Concluding Commentary: Schadenfreude, Gluckschmerz, Jealousy, and Hate—What (and When, and Why) Are the Emotions?

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Abstract

Schadenfreude, gluckschmerz, jealousy, and hate are distinctive emotional phenomena, understudied and deserving of increased attention. The authors of this special section have admirably synthesized large literatures, describing major characteristics, eliciting conditions, and functions (Chung & Harris, 2018; Fischer, Halperin, Canetti, & Jasini, 2018; R. H. Smith & van Dijk, 2018). We discuss the contributions of each article as well as the issues they raise for theories of emotions and some remaining questions, and suggest ways in which these might be profitably addressed.

Keywords

emotion strategies, emotivational goals, hate, *gluckschmerz*, jealousy, *schadenfreude*

In a recent symposium presentation, Keltner (2018) showed the facial displays of the six "discrete emotions" proposed as universal by Ekman and Friesen (1971). The slide was memorably titled "Emotional Life?" So did researchers think that's all there was?

Despite ongoing debates about whether evidence establishes the existence of discrete emotions (e.g., Lench, Bench, & Flores, 2013; Lindquist, Siegel, Quigley, & Barrett, 2013), researchers have wanted to study a wide range of emotional phenomena, and have been doing so productively. For example, influential research has been published on such putative emotions as love (e.g., Shaver, Schwartz, Kirson, & O'Connor, 1987), pride (e.g., Tracy & Robins, 2006), shame and guilt (e.g., Tangney & Dearing, 2003), and contempt (e.g., Fischer & Roseman, 2007). Indeed a recent article by Cowen and Keltner (2017) presented self-report evidence for 27 different varieties of emotional experience, and Cordaro et al. (2018) have identified distinct patterns of facial expression for 22 emotions across five cultures.

Though the subject of some prior empirical research, the four emotional phenomena that are the focus of this special section—*schadenfreude, gluckschmerz*, hate, and jealousy—are not to be found in any of the just-cited studies. (One might well ask how there could be an adequate body of theory about emotions without including hate, arguably one of the most impactful emotional states, and jealousy, which may be one of the most intense.) Three of the four were mentioned in Ekman and Cordaro's (2011) article updating Ekman's criteria for considering an emotion to be basic (see Chung & Harris, 2018, Table 2). *Schadenfreude* was expected to eventually meet those criteria, but was held to still lack evidence of distinctive physiology. Hate was considered a problematic case, as an enduring state that "does not subside" (Ekman & Cordaro, 2011, p. 366), apparently violating the criterion "can be of brief duration." Ekman conceptualized jealousy as an "emotional scene" which may not qualify insofar as it could involve multiple emotions (e.g., anger, fear, and sadness), and lacked evidence of a universal display.

Should *schadenfreude, gluckschmerz*, hate, and jealousy be regarded as emotions? Basic emotions (Ekman & Cordaro, 2011)? Discrete emotions (e.g., Lazarus, 2001)? Combinations of emotions (see Plutchik, 2003)? Affective-cognitive structures (Izard, 1977)? Should every shade of feeling be regarded as a distinct emotion? The question is nontrivial: instinct theory fell into disfavor in part because the number of instincts proposed grew to more than 6,000 (Reeve, 2015). In the following sections, we will briefly review some of the contributions made and issues raised by the authors; consider how to conceptualize *schadenfreude, gluckschmerz*, hate, and jealousy; and try to

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Table 1. Some proposed or observed characteristics of joy, distress, fear, and anger.

	Joy	Distress	Fear	Anger
Sample elicitor	Encounter a friend	Having blood drawn	Possibly not knowing answers to questions during a presentation	Family member tells hurtful lies that caused bad consequences
Elicitor type Individual antecedent Relationship antecedent	Improvement	Worsening	Danger	Unjust harm
Motive type	Appetitive	Aversive	Appetitive or aversive (e.g., esteem, affiliation, approval, competence, just world)	Appetitive or aversive (e.g., esteem, affiliation, approval, competence, just world)
Appraisal	Goal-relevant Motive-consistent Certain	Goal-relevant Motive-inconsistent Certain	Goal-relevant Motive-inconsistent Uncertain	Goal-relevant Motive-inconsistent Caused by other person Relatively high prospective control potential
Phenomenology	Pleasant	Hurts (painful) Agitated	Danger	Injustice Boiling Ready to explode
Physiology	Activity in posterior half of ventral pallidum and specific locations in nucleus accumbens	Activity in dorsal anterior cingulate cortex and insular cortex	Activity in central nucleus of amygdala Increased respiration, heart rate, blood pressure, pallor, EEG arousal	Activity in medial amygdala–hypothalamus–PAG circuitry Incr. noradrenaline + adrenaline Vasodilation in active muscles and facial skin
Expression	"Duchenne" smile Parted lips Lower lip and jaw dropped	Brows furrowed Eyes tightly closed Lips stretched and parted; Screaming	Brows and upper eyelid raised Eyelids tight Lips parted Jaw dropped Backward body movement	Lowered brows Lids tightened or upper lid raised; Lips funneled or pressed together
Behaviors	Jump up and down Celebrate	Move Withdraw Escape	Vigilance Freezing Flight Hiding	Confront Verbal attack Physical attack
Emotivational goal	Sustain	Get away Terminate (stop pain)	Prevent danger Get to safety	Hurt Get revenge Compel
Strategy	Move toward it	Move away from it	Prepare to move away or to stop moving toward something	Move against other person
Function	Increase contact and interaction to increase its impact	Decrease contact and interaction to decrease its impact	Protection	Coercion

Note. Based on Cordaro et al. (2018); Fischer and Roseman (2007); Kringelbach and Berridge (2017); Prkachin (2009); Roseman (2011); Scherer (1988).

organize the information provided about when and why they occur. To help in doing so, we'll compare these four emotions to four other states (joy, distress, fear, and anger; see Table 1), to which they arguably bear some similarities.

The overarching perspective (see Roseman, 2017a) is that affective phenomena can be profitably understood and studied within a framework that includes their *causes* (antecedent events and appraisals, the latter encompassing both motivations and cognitions), *components* (phenomenological, physiological, expressive, behavioral, and "emotivational goal"), *response strategies* (integrating the components into ways of coping with the recurrent situations that elicit emotions), and *functions* (the adaptive benefits of coping with these elicitors in these ways).

For example, as shown in Table 1, encountering a friend is a common elicitor of joy (e.g., Summerfield & Green, 1986), insofar as it is appraised as being definitely consistent with an appetitive motive (i.e., getting something pleasurable one wants; Roseman, Antoniou, & Jose, 1996). Phenomenologically, joy feels pleasant (Meadows, 1975) and is characterized by thoughts of motive-consistency; likely involves neural activity in specific locations in the nucleus accumbens and ventral pallidum ("liking"; Kringelbach & Berridge, 2017); is shown by a Duchenne smile, with lips parted and lower lip and jaw dropped (Cordaro et al., 2018); and is associated with tendencies to jump up and down and celebrate (Roseman, King, Nugent, & Gordon, 2013), and an emotivational goal of sustaining positive experiences (see Isen, 1987).

