

# **Guilt Appeals and Prosocial Behavior: An Experimental Analysis of the Effects of Anticipatory Versus Reactive Guilt Appeals on the Effectiveness of Blood Donor Appeals**

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*This study investigates the effectiveness of guilt-arousing communication in promoting prosocial behavior. By analyzing the distinct effects of anticipatory versus reactive guilt appeals, we contribute to the discussion of guilt appeals as drivers of prosocial behavior, especially blood donation. Research on persuasive communication provides the theoretical basis of our study and we validate our hypotheses by means of two  $2 \times 2$  factorial between-subjects designs. We find that anticipatory rather than reactive guilt appeals are more effective in generating prosocial action tendencies. Compared to noninformational reference group influences, messages endorsed by members of informational reference groups yielded more favorable attitudinal responses. Besides their significant main effect, two-sided messages reinforce the favorable impact of anticipatory guilt appeals. The study concludes with practical implications for nonprofit organizations and public blood donor services as well as avenues for future research.*

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## INTRODUCTION

The demand for blood stocks is steadily rising due to an aging population and an increasing number of medical treatments that require transfusions or blood constituents (Glynn et al., 2003). As a sufficient supply of safe blood can be assured only by regular voluntary donors, insights into how people can best be motivated to donate blood are of considerable interest to all institutions involved in the blood collecting process. In this context it is essential to understand donation behavior through insights into the determinants and factors that influence willingness to donate (e.g., Tscheulin & Lindenmeier, 2005; Beerli-Palacio & Martíni-Santana, 2009). Sociodemographic variables account for a substantial part of the variance in willingness to donate blood (Tscheulin & Lindenmeier, 2005). Beyond that, willingness to donate depends on adequate information as well as motivational factors (Beerli-Palacio & Martíni-Santana, 2009). Altruism can be regarded as a predominant motivational factor influencing the inclination to donate blood and can be subsumed under the broader concept of prosocial behavior (e.g., Carpenter & Meyers, 2010; Goette, Stutzer, & Frey, 2010).

Prosocial behavior can be defined as individual actions intended to benefit one or more persons other than oneself (e.g., Batson & Powell, 2003). Our study elaborates on how to convince people to engage in prosocial behavior, especially blood donation, by means of persuasive communication. Hence, our research primarily ties in with the psychological stream of research on prosocial behavior.

Several tactics of persuasive communication (e.g., Keller & Lehmann, 2008) are available to foster prosocial behavior. Emotional message appeals, which represent one major category, can use guilt to motivate purchasing behavior (Coulter & Pinto, 1995; Dahl, Honea, & Manchanda, 2003; Chun-Tuan, 2011) as well as prosocial behavior (e.g., Basil, Ridgway, & Basil, 2006; Agrawal & Duhachek, 2010). O'Keefe (2002) reported little research in assessing the distinct impact of different forms of guilt appeals (e.g., anticipatory guilt appeals) on behavioral intentions. Apart from LaBarge and Godek's (2006) study examining the effects of guilt appeals in a consumer behavior context, research does not address the effects of different types of guilt appeals, although some studies analyze the effect of guilt on different types of prosocial behavior (e.g., Massi, 2005; Lindsey, Yun, & Hill, 2007; Lwin & Phau, 2009a, 2009b). However, all of these studies are limited to analyzing the effects of one distinct kind of guilt appeal on attitudinal responses or behavioral intentions, namely anticipatory and existential guilt appeals. No study investigates how existing types of guilt appeals should be combined with others means of persuasive communication.

Against this background, our study contributes to research on prosocial behavior by answering the following questions:

1. Do anticipatory guilt appeals vs. reactive guilt appeals have different effects in promoting social behavior, especially blood donation behavior?
2. Do informational reference group influences interact with message tactics that induce anticipatory guilt or reactive guilt?
3. Does message-sidedness interact with both forms of guilt-arousing message tactics?

In the following sections, we discuss the concepts of prosocial behavior, guilt, and guilt appeals, then present our research hypotheses followed by the results of two experiments. We summarize the study results, discuss limitations, and present managerial implications for blood donation services as well as starting points for further research.

