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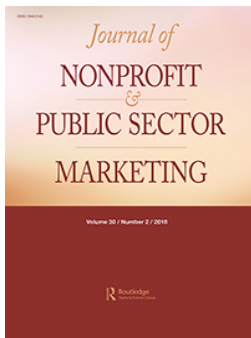
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Environmentalism—A Question of Guilt? Testing a Model of Guilt Arousal and Effects for Environmental Campaigns

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ABSTRACT

Guilt has been identified as a crucial factor mediating the effects of social campaigns. So far, however, knowledge regarding the process of guilt arousal is limited. This paper studies processes of guilt arousal and effects for the context of environmental donation campaigns. Following the extended parallel process model, environmental concern and self-efficacy are introduced as main predictors. Results of an experiment show that guilt arousal enhances campaign effects for those with a high concern but is the wrong strategy to reach those with a low concern. Guilt arousal is not influenced by self-efficacy and occurs independently of emotional message frames.

KEYWORDS

donation intention;
environmental campaigning;
environmental concern;
guilt; message framing;
self-efficacy; social
campaigning

The arousal of emotional reactions has been found to be effective in inducing attitude and behavior change in advertising and in social-marketing campaigns (Missaglia et al., 2017). Guilt appeals in particular are a common strategy in advertising and social campaigns (Albouy, 2017; Huhmann & Brotherton, 1997). Guilt has been found to be a crucial factor mediating the effects of campaigns, for instance, on charity giving (e.g., Basil, Ridgway, & Basil, 2006; Hibbert, Smith, Davies, & Ireland, 2007; Renner, Lindenmeier, Tscheulin, & Drevs, 2013). Previous studies have identified specific message characteristics of guilt appeals, such as appeals to empathy and self-efficacy, to be responsible for the level of guilt experienced after campaign exposure (Basil, Ridgway, & Basil, 2008). However, guilt appeals can also lead to unintended effects that discourage intended behavior such as charity giving (Basil et al., 2008; Cotte, Coulter, & Moore, 2005; Coulter & Pinto, 1995). Especially strong guilt appeals, for instance, may evoke other negative emotional responses, such as anger, resentment, or annoyance (O’Keefe, 2002). In the present study we propose guilt as response to an environmental campaign not solely evoked by the message, in particular, by specific guilt appeals but, rather, by individual predispositions. So far knowledge about underlying processes that

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consider effects of individual characteristics on guilt arousal is limited. Which persons are especially susceptible to guilt arousal and why? Following the extended parallel process model (EPPM) by Witte (1992), environmental concern and self-efficacy are introduced as important individual traits explaining guilt arousal and subsequent effects of guilt. According to the EPPM, high concern can be assumed to increase the perception of severity of a problem, which might, in turn, increase a person's susceptibility to guilt arousal. Self-efficacy, in contrast, might trigger feelings of responsibility which have also been shown to affect donation intentions (Basil et al., 2006).

While previous studies concentrate on charity campaigns and, therewith, on a specific form of prosocial behavior, the present research examines guilt arousal caused by environmental campaigns. Antecedents and consequences of guilt have not been studied in this context. Environmental campaigns are, however, an increasingly relevant research domain given, for instance, the growing urgency of climate change and the necessity to find solutions that are accepted and implemented by large parts of society. While first studies have examined the effectiveness of specific types of environmental appeals (Perrin, 2011; Searles, 2010; Thakadu, Irani, & Telg, 2011), the role of guilt has to our knowledge not been considered so far. As opposed to testing messages that are specifically designed to evoke feelings of guilt, we study guilt arousal as a consequence of exposure to a campaign about an environmental problem that does not involve specific guilt appeals. The proposed mechanism of guilt arousal and effects is tested for negative and positive message frames.

Guilt and environmental campaigns

Guilt has been defined as a negative emotion resulting from a perceived discrepancy of an individual's action or inaction with his or her own norms or moral standards (Miceli, 1992). Typically, feelings of guilt lead to the desire for guilt reduction by performing an appropriate conduct (O'Keefe, 2002). Guilt that follows from prior behavior has been referred to as reactive guilt (Huhmann & Brotherton, 1997; Renner et al., 2013). Alternatively, anticipatory guilt results from the foresight of a violation of norms or standards (Huhmann & Brotherton, 1997). A third type of guilt—existential guilt (Huhmann & Brotherton, 1997), or social responsibility guilt (Burnett & Lunsford, 1994)—results from social comparison, empathy with less fortunate persons or groups, and perceived inconsistencies with one's social obligations to help others. Previous studies on the effects of guilt appeals in charity campaigns on charity giving have focused on anticipatory guilt given that such campaigns target donation behavior in the near or immediate future (Basil et al., 2006, 2008; Hibbert et al., 2007; Massi, 2005). In addition,

anticipatory guilt appeals have been found to more strongly motivate prosocial behavior compared to reactive guilt appeals (Renner et al., 2013).

