

On the deep structure of social affect: Attitudes, emotions, sentiments, and the case of “contempt”

Matthew M. Gervais

*School of Human Evolution and Social Change, Arizona State University,
Tempe, AZ 85287-2402; Center for Human Evolutionary Studies, Department
of Anthropology, Rutgers University, New Brunswick, NJ 08901-1414*
matthewgervais@gmail.com
www.matthewgervais.net

Daniel M. T. Fessler

*Center for Behavior, Evolution, and Culture, University of California,
Los Angeles, Los Angeles, CA 90095-1553; Department of Anthropology,
University of California, Los Angeles, Los Angeles, CA 90095-1553*
dfessler@anthro.ucla.edu
www.danielmfessler.com

Abstract: Contempt is typically studied as a uniquely human moral emotion. However, this approach has yielded inconclusive results. We argue this is because the folk affect concept “contempt” has been inaccurately mapped onto basic affect systems. “Contempt” has features that are inconsistent with a basic emotion, especially its protracted duration and frequently cold phenomenology. Yet other features are inconsistent with a basic attitude. Nonetheless, the features of “contempt” functionally cohere. To account for this, we revive and reconfigure the *sentiment* construct using the notion of evolved functional specialization. We develop the Attitude–Scenario–Emotion (ASE) model of sentiments, in which enduring attitudes represent others’ social-relational value and moderate discrete emotions across scenarios. Sentiments are functional networks of attitudes and emotions. Distinct sentiments, including *love*, *respect*, *like*, *hate*, and *fear*, track distinct relational affordances, and each is emotionally pluripotent, thereby serving both bookkeeping and commitment functions within relationships. The sentiment *contempt* is an absence of *respect*; from cues to others’ low efficacy, it represents them as worthless and small, muting *compassion*, *guilt*, and *shame* and potentiating *anger*, *disgust*, and *mirth*. This sentiment is ancient yet implicated in the ratcheting evolution of human ultrasociality. The manifolds of the *contempt* network, differentially engaged across individuals and populations, explain the features of “contempt,” its translatability, and its variable experience as “hot” or “cold,” occurrent or enduring, and anger-like or disgust-like. This rapprochement between psychological anthropology and evolutionary psychology contributes both methodological and empirical insights, with broad implications for understanding the functional and cultural organization of social affect.

Keywords: affect; attitudes; bookkeeping; commitment; contempt; emotions; evolution; morality; respect; sentiments

1. Introduction

Contempt contributes to many of the challenges confronting a globalizing world, including human rights abuses such as slavery, human trafficking, and sexual exploitation; intractable ethnic conflicts attended by displacement and genocide; intolerance of diversity and minority voices; and insoluble political divisions sustained by disparagement and obstructionism. On a more intimate scale, contempt may be the best predictor of divorce (Gottman & Levenson 1992), and it animates both parties during breaches of community expectations (Rozin et al. 1999). Understanding the causes, consequences, and cures for contempt is a critical problem with clear applications. Yet, contempt is an enigma, empirically and theoretically neglected relative to comparable affective phenomena (Haidt 2003). What data there are raise more questions than they answer. We

seek to fill these lacunae by challenging the paradigmatic assumptions of modern contempt research, with broad implications for understanding the functional and cultural organization of affect.

1.1. “A special case”

The modern contempt literature crystallized around the debate over basic emotions in social psychology. Ekman and Friesen (1986) famously showed that college students in 10 cultures select translations of “contempt” to label a distinct facial expression, the unilateral lip curl. For many scholars, this elevated contempt to the pantheon of basic emotions; a complex “contempt” concept was designated a universal human emotion with evolved design features, including rapid onset and brief duration (Ekman 1992a). The apparent absence of evidence of the unilateral lip

curl in nonhuman primates suggested that contempt may even be uniquely human (Ekman & Friesen 1986).

Ekman and Friesen's (1986) provocative claims largely defined the focus of subsequent contempt research. While their study occasioned critiques (Izard & Haynes 1988; Russell 1991a; 1991c; 1991d) and replies thereto (Ekman & Friesen 1988; Ekman et al. 1991), the initial contempt-as-emotion thesis remains ubiquitous. Dominating the relatively small contempt literature (Haidt 2003), numerous studies have explored the form and universality of contempt expressions (Alvarado & Jameson 1996; Haidt & Keltner 1999; Matsumoto 2005; Matsumoto & Ekman 2004; Rosenberg & Ekman 1995; Rozin et al. 1999; Wagner 2000). Debates in this literature have largely concerned methodological details, the empirical strength of emotion-expression correspondence, or the specific assumptions of the basic emotions approach, not contempt's status as an emotion. Studies on the antecedents and consequences of contempt have likewise assumed that "contempt" refers to a discrete emotion

similar in kind to anger and disgust (e.g., Fischer & Roseman 2007; Hutcherson & Gross 2011; Laham et al. 2010; Rozin et al. 1999). Some authors have questioned whether "contempt" picks out a psychological primitive. Prinz (2007), for example, argues that contempt is a blend of disgust and anger, while others (e.g., Cottrell & Neuberg 2005; S. Fiske et al. 2002) see contempt as superordinate to, or synonymous with, these other emotions. These studies maintain that contempt is a prototypical emotion, albeit not a basic one.

The contempt-as-emotion literature has produced inconclusive, even perplexing, results. Contempt is not uniquely associated with the unilateral lip curl but is associated with a range of facial, postural, and behavioral expressions, including a neutral face (Izard & Haynes 1988; Wagner 2000). The relationship of contempt to anger and disgust remains elusive and is aptly described as "nebulous" (Hutcherson & Gross 2011). In empirical studies, contempt is often explicitly collapsed with other putative emotions, such as disgust and hate (e.g., Cuddy et al. 2007; Mackie et al. 2000), making clean inferences difficult. Complicating matters, some results suggest that English-speaking participants are confused, or at least in disagreement, as to the meaning of the term "contempt" (Haidt & Keltner 1999; Matsumoto 2005). Other documented properties of contempt are altogether anomalous for an emotion, basic or otherwise: Contempt has a relatively enduring, even indefinite, time course (Fischer & Roseman 2007; Hutcherson & Gross 2011), and it can be phenomenologically "cold," or distinctly unemotional (Haidt 2003; Izard 1977; Miller 1997). Confronted with such results, Rosenberg and Ekman (1995) characterized contempt as a "special case" among putative basic emotions, nevertheless maintaining the underlying contempt-as-emotion thesis.

Here we develop a novel approach to contempt that challenges the contempt-as-emotion thesis, as well as existing alternatives, including the contempt-as-attitude approach (Frijda 1986; Mason 2003), and those that would altogether deny the existence of any natural kind *contempt* (e.g., L. F. Barrett 2006a). Each of these approaches has merits, but each leaves some evidence unexplained. Our perspective integrates them, explaining extant data and opening novel directions for future inquiry. We use contempt as a case study to develop a broader argument about the evolved architecture of basic affect systems and the patterning of folk affect concepts.

1.2. Folk affect concepts and basic affect systems

We begin with three premises. First, we distinguish between cultural representations of affective phenomena and the underlying behavior regulation systems of affect, that is, *folk affect concepts*, such as emotion terms and ethnopyschological theories, and *basic affect systems*, neurocognitive "survival circuits" (LeDoux 2012) with phylogenetic legacies far deeper than human language and symbolic capacities (Darwin 1872/1955; Fessler & Gervais 2010; Panksepp 1998; Parr et al. 2007). Basic affect systems are built from "core affect" (Russell 2003) and other domain-general core systems (L. F. Barrett 2013), but they evince higher-level evolved design for solving particular adaptive problems (Cosmides & Tooby 2000; Kragel & LaBar 2013; Nesse 1990; see also H. C. Barrett 2012). Folk affect concepts

MATTHEW M. GERVAIS earned a Ph.D. in Biological Anthropology from the University of California, Los Angeles, and bachelor's degrees in Psychobiology and Philosophy from Binghamton University. He is currently a Postdoctoral Associate in the Department of Anthropology at Rutgers University and a Visiting Researcher in the School of Human Evolution and Social Change at Arizona State University. He was previously a Junior Research Fellow at the SAGE Center for the Study of the Mind in the Department of Psychological and Brain Sciences at the University of California, Santa Barbara. He takes an interdisciplinary evolutionary approach to the psychological bases of human sociality, focusing on the affective processes underlying derived features of human cooperation, coordination, and social norms. His research integrates mixed methods at multiple levels of analysis, including laboratory studies of social interaction and long-term ethnographic fieldwork in rural Fijian villages. He was recently awarded Best Paper by a New Investigator by the Evolutionary Anthropology Society, and has published in *The Quarterly Review of Biology* and *Proceedings of the Royal Society B*, among other venues.

DANIEL M. T. FESSLER is a Professor of Anthropology and Director of the Center for Behavior, Evolution, and Culture at the University of California, Los Angeles. Adopting an integrative perspective in which humans are viewed as both the products of complex biological evolutionary processes and the possessors of acquired culturally evolved idea systems, he combines experiments, ethnography, and published data in exploring the determinants of behavior, experience, and health in domains such as emotions, disease avoidance, aggression, cooperation, morality, food and eating, sex and reproduction, and risk taking. Recent publications include "Political orientation predicts credulity regarding putative hazards," published in 2017 in *Psychological Science*, "Synchronized behavior increases assessments of the formidability and cohesion of coalitions," published in 2016 in *Evolution & Human Behavior*, and "Insurmountable heat: The evolution and persistence of defensive hyperthermia," published in 2016 in *The Quarterly Review of Biology*.

need not correspond to these discrete functional systems (Scarantino 2009). Emotion language has many uses, being performative and political as much as veridical of experience (Besnier 1990; Lutz & Abu-Lughod 1990; Sabini & Silver 2005), and folk affect concepts can dissociate from basic affect systems; some cultures lack words for coherent emotional experiences, whereas some gloss several distinct experiences with one word (Breugelmanns & Poortinga 2006; Fessler 2004; Haslam & Bornstein 1996; Levy 1973). “Contempt” is a folk affect concept. Much research on contempt is research on the term “contempt” and its particular meanings and uses for English speakers. This has frequently been equated with investigating the nature of *contempt*, a putative basic affect system. Recognizing this slippage and distinguishing these projects constitute a first step in resolving ambiguity in the contempt literature. Here, we use quotation marks to indicate folk affect concepts (e.g., “contempt”), and italics for basic affect systems (e.g., *contempt*); the folk meanings of the latter terms serve only as intuitive anchors and do not delimit functional hypotheses about the postulated systems so labeled.

Second, a theory of the computational architecture of basic affect systems is needed to explain individual and population variation in the content of folk affect concepts, including “contempt.” Although basic affect systems and folk affect concepts dissociate, their relationship is not arbitrary. The contents of folk affect concepts derive in part from temporal and causal contingencies in embodied emotional experience (L. F. Barrett 2006b; Lyon 1996; Niedenthal 2008; Russell 1991a; White 2000). Such experience is patterned by basic affect systems interacting with local threats and opportunities, mediated by cultural resources for appraisal and affect regulation (Markus & Kitayama 1994; Mesquita & Frijda 1992). Although the content of folk affect concepts is fluid with respect to underlying networks of basic affect systems (Haslam & Bornstein 1996), that content should vary predictably with the engagement of basic affect systems by social and ecological processes – for example, by the frequencies and local meanings of emotion-evoking events. By specifying the underlying networks of basic affect systems, and considering the social, ecological, and historical contexts in which these systems operate, one can potentially explain the unique constellations of meanings associated with folk affect concepts (Lutz & White 1986), as well as changes and variation in their content across time and space. Unpacking the network of basic affect systems underlying “contempt” is the central goal of this article.

Finally, it is possible to develop constructive hypotheses about the functional architecture of basic affect systems. While concepts such as “emotion” and “affect” invoke folk affect concepts (Lutz 1988; Russell 1991a), basic affect systems need not be defined using the everyday content of such concepts (Royzman et al. 2005; see also Fehr & Russell 1984). As in adaptationist approaches to the emotions (e.g., Cosmides & Tooby 2000; Nesse & Ellsworth 2009), evolutionary, functional, and comparative considerations can guide the stipulation of basic affect systems and provide grounded criteria for predicting and evaluating their existence (Darwin 1872/1955; Fessler & Gervais 2010). Analytic tools include reverse engineering observed phenomena to determine potential function; task analysis of proposed functions to predict design features; consideration of ancestral adaptive problems to

predict additional features; cross-species comparison to distinguish conserved and derived features; and ontogenetic and cross-cultural data on developmental canalization and phenotypic plasticity. Increasingly, the functional organization of proximate neural systems can also be interrogated. We use these tools synergistically in inferring the form and functions of *contempt*.

1.3. Contempt as a sentiment

Taking inspiration from an early and largely forgotten literature in social psychology, we argue that *contempt* is most profitably understood neither as a discrete emotion, nor as an attitude, but as a *sentiment*: a functional network of discrete emotions moderated across situations by an attitudinal representation of another person (McDougall 1937; Shand 1920; Stout 1903; see also Frijda et al. 1991; Scherer 2005). “Sentiment” once vied with “attitude” to be the “main foundation of all social psychology” (see Allport 1935). Sentiments were thought to differ from attitudes in important ways, being more concrete in their object, more enduring, more consciously accessible, and hierarchically organized. Most importantly, sentiments were recognized as emotionally pluripotent, moderating a range of emotions vis-à-vis their object across situations. The paradigmatic sentiment is *love*, which “cannot be reduced to a single compound feeling; it must organize a number of different emotional dispositions capable of evoking in different situations the appropriate behavior” (Shand 1920, p. 56); that is, under different scenarios, *love* leads to *joy*, *contentment*, *compassion*, *anxiety*, *sadness*, *anger*, and *guilt* (Royzman et al. 2005; Shaver et al. 1996; Storm & Storm 2005; see also Lutz 1988). Other candidate sentiments include *liking*, *hate*, *fear*, and, we will argue, *respect*, an absence of which defines the sentiment *contempt*. Contempt thus constitutes a case study in the deep structure of social affect, the largely neglected architecture of emotions underlying the regulation of social relationships.