Table 2. Some proposed or observed characteristics of *schadenfreude gluckschmerz* jealousy, and hate.

	Schadenfreude	*Gluckschmerz*	Jealousy	Hate
Sample elicitor	Rival player injured	Rival player recovers	Mother attends to sibling	Repeated betrayal by spouse
Elicitor type	Other's misfortune	Other's gain	Possible rival Loved one attends to rival Similar age	Repeated mistreatment or humiliation Persistent harm Witness hate-based violence
Individual antecedent	Malicious envy Dislike of other Resentment of other	Malicious envy Dislike of other Resentment of other	Attachment style Neuroticism Extraversion Conscientiousness Low/high self-esteem	
Relationship antecedent	Zero-sum competition	Zero-sum competition	Satisfaction Commitment Uncertainty	Relationship type (e.g., parent, employer)
Motive type	Egoistic: decrease inferiority Just world	Egoistic: decrease inferiority Just world	Value of relationship Self-esteem Social comparison	
Appraisal	Goal-relevance Other's loss is my gain Yes! Motive-consistent Deserved	Goal-relevance Other's gainis my loss No! Motive-inconsistent Undeserved	Perceived threat Perceived power Perceived coping potential	Danger, obstructs goals Caused by other person Malicious intent Dispositional, evil nature Stable, can't be changed Immoral Self powerless?
Phenomenology	Pleasure	Pain Jolt Dismay	Unpleasant or painful Fear Anger Sadness	Intense Unpleasant sensations Fear? Helplessness?
Physiology				Activation in right insula, right premotor cortex, and right fronto-medial gyrus
Expression				Narrowed eyes?
Behaviors	Celebrate		Surveillance Bids for attention Aggression Put self between rival and loved one	Humiliate Ignore, exclude Torture Kill Cherish feelings of revenge Separate from target
Emotivational goal	Savor the feeling	One step away from intending to undermine other's success	Break up liaison Protect relationship Positive self-esteem	Eliminate, destroy Revenge Other suffer Be without?
Strategy				Remove other?
Function				Protect self Confirm just world

Note. Based on Chung and Harris (2018); Fischer et al. (2018); Goodvin, Roseman, and Steele (2018); R. H. Smith and van Dijk (2018); Zeki and Romaya (2008).

Our functional perspective (see Roseman, 2011, 2013) maintains that emotions have evolved (complementary to motivations such as hunger and need for achievement) as strategies to cope effectively with different types of crises and time-limited opportunities (e.g., in joy, *moving toward* the cause of the emotion, which functions to increase contact and interaction with the rewarding events that elicit joy, thus increasing their beneficial impact). Each component of an emotion has a functional role to play in implementing its strategy. Emotivational goals guide flexible instrumental action when time permits; particular action readinesses provide for time-tested rapid coping; expressive displays can prompt perceivers to act in ways consistent with an emotion's strategy; emotion-specific feelings and thoughts focus attention on coping-relevant information and the need for coping; and emotion physiology prepares, organizes, and provides the physical substrate for all these responses.

Characteristic responses of distress tend to *move away from* definitely aversive stimuli (and encourage others to remove them), reducing contact and interaction with such stimuli to decrease their harmful impact. Responses of fear *prepare to*

move away from or to stop moving toward possibly aversive or nonrewarding stimuli (e.g., via vigilance, inhibition, flight, or defensive action), in order to prevent potential or continued contact and interaction with them, thus avoiding their likely harmful impact. Responses of anger *move against people* who are appraised as causing motive-inconsistent events, when one's power or deservingness provides some prospective control potential (even when retrospectively one may have been powerless to prevent the harm; Litvak, Lerner, Tiedens, & Shonk, 2010), for example, via verbal or physical aggression that pressures or coerces harm-doers to alter their behavior (Fischer & Roseman, 2007; Roseman, 2018).

In what follows, we employ this perspective to aid in understanding, organizing, appreciating, and evaluating the contributions of the articles in this special section.

Smith and van Dijk on *Schadenfreude* and *Gluckschmerz*

Contributions

The emotions discussed by R. H. Smith and van Dijk (2018) are of considerable contemporary relevance, for example, in political environments that have become increasingly polarized (e.g., Iyengar & Westwood, 2015) and characterized by salient evidence of human suffering (Esses, Hamilton, & Gaucher, 2017) that seems sometimes outweighed by zero-sum economic perspectives (see Opotow, 1990). For example, degree of identification with a group predicts the intensity of *schadenfreude* (Hoogland et al., 2015), and *schadenfreude* predicts unwillingness to help people who have experienced a misfortune (Schindler, Körner, Bauer, Hadji, & Rudolph, 2015). Cikara, Bruneau, Van Bavel, and Saxe (2014) found that *schadenfreude* and *gluckschmerz* were felt more when members of an outgroup were placed in competition with the ingroup for a small bonus than when both groups could earn the bonus.

R. H. Smith and van Dijk (2018) provide sensitive, experience-near descriptions of the phenomenology of *schadenfreude* and *gluckschmerz*, and data on when they are likely to occur. The antecedents include prior envy or just dislike felt toward a person. *Schadenfreude* may be felt most intensely when another person's misfortune has been thought unlikely: "Then, from out of nowhere, the yearned-for event occurs," resulting in a pleasurable "YES!" reaction (p. 294). Analogously, in *gluckschmerz*, another person's good fortune elicits a painful "NO!" response, experienced as "a kind of jolt and dismay" (p. 294).

Perhaps most important is R. H. Smith and van Dijk's (2018) analysis of *why* people feel *schadenfreude* and *gluckschmerz*. First, according to balance theory (Heider, 1958), it is cognitively consistent for disliked others to experience misfortune, and cognitively inconsistent for disliked others to fare well. Second, if individuals are motivated to believe the world is just (Lerner, 1980), perceiving that another person's misfortune is deserved should elicit a kind of joy, and perceiving that another's good fortune is undeserved should be "disturbing" (R. H. Smith & van Dijk, 2018 p. 295). Third, egoistic motives may account

for *schadenfreude* when another person's loss is my gain, and *gluckschmerz* when another person's gain is my loss (e.g., in competitive, zero-sum situations). Empirical support is provided by a series of ingenious, programmatic studies (e.g., Hoogland et al., 2015; van Dijk, Ouwerkerk, & Smith, 2015; van Dijk, van Koningsbruggen, Ouwerkerk, & Wesseling, 2011).

