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## The role of self-evaluation and envy in schadenfreude

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In this article we address *why* and *when* people feel schadenfreude (pleasure at the misfortunes of others) in both interpersonal and intergroup contexts. Using findings from our own research programmes we show that schadenfreude is intensified when people are chronically or momentarily threatened in their self-worth, whereas it is attenuated when their self-evaluation is boosted; that malicious envy, but not benign envy, intensifies pleasure at the misfortunes of others; that these emotional responses are manifested in intergroup contexts via the same mechanisms; and that mere stereotypes, in the absence of any interaction or overt competition, are sufficient to elicit schadenfreude via such mechanisms. Together, these findings suggest that self-evaluation and envy both play an important role in evoking schadenfreude; people feel pleasure at the misfortunes of others when these misfortunes provide them with social comparisons that enhance their feelings of self-worth or remove the basis for painful feelings of envy.

**Keywords:** Schadenfreude; Emotion; Social comparison; Self-enhancement; Envy.

Why and when do people feel schadenfreude—pleasure at the misfortunes of others? We address these questions by positioning schadenfreude in a broad

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This article is dedicated to Nico H. Frijda (1927–2015), whose work has greatly advanced our knowledge of emotions.

theoretical framework and integrating four research programmes on this social emotion. There are other important factors that help in understanding *schadenfreude*, such as the deservingness of the misfortune (e.g., Feather, 2006), but we add to the literature by focusing on the role of the self in *schadenfreude* and show how people's self-evaluations or their feelings of envy can also serve as an impetus of *schadenfreude*. In doing so, we offer a comprehensive summary of our empirical work and aim to inspire new research that will further develop our knowledge of *schadenfreude* and the role this emotion plays in interpersonal and intergroup relations.

Our review has four sections. The first introduces the phenomenon of *schadenfreude* by defining it and by briefly describing previous thoughts and views—from both philosophical and psychological perspectives—on this emotion. Furthermore, we position *schadenfreude* in a theoretical framework that combines insights from appraisal theories of emotion with theories on self-enhancement and social comparison. This approach enables the theoretical integration of our different research programmes and sets the stage for two subsequent sections that review our empirical work. In a final section, we summarise our main conclusions and propose possible directions for future research.

## THE PHENOMENON OF SCHADENFREUDE

*Schadenfreude* is a compound of the German words *Schaden* (meaning “harm”) and *Freude* (meaning “joy”) and refers to pleasure at the misfortunes of others. The English language does not have one specific word for this emotion and uses *schadenfreude* as a loanword. The *Oxford English Dictionary* included it as an entry for the first time in 1895—defining *schadenfreude* as, “malicious enjoyment of the misfortunes of others”—thereby indicating that by the end of the nineteenth century the word *schadenfreude* was already used frequently in the English language (Van Dijk & Ouwerkerk, 2014a). Also other languages do not have one specific word for pleasure at the misfortunes of others (e.g., Italian, Japanese, and Spanish). However, many languages do have a specific word for this emotion, for example, Danish (*skadefryd*), Dutch (*leedvermaak*), Estonian (*kahjurõõm*), Finnish (*vahingonilo*), Hebrew (*simcha la-ed*), Hungarian (*káröröm*), Mandarin Chinese (*xing-xai-le-huo*), Russian (*zloradiye*), and Slovenian (*škodoželjnost*). Most of these words are a compound of the words harm and joy, and, in our view, it is probable that these words have been calqued from the Greek word *epichairekakia*, the German word *Schadenfreude*, or the French word(s) *joie maligne* for pleasure at the misfortunes of others (Van Dijk & Ouwerkerk, 2014a).

In our review we restrict the term *schadenfreude* to situations in which misfortunes are not caused by the person experiencing *schadenfreude*—but rather by circumstances or other people—and to situations in which the

pleasure is not the result of *actively* defeating others through direct competition. Otherwise, this pleasure is more akin to sadism, and gloating or victorious joy, respectively (Leach, Spears, & Manstead, 2014; Van Dijk & Ouwerkerk, 2014a).

Throughout history, schadenfreude—although pleasurable for the person feeling it—has been morally condemned by scholars. In his seminal book *The Psychology of Interpersonal Relations* (1958) Austrian psychologist Fritz Heider describes the experience of schadenfreude as a violation of the obligation to cultivate the virtue of compassion and thereby as harmful to social relations. Before Heider, other scholars had already emphasised the negative nature of schadenfreude. Aristotle (350 BCE/1941) described it as a disguised expression of aggression, whereas Baudelaire (1855/1955) regarded it as a malicious and immoral feeling, and Schopenhauer (1841/1965) described it as fiendish, diabolical, and an “infallible sign of a thoroughly bad heart and profound moral worthlessness” (p. 135). In fact, many languages have proverbs, adages, or sayings that condemn schadenfreude—or those feeling it—which testify to the presumed negative nature of this emotion. A case in point is provided by the Spanish saying, “A man who rejoices in another’s misfortune is not a good man” (*Gozarse en el mal ajeno, no es de hombre buen*). Although schadenfreude carries a negative connotation, most people are willing to admit that they do experience pleasure at the misfortunes of others, and signs of schadenfreude are observed even in children as early as 24 months (Shamay-Tsoory, Ahronberg-Kirschenbaum, & Bauminger-Zviely, 2014). This raises the question of *why* people can enjoy the misfortunes of others.

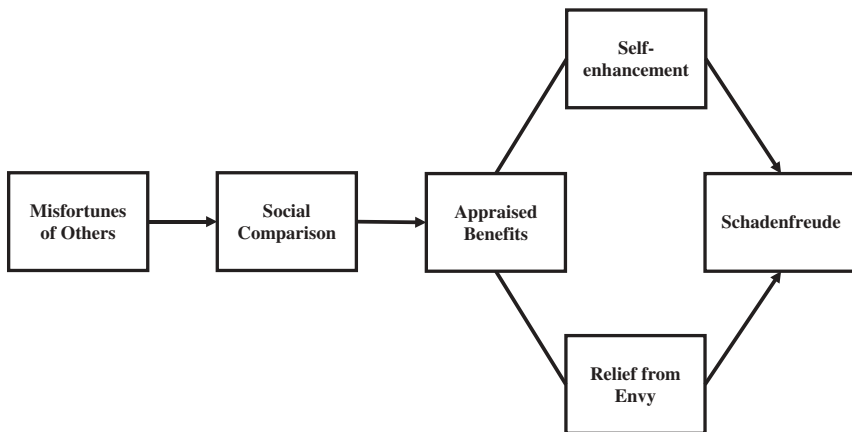
As we discuss more fully later, there are a number of answers to this question. In our review we focus predominantly on the possible social comparison benefits provided by the misfortunes of others; these misfortunes can enhance people’s feelings of self-worth and remove the basis for their painful feelings of envy. Moreover, we present findings from our own research programmes that corroborate this notion by showing that people are more likely to feel schadenfreude when they are motivated to enhance their personal or collective self-evaluation, or when they feel (malicious) envy towards suffering others. Before we turn to the findings of our research, we elaborate on our theoretical framework, in which we combine insights from appraisal theories of emotion with theories on self-enhancement and social comparison processes.

## THE EMOTION OF SCHADENFREUDE

Schadenfreude is a type of joy, albeit one that is very specific and seemingly atypical. Whereas joy is typically experienced when someone is pleased about a desirable event, schadenfreude is evoked when someone is pleased about an event that is undesirable for somebody else (Heider, 1958; Ortony, Clore, &

Collins, 1988). However, when analysing schadenfreude from the perspective of appraisal theories of emotion, it appears less atypical than at first sight. One of the central tenets of appraisal theories is the claim that emotions are elicited by appraisals (subjective evaluations) of situations and that specific and distinctive patterns of appraisals evoke specific and distinctive emotions (for an overview of appraisal theories, see Roseman & Smith, 2001). Appraisal theories posit that it is an individual's subjective evaluation of the personal significance of a situation rather than its objective properties that elicits an emotion. What makes appraisal theories of emotions especially appealing is that they can explain why different situations can elicit the same emotion (i.e., because these situations are appraised similarly) or why the same situation can elicit different emotions in different people (i.e., because they appraise this situation differently). To illustrate, because people can differ in how they appraise the same misfortune suffered by another person, this misfortune can elicit schadenfreude in some people, while evoking sympathy in others. Moreover, since schadenfreude is elicited by the appraisal of another's misfortune, rather than its mere characteristics, objectively dissimilar misfortunes—such as when an envied student is caught cheating, or when a contestant on a televised talent show fails miserably, or when a rival group suffers a setback—may all elicit schadenfreude if these misfortunes are appraised in a similar way. But how should the misfortunes of others be appraised in order to evoke schadenfreude?