While donating certainly is one important goal of environmental campaigns, on a more general level, such campaigns aim at achieving social change by increasing environmentally significant behaviors. These can range from political engagement, such as taking part in demonstrations or supporting policies, to private behaviors including individual purchase or travel behavior (Stern, 2000). In this context, donating as a form of support of environmental organizations can be understood as a form of active environmental citizenship (Stern, Dietz, Abel, Guagnano, & Kalof, 1999). Lee and Holden (1999) characterize environmentally conscious behavior as a special type of prosocial behavior: They regard conduct to help the environment similar to social forms of helping behavior because some kind of efforts or costs have to be taken into account while in most cases there are no direct rewards for an individual but instead for others, a community or society at large. Consequently, the motivational antecedents of environmentally conscious behavior can be assumed to be similar to other types of prosocial behavior, such as charity giving. Guilt appeals in environmental campaigns could, therefore, evoke similar mechanisms as guilt appeals in charity campaigns. Aiming at conservation or damage control, environmental campaigns mainly involve anticipatory guilt. More specifically, with respect to pro-environmental behaviors, feelings of guilt are assumed to be an important predictor of moral norms and facilitate positive attitudes toward different forms of pro-environmental behavior (Bamberg & Möser, 2007; Giebelhausen, Chun, Cronin, & Hult, 2016). While sustainability guilt has been discussed in the context of sustainable consumption behavior—or the lack thereof (Jayaratne, Sullivan Mort, & D'Souza, 2015), this concept can also be applied to environmental or sustainable behavior in general. The following section develops a model of anticipatory guilt induced by environmental campaigns.

A model of guilt arousal and effects of environmental campaigns

The extended parallel process model (EPPM) by Witte (1992) has been successfully applied to explain the influence of guilt appeals on charity giving (Basil et al., 2008). Originally developed as a model of coping with fear appeals, the EPPM describes, first, the sense of threat determining whether a fear appeal is processed and, second, efficacy influencing any behavioral responses following the exposure to a fear appeal. Sense of threat, thereby, includes the perception of severity of an issue and of being susceptible to a threat. Efficacy as the belief to be able to cope with a threat then leads to a danger control process—that is, behavior to avert a danger will be adapted.

The absence of efficacy, in contrast, induces a fear control process by responding with reactance or counterarguments.

In the context of guilt appeals in charity campaigns, sense of threat has been modified as personal relevance that is created by empathy toward the charity's goal (Basil et al., 2008). The study found that empathy increased levels of anticipatory guilt and guilt mediated the effect of empathy on the intention of charity giving. In addition, efficacy was found to influence guilt levels and guilt also mediated the effect of efficacy on donation intention. Note that Basil et al. (2008) have operationalized the two concepts empathy and efficacy by manipulation of charity appeals as opposed to regarding them as individual characteristics.

In the following, we adapt the EPPM to the context of environmental campaigns (Figure 1). While research on charity giving has focused on the effects of guilt on donation intentions, the present study examines mechanisms of guilt arousal and subsequent effects on the attitude toward a campaign and donation intention. Environmental concern and self-efficacy are regarded as crucial in evoking guilt by an environmental campaign and in influencing the intention to donate.

Environmental concern

Environmental concern refers to personal values and perceptions regarding the environment. The concept has been operationalized in various manners. The most comprehensive measure is the “New Environmental Paradigm” (NEP) developed by Dunlap and colleagues (Dunlap, 2008; Dunlap & Van Liere, 1978; Dunlap, Van Liere, Mertig, & Jones, 2000). It includes three dimensions: the balance between humans and nature, the impact of humans on the environment, and humans living in harmony with nature versus dominating it. Two-process models such as the elaboration-likelihood