We theorize three kinds of basic affect systems, defined by their distinct forms and social-relational functions: *attitudes*, identified as enduring affective valuations that represent relational value; *emotions*, identified as occurrent affective reactions that mobilize relational behavior; and *sentiments*, identified as higher-level functional networks of attitudes and emotions that serve critical bookkeeping (Aureli & Schaffner 2002; Evers et al. 2014) and commitment (Fessler & Quintelier 2013; A. P. Fiske 2002; Gonzaga et al. 2001) functions within social relationships. These systems interface through *affect*, a representational format for information about value (Tooby et al. 2008). Affect is a “feeling” component of emotions and a representational currency of attitudes. Through affect, emotions update attitudes towards particular people, whereas attitudes moderate emotions across situations; sentiments are the attitude–emotion networks that emerge from these interactions. The functional organization of these systems, engaged by local social and cultural processes, helps explain the variable patterning of folk affect concepts.

In our account, “contempt” is a folk affect concept anchored by a sentiment, *contempt*. This sentiment, like *hate*, is a “syndrome of episodic dispositions” (Royzman et al. 2005, p. 23), the function of which inheres in linking perceived relationship value to emotion moderation

across contexts. *Contempt* specifically represents another as having low intrinsic relational value as cued by his or her practical or moral inefficacy and expendability, and it entails devaluing and diminishing that person. *Contempt* moderates diverse emotions across contexts, potentiating *anger*, *disgust*, and *mirth*, while muting *compassion*, *guilt*, and *shame*. These emotions implement relational behaviors that are, *ceteris paribus*, adaptive vis-à-vis someone of low value, including intolerance, indifference, and exploitation.

By hypothesis, the breadth and variation in the meaning of “contempt” derives from the manifolds of this functional network in interaction with individual and cultural differences. Across varying time-scales, from psychology experiments to cultural change, the meaning of “contempt” is fluid with respect to which aspects of this functional network are salient: the “hot” emotions of *anger* and *disgust*, “cold” indifference to another’s suffering or victimization, or the enduring core representation of another’s worthlessness and inferiority. The American English “contempt” concept has likely come to emphasize emotion dispositions such as anger and disgust at the expense of a hypocognized (Levy 1984) representational core, as this sentiment has become increasingly morally objectionable in a so-called “dignity culture” (see Leung & Cohen 2011).

This framework explains the coherence of the various features ascribed to “contempt” in the literature, – it is hot and cold, occurrent and enduring, translatable yet varying, with a range of expressive avenues across situations. The contempt-as-sentiment approach illustrates how evaluative sentiments invite spurious study as basic emotions, producing inconsistent results. More generally, our approach revives the sentiment construct, foregrounding the reciprocal functional relationship of attitudes and emotions and thereby bridging their mutually isolated

literatures. This elucidates the patterning of affect in social relationships and the grounded pathways traveled by folk affect concepts across cultures and over the course of sociolinguistic change. Our argument is a rapprochement between evolutionary psychology and psychological anthropology for the sake of understanding a biologically cultural species.

2. The features of “contempt”

Modern research on contempt generally involves characterizing the folk affect concept of “contempt” and its nearest translations in other languages. Examining this research and characterizing the patterning of the “contempt” concept, – including its use by contempt scholars, – provide clues to the underlying architecture of basic affect systems. We adduce from the literature eight features of “contempt” (see Table 1). These features cannot be fully accounted for by existing theories, motivating our mapping of “contempt” onto a *sentiment*.

2.1. Contempt is intentional or about an object

Contempt is directed toward a particular object or class thereof (Frijda 1986). Unlike disgust (e.g., Wheatley & Haidt 2005) and anger (e.g., DeSteno et al. 2004), contempt appears not to be susceptible to priming or misattribution (e.g., Tapias et al. 2007). Contempt “tags” others (Fessler & Haley 2003; Hutcherson & Gross 2011), inhering in representations of them more than in a systemic mode of operation in the perceiver.

Table 1. *Eight features of “contempt,” documented or argued for in the literature, that a complete theory of “contempt” must explain*

Eight features of “contempt”	Supporting References
1. Intentional, or about an object	Hutcherson & Gross (2011); Mason (2003)
2. An enduring evaluation of a person, anchored by character attributions	Fischer & Roseman (2007); Hutcherson & Gross (2011)
3. Follows from cues to another’s low relational value, such as norm violations, incompetence, personal transgressions, and out-group position	Caprariello et al. (2009); Fischer & Roseman (2007); Hutcherson & Gross (2011); Laham et al. (2010); Rozin et al. (1999)
4. Entails loss of respect and status diminution	Haidt (2003); Hutcherson & Gross (2011); Miller (1997); Sternberg (2003a)
5. Creates “cold” indifference through diminished interest and muted prosocial emotions	Dubreuil (2010); Haidt (2003); Izard (1977); Rozin (1999); Sternberg (2003a)
6. Associated with “anger” and “disgust,” which are among the proximate causes, concomitants, and outcomes of “contempt”	Alvarado & Jameson (1996); Ekman et al. (1987); Fischer & Roseman (2007); Frijda et al. (1989); Hutcherson & Gross (2011); Laham et al. (2010); Mackie et al. (2000); Marzillier & Davey (2004); Rozin et al. (1999); Shaver et al. (1987); Smith & Ellsworth (1985); Storm & Storm (1987)
7. Can be expressed in many ways, including non-facial modalities	Alvarado & Jameson (1996); Darwin (1872/1955); Ekman & Friesen (1986); Ekman et al. (1987); Izard and Haynes (1988); Matsumoto & Ekman (2004); Rozin et al. (1994); Wagner (2000); and various ethnographic accounts (see Section 2.7 in the target article)
8. Leads to intolerance, exclusion, and relationship dissolution	Fischer & Roseman (2007); Gottman & Levenson (1992); Mackie et al. (2000)

2.2. Contempt is an enduring evaluation

Contempt entails a relatively enduring change in feeling toward its object (Sternberg 2003a). Fischer and Roseman (2007) found that contempt increased over a period of days, with short-term anger giving way to longer-term contempt. Hutcherson and Gross' (2011) participants explained the undesirability of being an object of contempt in terms of its duration or difficulty of resolution relative to both anger and moral disgust. Many investigators (e.g., Mason 2003) hold that contempt is anchored by enduring attributions about character traits; Roseman (2001) distinguishes anger and contempt according to their appraised problem types, where that underlying contempt is intrinsic to the person appraised.

2.3. Contempt follows from cues to low relational value

A number of antecedents have been associated with contempt. These include violations of community expectations (Laham et al. 2010; Rozin et al. 1999), incompetence (Hutcherson & Gross 2011), immorality (S. Fiske et al. 2002), badness of character (Fischer & Roseman 2007; Smith & Ellsworth 1985), and out-group or minority status (Brewer 1999; Izard 1977; Mackie et al. 2000), especially when perceived competition, superiority, and in-group strength pertain (Caprariello et al. 2009). These causes have in common that the targeted actor or group is a low-value or even worthless relationship partner (Fessler & Haley 2003). This may follow from their unpredictability, unreliability, inefficacy, incompetence, impoverishment, incompatibility, or replaceability.

2.4. Contempt entails loss of respect and status diminution

Following from another's cues to low relationship value, contempt emerges as a two-part representation: respect is lost (Haidt 2003; Laham et al. 2010), and the other is viewed as beneath oneself (Keltner et al. 2006; Miller 1997; Smith 2000; Wagner 2000). Whereas respect for an other follows from efficacy and competence (Wojciszke et al. 2009), contempt follows from their absence (Hutcherson & Gross 2011). Whereas respect involves "looking up to" someone (A. P. Fiske 1991), contempt involves "looking down on" someone (Miller 1997), even seeing the person as less than human (Haslam 2006; Leyens et al. 2007; Sternberg 2003a). Contrary to claims that contempt blends anger and disgust, of the three, only contempt is empirically associated with feelings of superiority (Hutcherson & Gross 2011).

2.5. Contempt creates "cold" indifference

Authors frequently refer to contempt and its concomitants as "cold," a polysemous folk metaphor. One meaning of "cold" refers to the absence of intense qualia in contempt, in contrast to the "hot" experience of anger or disgust (Haidt 2003; Rozin et al. 1999). Another meaning of "cold" refers to the absence of empathic concern and "warm" prosocial emotions in contempt (Dubreuil 2010; Haidt 2003; Mason 2003). Participants appear to blend these two facets when reporting relatively cool sensations

associated with contempt (Nummenmaa et al. 2014). Nonetheless, Frijda et al. (1989) found that "contempt" events are associated with "boiling inwardly" (see also Fischer 2011); below, we explain how contempt may sometimes involve this experience.

2.6. Contempt is associated with anger and disgust

In studies with various probes and outcome measures, contempt clusters primarily with anger and secondarily with disgust (Alvarado & Jameson 1996; 2002; Frijda et al. 1989; Rozin et al. 1994; 1999; Shaver et al. 1987; Smith & Ellsworth 1985), although some researchers report the reverse (Ekman et al. 1987; Nummenmaa et al. 2014; Storm & Storm 1987). Many stimuli or situations simultaneously evoke contempt with anger or disgust (Fischer & Roseman 2007; Hutcherson & Gross 2011; Laham et al. 2010; Mackie et al. 2000; Marzillier & Davey 2004; Rozin et al. 1999; Tappas et al. 2007), and the display of disgust is among the behaviors associated with contempt (Fischer & Roseman 2007). Contempt and disgust are considered together most commonly because both are associated with action tendencies to exclude or avoid another person (S. Fiske et al. 2002; Mackie et al. 2000). Others have considered anger, disgust, and contempt together because all three are "other-condemning" and motivate hostility (Haidt 2003; Izard 1977; Sternberg 2003a). Many authors argue that contempt either is a form of anger or disgust or is built from them (e.g., S. Fiske et al. 2002; Lazarus 1991; Ortony et al. 1988; Prinz 2007).

2.7. Contempt has many expressions

In studies of facial expressions, the term "contempt" consistently produces low agreement across subjects (Matsumoto & Ekman 2004; Russell 1991c; 1991d; Wagner 2000). The term has been associated with the canonical expressions for both "anger" (Alvarado & Jameson 1996; Rozin et al. 1994) and "disgust" (Ekman et al. 1987). "Contempt" is also chosen to label a neutral expression in the absence of a "neutral" label choice (Wagner 2000). "Contempt" is the predominant label chosen for the unilateral lip curl (Ekman & Friesen 1986; Matsumoto & Ekman 2004), but "anger" and "disgust" are also often chosen (Haidt & Keltner 1999; Matsumoto 2005; Russell 1991c; 1991d); in free response, this expression is rarely labeled "contempt" (Alvarado & Jameson 1996; Ekman & Friesen 1986; Haidt & Keltner 1999; Matsumoto & Ekman 2004; Russell 1991d). The unilateral lip curl is linked to the kinds of situations that elicit contempt (Matsumoto & Ekman 2004; Rozin et al. 1999), but "contempt" is rarely used to label these situations in free-response tasks. This is not due to unfamiliarity with the term (Wagner 2000), but may be due to uncertainty regarding its meaning (Haidt & Keltner 1999; Matsumoto 2005; Rosenberg & Ekman 1995).

Beyond facial expressions, research links contempt with a downward gaze and tilted-back head, postures associated with dominance displays and assertions of superiority in animals (see Darwin 1872/1955; Izard & Haynes 1988; also Frijda 1986). In addition to linking contempt to a non-human snarl reminiscent of the unilateral lip curl, Darwin

foregrounded derisive laughter and turning away as expressions of contempt associated with the other's insignificance (see also Fischer 2011; Roseman et al. 1994).

In the ethnographic literature, numerous behaviors and expressions that show a lack of respect are parochially interpreted as indexing contempt, including ignoring others (e.g., Turnbull 1962), throwing sand at them (e.g., Thomas 1914), spitting at or near them (e.g., Handy & Pukui 1953), swearing at them (e.g., Campbell 1964), sticking one's tongue or lips out at them (e.g., Pierson 1967), and displaying one's buttocks or genitalia to them (e.g., Archer 1984). In American English, "contempt of court" refers to disregarding the rules, etiquette, or orders of a court of law (Goldfarb 1961). Contempt is often inferred from disrespectful, irreverent behavior.

2.8. Contempt leads to intolerance, exclusion, and relationship dissolution

Contempt is associated with diverse action tendencies; it has been classed among the "appraisal dominant" emotions, meaning that it can be better predicted from antecedent appraisals than from consequent action readiness (Frijda et al. 1989). Nonetheless, the motivations and action tendencies associated with contempt have usually been characterized as rejection and exclusion (Fischer & Roseman 2007; Frijda 1986; Roseman et al. 1994). Retrospectively reported contempt events are associated with the goals of social exclusion, coercion, derogation, rejection, and verbal attack (Fischer & Roseman 2007). A composite of "contempt" and "disgust" partially mediates reported willingness to move away from an out-group, while anger mediates willingness to move against (Mackie et al. 2000). More broadly, contempt may serve to reduce interaction with those who cannot contribute to the group (Hutcherson & Gross 2011), leading to mockery, exclusion, and ostracism (Dubreuil 2010). Haidt (2003) argues that "contempt motivates neither attack nor withdrawal" (p. 858), instead pervading later interactions, diminishing prosocial emotions, and leading to mockery or disregard (see also Miller 1997). Consonant with these motivational and behavioral outcomes, an important consequence of contempt is relationship dissolution (Fischer & Roseman 2007). Famously, contempt is one of the "four horsemen of the apocalypse" in predicting divorce (Gottman & Levenson 1992). Finally, contempt is implicated in some of the most heinous of human behaviors. Sternberg (2003a) suggests that contempt plays a role in propaganda campaigns designed to foment hate, and implicates contempt in the calculated massacres of Hutus, Jews, and Armenians (see also Izard 1977).

3. What "contempt" is not

The eight features of the folk affect concept "contempt" demand explanation. Why do they cohere? How is it that they show regularities across populations despite frustrating researchers with low consensus across participants? Several existing approaches offer explanations to these questions. However, none of them explains the full feature set of "contempt" and its translations. As existing

theories cannot adequately account for these features, we offer a novel explanation below.

3.1. "Contempt" is not a basic emotion

One explanatory approach, exemplified by Ekman and Friesen (1986), maps the folk affect concept "contempt" onto a basic emotion, *contempt*. This is the approach, at least implicitly, of most contempt researchers (e.g., Fischer & Roseman 2007; Hutcherson & Gross 2011; Rozin et al. 1999). A related approach, which does not assume basic emotions, maps "contempt" onto an emergent yet cross-culturally salient "modal emotion" *sensu* appraisal theorists such as Scherer (2009; see also Colombetti 2009).