In his article *The Laws of Emotion* Dutch psychologist Nico Frijda states, “Emotions arise in response to events that are important to the individual's goals, motives, or concerns” (1988, p. 349, italics in original). Consistent with most appraisal theories, he argues that positive emotions are elicited by events that satisfy an individual's concerns (i.e., are appraised as motivationally congruent), whereas negative emotions are elicited by events that harm or threaten these concerns (i.e., are appraised as motivationally incongruent). For a misfortune to evoke schadenfreude, the person feeling schadenfreude should therefore appraise this misfortune as satisfying some important personal concern. The key appraisal in the experience of schadenfreude is motivational congruence, and schadenfreude is therefore not different from other varieties of joy; it is the type of joy that is evoked when the pleasure is directed at someone else's misfortune. The misfortunes of an envied student, a contestant on a televised talent show, and a rival group all can evoke schadenfreude if these misfortunes satisfy an important concern of the person feeling schadenfreude. For people to experience schadenfreude, they should gain psychologically from another's misfortune (even if they do not benefit in any material sense). In this review we argue that the opportunities to self-enhance and to mitigate painful feelings of envy are possible psychological gains provided by the misfortunes of others (see Figure 1).



**Figure 1.** Schematic overview of the theoretical approach of the current article.

## SELF-ENHANCEMENT, ENVY, AND SOCIAL COMPARISON PROCESSES

The motive to evaluate the self positively is an important drive in human behaviour (e.g., Baumeister, 1991; Brown & Dutton, 1995; Sedikides & Strube, 1997; Sherman & Cohen, 2006; Steele, 1988; Taylor & Brown, 1988; Tesser, 1988). To illustrate, Allport (1937) suggested that a person's "most coveted experience is the enhancement of his self-esteem" (p. 169). Similarly, Baumeister (1995) wrote, "The desire for a favorable view of the self is well established. Its many forms . . . suggested the conclusion that a need for some sense of self-worth is one of the pillars of finding a meaningful life" (p. 72). Striving for a positive self-evaluation is not restricted to people's individual self-worth. According to social identity theory (Tajfel, 1978; Tajfel & Turner, 1979), part of people's self-concept stems from the knowledge that they belong to certain groups (i.e., their *collective* self or social identity). Based on a self-enhancement perspective, Tajfel and Turner (1979) argued that people also strive for a positive collective self-evaluation or social identity.

Social comparisons are one of the building blocks of self-evaluation (e.g., Festinger, 1954) and speak to the relativistic nature of many social judgments, feelings, and emotions (e.g., Brickman & Bulman, 1977; Frijda, 2007; R. H. Smith, 2000). Unfavourable (or so-called upward) interpersonal and intergroup comparisons can threaten people's perceptions of their personal self-evaluation (e.g., Tesser, 1988) and social identity (Tajfel & Turner, 1979), respectively. By contrast, favourable (so-called downward) comparisons enhance self-worth (e.g., Wills, 1981). Moreover, upward social comparison can also elicit painful feelings of envy (e.g., Salovey & Rodin, 1984; R. H. Smith & Kim, 2007; Tesser, 1988). When

people envy others, they are aware that these others are superior to them in some way (because they have a valued possession, quality, achievement, etc.). Indeed, from an evolutionary perspective, it is probably adaptive to feel some sort of negative emotion in reaction to upward comparison information; otherwise, one would be unlikely to do anything about one's inferiority and thus lose out in important competitive struggles related to adaptive fitness (e.g., Hill & Buss, 2008).

When combining the previously described insights from appraisal theories of emotions with those from research on self-enhancement, envy, and social comparison processes, we reach a compelling answer to the question of *why* people enjoy the misfortunes of others. People feel pleasure because these misfortunes provide them with opportunities to reap the resulting uplifting comparison benefits that satisfy their concern for a positive self-evaluation or remove the basis for painful feelings of envy. Moreover, combining these insights also allows for a broad range of predictions concerning *when* people experience schadenfreude. Based on our notion that self-enhancement is one of the underlying concerns of schadenfreude, we predict that people feel more pleasure at the misfortunes of others when their personal self-evaluation is chronically or momentarily threatened—because in these circumstances their motivation to self-enhance is stronger. In a similar vein, we predict that misfortunes suffered by rivals or out-groups evoke schadenfreude when these misfortunes provide social comparison benefits that are relevant to the collective self. Furthermore, the suffering of other individuals or groups should yield more schadenfreude when initial feelings of (malicious) envy are present—because the resulting comparison benefits then remove the very basis for these painful feelings.

In the research programmes summarised in this review, we tested these (and other) predictions regarding schadenfreude. In what follows, we present an overview of our research on the role of self-evaluation and envy in schadenfreude. We first address our studies on *interpersonal* schadenfreude, and these are followed by our studies on *intergroup* schadenfreude.

## SCHADENFREUDE IN INTERPERSONAL RELATIONS

### Self-evaluation and interpersonal schadenfreude

In his influential paper “Downward comparison principles in social psychology”, Wills (1981) posits that people can enhance their self-evaluation by comparing themselves with a less fortunate other. Moreover, he argues that downward comparisons are motivated by self-enhancement and “persons who are temporarily or chronically low in self-esteem will have greater motivation for self-enhancement, hence will more often engage in downward comparison processes” (p. 246). Research has indeed shown—consistent with Wills’s argument—that the self-evaluation of low-self-esteem individuals (as compared to that of high-self-esteem individuals) becomes more positive after exposure to downward comparison

information (Affleck, Tennen, Pfeiffer, Fifield, & Rowe, 1987; Gibbons & Gerrard, 1989; Morse & Gergen, 1970; Reis, Gerrard, & Gibbons, 1993), and that this impact is stronger when individuals with chronic low self-esteem also experience an acute (i.e., temporary) self-evaluation threat (Aspinwall & Taylor, 1993; Gibbons, 1986; Gibbons & Boney-McCoy, 1991). Applying these insights to schadenfreude, we hypothesised that schadenfreude is more intense when people experience a self-threat, and hence their motivation to self-enhance is stronger, and potential social comparison benefits are thus larger. We tested these hypotheses in a series of studies (Van Dijk, Ouwerkerk, Van Koningsbruggen, & Wesseling, 2012; Van Dijk, Ouwerkerk, Wesseling, & Van Koningsbruggen, 2011; Van Dijk, Van Koningsbruggen, Ouwerkerk, & Wesseling, 2011).

In a first study (Van Dijk, Van Koningsbruggen, et al., 2011) we tested whether individuals with chronic low self-esteem—who have a strong motivation to self-enhance and engage in downward comparisons—are more pleased when a high achiever suffers a misfortune than are high-self-esteem individuals. Because individuals with chronic low self-esteem often feel threatened by high achievers, we also tested whether feelings of self-threat mediated the effect of self-esteem on schadenfreude. More specifically, in this study we first assessed participants’ self-esteem ( $N = 70$  university students, 40 female). Next, participants read what was alleged to be an interview with a high-achieving student, which was followed by an assessment of their feelings of self-threat. Subsequently, participants read an interview with the student’s supervisor, from which they learned that the student recently suffered a serious setback, and then their schadenfreude was measured (see Table 1). Results showed that (a) participants with lower self-

TABLE 1  
Items used to assess schadenfreude in  
Van Dijk et al. (Van Dijk, Ouwerkerk, et al.,  
2012; Van Dijk, Ouwerkerk, et al., 2011;  
Van Dijk, Van Koningsbruggen, et al.,  
2011) and Ouwerkerk, Van Dijk,  
Vonkeman, and Spears (2015)

I enjoy what happened to [the target]
I'm satisfied with what happened to [the target]
I couldn't resist a little smile
I actually had to laugh a bit
I feel schadenfreude

Participants could respond to these items on 7-point scales, appropriately labelled at each scale-end. We used the term *leedvermaak* for schadenfreude, which is the Dutch word for schadenfreude. The first use of this word in the Dutch language has been dated to the year 1811.



esteem felt more schadenfreude than those with higher self-esteem ( $B = -0.37$ ,  $t = -1.96$ ,  $p = .05$ ), (b) participants with lower self-esteem felt more self-threat than participants with higher self-esteem ( $B = -0.86$ ,  $t = -5.00$ ,  $p < .001$ ), (c) after controlling for their self-esteem, participants who felt self-threatened experienced more schadenfreude than participants who felt less self-threatened ( $B = 0.38$ ,  $t = 2.96$ ,  $p = .004$ ), and (d) the relationship between self-esteem and schadenfreude was not significant after controlling for self-threat ( $B = -0.37$ ,  $t < 1$ ,  $p = .82$ ). Moreover, this effect was mediated by feelings of self-threat (5000 bootstrap resamples; 95% confidence interval,  $CI = [-0.62, -0.09]$ ). That is, participants with lower self-esteem felt more threatened by the high-achieving student and, in turn, felt more pleasure at the student's misfortune. These findings are consistent with our notion that another's misfortune can evoke schadenfreude when it provides an opportunity for self-enhancement.

In two follow-up studies, we examined the impact of an acute self-evaluation threat on schadenfreude (Van Dijk, Ouwerkerk, et al., 2011). We predicted that individuals who experience an acute self-evaluation threat—and consequently a stronger motivation to self-enhance—experience more schadenfreude following another's misfortune than those who do not experience such a threat. In one study, we manipulated an acute self-evaluation threat by providing participants ( $N = 130$  university students, 76 female) with either negative or positive feedback on a self-relevant task. Next, participants were given information about a misfortune suffered by a high-achieving student, followed by an assessment of their level of schadenfreude. Results showed that participants who had received negative feedback experienced more schadenfreude than those who had received positive feedback (see Table 2). Another study ( $N = 42$  university students, 28 female)—in which we contrasted a negative feedback condition with a no feedback condition and used a different misfortune—replicated this finding, indicating that negative feedback intensifies pleasure at the misfortune of others (see Table 2).