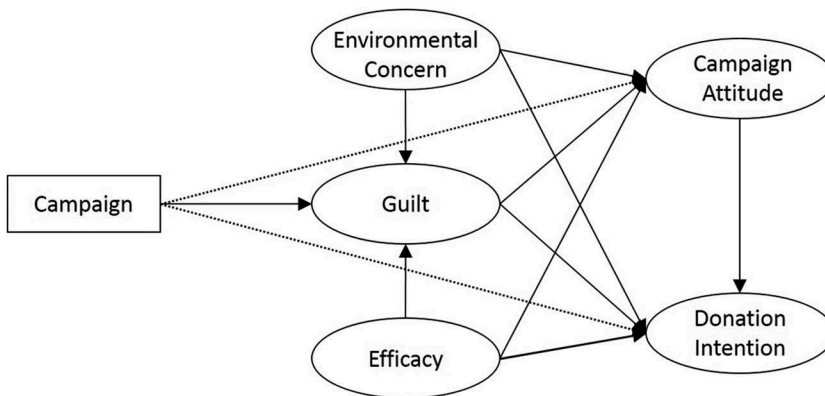


Figure 1. Model of guilt arousal and effects of environmental campaigns.

model (Petty & Cacioppo, 1986) state that involvement triggers motivation to engage with a message and process information more systematically. Thus, a campaign has from the outset higher chances to reach those who are already involved with or concerned about an issue as opposed to those who feel less involved or concerned. An impact of environmental concern on persuasive effects has, for instance, been found for advertising environmentally friendly products (Chan & Lau, 2004; Grimmer & Woolley, 2012; Lee, Choi, Youn, & Lee, 2012). Also effects of media coverage on environmental issues have been shown to be influenced by environmental concern (Hart, Nisbet, & Shanahan, 2011; Zhao, 2009). It has also been shown that increased concern influences engagement regarding an issue (Hart et al., 2011).

The two dimensions of sense of threat of the EPPM ask how severe a fear appeal does appear to a person and how susceptible that person is to being affected by that appeal. Research on fear appeals, thereby, mainly looks at fear directly related to personal behavior, such as smoking, drinking alcohol, or personal health care (e.g., Benet, Pitts, & LaTour, 1993; Biener, McCallum-Keeler, & Nyman, 2000; Soames Job, 1988). Fundraising campaigns for environmental but also for charity issues, however, often create awareness for problems that are out of reach of everyday experiences or behaviors—for instance, pointing out endangered species or poverty problems. This is why we consider the perceived severity of a problem, and less so susceptibility, as the key dimension of personal relevance for our context. We argue that the perception of the severity of an environmental issue directly relates to environmental concern. Originally, the concept of environmental concern has been applied to specific local issues such as air or water pollution (Dunlap et al., 2000; Weigel & Weigel, 1978). As a reaction to the increasing scale and severity of environmental problems, the concept has shifted to a more general or global level of concern for the environment (e.g., Stern, 2000). This shift is also reflected in the contrast of humanity and nature that forms the basis of the NEP scale (Dunlap et al., 2000).

Thus, based on considerations of the EPPM, environmental concern can be assumed to affect guilt arousal. But also subsequent effects of guilt may be explained by a person's concern for the environment. Following O'Keefe (2002), the guilt control process can be explained by self-affirmation. As described above, guilt is associated with inconsistency between conduct and a person's individual standards. Self-affirmation theory states that such a perceived discrepancy might trigger action with the goal to maintain or restore one's self-image (Liu & Steele, 1986; Steele & Liu, 1983). The level of discrepancy that is experienced depends on the severity of the violation of one's standards. Consequently, a higher concern for the environment can be expected to affect not only the strength of guilt feelings that are developed but also how these feelings of guilt subsequently shape behaviors or behavioral intentions. Those with a higher concern may experience stronger

feelings of guilt because of a greater violation of underlying environmental norms. This may increase the motivation to choose behaviors consistent with these norms. Our first hypotheses describe the direct effects of environmental concern on campaign attitude and donation intention and on the mediating role of guilt on campaign effects as influenced by environmental concern.

Hypothesis 1 (H1): Environmental concern positively influences the attitude toward the campaign.

Hypothesis 2 (H2): Environmental concern positively influences the intention to donate.

Hypothesis 3 (H3): Environmental concern positively influences persuasive campaign effects by increasing guilt arousal after campaign exposure.

