *M (SD)*	Negative *M (SD)*	Total *M (SD)*
Lay	Female	4.91 (0.19)	5.05 (0.19)	4.98 (0.13)
	Male	5.01 (0.18)	5.09 (0.20)	5.05 (0.14)
	Total	4.96 (0.13)	5.07 (0.14)	5.01 (0.10)
Celebrity	Female	4.50 (0.20)	**5.28 (0.19)**	4.89 (0.14)
	Male	4.67 (0.20)	5.00 (0.21)	4.83 (0.15)
	Total	4.59 (0.14)	5.14 (0.14)	4.86 (0.10)
Total	Female	4.71 (0.14)	5.17 (0.14)	4.94 (0.10)
	Male	4.84 (0.13)	5.04 (0.15)	4.94 (0.10)
	Total	4.77 (0.10)	5.11 (0.10)	4.94 (0.07)

Note: The highest mean score is highlighted

4.5 Moral obligation

By means of the MANOVA, no effects could be found for the independent variables *message valence*, *type of spokesperson*, and *spokesperson's gender* on the dependent variable *moral obligation*.

Furthermore, no interaction effects for the independent variables on the dependent variable *moral obligation* could be found.

Table 12 presents the several mean scores for *moral obligation*.

Table 12: Mean scores for moral obligation (n= 239)

		Message valence		
Type of spokesperson	Spokesperson's gender	Positive *M (SD)*	Negative *M (SD)*	Total *M (SD)*
Lay	Female	4.15 (0.23)	4.15 (0.23)	4.15 (0.16)
	Male	4.02 (0.22)	**4.45 (0.24)**	4.23 (0.16)
	Total	4.08 (0.16)	4.30 (0.17)	4.19 (0.12)
Celebrity	Female	3.76 (0.24)	3.79 (0.23)	3.77 (0.17)
	Male	3.77 (0.24)	4.21 (0.26)	3.99 (0.18)
	Total	3.76 (0.17)	4.00 (0.17)	3.88 (0.12)
Total	Female	3.95 (0.17)	3.97 (0.16)	3.96 (0.12)
	Male	3.89 (0.16)	4.33 (0.18)	4.11 (0.12)
	Total	3.92 (0.12)	4.15 (0.12)	4.04 (0.08)

Note: The highest mean score is highlighted

4.6 Intention to sign an organ donation card

The MANOVA was not showing any main effects for the independent variables *message valence*, *type of spokesperson*, and *spokesperson's gender* on the dependent variable *intention to sign an organ donation card*.

Additionally, no interaction effects between the independent variables on the dependent variable *intention to sign an organ donation card* could be found.

Table 13 presents the several mean scores for the *intention to sign an organ donation card*.

Table 13: Mean scores for intention to sign an organ donation card (n= 239)

		Message valence		
Type of spokesperson	Spokesperson's gender	Positive *M (SD)*	Negative *M (SD)*	Total *M (SD)*
Lay	Female	4.61 (0.27)	4.31 (0.28)	4.46 (0.19)
	Male	**4.79 (0.26)**	4.63 (0.29)	4.71 (0.20)
	Total	4.70 (0.19)	4.47 (0.20)	4.59 (0.14)
Celebrity	Female	4.26 (0.29)	4.41 (0.28)	4.33 (0.20)
	Male	4.35 (0.29)	4.49 (0.31)	4.42 (0.21)
	Total	4.30 (0.20)	4.45 (0.21)	4.37 (0.14)
Total	Female	4.43 (0.20)	4.36 (0.20)	4.40 (0.14)
	Male	4.57 (0.19)	4.56 (0.21)	4.56 (0.14)
	Total	4.50 (0.14)	4.46 (0.14)	4.48 (0.10)

Note: The highest mean score is highlighted

4.7 Intention to communicate about organ donation

By means of the MANOVA, no main effects could be found for the independent variables *message valence*, *type of spokesperson*, and *spokesperson's gender* on the dependent variable *intention to communicate about organ donation*.

In addition, no interaction effects for the independent variables *message valence, type of spokesperson*, and *spokesperson's gender* on the dependent variable *intention to communicate about organ donation* could be found.

Table 14 gives an overview of the several mean scores for the *intention to communicate about organ donation*.

Table 14 Mean scores for intention to communicate about organ donation (n= 239)

		Message valence		
Type of spokesperson	Spokesperson's gender	Positive *M (SD)*	Negative *M (SD)*	Total *M (SD)*
Lay	Female	3.90 (0.22)	4.26 (0.22)	4.08 (0.16)
	Male	**4.55 (0.21)**	4.06 (0.24)	4.31 (0.16)
	Total	4.23 (0.15)	4.16 (0.16)	4.19 (0.11)
Celebrity	Female	3.97 (0.23)	4.18 (0.22)	4.07 (0.16)
	Male	4.15 (0.23)	4.07 (0.25)	4.11 (0.17)
	Total	4.06 (0.16)	4.12 (0.17)	4.09 (0.12)
Total	Female	3.93 (0.16)	4.22 (0.16)	4.08 (0.11)
	Male	4.35 (0.16)	4.07 (0.17)	4.21 (0.12)
	Total	4.14 (0.11)	4.14 (0.12)	4.14 (0.08)

Note: The highest mean score is highlighted

4.8 Effects of attitude towards the campaign, personal distress, empathic concern, and moral obligation on intention to sign an organ donation card and intention to communicate about organ donation

In addition to the MANOVA, a regression analysis was conducted in order to determine the possible influence of the dependent variables *attitude towards the campaign*, *personal distress*, *empathic concern*, and *moral obligation* on the two behavioral intention variables *intention to sign an organ donation card* and *intention to communicate about organ donation*.

