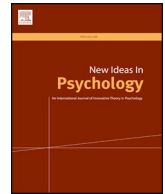




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## Schadenfreude deconstructed and reconstructed: A tripartite motivational model

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## ABSTRACT

Schadenfreude is the distinctive pleasure people derive from others' misfortune. Research over the past three decades points to the multifaceted nature of Schadenfreude rooted in humans' concerns for social justice, self-evaluation, and social identity. Less is known, however, regarding how the differing facets of Schadenfreude are interrelated and take shape in response to these concerns. To address these questions, we review extant theories in social psychology and draw upon evidence from developmental, personality, and clinical research literature to propose a novel, tripartite, taxonomy of Schadenfreude embedded in a motivational model. Our model posits that Schadenfreude comprises three separable but interrelated subforms (aggression, rivalry, and justice), which display different developmental trajectories and personality correlates. This model further posits that dehumanization plays a central role in both eliciting Schadenfreude and integrating its various facets. In closing, we point to fruitful directions for future research motivated by this novel account of Schadenfreude.

The word “Schadenfreude,” which literally means “harm joy” in German, refers to the uncanny yet widely shared experience of pleasure or delight in the misfortune of others (Heider, 1958; Schadenfreude, n.d.). Despite the word's German origin, Schadenfreude is pervasive across many cultures (Feather, 2012), even those, such as U.S. culture, that do not possess a formal term for it (Feather, 1989; Nachman, 1986).

Among philosophers, the debate over the moral nature of Schadenfreude has lasted at least since the time of the ancient Greeks. Some scholars have condemned Schadenfreude as a malicious emotion (Aristotle, 350 BEC/1941; Heider, 1958; Schopenhauer, 1892), whereas others perceived it as morally neutral or even virtuous (Nietzsche, 1887/1908; Portmann, 2000). Still, others judged Schadenfreude based on the severity of misfortune and the role of the Schadenfroh (i.e., an individual who experiences Schadenfreude; McNamee, 2003) in causing the misfortune (Ben-Ze'ev, 1992).

Although this philosophical debate is far from settled, it alludes to the different facets of Schadenfreude, which vary not only in their moral values but also in their potential causes. Social psychologists in the past three decades have provided helpful insights into Schadenfreude by highlighting and elucidating its separable facets. In this article, we first briefly review this literature and then draw from both developmental and individual differences approaches to address how the multiple facets of Schadenfreude take shape and how they are

related. In doing so, we propose a novel, tripartite, conception of Schadenfreude embedded in a motivational model that should have considerable heuristic value in future theory and research on this complex and poorly understood emotion.

### 1. Theories of Schadenfreude in social psychology

Our review of the extant theoretical approaches to Schadenfreude focuses on presenting the gist of each while pointing to its potential limitations. On this basis, we seek to organize this complex body of literature on Schadenfreude and related domains by proposing a novel taxonomy of Schadenfreude. For interested readers, van Dijk and Ouwerkerk (2014) provide more detailed overviews for each of the following theories.

#### 1.1. Deservingness theory of Schadenfreude

About three decades ago, Feather conducted the first laboratory study on Schadenfreude, examining people's affective responses when high-status individuals fall from grace. Corroborating the common belief that people may sometimes derive pleasure when societally successful individuals are cut down to size, Feather (1989) found that participants tended to experience greater delight in the misfortune of a high achiever and perceived him/her to be more deserving of the

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misfortune than an average achiever, a tendency sometimes known as the “tall poppy” syndrome.

Research on the tall poppy syndrome led Feather to focus mainly on perceived deservingness as a major, if not the only, variable to account for Schadenfreude. Feather construed Schadenfreude as a justice-based emotion and proposed that individuals who believe that one's negative outcomes are deserved would experience delight when this person gets his/her just deserts. Based on Heider's (1958) principle of balance, Feather (1989) argued that whether an outcome is perceived as deserved depends on the action that produces it. An outcome may be perceived as deserved when the outcome and the action are consistent or balanced (e.g., a positive outcome follows a positive action), but undeserved when the action is inconsistent or unbalanced. In addition, Feather maintained that liking/disliking, intergroup relations, and self-evaluation also play key roles in evaluating the deservingness of a positive or negative outcome related to either the self or others. In a series of studies (Feather, 2008; Feather & Nairn, 2005; Feather & Sherman, 2002), he and his colleagues systematically manipulated these variables to examine their impact on perceived deservingness and participants' affective responses to the misfortune of others. The findings consistently supported a link between perceived deservingness and Schadenfreude.

Despite Feather's success in linking perceived deservingness to Schadenfreude, his theory is marked by a number of limitations. One of the major limitations concerns the direction of relations between perceived deservingness and Schadenfreude. Instead of perceived deservingness causing one to derive pleasure from others' misfortune, the person may feel Schadenfreude first and later justify his/her feelings by perceiving the misfortune as deserved, a possibility consistent with cognitive dissonance theory (Festinger & Carlsmith, 1959) that research has yet to exclude (Feather, 2012). Another limitation involves the assumption that the victim of a misfortune is responsible for his/her actions that led to the negative outcome. Nevertheless, Schadenfreude often occurs when this assumption is not met or assumed (e.g., Feather, 1989, Study 1).

Despite these limitations, the perceived deservingness theory remains effective in accounting for instances of Schadenfreude that follow someone's deserved negative outcome within a context that implies personal causation. In recent years, the perceived deservingness theory has been extended to encompass theories that emphasize envy, ingroup inferiority (Feather, 2012), and hypocrisy (Powell & Smith, 2013).

## 1.2. Envy theory of Schadenfreude

Feather's conception of Schadenfreude as a justice-based emotion is likely to tell only part of the story. There are numerous cases in which the type of misfortune defies analysis of its perceived deservingness, renders Schadenfreude less justifiable, and endows it with a malicious flavor. One such instance concerns Schadenfreude related to envy.

The idea that Schadenfreude is linked to envy is not new. Plato expressed this idea over two thousand years ago: “Did we not say that pleasure in the misfortune of friends was caused by envy?” (Plato, 427–348 B.C./1925, p. 339, as cited in Smith et al., 1996, p. 158). Upholding this long-lasting belief, research shows that participants express stronger envy toward the high-status protagonist and feel more pleased following his/her misfortune than that of the average-status counterpart, an effect especially pronounced among individuals with high levels of dispositional envy (Brigham, Kelso, Jackson, & Smith, 1997; Feather, 1989; Smith et al., 1996; van Dijk, Ouwerkerk, Goslinga, Nieweg, & Gallucci, 2006).