Although contempt evinces features of a prototypical emotion profile, including elicitors, phenomenological concomitants, and motivational and expressive outcomes, other features of contempt do not sit comfortably within a basic emotion or appraisal theory approach: Contempt is a relatively enduring representation rather than a fleeting occurrent response; it shows no evidence of diffuse systemic effects, as in priming or misattribution; it often involves a marked absence of emotion, as in "cold" indifference to another's suffering or threat; and its expressions are diverse across contexts. Despite important cross-cultural regularities (Ekman & Friesen 1986; Haidt & Keltner 1999; Rozin et al. 1999), agreement on the meaning of "contempt" is also uniquely low for a putative basic emotion (Rosenberg & Ekman 1995). "Contempt" does not map cleanly onto a natural kind emotion.

3.2. "Contempt" is not an attitude

Another approach proposes that "contempt" is an attitude of indifference or rejection towards an object, person, place, or idea viewed as having low value (Frijda 1986; Mason 2003). In standard frameworks, attitudes are like emotions in that they are intentional, or about particular objects, but longer lasting – emotions are fleeting responses in context, whereas attitudes are enduring representations (Clore & Schnall 2005) that involve little arousal (Russell & Barrett 1999). The structure of attitudes is generally thought to include affective representations (e.g., prejudice), cognitive representations (e.g., stereotypes), and behaviors (e.g., discrimination) (see Breckler 1984; Eagly & Chaiken 1993; Rosenberg & Hovland 1960). These three channels are themselves treated as equally evaluative and unidimensional: from like to dislike, from good to bad, and from approach to avoidance, respectively.

This account could explain why contempt is often devoid of emotional arousal, and how it moderates relational behavior across time and situations. However, current attitude theory cannot account for the emotional texture of contempt. The attitude literature is largely isolated from the emotion literature and investigates global evaluations lacking the diverse emotional and behavioral outcomes of contempt. In contrast to the affectively neutral concomitants of indifference, the associations between contempt and anger and disgust remain opaque on the attitudinal account (Fischer 2011).

3.3. “Contempt” is not an untethered construction

Yet another approach to “contempt” could be developed that assumes neither discrete basic emotions nor attitudes. Although they have not been applied to “contempt,” psychological constructionist theories of emotion offer one option. According to one prominent constructionist theory, the Conceptual Act Model (L. F. Barrett 2006b; Lindquist 2013; see also Russell 2003), the features of “contempt” should hang together only because that natural language term chunks the otherwise continuous stream of “core affect” – that is, valence and arousal – into a conceptual schema that integrates concomitant processes across these and other “core systems.” On this account, there is no unifying feature of experience that characterizes all cases of contempt; those affective experiences labeled as tokens of contempt vary widely in their specific features, and individuals and populations vary in their prototypical “contempt” concepts. This approach could account for variation in the meaning of “contempt,” while providing scope for the enduring time course of “contempt” tokens.

In a psychological constructionist approach, a word such as “contempt” is necessary to anchor the coherence of the features categorized as a single emotion; without this anchor for statistical learning, there is only the continuous stream of core affect. However, this or comparable words do not appear necessary for experiencing together the features of “contempt.” In a study of anger, Fridhandler and Averill (1982) found that unresolved anger towards a formerly valued relationship partner, dispositional attributions of their shortcomings, and low estimation of the other’s value and character were associated with having “less need or affection for the offender” and a “cooling of the relationship with the instigator.” Although these results closely parallel those of Fischer and Roseman (2007) for “contempt,” the word was never used as a prompt. Similarly, the unilateral lip curl is associated with the same kinds of eliciting situations as “contempt,” yet without using that word as a prompt (Matsumoto & Ekman 2004; Rozin et al. 1999). In addition, as we will detail below, the features of “contempt” cohere as a dispositional social stance in clinical primary psychopathy, suggesting that their co-occurrence is far from arbitrary. Finally, a constructionist approach has trouble explaining the translatability of “contempt” across diverse populations (e.g., Ekman & Friesen 1986). The features of “contempt” appear to functionally stick together even without that word acting as conceptual glue.

The features of “contempt” are not merely a conceptual construction around core affect. They also approximate neither a basic emotion nor an attitude. Nonetheless, each of these approaches has merit. The basic emotions approach highlights the motivational and expressive components of contempt. The attitude approach can account for the object specificity and durability of contempt. And a constructionist approach is necessary to understand how basic affect systems might manifest as folk affect concepts. Synthesizing these perspectives, we argue that the features of “contempt” are aspects of an underlying *sentiment*: a functional network of diverse basic emotions moderated by an attitudinal representation of a person. This network evinces statistical regularities across disparate emotional and behavioral outcomes anchored by a common attitudinal core. On this account, the major limitation of the

discrete emotions paradigm in the affective sciences is not the assumption of evolved design at a higher level than “core affect” (see L. F. Barrett 2006a); it is the underappreciation of an even higher level of functional organization across discrete emotions in the service of social relationship regulation.

4. Sentiments and the structure of folk affect concepts

4.1. Sentiments

A higher level of functional design among emotions was appreciated a century ago by British social psychologists exploring consistency in individual personalities and values, despite variable behavior across contexts, that is, “character” (McDougall 1933; Shand 1920; Stout 1903). Shand (1920) distinguished three levels of character: *instincts*, or simple embodied impulses; *primary emotions*, or systems of instincts that organize particular behaviors; and *sentiments*, which organize and direct emotions across situations with respect to particular relational objects. Sentiments were enduring dispositions to respond emotionally towards their objects in ways consistent with the value of that object. *Love* and *hate* were prototypical sentiments; they potentiated *happiness*, *anger*, *fear*, and *sadness* in quite opposite, yet appropriate, situations, to preserve or destroy their objects, respectively. For Shand, these primary emotions shared the “innate bond” (p. 42) of a sentiment toward a particular object.

Despite being hailed as “the main foundation of all social psychology” (McDougall 1933, as quoted in Allport 1935, p. 807), the sentiment construct fell from use (though see Heider 1958). Sentiments were contrasted with “attitudes” (see, e.g., Cattell 1940; McDougall 1937), which, following Allport (1935), were embraced by American social psychology. The abstractness and generality of the attitude construct likely helped it gain wider use, especially in experimental studies of impersonal attitudes towards stereotypes, products, and political positions. Other reasons for the waning of “sentiment” likely included behaviorist opposition to the “hormic” teleology of sentiments; greater reliance on unpopular evolutionary (especially Lamarckian) reasoning by proponents; and associations with discredited, yet logically distinct, theories of parapsychology and eugenics (see, e.g., Aspren 2010).

Below, we remodel the sentiment construct in line with the modern tenet of evolved functional specialization (H. C. Barrett & Kurzban 2006). Doing so resolves debates about both the structure of social affect and the sources of variation in folk affect concepts, “contempt” included, thereby both organizing a large body of existing findings and generating discriminant predictions.

4.2. The Attitude–Scenario–Emotion (ASE) model of sentiments

We propose the Attitude–Scenario–Emotion (ASE) model of sentiments (see Table 2). This model specifically addresses social affect, emphasizing the adaptive problems of social relationship regulation (Fessler & Haley 2003; A. P. Fiske 2002). We leave open the potential generality of this model for non-social affect. The model includes

Table 2. Major features of the Attitude–Scenario–Emotion model of sentiments, including the constructs, functional features, operational indicators, and sample predictions from the model*

Construct	Functional Features	Operational Indicators	Representative Predictions
Attitudes	Object-specific affective representations	<i>Pragmatic language</i> : “feelings about” or “feelings for” someone <i>Phenomenology</i> : can be “coldly” considered	Relatively difficult to misattribute to other objects or prime towards others No necessary concomitant arousal while introspecting a current attitude
	Enduring representations	<i>Time course</i> : relatively stable	Outlasts the formative event or information
	Track and summarize cues to another’s social-relational value	<i>Structure</i> : orthogonal dimensions track different fitness affordances <i>Time course</i> : change with new, valid cues to fitness relevance <i>Phenomenology</i> : awareness of valuation, not necessarily of formative cues	Possibility of ambivalence towards someone, with corresponding reaction time decrements Highly informative events can alter previously stable or long-standing attitudes Possibility of confabulated justification
	Moderation of emotion-eliciting appraisals	<i>Structure</i> : attitude+belief about object’s actions/ fate=motivational outcome	Indirect effects; emotion elicitation is required to implement action
Emotions	Contingent reactions to specific scenarios	<i>Pragmatic language</i> : “feelings because of” some event <i>Outcomes</i> : identified principally with a motivation apt for addressing scenario	Can be more easily misattributed and primed Behavioral outcome modified by contextual constraints and affordances
	Occurrent	<i>Time course</i> : relatively fleeting	Lasts as long as the eliciting scenario; when latter is prolonged, leads to <i>moods</i>
	Systemic	<i>Structure</i> : coordinated recruitment of relevant systems across the organism <i>Phenomenology</i> : relatively “hot,” includes arousal and action-implementation systems	Identifiable through multivariate pattern classification Cannot be introspected dispassionately except after the fact
Sentiments	A functional affect network of attitudes and emotions	<i>Structure</i> : stable attitudinal core and diverse fleeting emotions across scenarios	“Context-dependent universals” of Attitude X Scenario X Emotion interactions
	Attitudes moderate emotions; emotions update attitudes	<i>Phenomenology</i> : conflation of emotions and attitudes due to reciprocal causal and temporal connections	Individual and population variation in conceptual emphasis on attitudinal core or emotional antecedents and outcomes
	Emotional pluripotency of attitudes	<i>Outcomes</i> : diverse motives, behaviors, and expressions across scenarios	Can be inferred in varying social contexts from different emotion expressions

*See Section 6.

three kinds of basic affect systems distinguished by their forms and functions: *attitudes*, *emotions*, and *sentiments*.

In our model, *attitudes* are enduring yet tentative representations of social-relational value (e.g., Fazio 2007). Attitudes are set or updated by cues of relational value, then index or proxy that value through time, moderating behavior regulation systems in light of it. In their

form, attitudes approximate Internal Regulatory Variables (IRVs) (Tooby et al. 2008): “indices” or “registers ... whose function is to store summary magnitudes ... that allow value computation to be integrated into behavior regulation” (p. 253). Tooby et al. propose that IRVs are ubiquitous across levels of the mind, operating in hierarchical systems that aggregate and summarize

information at higher levels as a function of outputs from lower levels. Attitudes are IRVs operating at a particularly high, and potentially introspectively salient, level of the social mind.

Attitudes solve a key adaptive problem of social relationships: conditioning social behavior on the fitness affordances—or likely costs and benefits—associated with others. Anyone can approach, offer aid, inflict harm, or die. But the fitness consequences of such events depend on who is involved—on whether they are kin, ally, leader, mate, stranger, or enemy, and on the costs and benefits to self that such categories entail. Fitness affordances are not objective properties but are relative to a perceiver's traits, resources, and current state, requiring subjective representation (see Cottrell et al. 2007; S. T. Fiske et al. 2002; Tooby et al. 2008). Moreover, appraised threats and opportunities are often not presently observable but are grounded in past events that revealed an other's skills, propensities, and affiliations. Hence, enduring yet tentative summary representations should commute the past into the present and subjectively weight the value of others. In the ASE model, attitudes serve this function.

In the ASE model, attitudinal representations guide action, but emotions implement action. Following adaptationist and social-functional approaches (e.g., Cosmides & Tooby 2000; Ekman 1992a; Keltner et al. 2006; Nesse 1990; Nesse & Ellsworth 2009), *emotions* are contingent, occurrent, and coordinated shifts across the cognitive, motivational, and movement systems of an organism, creating a state of action readiness (Frijda et al. 1989). Each emotion is a mode of operation for the organism, contingent on a particular appraisal of circumstance. Functionally, each emotion facilitates adaptive behavior vis-à-vis its eliciting circumstance. In the ASE model, this adaptive behavior regulation occurs primarily in the present, although one function of emotions may be to update attitudes for the future (Baumeister et al. 2007; Tooby et al. 2008). We consider canonical *moods* to be emotions temporally tailored to address protracted threats and opportunities. As with other emotions, their form is systemic and pervades thought and action (see Clore & Schnall 2005; Frijda 1994; Schimmack et al. 2000).

Among the diverse behavioral functions served by emotions, many regulate behavior within social relationships (Fessler & Haley 2003; Fischer & Manstead 2008; A. P. Fiske 2002; Keltner et al. 2006; Kitayama et al. 2006; Tooby et al. 2008). The specialized relational functions of discrete emotions include building (*gratitude*) or repairing (*guilt*) cooperative relationships, and acknowledging reduced status (*shame*) or elevating another's status (*admiration*) in a hierarchy. Some emotions function as subjective commitment devices (Fessler & Quintelier 2013) that proxy (A. P. Fiske 2002) and motivationally weight relational value (Fessler & Haley 2003; Frank 1988; Gonzaga et al. 2001; Hirshleifer 1987). By hypothesis, these mechanisms help sustain long-term relationships by countervailing a host of short-sighted cognitive biases and external temptations and by motivating relational investment and repair (A. P. Fiske 2002). Emotions are not separate from cognition, but function, in part, through cognition as contingent shifts in trade-offs, time horizons, and sensitivities (Cosmides & Tooby 2000).

In the ASE model, *sentiments* are higher-level functional networks of attitudes and emotions; each sentiment is an

attitude state and the various emotions disposed by that representation. Within relationships, or towards particular people, the functions of attitudes and emotions are complementary and intertwined. Attitudes “bookkeep” and represent another's relational value to self. These representations adaptively moderate emotions across scenarios involving others' actions and fortunes, such as their approach, departure, or death, imbuing such events with self-relevant meaning. Emotions then implement adaptive behavior. One overarching function of each sentiment—is to implement commitment to the value of the relationship represented by that attitude: Positive attitudes regulate emotions to build and sustain valuable relationships, whereas negative attitudes regulate emotions to minimize the costs of, and maximize the benefits extracted from, worthless or costly relationships. Sentiments are thus the deep structure of social affect, the largely unstudied networks of attitudes and emotions that pattern affect within social relationships.