Self-efficacy

Responsibility has been identified as a necessary premise of guilt (Miceli, 1992; Miceli & Castelfranchi, 1998). The authors suggest three components of responsibility: causal responsibility, the belief that one has caused a problem; goal responsibility, the belief that the problem was caused intentionally, and avoidance responsibility, the assumption that one has the power to avoid or solve a problem. In the case of anticipatory guilt in environmental campaigns, mainly the latter form of responsibility seems applicable. A person might positively respond to a campaign only if he or she believes the action would be an effective help in solving the problem. Therewith, avoidance responsibility is closely related to the concept of perceived self-efficacy that is part of the EPPM (Witte, 1992). Perceived self-efficacy denotes the belief of being able to cope with a problem or perform a specific behavior. A form of efficacy has been found as an important predictor of green consumption behavior: Perceived consumer effectiveness (PCE) is the belief that one can make a difference when buying environmentally friendly products or services (Ellen, Wiener, & Cobb-Walgren, 1991). Several studies have confirmed the relationship of PCE and green consumption (e.g., Kim & Choi, 2005; Straughan & Roberts, 1999; Vermeir & Verbeke, 2006). Accordingly, we suggest that self-efficacy may directly influence a person's attitude toward a campaign and intention to donate.

However, more importantly, the EPPM assumes that self-efficacy affects the response to guilt appeals (Basil et al., 2008; Witte, 1992), or more generally, self-efficacy influences how people cope with feelings of guilt. The belief that one is able to perform the behavior requested by the campaign adequately and effectively enhances a person's willingness to consider

engaging in the behavior. Thus, we can also expect indirect effects of self-efficacy on campaign attitudes and donation intentions that are mediated by anticipated guilt. Our next hypotheses describe this mediating role of guilt on campaign effects as influenced by self-efficacy and the main effects of self-efficacy.

Hypothesis 4 (H4): Self-efficacy positively influences the attitude toward the campaign.

Hypothesis 5 (H5): Self-efficacy positively influences the intention to donate.

Hypothesis 6 (H6): Persuasive campaign effects of self-efficacy are mediated by guilt.

Message framing

Previous research regarding the effects of valence of campaign messages on guilt arousal has yielded inconclusive results (e.g., O’Keefe, 2002). While many charity campaigns build on emotional responses to appeals specifically designed to arouse guilt, such guilt appeals might not necessarily lead to feelings of guilt but might also evoke reactance or other unintended responses that discourage one from charitable giving (Basil et al., 2008; Cotte et al., 2005; Coulter & Pinto, 1995). O’Keefe (2002) argues that especially strong guilt appeals might be less persuasive since they also evoke other negative feelings, such as anger, resentment, or annoyance. Such maladaptive responses can be a result of persuasion knowledge (Friestad & Wright, 1994; Hibbert et al., 2007). The perception of being expected to feel guilty after seeing a campaign, may actually hinder the process of guilt arousal. Although previous research has focused on the effects of explicit guilt appeals, we assume that guilt arousal may also be evoked by more-implicit emotional cues. Moreover, it can be argued that effects of persuasion knowledge can be reduced by more-implicit appeals. Emotional appeals have been shown to reinforce persuasion effects to campaign messages (Seo, Dillard, & Shen, 2013). In the context of environmental campaigns, the visual presentation of an environmental problem may function as an implicit emotional cue to guilt arousal. Nature imagery has been found to enhance positive campaign effects (Hartmann & Apaolaza-Ibáñez, 2009). In particular, positive depictions of nature, such as images of beautiful landscapes, have been found to evoke virtual nature experiences which, in turn, have a positive influence on campaign evaluations (Hartmann & Apaolaza-Ibáñez, 2009, 2012). Two manners of depicting environmental problems can be considered. The first comprises positive images of an

intact—albeit threatened—environment. The second consists of negative images of environmental damages. The effects of such negative nature imagery, however, have not been studied. Since the effects of positive and negative message framing have been shown to be context dependent (Putrevu, 2010), we formulated a research question that addresses possible differences between positive and negative emotional message frames for the model of guilt arousal and effects proposed in this study.

Research Question 1 (RQ1): Does the process of guilt arousal and effect differ between a positive emotional appeal and a negative emotional appeal?