Indeed, a motivational analysis may fit all these cases. Motivational versions of cognitive consistency theories hold that inconsistency is aversive (Festinger, 1957). Thus people may be motivated to see disliked others suffer rather than succeed, and feel *schadenfreude* and *gluckschmerz* in response to events consistent versus inconsistent with this motive. Functionally, *schadenfreude* and *gluckschmerz* may reflect (and augment?) self-protective motives when "the good fortunes of others threaten our welfare" (R. H. Smith & van Dijk, 2018, p. 298).

Issues for Emotion Theory

In addition to highlighting specific emotional phenomena deserving further research, R. H. Smith and van Dijk's (2018) review calls attention to two broad areas in which emotion theory could be developed further: the occurrence of *emotion clusters* or *patterns* (cf. Izard, 1972) and *emotion sequences*.

Emotion clusters or patterns. In discussing the findings of Hoogland et al. (2015), the authors (R. H. Smith & van Dijk, 2018) note that if students felt *schadenfreude* when reading about rival players' injuries, they were highly likely to feel *gluckschmerz* when reading about the players' recovery. As these emotional responses depended on opposite events, they were not felt simultaneously; rather, their correlation was probabilistic within individuals over time. As long as such probabilistic relationships are significant, they should be represented within emotion theories, as they enable prediction (e.g., of what emotional responses will occur and when they will occur) and spur the search for causal understanding.

R. H. Smith and van Dijk (2018) propose that the correlation between *schadenfreude* and *gluckschmerz* follows from the competitive relationship between the object of the emotions (e.g., injured players) and the persons experiencing them (e.g., students from a rival school), and note that the intensity of *both* emotions varies with how identified students were with their school's basketball team (presumably indexing the importance of the emotion-generating motive). The full set of observed relationships includes the alternation between *gluckschmerz* and *schadenfreude*, depending on whether one's competitors prosper or experience misfortune.

Emotion sequences. These may involve one emotion *causing* another (e.g., envy may cause disliking someone) or *predisposing* the experience of another (e.g., envy or dislike may increase the probability of feeling *schadenfreude* and *gluckschmerz*). Are there other instances in which one emotion follows another with more than chance likelihood? Examples may include opponent processes generally producing sequences of opposite-valenced emotions (Solomon, 1980); manic joy followed specifically by

depressive sadness in Bipolar I Disorder (Tondo & Baldessarini, 2016); hope followed by disappointment (van Dijk, 1999); and shame followed by rage (Scheff & Retzinger, 1991).

Some of these sequences might be explained by physiological factors (e.g., Salvadore et al., 2010; Solomon, 1980). Others may be accounted for by motivational mechanisms. For example, hope and disappointment often reflect the same underlying motive, first thought attainable, then unattained. The aversiveness of shame may motivate reappraisal that blames other people, rather than the self, for negative events. Still other sequences may involve emotivational mediation: if an emotivational goal of envy is to remove another person's relative advantage, that can lead to *schadenfreude* if achieved, and *gluckschmerz* if the gap is widened.

Sequences that involve large, rapid, important changes between negative and positive motivational or emotivational goal states—such as being rejected versus chosen as a relationship partner (e.g., Tennov, 1979), feeling diminished versus elevated status (e.g., Hochschild, 2016), or dying versus remaining alive (e.g., Malinowski, 1948)—may elicit the particularly intense emotions observed in romantic, political, or religious passion (Roseman, 2017b).

In addition to sequences often found across people, it may be worthwhile studying individual differences in the emotion sequences that contribute to personality (e.g., Horowitz, 1987).

Should* schadenfreude *and* gluckschmerz *be considered discrete emotions? Many theorists (e.g., Kleinginna & Kleinginna, 1981; Scherer, 2005) have conceptualized emotions as syndromes with multiple response components, often including those shown in Table 1. We suggest that (a) the more of these components that are observed in a particular state, the more useful it is to regard that state as an emotion; (b) the more different the content of each component is from that of other emotion states, the more useful it is to regard it as a distinct emotion; (c) the more overlap there is between the profiles of two states, the more useful it is to consider them variants of the same emotion.

The first two columns of Table 2 list features of *schadenfreude* and *gluckschmerz* gleaned from R. H. Smith and van Dijk's (2018) article. Rows 1 to 6 show antecedents and rows 7 to 11 components, and these can be compared to those of joy and distress from Table 1.

The phenomenology and emotivational goals of *schadenfreude* and joy are similar—both involve pleasure, which the person wants to maintain. R. H. Smith and van Dijk (2018) don't discuss physiology or expressive displays, but Takahashi et al. (2009) observed activation in the ventral striatum in *schadenfreude*, and Cikara and Fiske (2012), using EMG, found increased activity in facial muscles mediating smiling when participants viewed slides describing negative events happening to envied targets.

Regarding action readinesses, R. H. Smith and van Dijk (2018) mention celebration, which has been found in joy (Roseman et al., 2013), as characteristic of *schadenfreude*, though it may be concealed as socially inappropriate. *Schadenfreude* may also be correlated with hostile action tendencies. For example,

Cikara, Botvinick, and Fiske (2011) found that die-hard baseball fans who reported greater pleasure in response to a rival team's failures—especially those showing greater ventral striatum activation—also reported greater likelihood of heckling, threatening, insulting, and hitting fans of the rival team (than fans of a nonrival team). However, Seip, Rotteveel, van Dillen, and van Dijk (2014) maintain that *schadenfreude* involves pleasure from passively witnessing another person suffer, rather than actively causing the suffering. Thus, the response profiles of joy and *schadenfreude* appear quite similar.

The appraisal pattern generating *schadenfreude* may be a particular instantiation of the one generating joy. Both involve perceiving definite motive-consistency in a motive-relevant domain. The particular "yearned-for" event in *schadenfreude* is another person's misfortune. The motives mentioned by R. H. Smith and van Dijk (2018) as antecedents of *schadenfreude* are justice and egoistic motives. In contrast to the appetitive motives contributing to joy, the latter may involve the aversive motive of removing painful inferiority, though that motivation is said (298) to be associated with envy. It is also possible that the desire to reduce aversive inferiority could be transformed into an appetitive motive: seeking the envied person's downfall.

Thus, although *schadenfreude*'s particular situational antecedents (the misfortunes of another person) are distinctive, the appraisal of those antecedents and much of its response profile are quite similar to joy. Perhaps that should not be surprising for an emotion of 'harm–joy' (R. H. Smith & van Dijk, 2018, p. 293).

There is much less research on *gluckschmerz* (a PsycINFO search on July 19, 2018 turned up only two citations), though the relationship of 'luck–pain' to distress may be analogous. Its phenomenology, like that of distress, involves pain (although the "dismay" proposed by R. H. Smith and van Dijk [2018] on p. 294, as felt in many instances, suggests a feeling quality akin to sadness in those cases).

