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When we enjoy bad news about other groups: A social identity approach to out-group schadenfreude

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Abstract

Two studies investigate schadenfreude (pleasure at the misfortune of others) as an emotional response to news about out-group misfortunes in a political and consumer context by analyzing reactions of voters for opposition parties to the downfall of a Dutch coalition government (Study 1), and of BlackBerry users to negative news reports about Apple's iPhone (Study 2). Consistent with social identity theory and intergroup emotion theory, both studies demonstrate that affective in-group identification increases schadenfreude reactions to news about an out-group's misfortune, provided that this misfortune occurs in a domain of interest to news recipients. Additional findings show that this interaction effect attenuates when a misfortune instead befalls the in-group (Study 1) and is still observed when controlling for affective dispositions towards the out-group (Study 2). Moreover, results suggest that schadenfreude reactions strengthen subsequent intentions to share news about the out-group's misfortune with others or to engage in negative word-of-mouth (Study 2).

Keywords

intergroup emotion, negative word-of-mouth, schadenfreude, social identity

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Reports about misfortunes, setbacks, and tragedies suffered by others dominate the news. Content analyses demonstrate that such bad news far outweigh reports of good news in the media (e.g., Stone & Grusin, 1984). It is a myth that news about another's misfortune always elicit concordant emotional reactions such as sadness, dismay, or sympathy. Although in many cases empathic concerns indeed shape our emotional reactions, we may also derive pleasure from news about another's misfortune (e.g., Zillmann, Taylor, &

Lewis, 1998). The German language has coined the word *Schadenfreude* for this emotional reaction.

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Nowadays a loanword in the English language, *Schadenfreude* is a compound word of the German words *Schaden* meaning “harm” and *Freude* meaning “joy,” and is defined in the *Oxford Dictionaries* as “pleasure derived by someone from another person’s misfortune” (“Schadenfreude,” n.d.). Nietzsche (1887/1908) distinguished *schadenfreude*, the joy of passively seeing others suffer, from the pleasure of actively making others suffer. Accordingly, scholars have argued that *schadenfreude* is only evoked when a third party or circumstance causes another’s misfortune, and should therefore not be confused with feelings of victorious joy or gloating when actively defeating others in direct confrontation (e.g., Leach, Spears, Branscombe, & Doosje, 2003). This passive, opportunistic nature of *schadenfreude* makes it a particularly relevant emotion when studying reactions of news recipients. Although research has focused predominantly on *schadenfreude* as an interpersonal phenomenon, studies show that this emotional reaction is readily evoked in the context of social relations between groups that are characterized by rivalry and competition, even if it involves the tragic death of thousands of people. For example, text analyses of postings on the Beijing University bulletin board suggested that Chinese citizens expressed *schadenfreude* over the suffering inflicted on Americans with the September 11th attacks (Wang & Roberts, 2006).

Based on social identity theory and intergroup emotion theory, we argue in the present article that people’s strength of in-group identification is a crucial determinant of out-group *schadenfreude*. However, whereas some researchers have obtained support for this notion (Combs, Powell, Schurtz, & Smith, 2009; Hoogland et al., 2014), others have found no relation between in-group identification and out-group *schadenfreude* (Leach et al., 2003). To resolve these conflicting findings, we suggest that in-group identification will only increase *schadenfreude* reactions following an out-group misfortune when this misfortune occurs in a domain of interest to in-group members. That is, we argue that in-group identification and domain interest are crucial determinants that interactively predict out-group *schadenfreude*. We test this

central interaction hypothesis in two field studies that investigate *schadenfreude* reactions to news about out-group misfortunes in a political and consumer context. Additionally, we attempt to show that this interaction effect attenuates when a misfortune instead befalls the in-group (Study 1) and is still observed when controlling for affective dispositions towards the out-group (Study 2). Moreover, we test the prediction that, despite its passive and opportunistic nature, *schadenfreude* feelings may have important behavioral consequences, because they may motivate people to share news about misfortunes suffered by out-groups (Study 2).

Schadenfreude

Throughout history *schadenfreude* has been described as a disguised expression of aggression (Aristotle, 350 BCE/1941), as fiendish, diabolical, and an infallible sign of a thoroughly bad heart and profound moral worthlessness (Schopenhauer, 1841/1965), as an even more hideous cousin of envy (Kierkegaard, 1847/1995), and as harmful to social relations (Heider, 1958). This moral condemnation raises the question of *why* we are able to enjoy another’s misfortune. The answer to this question may be provided by appraisal theories of emotions. The essence of appraisal theories is the notion that emotions are not elicited by the objective properties of an event, but rather by an individual’s subjective appraisal of the personal significance of this event (see for an overview of appraisal theories, Roseman & Smith, 2001). Negative emotions are evoked by events that are perceived to harm or threaten an individual’s concerns, whereas positive emotions are elicited by events that satisfy an individual’s concerns (e.g., Frijda, 1988). What appraisal may cause us to enjoy the suffering of others? One possibility is that people can be pleased about another’s misfortune because such an event may be appraised as an opportunity to protect or enhance a positive view of the personal self. Individuals have a strong need for a positive self-evaluation and they strive to restore their self-view when this is harmed (e.g., Taylor &

Brown, 1988). One way to achieve a more positive self-view is to compare one's own lot to that of less fortunate others (Wills, 1981). Thus, we can enjoy another's misfortune because it provides us with social comparison benefits that satisfy our need for a positive self-evaluation. Direct evidence for the importance of self-evaluation concerns underlying *schadenfreude* was obtained by van Dijk, Ouwerkerk, van Koningsbruggen, and Wesseling (2012). They showed that people with chronically low self-esteem and whose self-evaluation was directly threatened by negative performance feedback were more likely to experience *schadenfreude* when watching a video clip of a contestant failing miserably in a televised talent show.