The results showed existing main effects for the variables *empathic concern* (p=0.000) and *moral obligation* (p=0.000) on the dependent variable *intention to sign an organ donation card*. Higher scores for *empathic concern* and/ or *moral obligation* led to higher scores on *intention to sign an organ donation card.*

In addition, another regression analysis was conducted in order to determine the effects of the dependent variables *attitude towards the campaign*, *personal distress*, *empathic concern*, and *moral obligation* on the variable *intention to communicate about organ donation*.

The results showed effects of the variables *empathic concern* (p= 0.000) and *moral obligation* (p=0.000) on *intention to communicate about organ donation*. High scores for *empathic concern* and/ or *moral obligation* led to a higher degree of *intention to communicate about organ donation*.

4.9 Hypotheses testing

Based on the results above, the hypotheses formulated with regards to the independent variables *message valence* and *type of spokesperson* could whether be accepted or refused. *Table 15* gives an overview of the evaluation of the several hypotheses.

Table 15: Evaluation of the hypotheses regarding to the independent variables message valence and type of spokesperson

Hypothesis	Independent variable (factor)	Dependent variable	Hypothesis supported?
H1	Message valence (negative)	Attitude towards the campaign	yes
H2	Message valence (negative)	Personal distress	yes
H3	Message valence (positive)	Empathic concern	no
H4	Message valence (negative)	Moral obligation	no
H5	Message valence (negative)	Intention to sign an organ donation card	no
H6	Message valence (negative)	Intention to communicate about organ donation	no
H7	Type of spokesperson (lay)	Attitude towards the campaign	no
H8	Type of spokesperson (lay)	Personal distress	yes
H9	Type of spokesperson (lay)	Empathic concern	no
H10	Type of spokesperson (lay)	Moral obligation	no
H11	Type of spokesperson (lay)	Intention to sign an organ donation card	no
H12	Type of spokesperson (lay)	Intention to communicate about organ donation	no
H13	Attitude towards the campaign	Intention to sign an organ donation card	no

H14	Attitude towards the campaign	Intention to communicate about organ donation	no
H15	Personal distress	Intention to sign an organ donation card	no
H16	Personal distress	Intention to communicate about organ donation	no
H17	Empathic concern	Intention to sign an organ donation card	yes
H18	Empathic concern	Intention to communicate about organ donation	yes
H19	Moral obligation	Intention to sign an organ donation card	yes
H20	Moral obligation	Intention to communicate about organ donation	yes

4.10Respondents' annotations about the content of the campaign

Additionally to the 7-point-Likert-scales, respondents were asked to give a comment to their opinion about the design and content of the eight campaign posters. Of 239 respondents, 67 respondents gave a comment about the campaign posters. Annotations with reference to the negative message valence are presented in *Table 16*; annotations about the positive message valence in *Table 17*. Annotations about the male lay spokesperson are presented in *Table 18*. *Table 19* presents the annotations about the female lay spokesperson, *Table 20* about the male celebrity spokesperson, and *Table 21* about the female celebrity spokesperson. Some of the statements would match to both message and spokesperson; these statements are attributed to the table they are matching better. The remaining annotations can be seen in *Appendix E*.

Table 16: Respondents' annotations about the negative message valence

Respondent characteristics	Spokesperson (type, gender)	Annotation
Male, 25 years	Female, lay	"It evokes a guilty conscience."
Female, 25 years	Female, lay	"The message disturbs me."
Female, 23 years	Female, celebrity	"Design and slogan had not enough significance to convince me from organ donation."
Female, 25 years	Male, lay	"The text evokes negative feelings."
Female, 21 years	Male, lay	"The text is significant, the picture not."
Female, 23 years	Female, celebrity	"Drawing the conclusion that people will die without having an organ donation card is wrong!"
Female, 17 years	Male, celebrity	"The poster is attacking the receiver personally. Maybe, this is too forced to convince people from an organ donation card."
Female, 22 years	Female, celebrity	"People who do not own a donor card possibly feel attacked."
Female, 23 years	Male, celebrity	"I like the slogan, but not the model."
Male, 23 years	Male, celebrity	"The slogan is too extreme and evokes negative feelings with regards to organ donation, which is a shame."
Female, 20 years	Male, lay	"You feel bad, because you feel attacked by the slogan."
Female, 24 years	Male, lay	"It is not persuasive for people who are critical towards organ donation. The slogan is meaningless."
Female, 17 years	Female, lay	"Bad slogan."
Female, 25 years	Male, lay	"Provocative, arrogating, evaluative, requesting, young."
Female, 25 years	Female, celebrity	"Very haunting slogan."
Male, 25 years	Female, lay	"It tries to create a bad conscience."
Female, 20 years	Female, lay	"Maybe the formulation is a bit too hard."
Female, 20 years	Male, celebrity	"It seems to be very reproachful. I'm not sure if this would convince me for 100%."
Male, 23 years	Female, celebrity	"Too dramatic."

Table 17: Respondents' annotations about the positive message valence

Respondent characteristics	Spokesperson (type, gender)	Annotation
Male, 18 years	Female, lay	"The message contains everything that is important."
Female, 20 years	Male, lay	"The poster contains little information about organ donation."
Female, 20 years	Male, lay	"Too empty, not exciting. The slogan is not convincing."

Table 18: Respondents' annotations about the male lay spokesperson

Respondent characteristics	Message valence	Annotation
Female, 18 years	positive	"Posture and charisma of the model is rather negative."
Female, 24 years	negative	"The man is out of place. Organ donation is not a fashion show- his charisma is not in line with the topic."