The authors do not discuss the physiology or expression of *gluckschmerz*. However, Takahashi et al. (2009, pp. 9–10) found that "when your gain is my pain" (which they identify with envy) there is greater relative activation in the dorsal anterior cingulate cortex (dACC), a location in the brain linked to distress (as the affective component of physical pain). Cikara et al. (2011) also found that baseball fans who viewed outcomes that were negative for them (a rival team's success or a favored team's failure) rated themselves as feeling pain and showed increased activation in the ACC and right insula, though data on the *gluckschmerz*-relevant outcome were not presented separately.

It is possible that *gluckschmerz* could also be associated with hostile action tendencies. However, R. H. Smith and van Dijk (2018) describe *gluckschmerz* as "one step away" from actually undermining the target or intending to do so, and say that it, like *schadenfreude*, is "passive . . . in that when we feel it we have done nothing to prevent the other person's good fortune from happening" (p. 294).

The appraisals held to elicit *gluckschmerz*, like those of distress, appear to involve definite goal-relevant motive-inconsistency, as indicated by the "NO!" response when another's "'good news'

strikes." But here too, the motive-inconsistency is of a particular character—the good fortune of another is perceived as "bad for us," for example, as a comparative loss within a competitive situation, and perhaps as undeserved.

Thus an argument against considering *schadenfreude* and *gluckschmerz* to be discrete emotions focuses on their similarity to joy and distress. Both reactions have distinctively interpersonal antecedents. But we may hesitate to posit distinct discrete emotions based solely on particular antecedents, such as joy at encountering old friends, and joy at experiencing fine weather, and joy at finding a nice apartment (different situations in which participants in Scherer, 1988, Appendix E, reported feeling joy). We may be similarly reluctant to say that distress when undergoing medical procedures, being ostracized, and losing one's wallet are each distinct emotions.

The concept of an emotion variant (Roseman, 2017a) allows for some differences within more general similarity. *Schadenfreude* might be considered either an instance or a variant of joy—elicited by the misfortunes of disliked or envied others (which are typically perceived as deserved), and correlated with a tendency to withhold help from them—which, like other instances of joy, involves striatal brain activity, felt pleasantness, tendencies to smile and celebrate, and a desire to savor the experience. *Gluckschmerz* might be considered an instance or a variant of distress—elicited by positive outcomes for disliked or envied others, sometimes experienced as dismay, and possibly correlated with a tendency to undermine the target's success—which, like other instances of distress, involves activity in the dACC, felt painfulness, and a desire to terminate the unpleasant experience.

However, even if *schadenfreude* and *gluckschmerz* were considered instances or variants of joy and distress, the goal of theory is to describe, predict, and explain empirical relationships among variables. Insofar as these emotional phenomena have distinctive properties (e.g., are perceived as socially undesirable; often hidden from others; likely to occur under specifiable conditions; and correlated with each other, with guilt and shame, and with important behaviors such as undermining or withholding help from others), then developing theory and carefully testing hypotheses about *schadenfreude* and *gluckschmerz* are important contributions.

Questions About Smith and van Dijk's Model

We'll close this section with some questions that may be worth investigating in light of the authors' (R. H. Smith & van Dijk, 2018) work on *schadenfreude* and *gluckschmerz*. One set concerns how people respond to having these "socially improper" emotional reactions. R. H. Smith and van Dijk observe that *schadenfreude, gluckschmerz,* and envy are often concealed from others, and sometimes not acknowledged to ourselves. When this happens, what are the effects on our relationships with those toward whom we feel these counterempathic emotions? Do *schadenfreude* and *gluckschmerz*, or their concealment, make it difficult to live with, work with, or interact with their targets? Do the relationships tend to deteriorate?

What happens if those toward whom we feel *schadenfreude* or *gluckschmerz* detect our emotions? Aristotle (350 BC/1966) said that others being cheerful while we suffer causes anger. How do those feeling *schadenfreude* or *gluckschmerz*, and those toward whom they are felt, actually cope with their disclosure?

What are the intrapersonal effects of undisclosed *schadenfreude* and *gluckschmerz*? Do they sap cognitive resources? Do they have deleterious effects on health and even longevity (see the review of the effects of contempt on the contemners in Roseman, 2018)? Under what conditions do people justify their counterempathic feelings, and under what conditions do they try to regulate or alter them (e.g., Forscher & Devine, 2014)?

A second set of questions focuses on processes and interventions that could prevent or decrease counterempathic reactions such as *schadenfreude* and *gluckschmerz*, which may have significant costs (e.g., Cikara, 2015). Building on the authors' theory (R. H. Smith & van Dijk, 2018), *schadenfreude* and *gluckschmerz* might be reduced by (a) educational, organizational, economic, political, and legal arrangements that establish or encourage cooperation (toward common superordinate goals) rather than competition (e.g., Aronson, Blaney, Stephan, Sikes, & Snapp, 1978); (b) interventions that reduce inequality, which fosters the envy that can lead to *schadenfreude* and *gluckschmerz* (e.g., Tropp & Barlow, 2018); (c) interventions that break down the boundaries between groups (e.g., Gaertner et al., 2000), which encourage us/them perceptions; (d) interventions that facilitate equal-status contact and friendship formation, as contact and perceived similarity can increase empathy (Pettigrew & Tropp, 2006), and liking can moderate negative interpersonal emotions; (e) providing noncompetitive means to self-enhancement, such as self-affirmation (van Dijk et al. 2011) or individualized goal structures (defining achievement relative to one's other performance outcomes); (f) questioning the morality of feeling pleasure at others' misfortunes, and instead teaching moral inclusion and prosocial value orientation (Opotow, Gerson, & Woodside, 2005; Staub, 2005).

Chung and Harris on Jealousy

Contributions

The dynamic functional model of jealousy is a masterful integration of numerous theoretical variables, backed up by impressive empirical studies. It identifies no nonverbal display or single action tendency, but rather proposes that jealousy is organized around the goal of disrupting liaisons between a loved one and a rival. Actions aimed at attaining this goal include attention-seeking, aggression, and physical interference, with particular behaviors chosen according to perceived effectiveness. Jealousy is held to be triggered by appraising that a rival poses a threat to a valued relationship, and a host of situational, individual, and relationship factors are specified that affect (a) the likelihood that threat will be perceived and (b) an individual's response. For example, threat appraisal is increased by the presence of a sex- and age-appropriate rival; by an individual's insecure attachment style and neuroticism; and by low relationship satisfaction,

commitment, and certainty. Chung and Harris (2018) cite evidence that jealousy is universal, and manifest in infants and some nonhuman species. They propose it functions to safeguard valued relationships from threat, and they refer to findings indicating that it can be correlated with relationship longevity under some conditions.

Issues for Emotion Theory

The dynamic functional model raises several issues for emotion theories like the one outlined by Ekman and Cordaro (2011).

Should states that lack nonverbal signals be regarded as emotions? In recent years, emotion theories have been moving away from claiming a tight connection between emotions and expressions, partly in light of evidence that even emotions associated with nonverbal displays often occur without them (e.g., Reisenzein, 2000). Moreover, a number of states that have been profitably investigated as emotions have no signals yet identified, including guilt (e.g., Tangney & Dearing, 2003), regret (e.g., Zeelenberg, van Dijk, Manstead, & van der Pligt, 2000), envy (e.g., R. H. Smith, 2008), and hope (e.g., Snyder, 2002).