4.3. The diversity of sentiments and their emotional outcomes

Our model of sentiments includes several additional hypotheses. First, we propose that there are distinct sentiments, subserved by distinct attitude dimensions, that represent the distinct kinds of costs and benefits afforded by sociality—just as there are distinct emotions for implementing distinct behavioral tendencies. As with emotions, each sentiment likely has a distinct evolutionary history and taxonomic distribution (see, e.g., Fessler & Gervais 2010), as well as partially dissociable neural bases (e.g., Panksepp 1998).

The social world presents many distinct fitness threats and opportunities that cannot be collapsed into a single summary representation of goodness or badness, liking or disliking (see Bugental 2000; Kenrick et al. 2010; Kurzban & Leary 2001; Neuberg & Cottrell 2008; Rai & Fiske 2011). Correspondingly, existing findings indicate that there are likely more attitude dimensions than traditionally assumed. Results support orthogonal positive and negative attitude dimensions (Cacioppo et al. 1999), distinct dimensions of “liking” and “respect” for tracking affiliation and efficacy, respectively (S. T. Fiske et al. 2007; Wojciszke et al. 2009; see also White 1980), and possibly four or five different positive forms of regard (e.g., infatuation, respect, attachment, and liking; Storm & Storm 2005). Those few emotion researchers who have addressed attitudes and/or sentiments likewise propose some beyond liking and disliking, including love, respect, and hate (Frijda 1994; Lazarus 1991; Royzman et al. 2005; Scherer 2005).

Integration of these deductive and inductive approaches suggests a provisional set of sentiments—social attitude dimensions, corresponding to distinct social-relational affordances—whose states potentiate unique constellations of emotions. We highlight the positive dimensions *love*, *liking*, and *respect*, and the negative dimensions *hate* and *fear*. The positive dimensions correspond to distinct though potentially correlated positive fitness affordances: fitness dependence on an other (*love*; Roberts 2005; Shaver et al. 1996), the receipt of benefits from an other (*like*; S. T. Fiske et al. 2007; Trivers 1971; Wojciszke et al. 2009), and an other's efficacy (*respect*; Chapais 2015; S. T. Fiske et al. 2007; Henrich & Gil-White 2001;

Wojciszke et al. 2009). The negative dimensions correspond to distinct kinds of threat or cost imposition: *hate* tracks an other's ongoing cost imposition, including zero-sum advantages relative to self (Royzman et al. 2005), while *fear* tracks an other's willingness and ability to inflict costs under certain circumstances (Evers et al. 2014; Öhman & Mineka 2001). A given value on one of these dimensions has the functional role of indexing a magnitude of that affordance and moderating behavior regulation systems, including emotions, to manage it. Each of these dimensions can range in value from nil to high, and each is named for its high value. However, the absence of value on a dimension can be functionally significant, and can be linguistically marked or otherwise psychologically or socially salient. Below we make this case for an *absence of respect*, which we identify with *contempt*. In addition, multiple orthogonal dimensions of attitudes can create composite sentiments. For example, equal amounts of liking and disliking can lead either to indifference (when neither is appreciable) or to ambivalence (when both are appreciable; Cacioppo et al. 1999).

A second hypothesis of the ASE model is that each attitude state is emotionally pluripotent, disposing diverse emotions towards its object, thereby constituting a sentiment. Each emotion, in turn, might play a role in numerous sentiments. The functional logic is straightforward: Each attitude-by-scenario interaction creates an adaptive problem best addressed by a particular emotion. Such events might include an other's approach, achievement, misfortune, or death, injury caused to oneself by an other, and an other's witnessing of a transgression by oneself. Each of these scenarios has distinct fitness implications within a relationship, and each means very different things across relationships depending on how the person involved is valued. For instance, if *love* proxies fitness dependence on an other, as cued, for example, by indispensable coalitionary support, then the death of a loved one should lead to a response that solicits social support to mitigate that potential fitness decrement (e.g., *sadness*; Keller & Nesse 2006). In contrast, if *hate* proxies an other's ongoing costs to self, as cued, for example, by her or his monopolization of resources, then the death of a hated one should evoke a positively reinforcing response (e.g., *schadenfreude*; Hareli & Weiner 2002; van Dijk et al. 2006). The emotional pluripotency of sentiments helps explain the lack of direct behavioral correspondence between attitudes and behavior – appraised situations and emotions intervene (see, e.g., Cottrell & Neuberg 2005; Mackie et al. 2000).

Though a central feature of the early sentiment construct (e.g., Shand 1920), emotional pluripotency departs radically from most recent discussions. These assume a one-to-one correspondence between emotions and sentiments, with sentiments being mere latent emotions awaiting reinstatement by the sentiment object (e.g., *hate* as latent *anger*; Frijda 1994; Lazarus 1991; see also Averill 1991; Clore & Ortony 2008). Instead, following Royzman et al. (2005), we maintain that each sentiment disposes multiple discrete emotions conditioned on the actions and fortunes of the attitude object. A negative sentiment such as *hate* can dispose positive emotions such as *joy* at another's suffering, while a positive sentiment such as *love* can dispose negative emotions such as *sadness* at another's death – there is no simple one-to-one correspondence that depends on previous association for emotion elicitation.

Instead, there is an adaptive grammar of emotions within relationships resulting from the dispositions of attitudes across social scenarios. Nonetheless, it may be that some sentiments have proprietary emotions among their dispositions that function like latent emotions – for example, an emotion *love* disposed by an attitude *love* (Frijda 1994; Shaver et al. 1996), contributing to the unique structure of the sentiment *love*. Similarly, the sentiment *fear* may include a particularly strong association between an attitude *fear* and an emotion *fear*. In future work it may therefore be prudent to notate polysemous scientific language when referring to a sentiment network (e.g., FEAR_S, LOVE_S), or to its component attitude (e.g., FEAR_A, LOVE_A) or proprietary emotion (e.g., FEAR_E, LOVE_E).

4.4. The deep structure of folk affect concepts

The ASE model is a novel rapprochement between evolutionary psychology and psychological anthropology: it maintains that human social affect has an evolved, functionally specialized architecture, while theorizing the pathways through which this architecture finds variable conceptual and cultural manifestation. Folk affect concepts are patterned by embodied experience, which is itself patterned by the engagement of basic affect systems by local ecological, social, and cultural circumstances. The structure of sentiments – as functional networks of contingent attitudes and emotions – allows many experientially grounded sources of variation in folk affect concepts.

The ASE model implies that folk affect concepts can vary in whether they emphasize the distinctness of discrete emotions experienced across sentiments, or the relational significance of attitude states that anchor multiple emotions within sentiments. This difference may map onto the contrast in affect concepts of relatively individualistic and collectivistic cultures (Markus & Kitayama 1991; White & Kirkpatrick 1985), but it need not be static or absolute. Tran (2015) describes recent changes in Vietnamese ethnopsychologies in and around Ho Chi Minh City spurred by neoliberal reform policies, decollectivization, and rising consumerism. Alongside the traditional folk notion of “sentiment” (*tin h cam*), which emphasizes durable feelings for others, relational states, and interpersonal obligations, there is an emerging folk concept of “emotion” (*cam xuc*) that emphasizes discrete and differentiated internal experiences *because of* exposure to things and people.

Folk affect concepts may also vary in the prototypical emotions associated with particular attitudes, as a result of different social scenarios prevailing within relationships. For example, *love* can lead to a host of acute emotions, such as *contentment* and *grief*, but which are most salient may vary across individuals or populations. Lutz (1988) describes the concept of “love” (*fago*) in Ifaluk, a low-lying Micronesian atoll. In this interdependent community with low relational mobility and high extrinsic mortality, *love* as dependence most saliently begets compassion, sadness, longing, pity, and other concomitants of loss, separation, vulnerability, and obligation. In contrast, *love* in populations with high relational mobility and low extrinsic mortality may lead most saliently to contentment, joy, and other positive consumatory experiences, as in the canonical English concept of “love.”

The ASE model also indicates that folk affect concepts may vary in whether varieties of an emotion are

distinguished based on their attitudinal antecedents (e.g., *schadenfreude*), and in whether they are suffused with particular relational values and expectations. For example, Tran (2015) describes the distinction in modern Vietnamese between “happiness” (*hạnh phúc*), traditionally linked with the fulfillment of relational expectations, and “joy” (*niềm vui*), a newer concept expressing satisfaction from self-motivated choice. Likewise, the concurrence of distinct sentiments within relationships may vary across populations. Concepts that capture the conjunction of *respect* and *fear* may be alien to those in putatively meritocratic and egalitarian societies without ascribed hierarchies, but they are salient where dominance and subordination are valued facets of social life (e.g., Indonesia; Fessler 2004). Finally, clusters of related affect terms may correspond to different contextual or behavioral manifestations of particular sentiments. In the case of *contempt*, such terms might include “scorn,” “disdain,” “sneering,” “defiance,” “anger,” “disgust,” “derision,” and “haughtiness” (Darwin 1872/1955; Izard 1977).

The principal implication of the ASE model for folk affect concepts is that variation in such concepts comes not only from the historical and experiential vagaries of categorization or social construction. To a significant and verifiable extent, it also results from the manifolds of sentiments. Networks of contingent attitudes and emotions create many degrees of freedom for differences in the actual engagement of basic affect systems, and in their conceptual representation across words, individuals, and populations. Nevertheless, variation in folk affect concepts should be predictably patterned, following the joints of sentiments as these are differentially engaged by local circumstances and systems of meaning.

5. The deep structure of “contempt”

The ASE model of sentiments and its implications for folk affect concepts can explain the coherence of the features of “contempt,” as well as variation in their manifestations across studies, individuals, and populations. We begin by fleshing out the basic affect systems of the sentiment *respect*, which largely define the sentiment *contempt*. We then detail how this sentiment explains the features of “contempt” and effectively organizes the extant findings in the contempt literature.

5.1. The sentiment respect

Of the multiple meanings of “respect” (Langdon 2007), most are consistent with an underlying sentiment that tracks an other’s practical and moral efficacy in domains relevant to the evaluator (S. T. Fiske et al. 2002; Wojciszke et al. 2009). These standards are subjective, defined relative to the evaluator’s goals, abilities, and social options, but they can stem from shared criteria defining a social role or status. Ultimately, respect facilitates forming mutualisms with efficacious individuals (see also McClelland 2011) by motivating tolerance of, and interest in, their continued functioning, and facilitating prosocial emotions (e.g., *compassion*, *guilt*, and *shame*) that foster engagement with, and mitigate harm done to, them. Increasing levels of respect track an other’s relative expertise in relevant practical domains, which makes the other an increasingly

valuable source of information and positive externalities. While minimal respect engenders tolerance and interest in an other’s continued functioning, increasing respect motivates increasing concern, deference, and imitation (Henrich & Gil-White 2001), as well as followership and support (Van Vugt 2006). *Respect* is implicated in many of the social behaviors that constitute human ultrasociality, including reciprocal relationships (Trivers 1971), prestige-biased cultural learning (Henrich & Gil-White 2001), and followership in the resolution of coordination problems (King et al. 2009; Price & Van Vugt 2014). In each case, *respect* plays a role in assortment by indexing which individuals are competent norm adherents, potential sources of cultural skills, and capable leaders. *Respect* is one proximate mechanism that may implement strategies modeled as explanations for the evolution of cooperation, including partner selection (e.g., Hruschka & Henrich 2006) and indirect reciprocity (e.g., Panchanathan & Boyd 2004).

5.2. The sentiment contempt

If *respect* is necessary for many human social behaviors, then an absence of *respect* should be functionally significant. We identify the absence of *respect* as the sentiment *contempt* (Fig. 1). By hypothesis, the core of *contempt* is an attitude state that represents others’ low intrinsic value to self, due to their inefficacy in adhering to social-relational standards; they have either failed to establish their worth, or shown themselves unworthy of previous positive valuation. This attitude state is constituted by a lack of felt *respect* and by the cognitive schema of “looking down on” someone, leading to indifference, intolerance, and exploitation through emotion moderation. Together, these dispositions minimize the costs incurred from poor relationship partners and maximize the benefits extracted from them.

Contempt potentiates two clusters of emotion dispositions. First, the prosocial emotions supported by *respect* are muted, leading to cold indifference and exploitation; that is, *contempt* undermines emotions that implement subjective commitment (Fessler & Quintelier 2013) to valuable relationships. The target may be ignored, and, as their welfare is not valuable, empathy and *compassion* are not engaged. There is no valuable relationship for *guilt* to preserve as a disincentive to exploit the other, nor is there a relationship for *guilt* to repair following a transgression (Baumeister et al. 1994; Fessler & Haley 2003); any benefit taken is a net benefit lacking a countervailing cost. Moreover, the target’s valuation of oneself is not important, and their knowledge of one’s own transgressions should not motivate *shame*. At the same time, accidents befalling them are not perceived as serious for the self, as no valuable relationship is thereby threatened, potentiating mirth and Duchenne laughter (Gervais & Wilson 2005).

Second, the hostile emotions mitigated by *respect* are instead potentiated in *contempt*, leading to intolerance and exclusion. Any actual or potential cost imposed by the other – including proximity as a cue to cost imposition – registers as a net cost, disposing *anger* and behaviors that will deter the other in the future (see, e.g., Sell et al. 2009). The target also presents costs that can be mitigated through the co-opted avoidance tendencies of *disgust*. These costs include culture contamination – inadvertently copying the practices that may have earned that person

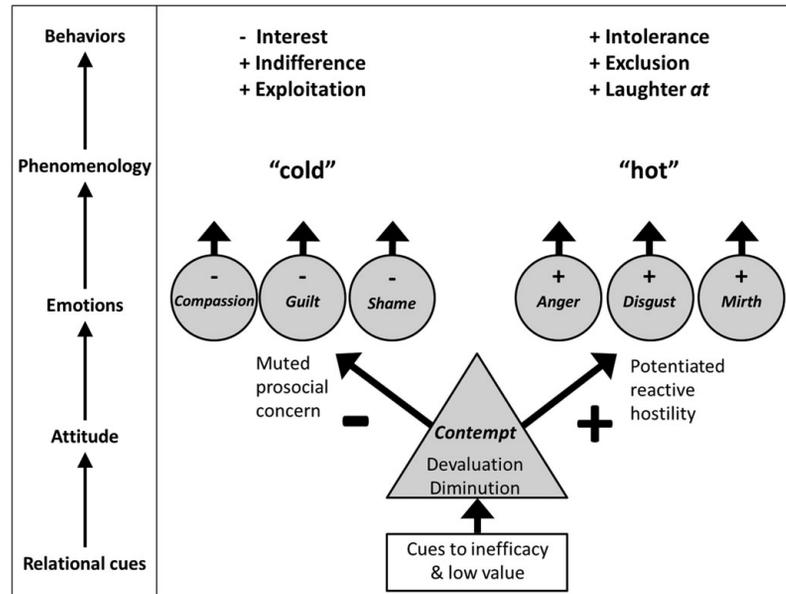


Figure 1. A schematic representation of the hypothesized sentiment *contempt*. Relational cues to an other's inefficacy and low value establish an attitudinal representation of an other that is an absence of *respect*; he or she is worthless and below oneself. This creates two clusters of emotion dispositions: muted prosocial emotions such as *compassion*, *guilt*, and *shame*, and potentiated hostile emotions including *anger*, *disgust*, and *mirth*. These emotions create both the “cold” and “hot” aspects of contempt phenomenology, and implement indifference, exploitation, intolerance, and exclusion.

contempt in the first place – and image infection, or stigma-by-association (e.g., Neuberg et al. 1994).