## PROSOCIAL BEHAVIOR, GUILT, AND GUILT APPEALS

Prosocial behavior can be defined as individual actions intended to benefit one or more persons other than oneself (e.g., Bateson & Powell, 2003). Voluntary behaviors such as helping others, sharing, cooperating and donating can be subsumed under the category of prosocial behavior (Brief & Motowodlo, 1986). Kossmeier, Ariely, and Bracha (2009) distinguish among monetary or cash donations, time donations (i.e., volunteering), and blood donations. Nonprofit organizations generally depend on these prosocial behaviors for survival and to achieve their goals. According to the resource dependency approach (Pfeffer & Salancik, 1978), these prosocial behaviors can be regarded as an important resources for nonprofits that can yield a substantial strategic advantage (Liu & Ko, 2011; Barney, Ketchen, & Wright, 2011). Thus, the ability of nonprofit organizations to motivate people to behave in a prosocial way constitutes a prerequisite to achieving the organizations' missions.

Two major streams of research deal with prosocial behavior. One of these streams relies on economic theory. Shang and Croson (2009) believed that charitable contributions can be defined as a voluntary provision of public goods. Standard economic theory predicts that social cooperation generally should collapse due to individual free-riding incentives, but reality often proves the opposite. Therefore, standard economic theory was modified and enhanced. According to Meier (2007), three types of enhancements can be distinguished that enrich standard economic principles: outcome-based preferences (e.g., warm-glow motives), reciprocity and conditional cooperation, and self-identity for human behavior.

The other major stream of research on prosocial behavior lies in social psychology, where prosocial behavior is explained by means of

evolutionary psychological theory (Kruger, 2003) and social exchange theory (e.g., Homans, 1958). The empathy-altruism hypothesis (e.g., Batson, Fultz, & Schoenrade, 1987) as well as the bystander effect and the diffusion of responsibility concept (e.g., Banyard, 2008) represent other prominent psychological approaches to prosocial behavior.

Guilt can be defined as a form of emotional distress that occurs in interpersonal relationships and results from the belief in having violated a social standard or ethical principle (e.g., Baumeister, Stillwell, & Heatherton, 1994; Lascu, 1991). Haidt (2003) described guilt as a moral emotion related to the welfare of a third party, who may be either the whole society, a group of other persons, or a single person. Hence, the disinterestedness of its elicitors is a distinguishing feature of guilt. Most researchers, in line with Haidt (2003), agree that feelings of guilt result in an increased tendency to act in a way beneficial to others (e.g., Basil, Ridgway, & Basil, 2008; Burnett & Lunsford, 1994; Baumeister et al., 1994). Several empirical studies corroborate this hypothesis (e.g., Miller & Carlson, 1990; Lwin & Phau, 2009a; Lwin & Phau, 2009b). Quiles and Bybee (1997) argued that these prosocial action tendencies only appear if guilt is a temporary state of emotion since chronic guilt has the opposite effect and fosters antisocial behavior. According to the negative-state relief hypothesis, people tend to counterbalance the temporary negative emotion by specific actions that benefit others (Cialdini, Darby, & Vincent, 1973; Carlson & Miller 1987; Miller & Carlson, 1990; Baumeister et al., 1994), in line with Schwartz's (1977) norm-activation model suggesting that perceptions of social norms may have a substantial impact on the motivation to help others. In this sense, violations of social standards mean a threat to society and individuals tend to diminish feelings of guilt by prosocial actions that aim at supporting others and enhancing social coherence (Estrada-Hoellenbeck & Heatherton, 1997).

Guilt appeals belong to the category of negative emotional appeals that create an emotional imbalance and motivate favorable attitudinal and behavioral responses. Brennan and Binney (2010), in their qualitative research, point out that negative emotional appeals have to be deployed with caution because unintended motivational and behavioral responses may occur if the messages are not designed carefully. While guilt tends to induce more favorable behavioral responses, shame is more likely to trigger negative behaviors (Abe 2004).

Guilt-arousing communication is receiving attention in marketing research (e.g., Coulter & Pinto, 1995; Cotte, Coulter, & Moore, 2005; Basil et al., 2008; Chun-Tuan, 2011). Guilt appeals, which are receiving attention in a social marketing context as well as in service and consumer marketing research (e.g., Chun-Tuan, 2011), are communication tactics that aim at inducing feelings of guilt to motivate persons to engage in specific behaviors (e.g., Block, 2005). With respect to the typology of consumer guilt, Burnett

and Lunsford (1994) differentiate among financial, moral, health and social responsibility guilt. Bonsu, Main, and Wilner (2008) pointed out that consumer guilt is a multidimensional emotion finding literal as well as symbolic and metaphorical expression.