Method

Data

An online experiment was conducted in Austria in April 2013 to study the process of guilt arousal and effects in the context of an environmental campaign. Participants were approached via personal emails sent out to acquaintances by students of a research seminar. A quota plan was applied based on the distributions of age, gender, and education in the Austrian population. In the final sample ($N = 201$) young people were slightly over-represented ($M = 38.8$, $SD = 16.76$) as were women (57%) and highly educated persons (education measured by five categories, $M = 3.58$, $SD = 1.28$). Because some of the students were of German origin and had problems in approaching participants who would fulfill the quota criteria in Austria, 19% of the participants were living in Germany.

We used three campaign conditions to test our model for an appeal with a positive, a negative, and a neutral framing. The stimulus material consisted of campaign material of a fictive nonprofit organization (see Figure A1). Preservation of rainforests was chosen as a campaign goal since it constitutes a widely acknowledged environmental problem with consequences on a global scale. We considered it important to choose a problem that was not heavily disputed, in contrast to, for instance, hydraulic fracturing or the creation of regional conservation areas that might interfere with personal or commercial interests of our participants. The material depicted a slogan, an appeal for donations, a logo of the organization, contact information, and a positive or negative visualization. The positive image was a tropical rainforest scene. The negative image showed a recently deforested area. In addition, a control condition with a neutral background was created. Participants were randomly assigned to one of the three conditions. A general evaluation of the campaign by our participants yielded a significant difference between the two conditions containing a visualization and the neutral one ($F(2, 198) = 13.46$, $p < .001$). In

addition, the positive condition was regarded as significantly more positive compared to the negative and the neutral ones ($F(2, 198) = 25.57, p < .001$).

Measures

Seven-point scales were applied for the items constituting the dependent and independent variables (see Table 1). Anticipated guilt was gauged by three items ($\alpha = .88; M = 2.50; SD = 1.56$) following Basil et al. (2008). Attitude toward the campaign goal was measured by seven semantic differential scales ($\alpha = .93; M = 5.23; SD = 1.37$). Two items were used to measure the intention to donate (e.g., Merchant, Ford, & Sargeant, 2010), ($\alpha = .87; M = 2.65; SD = 1.60$).

Three items of the NEP scale were used as indicators of environmental concern ($\alpha = .71; M = 5.40; SD = 1.20$). A fourth item of NEP was included in the survey. Because of a factor loading of $\lambda < .5$, it was dropped from the subsequent analysis. Three items constituting a short scale of general self-efficacy were employed for the concept of efficacy (Beierlein, Kovaleva, Kemper, & Rammstedt, 2012), ($\alpha = .89; M = 5.68; SD = 1.09$). In addition to age, gender, and education, income was included in the model as a control variable (measured by six categories, $M = 2.72; SD = 1.16$).

Results

The theoretical model of Figure 1 was tested using structural equation modeling applying full information maximum likelihood (FIML). Table 1 displays the results of the confirmatory factor analyses for all latent constructs. The standardized factor loadings on the latent variables ranged between $\lambda = .55$ and $\lambda = .94$. Since the fit of this model was good (Chi square = 305.42, $df = 203$, CFI = .95, RMSEA = .05, PCLOSE = .48), also two items with relatively low loadings of environmental concern were kept. Using three items to model environmental concern as a latent factor was regarded as preferable to a single-item measure. The factor loadings for all latent variables are shown in Table 1. Table 2 displays the coefficients resulting from the structural equation analysis.

Environmental concern

Environmental concern strongly influenced campaign attitude ($b = .31; p < .001$), confirming H1. However, environmental concern had no direct effect on donation intention ($b = .02; ns$). Thus, H2 was not confirmed. In line with the direct effect of H3, the model showed a significant positive relationship between environmental concern and guilt ($b = .21; p < .05$). Finally, the indirect effects of environmental concern were tested by

Table 1. Items and Structural Equation Modeling With Standardized Factor Loadings

| Measurement items per construct | Factor loadings |
|---|-----------------|
| Guilt | |
| I would feel guilty if I did not make a donation after seeing this ad. | .811 |
| I would feel sorry if I did not make a donation after seeing this ad. | .916 |
| I would feel regretful if I did not make a donation after seeing this ad. | .818 |
| Attitude toward the campaign | |
| negative—positive | .776 |
| not likable—likeable | .770 |
| not important—important | .794 |
| not appealing—appealing | .795 |
| not interesting—interesting | .898 |
| not useful—useful | .806 |
| not rewarding—rewarding | .811 |
| Intention to donate | |
| It is very likely that I will donate money to this organization. | .937 |
| For sure I will donate money to this organization in the future. | .827 |
| Environmental concern | |
| Humans are severely abusing the environment. | .552 |
| The so-called ecological crisis facing humankind has been greatly exaggerated. (reversed) | .585 |
| If things continue on their present course, we will soon experience a major ecological catastrophe. | .863 |
| Efficacy | |
| In difficult situations I can depend on my skills. | .786 |
| Most problems I can manage on my own. | .862 |
| Also exhausting and complicated tasks I can usually solve well. | .905 |