Smith et al. (1996) proposed two theories to account for the relations between envy and Schadenfreude. One posits that both envy and Schadenfreude derive from social comparison, whereby the former stems from upward social comparison and is linked to a sense of inferiority, whereas the latter stems from downward social comparison and is linked to a sense of superiority. An envious person enjoys the

misfortune of the envied person, because it enhances the envious person's self-evaluation (see van Dijk & Ouwerkerk, 2014). The other theory posits that others' misfortune is rewarding because envy is an unpleasant feeling that learning of other's misfortunes would knock the envied person down a peg, rendering him or her less enviable. The removal of envy would therefore constitute a relief, itself being a pleasant feeling (e.g., Rothbart, 1973). Although the two theories suggest somewhat different appraisals, they both point to a concern for self-evaluation as a potential cause of Schadenfreude.

Despite evidence supporting the role of envy in experiencing Schadenfreude (Smith et al., 1996; Takahashi et al., 2009), studies have failed to replicate these findings (Feather & Sherman, 2002; Hareli & Weiner, 2002). van Dijk et al. (2006) suggested two crucial distinctions to account for these inconsistent results. First, researchers disagreed on the definitions of envy and have distinguished between *envy proper* (also known as *malicious envy*) from *benign envy*, depending on whether envy entails hostility (see Smith & Kim, 2007). van Dijk et al. (2006) found that in studies that supported the envy theory, researchers measured both aspects of envy (Smith & Kim, 2007; van de Ven, Zeelenberg, & Pieters, 2009), whereas in studies that did not support the envy theory, researchers assessed only the benign aspect.<sup>1</sup> Second, studies differed in the protagonist's relevance to the participants: the envy theory was corroborated only when participants and the protagonist were of the same gender, a condition rendering the protagonist's misfortune more relevant to the participants.

To unravel these factors, van Dijk et al. (2006) measured both (benign) envy and hostile emotions (as a proxy of envy proper) to ascertain their independent contributions to Schadenfreude; they also manipulated the achievement status of the protagonist and included both men and women to examine their potential effects on Schadenfreude. Participants were told about a protagonist of either high or average status and rated their feelings of (benign) envy and hostile emotions; they then were informed of the protagonist's recent setback and rated their feelings of Schadenfreude. Both hostility and (benign) envy independently predicted Schadenfreude. Significant relations emerged only when the protagonist and the participant were of the same gender. More recent studies showed that Schadenfreude is either unrelated to envy (Leach & Spears, 2008) or related but only when the malicious aspect of envy is measured (van de Ven et al., 2015). These findings again underline the specific conceptualization and operationalization of envy as critical in clarifying the relations between envy and Schadenfreude (Smith, Thielke, & Powell, 2014). Using a data-driven approach, Lange, Weidman, and Crusius (2018) proposed a novel theory of envy (i.e., Pain-driven Dual Envy Theory), which construes envy as encompassing three interrelated elements: benign envy, malicious envy, and the pain of envy. Based on this integrated theory of envy, Lange et al. (2018) demonstrated meta-analytically that envy is more strongly associated with Schadenfreude when it is conceptualized as malicious envy rather than benign envy or the pain of envy.

## 1.3. Intergroup theories of Schadenfreude

In addition to perceived deservingness and envy, research has linked Schadenfreude to intergroup interactions (Cikara, Botvinick, & Fiske, 2011; Leach, Spears, Branscombe, & Doosje, 2003). Unlike the previous two theories, intergroup theories of Schadenfreude share an interest in the intergroup context but vary in their accounts of Schadenfreude depending on intergroup contexts. Some accounts emphasize rivalry and competition (Ouwerkerk & van Dijk, 2014) or ingroup inferiority (Leach & Spears, 2008), whereas others emphasize intergroup

<sup>1</sup> According to Smith and Kim (2007), envy is “an unpleasant, often painful emotion characterized by feelings of inferiority, hostility, and resentment caused by an awareness of a desired attribute enjoyed by another person or group of persons” (p. 46).

aggression as potential mechanisms of intergroup Schadenfreude (Cikara et al., 2011).

Cikara et al. (2011) examined how aggressive attitudes between fans of two competing baseball teams predicted fans' affective responses while watching their favorite team play. Both self-report and neural responses showed that observing loss of the favorite team elicited painful feelings with enhanced activation of the anterior cingulate cortex and insula, both brain regions linked to physical and social pain. In contrast, witnessing the rival team's loss elicited pleasure and activated the ventral striatum, a brain region involved in reward-processing. Importantly, the pleasure participants experienced following the rival team's loss correlated positively with their levels of aggression toward this team. The authors argued that intergroup interactions often provoke competition and aggression (Insko et al., 1987; Meier & Hinsz, 2004), both enhancing the salience of self-identity for members within a social group. Both would contribute to ingroup loyalty and outgroup rivalry as two co-dependent outcomes (Hamilton, Sherman, & Lickel, 1998; Tajfel, 1982).

#### 1.4. Multiple facets of Schadenfreude

The three general theories proposed by social psychologists highlight the multiple facets of Schadenfreude and its putative motives in human psychology. The first facet, underscored by perceived deservingness theory, stems from a concern for social justice. The second facet, emphasized by envy theory, stems from a concern for self-evaluation. The third facet, stressed by the intergroup theories, stems from a concern for social identity. What is largely missing in the social psychology literature is a theoretical account of how the multiple facets of Schadenfreude interrelate to form this seemingly homogeneous emotion to which most or all of us can readily relate. To remedy this omission, we draw upon insights from adjacent subdisciplines of psychology, including developmental, clinical, and personality psychology to propose a novel, tripartite, taxonomy of Schadenfreude embedded in a motivational model.

## 2. Developmental approach to Schadenfreude

Research on infants' and children's responses to the misfortune of others is scant and scattered, varying in participants' ages, the methods used to elicit and measure Schadenfreude, and the theoretical implications drawn from the findings. These limitations pose a challenge when trying to gather evidence on the developmental origins of Schadenfreude. Given this challenge, we examine the development of Schadenfreude in a broader context by focusing on both the early signs of Schadenfreude and potentially related affective phenomena, including social evaluation, inequity aversion, and ingroup preferences. As will become evident, these allied phenomena, although not technically part of Schadenfreude per se, have the potential to enrich and deepen our understanding of this complex emotion from the perspective of development.