Social Identity and Schadenfreude

We strive not only for a positive evaluation of the personal self. Social identity theory (Tajfel, 1978; Tajfel & Turner, 1979) assumes that part of our self-concept stems from the knowledge that we belong to social groups, which is referred to as the collective self or social identity. Furthermore, people strive for a positive social identity and therefore want groups to which they belong to be distinguished positively from other groups. Based on this notion, intergroup emotions theory (Smith, 1993) proposes that in an intergroup context, concerns and appraisals may also influence emotions. That is, when one's social rather than personal identity is salient, emotions may be determined by appraisals of whether an event may benefit or harm the concerns *of one's group*. Put differently, when a group becomes part of one's collective self, people may experience affect and emotions on behalf of that group. For example, news about a misfortune befalling an out-group may evoke *schadenfreude* when this event is appraised as being beneficial for people's striving for a positive social identity. Intergroup emotions theory suggests that people's strength of identification with an in-group, and especially the affective component of in-group identification (Mackie, Silver, & Smith, 2004), is a crucial

determinant of intergroup emotions, as it makes comparisons with other groups more relevant to one's social identity. The affective component of identification represents the emotional significance attached to membership of a social group (cf. Tajfel, 1978), referred to as "affective commitment" (Ellemers, Kortekaas, & Ouwerkerk, 1999) or "solidarity" (Leach et al., 2008) in widely used conceptualizations of social identification.

Based on intergroup emotion theory, we argue that people's strength of affective in-group identification is a crucial determinant of out-group *schadenfreude*. Some researchers have obtained support for this notion. For example, Combs et al. (2009) found that, in the run up to the 2006 midterm elections, Democrats reported more *schadenfreude* over a news article about American troop deaths in Iraq during the Bush administration than Republicans, presumably because this would increase their chance for changing the status quo in the upcoming elections. Importantly, this difference was obtained only for people who identified strongly with their party. Similarly, a study by Hoogland et al. (2014) revealed that the level of identification of fans with their college basketball team predicted *schadenfreude* in response to reading about a rival player's injury. However, Leach et al. (2003) investigated out-group *schadenfreude* in the context of the Dutch–German football rivalry, but reported a nonsignificant relation between in-group identification and out-group *schadenfreude*.

To resolve these conflicting findings, we suggest that in-group identification will only increase *schadenfreude* reactions following an out-group misfortune when this misfortune occurs in a domain of interest to in-group members. This notion is consistent with research demonstrating that domain relevance is a crucial determinant of affective reactions to social comparison information in general, because it determines the level of self-relevance of such information (e.g., Tesser, Millar, & Moore, 1988). Going back to the Dutch–German football rivalry, when a Dutch person has no interest in football, there is no reason to assume that stronger identification with the Dutch will increase his or her level of *schadenfreude*

when the German football team loses. Even if he or she identifies strongly with the Dutch, he or she will simply not care about the outcome of a football match. By contrast, in-group identification with the Dutch should increase *schadenfreude* when football is considered an important domain for the self. Indeed, Leach et al. (2003) showed that Dutch people reported more *schadenfreude* after the defeats of the German national team during major international tournaments when their interest in the domain of the out-group's misfortune (i.e., their interest in international football) was greater. However, they did not test whether domain interest moderated the relation between in-group identification and out-group *schadenfreude* and, based on a nonsignificant main effect, concluded that in-group identification was not an important determinant of out-group *schadenfreude*. In the present research, we therefore test the proposed interaction between in-group identification and domain interest in two field studies that investigate *schadenfreude* reactions to news about out-group misfortunes in a political and consumer context—one focusing on reactions of voters for opposition parties to the downfall of a Dutch coalition government and the other directed at reactions of BlackBerry users to negative news reports about Apple's iPhone.

Study 1: When a Government Falls

We first test our central hypothesis concerning the interaction effect between affective in-group identification and domain interest on out-group *schadenfreude* by reanalyzing unpublished data from a short survey distributed in 2002, immediately following the news that the Dutch coalition government had fallen. Our central hypothesis concerns *schadenfreude* reactions to news about an *out-group's* misfortune. In the present study, we therefore focus on reactions of people who voted for opposition parties in the preceding elections. However, by analyzing reactions of people who actually voted for one of the coalition parties in government, the survey also enables us to study

schadenfreude reactions to an *in-group's* misfortune. As formulated earlier, we predict that, in case of news about an out-group's misfortune, stronger affective in-group identification will result in more *schadenfreude* provided that domain interest (i.e., interest in politics) is high. However, members of a group actually suffering a misfortune are likely to react differently. That is, when the locus of the misfortune is one's own group, this will pose a threat to one's social identity. As a consequence, the level of *schadenfreude* evoked will be substantially lower compared to when a misfortune befalls an out-group. We therefore make the additional prediction that an out-group's misfortune will elicit more *schadenfreude* than an in-group's misfortune. Moreover, given that an in-group's misfortune is not beneficial for people's striving for a positive social identity, we expect that in-group identification and domain interest will not moderate *schadenfreude* reactions. This reasoning implies the prediction of a three-way interaction effect between locus of group misfortune, affective in-group identification, and domain interest. That is, in case of news about an out-group's misfortune, and in line with our central hypothesis, we expect to show that stronger in-group identification results in more *schadenfreude* provided that domain interest is high. However, this interaction effect between in-group identification and domain interest will be attenuated when the news concerns a misfortune of the in-group.