Contempt can be inferred from expressions and behaviors associated with its various emotion dispositions, especially as these diverge from civil interaction: being unmoved by another's joy, reacting aggressively to a minor transgression, or laughing at another's misfortune. *Contempt* is associated with the unilateral lip curl (Ekman & Friesen 1986), a mild threat display given the proximity of someone not valued and hence potentially costly (Darwin 1872/1955; Izard & Haynes 1988). Not surprisingly, within an established relationship, these dispositions and expressions initiate relationship dissolution.

There is convergent empirical support for this model of *contempt*. Mounting evidence indicates that empathy and concern are moderated by social closeness and relationship value (e.g., Cikara & Fiske 2011; Hein et al. 2010). These effects are both direct and mediated by reduced motivation to perspective-take (Batson et al. 2007) and affiliate (van Kleef et al. 2008). There is also evidence that increasing someone's power (Lammers & Stapel 2011) or social capital (Waytz & Epley 2012) increases his or her indifference and dehumanization towards distant others, consistent with *contempt*. The down-regulation of concern by those high in relative efficacy is evident in increased rule breaking, exploitation, and cheating by wealthier individuals (Piff et al. 2012). Likewise, increased physical formidability enhances anger reactivity (Sell et al. 2009). The coincidence of in-group love and out-group indifference (Brewer 1999) is explicable as out-group *contempt* abetted by in-group interdependence and solidarity.

Contempt is plausibly the default social sentiment in psychopathy. Clinical psychopaths are characterized by a constellation of antisocial traits and behaviors, including “cold” affect, arrogance, interpersonal manipulation, impulsivity, irresponsibility, and both reactive (anger-based) and instrumental aggression (Blair et al. 2005; Hare 1996; though see

Reidy et al. 2011). Psychopaths thus appear *contemptuous* in all of their interactions: arrogant, without guilt, empathy, shame, or social sadness; exploitative, reactively intolerant, and externalizing – all adaptive dispositions vis-à-vis someone held in *contempt*. Supporting this, clinical psychopaths are capable of empathy, but are usually unmotivated to empathize (Meffert et al. 2013), and subclinical psychopathic traits predict the conditioning of concern and relational investment on another's manifest relational value (Arbuckle & Cunningham 2012; Gervais et al. 2013; Molenberghs et al. 2014).

Lending discriminant value to our approach, *contempt* differs markedly from *hate*, though they are often conflated (e.g., Cuddy et al. 2007). Described as “inverse caring” (Royzman et al. 2005), *hate* represents an other as actively competitive or threatening, and motivates harming an other and delighting in her or his misfortune. In contrast, *contempt* is not the inverse of caring, but merely its absence – it disposes instrumental exploitation and reactive aggression towards a devalued other, but does not intrinsically motivate harming or annihilating that person. A wide variety of harmful acts are motivated not by intrinsic motives to harm the other, but as a means to other ends. This implicates *contempt* instead of *hate* in many so-called “hate crimes” and “cold-blooded killings,” as *contempt* makes the condemned vulnerable to use by the contemptor in satisfying extrinsic goals, including rape, theft, and attempts to signal formidability or in-group commitment.

5.3. The evolution and phylogeny of contempt

How might *contempt*, as the absence of *respect*, have evolved? To start with, *respect* must be a derived capacity within a species' neurocognitive repertoire. Species lacking this capacity – plausibly the prevailing pattern in the animal kingdom, especially among non-social animals – merely evince *pseudo-contempt* in their intolerance and

indifference to conspecifics. Among social species capable of differentiated relationships involving interest, tolerance, coordination, and reciprocity among non-kin (including “friendships”), we might expect that *respect* evolved to facilitate the establishment and maintenance of valuable relationships with efficacious others. In such species, *respect* could be gained or lost, making *contempt* relationally significant.

The ancestral form of respect (*protorespect*) may have been directed up dominance hierarchies towards especially efficacious conspecifics, motivating interest and investment in exchange for the benefits uniquely available from those of high rank (Chapais 2015). This system, involving “looking up to” another, may have co-opted a physical size schema with even deeper phylogenetic roots in force-based agonistic interactions (A. P. Fiske 1991; Holbrook et al. 2016), just as the emotion systems *protopride* and *protoshame* were co-opted from dominance hierarchies for use in prestige hierarchies (Fessler 1999; 2004). The cognitive side of *contempt*—“looking down on” another—likewise finds a plausible homologue in dominance hierarchies (Darwin 1872/1955; Frijda 1986; Izard & Haynes 1988), especially towards lower-ranking conspecifics that cannot deliver benefits upwards and fail to earn *respect*. Dominant individuals in many species act contemptuously towards replaceable and low-ranking conspecifics—indifferent, intolerant, even exploitative—while showing *respect*-like tolerance and cooperation in more valuable relationships (e.g., Smuts & Watanabe 1990; see Chapais 2015). To the extent that high rank is contingent on the support of subordinates, mutual respect may change the quality of dominance interactions and hierarchies (Boehm 1999; Chapais 2015). The interaction of positive yet asymmetrical levels of respect could sustain a legitimate status hierarchy, involving upward support, deference, followership, and propitiation, and downward *noblesse oblige* and pastoral responsibility, thereby approximating the Authority Ranking (AR) relational model (Fiske 1991).

Beyond a capacity for conditional *respect*, in a few species we might expect further derived mechanisms that facilitate social tolerance and the discovery of mutualisms on a wider or faster scale. Two possible mechanisms are an elevated baseline level of *respect* towards conspecifics and prepared, one-shot cue-based learning. Such mechanisms are plausibly found in humans, owing to the co-evolution of risk-pooling, obligate cultural learning, expanding social networks, and ratcheting interdependence (e.g., Hill et al. 2011; Tomasello et al. 2012). *Contempt* can be implicated in facilitating the evolution of human ultrasociality once prestige and community expectations gained a foothold in our lineage. *Contempt* implements low-cost or indirect punishment, such as exclusion from cooperative ventures, potentiating social selection (Boehm 2012; Nesse 2007). Specifically, *contempt* as relative devaluation should have selected for strategies for its avoidance—including adherence to norms for the sake of predictability in joint enterprise (Fessler 1999; 2007); social niche differentiation and the cultivation of worth to others (Sugiyama & Sugiyama 2003; Tooby & Cosmides 1996); and sociocultural competence culminating in leadership and prestige (Chapais 2015; Henrich & Gil-White 2001; Price & Van Vugt 2014). Efficacy in adhering to community moral expectations could likewise engender *respect* and mitigate

contempt (see Rozin et al. 1999). It may be the significance of *lost respect*, especially for moral failings, that makes *contempt* particularly salient in human social life; that is, *contempt* may be a uniquely human moral sentiment, but only insofar as humans are unique in their moral expectations. One upshot of this phylogenetic history may be a kludgy solution to relational tracking that evinces phylogenetic legacies in its proximate instantiation (Fessler & Gervais 2010), including bleeding across the bases for *contempt*, such as in metaphors of possessing “weak” moral fiber, engaging in “low” actions (Lakoff 1995), or having a “small” intellect.

5.4. The deep structure of “contempt”

The ASE model of the sentiment *contempt* lays the groundwork for understanding the features of the folk affect concept “contempt” (see Table 1). “Contempt” is parsimoniously explained as a conceptual schema patterned by *contempt* as we have characterized it; it is anchored by a relatively stable attitude state and incorporates, to variable degrees, the cues, emotions, experiences, and behaviors causally linked with that attitude. In other words, the folk affect concept “contempt” is a conceptual and cultural construction built on and by the functional structure of the sentiment *contempt*.

“Contempt” is (1) object-focused and (2) enduring. These are basic features of attitudes as enduring representations of the value of particular people or objects. “Contempt” specifically results from (3) cues of another’s physical, cultural, or moral inefficacy, and entails (4) loss of respect and status diminution. These features are key aspects of the function of *contempt* as a representation of another’s low relational value to the perceiver. This attitude is facilitated by attributions that the other is unable to change, hence the salience of character attributions as beliefs that support “contempt.” The phylogenetic analysis of *contempt* suggests a source domain for the representational feature of “looking down on” someone.

“Contempt” is associated with (5) “cold” indifference. This conceptual metaphor follows from the role of *contempt* in reducing the “warm” feelings associated with friendship, respect, and committed relationships (Kövecses 2003); *contempt* undermines emotional engagement and compassion, thus potentiating “cold-blooded” treatment. In other situations, “contempt” is associated with (6) *anger* and *disgust*. This is the second, “hot” constellation of emotions potentiated by *contempt*. Experienced as “boiling inward” in the study by Frijda et al. (1989), these emotions mitigate costs incurred from low-value partners. Anger and disgust may also be involved in the establishment of *contempt*. Anger gives rise to *contempt* when intrinsic attributions and low control attend relational transgressions (Fischer & Roseman 2007; see also Fridhandler & Averill 1982). Disgust and contempt co-occur when the same information that cues low value also cues a threat that can be addressed through avoidance.

That *contempt* moderates diverse emotions and behaviors explains why (7) “contempt” can be expressed in so many ways: a mild threat signaling “stay away” (e.g., Ekman & Friesen 1986); largeness or a downward glance signaling “I’m better than you” (e.g., Izard & Haynes 1988); disappointment signaling “you’re not good enough for me” (e.g., Russell 1991d); anger (e.g., Alvarado &

Jameson 1996), disgust (e.g., Ekman et al. 1987), indifference (e.g., Wagner 2000), and laughter (e.g., Miller 1997) as emotion dispositions that index *contempt* in context; and also ridicule, disrespect, vulgarity, and a lack of shameful modesty in the other's presence, which index lack of regard for him or her. Finally, the outcomes associated with "contempt" – (8) intolerance, exclusion, exploitation, and relationship dissolution – follow from the emotional dispositions created by *contempt*, which function to minimize the costs incurred, and maximize the benefits extracted, from low-value individuals.

The ASE model of *contempt* thus organizes the existing contempt literature and makes sense of the eight features that cohere in the "contempt" concept. This includes the findings for which contempt has been labeled a "special case," most notably individual variation in the meaning of "contempt," diverse expressions, both "hot" and "cold" phenomenology, and "nebulous" association with anger and disgust. In addition to shedding light on existing data, the ASE model generates predictions about how the "contempt" concept should be patterned across studies, individuals, cultures, and social ecologies. In the next section we flesh out these predictions and future directions, after which we develop more general implications of the ASE model for studies of basic affect systems and folk affect concepts. In evaluating the utility of the ASE model, we stress that it makes predictions about the structure and variation of folk affect concepts where few, if any, other theories do. Folk affect concepts are the most directly observable affective phenomena and the most experience-near for participants, lending added value to any theory that can explain and predict their form.

6. Predictions and Future Directions

6.1. Predicting variation in contempt and "contempt"

In addition to explaining the coherence of the features of the "contempt" concept, the ASE model of the sentiment *contempt* hypothesizes many dimensions along which the meaning of "contempt" can vary or change over time. This multifaceted architecture explains the lack of consensus on the meaning of "contempt" (Matsumoto 2005; Rosenberg & Ekman 1995), while generating predictions and insights into variation and change in "contempt" and related folk concepts.

In the ASE model, attitudes and emotions are tightly linked causally as well as temporally. Owing to this functional dependency and close association in experience, attitudes and emotions should be readily conflated in folk affect concepts (Frijda et al. 1991). Nonetheless, it should be possible to probe sentiments for their distinct functional components. For example, at the synchronic level of psychology experiments, the meaning of "contempt" should be fluid as different frames or primes make salient different aspects of the underlying sentiment – not only the "hot" or "cold" emotion constellations of *contempt*, but also whether it resembles an emotion or an attitude. Asking about "a time" one felt contempt should foreground the occurrent emotionality of contempt establishment or situational reactivity. In contrast, asking about a person towards whom one feels contempt should foreground the enduring evaluation of the relationship and its cold consideration. More broadly, a productive line of research might explore the

malleability of affect concepts, and whether apparent individual or cultural differences in affect concepts can be erased or reversed through the foregrounding of different aspects of relational experience grounded in emotions or attitudes.

The ASE model also suggests that the same sentiment may manifest differently in different relationships if the targets share a core fitness affordance (e.g., inefficacy for *contempt*), but differ in other affordances or social contexts. For example, within individuals but across their relationships, "contempt" likely takes different forms. If one person held in contempt is frequently encountered, and is thought to impinge on the contemnor, contempt will be suffused with the "hot" constellation of *anger* and *disgust* dispositions. In contrast, a contemned person who is rarely encountered may be coldly considered. *Contempt* may also co-occur with other attitudes. If someone low in efficacy is nonetheless a source of fitness benefits (e.g., via relatedness), *contempt* may co-occur with *love*, buttressing prosocial emotions and creating experienced "pity." In contrast, if someone of low moral efficacy evinces cues to cost imposition and competition, she or he may also be *hated*, amplifying *anger* and adding resentment and spiteful motives to experienced contempt. On its own, *contempt* should not potentiate schadenfreude-like pleasure at another's misfortune (see, e.g., Cikara & Fiske 2012), but instead indifference, or Duchenne laughter only if his or her misfortune satisfies the incongruity condition of humor (Gervais & Wilson 2005) (see Fig. 1).