### 2.1. Developmental origins of Schadenfreude in social justice

Consistent with the adult literature, which links Schadenfreude to a concern for social justice, developmental research reveals that Schadenfreude may trace its roots partly to norm-based moral evaluation in children evident already in the preschool years (Nobes, Panagiotaki, & Pawson, 2009). For example, Schulz, Rudolph, Tscharaktschiew, and Rudolph (2013) presented 100 4- to 8-year-old children with stories about a peer who attempts to reach a goal but suffers a subsequent misfortune. They then asked these children about their feelings toward the peer and probed their willingness to help. Regardless of their age, children felt more pleased and were less willing to help when the misfortune (e.g., a fall into a muddy puddle) followed a morally negative goal (e.g., to hurt other children or break their toys).

The concern for social justice may even trace its developmental roots to social evaluation demonstrated in few month-olds' infants. Three-month-old infants prefer puppets that help rather than hinder another (Hamlin & Wynn, 2011; Hamlin, Wynn, & Bloom, 2007). This early-emerging social discrimination is not only crucial for navigating the social world, but also may be one of the developmental precursors to Schadenfreude. Hamlin, Wynn, Bloom, and Mahajan (2011) examined 5- and 8-month-old infants' reactions to puppets that were presented as either prosocial (helping another) or antisocial (hindering another). Eight-month-old infants preferred a puppet that harmed the antisocial puppet, whereas 5-month-old infants did not show any significant preference. Although these studies were not designed to directly examine infants' affective responses to others' suffering, they provide compelling evidence that from at least 8 months, infants seem already to respond to another's misfortune by factoring in the social character of the victim (i.e., whether it was depicted as prosocial or antisocial). When the antisocial puppet received its just deserts, harming became a more favorable and potentially more desirable outcome, hence a developmental precursor of Schadenfreude that would echo an engrained concern for social justice.

### 2.2. Developmental origins of Schadenfreude in social comparison

Consistent with the adult literature, developmental research demonstrates the primordial role of social comparison in Schadenfreude. Steinbeis and Singer (2013) examined envy and Schadenfreude among 7- to 13-year-old children in a reward-and-punishment task. Children competed with an anonymous child to win a prize. After each trial, they indicated how happy or sad they felt on a visual analogue scale based on immediate feedback they received comparing their outcomes with those of the competitor. Children felt more positive in a "self-won-other-lost" compared with a "both won" outcome and felt more negative in a "self-lost-other-won" compared with a "both lost" outcome. The researchers measured Schadenfreude and envy by computing the difference between each pair of emotional ratings, finding that envy and Schadenfreude emerged by 7 years and decreased with age. Furthermore, individual differences in both emotions predicted children's decisions in allocation of resources. Children with higher levels of envy and/or Schadenfreude were more likely to minimize others' outcomes as opposed to favoring equal allocations (see Fehr, Bernhard, & Rockenbach, 2008). These findings suggest that envy and Schadenfreude may share common developmental roots with a sense of fairness. In another study, Shamay-Tsoory, Ahronberg-Kirschenbaum, and Bauminger-Zviely (2014) showed that 24-month-old infants who previously expressed jealousy toward another infant exhibited behavior indicative of Schadenfreude when the rival infant lost his/her favorable position.

Whereas most studies linking Schadenfreude to social comparison have focused on the role of previous disadvantage of the individual in eliciting Schadenfreude (e.g., Shamay-Tsoory et al., 2014; Smith et al., 1996), the findings of Steinbeis and Singer (2013) suggest that an advantageous status may spontaneously elicit Schadenfreude without being preceded by an initial disadvantage. Although this alternative mechanism of Schadenfreude has not been further examined in the developmental and adult literature, research on the development of fairness in children provides intriguing evidence pointing to distinct developmental origins of Schadenfreude related to two forms of inequity aversion manifested in child development.

### 2.3. Two forms of inequity aversion: two subforms of Schadenfreude?

A central concern of human moral cognition involves fairness. At the core of fairness lies an aversion to inequity in allocating resources. Adult humans from diverse cultural backgrounds demonstrate a propensity to engage in costly punishment (i.e., reducing other's payoffs at personal cost) of noncooperative norm violators during allocation of

resources. In an ultimatum game, for example, people tend to sacrifice their own resources to cause a greater loss to proposers who allocate resources unfairly (Henrich et al., 2006). Costly punishment is considered as a key mechanism in sustaining large-scale cooperation among nonkin. Referred sometime as “altruistic punishment” (Fehr & Gächter, 2002, p. 137), or “moralistic aggression” (Trivers, 1971, p. 49), costly punishment would be a core feature of human altruism.

Despite the altruistic motive of maintaining group cooperation as its name implies, Jensen (2012) argued that given the one-shot, anonymous situations in which costly punishment occurs, it may be driven instead by an intent to cause harm and suffering in others. Jensen argued, “Spitefulness and other negative other-regarding concerns such as Schadenfreude might provide immediate benefits in terms of motivational rewards. The suffering and misfortunes are the goals” (p. 311).

Jensen’s (2012) idea not only echoes the perceived deservingness theory, but also finds empirical support from a number of studies on fairness (de Quervain et al., 2004; Fehr & Gächter, 2002; Pillutla & Murnighan, 1996; Singer et al., 2006). One study (Singer et al., 2006) showed that among male but not female participants, witnessing non-cooperators in the Prisoner’s Dilemma game receiving a painful electric shock was followed by reduced activation in the fronto-insular cortex, a brain area associated with empathy for pain, but enhanced activation in the left ventral striatum/nucleus accumbens and in the left orbito-frontal cortex, brain areas associated with reward-processing. These findings suggest that, at least for males, seeing an unfair partner’s physical pain reduces pain-related empathic responses but enhances satisfaction. Nevertheless, the reasons for this sex difference, if replicable, require further investigation.

Costly punishment has early developmental roots. From 5 years of age children express inequity aversion to disadvantageous allocations (Fehr et al., 2008; Robbins & Rochat, 2011), and across highly contrasted cultures, 5-year-olds start to show a strong sense of equity in sharing resources (Rochat et al., 2009). Accumulating evidence suggests that a genuine sense of fairness entails not merely rejecting disadvantageous inequity (as in the case of costly punishment of unfair players, see Robbins & Rochat, 2011), but also overcoming an initial preference for diminishing others’ payoffs to leverage one’s own advantage (Blake et al., 2015; Brosnan & de Waal, 2014; Sheskin, Bloom, & Wynn, 2014).