Method

Participants. A total of 606 students from seven different Dutch universities and a wide range of disciplines completed a survey on a voluntary basis. Participants who had abstained from voting in the preceding elections (and whose affective in-group identification with the political party of their choice could therefore not be measured), or whose survey was otherwise incomplete, were excluded from further analyses ($n = 103$), resulting in 503 remaining participants (220 men, 283 women, $M_{\text{age}} = 22.35$, $SD_{\text{age}} = 4.87$). Of these participants, 186 were students at the VU University

Amsterdam, 75 at the University of Amsterdam, 40 at Leiden University, 45 at Radboud University Nijmegen, 51 at Tilburg University, 60 at Utrecht University, and 58 at the University of Groningen.¹

Procedure and measures. On Thursday the 17th of October 2002, the day after the fall of the Dutch coalition government (see Appendix A for political background information), students were approached in cafeterias and social psychology laboratories and were asked to complete a short survey. This survey started out by reminding participants about the fall of the government the previous day. It was stated that we were interested in their reactions to this political crisis. In the survey we assessed locus of misfortune, affective in-group identification, domain interest, and schadenfreude reactions. Unless indicated otherwise, variables were assessed by asking participants to respond to statements on 7-point scales in terms of their own degree of agreement (1 = *total disagreement*, 7 = *total agreement*). The measures are described in more detail in what follows.

Locus of misfortune. To assess the locus of the misfortune, participants were asked to indicate whether in the preceding elections they voted for a party in the fallen coalition government (in-group misfortune; $n = 177$) or for a party in the opposition (out-group misfortune; $n = 326$).

Affective in-group identification. Participants' identification with the party they voted for in the preceding elections was assessed with three items ("I feel a bond with this party," "I feel committed to this party," "I identify with this party"; $M = 4.63$, $SD = 1.11$, $\alpha = .86$).²

Domain interest. Domain interest was assessed by measuring participants' political knowledge. Zaller (1990) shows that open-ended political knowledge questions are a more accurate assessment of political awareness than a self-report scale. Participants were therefore asked three open questions to assess their political knowledge ("Who is the Dutch Prime Minister?";

"How many seats did the government have in the Dutch Upper House?"; "Name the three different political parties that were seated in the government and name a minister from each of these parties"). Participants were assigned 1 point when their answer to the first question was correct and 1 point for the second question if their answer deviated 10 seats or fewer from the real number (93). Finally, based on their answer on the third question, participants were assigned 1 point for each correctly named party in the coalition government (maximum score = 3), and 1 point for each correctly named minister (maximum score = 3). Hence, answers to these three questions could yield to a minimum score of 0 points and a maximum score of 8 points ($M = 4.93$, $SD = 2.29$).

Schadenfreude. Two different measures were used to assess schadenfreude. The first measure was a five-item scale that has proven to be highly reliable in numerous studies (e.g., van Dijk, Ouwerkerk, Goslinga, & Nieweg, 2005; van Dijk, Ouwerkerk, Goslinga, Nieweg, & Gallucci, 2006; van Dijk et al., 2012; van Dijk, van Koningsbruggen, Ouwerkerk, & Wesseling, 2011), and that was modified to match the specific context of the present study ("When I think about the fall of the government. . . [I cannot resist a little smile/this gives me satisfaction/I feel pleasure/I actually have to laugh a little/I feel schadenfreude]³"; $M = 4.61$, $SD = 1.50$, $\alpha = .86$). The second schadenfreude measure was less explicit and assessed reactions to a spoof obituary mocking the fall of the government that circulated on the Internet immediately after the government had fallen (see Figure B1 in Appendix B). Participants were asked to indicate on a 7-point scale whether they thought this spoof obituary was funny or not (1 = *not funny at all*, 7 = *very funny*; $M = 4.22$, $SD = 1.91$). The two schadenfreude measures correlated moderately ($r = .30$, $p < .001$).

Results

Schadenfreude. The impact of locus of misfortune, in-group identification, and domain interest on the two schadenfreude measures was tested in

Table 1. Multiple regression analyses for scale measure and obituary measure of schadenfreude in Study 1.

	Scale measure					Obituary measure				
	<i>B</i>	<i>SE B</i>	β	<i>p</i>	f^2	<i>B</i>	<i>SE B</i>	β	<i>p</i>	f^2
<i>Main effects:</i>										
Ingroup identification (a)	0.08	0.07	.06	.174	.004	0.19	0.08	.11	.018	.011
Domain interest (b)	-0.05	0.06	-.07	.102	.005	0.07	0.04	.09	.056	.007
Locus of misfortune (c)	0.45	0.03	.29	.000	.088	0.18	0.09	.09	.047	.008
<i>Interaction effects:</i>										
a x b	0.01	0.07	.02	.688	.000	0.07	0.03	.10	.035	.009
a x c	0.06	0.03	.04	.319	.002	0.05	0.08	.03	.549	.001
b x c	0.04	0.06	.06	.149	.004	0.07	0.04	.08	.094	.006
a x b x c	0.08	0.03	.14	.002	.018	0.09	0.03	.12	.011	.021

two multiple regression analyses (see Table 1). In these analyses schadenfreude was regressed on locus of misfortune (effect coded as $-1 = \text{in-group misfortune}$, $1 = \text{out-group misfortune}$), in-group identification, and domain interest (all variables centred) as well as on cross-product terms representing all two-way interactions and the three-way interaction between these predictor variables (see Aiken & West, 1991).

Scale measure. As predicted, the multiple regression analysis on the scale measure, $R^2 = .12$, $F(7, 495) = 9.58$, $p < .001$, $f^2 = .135$, revealed a main effect of locus of misfortune, $\beta = .29$, $t = 6.59$, $p < .001$, $f^2 = .088$ (see Table 1). An out-group misfortune elicited more schadenfreude ($M = 4.95$, $SD = 1.43$) than an in-group misfortune ($M = 3.99$, $SD = 1.42$). Additionally, we obtained the predicted three-way interaction effect, $\beta = .14$, $t = 3.05$, $p = .002$, $f^2 = .018$. According to Cohen (1988) this would represent a small effect, as he has suggested that f^2 effect sizes of .020, .150, and .350 represent small, medium, and large effects respectively. It should be noted, however, that with moderation involving categorical variables even conservative standards suggest that .005, .010, and .025 represent small, medium, and large effect sizes, respectively (Aguinis, Beaty, Boik, & Pierce, 2005). To examine the nature of the three-way interaction effect, we calculated predicted values for participants who scored one standard deviation above or below the mean on