Table 19: Respondents' annotations about the female lay spokesperson

Respondent characteristics	Message valence	Annotation
Female, 16 years	negative	"The posture of the woman is very uninterested."
Female, 18 years	positive	"The woman isn't looking happily, more denying."
Female, 23 years	negative	"The woman from the poster does not have a positive charisma, thus you have directly a negative feeling."
Female, 16 years	positive	"The glance of the woman is very negative."
Male, 22 years	positive	"The poster is not designed very exciting and is not appealing the receiver. Thus, identification with the spokesperson cannot arise."
Female, 20 years	positive	"I don't like the facial expression of the woman."
Female, 21 years	positive	"No persuasiveness: The woman seems to be sad, the slogan is not memorable; shocking pictures would have more effect."
Male, 25 years	positive	"I can't imagine that the woman really supports organ donation. It appears posed and is not convincing to get an organ donation card. The poster is not emotionally touching."

Table 20: Respondents' annotations about the male celebrity spokesperson

Respondent characteristics	Message valence	Annotation
Female, 22 years	negative	"The poster didn't convince me to get an organ donation card. Information about organ donation was missing. Additionally, Fabian Hambüchen isn't likeable."
Male, 18 years	negative	"Fabian Hambüchen is not the best role model."
Female, 19 years	positive	"Why is organ donation saving lives? Maybe a person concerned should be included."
Female, 19 years	positive	"Why letting a person advertise for something that he is not concerned to."

Table 21: Respondents' annotations about the female celebrity spokesperson

Respondent characteristics	Message valence	Annotation
Female, 23 years	positive	"It is not enough to advertise with barely known celebrities in order to motivate someone to risk his life."
Male, 20 years	negative	"Just presenting a celebrity and let him look neutral, does not evoke a feeling of: I need to sign a donor card."
Female, 16 years	positive	"By means of the actress, people are influenced without noticing it. You think, if she think's it's good, I have to do it, too."
Female, 19 years	negative	"I don't think that the spokesperson (the actress) fits to the poster."

5. Discussion

The present study was conducted in order to determine the characteristics of a campaign for organ donation cards which are effective in stimulating young Germans to sign an organ donation card. The effects were tested by a 2 (positive vs. negative message valence) x 2 (lay vs. celebrity spokesperson) x 2 (female vs. male spokesperson) experimental study. The effects were measured on the variables *attitude towards the campaign*, *personal distress*, *empathic concern*, *moral obligation*, and finally *intention to sign an organ donation card*, and *intention to communicate about organ donation*.

In the following section, the results of the present study will be discussed. The results will be analyzed and connections to previous studies will be drawn. Additionally, the limitations of the current study will be analyzed and recommendations for future research will be made. Finally, the conclusions of the present study will be drawn and practical implications and recommendations for future campaigns will be formulated.

5.1 Discussion of the results

In the former chapter, the results of the present study were presented. The results emphasized several effects of the independent variables on the dependent variables, which can be interesting for future organ donation campaigns and future research.

The results showed that the *attitude towards the campaign* is influenced by the *message valence* and a combination of the *type of spokesperson* and the *spokesperson's gender*.

According to the results of the present study, a message containing a negative valence is of significantly higher influence on the *attitude towards the campaign* than the message with a positive valence. A possible explanation as to why a negative valence leads to a better *attitude towards the campaign* is that people may judge the campaign as more important when they are more directly confronted with the harm of other people. This phenomenon can be explained by negativity bias. Previous studies (Maheswaran & Meyers-Levy, 1990) have shown that receivers under effortful processing perceive negative information as more informative than positive information because they "tend to compare it to some internal standard or reference point" (Block & Keller, 1995, p. 194).

As mentioned before, *attitude towards the campaign* was also influenced by a combination of the *type of spokesperson* and the *spokesperson's gender*. Thus, the person who is presented in a campaign is of influence on how receivers think about the campaign. The male lay spokesperson had the highest mean score for *attitude towards the campaign*, followed by the female celebrity, the female lay, and the male celebrity spokesperson. The annotations made by the respondents about several spokespersons may explain the different scores. The annotations are presented in *Table 18*, *Table 19*, *Table 20*, and *Table 21* in the former chapter.

With regards to the female lay spokesperson, the lower scores may be explained by the facial expressions and the posture of the woman. Several of the respondents' annotations about female lay

spokespersons support this. Her posture was judged as “very uninterested”. According to her facial expressions, the comments said that “[she] isn’t looking very happily, more denying”, and that ”the glance of the woman is very negative”. Furthermore, respondents criticized that she “does not have a positive charisma”, and “seems to be sad”. Another respondent “can’t image that the woman really supports organ donation. It appears posed and is not convincing to get an organ donation card.”

With regards to the male celebrity spokesperson, the low scores may be reasoned by the personality of the spokesperson. The annotations of the respondents support that they judge Fabian Hambüchen as not being the best solution for a campaign for organ donation cards. The comments said that “Fabian Hambüchen isn’t likeable”, and that he “is not the best role model”. Another respondent asked: “Why let a person advertise for something that he is not concerned about?”.

In summary, based on the results and the respondents’ annotations of the present study, it can be claimed that glance, facial expression and posture of the spokesperson seem to be important for the respondents’ general judgment of the campaign. Previous research has shown that individuals automatically categorize faces in terms of their trustworthiness (Engell, Haxby, & Todorov, 2007) within as little as 50-milliseconds (Todorov, Pakrashi, & Oosterhof, 2009). In addition, Mehrabian and Friar (1969) state that nonverbal cues (like glance, facial expression, and posture) can be important means when determining the communicator’s attitudes towards a certain topic. Deutsch (1947, 1952) noted that the posture of a person relates to his attitudes, motivations, and intentions. According to that, the low scores of the female lay spokesperson and the male celebrity spokesperson on attitude towards the campaign can be explained by their facial expression and posture, which is supported by the annotations of the respondents.

The results showed that *personal distress* is influenced by *message valence* and the *type of spokesperson*.