Sheskin et al. (2014) asked 5- to 10-year-old children to share tokens between themselves and an anonymous peer in 10 trials, among which 4 assessed disadvantageous inequity (e.g., 2, 2 vs. 2,3), 4 advantageous inequity (e.g., 2,1 vs. 2,2), and the last two served as a control condition (1,1 vs. 2, 2). The payoffs of the participants differed, corresponding to a costly and a noncostly condition in both the disadvantageous and advantageous inequity trials. In order to reject a disadvantageous allocation, for example, the participants in a costly condition would need to forfeit one token (e.g., 1, 1 vs. 2, 3), whereas in a noncostly condition, they could reject without sacrificing their payoffs (e.g., 2, 2 vs. 2, 3). The results revealed distinct developmental trajectories of disadvantageous and advantageous inequity aversion. Whereas disadvantageous inequity aversion was evident by 5 and remained stable through 10, advantageous inequity aversion did not emerge until 7 years of age. Furthermore, 5- to 6-year-old children not only costily rejected disadvantageous allocations but also accepted at a cost offers that reduced others’ payoffs (e.g., choosing 2, 1 over 3, 3).

Collectively, research on the two forms of inequity aversion raises the intriguing possibility of two subforms of Schadenfreude, one deriving from disadvantageous inequity aversion, driven by a moral concern for justice and fairness, and motivating costly punishment of unjust individuals (Robbins & Rochat, 2011; Singer et al., 2006), the other deriving from a preference for advantageous inequity, driven by social comparison concerns, and motivating spiteful behavior (Sheskin et al., 2014; Steinbeis & Singer, 2013). Following convention in the literature, we call the first subform *justice* Schadenfreude, and the second *rivalry* Schadenfreude.

#### 2.4. Developmental origins of Schadenfreude in intergroup aggression

Consistent with the adult literature suggesting that a concern for social identity contributes to intergroup Schadenfreude, infancy research identifies its early roots in social preferences. Hamlin, Mahajan, Liberman, and Wynn (2013) presented 9- to 14-month-old infants with puppet shows that featured two rabbit puppets; one shared similar food preferences with the infants whereas the other did not. The puppet shows continued, showing the rabbit puppet playing with a ball and accidentally dropping it when two dog puppets either helped the rabbit pick up the ball (the helper) or stole it and ran away (the harmer). Following the shows, researchers showed the helper and harmer side by side in front of the infant, testing which one the infant reached for first as a proxy of social preferences. Contrary to the simple heuristic that harmers are always evaluated negatively, infants at least by 9 months preferred individuals who harm *dissimilar* others to those who help them, an effect more pronounced in older infants (14 months). This finding suggests that infants’ social evaluation is governed by a rudimentary sense of social identity rooted in similarity/dissimilarity judgements. Perceiving others as dissimilar motivates negative evaluation (Tajfel, Billig, Bundy, & Flament, 1971), provokes aggression (Sherif, Harvey, White, Hood, & Sherif, 1954/1961), and may render dissimilar others more deserving of punishment, their suffering somehow enjoyable (Cikara et al., 2011; Hamlin et al., 2013). Therefore, infants’ positive evaluation of harming of dissimilar others may be a harbinger of intergroup Schadenfreude that derives from a concern for social identity. Note however that this interpretation awaits further examination of infants’ affective responses accompanying their preferential reaching behavior.

### 3. A novel taxonomy of Schadenfreude: three subforms

The developmental findings on Schadenfreude and allied fields suggest an intriguing hypothesis worthy of examination, namely that there are three subforms of Schadenfreude—aggression, rivalry, and justice—each underpinned by a distinct concern that has deep developmental roots, unfolding in infant and child development. Aggression Schadenfreude derives from an earlier sense of social identity during infancy. Rivalry Schadenfreude derives from a concern for social comparison, an initial preference for advantageous inequity that children must overcome to develop a genuine sense of fairness. Finally, justice Schadenfreude derives from a concern for social justice defined by norms of fairness that eventually develops in later childhood.

From a different vein, the three subforms of Schadenfreude differ in the Schadenfroh’s focus in the appraisal of others’ misfortune. In rivalry Schadenfreude, the Schadenfroh focuses primarily on his/her own status in social comparison rather than the affective states of the sufferers. In justice Schadenfreude, by contrast, the Schadenfroh’s primary goal is to ensure, actively or passively, that individuals who violate social justice receive punishment, and to know that the goal is achieved, the Schadenfroh needs to be aware of the affective states of the sufferers (Jensen, 2012). Therefore, although justice Schadenfreude may occur in situations that involve social comparison, it is other-oriented, distinguishing itself from rivalry Schadenfreude, which focuses on the self. Compared with the other two subforms, aggression Schadenfreude, which stems from a sense of social identity, may require minimal interpretation beyond drawing a line between “us” and “them,” whereby the misfortune of outgroup members can be rewarding (Hamlin et al., 2013). In this respect, both aggression and rivalry Schadenfreude, remain primarily self-oriented by putting minimal emphasis on the affective states of the sufferers compared with justice Schadenfreude.

In sum, extant developmental evidence provides empirical ground for a novel tripartite taxonomy of Schadenfreude. According to this taxonomy, aggression Schadenfreude, rivalry Schadenfreude, and justice Schadenfreude are three related but separable subforms of Schadenfreude associated with distinct causes and developmental



origins. To examine the provisional utility of this novel taxonomy in describing the dimensions along which individuals differ in their tendencies to experience Schadenfreude, we review both the clinical and personality psychology literature, focusing on which abnormal and normal personality traits might differentiate the three subforms of Schadenfreude.

#### 4. Individual differences approach to Schadenfreude

Whereas most people are concerned with other individuals' distress and are averse to hurting others (Cushman, Gray, Gaffey, & Mendes, 2012), for a minority of individuals, cruelty, "the deliberate infliction of physical and psychological pain on a living creature" (Nell, 2006, p. 211), appears to afford gratification. To explain these profound differences among individuals in their reactions toward others' suffering, we draw insights from research on individual differences in Schadenfreude. Compared with a majority of research on Schadenfreude focusing on situational variables, only a small number of studies take individual differences approaches to examining Schadenfreude. Here, we focus on four major sets of variables that clinical and personality research has associated with individual differences in Schadenfreude: personality disorders, general personality traits, self-esteem, and just world belief, although these constructs are conceptually and empirically overlapping (Amirzodi & Amirzodi, 2011; Robins, Tracy, Trzesniewski, Potter, & Gosling, 2001).

##### 4.1. Psychopathy and Schadenfreude

A large body of clinical literature has linked psychopathy to deficits in affective empathy (Blair, 2005; Cheng, Hung, & Decety, 2012; Decety, Chen, Harenski, & Kiehl, 2013). Psychopaths, characterized by callousness and deficits in affective empathy, tend not to be concerned with inflicting pain in others. To the contrary, some psychopaths may even capitalize on their intact and perhaps even higher levels of cognitive empathy to derive pleasure from others' distress and pain.