Previous research finds that credibility (Cotte et al., 2005) and a moderate level of induced guilt are prerequisites for guilt appeals' effectiveness (e.g., Bozinoff & Ghingold, 1982; Coulter & Pinto, 1995; Jiménez & Yang, 2008). Empathy and self-efficacy determine whether guilt or other unintended responses result (Basil et al., 2008). Among the mediators analyzed are persuasion knowledge (Coulter et al., 1999; Hibbert, Smith, Davies, & Ireland, 2007), anger (Coulter & Pinto, 1995), perceived threats to unknown others, response-efficacy and self-efficacy (Lindsey, 2005) and responsibility (Basil et al., 2006). Research on the effects of guilt appeals focuses on possible moderators such as ad credibility and perceived manipulative intent (Cotte et al., 2005), message framing (Agrawal & Duhachek, 2010; Duhachek, Agrawal, & Han, 2012), self-construal (Block, 2005), responsibility and altruistic norms (Basil, Ridgway, & Basil, 2001). Issue proximity (Chun-Tuan, 2012) and the perceived hedonic value of products (Chun-Tuan, 2011) may moderate the effects of guilt appeals.

According to Huhmann and Brotherton (1997), guilt can be aroused by verbal and visual content of communication messages. Research typically differentiates among existential, anticipatory and reactive guilt (Rawlings, 1970) based on the antecedents of the feeling of guilt (e.g., Huhmann & Brotherton, 1997). Existential guilt is caused by the perception that one is existentially better off than another person or a group of other persons (e.g., Huhmann & Brotherton, 1997). In contrast, reactive guilt is aroused after a factual violation of a social norm or ethical principle. Anticipatory guilt is experienced before a possible transgression and arises with the belief that one will violate a value or norm in the future (Rawlings, 1970). Therefore, reactive guilt is considered a post-decision guilt phenomenon while anticipatory guilt is regarded a pre-decision guilt phenomenon. The current study focuses on the differing effects of anticipatory vs. reactive guilt appeals since predecision and postdecision guilt apparently are closely linked constructs (Burnett & Lunsford, 1994).

## EXPERIMENT 1

According to Rawlings (1970), anticipatory guilt may induce prosocial behavior. Lindsey et al. (2007) showed that anticipatory guilt has a positive effect on individual inclination to donate bone marrow but their research does not reveal whether anticipatory guilt appeals are preferable to reactive guilt appeals. According to LaBarge and Godek (2005), reactive guilt appeals should induce higher levels of felt guilt as well as unintended negative

emotions (e.g., irritation) whereas anticipatory guilt appeals should result in more favorable emotional, attitudinal and intentional responses. This is apparently due to the fact that anticipatory guilt appeals relate to the future and therefore enable the recipient to avoid violating a social standard (LaBarge & Godek, 2005). Amodio et al. (2007) support this line of argument as they report that individuals show more interest in guilt-reducing behavior when possibilities of guilt-reducing behavior are demonstrated. In their qualitative research into the distinct effects of fear, shame and guilt appeals, Brennan and Binney (2010) further supported the idea that the intended motivational and behavioral consequences will occur only if people feel capable of changing something. Otherwise emotional burnout and inaction may yield unintended individual responses. Compared to reactive guilt appeals, anticipatory guilt appeals are less offensive and therefore less likely to result in psychological reactance. In light of these considerations, we assume that anticipated guilt appeals should be more effective in promoting prosocial behavior. Hence, H1 is:

*H1: Anticipatory guilt appeals are more effective in promoting prosocial behavior than reactive guilt appeals.*

Most people interact with others on a regular basis, and these social interactions may affect individual behavior. Reference group theory provides a conceptual framework for the analysis of social influences on behavior. According to Childers and Rao (1992), reference groups consist of single persons or a group of persons that serve as a reference point for individuals' attitudes, values, and behavior. Reference group influences guide individual decision-making behavior and move it in specific directions. Informational, utilitarian, and value-expressive reference groups represent the main categories of reference groups (Deutsch & Gerard, 1955). Value-expressive reference group influences are based on the assumption that people have a desire to associate with a specific reference group (e.g., celebrities). Utilitarian reference group influences allude to the idea that people comply with the wishes of others (e.g., their peers) to earn rewards (e.g., social recognition) or avoid punishment (e.g., social ostracism). Informational reference group influences are connected with the belief that people usually prefer to make informed decisions.