As hypothesized before, the results showed that a message with a negative valence is of more influence on *personal distress* than a message containing a positive valence. As Skumanich and Kintsfather (1996) stated, when feeling *personal distress*, an observer acts out a certain behavior in order to reduce negative emotions after perceiving the distress of other people. Additionally, Bandura and Rosenthal (1966) stated that perceiving the distress of another person produces vicarious physiological arousal. Adapted to the present study, this may mean that people have feelings of *personal distress* after being confronted with a message containing a negative valence, because they are motivated to reduce their own distress. According to Skumanich and Kintsfather (1996) these feelings lead the observer to the execution of a certain behavior, for example signing an organ donation card. Unfortunately, the results of the present study did not show such a connection between *personal distress* and *intention to sign an organ donation card* or *intention to communicate about organ donation*.

Additionally to the statistics of the present study, some of the respondents’ annotations support that there are effects of negative message valence on *personal distress*. The following statements were

all made by respondents who were confronted with the negative message valence. The respondents stated that the message "evokes guilty conscience" and "disturbs" the receiver. Furthermore, it "is attacking the receiver personally", and it "evokes negative feelings". Also one respondent noted that "people who do not own an organ donation card possibly feel attacked" and that "you feel bad because you feel attacked by the slogan".

Additionally, the results of the present study emphasized that the use of a lay spokesperson was of more influence on *personal distress* than the use of a celebrity spokesperson. A possible explanation for this result is the fact that the lay spokesperson is more similar to the receivers. Because the receivers observe that a person, who is similar to themselves (e.g. in terms of social status), is helping others could evoke negative feelings for the receiver like private guilt, shame or the like. These feelings are able to stimulate feelings of *personal distress* (Skumanich & Kintsfather, 1996). The phenomenon of feeling empathy for a stranger is described by the theory of perceived similarity (Davis, 1994). This theory states that it is not that individuals feel more empathy to others when they feel the same need, but when they judge the other as similar to themselves on attributes. Additionally, Stockert (1994) claims that perceived similarity may lead to increases in cognitions about the situation of the other person. A study of Barnett (1987) has shown that already children show higher levels of empathy when they perceive another child as more similar (Barnett, 1987).

Before the data collection, the researcher hypothesized that a message containing a positive valence would lead to a higher degree of *empathic concern* than a message with a negative valence, because the positive message valence is emphasizing the positive outcomes for the suffering other individual. Skumanich and Kintsfather (1996) stated that a behavior based on empathic concern is fully focusing on the positive outcomes for the other individual.

Surprisingly, the results showed a reverse effect. The message containing a negative valence was more effective on *empathic concern*. A possible explanation for this result is that feelings of *empathic concern* arise after being confronted with the harm of others (Skumanich & Kintsfather, 1996). In addition, Davis (1980) wrote in his report about the four dimensions of empathy that *empathic concern*, among others, is grounded on ones' concern for others who are undergoing negative experiences. According to Maner and Gailliot (2007), "*empathic concern* is associated with an affective focus on the person who is suffering." (p. 348). Adapted to the present study, this may explain the relation between the negative message valence and *empathic concern*, because the negative message valence strongly confronts the receivers with the harm of people who are in need of an organ.

As the results of the present study indicated, there was no direct effect of the independent variables on the behavioral intention variables (*intention to sign an organ donation card*; *intention to communicate about organ donation*). However, effects of *empathic concern* and *moral obligation* on these variables could be found.

The effects of *moral obligation* on behavioral intention were not surprising. As mentioned in the theoretical framework, Gorsuch and Ortberg (1983) extended the Theory of Planned Behavior

(Ajzen & Fishbein, 1980) by the factor *moral obligation*. Furthermore, they tested the influence of the variables (attitude, subjective norm, perceived behavioral control, and moral obligation) on behavioral intention with the result that in "moral situations" the factor *moral obligation* had a significantly higher influence on behavioral intention than attitude and subjective norm. Additionally, also Zuckerman & Reis (1978) found that *moral obligation* is an additional factor besides attitude and subjective norm in blood-donating behavior. Likewise, Schwartz and Tessler (1972) found in their study about medical transplant donating that personal norms had two to three times as much influence on behavioral intentions to donate as attitude and subjective norm. Unfortunately, the present study found no effects of the independent variables on *moral obligation*. Thus, no conclusion can be drawn on how to influence *moral obligation* by means of campaigns for organ donation cards.

However, as mentioned before, the present study found effects of a (negative) *message valence* on *empathic concern* and, furthermore, effects of *empathic concern* on the two behavioral intention variables. Thus, there is an indirect effect of *message valence* on the behavioral intention variables, mediated by *empathic concern*. As Skumanich and Kintsfather (1996) mentioned, feelings of *empathic concern* evoke behavioral intention out of altruistic reasons, because one wants to help others after being confronted with their harm. Furthermore, Davis et al. (1999) found a positive association between *empathic concern* and willingness to help. Additionally, empathic concern was also positively related to civic participation (Bekkers, 2005), volunteering (Stiff, Dillard, Somera, Kim, & Sleight, 1988) and prosocial behavior (Takada & Levine, 2007). Also Kogut and Ritov (2007) found a relation between an individual's confrontation with the harm of others and a following increase in willingness to help others. Adapted to the present study, the negative *message valence* leads to feelings of *empathic concern* and, additionally, *empathic concern* leads to the *intention to sign an organ donation card* and/ or the *intention to communicate about organ donation*.

5.2 Limitations of the present study and recommendations for future research

Although the present study identified some interesting results, the study nevertheless suffered from some limitations.

One limitation was the exclusion of many respondents. Of 416 respondents, only 239 respondents could be included in the analysis for several reasons, because they either did not belong to the target group or because they were too young, too old, or already owned an organ donation card. Other respondents did not fill in the survey completely and thus had to be removed from the dataset. Thus, it resulted in a smaller number of respondents per condition than expected before. A bigger dataset potentially would have led to better generalizable and more reliable results.

