

FULL PAPER

Synergy effects of entertainment and information programs about organ donation on issue involvement and altruistic responses

Synergieeffekte von Unterhaltungs- und Informationsendungen zum Thema Organspende auf Themeninvolvement und altruistische Zuschauerreaktionen

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Abstract: This study examines synergy effects of entertainment and information programs on the example of a television theme night about organ donation. Participants watched either a feature film about organ donation or an unrelated entertainment program. Subsequently, all participants watched an information program about organ donation. Those who had first seen the feature film reported higher levels of issue involvement (topic interest, subjective knowledge, and information seeking), and altruistic responses (positive attitudes and behavioral intentions concerning organ donation and willingness to get a donor card). Structural equation modeling revealed that the positive effects of the feature film on issue involvement and altruistic responses varied by the extent to which participants felt moved by the feature film and by their level of cognitive elaboration about the feature film and the documentary on organ donation.

Keywords: Organ donation, eudaimonic entertainment, issue involvement, altruistic responses.

Zusammenfassung: In dieser Studie werden Synergieeffekte von Unterhaltungs- und Informationsmedien am Beispiel eines TV-Themenabends zu Organspende untersucht. Die Teilnehmenden der Studie sahen entweder einen Spielfilm über Organspende oder eine Unterhaltungssendung zu einem anderen Thema. Im Anschluss sahen alle Teilnehmenden eine Informationssendung über Organspende. Teilnehmende, die zuvor den Spielfilm über Organspende gesehen hatten, berichteten ein höheres Maß an Themeninvolvement (Themeninteresse, subjektives Wissen und Informationssuche) sowie ein höheres Maß an altruistischen Reaktionen (positive Einstellungen und Verhaltensabsichten bezüglich Organspende und Besorgen eines Organspendeausweises). Im Strukturgleichungsmodell zeigte sich, dass diese positiven Effekte des Spielfilms auf Themeninvolvement und altruistische Reaktionen durch die Mediatorvariablen emotionale Bewegtheit durch den Spielfilm, kognitive Elaboration des Filminhalts und Elaboration der Informationssendung über Organspende vermittelt wurden.

Schlagwörter: Organspende, eudaimonische Unterhaltung, Themeninvolvement, altruistische Reaktionen.

1. Introduction

Shortage of human organs for transplantation is a pressing issue in many countries, in particular in countries such as Germany where organ extraction is carried out under the informed consent principle, meaning that it requires the explicit consent of the donor on a donor registration card (Abadie & Gay, 2006). Only 36 percent of the German population possesses an organ donor card although 84 percent hold positive attitudes about the issue of organ donation (Caille-Brillet, Zimmering, & Thaiss, 2019). This apparent gap between implicit and explicit consent highlights the importance of public information and awareness campaigns to increase individuals' issue involvement and their willingness to make an informed decision about whether or not to register as an organ donor.

To overcome the limits of purely informational programs in terms of audience attraction and outreach, research on entertainment education has focused on the power of narratives to emotionally involve and persuade audiences. This line of research has found that entertainment programs can have favorable effects on individuals' issue involvement and willingness to become organ donors (Bae, 2008; Morgan, Movius, & Cody, 2009). In particular, the potential of entertainment narratives to elicit emotional involvement and empathy emerged as a key mediating factor behind the positive effects of exposure to narratives about organ donation on issue involvement and altruistic motivation (Bae, 2008; Morgan et al., 2009). But entertainment programs can have a downside too, in particular if they include inaccurate or sensationalized portrayals (Morgan, Harrison, Chewing, Davis, & DiCorcia, 2007; Mogan, King, Smith, & Ivic, 2010).

This study aims to examine the benefits of a relatively new approach that combines the respective advantages of entertainment and information programs. Television theme nights – a TV format increasingly popular in Germany – present entertainment and information programs in tandem, with the aim of (1) stimulating audience interest through fictional entertainment programs that promote empathy and emotional involvement with the issue, and (2) presenting audiences with an informational program that provides factual information about the issue. We conducted a field experiment to examine the synergy effects of a feature film and a documentary that were aired as part of a television theme night about organ donation. Specifically, we examined whether exposure to a feature film about organ donation would reinforce the effects of a subsequent documentary on issue involvement, willingness to get a donor card, and other altruistic responses.