Table 2. Structural Equation Modeling Unstandardized and Standardized Path Coefficients

| Independent Variables | Dependent Variables | | | | | |
|-----------------------|---------------------|---------|-------------------|---------|--------------------|---------|
| | Guilt | | Campaign Attitude | | Donation Intention | |
| | <i>b</i> (SE) | β | <i>b</i> (SE) | β | <i>b</i> (SE) | β |
| Age | .00 (.01) | .01 | .00 (.01) | .04 | .01 (.01) | .13* |
| Gender (male = 1) | -.29 (.21) | -.10 | .04 (.17) | .02 | .25 (.20) | .07 |
| Education | -.05 (.08) | -.04 | -.06 (.07) | -.06 | .05 (.08) | .04 |
| Income | .08 (.10) | .07 | -.07 (.08) | -.06 | .05 (.10) | .03 |
| Positive Campaign | .13 (.26) | .04 | .69 (.21) | .26** | -.19 (.26) | -.05 |
| Negative Campaign | .39 (.25) | .14 | .33 (.20) | .13 | -.28 (.24) | -.08 |
| Environmental Concern | .41 (.17) | .21* | .55 (.15) | .31*** | .06 (.17) | .02 |
| Efficacy | -.09 (.12) | -.06 | .11 (.10) | .08 | .23 (.20) | .13* |
| Guilt | | | .26 (.07) | .29*** | .88 (.09) | .71*** |
| Campaign Attitude | | | | | .06 (.10) | .05 |
| SMC | | .082 | | .271 | | .558 |

Note. SMC = squared multiple correlation.

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

bias-corrected percentile bootstrapping. The indirect effect of environmental concern on campaign attitude mediated by guilt was significant and positive ($b = .11$; $p < .01$). A significant positive effect was also found for environmental concern on donation intention mediated by guilt ($b = .40$; $p < .05$). H3 could, thus, be confirmed.

Efficacy

As opposed to environmental concern, no effect was found for efficacy on campaign attitude ($b = .08$; ns). H4 was, thus, not confirmed. Efficacy, however, could be shown to have a positive influence on donation intention ($b = .13$; $p < .05$), confirming H5. In contrast to environmental concern, efficacy was not related to guilt arousal ($b = -.06$; ns). Again, the indirect effects of efficacy were tested by bias-corrected percentile bootstrapping. As the nonsignificant effect of efficacy on guilt arousal already indicated, the bootstrapping results of the indirect effects of efficacy on campaign attitude ($b = -.02$; ns) and intention to donate ($b = -.08$; ns) were not significant. H6 was, therefore, not confirmed.

Message framing

Attitude toward the goal of the campaign differed between campaign conditions. The positive visualization contributed to perceiving the campaign as more important and appealing ($b = .26$; $p < .01$) while no effect was found for the negative condition ($b = .13$; ns). The campaign conditions did not vary in their impact on the intention to donate to the organization. Also guilt arousal occurred independently of the campaign condition. Neither the positive image nor the negative one influenced guilt arousal relative to the neutral condition. To further compare the mechanisms of guilt arousal and effects between the different campaign conditions, a series of alternative models was tested that included interaction variables of the campaign conditions and environmental concern and efficacy. However, none of the interaction terms had a significant effect. Concerning RQ1, it can, thus, be concluded that the mechanism of guilt arousal as it was found to be mainly influenced by environmental concern occurs independently of emotional message framing.

Control variables

The sociodemographic control variables were not significantly related to campaign attitude. However, the squared multiple correlation suggested that campaign attitude was well explained by the model. Of the sociodemographic variables only age was significantly related to donation intention

($b = .13$; $p < .05$). The squared multiple correlation suggested that donation intention was well explained by the model. Finally, the sociodemographic control variables did not contribute to explaining guilt arousal. The squared multiple correlation for guilt indicated that environmental concern as the only significant factor only explains a small part of guilt arousal.