Chung and Harris (2018) observe that it could be adaptive for some emotions *not* to have nonverbal displays. One thinks of guilt as a possible example, as its expression could elicit punishment from others—though shame, which has a postural display (Tracy, Robins, & Schriber, 2009), would seem subject to similar functional considerations. Insofar as jealousy is sometimes experienced as constraining by one's partner, and might thus threaten rather than safeguard a relationship, it could be another example of an emotion whose display could be maladaptive (though this is inconsistent with the cited research associating jealousy with relationship longevity).

If a state is found to have other emotion properties (e.g., distinctive phenomenology, physiology, action tendencies, and goals), then it may still be theoretically and empirically fruitful for it to be regarded as an emotion, because doing so facilitates prediction and understanding. For example, regarding jealousy as an emotion allows us to predict it has control precedence (Frijda, 1986) as manifest in intrusive thoughts and preemptive behaviors, a valenced feeling quality, and a goal that motivates instrumental emotion-relevant behavior (as shown in Table 2). It also encourages us to ask whether regarding as emotions other states that seem to lack nonverbal signals (e.g., guilt, regret, interpersonal dislike, and hatred) advances our understanding of emotions generally.

It is still possible that jealousy will ultimately be found to have a distinctive display, whether in facial action and gaze behavior (e.g., Cordaro et al., 2018), vocalization (Cordaro, Keltner, Tshering, Wangchuk, & Flynn, 2016), touch (Hertenstein, Holmes, McCullough, & Keltner, 2009), or posture and movement (Dael, Mortillaro, & Scherer, 2012)—perhaps something related to increased attentiveness in the presence of a potential rival.

Variability in the actions of jealousy. In the debate about whether discrete emotions actually exist, variability has been a key point of contention. Barrett (2009) and Russell (2003) have argued that responses across instances of particular emotions are too different for them to be scientifically useful constructs. However, Frijda (1986) and Lazarus (1991) maintained that emotions, rather than being fixed action patterns, are complex, flexible systems of behavior that allow for variations in situational conditions and feedback from actions already taken. Jealousy is hardly the only putative emotion to involve considerable variability in action readiness (e.g., see fear in Table 1).

The emotivational goal construct (Roseman, 2011) is used effectively by Chung and Harris to account for "a wide variety of behaviors depending upon which one the organism perceives to be most likely to succeed" so that jealousy is not "inflexibly tied to any single behavioral disposition" (2018, p. 274). However, emotivational goals are not the only influences on emotional behavior. They are most suited to govern emotional behavior when potential motive-relevant change is relatively small rather than large, slow rather than rapid, and distant rather than imminent—and when emotion intensity is therefore not extremely high (Roseman, 2008). That is when it is most possible to deliberatively calculate and compare which of many alternative possible actions will best achieve a goal. It is not clear that individuals in the grips of intense jealousy (whose rash actions sometimes include counterproductive clinging, restriction, abuse, and even murder) are performing many such computations.

Emotivational goals coexist with action tendencies and readinesses (cf. Frijda, 1986). If there were none involved in jealousy, that would make it difficult to produce the rapid coping that has long been regarded as a hallmark of emotional behavior (Cannon, 1932). Such tendencies and readinesses involve actions that can be implemented without careful deliberation in situations of crisis or time-limited opportunity—situations that tend to be marked by the phenomenology of emotional intensity, the experience of passivity or compulsion, and impulsive behavior. It would also make jealousy difficult to distinguish from a nonemotional motive or goal (e.g., a desire to protect relationships or to prevent usurpation).

We don't think Chung and Harris (2018) are saying this. They mention action readiness in presenting their model, include it in Figures 1 and 2, and identify four actions or action types observed in jealousy: surveillance of the relationship partner's behavior, bids to maintain or regain the partner's attention, aggression toward the rival or the partner, and physically obstructing their liaison.

If not engaging in careful means–end deliberation, how do people feeling intensely jealous select among the alternative actions mentioned by Chung and Harris? The blended emotion view they cite (e.g., Sharpsteen, 1991) claims that emotions such as fear, anger, and sadness are not just instrumentally displayed in episodes of jealousy (e.g., to influence the behavior of the partner or the rival) but are actually felt, with the particular experienced emotions strongly influencing behavior selection. Moreover, the same appraisals that determine which emotions occur in other circumstances also affect the particular emotion felt at a particular moment of a jealous episode.

For example, focusing on (the outcome of) an increasing threat to a valued relationship—as when focusing on other

motive-inconsistent events appraised as uncertain (see column 3 of Table 1)—would increase the probability of fear and surveillance behavior, similar to other examples of "risk assessment" (e.g., Blanchard, Griebel, Pobbe, & Blanchard, 2011). Similarly, focusing on the possibility of preserving the relationship could—as when focusing on other motive-consistent events appraised as uncertain—increase the likelihood of feeling hope, and attempts to maintain or regain the partner's attention. Blaming the partner or the rival for disrupting the relationship, particularly if their liaison was appraised as illegitimate and there was potential to preserve it, would, like the appraisal pattern shown in the fourth column of Table 1, increase the probability of anger and aggression. Perceiving loss of the relationship to have occurred or be inevitable, like other instances of loss, would increase the likelihood of sadness and behaviors such as ceasing to pursue the partner and soliciting care from others.

If this is the case, should jealousy then be considered a discrete emotion, or rather a cluster or pattern of emotions? (The latter, which suggests a succession of emotion states with different features as appraisal or appraisal focus changes, seems a better term than "blended emotion," which suggests a simultaneous meshing of potentially incompatible features.)

Chung and Harris (2018) maintain that the blended emotion view misses the unique motivational state that is characteristic of jealousy. Jealousy is not simply the correlated occurrence of fear, anger, and sadness (and perhaps distress about rejection along with hope for relationship preservation)—it is the appraisal-mediated systematic occurrence of those emotions regarding a rival's threat to a valued relationship, along with the motivation to disrupt the liaison or preserve the relationship. However we conceptualize jealousy, if we fail to understand the centrality of this distinctive motivation, we would miss the crucial factor that organizes and integrates its various responses. In that light, jealousy deserves to be studied as a distinctive and complex, but coherent, emotional phenomenon.

Questions Specific to the Dynamic Functional Model

Is the fundamental goal in jealousy regaining the partner's attention (Chung & Harris, 2018, p. 272), restoring or maintaining the relationship (p. 272), or preventing a threatening liaison (p. 273)? Do the response components of jealousy vary among different types of relationship (e.g., romantic, parent–child, friendship)? For example, does relationship type affect the process of threat detection, or the relative probability of surveillance versus bids for attention versus aggression? How can we best account for jealous reactions that are not obviously related to preserving an ongoing relationship, such as jealousy over past relationships or cases of murdering the partner? Are there comparable appraisals, feelings, and actions when a relationship seems threatened by an activity (e.g., the partner devotes attention to work or school) rather than a rival? How do people cope most successfully with jealousy in family, friendship, and romantic contexts?