In a fourth study in this series (Van Dijk et al., 2012), we wanted to gain further empirical support for our notion that schadenfreude reflects an appraisal of a situation as satisfying one's concern for self-enhancement by examining the

TABLE 2  
Means of schadenfreude for the different feedback conditions in Van Dijk, Ouwerkerk, et al. (2011)

Experiment 1		Experiment 2	
Negative feedback	Positive feedback	Negative feedback	No feedback
Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
3.19 (1.50)	2.71 (1.26)	4.04 (1.29)	3.40 (1.18)

Means could range from 1 to 7, with higher means indicating more schadenfreude.

interplay between an individual’s chronic self-evaluation threat and an acute self-threat. Based on the notion that people experiencing both a chronic and acute self-threat will be especially motivated to restore their self-worth, we predicted that in such a heightened threat situation another’s misfortune would be even more pleasing. In this study we assessed participants’ self-esteem ( $N = 53$  university students, 26 female) *and* subsequently confronted them with either an acute self-evaluation threat (i.e., negative feedback on a self-relevant task) or a self-evaluation boost (i.e., positive feedback on the task). Next, participants watched a contestant failing miserably in the Dutch version of the TV show *American Idol*, and their schadenfreude was assessed. As expected, participants who were presumably most motivated to restore their threatened self-worth experienced the most schadenfreude. That is, participants who felt chronically more self-threatened (as indicated by a lower self-esteem) experienced more schadenfreude when they were also confronted with an acute self-evaluation threat (i.e., received negative feedback on the task) than when they were confronted with a self-evaluation boost (i.e., received positive feedback). Participants with higher self-esteem did not differ in the intensity of their schadenfreude as a function of feedback, suggesting that their higher self-esteem provided them with a buffer against an acute self-threat (see Table 3).

One implication of our notion that the misfortunes of others can provide individuals with self-enhancement opportunities is that schadenfreude should be attenuated when people’s concern for self-enhancement diminishes. Therefore we predicted that providing low-self-esteem individuals with an opportunity for self-affirmation (as an alternative means for self-enhancement) would attenuate their schadenfreude. This prediction was based on Steele’s (1988) self-affirmation theory, which posits that a self-affirmation opportunity decreases defensive reactions to threatening information. In line with Steele’s reasoning we argued that because self-affirmation bolsters feelings of self-integrity, it should reduce an individual’s motivation for self-enhancement through other means (e.g., the misfortunes of others). Therefore we tested whether low-self-esteem individuals’ schadenfreude

TABLE 3  
Main results of regression analysis performed on schadenfreude in Van Dijk et al. (2012)

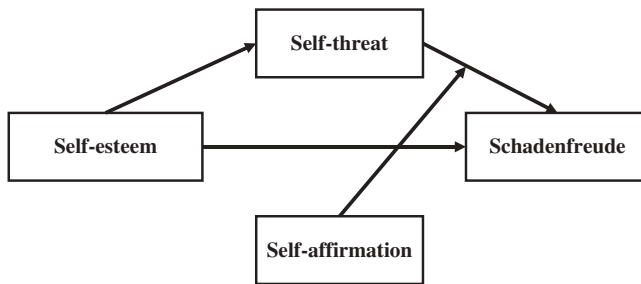
Predictor	<i>B</i> ( <i>SE</i> )	<i>t</i>	<i>p</i>
Self-Esteem × Self-Evaluation Threat	0.46	2.53	.02
Simple slope analysis			
Low self-esteem	−1.78	2.28	.03
High self-esteem	0.42	1.46	.15

Results of the interaction between self-esteem and self-evaluation threat are based on a regression analysis with self-esteem (centralised), self-evaluation threat (−1 = self-evaluation threat; +1 = self-evaluation boost), participants’ gender, and all interactions as predictors.

is attenuated when they are provided with an opportunity to self-affirm *before* another's misfortune occurs. Providing low-self-esteem individuals with an opportunity to restore their global sense of self-integrity should lower their motivation to use another's misfortune to achieve this goal.

In our fifth and final study of this series (Van Dijk, Van Koningsbruggen, et al., 2011, Study 2), we examined whether *schadenfreude* increases when people's motivation to self-enhance is stronger, but decreases when this motivation is weaker. After their self-esteem had been assessed, participants ( $N = 75$  university students, 39 females) read an interview with a high-achieving student. Their feelings of self-threat were then assessed, and about half of them were given the opportunity to self-affirm, whereas the others were not. Next, all participants read an interview with the student's supervisor, in which they learned that the student had recently suffered an academic setback, and their *schadenfreude* was assessed. Above we reported that the relationship between self-esteem and *schadenfreude* was mediated by self-evaluation threat. Results of this fifth study indicated that the indirect relationship between self-esteem and *schadenfreude* was, as expected, contingent on an opportunity for self-affirmation (i.e., moderated mediation). Results showed a significant negative relationship between self-esteem and self-evaluation threat ( $B = -0.05$ ,  $t = -4.21$ ,  $p < .001$ ). Modelling the indirect relationship of self-esteem with *schadenfreude* through self-evaluation threat showed a statistically significant interaction between self-affirmation (i.e., the moderator) and self-evaluation threat (i.e., the mediator) on *schadenfreude* ( $B = -0.73$ ,  $t = -2.61$ ,  $p = .01$ ), which indicates that the indirect relationship of self-esteem with *schadenfreude* through self-evaluation threat is moderated by self-affirmation. Bootstrap analyses (5000 resamples) showed that for nonaffirmed participants this indirect relationship is statistically significant (95% CI =  $[-0.06, -0.008]$ ), whereas this was not the case for self-affirmed participants (95% CI =  $[-0.02, 0.04]$ ). In other words, when no self-affirmation opportunity was available, participants who were lower in self-esteem felt more self-threatened after being confronted with a high-achiever, which, in turn, increased their *schadenfreude*. However, this effect was attenuated when they were given an opportunity to self-affirm. For non-affirmed participants, feelings of self-threat mediated the relationship of self-esteem with *schadenfreude*, whereas for self-affirmed participants, this relationship was not mediated by self-threat (see Figure 2).

In sum, the findings of these five studies corroborate our notion that people can feel pleasure about the misfortune of others because these misfortunes provide them with self-enhancement opportunities, helping them to protect, maintain, or enhance their self-evaluation (Van Dijk, & Ouwerkerk, 2014b). Our findings also indicate that social comparisons are often at the heart of *schadenfreude*. Social comparisons have implications not only for how we feel about ourselves, but also for how we feel about other people. Envy is an emotion arising from an unfavourable social comparison, and the sense of inferiority inherent in envy is painful and often perseverating. Misfortunes befalling those



**Figure 2.** Schematic overview of the mediated moderation model tested in Van Dijk, Van Koningsbruggen, et al. (2011).

whom we envy have the potential to be pleasing—because of their self-enhancing benefits. However, envy often contains other ingredients, more focused on the envied person than on the self, that should also enhance schadenfreude. As we outline in the next section, envy creates especially fitting conditions for schadenfreude.

### Envy and interpersonal schadenfreude

Socrates observed in Plato's *Philebus* that envy entails a mixture of pain and pleasure as “the envious man finds something in the misfortunes of his neighbors at which he is pleased” (Plato, trans. 1925, p. 113). Aristotle claimed that “. . . the man who is delighted by others' misfortunes is identical with the man who envies others' prosperity” (Aristotle, 350BC/1954, Book 2, Chapter 9). Indeed, there is a long scholarly tradition linking envy with schadenfreude (e.g., Heider, 1958; Nietzsche, 1880/1911; Portmann, 2000; Schoeck, 1969), and our perspective fits well with these prior claims. As described in the previous section, from a social comparison perspective, threats to the self, regardless of whether envy is also present, set the conditions for schadenfreude—if the advantaged person subsequently suffers a misfortune (e.g., Leach & Spears, 2008; Van Dijk, Ouwerkerk, et al., 2012; Van Dijk, Ouwerkerk, et al., 2011; Van Dijk, Van Koningsbruggen, et al., 2011). When envy is also present, it means that the initial inferiority, by definition, is *especially* acute and painful, and the advantaged person's misfortune is likely to provide all the more palpable, pleasing relief (R. H. Smith, 2013). However, this reversal of fortunes is not the only reason why there is a strong link between envy and schadenfreude.