2. Theoretical background

Our theoretical predictions were informed by research on entertainment education (Singhal & Rogers, 2002; Slater & Rouner, 2002) and by dual process models of entertainment (Bartsch & Schneider, 2014; Oliver & Raney, 2011). Specifically, we focused on the concept of eudaimonic entertainment (Oliver & Raney, 2011) which has been theoretically and empirically associated with *empathy* (Oliver, Dillard, Bae, & Tamul, 2012), *cognitive elaboration* (Bartsch, Kalch, & Oliver, 2014), *information seeking* (Bartsch & Schneider, 2014) and *prosocial outco-*

mes (Raney, Janicke, Oliver, Dale, Jones, & Cox, 2018) concerning the issues addressed in narrative media formats (for a recent overview see Raney, Oliver, & Bartsch, 2020). We propose that, given its combined effects on empathy, elaboration, information seeking and prosocial outcomes, eudaimonic entertainment holds particular promise in terms of prompting audiences to seriously consider a sensitive issue such as organ donation.

The concept of eudaimonic entertainment was introduced by Oliver and Raney (2011) to extend the prior focus of entertainment research on hedonic mood management functions of entertainment consumption (Zillmann, 1988). According to Oliver and Raney (2011), “people consume media entertainment in the pursuit of pleasure and amusement (hedonic motivations) and as a part of their general need to search for and ponder life’s meaning, truths, and purposes – motivations that we characterize as “eudaimonic” (p. 985). While hedonic entertainment is typically associated with experiences of fun and suspense, eudaimonic entertainment has been linked to the experience of appreciation, “an experiential state that is characterized by the perception of deeper meaning, the feeling of being moved, and the motivation to elaborate on thoughts and feelings inspired by the experience” (Oliver & Bartsch, 2010, p. 76). In addition, eudaimonic entertainment experiences are typically associated with prosocial outcomes such as attitude change about social issues and helping intentions (Raney et al., 2018; Raney et al., 2020).

The causal mechanisms that link the affective components of eudaimonic entertainment (empathy, feeling moved) with its cognitive components (cognitive elaboration, topic interest) and its prosocial outcomes (prosocial attitudes, helping intention) are still under investigation. Two complementary lines of theoretical explanation have been proposed and empirically validated. The dual process model of entertainment (Bartsch & Schneider, 2014) assumes that eudaimonic entertainment is associated with a serious affective state of “feeling moved.” This affective state is characterized by several factors including negative or mixed valence and moderate arousal that have been found to reinforce individuals’ motivation to engage in elaborate and effortful information processing, according to dual-process models of cognition (e.g., Lang, 2006). In its extended version, the dual process model of entertainment (Schneider, Bartsch, & Leonhard, 2021) further assumes that the reinforcing effect of feeling moved on cognitive elaboration is not limited to the processing of the entertainment stimulus per se. Rather, the motivation to elaborate about the issue addressed in the entertainment stimulus can spill over to other sources of information including news, information media, and interpersonal communication. For example, a moving and thought-provoking movie can stimulate interest in news articles about the issue portrayed in the movie (Bartsch & Schneider, 2014).

The empathy attitude model (Batson et al., 1997) provides a complementary theoretical framework. Empathy is defined by Batson et al. (1997) as an “other-oriented emotional response congruent with another’s perceived welfare” (p. 105). It can be elicited by the observation of a real or fictional person in need and motivates individuals to shift their focus of attention from their own ego-centric concerns to the needs of others. Thus, the well-being of others becomes a priority in individuals’ thinking (prosocial attitudes) and action (prosocial behavior) (Batson

et al., 1997). Like feeling moved, empathy constitutes a core element of eudaimonic entertainment experiences (Bartsch, Oliver, Nitsch, & Scherr, 2018; Oliver, et al., 2012). In fact, the self-report items used by empathy researchers (Batson, Fultz, & Schoenrade, 1987) are similar or even identical with measures of feeling moved in entertainment research (for a joint factor analysis, see Bartsch et al., 2018).