Scenario, simulation, survey, and interview studies might help disentangle the possibilities. For example, they could compare the intensity of jealousy and its response components under varying conditions to assess the relative importance of preventing a rival liaison, having the partner's time and attention, being the partner's (top?) priority, preserving the relationship, and maintaining self-esteem.

Fischer, Halperin, Canetti, and Jasini on Hate

Contributions

The authors' wide-ranging review (Fischer et al., 2018) creatively and concisely synthesizes the literature on this understudied and important topic. As they point out, hate is especially destructive, having been linked to homicide, mass murder, political violence, and genocide. Their work on hatred is also particularly timely, as hatred (e.g., toward minorities and migrants) has been associated with recent increases in populism in several countries, as well as increased numbers of hate groups and hate crimes (Akbaba, 2018).

Building on their pioneering empirical research, Fischer et al. (2018) conceptualize hate as an intense emotion, often accompanied by fear, helplessness, and unpleasant physical sensations, and involving tendencies to attack its targets in various ways in order to eliminate or destroy them (see column 4 of Table 2). It is often initiated by repeated harm, which, if hate is to be felt, is appraised as revealing the malevolent intent and stable, dispositional, evil nature of the target. The authors propose that hate functions to protect those who feel it and helps confirm their belief that the world is just. They suggest that hate might be reduced by interventions (such as increased contact with the targets of hate) that alter appraisals of their stable, dispositional, malevolent character.

Issues for Emotion Theory

Variability. Fischer et al. (2018) say that hatred develops in response to repeated mistreatment, humiliation, or goal obstruction, and its emotivational goal is to eliminate or destroy the target "either mentally (humiliating, treasuring feelings of revenge), socially (excluding, ignoring), or physically (killing, torturing)" (p. 311).

One way to address such complexity is via the distinction between typical and necessary features of an emotion (C. A. Smith & Ellsworth, 1987). For example, humiliation (e.g., Fitness & Fletcher, 1993) may be a common but not necessary elicitor of hatred. Thus, humiliation may be important in generating hatred among some Palestinians toward Israelis (Lacey, 2011), but less so in generating hatred among Israelis toward Palestinians (for whom repeated attacks on civilians may be more important triggers). The moving account of how an incident of Serbian mistreatment provoked hatred in a young Albanian woman suggests that having harm *repeated* may also be a typical but not necessary antecedent of hate. Perhaps *lasting* harm, whether from repeated events or a single event with enduring consequences, may be a more comprehensive way of conceptualizing hatred's characteristic elicitor.

With regard to how elicitors are appraised, it is possible that immorality and malicious intent are only typical determinants

of hate, whereas a dispositional (Fischer et al., 2018) or intrinsic (Roseman, 2013) appraisal is necessary. This would encompass instances of hatred toward people whose traits (rather than deliberate actions) cause someone lasting harm, such as a sibling who always outshines one or a coworker whose incompetence interferes continually with one's group performance.

And what of the emotivational goal of hatred? Is it eliminating or destroying the object of one's hate? A recent study by Goodvin Roseman, and Steele (2018) compared eliciting events, appraisals, and responses in four interpersonal negative emotion states. When asked what they wanted in current or prior experiences of hatred, participants' open-ended responses rarely indicated a desire to destroy. In closed-ended ratings, the goals most closely associated with hatred intensity (rather than anger, contempt, or interpersonal dislike intensity) involved wanting someone to suffer, hurting, and getting revenge against the target. Participants rated "wanting to eliminate someone as a source of threat" below the midpoint of its scale, though they did rate it significantly higher in hatred experiences than in experiences of the other three emotions. The highest rated goal in hatred experiences was "wanting someone out of your life," though this covaried somewhat more with rated contempt intensity than rated hatred intensity (as did the item "wanting to get rid of someone"). Contempt, however, unlike hatred, covaried more with wanting to be far from and exclude the target (Fischer & Roseman, 2007) than with wanting to hurt or get revenge.

Perhaps what hurting, getting revenge against, and eliminating the target have in common is that they all can deal with harm whether or not the target acts to change behavior. Being hurt *could* motivate the target to change, or it could disable the target and thus prevent continued harm. Revenge could even the score and thus at least partially undo or compensate for the harm (Frijda, 1994). Getting the harmdoer out of one's life prevents continued or recurrent harm, even if it doesn't alter the harmdoer's behavior. If the emotivational goal of hatred is to "be without" the target, that would encompass cases such as the adolescent who ignores and bans his or her parents, and the fact that interpersonally "hated persons are often intimates" (Fischer et al., 2018, p. 313) whom we wouldn't typically want to eliminate or destroy. It would also characterize hatred as opposite to love, a central goal of which is to "be with" the beloved (Shaver et al., 1987).

Fischer et al. (2018, p. 311) say that "how exactly the emotivational goal of hate is translated into a specific action" will depend in part on "the best way" to achieve that goal. Instrumentality and feasibility indeed fit goal-governed behavior. But as it is impossible to consider the infinity of possible actions instrumental to a goal, in practice how is this determined? The authors mention two factors that may limit both the generation and selection of alternatives: the relationship between the hater and the target, and "why someone has developed hate" (p. 311). For example, one might ignore and refuse to see a hated parent insofar as such actions are within the control of a child (who is not living with the parent) and put a halt to major ways that parents are often in a child's life (i.e., giving advice and making demands during communications and interactions). In revenge, there may be reciprocal behavior. Modeling (e.g., of physical assaults or arson attacks; Müller & Schwarz, 2018) and social sanction (e.g.,

responses of authorities; Bandura, 1999) are likely also influential in generation of and selection among behaviors.

But are there also specific action readinesses in hate, as in other emotions, that would allow for rapid coping in situations when hatred is experienced as "urgent" (Fischer et al., 2018, p. 312)? Among participants describing hatred experiences in the Goodvin et al. (2018) study, almost all mentioned feeling like attacking in some way. In closed-ended data, items measuring direct verbal aggression (e.g., "feeling like yelling at someone," "feeling like making a negative remark to someone about their behavior") covaried most with rated anger intensity. In contrast, the item mentioning physical aggression ("feeling like hitting someone") covaried most with rated hatred, as did "fantasizing about bad things happening to someone," "feeling like encouraging other people to attack someone," and "looking for an opportunity to take action against someone." These data suggest that hatred involves readiness to attack, and perhaps a specific readiness to physically attack the target of one's hate, if possible, especially when hatred is most intense.