The current study focuses on the effects of informational reference group influences, where the groups consist of single persons or groups of persons considered to have a special expertise in a field of interest. Members of non-informational reference groups do not exhibit this expertise. According to Brinberg and Plimpton (1986, p. 297), "information will influence an individual if it is accepted and is perceived as enhancing the individual's knowledge of the environment and/or their ability to cope with some aspect of this environment e.g. purchasing a product."



We hold that members of informational reference groups should be perceived as especially knowledgeable and competent. There are two ways that informational reference groups may affect individual behavior (Park & Lessing, 1977): individuals may actively search for information from members of informational reference groups or they may unintentionally make inferences from observable behavior of informational reference group members. Considering the second path of action, nonprofit or public organizations may consider message endorsers with a special expertise in the subject in order to foster prosocial action tendencies. Accordingly, H2 is:

*H2: Messages sent by members of informational reference groups are more effective in promoting prosocial behavior than messages sent by members of non-informational reference groups.*

In addition, we assume an interaction between informational reference group influences and anticipatory versus reactive guilt appeals. As stated in H1, reactive guilt appeals should be unpersuasive compared to anticipatory guilt appeals. The results of LaBarge and Godek's (2006) study point in the same direction in showing that reactive guilt appeals result in negative and unintended emotions. That is, individuals apparently feel strongly pressured to behave in a certain way and resist persuasion. We hold that receivers of reactive guilt appeals should feel less pressured to behave prosocially when a member of an informational reference group endorses the message (e.g., blood donation appeal). This might be due to the fact that people regard members of informational reference groups as more trustworthy and reliable (Park & Lessing, 1997). Hence, informational reference group influences should dampen the reactance effect caused by reactive guilt appeals. H3 thus reads:

*H3: Reactive guilt appeals are more (less) persuasive when informational (non-informational) reference groups endorse the message.*

## Method

The first experiment was designed as a  $2 \times 2$  (Anticipatory Guilt Appeal vs. Reactive Guilt Appeal  $\times$  Informational Reference Group Vs. Noninformational Reference Group) between subjects design. A total of 82 undergraduate students enrolled in a German university participated in our study. Each of the participants was randomly assigned to one of the four experimental groups and all received a call for blood donation that elaborated on the importance of providing blood. Each appeal contained the same information with the expectation of the guilt appeal and reference group manipulations. Participants in the reactive guilt scenario were told that the shortage of blood was because people like themselves did not

donate blood. Participants in the anticipatory guilt scenario were told that blood banks will run short of blood when people like themselves stopped donating blood in the future. In the informational reference group influence scenario, the head physician of a blood transfusion department was the message endorser. In the non-informational reference group scenario, an office clerk with no specific expertise in the field of blood donation was the message endorser.

After reading the blood donation appeal, the participants completed a questionnaire. Based on Cotte et al. (2005), we considered attitude toward the appeal ( $\alpha = .86$ ), appeal credibility ( $\alpha = .89$ ), and inference of manipulative intent ( $\alpha = .93$ ) as indicators of communication effectiveness. The questionnaire contained manipulation check items as well (see Appendix). All measurement items were rated on a 5-point scale. Respondents provided sociodemographic information and were debriefed and dismissed.

The participants perceived the guilt appeal and reference group manipulations as we had intended. Subjects in the informational reference group influence scenario regarded the message endorser as someone with more expertise in the field of blood donation than subjects in the non-informational reference group scenario did,  $M_{\text{info}} = 4.21$ ,  $M_{\text{non-info}} = 3.91$ ;  $F(1, 82) = 11.23$ ,  $p < .01$ . Participants in the reactive guilt appeal anticipatory guilt appeal scenario believed the guilt appeal highlighted that they had already violated (did not have violated) an internalized moral standard,  $M_{\text{anti}} = 2.43$ ,  $M_{\text{react}} = 3.45$ ;  $F(1, 82) = 49.33$ ;  $p < .01$ . In addition to the manipulations check, subjects' age,  $F = 0.36$ ,  $p > .10$ , and gender,  $\chi^2 = .47$ ,  $p > .10$ , were uniformly distributed over the four experimental groups. Hence, these demographic variables could not have a confounding effect on the study results.