Heilbrun (1982) found that compared with low-IQ psychopaths, highly intelligent psychopaths demonstrated higher levels of cognitive empathy and impulse control; he suggested that high-IQ psychopaths may deliberately inflict pain in victims for pleasure, whereby their high levels of cognitive empathy enhanced arousal and rewards by boosting their vicarious awareness of their victims' suffering. Indeed, self-reported psychopathy tends to be positively associated with self-reported sadistic tendencies (Buckels, Jones, & Paulhus, 2013).

The uncoupling of cognitive and affective empathy among psychopaths may contribute to their aggressive behavior as well as their disposition to experience Schadenfreude (Cheng et al., 2012; Decety et al., 2013). These findings may, in turn, help to explain the poorly understood link between psychopathy and sadism (Buckels et al., 2013).

##### 4.2. The Dark Tetrad of personality traits and Schadenfreude

In contrast to a focus on clinical conditions (e.g., psychopathy), a focus on subclinical populations allows us to capitalize on individual differences in certain personality traits to examine their implications for Schadenfreude.

Research (James, Kavanagh, Jonason, Chonody, & Scrutton, 2014; Porter, Bhanwer, Woodworth, & Black, 2014) has shown that individual differences in Schadenfreude may relate to the "dark triad" of personality, namely, narcissism, psychopathy, and Machiavellianism, three overlapping yet distinct socially aversive personality traits (Furnham, Richards, & Paulhus, 2013; Paulhus & Williams, 2002; but see Watts, Waldman, Smith, Poore, & Lilienfeld, 2017). In a study by Porter et al. (2014), participants were randomly assigned to one of three experimental conditions intended to elicit either empathy, Schadenfreude, or neutral emotions; in each condition, the participants read about a protagonist's misfortune while their facial expressions were

videorecorded to measure their smile intensity. Finally, they self-reported their empathy and Schadenfreude toward the protagonist and completed questionnaires assessing their dark triad personality traits. The results showed that the Dark Triad composite scores were positively correlated with self-reported Schadenfreude, whereas results concerning smile intensity were mixed. In addition, individuals with higher dark triad traits, in particular psychopathic personality traits, were especially prone to actively search for videos that portrayed other individuals being hurt in daily life.

James et al. (2014) linked the dark triad personalities to individual differences in Schadenfreude and sensational interests, defined in terms of an enthusiasm for violent topics such as weapons, crime, and military. Participants completed questionnaires on sensational interests and the dark triad traits as part of an online survey. They also rated their emotional reactions following three vignettes depicting scenarios in which a person experienced a misfortune. These scenarios were (a) a bad driver receiving a ticket for speeding, (b) an arrogant soccer player from the opponent team suffering an injury as a result of a fancy move, and (c) a co-worker receiving a negative performance review. The results showed that the dark triad composite scores were positively correlated with the degree of sensational interests and Schadenfreude. In particular, the scores on the psychopathy subscale were positively correlated with Schadenfreude for all the three scenarios, whereas for the scores on the narcissism subscale, the association was found only for the third scenario, which involved downward social comparison. The association between the scores on the Machiavellianism subscale and Schadenfreude was found only in the second and the third scenarios, which involved intergroup competitions. In sum, the findings suggest that individuals with higher levels of the dark triad personalities are more likely to experience Schadenfreude, although psychopathy, Machiavellianism, and narcissism may differentially predict different subforms of Schadenfreude.

Research has shown that everyday sadism shares callousness with the Dark Triad traits and uniquely predicts antisocial behaviors above and beyond these traits (Buckels et al., 2013; Chabrol, van Leeuwen, Rodgers, & Séjourné, 2009; Reidy, Zeichner, & Seibert, 2011). Compared with nonsadists, sadists tend to increasingly engage in aggressive behavior, such as killing insects or harming innocent individuals, deriving pleasure from such behavior (Buckels et al., 2013). Sadism, along with the Dark Triad, form the newly proposed "Dark Tetrad" of personality. Buckels, Trapnell, and Paulhus (2014) showed that everyday sadism was positively correlated with online "trolling" in terms of both commenting frequency and self-reported enjoyment of trolling, whereby the statistical effect of everyday sadism on trolling behavior was mediated by self-reported enjoyment of trolling. Similarly, Greitemeyer (2015) showed that everyday sadism predicts the amount of violent video game play when controlling for trait aggression, the Big Five traits of neuroticism, extraversion, agreeableness, conscientiousness, and openness, and the Dark Triad traits. These findings suggest that Schadenfreude, which conceptually shares a component of perverse pleasure with everyday sadism, may overlap with these propensities. Finally, Schumpe and Lafrenière (2016) showed that sadistic personality traits were positively correlated with Schadenfreude, whereby individuals with higher levels of sadistic personality traits felt more pleased when the misfortune was severe.

##### 4.3. Self-esteem and Schadenfreude

Feather (1989) showed that individuals with low self-esteem are more inclined to experience Schadenfreude than those with high self-esteem. Van Dijk, van Koningsbruggen, Ouwerkerk, and Wesseling (2011) replicated these findings, showing that the relation between self-esteem and Schadenfreude was mediated by perceived self-threat. They also found that participants reported reduced Schadenfreude following experimental manipulations that promoted their self-affirmation views and reduced self-threat. The findings were consistent with earlier

findings revealing that the provision of negative feedback on participants' cognitive abilities increases Schadenfreude (van Dijk, Ouwerkerk, Wesseling, & van Koningsbruggen, 2011). Taken together, these findings suggest that individuals with low self-esteem tend to experience Schadenfreude toward high achievers, ostensibly because high achievers' misfortune provides Schadenfrohs who are low in self-esteem with an opportunity to enhance their self-evaluation via downward social comparison (Smith, Powell, Combs, & Schurtz, 2009). van Dijk, Ouwerkerk, Smith, and Cikara (2015) reviewed findings from their previous studies and showed that both chronic and acute threats to self-worth elicit Schadenfreude and that this effect occurs on both interpersonal and intergroup levels. Also linking low self-esteem to Schadenfreude is the finding that vulnerable narcissism, which is marked by low self-esteem, but not grandiose narcissism, which is marked by high self-esteem (Miller & Campbell, 2008), correlates positively with dispositional envy and dispositional Schadenfreude (Krizan & Johar, 2012). Given that envy is frequently regarded as a cardinal characteristic of narcissistic personality traits (American Psychiatric Association, 2013; Kernberg, 1975), the findings of Krizan and Johar (2012) broadly support the envy theory of Schadenfreude. Finally, research shows that individuals with moderate levels of depression are more prone to experience Schadenfreude than those with low levels of depression (Chambliss et al., 2012; Pietraszkiewicz & Chambliss, 2015). These findings suggest that although individuals with depressive disorders manifest marked reduction in interest and pleasure in most everyday activities (American Psychiatric Association, 2013), they may seek out others' misfortune for self-enhancement given their low self-esteem.