each variable (see Aiken & West, 1991). In line with our central hypothesis, a slope difference test (see Dawson & Richter, 2006) revealed the predicted interaction pattern between in-group identification and domain interest in case of an out-group's misfortune, $t = 2.49$, $p = .013$. As can be seen in Figure 1 (top), simple slope analyses showed that in-group identification increased schadenfreude when domain interest was high, $\beta = .33$, $t = 2.53$, $p = .012$, whereas this was not the case when domain interest was low, $\beta = -.06$, $t = -0.45$, $p = .653$. As expected, a slope difference test revealed that this interaction effect was attenuated in case of an in-group's misfortune, $t = -1.49$, $p = .137$. As can be seen in Figure 1 (bottom), simple slope analysis showed that in-group identification, albeit nonsignificantly, decreased schadenfreude when domain interest was high, $\beta = -.12$, $t = -0.97$, $p = .332$, and increased schadenfreude when domain interest was low, $\beta = .17$, $t = 1.32$, $p = .189$.

Obituary measure. As predicted, the multiple regression analysis on the obituary measure, $R^2 = .06$, $F(7, 495) = 4.79$, $p < .001$, $f^2 = .067$, revealed a main effect of locus of misfortune, $\beta = .09$, $t = 1.99$, $p = .047$, $f^2 = .008$ (see Table 1). As was the case on the scale measure, an out-group misfortune elicited more schadenfreude ($M = 4.40$, $SD = 1.89$) than an in-group misfortune ($M = 3.90$, $SD = 1.91$). Furthermore, we obtained a main effect of in-group identification,

Figure 1. Schadenfreude after out-group misfortune (top) and in-group misfortune (bottom) as a function of in-group identification and domain interest on the scale measure in Study 1.

$\beta = .11$, $t = 2.38$, $p = .018$, $f^2 = .011$, as well as a two-way interaction effect between in-group identification and domain interest, $\beta = .10$, $t = 2.12$, $p = .034$, $f^2 = .009$. However, these effects were qualified by the predicted three-way interaction effect, $\beta = .12$, $t = 2.55$, $p = .011$, $f^2 = .021$. In line

with our central hypothesis, a slope difference test revealed the predicted interaction pattern between in-group identification and domain interest in case of an out-group misfortune, $t = 3.30$, $p < .001$. As can be seen in Figure 2 (top), simple slope analyses showed that, consistent with the findings on the

Figure 2. Schadenfreude after out-group misfortune (top) and in-group misfortune (bottom) as a function of in-group identification and domain interest on the obituary measure in Study 1.

scale measure, in-group identification increased schadenfreude when domain interest was high, $\beta = .58$, $t = 3.68$, $p < .001$, whereas this was not the case when domain interest was low, $\beta = -.11$, $t = -0.73$, $p = .464$. As expected, a slope difference test revealed that this interaction effect was

attenuated in case of an in-group misfortune, $t = -0.29$, $p = .770$. As can be seen in Figure 2 (bottom), simple slope analysis showed that in-group identification did not affect schadenfreude when domain interest was high, $\beta = .11$, $t = 0.82$, $p = .415$, or low, $\beta = .17$, $t = 1.21$, $p = .226$.

Discussion

In line with our central hypothesis the results of Study 1 show that, in case of news about an out-group's misfortune, stronger affective identification with one's own group increased out-group schadenfreude provided that domain interest was high. This pattern of results was obtained on two different measures of schadenfreude, thereby providing convergent validity for our findings.⁴ Moreover, as expected, an out-group misfortune clearly evoked more schadenfreude than an in-group misfortune, and our results demonstrate that the interaction effect between in-group identification and domain interest on schadenfreude was attenuated in case of an in-group misfortune.

It should be noted that, because of restrictions on the length of the survey, we were only able to measure variables that were of crucial interest to our central hypothesis. Some caution when interpreting our findings is therefore in order. First, it is possible that the impact of affective in-group identification on out-group schadenfreude was not so much caused by *positive* affective dispositions of participants towards their own group (i.e., in-group identification) but rather by *negative* affective dispositions towards the out-group featured in the news. Indeed, it has long been recognized that "in-group love" does not necessarily imply "out-group hate" (i.e., hostility towards out-groups; cf. Brewer, 1999). Moreover, research shows that negative affective dispositions towards an out-group are important determinants of counterempathic reactions to news about a misfortune suffered by this out-group (e.g., Zillmann et al., 1998). It is therefore important to demonstrate that the interaction effect between in-group identification and domain interest on out-group schadenfreude is still observed when controlling for affective dispositions towards the out-group.

Second, although both theory (Heider, 1958) and research (e.g., van Dijk et al., 2005; van Dijk et al., 2012) suggest that schadenfreude and (lack of) sympathy are distinct emotional reactions to the misfortunes of others, the absence of additional measures makes it difficult to claim that the

interaction effect between in-group identification and domain interest on reactions to news about an out-group's misfortune is unique for counterempathic emotions. To make this claim, we need to show that such an interaction effect is not obtained on emotional reactions to misfortunes that are driven by empathic concerns, such as sympathy. Another potential problem with Study 1 is that the cross-sectional design prevents us from making strong claims about causality. Participants were aware of the out-group misfortune before we assessed their affective in-group identification and domain interest. We can therefore not exclude the possibility these measures were (partly) influenced by the news about the misfortune suffered by the out-group.

Study 2: Fruit Fight

To address the issues raised in the discussion of Study 1, we test our central hypothesis in a second study, using a different context. More specifically, we investigate the impact of affective in-group identification and domain interest on emotional reactions of BlackBerry users to negative news reports about Apple's iPhone. By including additional measures in Study 2, we aim to show that the interaction effect between in-group identification and domain interest on out-group schadenfreude is (a) still observed when controlling for affective dispositions towards the out-group and (b) is not obtained on emotional reactions shaped by empathic concerns (i.e., sympathy). Moreover, by presenting participants in Study 2 with fictitious news about a misfortune befalling an out-group, we are able to measure their affective in-group identification and domain interest *before* they obtain knowledge about this misfortune, thereby making claims about causality more plausible.