In line with the assumptions of the dual process model of entertainment (Bartsch & Schneider, 2014) and the empathy attitude model (Batson et al., 1997), empathy and feeling moved have been found to play a causal role in stimulating *cognitive elaboration* (Bartsch et al., 2014), *information seeking* (Bartsch & Schneider, 2014), and *prosocial changes in attitudes and behavioral intentions* (Bartsch et al., 2018; Oliver et al., 2012; Shen, 2011). Cognitive elaboration emerged as a key a mediating variable in this process, because: (1) it served as a mediator between empathy and prosocial outcomes (Bartsch et al., 2018), and (2) it served as a mediator of carryover effects between entertainment and information media, such that empathy and elaboration about a fictional stimulus led to greater issue interest and more time spent reading news articles about the issue (Bartsch et al., 2018; Bartsch & Schneider, 2014). Taken together, these findings support a two-step mediation model where empathy elicited by entertainment narratives predicts higher levels of cognitive elaboration of the entertainment stimulus which can carry over to involvement with and elaboration of information media. This influence of empathy on cognitive elaboration of both entertainment and information media is in turn assumed to result in synergy effects on prosocial responses that would not occur after exposure to the informational content alone.

Research on entertainment education about organ donation supports the first step in this process, namely the effect of entertainment narratives on issue involvement mediated through empathy and emotional involvement (Bae, 2008; Morgan et al., 2009). However, the second step of carryover effects on audiences' involvement with and elaboration of information media has not been examined in the context of organ donation so far. Therefore, the purpose of the current study was to replicate and extend the current state of research in an attempt to elucidate the potential fruitfulness of synergy effects between entertainment and information formats as a gateway to greater issue involvement and altruistic responses about organ donation.

To increase ecological validity, we conducted an online experiment with a demographically diverse sample of participants from the target group of persons in the German population who did not previously possess an organ donor card. The stimulus materials were based on a television theme night consisting of a feature film and a documentary about organ donation, which were presented in shortened form in the current study. Based on the theoretical and empirical evidence reviewed above, we expected that participants who had seen the moving and thought-provoking feature film about organ donation prior to the documentary would report higher levels of issue involvement (as indicated by topic interest, subjective knowledge, and information seeking; H1), and higher levels of altruistic responses (as indicated by positive attitudes, willingness to get a donor card, and other behavioral intentions to support the cause of organ donation; H2), compared to those who had only seen the documentary. Further, we assumed that the positive effects of the feature film

about organ donation predicted in H1 and H2 would vary as a function of the extent to which participants felt moved by the feature film, their cognitive elaboration of the feature film and their elaboration of the documentary (H3).

3. Method

Sample and procedure. We conducted a field experiment with a demographically diverse sample of 412 persons in Germany who did not possess an organ donor card (205 male, 207 female; age 16–69, $M = 42.40$, $SD = 15.04$; 56% higher education). Participants were recruited via an online access panel and received a small financial reward for their participation. Quota were used to ensure a balanced distribution of age, gender and education in the sample. In Germany, those without an organ donor card are more likely to be male, lower educated and over 35 years of age (Caille-Brillet et al., 2019), a demographic that is usually underrepresented in convenience samples. Thus, although our quota did not exactly match the demographics of the target group of persons without an organ donor card, they ensured that the relevant demographics (older, male and lower educated) were represented at equal rates in the sample.

Stimuli. Participants were randomly assigned to watch either a short film about organ donation or an unrelated entertainment program. Subsequently, all participants watched a documentary about organ donation. The feature film and documentary were shortened versions of programs aired as part of a theme night by the German broadcaster SAT.1 in 2016. The shortened version of the feature film and the control stimulus were each 14 min long, and the shortened documentary was 6 min long (for a more detailed description of the stimuli, see Appendix 1). The thematically unrelated control stimulus was selected based on pretest results indicating that, compared to the feature film about organ donation, it received similar ratings of audience appeal (3 items, e.g., “interesting,” “worth seeing,” Cronbach’s $\alpha = .87$; feature film about organ donation: $M = 5.10$, $SD = 1.28$, control stimulus $M = 4.93$, $SD = 1.33$, $t(41) = .43$, $p = .67$). Thus, the control condition was modeled after the experience of viewers who saw the documentary about organ donation after changing the channel from an equally appealing but thematically unrelated program.