Although *contempt* is distinct from *hate*, it should insidiously facilitate *hate* by generating credulity toward portrayals of the other as threatening, even evil (Sternberg 2003a). The cost/benefit ratio of believing vilifying information about an other hinges on the value of the other as a potential relationship partner. If, as in *contempt*, the other is presently represented as worthless, then the costs of erroneously believing new false denigrating information are low, as no benefits are forsaken; conversely, the costs of erroneously rejecting true derogatory information will be high, as threats to the self would be overlooked. When uncertainty attends decision-making, evolved systems should be biased toward the less costly error (Haselton & Nettle 2006). Hence, *contempt* should enhance credulity toward vilifying information. Writ large, *contempt* creates an attractor (Sperber 1996) for villifying information, and is implicated in the success of propaganda campaigns and "witch hunts," especially those directed at contemned statuses, minorities, or outsiders.

Because sentiments subjectively represent the fitness affordances of others, they should be calibrated to individual differences in variables that influence one's own relative value and the value of social relationships more generally. Individual differences in sentiment profiles – differences in emotion dispositions created by differences in attitude baselines – may be an important yet overlooked source of so-called trait emotions and personality differences. This implies that, across individuals, there should be differences in proneness to *respect* and *contempt* that influence the varieties of "contempt" experienced. Clinical psychopathy may be an extreme case of obligate *contempt* across relationships. More commonly, these differences are a function of one's own perceived efficacy and value relative to others. For example, high resource-holding power should circumscribe the number of others deemed valuable, making one

“contemptuous.” High resource-holding power in a steep, unstable social ecology should sensitize one to threats to resources from others, making “contempt” relatively “hot.” In contrast, a stable dominance hierarchy insulates those at the top from such threats, while making them enduring sources of costs for those on lower rungs; in the thermodynamics of rigid hierarchies, “cold” contempt should sink, whereas “hot” contempt rises.

Within populations, folk affect concepts should be fluid over time, influenced by changes in the lived costs and benefits of social relationships, as well as shifting normative discourses pertaining to self, society, and morality. The turn toward “emotion” in urban Vietnamese ethnopsychologies (Tran 2015), discussed earlier, indexes the increasing salience of discrete *emotions* per se, a shift apparently driven by urbanization, market integration, and individualization. Historical shifts may also occur with respect to particular sentiments. For example, the predominant meaning of “contempt” and its nearest translations may be fluid over historical time. We suggest that one reason for the common conflation of “contempt” with “anger,” “disgust,” and “hate” is that successive civil rights movements in America have undercut the public legitimacy of *contempt*. Many such movements are responses to *contempt* and hinge on counterclaims to dignity and *respect*—from the “unalienable rights” listed in the Declaration of Independence, to the Declaration of Sentiments at Seneca Falls that “all men *and women* are created equal” (Stanton 1848/1997, p. 75; emphasis added), to the more recent affirmation that “black lives matter” (see: blacklivesmatter.com). In the moral discourse of a “dignity” culture (Leung & Cohen 2011), all people have, and ought to be treated as though they have, inviolable rights and worth. This prescribes *respect* and renders illegitimate, even contemptible, looking down on or treating as worthless many historically contemned statuses—a pattern that potentially explains the more than five-fold decrease over the last two centuries in the proportion of words in English-language books that are “contempt” (Google Ngram: Michel et al. 2011). In this context, only those universally viewed as morally depraved—such as Nazis, pedophiles, or, within political parties, the other political party—remain legitimately and publicly contemptible. This normative stance conflates in discourse and experience *contempt* and *hate* and their conjoint emotional outcomes *anger* and *disgust*. It may even “unmark” many cases of cold contempt, making them even more insidious, for instance in implicit racial biases. If this account is correct, differences in the texture of “contempt” should be evident in comparisons of the corpses of early and recent American English, older and younger Americans, and American and British English speakers, wherein modern American contempt should be relatively “hot” and bound up with *anger*, *disgust*, and *hate*. Generally, any transition from an autocracy to a democracy should be accompanied by a shift in the content of the nearest cultural model of *contempt* away from the cold, matter-of-fact representation of inferiority, towards hot emotional reactions to the trampling of rights and dignity.

Across populations, folk affect concepts should also vary in systematic ways. For example, the nearest translations of “contempt” will vary in content as a function of differences in social organization and the frequencies of particular relational events, in addition to local moral discourses. In

contrast to the “hot” contempt of dignity cultures (discussed above), “contempt” will take on cold tones of disappointment and indifference in contexts where failings or essentialized differences are consensual grounds for devaluation. This includes honor cultures, in which respect has to be earned and contempt plays a legitimate role in everyday social life (e.g., Abu-Lughod 1986). In populations with low relational mobility and high interdependence—for example, some “face” cultures (e.g., Doi 1973)—contempt will be infused with pity from the parallel engagement of *love* by that interdependence. In autocratic stratified settings, “contempt” should involve cold instrumentality directed downwards, and hot indignation and resentment directed upwards. “Reverence” as the conjunction of *love* and *respect* may be more common in social structures with freely conferred status differences, while such societies may lack terms, common elsewhere, for the composite sentiments of *respect* and *fear*. Specific variables of interest that might influence the manifestation of *contempt* and other sentiments include the structure, size, and fluidity of social networks, levels of risk pooling and collective action, rates of within- and between-group violence, and the presence of interaction rituals that cue different relational affordances—in short, any variable that influences the perceived costs and benefits of social relationships. As with individual differences, we would implicate culturally variable sentiment profiles as a source of genuine cultural differences in emotional proclivities and social behavior. Nonetheless, there should be deep similarities across populations in the contingencies that obtain between particular valuations of relationships and the emotional concomitants of those relationships in particular appraised scenarios—“context-dependent universals” (Chapais 2014) in attitude-scenario–emotion linkages.

6.2. General ASE predictions and future directions

The preceding predictions about folk affect concepts hinge on the underlying structure of basic affect systems as characterized in the ASE model of sentiments, especially our model of *contempt*, which exemplifies the structure of sentiments and the consequences of this structure for folk affect concepts. Of course, our predictions about variation in concepts of “contempt” could be wrong without imperiling the underlying model of *contempt*, if, for example, our assumptions about the relationship of basic affect systems and folk affect concepts are mistaken. Likewise, our specific model of *contempt* could be wrong without imperiling the more general ASE model of sentiments; *contempt* may not be an absence of *respect*, or it may not be a sentiment at all. For these reasons, it is worth sketching more general empirical contributions of the ASE model, as well as meta-theoretical virtues of this approach.

The ASE model distinguishes attitudes and emotions by their computational form and function. In so doing, it pioneers an explicit evolutionary psychological approach to attitudes to complement that which exists for emotions (e.g., Nesse 1990; Tooby & Cosmides 1990). The venerable attitude literature has continually reconsidered the nature of its own constructs and redefined “attitude” across the years (Allport 1935; Eagly & Chaiken 1993; see Gawronski 2007). Emphasizing form–function fit, functional specialization, and the adaptive problems of personal social

relationships, the ASE model extends this tradition in the direction of consilient social theory.

Empirically, there are a number of operational indicators that may be used to distinguish attitudes and emotions (summarized in Table 2, column 3). For example, in natural language use, the object-specificity of attitudes should manifest in statements regarding “feelings about” someone, while the more diffuse and systemic operation of emotions should manifest in statements regarding “feelings because of” some event. Phenomenologically, it should be possible to introspect present attitudes coldly and dispassionately, while emotions remain relatively “hot” during their operation. As enduring representations, attitudes should have a relatively stable time course updated only by new object-relevant information, whereas the course of emotions should be relatively fleeting, lasting only as long as the eliciting scenario (however protracted). Structurally, attitudes are principally evaluations of someone and require only that object (real or imagined) for their activation. In contrast, the structure of emotions is that of systemic mobilization without necessarily a clear object, but instead patterned changes across the organism (Kragel & LaBar 2013). No single heuristic is likely to clearly distinguish emotions and attitudes in all cases; their casual and temporal dependencies, which mask their distinction in folk affect concepts, will likewise complicate scientific attempts to empirically disentangle them (see also Frijda et al. 1991). For example, this may explain why “hate” and “anger” are not reported to vary in their duration (Royzman et al. 2005): If *hate* requires *anger* (among other emotions) to mobilize action, and if *anger* can follow recurrently from *hate*, then their conceptual representations may well overlap. Distinguishing attitudes and emotions in such folk affect concepts will require carefully crafted probes that assess the statistical clustering of multiple functional features across measures, including self-reports, physiology, neural signatures, and behavior.

The ASE model invites a host of novel questions about the psychological and functional interactions of emotions and attitudes. The attitude and emotion literatures have remained largely isolated for a half-century; little research has explored how attitudes articulate with the appraisal processes theorized in the emotion literature, or how and when emotions influence attitudes (though see, e.g., Clore & Ortony 2008; Cunningham et al. 2007). Considering how attitudes articulate with emotion-eliciting appraisals can inform relational models of appraisal, which attempt to specify the information that influences appraisal processes (see Smith & Kirby 2009). For example, the valence or intrinsic pleasantness of a stimulus (see Scherer 1999), important in the front end of appraisal, potentially cleaves closely to the evaluative representations of attitudes. Attitudes may play a direct role in appraisal by coordinating goals or more proximate motives vis-à-vis attitude objects (Frijda 1994; Shand 1920). Attitudes may also influence attention and perspective-taking, mediating, for example, empathic concern (Batson et al. 2007). Likewise, attitudes may influence ascriptions of causal locus, including ascriptions of intent for behaviors with positive versus negative outcomes (e.g., Peets et al. 2008). Reciprocally, emotions may update attitudes. This idea is central to the latent-emotion approaches to attitudes and sentiments (see also Baumeister et al. 2007), but conceptualizing attitudes as internal regulatory variables, each updated by diverse

emotions, greatly expands this underexplored area (see Tooby et al. 2008).

Two additional hypotheses of the ASE are (1) the existence of diverse orthogonal dimensions of interpersonal attitudes, and (2) the emotional pluripotency of attitude states. Together these features motivate the characterization of sentiments as higher-order attitude–emotion networks and constitute key criteria for distinguishing sentiments from stand-alone attitudes or emotions. Sentiments should have some of the functional attributes of attitudes described above, including intentionality and durability, but will “feel” respectively like attitudes or emotions depending on circumstances. One signature of sentiments will be the tendency of people to infer them from diverse emotional expressions. For example, *love* may be indexed by *joy*, *anger*, *fear*, or *sadness* in different contexts. This is readily testable in a modified emotion recognition paradigm with social-relational framings. Rather than asking which emotion a pictured person feels, researchers might ask how the pictured person feels *about* another person given his or her expression at that person’s fate or action—a smile at that person winning the lottery or dying, for example. A similar paradigm, measuring emotional reactions to scenarios with a manipulation of target identities, could be used to characterize the precise emotional grammar for different values of each putative attitude across events. Distinct attitudes should produce divergent emotional outcomes in at least some circumstances—such as *envy* or schadenfreude-like *joy* following from *hate* but not *contempt*, or approach-induced anxiety that scales with *respect* but not *love*. Under our reconceptualization of interpersonal attitudes, it is unclear that any will be simple attitudes with only one emotional disposition. We have focused on *respect* and *contempt* as the anchors of one among many attitude dimensions, merely sketching a larger set of dimensions, and general functional links among cued affordances, attitudinal representations, and emotional dispositions. In doing so, we sought a middle ground between parsimony and functional specialization. Much more research is necessary to catalogue and characterize the pantheon of sentiments, in particular in personal relationships. Most work on the dimensionality of attitudes has focused on stereotypes and impersonal judgments, arguably a distinct domain from personal relationships that entails its own adaptive problems and functional structure (see Fiske & Fiske 2007 for discussion).

One fruitful line of research into the diversity of attitude dimensions would be to investigate their interactions and conjoint emotional outcomes within relationships. Because individuals are multifaceted, different features of an other may be represented via different attitudes, and these may conflict. For example, an actor may both *love* a close kinsperson and hold them in *contempt* for their divergent politics, a conflict that can produce “pity” as the conjunction of (perceived) superiority and affection (Fessler 1999)—a prediction quite different from that which limits the objects of contempt to the “lowest of the low” (i.e., Cuddy et al. 2007). Children may be a common object of such affectionate contempt across populations. While this may seem counterintuitive, given the Western folk affect concept of “contempt,” consider that, by the same logic, *hate* and *respect* can likewise intersect, as, for example, in the sentiments of a military leader towards a skilled and formidable foe. Some intersections of attitude dimensions may be common,

whereas others are unlikely or even incommensurate, owing to the clustering of relational affordances in the world. What terms are there in the world's affect lexicons for mixed-attitude relationships? If more than hyperbole, a "love/hate relationship" would illustrate the upper boundary of information summarization in the social mind, providing evidence of ambivalence at the coexistence of competing relational affordances, such as dependence and exploitation. Interpersonal ambivalence may be an important signature of the multi-dimensionality of attitudes (Cacioppo et al. 1999). It also distinguishes the ASE model from the theory that there is a single streamlined summary variable regulating self-other trade-offs (i.e., the Welfare Tradeoff Ratio; Tooby et al. 2008). Studies of reaction times in social decision-making could quantify the magnitude of ambivalence from different combinations of attitude states, while priming studies that foreground different facets of targets should be able to increase or reduce such ambivalence experimentally.

The ASE model links to and extends a growing literature in primatology on cost/benefit bookkeeping within social relationships (*sensu* Silk 2003). Researchers studying social bonds, reciprocity, and assortment in nonhuman primates have proposed that emotions are the proximate mechanisms that track relational costs and benefits, adaptively regulating social behavior without explicit cognitive account keeping (e.g., Aureli & Schaffner 2002; Evers et al. 2014; Schino & Aureli 2009). The ASE model clarifies the functional systems in question, distinguishing the complementary forms and functions of bookkeeping attitudes and commitment emotions in networks of sentiment. Highlighting a deep but previously unappreciated connection between bookkeeping and commitment, the ASE model grounds the commitment functions of emotions, including social engagement versus disengagement (Kitayama et al. 2006), or affiliation versus distancing (Fischer & Manstead 2008), in antecedent bookkeeping indices of relational value. In so doing, the ASE model provides a novel lens for investigating the neurobiological bases of social relationship regulation.