The consumer context of Study 2 also provides us with an opportunity to investigate a possible consequence of schadenfreude reactions. A study by Sundie, Ward, Beal, Chin, and Geiger-Oneto (2009) at the interpersonal level showed that stronger hostile feelings towards another consumer increased schadenfreude when reading

that his or her high-status product failed. Moreover, *schadenfreude* mediated the effect of hostile feelings on subsequent intentions to share this negative news with others—that is, on intentions to engage in so-called negative word-of-mouth communication or N-WOM. Thus, the more an individual was disliked, the more inclined people were to share news about his or her misfortune, *because* in that case they derived more pleasure from this misfortune. Sundie et al. (2009) assume that by sharing news about another's misfortune, people can relive their enjoyment (i.e., their *schadenfreude*). Based on this reasoning, we predict that, at the intergroup level, more hostile feelings towards an out-group will increase *schadenfreude* reactions to negative news about the product of a rival consumer group and strengthen subsequent intentions to engage in N-WOM. Moreover, consistent with the mediation effect found by Sundie et al. (2009) at the interpersonal level, we expect that *schadenfreude* reactions will mediate the effect of hostile feelings towards the out-group on intentions to engage in N-WOM. Based on the same reasoning, we also expect that *schadenfreude* reactions will mediate the potential effect of in-group identification on N-WOM.

Method

Participants. A total of 215 BlackBerry users filled out a survey. Participants whose survey was incomplete, were excluded from further analyses ($n = 12$), resulting in 203 remaining participants (91 men, 112 women, $M_{\text{age}} = 21.89$, $SD_{\text{age}} = 2.43$). Among the participants, a prize of €100.00 was allotted. Upon completion of the survey, participants were fully debriefed.

Procedure and measures. In 2010, reports in the media appeared suggesting the existence of rivalry between BlackBerry and iPhone users among young adults in Amsterdam. Therefore, in May 2010, students on campuses of colleges and universities in Amsterdam who were seen carrying a BlackBerry phone, were approached and asked to complete a survey. It was stated that,

given the recent media attention, we were interested in their view on different brands of smartphones. In the first part of the survey (premisfortune measures) both the central predictor variables—in-group identification and domain interest (i.e., interest in smartphones)—were assessed, as well as affective dispositions towards the out-group and the rival brand. In the second part of the survey, participants were asked to read a short fictitious article from a real consumer organization with the title “Negative Reports About the iPhone Are Piling Up” that supposedly summarized recent negative news reports on the iPhone related to slow mobile Internet, warranty problems, and dangerous levels of radiation (see Figure B2 in Appendix B). In the last part of the survey (postmisfortune measures) participants’ emotional reactions to this negative news were measured as well as their intention to engage in N-WOM. Unless indicated otherwise, variables were assessed by asking participants to respond to statements on 7-point scales in terms of their own degree of agreement (1 = *total disagreement*, 7 = *total agreement*). The measures are described in more detail in the following lines.

Premisfortune measures. Affective in-group identification was assessed with the three-item Solidarity subscale developed by Leach et al. (2008) that was modified to match the specific context of the present research (“I feel . . . [a bond with/committed to/solidarity with] . . . other BlackBerry users; $M = 4.02$, $SD = 1.75$, $\alpha = .86$). Domain interest was also measured with a three-item scale (“Having a smartphone is important to me,” “It would be hard for me to go without a smartphone,” “I am interested in news and information about smartphones”; $M = 4.34$, $SD = 1.62$, $\alpha = .79$). Two scales directly assessed affective dispositions towards the out-group (iPhone users). Out-group identification was assessed with the same three-item scale as in-group identification ($M = 2.40$, $SD = 1.43$, $\alpha = .93$). Note that the mean level of out-group identification is significantly lower compared to the mean level of in-group identification, $M_{\text{difference}} = 1.61$, $SD_{\text{difference}} = 1.90$,

$t(1, 201) = 12.11, p < .001$. Hostile feelings towards the out-group were also measured with a three-item scale ("I . . . [have contempt for/ dislike/hate] . . . iPhone-users"; $M = 1.74, SD = 1.18, \alpha = .80$). Additionally, affective dispositions towards the rival brand were measured by asking participants to indicate on 7-point scales (1 = *not at all*, 7 = *very much*) to what extent positive brand cognitions (trustworthy, beautiful, user-friendly; $M = 4.98, SD = 1.31, \alpha = .77$), positive affect (satisfaction, pride, enthusiasm; $M = 4.43, SD = 1.44, \alpha = .86$), and negative affect (frustration, disappointment, irritation; $M = 2.98, SD = 1.46, \alpha = .90$) were elicited by the iPhone.

Postmisfortune measures. Schadenfreude was assessed with the same five-item scale as in Study 1, although modified to match the specific context of the present study ("When I think about what the negative news reports mean for iPhone-users. . . [I cannot resist a little smile/this gives me satisfaction/I feel pleasure/I actually have to laugh a little/I feel schadenfreude]"; $M = 2.64, SD = 1.65, \alpha = .94$). Sympathy was measured with a three-item scale ("When I think what the negative news reports mean for iPhone users. . . [I feel sorry for/I feel bad for/I sympathize with] . . . iPhone-users"; $M = 3.78, SD = 1.58, \alpha = .82$). Finally, intentions to engage in N-WOM were assessed by asking participants to indicate on a 7-point scale (1 = *very unlikely*, 7 = *very likely*) how likely it was that they would share the negative news about the iPhone with others ($M = 3.60, SD = 1.82$).