In contrast, James et al. (2014) failed to find a positive correlation between participants' levels of self-esteem and their Schadenfreude. This discrepancy might rest primarily on the differences in the scenarios used to elicit Schadenfreude. The vignettes in Feather (1989) and van Dijk et al. (2011a,b) described a high-achieving student suffering from a misfortune, a scenario involving social comparison that typically elicits envy and rivalry Schadenfreude. In contrast, James et al. (2014) used a set of scenarios that varied substantially in the motives for eliciting Schadenfreude, mixing perceived deservingness and envy within and across the scenarios, then computing a composite score of Schadenfreude. This calculation might have potentially obscured the heterogeneity of elicited Schadenfreude.

#### 4.4. Just world belief and Schadenfreude

One individual difference variable that captures Schadenfreude associated with a justice concern is belief in a just world (Lerner, 1980). Individuals who uphold a belief in a just world believe that people get what they deserve. James et al. (2014) found that a 5-item measure of just world belief was positively correlated with Schadenfreude. Pietraszkiewicz (2013) examined people's Schadenfreude in a situation in which their just world belief was threatened. The results showed that threatened just world beliefs led to increasing time spent on reading stories eliciting Schadenfreude. Greenier (2017) corroborated these findings by showing a positive correlation between Schadenfreude and just world belief measured by the Global Belief in a Just World Scale (Lipkus, 1991).

In sum, although research on individual differences in Schadenfreude is preliminary, it suggests that individuals who are prone to Schadenfreude are marked by lower empathy and agreeableness, and higher levels of Dark Tetrad personality traits, linking Schadenfreude to "emotional coldness" and "self-centeredness" (Greenier, 2017), as well as meanness (see Patrick, Fowles, & Krueger, 2009). Nevertheless, the relations between Schadenfreude and self-esteem, dispositional envy, and just world belief are either mixed or less robust. We argue that the lack of support for the role of perceived deservingness, envy, and self-evaluation from the individual differences approach may be due to a methodological limitation. In some studies

(Greenier, 2017; James et al., 2014), the scenarios used to elicit Schadenfreude vary in fundamental ways that entail multiple subforms of Schadenfreude; however, the researchers averaged the scores across scenarios without assessing possible subdimensions within Schadenfreude, thereby potentially diluting statistically unique correlates of each subdimension.

### 5. Schadenfreude: a motivational model

So far, we have reviewed evidence from social, developmental, and individual differences psychology on Schadenfreude. This growing body of literature highlights self-evaluation, social identity, and justice as three concerns that motivate Schadenfreude in diverse situations. Developmental research further reveals their early precursors in overlapping but distinct domains, entailing social evaluation, inequity aversion, and social preferences/group affiliation. Our review has thus far focused mainly on the multifaceted nature of Schadenfreude, showing how the multiple facets of Schadenfreude differ. In the following section, we propose a motivational model of Schadenfreude to demonstrate how the multiple facets of Schadenfreude may be related.

To demonstrate how a motivational model of Schadenfreude can help integrate its multiple facets, we first step back from the literature on Schadenfreude to briefly survey theories of emotion relevant to this complex affective phenomenon. In particular, we draw upon the pioneering work of Frijda's (1986) to provide a conceptual analysis of the relations among empathy, Schadenfreude, and dehumanization. Based on this analysis, we next propose a motivational model of Schadenfreude. Finally, we provide promising, albeit preliminary and indirect, evidence for this model.

By proposing a motivational model of Schadenfreude, we argue that (a) the concerns of self-evaluation, social identity, and justice push individuals toward (*approach motives*) Schadenfreude, whereas mind perception, a subcomponent of empathy (Zaki, 2014), pulls individuals away from (*avoidance motives*) Schadenfreude; (b) Schadenfreude occurs when the perceiver, motivated by a number of situational and dispositional variables, dehumanizes the victim, whereby the dehumanization disturbs the perceiver's mind perception, objectifying the victim and turning the misfortune into a social reward. We argue that this motivational model of Schadenfreude would help integrate its multiple facets and offer a heuristic framework for embedding Schadenfreude research within the context of emotion theories.

#### 5.1. Motivational component of Schadenfreude

Emotion has long been considered being at the heart of human subjective experience (James, 1884), but it remains one of the most controversial topics in psychological research (e.g., Barrett, Mesquita, Ochsner, & Gross, 2007). Different researchers tend to conceptualize emotion differently (e.g., dimensionally vs. categorically), often leading to debates regarding the most accurate definition of emotion. Despite these differences, most theorists agree that emotion entails multiple components, including antecedent events, subjective experience, physiological and behavioral changes, and action tendencies (Frijda, 1986; Izard, 2007; Mauss & Robinson, 2009; Russell, 2003; Scherer, 2009). Against the backdrop of this consensual componential view of emotion, it is surprising that research on Schadenfreude has focused predominantly on identifying the causal antecedents of Schadenfreude (e.g., envy, perceived deservingness, and intergroup conflicts) while largely neglecting to examine its other components and how they are interrelated to elicit Schadenfreude.

Evidence from both adult and developmental research points to the links between Schadenfreude and humans' engrained concerns for self-evaluation, social identity, and justice. These links dovetail nicely with the theorizing of Frijda (1986), who brought individual goals, motivations, and concerns into the conceptualization and investigation of emotion. According to Frijda, the appraisal of the relevance of

antecedent events to an individual's goals, motivations, and concerns gives rise to emotions. Emotions are construed as states of *action readiness* in that they change individuals' tendencies to (a) approach or avoid certain stimuli or situations, (b) become prepared for action, and (c) stop an action, shift attention, or lose interest. Broadly consistent with the writings of Frijda, we next propose a motivational model of Schadenfreude by drawing upon insights from two related areas of research and theory—dehumanization and empathy.

### 5.2. Relations among empathy, Schadenfreude, and dehumanization: a conceptual analysis

There are perhaps as many definitions of empathy as there are researchers studying it (Wispe, 1986). Although researchers have debated which psychological phenomena constitute empathy (Bernhardt & Singer, 2012; Blair, 2005; Preston & de Waal, 2002), many have embraced a conceptual framework that construes empathy as comprising distinct affective and cognitive components (Decety & Cowell, 2014; Eisenberg & Miller, 1987; Reniers, Corcoran, Drake, Shryane, & Vollm, 2011; Shamay-Tsoory, Aharon-Peretz, & Perry, 2009).