Should hatred be considered a discrete emotion?   Alternatives include regarding hate as intense or generalized anger (Bernier & Dozier, 2002), as intense dislike (cf. Miller, 2009), or as a combination or cluster of two or more emotions (e.g., anger, contempt, fear, and disgust; Sternberg, 2005).

Goodvin et al. (2018) found that the intensity of hatred was most highly correlated with the intensity of anger, and experiences of hatred were most similar to experiences of anger in ratings of emotion-eliciting events and appraisals as well as emotion phenomenology, expressions, and behaviors. (In ratings of items measuring goals, hatred was closest to contempt.) But Fischer et al. (2018) maintain that evidence favors conceptualizing hate as a distinct emotion, differing from anger in greater perceived malicious intent, dispositional attributions, perception that the target's behavior cannot be changed, and the emotivational goal of eliminating or destroying the target (rather than coercing the target's behavior). Data from Goodvin et al. (2018) provide support for some of these claims, as hatred was more closely associated than anger with thinking that someone is evil and cannot be changed. As already discussed, hatred may involve readiness for physical aggression and wanting the target out of one's life (more than anger). Participants in Goodvin et al. (2018) rated "wanting to restore good relations with someone eventually" highest in anger (though still below the midpoint of the scale) but did *not* rate "wanting to change someone's behavior or beliefs" higher in anger than in hatred.

Though Fischer et al. (2018) propose no nonverbal signal for hatred, participants in Goodvin et al. (2018) rated the item "feeling your eyes narrowing when looking at someone" highest in experiences of hatred, and this item significantly covaried with hate intensity. This suggests that Action Unit (AU) 7 from the Facial Action Coding System (FACS; Ekman & Friesen, 1978), in which the upper and lower eyelids are tightened, narrowing the eyes, could signal hate, in contrast to AU 5, in which the upper eyelid is raised, widening the eyes and creating the appearance of a glare. According to Matsumoto, Keltner, Shiota, O'Sullivan, and Frank (2008), Darwin proposed that AU 5 (with

AU 4, brow lowering) signaled anger, but did not mention AU 7. Cordaro et al. (2018) found AU 4 with AU 7 in anger across five cultures, but they caution that the posed expressions in their study may not accurately reflect the muscle movements in spontaneous expressions, and they did not ask their participants to pose hatred. Future research studying spontaneous expressions of felt hatred with careful measurement techniques (such as EMG and FACS scoring) will be needed to determine whether there is a distinctive nonverbal display for hate.

Fischer et al. (2018) also offer no specification regarding physiology. A PsycINFO search (on July 23, 2018) found just one fMRI study done on hate. Zeki and Romaya (2008) found that increased activation in the right insula, premotor cortex, and fronto-medial gyrus correlated linearly with ratings on a Passionate Hate Scale.

With regard to feeling quality, Goodvin et al. (2018) found greatest emotion intensity and physical pain in hatred (supporting two of Fischer et al.'s [2018] hypotheses regarding the phenomenology of hatred shown here in Table 2), though the differences were significant only in comparison to experiences of dislike. However, fear received low ratings in hatred experiences and was not significantly higher than in experiences of the other emotions. Beyond hatred itself, the emotional feelings most characteristic of hatred were, in order of decreasing intensity, anger, frustration, and dislike.

Overall, it seems that while hatred is clearly similar to anger as an emotion that involves increased readiness for attacking other people, there are grounds for considering it distinct. As can be seen by comparing column 4 in Tables 1 and 2, these include possible differences in phenomenological, physiological, expressive, and behavioral responses, as well as in emotivational goals. Whether hatred should be considered a variant of anger or its own *discrete* emotion depends on whether these differences are supported in future research, and if so, how much variability in responses and relationship to other constructs is accounted for by each view (grouping hatred together with anger vs. considering it as different as, say, anger is from contempt).

Duration. Fischer et al. (2018) discuss a third issue, relevant to both jealousy and hate: whether states that last more than seconds or minutes should be regarded as emotions. We may distinguish between longer lasting states that are relatively independent of eliciting stimuli (usually considered "moods" rather than emotions), and those linked to a particular appraised stimulus. Within the latter category would be emotion states that are continuously experienced following an initiating stimulus (which we will term *prolonged emotions*) versus predispositions to recurrently experience a particular emotion when a relevant stimulus is encountered (for a limited duration on each occasion), which would result in a pattern of chronic but intermittent emotion.

Chung and Harris (2018) invite us to consider whether we should expect emotions to last as long as the survival-relevant conditions with which they have evolved to cope (such as an ongoing threat to a relationship). Empirical data on this little-studied question show that participants do report longer lasting emotions. In a study by Sonnemans (1990; detailed in Frijda,

Mesquita, Sonnemans, & van Goozen, 1991), 50% of participants recalling emotions from the past week said they lasted more than an hour. When asked to indicate how long before their emotion returned to baseline, 69% indicated longer than an hour; 20% were longer than a day. Frijda et al. (1991) cite corresponding data from Scherer, Wallbott, and Summerfield (1986), whose participants said their recalled emotion experiences ranged from under 5 minutes (in fear) to several days (in sadness).

Indeed, a recent study of recalled emotion episodes by Verduyn and Lavrijsen (2015) found the median self-reported duration of jealousy and hatred episodes to each be approximately 2 hours until first return to baseline, and 15 and 60 hours (respectively) until permanent return to baseline. Thus, lengthy durations seem quite plausible for surveillance behavior and a goal of preventing usurpation in jealousy, or physical attack tendencies and a goal of eliminating the target, or causing the target to suffer, in hatred.

At first glance, prolonged duration would seem to violate what Frijda (2007) termed the Law of Change: "Emotions are elicited not so much by the presence of favorable or unfavorable conditions but by actual or expected changes in favorable or unfavorable conditions" (p. 10). When conditions are static, organisms adapt and emotions decrease in intensity.

However, change can be provisionally, progressively, or repeatedly assessed (e.g., in rumination). It can be sought or resisted until, as memories and thoughts recur, it is accepted (e.g., Raphael, 1983, p. 49). Moreover, change can be computed from expected or desired events, as well as actual events (e.g., Frijda et al., 1991; Roseman, 2008). For example, sadness in bereavement can be compounded by successive appraisals of all that one has lost; jealousy maintained by alternatively focusing on different bits of evidence bearing on whether one's partner is having an affair; hatred experienced continually as one contemplates the multiple malevolent actions of a tyrant, or their implications.

Intermittent experience of an emotion is more characteristic of what Fischer et al. (2018; see also Fischer & Giner-Sorolla, 2016) refer to as sentiments. According to Frijda (2007, pp. 192–193), sentiments are dispositions to appraise persons, objects, or kinds of events in ways that, because they are relevant to one's motives ("concerns"), can elicit emotions when those persons, objects, or events are encountered or thought about. Examples given by Frijda et al. (1991) include appraising another person as dishonest or as evil, and jealousy and hatred are listed among the states that can be manifest as sentiments. Frijda (2007, p. 192) suggests that "Sentiments can be regarded as latent emotions" because—in between encountering or thinking of their objects—they lack the urgency and effects on action that actual emotions have.