Based on the results of the present study an interaction effect of the *type of spokesperson* and the *spokesperson's gender* on the *attitude towards the campaign* was found. But, as the annotations of the respondents and previous research are showing, factors like facial expression and posture seem to

be of influence on the effects of the spokesperson. Thus, future studies should conscientiously select appropriate spokespersons. For future studies, the researchers need to meticulously take into account the expressions of the different spokespersons. The present study tried to choose spokespersons which are similar in their look, facial expression, and posture. But, it seems that even small differences are noticed by the respondents and have an effect on their judgment of the spokesperson.

Another interesting alternative for future studies can be formulated for the *type of the spokesperson*. The current study made a distinction between lay and celebrity spokespersons. Future studies could test the effects of person's concerned to the topic of organ donation. People who are in need of an organ or their relatives have possibly stronger effects in a campaign for organ donation cards. Especially the effects of a concerned person on empathic concern would be very interesting, because receivers of the campaign are even stronger confronted even stronger with the harm of other people, which is a strong predictor of feelings of empathic concern. In turn, empathic concern is of direct influence on the intention to sign an organ donation card, as the results of the present study have indicated. A previous study by Toncar, Reid, and Anderson (2007) examined the effects of different types of spokespersons in public service announcements for soliciting contributions for victims of the hurricane Katrina. The results indicated that a victim spokesperson was way more believable and credible than a celebrity spokesperson.

Another possible *type of spokesperson* which can be included in future research is the group of medical staff, like physicians and nurses. Possibly, spokespersons of the medical staff are judged to be more credible, because they are experts in the field of organ donation. On the other hand, with regards to the recent organ donation scandals, their credibility may at least be questionable.

Another limitation of the current study was the creation of the several campaign posters for the eight conditions. The posters were created by the researcher himself. Although the feedback to the posters was good, the posters were not created by professional designers. Future research should assign the creation of the stimulus material to professional designers in order to eliminate potential ascertainment errors, because of not fully professional materials. Thus, the manipulations of future studies should be as realistic as possible.

A further limitation of the current study was the low reliability of the construct *attitude towards organ donation in general*. Based on the low value for Cronbach's alpha, the construct had to be removed from the analysis. Because attitude is still an important factor in this topic, future studies should, however, include this construct. A bigger number of items and using another scale are potential ways to solve the problem of low reliability for this construct.

The main goal of the study was to identify potential influencers of campaigns on *intention to sign an organ donation card* in order to reduce the discrepancy between attitude and action among young people. The found relations in this study were connected to *personal distress*, *empathic concern*, and *attitude towards the campaign*. Of these, only *empathic concern* had significant effects on the *intention to sign an organ donation card*. Future studies should identify other potential

characteristics in campaigns that are of direct influence on the *intention to sign an organ donation card*, such as source credibility or feelings of compassion. In addition, future research should identify possible influencers of *empathic concern* in order to determine how this important factor can be influenced by campaigns for organ donation cards, additionally to the *message valence*.

For the present study, the target group of 16 to 25 year old Germans who did not own an organ donation card was chosen, because they showed the biggest discrepancy between attitude and behavior referring to a study of the BZgA (2014). Future studies should also investigate the effects of other age groups in order to gain significant results for the whole German population. Furthermore, research about the effects of organ donation campaigns on people who have already signed an organ donation card would be interesting. This group is also an important target group because the recent scandals may also have effects on this group, as the fall of registered organ donors is indicating (Powell, 2013). In addition, the results of the present study are only generalizable to the German population. Effects of organ donation campaigns may differ in other countries. Especially the effects in countries that use another organ donation system (opt-out system) would be interesting in comparison to the German system (opt-in system).

5.3 Practical implications and conclusions for future organ donation campaigns

Based on the results of the present study, conclusions can be drawn and some recommendations for future campaigns for organ donation cards can be made.

Health organizations should keep in mind that the use of a message with a negative valence is appropriate for stimulating feelings of *personal distress* and/ or *empathic concern*. Stimulating these emotions should be a good strategy to involve people emotionally in the topic of organ donation. Especially the stimulation of feelings of *empathic concern* is important for campaigns, because *empathic concern* is of direct influence on the behavioral *intention to sign an organ donation card* and to *communicate about organ donation*, as the results of the present study have indicated. Thus, based on the results of the present study, *empathic concern* is the most important factor that can be influenced by campaigns for organ donation cards and is of direct influence on behavioral intention.

Additionally, a message containing a negative valence is suitable to make people aware of the negative consequences of not signing an organ donation card. The confrontation of the receivers with the harm of people who are in need for an organ should make people aware of the negative consequences of not owning an organ donation card and thus raise sensitivity to the topic in general. In addition, emphasizing the negative consequences of not signing an organ donation card is capable of stimulating feelings of *empathic concern*.

Furthermore, lay spokespersons should be used to convey the message, because they also can stimulate emotions like *personal distress* in the receivers. Probably, because they are more similar to the receivers and thus people can better identify with them (Davis, 1994). According to the Theory of

Planned Behavior (Ajzen, 1985), *perceived behavioral control* is one of the predictors of behavioral intention. Possibly, when people see another individual who is similar to themselves and acts out a certain behavior (like signing an organ donation card), they also feel able to act out that behavior.

Additionally, it can be claimed that when a health organizations still decides to use a celebrity spokesperson, the person should be chosen very accurately. This is supported by the match-up-hypothesis, which suggests that the fit between endorser and the object they are promoting is of influence on the effectiveness of the campaign (Till & Busler, 1998). Thus, celebrity spokespersons should be chosen wisely in order to have an optimal fit between spokesperson and endorsed object.

In summary, based on the results of the present study, campaigns for organ donation cards are a suitable tool to create emotional feelings. Especially the stimulation of feelings of *empathic concern* is important since it is of direct influence on the *intention to sign an organ donation card*. In order to stimulate people to really sign an organ donation card, campaigns for organ donation cards can be an effective supporting tool. But, other factors may be more effective. Information given from physicians and health insurances may be more effective than the campaigns. The same may be valid for information from the social environment or persons concerned. Obviously, transparent actions by physicians and the avoidance of further scandals should be the most effective factor in order to raise the number of organ donors.