Conclusions and discussion

The present study examined guilt arousal and effects of environmental campaigns influenced by individual traits as opposed to explicit guilt appeals. The results point to a distinct role of environmental concern and efficacy in the process of guilt arousal and effects. Translating the extended parallel process model (EPPM) by Witte (1992) to the context of guilt arousal by environmental campaigns yielded environmental concern as the main predictor of anticipated guilt. Being concerned about the environment in general prior to campaign exposure increased the chance of anticipating feelings of guilt if one would not respond with the behavior intended by the campaign—in our case, donating to a nonprofit organization. Following EPPM, prior concern is a premise of developing a sense of the severity of the campaign issue. Facing an environmental problem then leads to a perceived discrepancy between the ideal of an intact environment. This discrepancy facilitates the arousal of guilt. In addition, we found that concern also affects the attitude toward the goal of the campaign. Plausibly, more-concerned individuals were more inclined to consider the campaign as relevant. The effect of concern on campaign attitude was, however, partially mediated by guilt. Thus, guilt arousal reinforced the impact of environmental concern on campaign attitude. In addition, guilt also reinforced the effect of concern on donation intention. Guilt arousal could, therefore, be regarded as an effective strategy to enhance campaign perception and behavioral outcomes of specific target groups. It is, however, less effective in reaching those with no prior concern regarding an issue.

Previous research, however, has shown that guilt specifically facilitated intentions to donate for nonenvironmentalists (Swim & Bloodhart, 2015). Similarly, nondonors have been found to experience higher levels of guilt in a charity context (Heiser, 2006). Theoretically, the finding that environmental concern positively influences guilt and campaign attitude seems to be in contradiction to transgression-compliance effects. It has been found repeatedly that guilt evoked in the presence of a transgression enhances commitment to subsequent helping behavior (O’Keefe, 2002). Consequently, persons with low environmental concern might be reminded of this when they are exposed to an environmental campaign, perceive a transgression, and, thus, be more inclined to help. However, as our model shows, perceived severity is first of all a premise of guilt arousal. If it is missing, also the following intended outcomes of a campaign may fail. However, in addition to environmental concern, also other value types

might play a role in mediating the effects of guilt appeals. Social values have, for instance, been identified as important drivers of green attitudes and behavioral intentions (Boenigk & Möhlmann, 2016). Including alternative sets of values relating to other than environmental benefits, for example, health or social status, might be an important step toward uncovering environmental motivations of the more challenging, not environmentally concerned groups (Wymer & Polonsky, 2015).

Perceived responsibility, in contrast to environmental concern, was not related to guilt arousal. The belief in being able to make a difference with one's own behavior had no consequences for the development of guilt in this study. Also the effects of guilt on campaign attitude and donation intention were not influenced by efficacy. Efficacy did, however, directly increase the intention to donate. These findings indicate that the relevance of sense of responsibility as originally suggested by the EPPM for fear appeals differs for the context of guilt appeals. Future research should elaborate on such differences to shed light on the specific mechanisms operating behind guilt arousal.

A very strong relationship was found between guilt and donation intention that may confound our results. However, both measures have been introduced by previous studies and have been proven to be reliable (e.g., Basil et al., 2008; Merchant et al., 2010). In addition, the distinct relationships we found to environmental concern and efficacy point to conceptual differences between the two constructs. We suggest that measures of anticipatory guilt used in studies on social and environmental campaigns be further validated, in particular, regarding their discriminant validity to other outcomes, such as donation intention.

The campaign with the positive emotional appeal was evaluated more positively—that is, it was found to be more beneficial and important. However, the campaign condition did not affect donation intention. In contrast to these results, studies on charity giving found stronger effects of negative message frames (e.g., Chang & Lee, 2010; Small & Verrochi, 2009), true, in particular, for abstract messages as was the case for the campaign in this study (Das, Kerkhof, & Kuiper, 2008). For the context of environmental campaigns, however, equal effects of negatively and positively framed messages have been shown before (Perrin, 2011). As the study of Peter and Honea (2012) indicates, different emotions might be important for different stages of a behavioral outcome. The authors showed guilt as one of the relevant factors for initial behavioral change while optimism was more important for long-term changes.