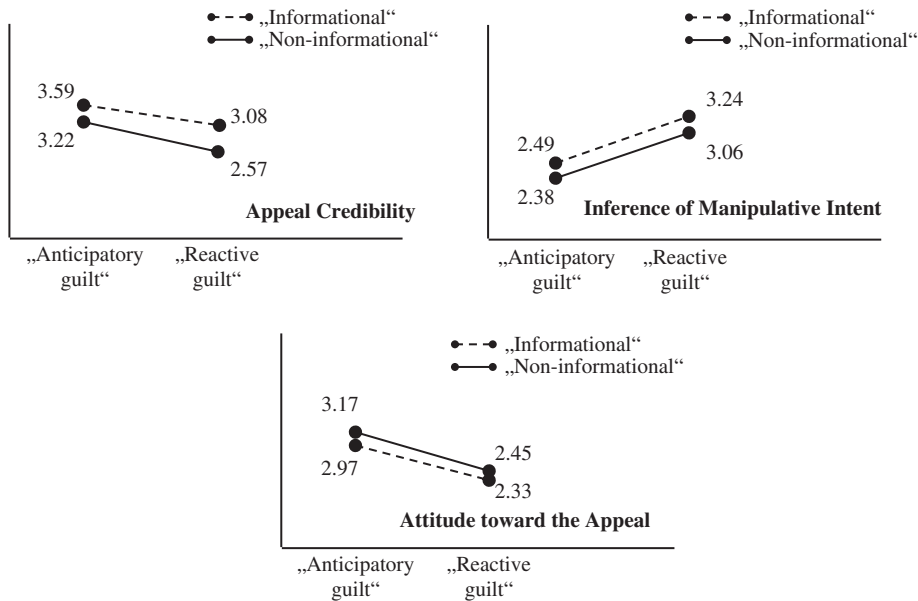
Results

Attitude toward the appeal, appeal credibility, and inference of manipulative intent were analyzed considering the full MANOVA model with guilt appeal type, reference group influence, and their interaction as independent variables. Table 1 depicts the MANOVA results. The main effect of the guilt appeal manipulation was significant as were the main effect of the reference group manipulation. However, we found no significance for the

**TABLE 1** MANOVA Results for Effectiveness of Blood Donation Appeals

Hypotheses	Wilks $\lambda$	<i>F</i> value	<i>p</i> value
H1: Anticipatory Versus Reactive Guilt Appeals	.880	3.515	$p < .05$
H2: Informational Reference Group Influence	.913	2.458	$p < .01$
H3: Anticipatory Versus Reactive Guilt Appeals $\times$ Informational Reference Group Influence	.979	.548	n.s.





**FIGURE 1** Effect of Anticipatory vs. Reactive Guilt Appeals and Informational Reference Group Influence.

interaction between the guilt appeal manipulation and the reference group manipulation.

To gain a deeper insight into the direction of both significant main effects, we conducted three ANOVAs considering attitude toward appeal, appeal credibility, and inference of manipulative intent as dependent variables. In line with H1, attitude toward the appeal ( $p < .01$ ), appeal credibility ( $p < .05$ ), and inference of manipulative intent ( $p < .05$ ) of anticipatory guilt appeals were more effective than reactive guilt appeals. Confirming H2, the message sent by a member of an informational reference group was perceived as more credible than the message sent by a member of a non-informational reference group ( $p < .05$ ). Figure 1 illustrates both significant main effects as well as the insignificant interaction effect.

## EXPERIMENT 2

The majority of commercial advertising is one-sided since it aims to increase purchasing intentions by exclusively presenting positive aspects of products and services. But a stream of research postulates that in certain circumstances it may be more effective to present negative information, too, especially when credibility is relevant (Kamins, Brand, Hoeke, & Moe, 1989; Crowley & Hoyer, 1994; Eisend, 2007; Eisend, 2010). Messages that voluntarily include negative information are called two-sided.