Another reason why a misfortune befalling an envied person should be pleasing concerns the complex role of justice perceptions in envy (e.g., Miceli & Castelfranchi, 2007; R. H. Smith, 1991; R. H. Smith, Parrott, Ozer, & Moniz, 1994). The envying person often believes that the envied person is undeserving

of his or her advantage (e.g., Heider, 1958; R. H. Smith et al., 1994). Heider (1958) suggested that when another person enjoys an envy-producing advantage, this violates a subjectively felt “ought” force stemming from our belief that similar others *should* have similar outcomes. R. H. Smith (1991) argues that the envied person’s advantage can also be perceived as undeserved, because this advantage is often based on factors that have to do with luck (e.g., ability, looks, inherited wealth) and are beyond the envying person’s capacity to alter. Hill and Buss (2008) suggest that it may be adaptive to construe even “fair” advantages as undeserved, because this will cause the disadvantaged person to do something about the disadvantage. However they arise, the presence of feelings of injustice in at least some instances of envy adds another potent factor in creating conditions for *schadenfreude* if the envied person suffers a setback.

The deservingness of a misfortune, generally, is a common reason why *schadenfreude* arises (Feather, 2006, 2014; Feather & Sherman, 2002; Feather, Wenzel, & McKee, 2013; Pietraszkiewicz, 2013; Van Dijk, Goslinga, & Ouwerkerk, 2008; Van Dijk, Ouwerkerk, & Goslinga, 2009; Van Dijk, Ouwerkerk, Goslinga, & Nieweg, 2005). For example, observers are likely to find misfortunes deserving and therefore pleasing if they are suffered by people who have achieved an advantage unfairly (e.g., Feather & Sherman, 2002) or by people who are seen as responsible for their own misfortune (e.g., Van Dijk et al., 2005). It is only natural that deserved misfortunes will seem fitting and pleasing (e.g., Heider, 1958). Therefore, to the extent that envy also contains a sense that the envied person’s advantage is undeserved (even if this sense lacks validation from others and remains a private grievance—thus a “subjective” sense of injustice; R. H. Smith et al., 1994)—then the envied person’s misfortune should produce *schadenfreude*.

Yet another reason why a misfortune befalling an envied person should be pleasing is that envy often contains hostility. The envying person often dislikes (or comes to dislike through a transmutation of envy; e.g., R. H. Smith, 2004; Sundie, Ward, Beal, Chin, & Geiger-Oneto, 2009), or even hates the envied person, who is often a rival or competitor. Most definitions and scholarly conceptions of envy (e.g., Bonovitz, 2010; Duffy, Shaw, & Schaubroeck, 2008; Foster, 1972; Klein, 1957; Silver & Sabini, 1978; R. H. Smith & Kim, 2007; Vecchio, 2005) include a hostile component. Cultural exemplars of people feeling envy, such as Shakespeare’s Cassius, or Melville’s Sergeant Claggart, not only are hostile but also act on their hostility and harm the person whom they envy. Many stories in the Bible, such as that of Cain and Abel (Schimmel, 1997), also emphasise such hostile, aggressive consequences. The presence of hostility feelings in at least some instances of envy should add another potent factor in creating conditions for *schadenfreude* if the envied person suffers. Generally, there is probably no more straightforward and common sense prediction than expecting that hostile feelings toward other people make it likely that their misfortunes should

also be pleasing—and indeed research supports this general prediction (e.g., Hareli & Weiner, 2002; Van Dijk, Ouwerkerk, Goslinga, Nieweg, & Gallucci, 2006).

There may be further explanations for why an envied person's misfortune should be pleasing, but its social comparison benefits, its perceived deservingness, and its natural links with hostility and dislike are reasons enough. Each factor, *independent* of its presence in envy, predicts schadenfreude. To the extent that each is present in some form in an instance of envy (which most theoretical accounts of envy would claim), a misfortune happening to the envied person should be highly pleasing.

If there are so many sound reasons to link envy with schadenfreude, empirical evidence should be easy to obtain. However, envy is a shameful emotion, so much so that many scholars claim that people feeling envy will not even admit it to themselves, much less to others (e.g., Foster, 1972; R. H. Smith & Kim, 2007). To admit to feeling envy is to admit one's inferiority and, in many instances, one's hostility. Even if the envying person believes that the envied person is undeserving of their advantage, as noted above, it is often a private grievance that receives little sympathy from others (e.g., R. H. Smith et al., 1994). Schadenfreude has its own shame associated with it, because, as noted earlier, social norms encourage sympathy in response to others' suffering. Therefore, both emotions, especially if linked with each other, are likely to be underreported.

For this reason, in our first effort to test the link between envy and schadenfreude we used a procedure that relied on an elaborate cover-story (R. H. Smith et al., 1996). Undergraduate participants at the University of Kentucky ( $N = 114$ ) were led to believe that they would be evaluating a career development video for students applying to medical school. The apparent purpose of the tape, created by an education company, was to help students think through the application process. Participants believed that they would be giving the company feedback on the usefulness of the interview, including an epilogue feature in which viewers were told what actually happened to an applicant interviewed in the video. In order to "control for mood" participants were prompted by the tape to pause it for a few minutes while they completed a mood scale. This contained multiple items, only a few of which measured envy, thus camouflaging our particular interest in envy. Following the pause, the interview continued, and then the epilogue indicated the outcome of the application. In all cases, the epilogue indicated that the student had delayed plans for medical school because he had been caught taking drugs from a lab. Participants then completed another set of questions, several of which assessed pleasure and satisfaction at what had happened to the student. Envy was manipulated by changing the content of the interview such that the student was enviable or average in terms of academic, social, and athletic achievements and ability. Overall, participants reported more schadenfreude in the envy condition than in the average condition. Furthermore, this effect was mediated by envy reported during the pause in the interview. A measure of

dispositional envy, completed as part of a group of individual difference measures before watching the video, also predicted greater schadenfreude, through greater reported envy. Importantly, there was very little evidence that participants were suspicious about the actual purpose of the study, as less than 4% of participants expressed any suspicion during debriefing.

A second study (Brigham, Kelso, Jackson, & Smith, 1997) replicated and extended these findings by adding a manipulation of deservingness. In the initial study (R. H. Smith et al., 1996), the student in the interview was responsible for and thus deserving of his misfortune. It might be that envy only leads to reported schadenfreude when the person suffering also objectively deserves it, thereby making it less obvious that any schadenfreude is inspired by envy. An invidious motive for schadenfreude might be more difficult to hide (and may lose its potency) when the suffering person is innocent and blameless. By contrast, an invidious motive may be catalysed by the knowledge that the misfortune is clearly deserved. In this second study, a similar procedure was used as in the R. H. Smith et al. (1996) study, except that the reason for the student's delay in applying to medical school appeared either deserved or undeserved. For example, in the deserved misfortune condition, the student had been caught in an unlawful extortion scheme; in the undeserved misfortune condition, his father had suffered a financial setback. The results showed that, regardless of the deservingness of the misfortune, participants were more pleased when it was the enviable student, rather than the average student, who suffered. As in the initial study, reported envy mediated this pleasure.

The link between envy and schadenfreude has been replicated by others (e.g., Van Dijk et al., 2006), and, although the neural responses characteristic of envy are complex (e.g., Chester et al., 2013), there is some evidence that such responses are also related to those of schadenfreude in interpersonal (Immordino-Yang, McColl, Damasio, & Damasio, 2009; Takahashi et al., 2009) and intergroup (Cikara & Fiske, 2011) contexts. However, others have failed to replicate the link and also argue on theoretical grounds that it should not exist. Typically, these other perspectives focus on other factors, such as inferiority (Leach & Spears, 2008), dislike/hostility (Hareli & Weiner, 2002), and deservingness (Feather & Nairn, 2005; Feather & Sherman, 2002; Feather et al., 2013), each of which is argued to be a strong predictor of schadenfreude while not being part of envy.

In our subsequent research we have tried to show that each of these three factors, inferiority, dislike/hostility, and deservingness, are often part of envy in some form and, in fact, do help explain why envy predicts schadenfreude as a consequence (of course, we also believe that each of them are independent predictors of schadenfreude as well; for example, one could dislike an evil person and be pleased when this person suffers, and this would have nothing to do with envy). However, the best way we have found to resolve the inconsistency in empirical and theoretical work is by placing the early and



subsequent research on envy and schadenfreude in the context of an important distinction between benign and malicious (or hostile) envy. Early scholarly treatments of envy, though they focused on its hostile nature, often alluded to another, non-hostile form (e.g., Foster, 1972; Parrott, 1991; Silver & Sabini, 1978; R. H. Smith & Kim, 2007). This “benign” form was acknowledged, but probably because it lacked a hostile component it was usually deemed less important to examine. However, recent thinking, and an increasing amount of empirical work, suggests that it is a prevalent form of envy that explains a range of important behaviours (e.g., Belk, 2011; Van de Ven, Zeelenberg, & Pieters, 2009). Also, it turns out that many languages (e.g., Dutch, German, Polish, Russian, Thai, and Turkish), unlike English, have discrete words for benign envy and malicious envy. Even in English, research shows that participants, when asked to describe experience of envy, will about 50% of the time describe a benign experience rather than a hostile one (Van de Ven et al., 2009).