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Appendix A – Data of the Q-sort

Table 22: Data of the Q-sort for the female celebrity spokesperson (including Q-sort factor scores and SPSS mean scores)

	Q-sort factor scores		**SPSS mean scores**
	A	B	
1. Maria Höfl-Riesch (sports)	-1	1	0.25
2. Palina Rojinski (TV-host)	1	0	0.00
3. Nathalie Geisenberger (sports)	1	1	1.17
4. Mirjam Weichselbraun (TV-host)	-1	-2	-1.00
5. Jasmin Gerat (actress)	3	3	1.58
6. Lena Meyer-Landruth (musician)	1	0	-0.33
7. Karoline Herfurth (actress)	0	0	-0.33
8. Lisa Wohlgemuth (musician)	-1	-3	-1.25
9. Janin Reinhardt (TV-host)	-3	-1	-1.08
10. Carina Vogt (sports)	2	-1	0.92
11. Jana Pallaske (actress)	-2	2	-0.17
12. Alexandra Maria Lara (actress)	0	2	0.75
13. Christina Stürmer (musician)	2	-2	0.00
14. Helene Fischer (musician)	0	0	0.08
15. Betty Heidler (sports)	0	1	0.17
16. Andrea Kaiser (TV-host)	-2	-1	-0.75

Table 23: Data of the Q-sort for the male celebrity spokesperson (including Q-sort factor scores and SPSS mean scores)

	Q-sort factor scores		**SPSS mean scores**
	A	B	
1. Marteria (musician)	1	1	0.33
2. Matthias Schweighöfer (actor)	3	-2	0.58
3. Matthias Killing (TV-host)	-2	-2	-1.67
4. Daniel Brühl (actor)	2	1	1.25
5. Cro (musician)	-3	0	-1.67
6. Alligatoah (musician)	-1	-1	-0.58
7. Axel Stein (actor)	0	2	0.00
8. Fabian Hambüchen (sports)	2	3	1.25
9. Jan Böhmermann (TV-host)	-1	-3	-0.67
10. Felix Loch (sports)	0	2	0.92
11. Klaas Heufer-Umlauf (TV-host)	1	-1	0.67
12. Eric Frenzel (sports)	0	0	-0.08
13. Robert Harting (sports)	0	0	0.33
14. Florian Silbereisen (TV-host)	-1	1	-0.58
15. Elyas M’barek (actor)	1	-1	0.67
16. Sido (musician)	-2	0	-0.75

Appendix B – English version of the Questionnaire

Dear respondent,

Thank you for taking the time to participate in this study. The questionnaire deals with the topic of organ donation and in particular the topic of organ donation cards. The results of the present study are part of a master thesis. Therefore, they are purely used for academic purposes and don't have a commercial use.

Filling in the questionnaire will take about five to ten minutes of your time. To participate in this survey, it is important that you do not own an organ donation card at the moment.

Please note that this study is only about post mortem organ donation (thus, a donation posthumously) and not about living donation. Thus, all questions are referring to postmortem organ donation.

Of course, your data will be treated as strictly confidential. The results of the study cannot be assigned to single persons and the survey is fully anonymous. If you are interested in the results of the study, you can send an e-mail to: f.koring@student.utwente.nl.

You have the possibility to stop with the survey at any time.

After being asked about some general questions, you will be confronted with a poster of a campaign for organ donation cards. Please study the poster carefully.

Thanks again, in advance!

Kind regards,

Fabian Koring

University of Twente

Personal Data

At first, some demographic questions will be asked. Of course, also these questions are anonymous and will be treated confidentially.

Gender:
O female
O male

Age: _____

Do you own an organ donation card?

O yes

O no

In which state do you live?

O Baden-Württemberg

O Bavaria

O Berlin

O Brandenburg

O Bremen

O Hamburg

O Hesse

O Mecklenburg-West Pomerania

O Lower Saxony

O North Rhine-Westphalia

O Rhineland-Palatinate

O Saarland

O Saxony

O Saxony-Anhalt

O Schleswig-Holstein

O Thuringia

O Abroad

Religion:

O Roman Catholic

O Protestant

O Muslim

O Jewish

O Buddhist

O Hindu

O Other: _____

O undenominational

Education (highest completed education)

O No graduation

O Hauptschulabschluss

O Realschulabschluss

O Fachhochschul- oder Hochschulreife

O Bachelor

O Master

O Doctor's degree

O Other: _____

Profession:

O Pupil

O University student

O Job seeker

O Employee

O Self-employed

O Other: _____

Here you see a poster of a campaign for organ donation cards. Please study it carefully, before answering the following questions.

What do you think about the organ donation after seeing the poster of a campaign for organ donation cards?

	Totally disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Totally agree
I support the idea of organ donation for transplantation purposes	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I believe that organ donation is an act of compassion	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I believe that organ donation is an unselfish act	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I view organ donation as a negative procedure	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I see organ donation as a natural way to prolong life	**O**	**O**	**O**	**O**	**O**	**O**	**O**

How do you judge the poster of the campaign for organ donation cards, which you have seen on the page before?

Dislikeable	**O**	**O**	**O**	**O**	**O**	**O**	**O**	Likeable
Unpleasant	**O**	**O**	**O**	**O**	**O**	**O**	**O**	Pleasant
Uninteresting	**O**	**O**	**O**	**O**	**O**	**O**	**O**	Interesting
Bad	**O**	**O**	**O**	**O**	**O**	**O**	**O**	Good

Do you have further annotations about the poster of the campaign? What were the reasons for your judgment?