Results

The impact of affective in-group identification, domain interest, and affective dispositions on schadenfreude, sympathy, and N-WOM was tested in three separate multiple regression analyses. In these analyses, schadenfreude, sympathy, and N-WOM were regressed on affective in-group identification, domain interest, the cross-product term representing the two-way interaction effect between these central predictor variables, affective out-group identification, hostile feelings

towards the out-group, positive cognitions about the rival brand, as well as on positive and negative affect elicited by the rival brand (see Tables 2 and 3).

Schadenfreude. The multiple regression analysis on the schadenfreude measure, $R^2 = .30, F(8, 194) = 10.54, p < .001, f^2 = .435$, showed a main effect of affective in-group identification, $\beta = .27, t = 3.94, p < .001, f^2 = .080$. However, this effect was qualified by the predicted two-way interaction effect between in-group identification and domain interest, $\beta = .13, t = 2.03, p = .043, f^2 = .021$. To examine the nature of this two-way interaction, we calculated predicted values for participants who scored one standard deviation above or below the mean on each variable. As can be seen in Figure 3, simple slope analysis showed that, in line with our central hypothesis, in-group identification increased schadenfreude when domain interest was high, $\beta = .36, t = 4.47, p < .001$, whereas this was not the case when domain interest was low, $\beta = .15, t = 1.80, p = .074$. In addition, negative affect elicited by the rival brand, $\beta = .15, t = 2.23, p = .027, f^2 = .026$, and especially hostile feelings towards the out-group, $\beta = .23, t = 3.44, p = .001, f^2 = .061$, increased schadenfreude. No other effects were significant (see Table 2).

Sympathy. The multiple regression analysis on the sympathy measure, $R^2 = .15, F(8, 194) = 4.21, p < .001, f^2 = .174$, showed that positive affect elicited by the rival brand increased sympathy, $\beta = .25, t = 3.02, p = .003, f^2 = .047$. No other effects were significant (see Table 2).

Negative word-of-mouth. The multiple regression analysis on the N-WOM measure, $R^2 = .17, F(8, 194) = 4.92, p < .001, f^2 = .203$, showed that both in-group identification, $\beta = .25, t = 3.30, p < .001, f^2 = .056$, and hostile feelings towards the out-group, $\beta = .19, t = 2.55, p = .011, f^2 = .033$, increased intentions to engage in N-WOM. By contrast, positive cognitions elicited by the rival brand decreased N-WOM, $\beta = -.17, t = -2.07, p = .040, f^2 = .022$. No other effects were significant (see Table 3).

Table 2. Multiple regression analyses of schadenfreude and sympathy in Study 2.

	Schadenfreude					Sympathy				
	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>f</i> ²	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>f</i> ²
<i>Central variables:</i>										
Ingroup identification (a)	0.26	0.07	.27	.001	.080	0.11	0.07	.12	.127	.012
Domain interest (b)	0.10	0.07	.10	.144	.011	0.11	0.07	.11	.157	.011
a x b	0.07	0.03	.13	.043	.021	0.04	0.03	.09	.197	.009
<i>Affective dispositions:</i>										
Outgroup identification	-0.07	0.08	-.06	.345	.005	0.10	0.08	.09	.259	.007
Hostile feelings	0.32	0.09	.23	.001	.061	-0.00	0.10	-.00	.982	.000
Positive effect brand	-0.03	0.09	-.02	.767	.000	0.28	0.09	.25	.003	.047
Negative effect brand	0.17	0.08	.15	.027	.026	-0.14	0.08	-.13	.096	.014
Positive brand cognitions	-0.19	0.10	-.15	.055	.019	-0.06	0.10	-.05	.593	.001

Table 3. Multiple regression analysis of negative word-of-mouth in Study 2.

	Negative word-of-mouth				
	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>f</i> ²
<i>Central variables:</i>					
Ingroup identification (a)	0.26	0.08	.25	.001	.056
Domain interest (b)	0.10	0.08	.09	.219	.008
a x b	-0.04	0.04	-.06	.343	.005
<i>Affective dispositions:</i>					
Outgroup identification	-0.10	0.09	-.08	.287	.006
Hostile feelings	0.29	0.11	.19	.011	.033
Positive effect brand	0.12	0.11	.10	.245	.007
Negative effect brand	-0.03	0.09	-.03	.741	.001
Positive brand cognitions	-0.24	0.12	-.17	.040	.022

Mediation analysis. We tested whether schadenfreude reactions mediated the effects of hostile feelings towards the out-group and in-group identification on N-WOM in a combined analysis. This revealed that the direct effect of hostile feelings on N-WOM that was observed in a regression without controlling for the effect of schadenfreude, $\beta = .31$, $t = 4.86$, $p < .001$, disappeared, $\beta = .12$, $t = 1.73$, $p = .085$, when controlling for the effect of schadenfreude, $\beta = .25$, $t = 3.48$, $p < .001$, whereas the previously observed direct effect of in-group identification on N-WOM, $\beta = .28$, $t = 4.36$, $p < .001$, shrunk, $\beta = .21$, $t = 3.07$, $p = .002$. Sobel-tests showed that the indirect effects of hostile feelings and

in-group identification were both significant ($Z = 2.81$, $p = .005$ and $Z = 2.71$, $p = .007$, respectively), thereby attesting to (partial) mediation.

Discussion

In line with our central hypothesis, the results of Study 2 show that stronger affective in-group identification increased schadenfreude reactions to news about an out-group's misfortune, provided that domain interest was high. Hostile feelings towards the out-group and negative affect elicited by the rival brand also increased schadenfreude. However, it is important to note that the interaction effect between in-group identification

Figure 3. Schadenfreude after out-group misfortune as a function of in-group identification and domain interest on the scale measure in Study 2.

and domain interest was still obtained when controlling for these affective dispositions towards the out-group and the rival brand, thereby demonstrating that affective dispositions towards one's in-group (i.e., "in-group love") and affective dispositions towards the out-group (i.e., "out-group hate") are both important determinants of schadenfreude reactions. Moreover, the interaction effect between in-group identification and domain interest was not obtained on sympathy, thereby corroborating evidence from previous research (e.g., van Dijk et al., 2005; van Dijk et al., 2012) supporting the notion that schadenfreude and (lack of) sympathy are distinct emotional reactions to the misfortunes of others (Heider, 1958). Indeed, these two emotional reactions to news about an out-group's misfortune showed no significant correlation ($r = .05, p = .473$).