A key difference between benign and malicious envy is how these subtypes of envy motivate the envying person to reduce the invidious discrepancy. Both experiences cause a painful frustration. However, benign envy produces motivation to move oneself up by self-improvement (e.g., Van de Ven, Zeelenberg, & Pieters, 2011a, 2011b) and brings about a greater focus on the desired object or attribute (Crusius & Lange, 2014). By contrast, malicious envy produces a motivation to bring the envied person down (see R. H. Smith & Kim, 2007) and brings about a greater focus on the other person (Crusius & Lange, 2014). Generally, conceiving of envy as two subtypes helps make sense of seemingly inconsistent ways that people think about envy and helps explain why envy sometimes does and sometimes does not predict destructive behaviour. In general, the early studies that demonstrated a link between envy and schadenfreude manipulated and/or measured malicious envy, while those studies that failed to demonstrate a link manipulated and/or measured benign envy (see Van de Ven et al., 2015, for a review).

In several recent studies we have tried to demonstrate more directly the value of this perspective for understanding envy and schadenfreude. In an initial study (Van de Ven et al., 2015), participants recalled and briefly described a situation in which someone was better off in a domain that was important to them and then indicated how much malicious envy (i.e., “I felt a bit maliciously envious of the other”) and how much benign envy (i.e., “I felt benignly envious of the other”) they had felt (0 = *not at all*; 6 = *very much so*). Because the participants were Dutch, we could take advantage of there being separate words for each type of envy, *afgunst* (malicious envy) and *benijden* (benign envy). Using single items, they also reported their perceptions of how deserved the other’s advantage was, how inferior and angry they felt, and how much they disliked the other person. Next, they were asked to imagine that the person they had just described would suffer a minor misfortune (such as, “the person stumbles clumsily in a busy street



for everyone to see, spills wine over his or her trousers at a fancy party, etc.”) and then to report their anticipated *schadenfreude* (using three items: e.g., “I would have been pleased by the little misfortune that happened to him/her”; 0 = *not at all*; 6 = *very much so*). As expected, many of the variables were correlated with each other. For example, perceived undeservedness of the advantage was correlated with malicious envy, *schadenfreude*, dislike, and anger. However, the key finding was that malicious envy was positively correlated with *schadenfreude*, whereas benign envy was not. A regression analysis including all of the variables entered as predictors of *schadenfreude* revealed effects for malicious envy (but not for benign envy) as well as for deservingness, dislike, and anger (but not for inferiority, see Table 4).

A second study (Van de Ven et al., 2015) tested whether the results of the initial study generalised to English-speaking participants (recruited via Amazon Mechanical Turk;  $N = 180$ ). In English a single word, envy, refers to both its malicious and its benign forms. After participants recalled an envy-producing situation, we explained that envy can take the form of two subtypes and asked them to indicate which type they had experienced, expecting that greater reports of malicious envy would predict greater *schadenfreude*. We also included a deservingness manipulation, which was designed, in part, to create malicious envy. As noted above, the nature of justice concerns in envy is complex (e.g., Feather & Sherman, 2002; Miceli & Castelfranchi, 2007; R. H. Smith & Kim, 2007), but there is some evidence that undeserved advantages, in addition to creating resentment (Feather & McKee, 2009; Feather, McKee, & Bekker, 2011; Van de Ven, Zeelenberg, & Pieters, 2012), are also more likely to produce malicious envy. Thus, participants were asked to recall a situation in which someone was better off for either deserved or undeserved reasons. We expected this manipulation to produce greater resentment as well as greater malicious envy and *schadenfreude*, and, furthermore, that malicious envy would mediate the effect of deservingness on *schadenfreude*.

As expected, participants who recalled an undeserved advantage perceived it as less deserved than did those in the deserved condition and, importantly, also felt relatively more of the malicious type of envy (as well as more anger, more dislike, and less inferiority). Moreover, *schadenfreude* was more intense when the other's advantage was undeserved than when it was deserved. A regression analysis showed a clear effect for type of envy. The more participants reported feeling the malicious type of envy, the more *schadenfreude* they reported. Anger was the only other significant predictor. We tested whether the effect of the deservingness manipulation on *schadenfreude* was mediated by deservingness, envy type, anger, dislike, and inferiority. When including all the variables, only anger and the type of envy mediated the effect. As in Study 1, and as expected given our theoretical perspective on malicious envy and benign envy, many of the variables were correlated with each other. However, it is important to emphasise that malicious envy mediated the effect of deservingness on

TABLE 4  
Multiple regression analyses of the effects of predictors on schadenfreude in Van de Ven et al. (2015; Studies 1 to 3)

Variable	Study 1—Sample A		Study 1—Sample B		Study 2		Study 3		
	$\beta$	$t(131)$	p	$\beta$	$t(142)$	p	$\beta$	$t(334)$	p
Deservedness	<b>-0.20</b>	2.68	.008	<b>-0.16</b>	2.46	.015	-0.06	0.73	.468
Dislike	<b>0.35</b>	3.58	<.001	<b>0.24</b>	2.83	.005	0.10	1.14	.255
Inferiority	-0.05	0.60	.550	0.05	0.76	.446	-0.09	1.41	.159
Anger	0.07	0.71	.478	<b>0.25</b>	3.02	.003	<b>0.43</b>	4.44	<.001
Benign envy	-0.07	0.82	.413	0.11	1.50	.136	—	—	—
Malicious envy	<b>0.23</b>	2.74	.007	<b>0.21</b>	2.72	.007	—	—	—
Envy type (B-M)	—			—			<b>0.16</b>	2.58	.011

Regression coefficients in bold are significant. Envy type was measured with the Dutch words for malicious and benign envy in Studies 1a and 1b. In Studies 2 and 3, U.S.-based participants indicated which type they had experienced on a unidimensional scale in Study 2 (with benign envy on the low end of the scale and malicious envy on the high end) and on two separate questions in Study 3. Regression analyses were conducted with several other variables included: importance (all studies), general envy (Studies 2 and 3), admiration (Study 3), and sympathy (Study 3); of the variables only sympathy had a significant regression coefficient ( $\beta = 0.14, p < .05$ ).  $N_{\text{Sample A}} = 139$ ,  $N_{\text{Sample B}} = 150$ ,  $N_{\text{Study 2}} = 180$ ,  $N_{\text{Study 3}} = 349$ .

schadenfreude and predicted schadenfreude in the regression analysis, controlling for the other variables.

In a final study (Hoogland, Van de Ven, et al., 2015), we tried to address the close conceptual overlap of some of these variables by manipulating them separately within the same study. In addition, as in our much earlier studies, we used a procedure that minimised suspicion. A cover story claimed that the purpose of the study was to examine reactions to media, and that various factors were being “controlled for” (thus providing an apparent justification for various measures and aspects of the procedure). We first manipulated initial inferiority by having participants appear either to succeed or to fail on a test of creative intelligence. Participants self-scored easy or difficult items taken from the Remote Associates Test (McFarlin & Blascovich, 1984) and were led to believe that they had done very well or very poorly relative to others. They then completed a “control mood scale”, containing items assessing feelings of inferiority. Next, we manipulated envy by having participants read one of two versions of an interview with a gender-matched student. The interview appeared to have been taken from an online university newspaper and contained information constructed so that the interviewed student was either of average (low envy condition) or superior (high envy condition) attractiveness, social life, academic achievement, and financial means. However, we avoided suggesting that the high-achieving student was undeserving of his or her success or was dislikeable; however, as noted below, the student was in fact perceived as less likeable in the superior condition than in the average condition (we did not include a measure of perceived deservingness of the advantage). Our purpose was to create strong, general envy that might create resentment and dislike more closely associated with malicious envy, rather than through objectively unfair actions taken by the student or dislikeable behaviours per se.

The manipulation of envy was followed by a second mood questionnaire, containing multi-item measures of malicious envy, inferiority, and dislike. Participants next read a second article containing three short news items. The final one detailed a case of identity theft suffered by the student who had been the focus of the interview. The cause given for this theft served as a manipulation of the deservingness of the misfortune; the student suffered either an undeserved misfortune (his or her wallet/pocket book had been stolen from a locked room) or a deserved misfortune (the wallet/pocketbook had been stolen at a party in which he or she admitted being drunk and careless). Note that we chose to focus on the deservingness of the misfortune (i.e., responsibility for it) rather than the deservingness of the initial advantage. Finally, we assessed perceptions of the deservingness of the misfortune and schadenfreude.

All three manipulations were successful in creating inferiority, malicious envy, and perceptions of deservingness of the misfortune, respectively. In addition, the manipulation of envy created greater feelings of inferiority and dislike. The manipulation of envy also had a strong effect on schadenfreude, as did the

manipulation of the deservingness of the misfortune. However, the initial manipulation of inferiority had no effect on schadenfreude (perhaps because its effect dissipated). Planned comparisons showed that envy bolstered schadenfreude in reaction to both deserved and undeserved misfortunes (replicating an earlier study by Brigham et al., 1997). Mediation analysis showed that the effect of the envy manipulation on schadenfreude was significantly mediated by malicious envy and dislike toward the student. As expected, the effect of the deservingness manipulation was mediated only by perceptions of the student's responsibility for the misfortune.

In sum, across these studies we found that envy, when manipulated and measured in a way that reflects malicious envy, elicits greater schadenfreude. We found that this effect holds even when feelings of inferiority, perceptions of deservingness of the misfortune, and disliking of the envied person are taken into account.