In previous studies, guilt arousal has mainly been tested as a response to specific guilt appeals in social campaigns. This study, however, shows that guilt can be evoked independently of message framing. As opposed to previous findings (e.g., O'Keefe, 2002), guilt arousal occurred

independently of the campaign condition. This suggests that anticipated guilt was mainly triggered by the topic and claim of the campaign and not by positive or negative visualization of the problem. This is surprising since visuals are often regarded as triggering affective responses to campaigns (Hartmann & Apaolaza-Ibáñez, 2009; Perrin, 2011; Swim & Bloodhart, 2015). This result might, however, be topic specific. Since negative consequences of deforestation are widely acknowledged and corresponding images pervasive in the media, a campaign on rainforests might not “need” to build on images that are well known and easily reproduced by many people as an associative reaction to a reference to that topic. In other words, the topic might have an emotional loading—especially for those who are highly concerned about the environment in general. As such, a slogan regarding the topic is enough to evoke the affective process of guilt arousal. Future studies should, therefore, account for the perceived emotionality of campaign issues.

Finally, I want to discuss several points regarding the design of this study.

A fictive nonprofit organization was chosen to circumvent effects of the perceived image or prior experiences with an organization. The disadvantage of a nonfictive organization clearly is that organization-specific factors cannot be taken into account. Agent knowledge has, for instance, been found to determine donation behavior after guilt arousal (Hibbert et al., 2007). Also source credibility has been regarded as important in the nonprofit domain (Wheeler, 2009). The role of these factors for guilt arousal needs to be studied more closely.

Although quota sampling was applied, the sample of this study cannot be considered as representative for the Austrian/German population. Nonetheless, this sample was considered acceptable for the purpose of this study. Approaching a wider range of the general population enhances generalizability of the findings as opposed to, for instance, a mere student sample. Of course, only a random population sample with a higher sample size could shed light on the representativeness of our findings.

In sum, the present study examined the process of guilt arousal and subsequent effects of guilt on attitude toward an environmental campaign and donation intention. We could show that environmental concern is a key factor in the entire process—reinforcing guilt arousal and guilt effects. This finding points to the power of guilt appeals in environmental campaigns, especially, for those with a high concern regarding environmental issues. At the same time, the findings show the limitations of guilt appeals in reaching greater groups of society.

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Appendix

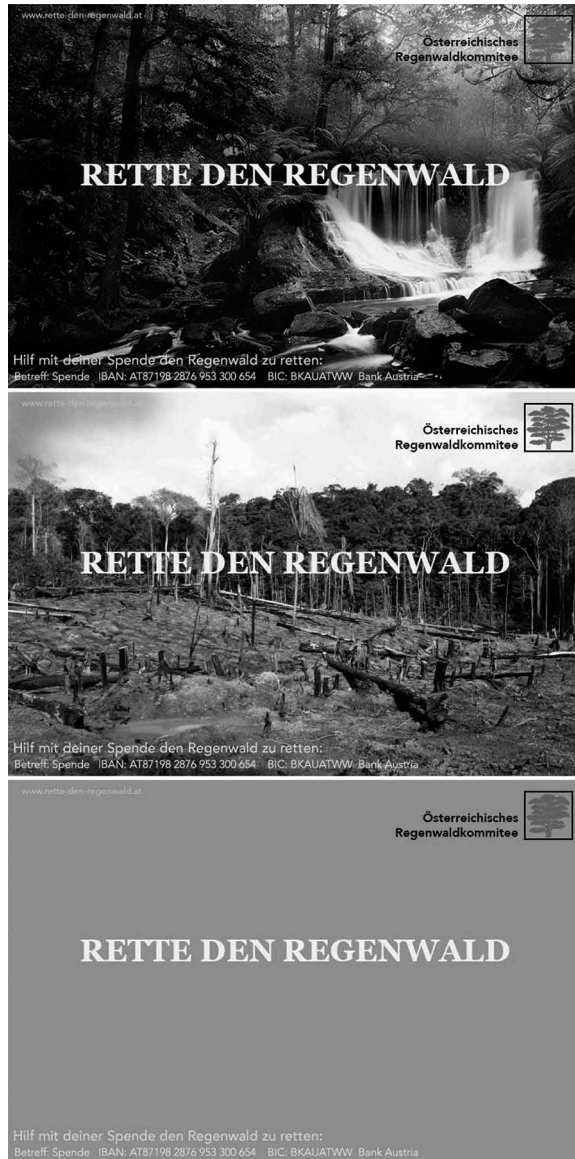


Figure A1. Stimulus material—positive, negative, and neutral campaign.