In addition, the findings of Study 2 suggest that schadenfreude may have important behavioral consequences. That is, schadenfreude reactions strengthened intentions to share the negative news about an out-group's misfortune with others (i.e., N-WOM). Moreover, consistent with findings at the interpersonal level (Sundie

et al., 2009), schadenfreude mediated the effect of hostile feelings on N-WOM. Thus, the more hostile feelings news recipients had towards the out-group, the more inclined they were to share news about a misfortune suffered by this out-group, *because* in that case they derived more pleasure from this misfortune. Affective identification with the in-group also strengthened intentions to engage in N-WOM, thereby further emphasizing the crucial role of social identity processes in determining reactions to news about an out-group's misfortune. Moreover, schadenfreude partially mediated the effect of in-group identification on N-WOM. It should be noted, however, that domain interest did not affect intentions to share negative news about an out-group's misfortune, either as a main effect or interactively with in-group identification. A possible reason for this lack of effect is that people may be inclined to share negative news about an out-group's misfortune regardless of their own interest in the domain, because they may assume that the receiver of this news does have an interest in the domain and may therefore enjoy the news.

General Discussion

Taken together, the findings of Study 1 and Study 2 provide compelling support for our central hypothesis. In two very different contexts we demonstrated that people's strength of affective in-group identification increased *schadenfreude* reactions to news about an out-group's misfortune provided that this misfortune occurred in a domain of interest to news recipients, thereby attesting to the importance of social identification processes in evoking out-group *schadenfreude*. Because of the cross-sectional design of our studies, some caution is in order when making strong claims concerning direction of causality. However, it should be noted that in Study 2 we assessed people's strength of in-group identification and domain interest *before* they were introduced to fictitious news about an out-group's misfortune, thereby excluding the possibility that these measures were influenced by this news. Moreover, although we did not experimentally manipulate an out-group misfortune versus an in-group misfortune, Study 1 does make a convincing case for different reactions to out-group and in-group misfortunes depending on party affiliation.

We have argued that news about an out-group's misfortune evokes *schadenfreude* when such an event is appraised as being beneficial for people's striving for a positive social identity. This raises the question of whether people may actively seek out news about out-group misfortunes when their social identity is threatened. A study by Appiah, Knobloch-Westerwick, and Alter (2013) showed that Black readers (presumably members of a low-status group) were more likely to select and read negative news rather than positive news involving a White character, whereas story valence and character race did not influence the behavior of White readers. Thus, this research suggests that people may actively seek media content about out-group misfortunes, and are more likely to do so when their social identity is threatened (i.e., when belonging to a low-status group). The question remains, however, whether this selective exposure also results in stronger *schadenfreude* reactions.

Future research should further explore when we enjoy news about out-group misfortunes. This may, for example, increase our understanding of complex and intriguing behavior of television viewers during major sports tournaments. A case in point is provided by the behavior of Dutch viewers during the FIFA 2010 World Cup in South Africa. They had the opportunity to watch matches of the tournament on the Dutch public broadcasting network (NOS), but could also switch to the German television channel ARD. The number of Dutch viewers watching the match on the German channel was monitored when Germany played against Spain in the semifinal. During the first 45-minute half and the beginning of the second half, on average 80,000 Dutch viewers (0.5% of all Dutch television viewers) watched this game on the German television channel, presumably to avoid commercials on the Dutch channel before the match and during half time. However, more than 100,000 additional Dutch viewers switched to the German channel immediately after Puyol scored what turned out to be the winning goal for Spain in the 27th minute of the second half. Moreover, the number of Dutch viewers watching the German channel peaked at a staggering 352,000 (2.3% of all Dutch television viewers) just before the end of the match, when it was clear that the German defeat was imminent. This behavior suggests that a large number of Dutch viewers actually wanted to hear the German commentators suffer when describing the imminent defeat of their national team. By doing so they presumably increased their enjoyment or *schadenfreude* regarding the defeat of the Germans by Spain. Indeed, an analyst of the Dutch public broadcasting network had no other words than "*schadenfreude* density" to describe this phenomenon.

Our research suggests that, despite its passive and opportunistic nature, *schadenfreude* feelings may have important behavioral consequences. That is, the results of Study 2 showed that the more *schadenfreude* was evoked by negative news reports about a product of a disliked consumer group, the more likely people were to share this negative news with others, thereby replicating findings of Sundie et al. (2009) in an intergroup

consumer context. Furthermore, people's strength of affective identification with their own consumer group also increased intentions to engage in such negative word-of-mouth communication. These findings may not only be important for our understanding of consumer behavior, but may also have broader implications, because it suggests the possibility that both, people's strength of affective in-group identification and schadenfreude feelings, may influence the likelihood that other forms of negative news about out-groups spread to a larger public.

It could be argued that the out-group misfortunes investigated in our research are somewhat mundane, which may raise the question whether social identity processes will also influence schadenfreude reactions to news about more serious misfortunes. However, we already discussed research by Combs et al. (2009), who investigated schadenfreude reactions of Democrats and Republicans to a news article about American troop deaths in Iraq during the Bush administration. Although the self-reported levels of schadenfreude in this research were low, people's strength of party identification still played an important moderating role in determining schadenfreude reactions. Moreover, although one could perceive the enjoyment of something like a defeat of a long-standing rival team in a sports contest as harmless fun, this may be less innocent than meets the eye. For example, in the context of the sports rivalry between the Red Sox and Yankees baseball teams, Cikara, Botvinick, and Fiske (2011) observed that neurological responses associated with subjective pleasure of avid fans when watching a rival team lose a game correlated with the self-reported likelihood of aggressing against a fan of that rival team. Indeed, opportunistic expressions of schadenfreude may very well be the first step towards direct aggression against out-group members, thereby turning intergroup relations more hostile. Future research should therefore focus not only on increasing our understanding of when we enjoy news about the misfortunes of other groups, but should also consider the implications of schadenfreude reactions for intergroup relations.