## SCHADENFREUDE IN INTERGROUP RELATIONS

In the previous section we described our research programmes on schadenfreude in interpersonal relations, based on the underlying assumption that schadenfreude is evoked in response to another's misfortune when this misfortune is appraised as congruent with an individual's concerns—more specifically, when another's misfortune is appraised as an opportunity for self-enhancement or to remove the basis for painful feelings of envy. However, according to intergroup emotion theory (Mackie, Devos, & Smith, 2000; Mackie, Silver, & Smith, 2004), appraisals of whether an event may benefit or harm the concerns of one's group may also elicit specific emotions, when one's social rather than personal identity is salient. That is, when a group becomes part of the collective self, one may experience emotions on behalf of that group.

Accordingly, studies show that schadenfreude is readily evoked in intergroup relations, even if the event concerns the tragic death of thousands of people. For example, Wang and Roberts (2006) analysed texts from postings on the Beijing University bulletin board and observed that many Chinese citizens expressed schadenfreude over the suffering inflicted on Americans with the September 11th attacks. Moreover, it has been suggested that, because of a dominant in-group-favouring norm operating in intergroup relations that compels group members to protect the interests of the in-group before considering the interests of others (e.g., Wildschut, Insko, & Gaertner, 2002), intergroup relations may provide a special breeding ground for schadenfreude (Ouwkerk & Van Dijk, 2014). This raises the question whether self-enhancement and eliminating painful feelings of envy also play an important role in the experience of schadenfreude in intergroup relations. To address this question, we describe relevant studies from our research programmes on schadenfreude in intergroup relations.

## Self-evaluation and intergroup schadenfreude

In the introduction we noted that striving for a positive self-evaluation is not restricted to people's individual self-evaluation, because people also strive for a positive *collective* self-evaluation or social identity (Tajfel, 1978; Tajfel & Turner, 1979). Moreover, as is the case in interpersonal relations, social comparison benefits are crucial for achieving, maintaining, and protecting a positive social identity. The social comparison benefits produced by the misfortune of an out-group may thus be appraised as motivationally congruent as they provide an opportunity to enhance the collective self and consequently evoke *intergroup* schadenfreude. However, according to intergroup emotion theory (Mackie et al., 2000, 2004), people's strength of social identification with an in-group is crucial for eliciting intergroup emotions, because stronger identification makes intergroup comparisons more relevant to the collective self. Based on a self-enhancement perspective, we therefore predict that people's strength of social identification with an in-group should be an important determinant of schadenfreude about the misfortune of an out-group.

Accordingly, research by Combs, Powell, Schurtz, and Smith (2009) has demonstrated that people's strength of identification influences schadenfreude reactions to an out-group's misfortune. For example, in one of their studies they showed that in the run-up to the 2006 midterm elections, Democrats reported more schadenfreude over American troop deaths in Iraq during the Bush administration (presumably increasing their chances for changing the status quo) than did Republicans. However, consistent with intergroup emotion theory, this effect was obtained only for people who identified strongly with their party—thereby making intergroup comparisons more relevant to the collective self. In a similar vein, Hoogland, Schurtz, et al. (2014) demonstrated that college basketball fans' identification with their team predicted greater schadenfreude in response to reading about a rival player's injury. Moreover, fans' schadenfreude, in turn, predicted greater disappointment in response to news that the injury was not serious. However, based on a self-enhancement perspective, stronger social identification with one's in-group may not be the only factor that evokes schadenfreude about the misfortune of an out-group. Leach, Spears, Branscombe, and Doosje (2003) identified another important determinant of out-group schadenfreude. Based on social identity theory, they argued that schadenfreude should be greatest when an out-group suffers a misfortune in a domain of interest to in-group members—thereby making intergroup comparisons more relevant to the collective self. In the context of the Dutch–German football rivalry, they demonstrated that Dutch people experienced more schadenfreude following the defeat of the German national team when they were more interested in international football (the domain of the out-group's misfortune).

It should be noted that although Leach et al. (2003) also included a measure of participants' strength of in-group identification (i.e., identification with the

Dutch) as a covariate in their research, they failed to obtain a significant main effect of in-group identification on schadenfreude. We argue that a possible reason for this lack of effect may have been that domain interest moderates the effect of in-group identification on schadenfreude. That is, we suggest that people's strength of in-group identification and their domain interest interactively predict schadenfreude about an out-group's misfortune. More specifically, based on a self-enhancement perspective, we predict that stronger in-group identification will only increase schadenfreude over an out-group misfortune when this misfortune occurs in a domain of interest to in-group members. Support for this hypothesis was obtained in two studies (Ouwerkerk, Van Dijk, Vonkeman, & Spears, 2015).

In a first study, voters' schadenfreude reactions were measured in a survey immediately following the fall of a Dutch coalition government. In this survey we also assessed whether respondents ( $N = 503$  students from seven different Dutch universities and a wide range of disciplines, 283 female) had voted for a party from the (fallen) coalition government in the previous elections or a for an opposition party, their strength of in-group identification with this party, and their domain interest (i.e., interest in politics). Respondents who had voted for an opposition party (i.e., when the misfortune was suffered by the out-group) reported more schadenfreude than those who voted for a coalition party (i.e., when the misfortune was suffered by the in-group). More relevant to our present discussion, among those who voted for an opposition party, political interest and in-group identification interactively predicted their schadenfreude. More specifically, as predicted, stronger identification with the in-group increased schadenfreude about the out-group's misfortune when interest in politics was high, whereas no such effect was obtained when interest in politics was low. Moreover, this interaction effect was not obtained when the fall of the government represented an in-group misfortune (i.e., among those who had voted for a coalition party in the previous elections).

In a second study, we used an intergroup consumer context to investigate the combined impact of in-group identification and domain interest on schadenfreude. Additionally, we looked at the possible role of affective dispositions towards the out-group (i.e., hostile feelings) in evoking schadenfreude. More specifically, following reports of intense rivalry between young BlackBerry users and Apple iPhone users, we distributed a survey among students ( $N = 203$ , 112 female) on campuses who were seen carrying a BlackBerry phone. After assessing their in-group identification (as a BlackBerry user), domain interest, and affective dispositions towards the out-group, we presented respondents with fictitious, negative news reports about Apple's iPhone and subsequently measured schadenfreude. The results demonstrated again that in-group identification increased schadenfreude in reaction to the negative news about the out-group's misfortune, provided that this misfortune occurred in a domain of interest (i.e., when interest in smartphones was high). Moreover, the results suggested that

schadenfreude, in turn, strengthened subsequent intentions to share news about the out-group's misfortune with others or to engage in negative word-of-mouth communication.

Taken together, the results of these two studies show that, consistent with a self-enhancement perspective, stronger in-group identification only increases schadenfreude about an out-group's misfortune when this misfortune occurs in a domain of interest to in-group members. Additional findings in the second study point to a possible independent role of malicious, envious feelings in evoking schadenfreude in intergroup relations. That is, even when controlling for the described effects of in-group identification and domain interest, we obtained a strong effect of hostile feelings towards the out-group on both schadenfreude and negative word-of-mouth communication. Next we discuss relevant studies on the possible link between envy and schadenfreude in intergroup relations.

### Envy and intergroup schadenfreude

As noted earlier, people can experience emotions on behalf of their group. Envy is no exception (Cikara & Fiske, 2013; Harris, Cikara, & Fiske, 2008; R. H. Smith & Kim, 2007). As we have discussed, envy requires an upward social comparison, so groups that have higher status than one's own group are likely targets of envy. Note, however, that upward comparisons towards *cooperative* groups are likely to result in assimilative emotions such as pride and inspiration (R. H. Smith, 2000). How do we predict which groups will elicit specifically *contrastive*, upward social comparisons?

According to the stereotype content model (SCM), two fundamental questions arise in intergroup contexts: Is this group "friend" or "foe", and do they have the capacity to harm me and my group (Fiske, Cuddy, & Glick, 2007)? The perception of an incompatibility between in-group and out-group goals (Fiske & Ruscher, 1993) drives attributions of competitiveness to out-groups, marking them as foes. (We use "competitive" here as shorthand for any target whose interests people perceive as not aligned with their own.) When targets are perceived as competitive *and* high status, they become threatening because they are perceived as capable of enacting their presumably bad intentions.

More specifically for our purposes, competitive, high-status targets can also trigger painful upward social comparisons. Social comparisons between such targets and oneself appear to unfold automatically, outside of our control (Dunning & Hayes, 1996; Holyoak & Gordon, 1983; Srull & Gaelick, 1983; Wedell, 1994). Therefore, merely encountering a successful, competitive out-group can *imply* one's comparative inferiority resulting in envious prejudice.