Measures. Empathic feelings elicited by the feature film were assessed with the feeling moved scale (Bartsch et al., 2018; three items: “moved,” “tender,” “poignant,” Cronbach’s $\alpha = .92$). Cognitive elaboration was measured using a shortened version of the reflective thoughts scale of Bartsch and Schneider (2014; four items, e.g., “the film/documentary made me think about myself.” $\alpha = .92$ for the feature film, and $\alpha = .91$ for the documentary). Attitudes toward organ donation were measured using items of Oliver et al. (2012) and Caille-Brillet et al. (2019; five items, e.g., “I agree in principle to the removal of organs after my death.” $\alpha = .90$). Participants rated their likelihood to get a donor card (“In the near future, how likely is it, that you get and sign a donor card?”) and other behavioral intentions to support the cause of organ donation using Peng, Lee, and Heeter’s (2008) measure (four items, e.g., “In the near future, how likely is it, that you will volunteer in an initiative to support organ donation?” $\alpha = .91$). Topic interest was as-

essed using the item: “My interest about the topic of organ donation has increased.” Subjective knowledge was measured using the scale of Mattheiß et al. (2013; four items, e.g., “I feel well informed about the topic of organ donation,” Cronbach’s $\alpha = .90$). Information seeking was assessed with the item “In the near future, how likely is it that you will seek further information about the topic of organ donation?” The response scale for all measures ranged from 1= “do not agree at all” to 7= “strongly agree,” or 1= “very unlikely” to 7= “very likely.”

4. Results

A stimulus check revealed that the feature film about organ donation elicited responses that are typically associated with eudaimonic entertainment (Bartsch et al., 2014). Participants’ reported levels of feeling moved ($M = 5.46$, $SD = 1.38$) and cognitive elaboration ($M = 4.77$, $SD = 1.48$) were both above the midpoint of the seven-point scale. For the thematically unrelated control stimulus, reported levels of feeling moved ($M = 3.30$, $SD = 1.53$) and cognitive elaboration ($M = 3.63$, $SD = 1.59$) were both below the midpoint of the scale, and were significantly lower compared to the experimental condition (feeling moved: $t(399.62) = 15.04$, $p < .001$; cognitive elaboration: $t(410) = 7.55$, $p < .001$).

Considering that the experimental and control stimuli differed with regard to both the topic and the level of eudaimonic entertainment experiences, it is important to note, however, that the following test of hypotheses H1 and H2 was not specific to the effects of eudaimonic entertainment per se. What we tested was the synergy effect of watching the entertainment and information programs about organ donation versus only the information program (after an unrelated program). The level of eudaimonic entertainment experienced by participants in the experimental condition was mainly relevant as a precondition for testing the mediation model of carryover effects of moving and thought-provoking experiences between the entertainment and information programs that can stimulate issue interest and prosocial outcomes (H3).

As predicted, all indicators of issue involvement (H1) and altruistic responses (H2) differed in the expected direction between the experimental group (those who had seen both the entertainment and information programs about organ donation) and the control group (those who had only seen the information program about organ donation after an unrelated program). A series of t-tests (reported in Table 1) revealed that the experimental group reported higher levels of topic interest, subjective knowledge, and information seeking (supporting H1); and they reported more positive attitudes about organ donation, greater likelihood to get a donor card, and greater likelihood to engage in other prosocial behaviors to support the cause of organ donation (supporting H2).

Table 1. T-test of hypotheses 1 and 2. Mean differences in topic interest, subjective knowledge and information seeking (H1) as well as mean differences in attitudes about organ donation, prosocial behavioral intentions and likelihood to get a donor card (H2) between experimental and control group

		experimental condition		control condition		T-test		
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Issue Involvement	Topic Interest	4.80	1.76	4.06	1.93	4.09	410	<.001
	Information Seeking	4.25	1.78	3.74	2.0	2.74	397.88	.006
	Subjective Knowledge	5.01	1.21	4.75	1.25	2.13	410	.034
Altruistic Responses	Attitudes about OD	4.65	1.55	4.21	1.62	2.85	410	.005
	Behavioral Intentions	3.76	1.54	3.38	1.60	2.46	410	.014
	Get a Donor Card	3.86	1.91	3.40	1.95	2.44	410	.015