Fischer et al. (2018) maintain that hatred can be *both* a long-term sentiment and a short-term emotion ("immediate hate"). A similar conclusion was reached by Shaver, Morgan, and Wu (1992) with reference to love, and their word for the short-term version ("surge" love) nicely conveys the posited sharp emotion increase.

The emotivational goal construct allows for long-term emotion-influenced action (e.g., seeking to get to safety or to

prevent a negative outcome, in fear). The construct was defined as a goal that people want to pursue when experiencing a particular emotion (e.g., Roseman, 2011). It is possible, however, that emotivational goals, once engendered as part of an emotion, can persist or recur at times when the emotion is not being experienced, even if at such times they should be conceptualized differently. Emotivational goals might, if they outlast the emotion, have then become *emotion-generated* goals. These might be considered part of, or results of, a sentiment (insofar as they depend upon its enduring appraisals of the object), or they might have become independent of both the emotion and the sentiment. For example, people who have experienced hatred toward an ethnic group might pursue the goal of deporting its members, even when no emotion is being felt. In that case, we might expect the goal—if it is no longer tied to the emotion—to lose some of its importance relative to other goals.

So it would seem that, as proposed by Chung and Harris (2018) and Fischer et al. (2018), emotion theories should be elaborated to encompass both prolonged emotions (e.g., a wave of jealousy lasting hours or days) and intermittently experienced emotions that are based on long-term sentiments (e.g., hatred that can be felt for years). Frijda et al. (1991) also suggest that our understanding of emotional life would be advanced by studying, as functional units, episodes that comprise multiple emotions related to a particular concern-related event or state of affairs (they categorize jealousy as one such phenomenon).

Questions About the Fischer et al. Model

Is powerlessness a crucial determinant of hate? Do individuals and groups experience diminished hatred if they acquire power over its target? If so, many acts of hate-inspired violence, murder, and genocide might not actually be carried to completion. Moreover, if hate is an attack emotion, like anger, it would hardly be adaptive for powerlessness to be a necessary antecedent. Attacking when one lacks power or control potential is likely to be futile, or counterproductive due to harm from retaliation.

Instead, as is the case with anger (Litvak et al., 2010), hate may often be elicited by low *retrospective control* (one could not or did not prevent harmful events from happening) if it is combined with some measure of *prospective control potential* (actual power, or the legitimacy that confers or suggests the possibility of altering events at some time in the future; French & Raven, 1959; Roseman, 2018). Retrospective low control may be more prominent in hate than in anger if harm has been repeated, but it may typically be balanced by the perceived immoral nature of the hated target and the target's actions (Fischer et al., 2018). If the world is just (Lerner, 2015), surely evil actions will be avenged and evildoers ultimately vanquished.

Perceived powerlessness in hate may refer especially to one's inability to change the hated person, who is perceived as dispositionally evil (Fischer et al., 2018; Goodvin et al., 2018). But as previously discussed, one may nevertheless have power to prevent or stop the harm such persons cause (e.g., by removing them from the situation).

How is a particular emotivational goal selected? If there are alternative emotivational goals in hatred, such as seeking to hurt the targets, or eliminate them from one's environment (e.g., via segregation or deportation), or destroy them, what determines which of these is pursued in a given instance? This question, so consequential for the targets of hate, returns us to the issue of variability. Some determinants of goals are likely similar to those of actions, such as feasibility and the social learning variables of modeling and reinforcement. Based on research into genocide, Staub (1989) cites historical progressions (cycles of increasing devaluation and maltreatment), which can be shaped by a society's characteristic behavioral repertoire (e.g., a tradition of violence) and the responses of bystanders. Recent work suggests that perceived existential crises (e.g., "they'll kill us if we don't kill them first"; Sémelin, 2007) and the envisioned possibility of creating a dramatically positive new order (see Weitz, 2003) can also influence whether people adopt the goal of destroying a group.

Summary and Conclusions

The three articles in this special section draw our attention to important emotional phenomena meriting increased research attention. *Schadenfreude* and *gluckschmerz*, jealousy, and hatred are relatively understudied and have important social consequences. Moreover, in reviewing the relevant research, the authors raise important questions for emotion theory, such as

1. How should states that lack one or more typical components or features of emotions be conceptualized?
2. How can variability in an emotion's components across instances be accounted for?
3. Which states should be regarded as discrete emotions, and what other constructs, if any, are needed to adequately describe emotional phenomena?
4. Can emotions (and other emotion-related constructs) exist over lengthy time periods?

Rather than attempting to resolve such questions by definitional fiat, we have suggested an empirical approach, informed by a functional perspective.

1. Thus, the choice of whether *schadenfreude, gluckschmerz*, jealousy, or hate should be conceptualized as emotions can be based on whether that enables prediction of their properties (such as hedonic quality, action readiness, control precedence, and motivational structure), and coherent explanation of those properties and their relationship to other variables (e.g., other emotions, and their causes and consequences). For example, if a putative emotion (unlike other emotions) lacked a nonverbal display, we would be unable to predict that property. But, as Chung and Harris (2018) suggest, some emotions might not have displays if expression would typically interfere with rather than further their strategies. In contrast, though an emotion can have multiple

situation-dependent action readinesses, lacking *any* action readiness would limit its ability to facilitate effective coping when fast action is required.

2. Variability in the phenomenology, expression, and behavior of an emotion across instances is to be expected (Roseman, 2011), and some of it can be explained, as Fischer et al. (2018) suggest, by emotivational goals guiding response selection in light of varying situational conditions. Additional variability in emotion-specific properties can be explained in terms of varying emotion intensity, multiple action readinesses, and historical influences.

3. Decisions as to whether *schadenfreude, gluckschmerz,* jealousy, and hatred should be regarded as distinct emotions (or instead, as variants or patterned occurrences of other emotions in emotion episodes and sequences) can be based on the uniqueness of their response profiles (vs. similarity to other states such as joy, distress, fear, and anger, as shown in Tables 1 and 2) and their relationship to other variables. Regardless of how they are categorized, *schadenfreude, gluckschmerz,* jealousy, and hate each refer to distinctive, coherent emotional phenomena that merit unified theoretical treatment and empirical study, as R. H. Smith and van Dijk (2018), Chung and Harris (2018), and Fischer et al. (2018) have shown.

4. Based on self-reports and at least preliminary physiological and behavioral data (including behavior evidencing effort, organization, and equifinality), emotion states such as jealousy and hatred (and others, including sadness, anger, and envy) can persist continually at least for hours, and as dispositions to experience emotions (i.e., as sentiments) perhaps for weeks, months, and even years.

It remains for future emotion theorists and researchers to take up the opportunities and challenges involved in investigating the phenomena that the authors in this special section have illuminated.

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