In addition to affective and cognitive empathy, Zaki (2014) highlighted mind perception, as a third subcomponent, which he viewed as a precursor to the other two subcomponents of empathy. Mind perception refers to perceiver's detection of others as possessing a mind (Gray, Gray, & Wegner, 2007); without mind perception, it would be difficult, as Zaki (2014) argued, for the perceiver to share others' experience or to mentalize about their mental states.

Recall that individuals with psychopathic personality traits are characterized by reduced affective empathy but intact or perhaps superior cognitive empathy, an uncoupling that may contribute to their aggressive behavior as well as their disposition to experience Schadenfreude (Cheng et al., 2012; Decety et al., 2013; Heilbrun, 1982). According to Zaki's motivational account of empathy, psychopaths' reduced affective empathy reflects not an *inability* but rather a lack of *motivation* to share affective experience with others. Corroborating this hypothesis, Decety et al. (2013) showed that, compared with individuals with low levels of psychopathic personality traits, inmates with high levels of psychopathic personality traits exhibited typical and even stronger affective empathy while imagining themselves in pain, but reduced affective empathy while imagining someone else in pain. Meffert, Gazzola, den Boer, Bartels, and Keysers (2013) demonstrated that inmates with psychopathic personality traits experienced affective empathy comparable to the levels of healthy comparison participants when instructed to empathize with the person in pain. Similar effects of instructions were found in individuals with high levels of narcissistic personality traits (Hepper, Hart, & Sedikides, 2014). Because psychopaths, according to the motivational account of empathy, possess intact abilities for both experience sharing (affective empathy) and mentalizing (cognitive empathy), their deficits in empathy might be best characterized by a motivational deficit in mind perception, a defining characteristic of dehumanization (Haslam & Loughnan, 2014).

Dehumanization is the process by which a person or social group is perceived as lacking attributes that define what it means to be human (i.e., humanness). In both subtle and blatant forms, dehumanization can have dire consequences in terms of how people perceive, evaluate, and treat each other (Leyens et al., 2003). When people are dehumanized, they are at greater risk of being perceived as less worthy of moral consideration, therefore more vulnerable to stereotyping and discrimination in subtle forms of dehumanization, and violence, torture, and war atrocities in blatant forms of dehumanization (Opatow, 1990). Research on both dehumanization and mind perception suggests that humanness entails the perception of not only abilities to reason and to exert self-control, attributes that ostensibly distinguish humans from nonhuman animals, but also abilities to experience warmth and emotions, attributes that distinguish humans from inanimate objects, such as intelligent but insentient machines (Gray et al., 2007; Haslam, 2006).

Therefore, the implications and consequences of dehumanization extend far beyond humans to encompass humans' interactions with non-human animals and inanimate objects, such as social robots (Wang, Lilienfeld, & Roach, 2015).

So how would the implications of the aforementioned motivational account of empathy for understanding psychopathy inform the relation among Schadenfreude, empathy, and dehumanization? One possibility is that when people experience Schadenfreude, they undergo a state (temporary) process similar to that experienced by individuals with high levels of psychopathic personality traits: motivated by certain situational and perhaps to a lesser extent dispositional variables, the perceiver tends to dehumanize the victim, temporarily losing the motivation to detect the victim's mind, much like a psychopath.

Building upon this analysis, we propose a motivational account of Schadenfreude, which highlights both forces that push individuals toward (*approach motives*) and forces that pull individuals away from (*avoidance motives*) experiencing Schadenfreude. The approach motives, comprising concerns identified in the social and developmental literature, motivate Schadenfreude by providing immediate social rewards to the Schadenfroh. One of the avoidance motives on which we focus in this review, mind perception, puts the brakes on the individual who tends to experience Schadenfreude. It does so by drawing the individual's attention to the mental states of the victim, triggering automatic empathic responses to counteract the tendency toward Schadenfreude. Schadenfreude occurs when mind perception is disturbed by a tendency to dehumanize the victim, denying the victim's ability to experience emotion and setting the stage for an “all gas, no brakes” when the Schadenfroh comes to derive pleasure from the victim's misfortune. Notably, the dehumanization tendency itself is influenced by a number of situational and dispositional variables, many of which overlap with those shown to elicit Schadenfreude.

We contend that although Schadenfreude is motivated by diverse concerns, its multiple facets, despite their differences, are all underpinned by the shared process of dehumanization, which may lie at the core of this emotion. In other words, when Schadenfreude occurs, regardless of the types of concerns a misfortune involves, the misfortune is invariably perceived as a social reward and the victim is dehumanized, a process that reduces its perceived sentience and opens up the possibility for some derived gratification.

By and large, our motivational model of Schadenfreude is consistent with Frijda's theory of emotion in that Schadenfreude can be viewed as arising from the Schadenfroh's appraisal of antecedent events (e.g., situations involving others' misfortune) in relation to his/her concerns for self-evaluation (rivalry Schadenfreude), social justice (justice Schadenfreude), and social identification (aggression Schadenfreude). Such appraisals would produce changes in the Schadenfroh's action readiness, in turn promoting goal-directed behavior. We posit that each subform of Schadenfreude is associated with a distinct type of action readiness: aggression Schadenfreude is linked to a behavioral tendency to enhance ingroup affiliation, which may sometimes involve ostracism and aggression against individuals judged as outgroup members (e.g., intergroup aggression, see Cikara et al., 2011); justice Schadenfreude is linked to a behavioral tendency to punish others out of spitefulness (e.g., punitive motives, see Jensen, 2012), and rivalry Schadenfreude is linked to a behavioral tendency to exploit others whenever possible (e.g., 5–6 years old children's preference for advantageous inequity offers, see Sheskin et al., 2014). Nevertheless, it remains unclear whether (a) the types of action readiness we have proposed are species-general as Frijda would argue and (b) appraisal necessarily precedes action readiness (Frijda, 1986), given that Frijda (1993) later pointed to a possibility that appraisal may cooccur with emotion, an idea shared with constructionist theories of emotion (e.g., Barrett et al., 2007).

### 5.3. Preliminary evidence for the motivational model of Schadenfreude

Although our motivational model of Schadenfreude has not been



explicitly tested, the link between dehumanization and Schadenfreude is indirectly supported by converging evidence from separate areas of research (Bernhardt & Singer, 2012; Zaki, 2014). Research on individual differences in the tendency to dehumanize suggests that individuals with marked narcissistic and psychopathic personality traits tend to dehumanize others (Gray, Jenkins, Heberlein, & Wegner, 2011; Locke, 2009), so are individuals with low agreeableness, diminished empathy, and high intergroup aversion and aggression (Cikara et al., 2011; Haslam & Loughnan, 2014). These individual differences dimensions have been shown to also correlate with Schadenfreude in similar patterns as they correlate with dispositional dehumanization (Greenier, 2017; James et al., 2014; Porter et al., 2014).