Inoculation theory (e.g., McGuire, 1961; McGuire & Papageorgis, 1961; Kamins & Assael, 1987) and attribution theory (e.g., Jones & Davis, 1965) contribute to explaining the effectiveness of two-sided messages. According to inoculation theory, two-sided advertising should be more persuasive than one-sided ads as counterarguments (or the ensuing search) can be reduced or even inhibited (Crowley & Hoyer, 1994). Moreover, attitude stability is supposed to be enhanced by two-sided communication that results from deeper information processing (Kamins & Assael, 1987). In line with attribution theory, two-sided communication should be more credible than one-sided communication as the message is ascribed to the true features of the product or service whereas one-sided messages are attributed to the intention of selling the product (Jones & Davis, 1965). Thus, two-sided messages are supposed to induce a more favorable attitude than one-sided messages. In the light of attribution theory as well as inoculation theory, we propose the following hypothesis:

*H4: Two-sided messages are more effective in promoting prosocial behavior than one-sided messages.*

It is generally recognized by marketing research that high involvement increases recipients' motivations to process information (e.g., Petty & Cacioppo, 1979) because the central route of persuasion is active when people are involved with a specific topic (e.g., Petty et al., 1983). In cases when the central route of persuasion is taken, presenting negative information is considered to be effective because the focus is on argument quality (Eisend, 2007). In line with this reasoning, two-sided messages are more persuasive when message receivers show high involvement (Allen, 1991). Anticipatory guilt appeals create the possibility of changing one's behavior and consequently avoiding a violation of ethical standards in the future (Rawlings, 1970). Hence, anticipatory guilt appeals should increase thoughts about existing decision alternatives and elevate recipients' involvement. In line with these considerations, we assume an interaction effect between the type of guilt appeal and message sidedness, such that the persuasive effect of two-sided messages will be intensified by anticipated guilt appeals. Hence, we hypothesize:

*H5: Two-sided messages are more effective in promoting prosocial behavior when they are combined with anticipatory guilt appeals.*

## Method

The second study was also designed as a  $2 \times 2$  (Anticipatory Guilt Appeal Vs. Reactive Guilt appeal  $\times$  Message Sidedness) between-subjects design.

Ninety-six undergraduate students enrolled in a German university participated in our experiment. Again, each subject was randomly assigned to one of the four experimental groups and then received a call for blood donation. The guilt appeal manipulation was developed in the same ways as in experiment 1 to achieve comparability. The one-sided message condition depicted the positive aspects of donating blood (helping other persons, free health checks, and free HIV test). In the two-sided message condition, negative aspects (risk of injury, danger of infection, and possibility of circulatory disturbance) of blood donations were depicted along with positive aspects.

After exposure to the blood donation appeal, subjects responded to questions on the dependent variables. Once again, the questionnaire considered attitude toward appeal ( $\alpha = .91$ ), appeal credibility ( $\alpha = .84$ ), and inference of manipulative intent ( $\alpha = .93$ ) as indicators of communication effectiveness. The questionnaire contained manipulation check items (see Appendix) as well as questions on socio-demographic characteristics of the participants. The subjects perceived the guilt appeal and message-sidedness manipulation the way they were intended. Participants in the reactive guilt appeal (anticipatory guilt appeal) scenario believed the guilt appeal highlighted that they had violated (had not violated) an internal moral standard,  $M_{\text{anti}} = 2.24$ ,  $M_{\text{react}} = 2.97$ ;  $F(1, 94) = 36.22$ ;  $p < .01$ . Subjects in the one-sided message scenario regarded the blood donation appeal as more one-sided than respondents in the two-sided message scenario,  $M_{\text{one}} = 4.52$ ,  $M_{\text{two}} = 1.46$ ;  $F(1, 94) = 323.55$ ;  $p < .01$ . As in Experiment 1, age ( $F = 0.89$ ,  $p > .10$ ) and gender ( $\chi^2 = .10$ ,  $p > .10$ ) was uniformly distributed over the four experimental groups.