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Notes

1. Given the general difficulty of detecting interaction effects in field research (McClelland & Judd, 1993), we distributed the survey among a large sample of students to increase statistical power. Furthermore, given the geographical distribution of political orientations, we distributed the survey among seven different universities across the Netherlands.
2. The first two items are part of a three-item Identification subscale that was later developed by Leach et al. (2008) and used in Study 2. However, they refer to this component of in-group identification as "solidarity" rather than "affective identification."
3. In the Dutch language, a direct translation of the German word *Schadenfreude* is used, namely "*Leedvermaak*."
4. However, exploratory analyses revealed some interesting differences between the two schadenfreude measures. Our paradigm allows us to test within participants whether the responses on the two measures differ depending on locus of misfortune, in-group identification, and domain interest. General linear modeling revealed that the responses on the two measures differed depending on the locus of misfortune, $F(1, 495) = 7.89$, $p < .05$, $\eta^2 = .016$. In case of an out-group misfortune, participants expressed more schadenfreude on the scale measure ($M = 4.95$, $SD = 1.43$) than on the obituary measure ($M = 4.40$, $SD = 1.89$; $t = -4.93$, $p < .001$), whereas in case of an in-group misfortune they showed similar responses on both measures ($M_{\text{scale measure}} = 3.99$, $SD_{\text{scale measure}} = 1.42$; $M_{\text{obituary measure}} = 3.90$, $SD_{\text{obituary measure}} = 1.91$, $t < 1$). The more explicit scale measure is possibly perceived as more malicious and less humorous than the obituary measure. As a

consequence, the more the misfortune poses a threat to one's social identity (i.e., in case of an in-group misfortune), the less likely people are to report the more malicious form of schadenfreude compared to the more humorous form.

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Appendix A

Political Background Study 1

The Dutch have a multiparty system and governments are always formed by a coalition of two or three parties. Our study was conducted on the day following the fall of the Dutch coalition government led by Prime Minister Jan-Peter Balkenende on October 16, 2002. Balkenende had formed his government in the midst of the political turmoil that followed the killing of popular new politician Pim Fortuyn. In the campaign leading up to the elections, Fortuyn headed his brand new party List Pim Fortuyn (LPF) with a highly unusual and provocative campaign that had stricter immigration and integration laws as its core message. On May 6, 2002, 9 days before the elections, a leading national newspaper published poll results in which the LPF took the lead. On that same day Fortuyn was shot and killed by an environmental activist, causing unprecedented political upheaval. In the elections on May 15, 2002 the LPF ended second, with 26 out of 150 seats in parliament. Winner of the elections was the centre-right Christian Democrat Party (CDA), headed by Balkenende. Losers were the parties that had been in power for

8 years, losing 39 of their 83 seats in parliament. Two months later, on July 22, Balkenende presented a right-wing coalition government to the queen and the Dutch people, including CDA, VVD (a conservative party), and LPF. This coalition came into trouble right away, mainly because of problems within the LPF. The LPF and its new leadership had tremendous trouble keeping the party together without the unifying strength of its

leader. The result was a government running from one conflict to another, and with LPF cabinet ministers openly fighting each other and calling each other names. On October 16, 2002, Balkenende offered the resignation of his government to the queen. Having ruled for 87 days, Balkenende's government went into the history books as the shortest lived Dutch coalition government since World War II.

Appendix B

Stimulus Material in Studies 1 and 2

Figure B1. A translated version of the spoof obituary mocking the fall of government Balkenende used in Study 1. Note that “Cor” and “Winny” were two members of the LPF who left the party after public disagreements, but held on to their seats in parliament and started their own party. The “Binnenhof” is the place where the Dutch government is located.

Negative reports about the iPhone are piling up

04-24-10 News report

In the past month several negative reports about Apple's iPhone have appeared in the media. These reports concern the speed of mobile Internet, the warranty policy for problems with the touchscreen, and dangerous radiation. Below consuWijzer summarizes the reports.

Slow mobile Internet

At the beginning of this month it was leaked that in the forthcoming issue of the *Digitaalids* research by the *Consumentenbond* will be published concerning the speed and reliability of mobile Internet with different combinations of providers and mobile phones. This will reveal that the iPhone 3GS in combination with a subscription to T-Mobile scores very low. It is striking that the *Consumentenbond* concludes that the poor performance of the iPhone is not so much caused by the coverage of T-Mobile (which scored high in previous research), but rather by technical difficulties when combining the network with the hardware of the iPhone.

Complaints about the warranty policy for problems with the touchscreen

Two weeks ago it became clear in VARA's television consumer show *Kassa* that there were a striking number of complaints about small cracks appearing between the touchscreen and the casing of the iPhone, that sometimes lead to the phone not functioning. Apple, the manufacturer of the iPhone, refuses to compensate the damage, because it is not covered by the warranty. A spokesman of the *Consumentenbond* called this "absurd" on the show and announced that together with other European consumer organizations legal procedures against Apple would be started.

Dangerous radiation

To make matters worse three days ago a report of the *Environmental Working Group* (EWG) was released in the US. This consumer organization in the field of health and environment investigated the level of harmful radiation emitted by more than a thousand mobile phones. The results show that the iPhone by far emits the most radiation measured in Specific Absorption Ratio (SAR). According to several medical experts the radiation level of the iPhone may lead to health risks with frequent use.

Figure B2. A translated version of the fictitious news report by consumer organization "consuWijzer" about problems with the iPhone used in Study 2.