I think the message of the campaign is…

Non-credible	**O**	**O**	**O**	**O**	**O**	**O**	**O**	credible

The message of the campaign was:

O Owning an organ donation card saves lives

O Not owning an organ donation card lets people die

O You get everything of me. Do I get yours too?

O This is what you wear today: The organ donation card

The person on the poster was…

Male	**O**	**O**	Female
prominent	**O**	**O**	Unknown

The person on the poster was…

Non-credible	**O**	**O**	**O**	**O**	**O**	**O**	**O**	credible

After being confronted with the campaign for organ donation cards…

	Totally disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Totally agree
I go to pieces	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I feel apprehensive and ill-at-ease	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I am pretty effective in dealing with the situation	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I feel helpless	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I remain calm	**O**	**O**	**O**	**O**	**O**	**O**	**O**

After seeing the campaign for organ donation cards…

	Totally disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Totally agree
I feel the need to help people who are in need of an organ	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I don't feel very much pity for people in need of an organ	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I feel touched because of the destiny of people who are in need of an organ	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I feel sadness and compassion with people who are in need of an organ	**O**	**O**	**O**	**O**	**O**	**O**	**O**
It doesn't disturb me a great deal	**O**	**O**	**O**	**O**	**O**	**O**	**O**

After considering the campaign for organ donation cards…

	Totally disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Totally agree
I feel the moral obligation to donate organs post mortem	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I think it is egoistic not to donate organs post mortem	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I think that donating organs post mortem conforms to my moral principles	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I would feel guilty if I didn't donate organs post mortem	**O**	**O**	**O**	**O**	**O**	**O**	**O**

After seeing the campaign for organ donation cards…

	Totally disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Totally agree
There is a large chance that I will sign a donor card in the near future	**O**	**O**	**O**	**O**	**O**	**O**	**O**
The chance that I will sign a donor card is very small	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I do not have the intention to sign a donor card	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I am intending to sign a donor card in the near future	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I will not hesitate to sign an organ donation card in the near future	**O**	**O**	**O**	**O**	**O**	**O**	**O**

After being confronted with the campaign for organ donation cards…

	Totally disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Totally agree
I would feel comfortable talking to people from my social environment (family, friends, acquaintances, colleagues, etc.) about signing an organ donation card	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I do not feel the need to talk to people from my social environment about signing an organ donation card	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I will recommend to sign an organ donation card to people from my social environment	**O**	**O**	**O**	**O**	**O**	**O**	**O**
I am willing to talk to people from my social environment about my decision to (not) sign an organ donation card	**O**	**O**	**O**	**O**	**O**	**O**	**O**

Appendix C – Stimulus material

Condition 1:

message valence: positive, type of spokesperson: lay, spokesperson's gender: male

Image 13: Condition 1 (positive message valence, lay spokesperson, male)

Condition 2:

message valence: negative, type of spokesperson: lay, spokesperson's gender: male

Image 14: Condition 2 (negative message valence, lay spokesperson, male)

Condition 3:

message valence: positive, type of spokesperson: lay, spokesperson's gender: female

Image 15: Condition 3 (positive message valence, lay spokesperson, female)

Condition 4:

message valence: negative, type of spokesperson: lay, spokesperson's gender: female

Image 16: Condition 4 (negative message valence, lay spokesperson, female)

Condition 5:

message valence: positive, type of spokesperson: celebrity, spokesperson's gender: male

Image 17: Condition 5 (positive message valence, celebrity spokesperson, male)

Condition 6:

message valence: negative, type of spokesperson: celebrity, spokesperson's gender: male

Image 18: Condition 6 (negative message valence, celebrity spokesperson, male)

Condition 7:

message valence: positive, type of spokesperson: celebrity, spokesperson's gender: female

Image 19: Condition 7 (positive message valence, celebrity spokesperson, female)

Condition 8:

message valence: negative, type of spokesperson: celebrity, spokesperson's gender: female

Image 20: Condition 8 (negative message valence, celebrity spokesperson, female)

Appendix D – Summary of the pretest annotations

Respondents: 8 (5 male, 3 female)

Mean duration of completing the survey: 7 minutes (fastest: 3m29s, slowest: 9m23s)

Respondent 1 (male, 25 years)

- No suggestions for improvement, “everything is clear and logical”

Respondent 2 (male, 24 years)

- Add button “abroad” for the question about place of residence(e.g. for German students who live in the Netherlands)
- „Use another formulation for ‘zerbreche ich innerlich’. This sounds too extreme”

Respondent 3 (male, 27 years)

- No negative suggestions about the survey
- “The survey had an acceptable duration”

Respondent 4 (female, 26 years)

- Profession-question: “Add also the female denominations (e.g. Student/in)”
- Maybe use another formulation for "finde ich, dass das Thema Organspende mit meinen moralischen Prinzipien übereinstimmt". „Just remove ‘das Thema‘“

Respondent 5 (male, 25 years)

- No suggestions for improvement, everything is clear and logical. “Good distribution of questions per page”

Respondent 6 (female, 24 years)

- “The formulation of the message in the poster and the manipulation check question is not exactly the same.”

Respondent 7 (female, 25 years)

- “I didn’t like the negative statement of the poster, but maybe that is proposed?!”
- Further no suggestions

Respondent 8 (male, 24 years)

- “The posters look very real and professional”
- “Is there a possibility that respondents can note there email address directly in the survey?”