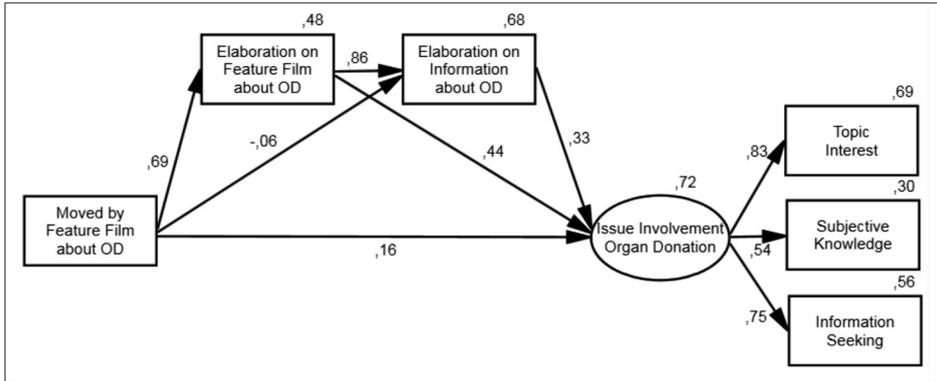
Notes. *N* = 412. T-test for independent samples. 7-point scale. *M* = mean, *SD* = standard deviation, *t* = t-value, *df* = degrees of freedom, *p* = probability of error.

To further explore affective and cognitive processes behind these synergy effects of entertainment and information programs about organ donation predicted in H1 and H2, structural equation models were calculated using AMOS. The extent to which participants in the experimental condition felt moved by the feature film about organ donation served as exogenous variable in these models. The extent to which they engaged in cognitive elaboration of the feature film and their subsequent elaboration of the documentary served as mediators. In Model 1, the dependent variable was issue involvement, which was treated as a latent variable that was estimated from topic interest, subjective knowledge and further information seeking about organ donation. In Model 2, the dependent variable was altruistic responses concerning organ donation, a latent variable estimated from positive attitudes about organ donation, likelihood to get a donor card, and likelihood to engage in other prosocial behaviors to support the cause of organ donation. The structural equation models were calculated only for participants in the experimental condition, because the first stimulus in the control condition was unrelated to organ donation. Therefore, the carryover effects to be examined in the structural equation models (i.e., the effects of feeling moved and cognitive elabo-

ration of the feature film about organ donation on subsequent elaboration of the documentary) could not be observed in the control condition.

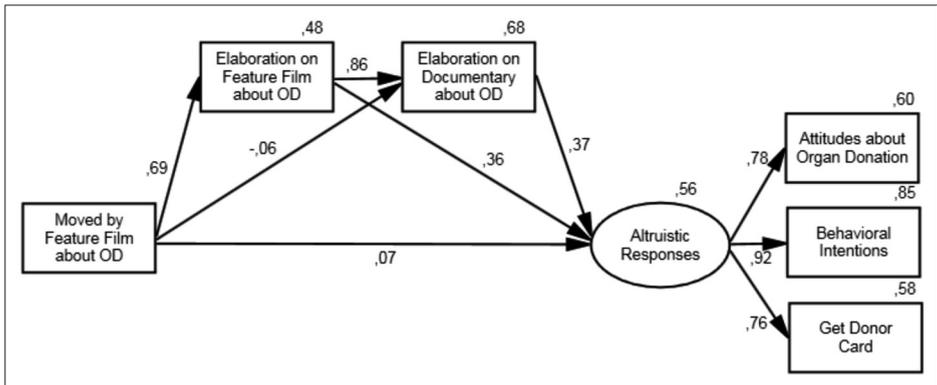
Both models showed an acceptable fit (Model 1: $\chi^2 = 9.14$, $df = 6$, $p = .17$, $\chi^2/df = 1.52$, RMSEA = .05, 90% CI of RMSEA [.00, .11], PCLOSE = .43, CFI = 1.00. Model 2: $\chi^2 = 10.56$, $df = 5$, $p = .06$, $\chi^2/df = 2.15$, RMSEA = .07, 90% CI of RMSEA [.00, .14], PCLOSE = .21, CFI = .99). As expected, being moved by the feature film about organ donation had a direct effect on elaboration of the feature film ($\beta = .69$, $p < .001$). In addition, being moved by the feature film had an indirect effect on elaboration of the documentary about organ donation, mediated by elaboration of the feature film ($\beta = .60$, $p < .001$, bootstrapped 95% CI [.51, .69]). In Model 1, both mediators (elaboration of the feature film and elaboration of the documentary) accounted for an indirect effect of being moved on the latent variable issue involvement ($\beta = .45$, $p < .001$, 95% CI [.34, .56]), supporting H3. Indirect effects of being moved on each of the three indicators of issue involvement were significant as well (topic interest: $\beta = .54$, $p < .001$, 95% CI [.43, .63]; subjective knowledge: $\beta = .35$, $p < .001$, 95% CI [.26, .44]; information seeking: $\beta = .48$, $p < .001$, 95% CI [.39, .57]). Likewise, in Model 2, both mediators accounted for an indirect effect of being moved on the latent variable altruistic responses ($\beta = .48$, $p < .001$, 95% CI [.38, .59]), again supporting H3. Indirect effects of being moved on each of the three indicators of altruistic responses were significant as well (positive attitudes: $\beta = .41$, $p < .001$, 95% CI [.29, .51]; likelihood to get a donor card: $\beta = .40$, $p < .001$, 95% CI [.29, .49]; likelihood to engage in other behaviors to support the cause of organ donation: $\beta = .48$, $p < .001$, 95% CI [.27, .58]). Thus, consistent with H3, the synergy effects of the entertainment and information programs about organ donation on issue involvement and altruistic responses varied as a function of the extent to which participants felt moved by the feature film, their cognitive elaboration of the feature film and their elaboration of the documentary. This indirect effect was found consistently for both dependent variables (issue involvement and altruistic responses) and for all indicators from which these latent variables were estimated.