Situational variables contributing to Schadenfreude also overlap with those contributing to dehumanization. Koval, Laham, Haslam, Bastian, and Whelan (2012) found that individuals tend to perceive ingroup flaws as part of human nature (HN) more so than do outgroup flaws, an effect enhanced when ingroup identity was threatened. These findings are broadly consistent with the findings of Leach et al. (2003), who showed that the threat of ingroup inferiority elicited Schadenfreude in intergroup contexts (for a review, see Ouwerkerk & van Dijk, 2014). In fact, research on intergroup interactions provides perhaps the best evidence for linking empathy, Schadenfreude, and dehumanization. Research has shown that intergroup interactions not only are the basis for attenuated empathy (see Zaki, 2014), but also Schadenfreude (Cikara et al., 2011; Cikara & Fiske, 2013; Leach et al., 2003), and dehumanization (Bain, Park, Kwok, & Haslam, 2009; Goff, Eberhardt, Williams, & Jackson, 2008; Leyens et al., 2003; Vaes & Paladino, 2010; Viki et al., 2006). That said, it would be surprising if dehumanization did not play a role in Schadenfreude in intergroup contexts. Another situational variable that elicits both dehumanization and Schadenfreude entails moral transgression or perceived unfairness. Research has shown that individuals not only derive pleasure from punishing norm violators who treated them unfairly (e.g., Singer et al., 2006), but also process their faces in an atypical manner, a process referred to as “perceptual dehumanization” (Fincher & Tetlock, 2016).

In sum, the dispositional and situational variables that contribute to dehumanization and Schadenfreude substantially overlap, providing converging evidence for a link between dehumanization and Schadenfreude, although the mechanism by which dehumanization influences Schadenfreude awaits further investigation. Nevertheless, we showed that by integrating evidence from related but often independent literature, the proposed motivational model of Schadenfreude extends prior theoretical work. This account provides a mechanism for explaining how competing motives contribute to Schadenfreude and highlights the central role that dehumanization would play in these processes.

## 6. Conclusions and future directions

Schadenfreude is a prevalent yet still poorly understood emotion that arises across many situations in interpersonal and intergroup interactions. People have often attempted to characterize, explain, and evaluate the moral value of Schadenfreude based on their personal encounters with and recollections of Schadenfreude. This approach, however, often fails to capture the rich, multifaceted nature of this emotion. Philosophers and social psychologists have long recognized the multiple facets of Schadenfreude, but they are confronted with challenges to elucidate how the multiple facets of Schadenfreude take shape and how they are interrelated. In this review, we addressed the first challenge by proposing a novel, tripartite, taxonomy of Schadenfreude based on the developmental, clinical, and personality literature, and addressed the second challenge by extending the taxonomy to a motivational model of Schadenfreude, highlighting the role dehumanization potentially plays in eliciting Schadenfreude across diverse situations. We hope that this novel theoretical perspective, although offered provisionally given the limited literature, can prove

helpful for restructuring the way researchers conceive of Schadenfreude, opening fruitful new directions for understanding this intriguing and important emotion.

Here, we point to two potential directions for future research on Schadenfreude inspired by our model. First, future research should try to delineate the developmental trajectory of each subform of Schadenfreude, ideally by examining the affective and motivational components of closely related developmental phenomena, including social evaluation, inequity aversion, and social preferences/group affiliation. To determine the developmental trajectories of rivalry and justice Schadenfreude, researchers should examine how the development of advantageous and disadvantageous inequity aversion relates to developmental changes in Schadenfreude either during competition (*rivalry* Schadenfreude; e.g., Steinbeis & Singer, 2013) or following a moral transgression (*justice* Schadenfreude; e.g., Schulz et al., 2013). As for aggression Schadenfreude, researchers should further examine infants’ affective responses during their social evaluation of antisocial puppets harming dissimilar others (e.g., Hamlin et al., 2013).

Second, instead of relying solely on vignettes, future research should develop self-report measures (e.g., using a Likert-type scale format) of Schadenfreude to better capture its myriad manifestations across diverse situations. Although vignette-based measures have proven useful in social psychology, they are marked by a number of limitations (Hughes & Huby, 2004), which might contribute to a fragmented portrait of Schadenfreude held by insular subfields and competing research programs. A self-report measure would further allow researchers to better understand how each subform differentially relates to external criteria. Driven by the motivational model, we predict that Schadenfreude would display a hierarchical structure (best captured by a second-order measurement model) comprising three interrelated first-order factors corresponding to the three subforms of Schadenfreude (i.e., aggression, rivalry, and justice) and a second-order factor (i.e., dispositional dehumanization), which accounts for their intercorrelations. We predict that dispositional dehumanization would correlate positively with the Dark Tetrad of personality traits—psychopathy, Machiavellianism, narcissism, and sadism—and negatively with agreeableness. In addition, we predict that each subform of Schadenfreude would relate differentially to external criteria: (a) aggression Schadenfreude would positively correlate with the fearless dominance factor of psychopathy whereas the other two subforms would not; (b) rivalry and aggression but not justice Schadenfreude would correlate positively with the impulsive-antisociality and cold-heartedness factors of psychopathy (Eisenbarth, Lilienfeld, & Yarkoni, 2015); (c) rivalry Schadenfreude would correlate positively with dispositional envy and negatively with self-esteem, whereas aggression and justice Schadenfreude would not; (d) justice Schadenfreude, but not the other two subforms, would correlate positively with just world belief.

In closing, our tripartite motivational model possesses heuristic value in that it offers fruitful directions for both deconstructing and reconstructing Schadenfreude, an intriguing but poorly understood emotion. The *deconstruction* allows future research to examine the potential differences among putative subtypes of Schadenfreude, including their differing developmental roots and personality correlates. The *reconstruction* provides an integrated account of Schadenfreude by unifying the three proposed lower-order subforms in terms of the shared higher-order mental process of dehumanization. We encourage researchers to subject our theoretical model to rigorous tests so that they can be either falsified or corroborated, ideally with the aim of bringing this provisional model more closely in line with psychological reality. With a deeper understanding of Schadenfreude, psychologists can contribute to the debate regarding its moral nature by providing insights into the diverse motives and forces that enable individuals to disengage moral self-sanctions from experiencing Schadenfreude and other socially undesirable emotions (Bandura, 1999). In this regard, a richer appreciation of Schadenfreude may provide a valuable window



into the diverse origins of the darker side of humanity.

## Declaration of interest statement

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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