Examples of envied social groups include rival sports teams and investment bankers (i.e., groups that are explicitly competitive with "us"), as well as Jews, Asians, and professional women (i.e., groups that are merely stereotyped as



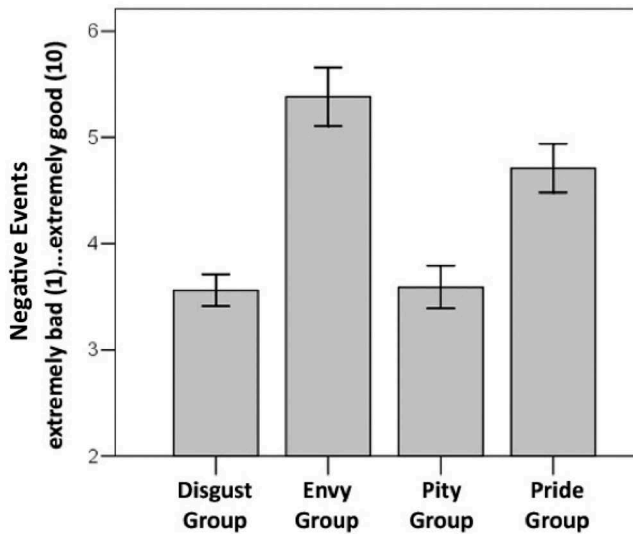
competitive). Thus, people harbour envious prejudices toward groups that actually are competitive and high status (Cikara, Bruneau, Van Bavel, & Saxe, 2014), but also groups that are merely stereotyped as competitive and high status. This begs the question: Is overt competition required to elicit intergroup schadenfreude when out-groups suffer a misfortune, or are envy-evoking competitive, high-status stereotypes sufficient?

We investigated this question in two studies (Cikara & Fiske, 2012, 2014). In a first study, we presented participants ( $N = 103$  participants recruited via Amazon's Mechanical Turk, 55 female) with images of people from groups belonging to each of the four quadrants predicted by the SCM (i.e., pride, pity, disgust, and most critically, envy). For example, pride images included students and public servants (e.g., firefighters), pity images included disabled and elderly people, disgust images included homeless people and drug addicts, and envy targets included men and women in suits and expensive coats. Images were unlabelled and pre-tested to ensure that the targets elicited the predicted warmth and competence ratings. On each trial, one image was paired with positive, neutral, or negative event descriptions. The events were also pre-tested to ensure that raters perceived them as significantly more positive and negative than the midpoint of the scale. Examples included, "found a sentimental possession he thought he had lost", and "sat in gum on a park bench". After each trial, participants were asked, "if you observed this event happening to this person in real life, it would make you feel . . ." 1 (*extremely bad*) to 10 (*extremely good*).

As predicted, positive events made participants feel least positive when they happened to envied targets (though the difference between envy and disgust targets was not significant). More importantly, participants reported that they felt least bad about negative events when they happened to envied targets relative to the other targets. Note, however that participants did not report feeling *good* (i.e., schadenfreude) about negative events when they befell envy targets; instead they reported feeling neutral when negative events happened to envied targets ( $M = 5.38$ ,  $SD = 1.23$ ; midpoint of the scale was 5.5). See Figure 3 for a summary of these results.

Study 2 ( $N = 20$  university students, 9 female) replicated Study 1, except this time we made three changes. First, in this study we also recorded participants' cheek muscle engagement via facial electromyography (EMG). Furthermore, after each image–event pair, participants reported separately how good and how bad the event made them feel. We asked both questions after each trial in order to allow for ambivalent responding; mixed affective reactions cannot be reported on a bipolar scale because they average out to "neutral". Third, at the end of the study we had participants rate all of the targets on warmth and competence to make sure that their stereotype content ratings conformed to the predictions made by the SCM; in short, they did. Thus, these particular participants had the same knowledge of society's view of these groups' warmth and



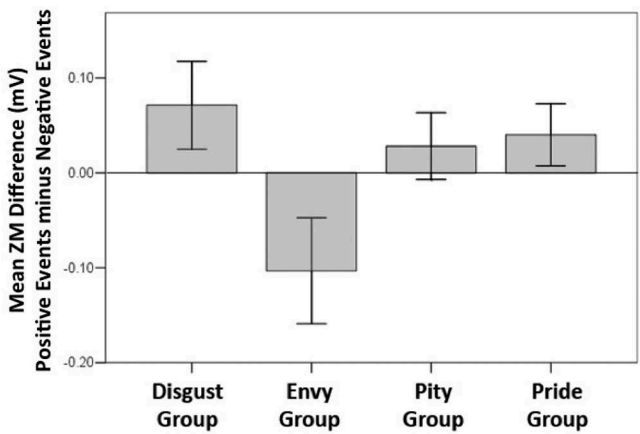


**Figure 3.** Participants' self-reported affect in response to negative events befalling targets associated with each of the stereotype content model (SCM) quadrants.

competence (i.e., stereotype content) as the thousands of participants who generated and rated the groups in the early SCM research (e.g., Fiske et al., 2002).

As in the previous study, participants felt least bad about negative events and least good about positive events when they befell envied targets, relative to all the other targets; however, participants did not report significantly greater *schadenfreude* (i.e., feeling good in response to negative events) for envied versus other targets.

Thus, the self-report data replicated the findings of the first study; however, the EMG data exhibited a different pattern. Envied targets elicited a greater cheek muscle (*zygomaticus major*; ZM) response when paired with negative than when paired with positive events, whereas all other targets elicited the opposite pattern (i.e., more smiling in response to positive than in response to negative events; see Figure 4 for a summary of these results). In other words, participants smiled more when negative events befell stereotypically envied targets than all other targets, though they did not explicitly report feeling greater pleasure. Note that we did not observe a correlation between cheek muscle engagement and self-reported affect in response to positive or negative events for any of the SCM targets. These EMG findings are particularly important for stereotype-driven *schadenfreude* research because they indicated the presence of positive (and not just the absence of negative) affect in response to envied targets' misfortunes. Thus, in the absence of any interaction or overt competition, mere knowledge of a group's stereotype is sufficient to induce intergroup *schadenfreude*.



**Figure 4.** Zygomaticus major (ZM) response during positive events minus ZM response during negative events—only envy targets elicited more ZM response during negative than during positive events.

Additional support for the role of group-based envy in intergroup schadenfreude was found in a neuroimaging study that we conducted among highly identified baseball fans—of the Boston Red Sox and New York Yankees. These fans reported pleasure and exhibited activity in reward-related brain regions (e.g., ventral striatum) when watching their own teams score but also when watching their rivals fail to score, even against a third, less competitive team, the Baltimore Orioles (Cikara, Botvinick, & Fiske, 2011). Moreover, participants reported envying their rivals more than the Orioles (Cikara & Fiske, 2013). These findings replicated in another neuroimaging study from another lab in which rival fans—people who are merely affiliated with the rival team—were subjected to *physical pain*. Specifically, soccer fans exhibited activity in ventral striatum in response to seeing a symbol indicating that a rival team fan was experiencing a painful electric shock (Hein, Silani, Preuschoff, Batson, & Singer, 2010).

CONCLUSIONS, DIRECTIONS FOR FUTURE RESEARCH, AND CONCLUDING REMARKS

Conclusions

In this article we addressed the questions of *when* and *why* people enjoy the suffering of others. Findings of our own research programmes showed that (1) schadenfreude is intensified when people experience a chronic or acute threat to their feelings of self-worth, and attenuated when they experience a boost to their self-evaluation; (2) malicious envy, but not benign envy, intensifies pleasure at the misfortunes of others; (3) these emotional responses manifest in intergroup

contexts via the same mechanisms; and (4) mere stereotypes (i.e., knowledge of warmth and competence associated with various social groups), in the absence of any interaction or overt competition, are sufficient to elicit *schadenfreude*. These findings indicate that both self-enhancement and envy are important factors in the experience of *schadenfreude*. First, the misfortunes of others can satisfy people's motivation to evaluate themselves positively. That is, another person's misfortune can be pleasing because it provides the person feeling *schadenfreude*, via social comparison, with a clear opportunity for self-enhancement. Second, the misfortunes of others can provide solace from the painful experience of envy. That is, a misfortune suffered by an envied other or group removes the very basis of envy and therefore can be pleasing. Thus, people can stand to gain psychologically from other person's misfortunes, thereby making *schadenfreude* a less atypical kind of joy than it may initially seem to be. Pleasure is a natural reaction to personal gain, even if it entails the misfortunes of others.

Self-enhancement and envy share motives for *schadenfreude*, at least to a degree. Our research has shown that *schadenfreude* is more intense when people have a stronger motivation for self-enhancement. As noted above, being confronted with an envied other (who may be a rival other or a rival group) can pose a self-evaluation threat, and therefore a misfortune suffered by the envied other might be especially pleasing. Moreover, part of the pleasure arising from an envied other's misfortune is derived from uplifting comparison benefits that provide opportunities for self-enhancement. Envy entails not only a focus on the implications for self-evaluation, in response to an upward social comparison, but also a focus on the advantaged other or group (which helps to account for the frequent hostility and sense of injustice). We therefore argue that self-enhancement and envy are related, but distinct, motives for *schadenfreude*. What these motives share is that they appeal to people's important concerns. If people appraise the sufferings of others as satisfying an important concern and thereby as motivationally congruent, these misfortunes should be pleasing.