Figure 1. Structural equation model of the influence of feeling moved by a feature film about organ donation on issue involvement about organ donation, with cognitive elaboration about the feature film and cognitive elaboration about the information program as mediators (Model 1).



Note. Standardized coefficients are reported. Model fit: $\chi^2 = 9.14$, $df = 6$, $p = .17$, $\chi^2/df = 1.52$, $RMSEA = .05$, 90% CI of $RMSEA$ [.00, .11], $PCLOSE = .43$, $CFI = 1.00$. $N = 212$.

Figure 2. Structural equation model of the influence of feeling moved by a feature film about organ donation on prosocial outcomes concerning organ donation, with cognitive elaboration about the feature film and cognitive elaboration about the information program as mediators (Model 2).



Note: Standardized coefficients are reported. Model fit: $\chi^2 = 10.56$, $df = 5$, $p = .06$, $\chi^2/df = 2.15$, $RMSEA = .07$, 90% CI of $RMSEA$ [.00, .14], $PCLOSE = .21$, $CFI = .99$. $N = 212$.

5. Discussion

Our study aimed to examine the effectiveness of a new approach in health communication that combines the respective strengths of entertainment and information programs. Stimulus materials from a television theme night on organ donation were used to test the assumption that the effects of an information program on issue involvement and altruistic responses such as attitude change and willingness

to get a donor card would be amplified by prior exposure to an emotionally moving entertainment program about organ donation. For all indicators considered as dependent variables, we observed significant positive effects in the experimental condition compared to the control condition where participants watched a thematically unrelated entertainment program before exposure to the information program about organ donation. Follow-up analyses testing the role of being moved and cognitive elaboration in mediating these positive effects revealed the expected patterns of mediation for both issue involvement and altruistic responses. This pattern of mediation is in line with research on eudaimonic entertainment (Bartsch & Kloß, 2019; Bartsch & Schneider, 2014; Oliver et al., 2012; Raney et al., 2020) suggesting that meaningful, moving, and thought-provoking entertainment experiences can motivate individuals to seriously consider informational content about the issue and to rethink their current attitudes and behavioral choices.

Our online experiment was modeled closely after the actual experience of watching the theme night about organ on television, either entirely (feature film and documentary combined), or partly (just the documentary after changing the channel from an unrelated program). While this approach has clear advantages in terms of ecological validity, it has also drawbacks concerning the causal analysis of mediating factors. What the study design allowed us to test is the synergy effect of exposure to the feature film and documentary about organ donation (compared to watching only the documentary after an unrelated program) on the dependent variables issue involvement and altruistic responses. However, the influence of the mediating variables (moving and thought-provoking responses to the feature film about organ donation) could be analyzed only within the experimental condition, because the first stimulus in the control condition was about an unrelated topic. Thus, although our data provide causal evidence of the synergy effects of the entertainment and information programs about organ donation on the dependent variables (issue involvement and altruistic responses), evidence of the mediating factors behind those synergy effects remains correlational. Therefore, to substantiate the causal nature of the mediation effects observed in our study, the relevant mediators (feeling moved and cognitive elaboration) need to be experimentally varied in a multifactorial design while keeping the topic of the entertainment stimulus constant.