The functional features of sentiments map closely onto the functional properties of some neuroendocrine systems, facilitating contingent behavior across social-relational contexts (Trumble et al. 2015). The ASE model creates a framework for testing how particular hormones and neural networks represent relationship value, update such representations, or implement behavior conditionally on such representations. For example, the proposed functions of the neuropeptide oxytocin range across these processes, including social memory, social bonding, and modulated tolerance, trust, and parochialism (De Dreu et al. 2011; Insel 1992; Kosfeld et al. 2005). However, a careful examination of the evidence in light of the ASE model suggests that the functions of oxytocin are not the attitudinal encoding of value itself, but are specifically *emotion*-like, implementing a mode of behavior conditional on an existing representation of value (e.g., Crockford et al. 2013), or updating that representation, given new cues to relationship value (e.g., Wittig et al. 2014). Evidence that oxytocin tracks relationship quality (e.g., Holt-Lunstad et al. 2014) should not be taken as evidence that oxytocin is in some sense *the* social bond. Instead, we suggest that oxytocin release is moderated by a separate index of relationship value – an attitude – and implements adaptive

behavior (e.g., tolerance, trust, investment) within a relationship thus indexed. The effects of exogenous oxytocin do appear contingent on other evaluative representations, such as those tied to group membership (De Dreu 2012; though see Leng & Ludwig 2016), suggesting that simply boosting oxytocin does not get one a bonded relationship; targeted updates to the representation of the relationship, or the attitude, may be necessary.

What neural systems, then, encode relationship value and moderate the release of, and the effects of, oxytocin and other neurotransmitters? Insight into social-relational valuation may be gained from pathologies thereof, as in psychopathy or frontotemporal dementia. Though typically conceptualized as pathologies of emotion, we reconceptualize these as *sentiment* disorders in which atypical attitudinal representations disrupt downstream social emotions. Previous work on these conditions can thus be interpreted as nominating candidate neural networks for encoding social valuation (or *attitudes*), including the basolateral nucleus of the amygdala, orbitofrontal cortex, anterior cingulate, anterior insula, and superior temporal pole (see Anderson & Kiehl 2012; Filippi et al. 2013; Yoder et al. 2015). These areas are key components of the "salience network" (Seeley et al. 2007) regulating the motivational import of social information, in line with a proposed function of attitudes. How these areas relate to the regulation of neurohormones – their release and effects, for example – is a key outstanding question for the neural implementation of sentiments. The construct of sentiment disorders can also challenge received wisdom. For example, rather than an empathy deficit disrupting the development of attachment in psychopathy (Blair et al. 1997), an inability to value others may be primary in psychopathy and underlay psychopaths' diminished empathy and resistance to socialization.

We have characterized sentiments as systems of endogenous affect that regulate social-relational behavior. This is not to say that the engagement of these systems within any given relationship is the only determinant of behavior within that relationship. Strong norms backed by punishment, or obligations and expectations linked to reputation, can channel and constrain social behavior, motivating generosity, or disincentivizing exploitation, even in the absence of compassion or respect. At the same time, the existence of norms such as "hate the sin, not the sinner" suggests that communities often need norms to countervail the endogenous tendencies of social attitudes (Wilson 2002). Despite extensive research on the individual and societal determinants of relational dynamics, the nature of the psychological interactions between these influences on social behavior remains under-researched. What work there is suggests significant cultural variation in the relative weight of relational attitudes and internalized role expectations in determining social behavior. For instance, among Indian participants, an internalized sense of duty can abet prosociality, even within relationships that are devoid of warmth, thus establishing two pathways to "intrinsically" motivated prosocial behavior (Miller & Bersoff 1998; Miller et al. 2011). However, the interaction of sentiments and internalized norms is likely more intertwined than such cases suggest; internalization itself may be mediated by sentiments towards community members generally, or towards authority figures (including supernatural agents) in particular. Theorized as a psychological commitment device evolved to enhance norm conformity and the

social benefits thereof (Fessler 2007), the internalization of norms should hinge on the perceived fitness affordances of the holders of normative expectations. This is because the fitness benefits of internalization apply only vis-à-vis those whose judgments are valuable as means to social, cultural, and material resources. In other words, the costs of *not* internalizing norms follow from the negative judgments of valuable allies or authorities. This implies that, over and above cultural variation in normative expectations, individual and cultural differences in the internalization of norms may reflect variation in *respect* for authority, or *love* for other group members, producing differences in the commitment emotions regulated by these attitudes. This, in turn, predicts variation in the success of the social control of behavior; *love* or *respect* for authorities or role models may be necessary to curb the enactment of *contempt* or *hate* in other social contexts within a group. Clinical psychopathy may be noteworthy as multi-hit sentiment disorder involving deficits in *love*, *respect*, and *fear*, profoundly impacting sensitivity to socialization. Normally, dramatic changes in an individual's circumstances vis-à-vis a group, with corresponding changes in the relational value of group members, may alter the degree to which norms are internalized as a function of changes in sentiments: a sudden rise in an actor's coercive power may lead to a decline in her or his *respect* for authority and the motivational import of previously motivating norms, whereas defeat and assimilation by an outside group may lead to the abandonment of prior norms in favor of those of the new group on which one becomes dependent (cf. Cantor & Price 2007).

7. Summary and conclusion

Employing a phylogenetic and adaptationist approach to the mind while taking transmitted culture seriously, we have sought to clarify the form and functions of contempt, a phenomenon that has resisted simple explanation. Decomposing the folk affect concept "contempt" into its eight component features reveals characteristics that cannot be fully accounted for by models that depict contempt as a basic emotion or by those that seek to explain it as an attitude. Rather, the features of "contempt" functionally cohere and map onto the basic affect systems of a *sentiment* – a network of basic emotions moderated by an attitudinal representation of social-relational value. The Attitude–Scenario–Emotion (ASE) model of sentiments details this construct, including the diversity of functionally specialized attitude dimensions and the emotional pluripotency of each attitude state. The sentiment *contempt* represents an other as worthless and below oneself, and potentiates both indifference to an other's concerns and intolerance of his or her presence and any costs associated with them. The features of the folk affect concept "contempt" are the variably-experienced manifolds of this functional network, which may be more or less "cold," more or less enduring, and experienced in conjunction with other sentiments such as *love* or *hate*. Though not simple, our explanation of contempt is parsimonious, explaining all of the features of the folk affect concept "contempt" with reference to one high-level basic affect system, *contempt*.

This approach suggests a number of methodological and empirical insights, illuminating how "contempt" can be probed to reveal different features of the underlying

sentiment, and shedding light on both when variation in "contempt" is to be expected and how corresponding folk affect concepts compare across social and temporal scales. More generally, the ASE model of sentiments has many virtues. Characterizing emotions and attitudes in complementary functional terms should facilitate engagement between emotion researchers and attitude researchers, connecting these mutually-isolated literatures. While the ASE model focuses on the role of attitudes in moderating emotions, it leaves room for the dynamic feedback of emotions on attitudes (see, e.g., Tooby et al. 2008). The computational–functional ASE model can be grounded in comparative neuroscience and can help clarify our understanding of the representational and motivational functions of different neural systems, including neuropeptides, the "salience network," and the etiologies of emotion-related disorders. The model links psychological research to the comparative literature in primatology, fleshing out candidate proximate mechanisms for models of social evolution, and foregrounding enduring social relationships – the ancestral cornerstone of human adaptation – in the evolution and functions of social affect. By jointly considering evolved psychological architecture, the content of emotion lexicons, and genuine cultural differences in attitudes, emotions, and social behavior, this synthetic approach unifies the insights of evolutionary psychology, psychological anthropology, and cultural psychology – a necessary consilience if we are to understand humans as a biologically cultural species.

ACKNOWLEDGMENTS

This work benefited from the feedback of numerous scholars, especially Clark Barrett, Alan Fiske, Dan Hruschka, Adrian Jaeggi, Tatsuya Kameda, Heejung Kim, Michelle Kline, Tage Rai, Joanna Schug, Lani Shiota, John Tooby, Ben Trumble, and the UCLA eXperimental Biological Anthropology (XBA) Lab. Portions of this work were written while Matthew M. Gervais was funded by the National Science Foundation (DDIG Grant No. 1061496) and the UCSB SAGE Center for the Study of the Mind. Daniel M. T. Fessler was supported by the U.S. Air Force Office of Scientific Research under Award number FA9550-15-1-0137. This publication was made possible through the support of a grant from the John Templeton Foundation. The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the John Templeton Foundation.

Open Peer Commentary

Attitude–Scenario–Emotion (ASE) sentiments are superficial

doi:10.1017/S0140525X16000662, e0

Heather Adair and Peter Carruthers

Department of Philosophy, University of Maryland, College Park, MD 20742-7615.

hadair@umd.edu pccarruth@umd.edu

<http://www.philosophy.umd.edu/people/hadair>

<http://faculty.philosophy.umd.edu/pccarruthers/>

Abstract: Gervais & Fessler's (C&F's) Attitude–Scenario–Emotion (ASE) model reduces sentiments to superficial patterns of emotional responding

that emerge when an underlying evaluative attitude interacts with appraisals of a range of specific scenarios. Thus construed, sentiments are epiphenomenal. We argue that G&F would do better to identify each sentiment (love, say) with the attitude that underlies and explains the patterns of emotional responding (in the case of love, this might be the attitude of valuing the good of a specific other).

Gervais & Fessler (G&F) provide an illuminating analysis of persisting sentiments such as love, hate, respect, and contempt. Their theory captures the socially adaptive significance of sentiments while also making sense of cultural variation in the ways in which these sentiments are recognized and described. Such anthropological insights are useful, and can help clarify the targets of our everyday affective folk concepts. When it comes to understanding the causal structures involved, however, the Attitude–Scenario–Emotion (ASE) model lacks explanatory power. By identifying sentiments with functional networks of attitudes and emotions, G&F render sentiments themselves causally inert. This analysis may be of interest to anthropologists, but not if the goal is to understand the underlying psychological mechanisms involved. For, if sentiments are merely superficial patterns in one’s overall affective life, then any question about the structure of sentiments (what causes them, what their effects are, etc.) will be reducible to questions about evaluative attitudes and the ways in which they interact with appraisals of situations. As a result, we suggest, it might be theoretically more useful to identify sentiments with underlying attitudes.

G&F argue that sentiments are part of the “deep structure” of affect, and they persistently use causal language in describing the work that sentiments do. *Respect*, for instance, is described as a “proximate mechanism,” and *contempt* is said to “moderate diverse emotions across contexts.” But on G&F’s own account, sentiments cannot be causes. Rather, they are *patterns* that emerge between (1) an evaluative Attitude, (2) appraisals of Scenarios, and (3) resulting Emotions. On this ASE model, a sentiment should be identified with the entire Attitude–Scenario–Emotion complex rather than any single component within it. In the case of the sentiment *respect*, for example, one may (1) positively value another as a potential social partner. That valuing attitude, together with (2) an appraisal of a scenario in which the valued person is aware of one’s poor performance, for example, will issue in (3) a specific emotional response – in this case, shame. The attitude is a partial cause of the emotional response, as is one’s knowledge/appraisal of the scenario. And the emotion of shame will have a variety of further downstream effects on oneself and others by way of impacting occurrent attitudes and appraisals. So, all three components of the ASE model are individually causally efficacious.

Importantly, however, the overall *patterning* that results from the interaction of this attitude with a variety of different scenarios over time to issue in specific emotional responses is not itself a cause of anything. Far from being the deep structure of anything, *respect* is merely a superficial patterning of ASE pairings. The real causal work is done by the component parts, and it is to these that we must look if we are to explain the causes and functions of social affect.

Consider psychopathy, for instance. G&F remark that the ASE *contempt* is plausibly the default social sentiment for those with psychopathy. Although this diagnosis may adequately describe the patterning of a psychopath’s interactions with others, it doesn’t *explain why* the psychopath behaves as he does. After all, many people exhibit contempt for specific others, perhaps cued by differences of religion, skin color, or social status. Characterizing psychopathy as a form of generalized contempt offers little in the way of understanding. What we need to know is *why* the psychopath *consistently* discounts the value of *all* others, thereby coming to exhibit the emotional/behavioral markers of contempt in all of his social interactions. As G&F themselves put it, “an inability to value others may be primary in psychopathy and underlie psychopaths’ diminished empathy and resistance to socialization” (sect. 6.2). It is the underlying attitude that explains, and which needs to be explained in turn, if psychopathy is to be understood.

In fact, it is quite unclear to us why G&F do not identify sentiments with the underlying attitude-component of the ASE structure. (Indeed, at one point they themselves do precisely this. In [Figure 1](#), the intervening devaluing attitude is labeled “contempt,” instead of that label designating the entire contents of the figure, as the official ASE doctrine would require.) One could say, for example, that *contempt* is the attitude of disvaluing another as a potential social partner, which issues in a range of different emotions depending on how the circumstances are appraised. Such a view is just as well capable of accommodating all eight features of contempt that G&F list in Section 2. Specifically, as an attitude it is certainly intentional (representing another as uninteresting or unworthy); the attitude is itself an enduring evaluation anchored by character attribution; it takes as input cues to another’s relational value (e.g. lack of competence); it will issue in cold indifference when the other remains at a distance, or in hot anger or disgust when the other begins to impinge on one’s life; it will be expressed differently based on context and situation; and it will lead to behavioral outcomes such as rejection or exclusion.

Moreover, the reasons G&F give for *not* identifying contempt as an attitude are quite weak. They say that such an account cannot explain the emotional texture of contempt. But of course it *can* do so, provided one bears in mind that any evaluative attitude will issue in a range of distinct emotions, resulting from one’s appraisals of various situations as differentially relevant to what one values.

So G&F confront a dilemma: Either sentiments are real and causally efficacious *attitudes*, in which case the ASE model of sentiments is incorrect; or the ASE model is retained, but then sentiments are merely superficial patterns in one’s overall affective life. Either way, any analysis of the causal structure of sentiments will at some point boil down to our understanding of evaluative attitudes.

Prejudice is a general evaluation, not a specific emotion

doi:10.1017/S0140525X16000674, e0

Angela J. Bahns

Department of Psychology, Wellesley College, Wellesley, MA 02481.

abahns@wellesley.edu

<http://www.wellesley.edu/psychology/faculty/bahns>

Abstract: Prejudice, like contempt, is a general evaluation rather than a specific emotion. I explore the idea that emotions and attitudes are conceptually distinct by applying Gervais & Fessler’s model to the intergroup context. I argue that prejudice is an affective representation of a social group’s relational value (friend or foe) and dispute the idea that there are many distinct prejudices.