## Directions for future research

### *Quantifying felt and expressed schadenfreude*

Researchers are incorporating a variety of methods to quantify experienced and expressed *schadenfreude*. For example, we have already noted the engagement of reward-related brain regions (i.e., ventral striatum) when witnessing out-group members' errors and pain. These results are consistent with findings from functional magnetic resonance imaging (fMRI) studies of *interpersonal* *schadenfreude*. Singer et al. (2006) found that for male participants, seeing the pain of a cooperative confederate activated neural networks associated with first-hand experience of pain. However, seeing the pain of a *competitive* confederate activated the ventral striatum. Ventral striatum activation correlated with an

expressed desire for revenge. In another study, participants read information concerning hypothetical targets, one of which was superior in a domain meaningful to participants (Takahashi et al., 2009). Participants reported more envy and demonstrated more activation in anterior cingulate cortex (ACC) in response to the superior, self-relevant target than in response to less threatening targets. In the second phase of the study, participants were told that the same targets experienced a variety of misfortunes. When the superior, self-relevant target suffered a misfortune, participants reported greater schadenfreude and demonstrated more activation in the ventral striatum. ACC activation in the first phase of the study was correlated with ventral striatum activation in the second phase.

An interesting issue to examine is whether schadenfreude is expressed in ways that are different from other types of joy. Although more research is needed, several studies have already shed some light on this issue. For example, a study by Boecker, Likowski, Pauli, and Weyers (2015) investigated whether the facial expression of schadenfreude could be differentiated from that of joy. German participants watched videos of unsuccessful penalty shots of Dutch soccer players (schadenfreude condition; the Dutch soccer team is seen as a rival of the German team) and successful penalty shots of German soccer players (joy condition). While participants were watching the videos the activity of four of their facial muscles was recorded with EMG. Results showed that the expression of schadenfreude did not differ from that of joy. In both conditions there was increased activity of the “smile” muscles (zygomaticus major and orbicularis oculi) and decreased activity of the “frown” muscle (corrugator supercilii). Facial reactions developed quickly in both the schadenfreude and the joy conditions, but the EMG results indicated stronger reactions in the schadenfreude condition. Future research could examine whether the stronger reactions for schadenfreude generalise to contexts other than soccer. For now there is no evidence that schadenfreude differs from joy with regard to facial muscle activity.

In addition to studying facial expressions of schadenfreude, examining the vocal expression of schadenfreude might be another interesting area for future research. In one study (Szameitat et al., 2009), participants were asked to appraise four types of laughter sounds (joy, tickling, taunting, schadenfreude) either by classifying the laughter according to the underlying emotion or by rating them according to different emotional dimensions (arousal, dominance, valence of the sender, valence of the receiver). Results showed that participants were able to identify schadenfreude laughter with above-chance accuracy (although the recognition rate for schadenfreude was lower than for the other three types of laughter). Furthermore, results showed that schadenfreude laughter was rated as having heightened arousal, having a positive sender’s valence, and being dominant; interestingly, schadenfreude laughter was not associated with a negative receiver’s valence. According to the authors, the findings suggest that schadenfreude laughter might represent “a precise (and socially tolerated) tool to dominate the listener without concurrently segregating him from group context” (Szameitat et al., 2009, p. 403).

### *Assessing the interpersonal function of schadenfreude*

The communication of emotions is an important factor in social interaction. For example, emotional expressions trigger inferential processes and affective reactions in observers and thereby affect their behaviour (Van Kleef, 2009). More generally, the communication of emotions informs others about the motivational and intentional state of the sender and thereby influences the behaviour of the receivers (Juslin & Laukka, 2003; Szameitat et al., 2009). One interesting avenue for future research concerns the communicative function of schadenfreude. In our own research we have already shown that the experience of schadenfreude can lead to negative word-of-mouth (i.e., passing of negative information to others by oral communication) in an intergroup consumer context (Ouwerkerk et al., 2015), indicating that by sharing news about other's misfortune, people may want to relive their enjoyment (i.e., their schadenfreude). In a similar vein, Sundie et al. (2009) demonstrated that schadenfreude in response to the failure of a high-status brand led participants to say unflattering things about the brand to others. Future studies could examine whether such sharing of schadenfreude experiences strengthens social bonds with in-group members or excludes certain individuals from the group.

### *Going beyond the passive experience of schadenfreude*

In our research programmes we have generally confronted people with situations in which others suffer a misfortune and investigated factors that influence the likelihood that schadenfreude is evoked. An important question to be addressed is when people are motivated to *actively seek* situations in which to experience schadenfreude. For example, a study by Ouwerkerk and Johnson (2015) demonstrates that people who are characterised by strong antisocial motives for connecting to other users on social network sites (i.e., motives related to others being a target for downward comparison, competition, and gossip) do not only experience more schadenfreude towards a high-school acquaintance who suffers a setback (i.e., a downward comparison target), but are also more likely to accept a hypothetical Facebook friendship request from this unfortunate other, thereby providing a convenient source for self-enhancement and schadenfreude in the future. A related question is whether schadenfreude, despite its passive and opportunistic nature, has behavioural consequences. For example, does it foment intergroup conflict? Feeling empathy for those who are suffering drives helping behaviour, even at personal cost; feeling nothing fosters neglect; feeling schadenfreude, on the other hand, is associated with a willingness to harm out-groups and affiliated individuals (Cikara, 2015; Cikara, Bruneau, & Saxe, 2011). For example, in the baseball and soccer studies described earlier, activity in the ventral striatum in response to rival sports teams' suffering predicted an increased willingness to harm (e.g., heckle, insult, hit; Cikara, Botvinick, et al., 2011). It is possible that when schadenfreude appears to be an acceptable response to the

suffering of others, whether they are in-group or out-group members, the emotion signals that active harm is now permissible (R. H. Smith, 2013; Spears & Leach, 2008). This logic extends to more subtle social contexts. In a hypothetical scenario in which participants could administer electric shocks to one target in order to spare another four, participants said it was most acceptable to harm envied groups whose stereotypes include high status and competitiveness (e.g., wealthy women, businessmen; Cikara & Fiske, 2011).

## CONCLUDING REMARKS

People usually regard pleasure at the misfortunes of others with ambivalence. On the one hand, they condemn schadenfreude, as reflected by the fact that many languages have sayings that emphasise the negative moral connotation of this emotion. On the other hand, people admit, albeit uneasily and reluctantly, that sometimes they “can’t resist a little smile” if a misfortune happens to another person. In fact, many languages also have sayings that stress the pleasure in schadenfreude; for example, there is a Japanese adage *Hito-no-fukou-wa-mitsu no aji* (“The misfortunes of others taste like honey”, Masato Sawada, personal communication, October 7, 2012). The Korean expression for schadenfreude, *gosohada* (“to smell or taste sesame oil” as part of a savoured, cooked dish) also stresses the pleasure—as well as taste (Sung Hee Kim, personal communication, March 15, 2012). Interestingly, earlier definitions in the *Oxford English Dictionary* explicitly associated schadenfreude with malice (“Malicious enjoyment of the misfortunes of other”), whereas in its most recent definition (“Pleasure derived by someone from another person’s misfortune”, *Oxford Dictionaries Online*), this explicit association with malice has disappeared.

How can one determine whether schadenfreude is either good or bad, whether it suggests a moral defect or simply the way of the world? Research might examine at least two factors: the underlying motive for experiencing schadenfreude, and schadenfreude’s social implications (Fischer, 2014; Van Dijk & Ouwerkerk, 2014a). First, one could argue that whether or not schadenfreude should be regarded as a vice depends upon the underlying motive for its experience (Moers, 1930; Van Dijk & Ouwerkerk, 2014a). Moers (1930) distinguished between *echte* (genuine) schadenfreude (for instance when schadenfreude is evoked by hatred or malicious envy), which she regarded as reprehensible, and *unechte* schadenfreude (for instance when schadenfreude is a reaction to a just situation), which she regarded as not necessarily reprehensible. Her argument is that the moral acceptability depends on the underlying motive for feeling pleasure at the misfortunes of others. If another person’s suffering is the core or essence of people’s pleasure, schadenfreude is morally unacceptable; if it is not, schadenfreude is not necessarily morally unacceptable.

Second, one could argue that whether schadenfreude is good or bad depends on its social implications. Our own research in the domain of

intergroup schadenfreude suggests a direction that future research could take. On the face of it, intergroup schadenfreude is a mundane emotional response triggered by the misfortunes of overtly or implicitly competitive groups. Although it appears benign in and of itself, schadenfreude can be pernicious by virtue of its relationship to intergroup aggression, as exemplified by participants' willingness to harm out-groups and affiliated individuals in the study using highly identified fans (Cikara, Botvinick, et al., 2011). In the Combs et al. (2009) study, Democrats reported feeling significantly more schadenfreude than Republicans in response to articles describing the Republican Party's role in the economic downturn and even the death of American troops overseas (although Democrats and Republicans otherwise expressed equivalent general negative affect). Thus, schadenfreude appears to be a natural response in competitive interpersonal and intergroup contexts; however, when it either is associated with or leads to aggression, its morality is dubious. Clearly, research that allows us to understand schadenfreude better will help guide strategies that successfully defuse it, thereby preventing the aggressive behaviour that schadenfreude can promote.

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