Our study design was further limited by the use of shortened versions of the programs originally aired as part of the television theme night. To further increase ecological validity, the use of full-length stimuli would be preferable. Another related limitation was the different length of exposure to content about organ donation. Participants in the experimental condition received a double dose of relevant content (feature film plus documentary), whereas for participants in the control condition, exposure to content about organ donation was limited to the documentary. We made sure that the film contained no additional factual information about organ donation compared to the documentary, but we cannot rule out that the longer duration of exposure to content about organ donation in the experimental condition might have confounded the effects. To rule out this possible confound, participants could be presented with a double dose of non-narrative information versus a combination of narrative entertainment and non-narrati-

ve information, with the topic of the first stimulus (organ donation versus an unrelated topic) systematically varied as a second experimental factor. Finally, our study design was limited by the use of self-report measures. Further research using behavioral measures is of particular relevance, given the existing gap between positive attitudes and behavioral inaction concerning organ donation (Caille-Brillet et al., 2019).

With these caveats in mind, our findings replicate and extend research on the effects of entertainment programs about organ donation. Beyond entertainment education effects of the fictional content per se, as documented in earlier studies (Bae, 2008; Morgan et al., 2009), our findings draw attention to carryover effects of moving and thought-provoking entertainment narratives that can reinforce the effects of subsequent information programs on the same topic. Thus, the combination of entertainment and information formats seems to provide a new and potentially fruitful approach for entertainment education. Rather than intermixing entertainment and information in hybrid “infotainment” formats, it might be worthwhile to present entertainment and information programs in tandem, like in the case of television theme nights, so as to conserve their respective strengths and to harness their synergy effects.

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Appendix 1. Description of the stimulus materials.**Short feature film about organ donation (stimulus 1, experimental condition)**

The feature film about organ donation was based on the fictional TV drama “Zwei Leben. Eine Hoffnung [Two lives. One Hope].” The original 84-minute film was shortened to 14 minutes with a focus on the major plot points. The short film tells the story of Frank and Dafina, two 17-year-olds, who are both waiting for a liver transplantation and who develop a close bond during their time together in hospital. The main plot begins with the sudden brain death of an unknown woman. Still shocked by the sudden loss of a loved one, her relatives are confronted with the difficult decision whether or not her organs should be donated. After her relatives’ consent, her liver is assigned to be transplanted to Frank, who after a two-year waiting period can finally be prepared for the operation. At the same time, Dafina is being operated, but the liver to be transplanted to her is rejected by her body. The girl has only a few hours to live if another organ is not found for her immediately. In this dramatic situation, Frank and his doctors, surrounded by the parents of both young people decide to reassign the organ to Dafina to save her life. After the successful transplantation, Frank writes a letter to the relatives of the deceased donor, expressing his gratitude and explaining his reasons for not accepting the organ for himself. The film ends with an emotional, wordless reunion of Frank and Dafina at her bedside.

Short documentary about organ donation (stimulus 2, experimental condition and control condition)

The short documentary about organ donation was based on the information program “Bei Anruf Herz [When the heart calls].” The original 40-minute documentary was shortened to six minutes. Emotional stories of patients on the waiting list for organ transplantation and their relatives were edited out to avoid a confound of the informational stimulus with narrative and empathy-inducing elements. The shortened documentary provides essential background information and figures about organ donation and describes the process from organ donation to recipient assignment and transplantation. The selected excerpts further include statements by the head of the German Foundation for Organ Transplantation Axel Rahmel and Federal Minister of Health Hermann Gröhe who both emphasize the importance of a proactive decision on organ donation. A psychologist speaks about the difficult and stressful situation of relatives who have to decide for their just deceased loved ones. He recommends that people inform themselves about organ donation and make an informed decision during their lifetime. Finally, a spokesman for the human rights organization National Development Council from Bangladesh is interviewed about illegal trade in organs.

Thematically unrelated control stimulus (stimulus 1, control condition)

The unrelated entertainment program that was shown before the documentary about organ donation in the control condition was based on the narrative documentary “Unterwegs in Kanada – Der Nordwesten [On the Road in Kanda – The North West].” The first 14 minutes (equal in length to the short feature film about organ donation) tell the story of a gold seeker and a nurse living in a float home. The protagonists are filmed during everyday activities, and their stories are told by a voiceover narrator, interspersed with short statements from the protagonists and beautiful landscape shots. This stimulus was chosen, because it combines a narrative, entertainment-oriented style with topics that are interesting but pleasant and innocuous compared to the empathy-inducing content of the feature film about organ donation.