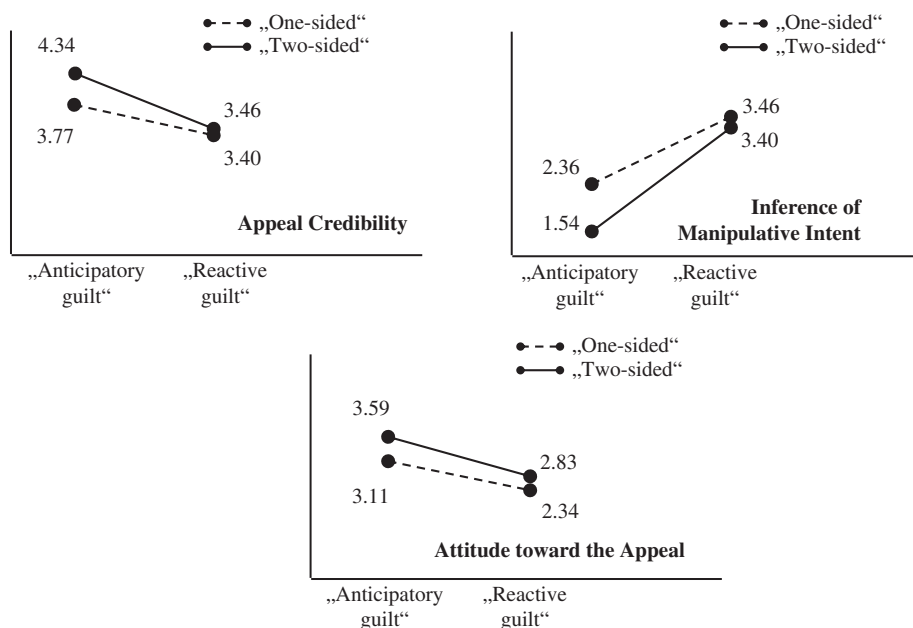
### Results

As in the first experiment, we considered attitude toward appeal, appeal credibility, and inference of manipulative intent as dependent variables as well as the full MANOVA model. Table 2 presents the results of the MANOVA. The main effects of the guilt appeal and message-sidedness manipulation were significant. In addition, the interaction effect of the guilt appeal manipulation and the message-sidedness manipulation were significant too.

In order to investigate the direction of significant main and interaction effects we again calculated three ANOVAs considering attitude toward

**TABLE 2** MANOVA Results for Effectiveness of Blood Donation Appeals

Hypotheses	Wilks $\lambda$	$F$ value	$p$ value
H1: Anticipatory Versus Reactive Guilt Appeals	.924	2.486	$p < .10$
H4: Message Sidedness	.666	15.227	$p < .01$
H5: Anticipatory Versus Reactive Guilt Appeals $\times$ Message Sidedness	.905	3.183	$p < .05$



**FIGURE 2** Effect of Anticipatory vs. Reactive Guilt Appeals and Message Sidedness.

appeal, appeal credibility, and inference of manipulative intent as dependent variables. Confirming hypothesis H1, attitude toward the appeal ( $p < .01$ ), appeal credibility ( $p < .01$ ), and inference of manipulative intent ( $p < .01$ ) of anticipatory guilt appeals were more effective than reactive guilt appeals. Additionally and in line with H4, two-sided messages resulted in a more positive attitude toward the appeal ( $p < .10$ ), a higher appeal credibility ( $p < .05$ ), and a less pronounced inference of manipulative intent ( $p < .05$ ). Confirming H5, the study results reveal significant interaction effects with respect to appeal credibility ( $p < .01$ ) and inference of manipulative intent ( $p < .05$ ). Figure 2 illustrates the significant main and interaction effects.

## CONCLUSION

The current study analyses the effects of different types of guilt appeals (anticipatory and reactive) in motivating prosocial behavior. The results of two experiments show that the type of guilt appeal, message sidedness, and informational reference groups influence the effectiveness of blood donation appeals. As hypothesized, anticipatory guilt appeals are more effective in promoting prosocial behavior than reactive guilt appeals. Informational reference group influences are more persuasive than noninformational reference group influences since potential donors prefer to rely on other persons' expertise when deciding whether to donate blood. However, the interaction

between type of guilt appeal and informational reference group effects was found to be not significant. With respect to the message-sidedness manipulation, our study reveals a significant main effect since two-sided messages turn out to be more effective in promoting desired blood donation behavior than one-sided messages. This may be due to the fact that donating blood is regarded as risky to some degree (Ferguson, Farrell, James, & Lowe, 2004) and calls for blood donations are likely to produce counterarguments. In addition, the interaction of guilt appeal type and message sidedness is significant and two-sided messages reinforced the persuasive effect of anticipatory guilt appeals on the considered attitudinal responses.