Appendix E – Remaining annotations of respondents about the content of the conditions

Table 24: Respondents' remaining annotations about the posters

Respondent characteristics	Condition content	Annotation
Male, 19 years	Female, celebrity, positive message valence	"Eventually a bit loveless"
Female, 24 years	Female, celebrity, negative message valence	"A bit empty- it would not catch someone's eye and appeal"
Male, 22 years	Male, lay, negative message valence	"It seems not to be about organ donation. I know other campaigns for organ donation containing shocking pictures. This poster seems to be from an insurance, which is strengthened by the 'corporate consultant'."
Female, 17 years	Female, celebrity, positive message valence	"It is boring and without reasoning"
Female, 23 years	Female, lay, positive message valence	"Something should be included which catches someone's eye."
Male, 21 years	Female, celebrity, positive message valence	"It looks very ordinary, would probably not catch someone's eye on the street."
Female, 18 years	Male, celebrity, positive message valence	"Nothing conveyed from the poster."
Female, 24 years	Female, celebrity, positive message valence	"It is not exciting because it is so empty."
Female, 25 years	Male, celebrity, positive message valence	"The design isn't very appealing."
Female, 16 years	Male, celebrity, positive message valence	"The grey background seems to be very formal and not appealing. Organ donation is something very private. The background appears very cold, like an advertisement for an employment agency."
Female, 20 years	Male, lay, positive message valence	"The seriousness of the campaign doesn't become apparent."
Male, 17 years	Female, lay, negative message valence	"The poster was good, but it attacks people who don't own a donor card too much."

Male, 17 years	Male, lay, positive message valence	“The poster wasn’t very interesting for me.”
Female, 20 years	Male, celebrity, positive message valence	“The poster should attract more attention, to be even more appealing.”
Female, 18 years	Female, lay, positive message valence	“The poster isn’t appealing and the design is boring.”
Female, 20 years	Male, lay, positive message valence	“The poster was succinct, but effective.”
Female, 22 years	Male, lay, positive message valence	“The poster is not flashy the design is not striking.”
Female, 24 years	Female, celebrity, positive message valence	“The poster’s effect is very simple. Maybe even uninspired.”
Female, 17 years	Female, lay, positive message valence	“Because the poster is not very flashy, but simple, it doesn’t evoke my attention.”
Female, 16 years	Male, lay, negative message valence	“Don’t use orange.”
Female, 20 years	Female, celebrity, positive message valence	“Boring, not appealing.”
Female, 20 years	Male, celebrity, positive message valence	“Owning an organ donation card is not saving a life.”
Female, 22 years	Male, celebrity, negative message valence	“Very loveless design, Fabian Hambüchen is too central. Thus, the real topic is in the background.”
female, 20 years	male, lay, positive message valence	“The importance is not clear.”
Female, 21 years	Female, celebrity, positive message valence	“Too simple.”
Female, 25 years	Female, celebrity, positive message valence	“Too stiff, let the topic appear too ‘serious’ and is more daunting, design is a bit boring.”
Female, 25 years	Female, lay, negative message valence	“Not enough information. Importance of the topic is not clear. Too unobtrusive.”

Appendix F – Overview of images, figures, and tables

Table 25: Overview of the reports' images

Image	Title
1	Advertisement of the BZgA's campaign in 2013 using a female lay spokesperson
2	Advertisement of the BZgA's campaign in 2013 using a male lay spokesperson
3	Advertisement of the BZgA's campaign "Organpate" in 2013using a female lay spokesperson
4	Advertisement of the BZgA's campaign "Organpate" in 2013using a male lay spokesperson
5	Advertisement of the BZgA's campaign in 2013 using a female celebrity spokesperson (Kati Wilhelm)
6	Advertisement of the BZgA's campaign in 2013 using a male celebrity spokesperson (Markus Lanz)
7	Advertisement of the DHZB's campaign using a female comic character
8	Advertisement of the DHZB's campaign using a male comic characte
9	Female lay spokesperson
10	Male lay spokesperson
11	Poster of the campaign by BMG and BZgA in 2013
12	Poster of the present study (condition 5)
13	Condition 1 (positive message valence, lay spokesperson, male)
14	Condition 2 (negative message valence, lay spokesperson, male)
15	Condition 3 (positive message valence, lay spokesperson, female)
16	Condition 4 (negative message valence, lay spokesperson, female)
17	Condition 5 (positive message valence, celebrity spokesperson, male)
18	Condition 6 (negative message valence, celebrity spokesperson, male)
19	Condition 7 (positive message valence, celebrity spokesperson, female)
20	Condition 8 (negative message valence, celebrity spokesperson, female)

Table 26: Overview of the reports' figures

Figure	Title
1	The research model
2	The two-way interaction effect for attitude towards the campaign (Estimated marginal means)

Table 27: Overview of the report's tables

Table	Title
1	Requirements for the determination of the Q-sort's Q-set
2	An overview of the design of the different experimental conditions
3	Respondents distribution of age (including frequencies, percentages, and total mean, n= 239)
4	Respondents place of residence (German state) (including frequencies and percentages, n= 239)
5	Distribution of respondents' religion (including frequencies and percentages, n= 239)
6	Respondents' current distribution of educations (including frequencies and percentages, n= 239)
7	Current professions of respondents (n=239)
8	The number of respondents per condition (n=239)
9	Mean scores for attitude towards the campaign (n= 239)
10	Mean scores for personal distress (n= 239)
11	Mean scores for empathic concern (n= 239)
12	Mean scores for moral obligation (n= 239)
13	Mean scores for intention to sign an organ donation card (n= 239)
14	Mean scores for intention to communicate about organ donation (n= 239)

15	Evaluation of the hypotheses regarding to the independent variables message valence and type of spokesperson
16	Respondents' annotations about the negative message valence
17	Respondents' annotations about the positive message valence
18	Respondents' annotations about the male lay spokesperson
19	Respondents' annotations about the female lay spokesperson
20	Respondents' annotations about the male celebrity spokesperson
21	Respondents' annotations about the female celebrity spokesperson
22	Data of the Q-sort for the female celebrity spokesperson (including Q-sort factor scores and SPSS mean scores)
23	Data of the Q-sort for the male celebrity spokesperson (including Q-sort factor scores and SPSS mean scores)
24	Respondents' remaining annotations about the posters
25	Overview of the reports' images
26	Overview of the reports' figures
27	Overview of the report's tables