The findings of our study have interesting practical implications for the design of blood donation appeals as well as calls for monetary donations or volunteers. The study results suggest that anticipatory guilt appeals are preferable to reactive guilt appeals. Nonprofit and public organizations should also consider members of informational reference groups as endorsers for their blood donation appeals. However, our study results do not indicate that a combination of, for example, anticipatory guilt appeals and informational reference group influences is particularly beneficial. On the contrary, nonprofits and public organizations should consider two-sided messages when designing calls for donations, combined with anticipatory guilt appeals. Additional analyses reveal that gender as well as past blood donation behavior do not moderate the persuasive effect of different kinds of guilt appeals. Hence, our study gives no indication whether different guilt-arousing means of communication could be adapted to specific target groups. Nonprofit and social marketing can use anticipatory guilt appeals to persuade a broad audience of people.

There are limitations to the results of our study. First, we used a student sample. Shields (2009) writes that the young adult donor segment is characterized by distinct motives that account for the inclination to behave in a prosocial manner, and external validity of the current study may be limited because of the sample. However, experimental research using student samples is widely accepted in the literature. Second, our study analyzes the effects of guilt-arousing communication on attitudinal constructs. Changes in these constructs may not be fully reflected in changes in actual behavior. Third, the current study did not consider existential guilt appeals, which represents a non-time-related category of guilt-inducing communication strategies.

There remain several avenues for future research. First, replica studies on other types of prosocial behavior (e.g., volunteering or monetary donations) may lead to a generalization of our study findings. Second, researchers could conduct field experiments or tracking studies where the effects of guilt-arousing communication on actual prosocial behavior are analyzed. Third, future research should analyze whether guilt appeals can be effectively combined with other means of persuasive communication. For

example, research on the interaction between guilt-arousing techniques and referencing tactics (e.g., Menon, Block, & Ramanathan, 2002) or different levels of vividness (Fortin & Dholakia, 2005) could provide insights. Fourth and considering Wheeler's (2009) research, scholars could analyze whether the informational reference group's fit with the specific nonprofit issue may influence donation appeals' effectiveness. Fifth, and considering the research of Lwin and Phau (2009b), future research could analyze the differential effects of existential guilt appeals. Sixth, future research could investigate the determinants and consequences of anticipatory and reactive guilt. Within respect to behavioral consequences, we can assume that anticipatory (reactive) guilt appeals would be more instrumental in promoting volunteering behavior (monetary donations) compared to promoting monetary donations (volunteering behavior).

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APPENDIX

Manipulation Check Items

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Anticipatory versus reactive guilt manipulation (Experiment 1:  $\alpha = .71$ ; Experiment 2:  $\alpha = .67$ ) (1 = *I strongly agree* to 5 = *I strongly disagree*; self-developed measuring instrument)

The blood donor appeal focuses on my past behavior which cannot be changed anymore.  
The blood donor appeal tries to make me feel guilty because of my past behavior.  
The blood donor appeal highlights that I can change something with my future behavior.  
The blood donor appeal highlights what I can do in the future in order to not feeling guilty.

Informational reference group influence manipulation ( $\alpha = .77$ ) (1 = *I strongly agree* to 5 = *I strongly disagree*; self-developed measuring instrument)

I think that you can rely on the doctor's statement / the statement of the administrative employee.  
I think that the doctor/administrative employee is an expert on the topic of blood donation.  
I think that the doctor/administrative employee is a good information source on the topic of blood donation

Message sidedness manipulation ( $\alpha = .97$ ) (1 = *I strongly agree* to 5 = *I strongly disagree*; self-developed measuring instrument)

The report is one-sided and emphasizes primarily the positive aspects of blood donations.  
The report emphasizes in a well-balanced way the advantages and disadvantages of blood donations. (Reverse-coded)

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