What does it mean to say emotions and attitudes are conceptually distinct? Prejudice, like contempt, is best understood as a general evaluation rather than a specific emotion. This perspective departs from the view of prejudice as specific emotion adopted by several recent theories of prejudice (Cottrell & Neuberg 2005; Cuddy et al. 2007; Fiske et al. 2002; Mackie et al. 2000). Prejudice, like contempt, is an intergroup sentiment. It is an affective representation of a social group’s relational value – friend or foe?

A prejudice-as-sentiment view seamlessly adopts many of the features of the Attitude–Scenario–Emotion (ASE) model presented by Gervais & Fessler (G&F) in the target article. First, the attitudinal component of prejudice is an object-specific affective representation of a social group. It represents the perceiver’s “feelings about” the group, and it can be “coldly” considered, as evidenced by the common use of self-report measures in prejudice research (e.g., Brigham 1993; McConahay 1986). People usually complete these measures in private, reporting their evaluation of a group when its members are not present.

Second, the affective representation of prejudice is enduring. Both explicit and implicit prejudice measures predict subsequent discrimination (e.g., Fazio et al. 1995; McConnell & Leibold 2001), even when the measurement of attitude and behavior is separated by as much as one week (Dasgupta & Rivera 2006). The same group may at times be seen as “lazy” and other times “dangerous,” but the underlying representation of affect is equally negative in both scenarios. The stable time course of the attitude should be taken as evidence of the generality of the representation (McDougall 1933).

Third, prejudice can moderate diverse emotions across scenarios. Prejudice-as-specific-emotion theorists are right to point out that different emotions are often experienced in relation to different groups (Cottrell & Neuberg 2005; Mackie et al. 2000). African Americans may be stereotyped as dangerous and elicit fear, while gay men may be stereotyped as immoral and elicit disgust. But rather than claiming that groups eliciting fear and groups eliciting disgust represent different kinds of prejudice, a prejudice-as-sentiment model recognizes a common attitudinal core at the heart of all prejudices. (This allows for the sensible possibility that different contexts will lead to different emotions toward a group—surely we are excited rather than fearful when aggressive people join our team.)

G&F present two main hypotheses associated with the ASE model. The first is that there are many distinct sentiments, and the second is that sentiments are emotionally pluripotent. To garner support for the first hypothesis, G&F cite a central idea in evolutionary theory (e.g., Neuberg & Cottrell 2008), noting there are many distinct threats and opportunities which determine a person’s social-relational value. Therefore, they argue, sentiments are more complex than good/bad or like/dislike. Although this hypothesis seems appropriate for the interpersonal context, an extension to the intergroup context would mean there are many distinct prejudices. This cannot be true if prejudice is a general evaluation.

Indeed, it should be possible to represent a group’s value along the single dimension of friend/foe. To be sure, evaluative judgments can be made along other dimensions as well (e.g., warmth, competence, status; Fiske et al. 2002), but these judgments come later. A prejudice-as-sentiment model easily accommodates this prediction. It conceives of prejudice as a general evaluation of the outgroup’s value in relation to the ingroup. At the highest level, prejudice marks a group as friend or foe. This core affective representation then shapes the way the group is perceived (e.g., dangerous, trustworthy, warm), depending on the information available in a particular intergroup context (Bahns 2017).

The second hypothesis associated with the ASE model, the idea that sentiments are emotionally pluripotent, is fundamental to the argument that prejudice is a general evaluation. Emotional pluripotency means the same attitude can moderate a diverse range of emotions toward its object across situations. The hierarchical structure of a sentiment helps to account for the fact that multiple emotions may be elicited in the same intergroup context (see Cottrell & Neuberg 2005); there need not be a one-to-one correspondence between emotions and target groups. For example, groups that threaten the physical safety of the ingroup may evoke both fear and anger, depending on the immediacy of the threat. The core affective representation of the group is the same—the group is a foe—but the emotions and behaviors directed toward the group may differ from one context to another.

One important implication of adopting a prejudice-as-sentiment model is that the particular stereotypes and emotions associated with a group can shift in different scenarios—they are not part of the enduring affective representation. Different stereotypes may be activated in different intergroup contexts, but each serves the same basic function of justifying the negative evaluation and appropriately directing behavior (Crandall & Eshleman 2003). In this way, stereotypes can be understood as justifications of prejudice rather than as forming the source of the prejudice itself (Crandall et al. 2011).

From disgust to contempt-speech: The nature of contempt on the map of prejudicial emotions

doi:10.1017/S0140525X16000686, e0

Michał Bilewicz,^a Olga Katarzyna Kamińska,^b Mikołaj Winiewski,^a and Wiktor Soral^c

^aFaculty of Psychology, University of Warsaw, 00-183 Warsaw, Poland;

^bDepartment of Psychology, SWPS University of Social Sciences and Humanities, Warsaw, 03-815, Poland; ^cInstitute for Social Studies, University of Warsaw, 00-183 Warsaw, Poland.

bilewicz@psych.uw.edu.pl olgakaminsk@gmail.com

mikk@psych.uw.edu.pl wiktor.soral@gmail.com

http://cbu.psychologia.pl

Abstract: Analyzing the contempt as an intergroup emotion, we suggest that contempt and anger are not built upon each other, whereas disgust seems to be the most elementary and specific basic-emotional antecedent of contempt. Concurring with Gervais & Fessler, we suggest that many instances of “hate speech” are in fact instances of “contempt speech” – being based on disgust-driven contempt rather than hate.

Gervais & Fessler (G&F) view contempt as a sentiment built upon more basic emotions, such as anger and disgust. They portray contempt as a passive sentiment, a lack of the positive emotion of respect. According to them, the main role of contempt is to justify oppression and superiority.

Based on the social psychology of intergroup relations, particularly on the BIAS map model (Cuddy et al. 2007), we suggest that G&F’s view of contempt cannot be directly applied to contempt as a collective emotion for three reasons: (1) Contempt cannot be viewed as a mere lack of respect due to its two-dimensional structure; (2) contempt and anger are not built upon each other, but may have distinctive roles, for example, in mobilizing collective action; and (3) disgust seems to be the most elementary and specific basic-emotional antecedent of contempt.

The current social psychological research on intergroup relations suggests that ethnic prejudice is built upon a two-dimensional structure of stereotype (consisting of two relatively orthogonal dimensions of warmth and competence; Fiske et al. 2002). According to this model, respect is related only to the dimension of competence: it may be felt towards both allies and enemies, as long as they are perceived as competent (across cultures, correlations of respect and competence range from .74 to .99; Fiske 2015). On the contrary, contempt is defined not only as the perceived lack of competence, but also (and essentially) as the perceived lack of warmth. Therefore, a lack of respect may result not only in contempt, but also in pity (when the target group is disrespected but liked), which, like contempt, can justify oppression.

What is more, research closely analyzing the system-justifying structure of stereotyping (Cichočka et al. 2015; Jost & Kay 2005) suggests that prejudice based on pity (and also envy felt towards respected but disliked outgroups) justifies oppression and inequalities more than prejudice based on contempt (the perception of outgroup as cold and incompetent). In line with this reasoning, mixed-content stereotypes (i.e., those evoking pity or envy) are the most prevalent in countries with greater income inequalities (Fiske 2015).

Thus, respect cannot be viewed as the opposite of contempt as the two are only loosely related. Three recent empirical studies found that the correlation between these two emotions toward different target groups varies from $-.12$ to $.71$ (Bukowski & Winiewski 2011). In fact, a study by Laham et al. (2010) demonstrated that respect moderates the elicitation of contempt, and not the conversion of respect into contempt, as suggested by G&F. This implies that the relation between contempt and respect is far more complex, and there are several other variables that explain that relationship.

The relationship between anger and contempt is also found to be more complex than postulated by G&F. Specifically, in studies on collective action intentions, anger and contempt act as two

distinct emotions that lead to alternative forms of collective action: anger motivates normative forms of such action (Górska & Bilewicz 2015), whereas contempt motivates the violent, non-normative ones (Tausch et al. 2011).

On that basis, contrary to G&F, we view disgust, and not anger, as the closest emotional antecedent of contempt. Previous studies indicate that disgust can affect many aspects of social evaluations (Hodson & Costello 2007; Inbar et al. 2009; Jones & Fitness 2008). For example, inducing disgust can increase the severity of individuals' self-reported moral judgments (Schnall et al. 2008) and sensitivity to moral transgressions (Whitton et al. 2014). On the physiological level, increased activation of the levator labii (a face muscle indicating disgust expression) can be observed when people evaluate moral situations and the norms are violated (Krumhuber et al., *in press*), suggesting that disgust may play a crucial role in effective social evaluation processes. Studies of facial expressions of contempt and disgust reveal the similarities between contempt and disgust expressions, which are frequently mistaken (Alvarado & Jameson 1996; Darwin 1872/1955; Haidt & Keltner 1999). Even if these two emotions do not reflect one process, they have a major physiological and communicative overlap.

On the level of collective emotions, neuroscientific research based on the BIAS map shows that people stereotyped as low in warmth and low in competence, such as the homeless or drug addicts, elicit contempt and disgust in observers on the behavioral level and cause changes in brain activation: they trigger *insula* and *amygdala* activation, while limiting *medial prefrontal cortex* activation (Harris & Fiske 2006; 2009; 2011). This suggests that contemptuous prejudice is rooted in feelings of disgust as triggered by portrayals of groups and people that evoke disgust.

We began by stating that G&F's view of contempt cannot be directly applied to contempt as a collective emotion. However, we would like to point out one aspect in which the view of G&F and current approaches to contempt as a collective emotion converge – namely: their criticism of conflating the structurally different emotions of hate and contempt. The authors conclude that in fact, contempt motivates many of the so-called “hate crimes.” Our research suggests that the same conflation occurs in the case of “hate speech.” A recent study of hate speech content found that most racist and homophobic slurs are built on contempt and disgust rather than hate (Bilewicz et al. 2014) and that they are more often driven by dominance and ingroup superiority rather than feelings of threat (Bilewicz et al. 2017). Our new study of hate speech shows that among adolescents the emotion of contempt is a stronger predictor of the use of derogatory language about minorities (Muslim, gay, Roma, Jewish) than the emotion of hate (Winiewski et al. 2017). Therefore, we concur with G&F's suggestion that many instances of “hate speech” are in fact “contempt speech” and that by focusing our attention on their hate-related components we run the risk of overlooking the disgust- and dominance-driven psychological nature of such phenomena.

Contempt – Where the modularity of the mind meets the modularity of the brain?

doi:10.1017/S0140525X16000698, e0

Danilo Bzdok^{a,b,c,d} and Leonhard Schilbach^e

^aDepartment of Psychiatry, Psychotherapy and Psychosomatics, Medical Faculty, RWTH Aachen, 52074 Aachen, Germany; ^bJARA, Translational Brain Medicine, 52074 Aachen, Germany; ^cDFG-IRTG2150, International Research Training Group, 52074 Aachen, Germany; ^dParietal Team, INRIA, Neurospin, 91191 Gif-sur-Yvette, France; ^eMax Planck Institute of Psychiatry, 80804 Munich, Germany.
danilo.bzdok@rwth-aachen.de leonhard_schilbach@psych.mpg.de
<http://www.danilobzdok.de>
<http://www.leonhardschilbach.de>

Abstract: “Contempt” is proposed to be a unique aspect of human nature, yet a non-natural kind. Its psychological construct is framed as a sentiment

emerging from a stratification of diverse basic emotions and dispositional attitudes. Accordingly, “contempt” might transcend traditional conceptual levels in social psychology, including experience and recognition of emotion, dyadic and group dynamics, context-conditioned attitudes, time-enduring personality structure, and morality. This strikes us as a modern psychological account of a high-level, social-affective cognitive facet that joins forces with recent developments in the social neuroscience by drawing psychological conclusions from brain biology.

Gervais & Fessler (G&F) set out to frame “contempt” as a uniquely human emotion notoriously characterized by the unilateral lip curl. It is described as a non-basic emotion that is however intimately related with, primarily, anger and, secondly, disgust. “Contempt” is further conceptualized as a dispositional social stance with various societal-sociological ramifications, including rejection and exclusion motivation and behaviors, feeling superior to others, and influence on high-level social judgments.

We applaud this psychological account of human “contempt” as modern, also from a neurobiological perspective on human behavior. The human amygdala is an excellent example of the pertinence of such accounts, as this brain structure not only features the much cited reactivity to emotion-laden stimuli, but also readily responds to abstract social stimuli and even non-emotional, non-social behaviorally relevant environmental information. For instance, the human amygdala has not been confirmed to be *specific* or *sufficient* for processing fear, although this is still a widespread thought. The idea of the human *insula* as the neural seat of processing disgust is similarly outdated. Even more drastically, various affective stimuli elicit neural activity in the so-called salience network without qualifying as emotion-specific. This is because this brain network recollects the set of most activated brain regions across experimental paradigms (Yarkoni et al. 2011).

Further, the authors' account of “contempt” as a sentiment is reminiscent of the de-reification of the Ekmanian basic emotions proposed by Barrett and Satpute (2013). Both a qualitative literature review and a quantitative meta-analysis confirmed a lack of specificity in brain responses to emotion appraisal. These authors went on to criticize the traditionally embraced distinction into affective, social, and cognitive processing facets based on the ubiquitous implicit modular-mind assumption, and adopted a constructionist perspective on human emotions instead. In the spirit of the “contempt” contemplations by G&F, Barrett and Satpute have argued for domain-agnostic distributed functional networks that exhibit complex interaction to produce a range of affective states. The conceptual relatives of the discussed conceptual framework of “contempt” hence agree with recent brain-imaging investigations in that brain activity patterns underlying neural responses to various emotions are frequently more similar than different, let alone distinct. Further evidence for a constructivist, componential vision of human affective categories on the brain level has also been provided by a recent computational Bayesian study (Wager et al. 2015). These investigators have advocated against a direct mapping of the five basic emotions to a single region, network, or other brain system. Rather, a configuration of these would subserve distinct affective categories by combining cognitive facets from sensory, memory, motivational, and other domain-general processes. More globally, a reconfiguration of general-purpose functional networks prompted by changing environmental challenges might be an important feature that enables specific task performance (Bzdok et al. 2015).

Finally, we also identified a few potential weak points in the conceptual proposal by G&F. A very important argument for the initial establishment of the five basic emotions was their intercultural consistency. Similar data could have been discussed for “contempt” to describe this phenomenon as rather *innate* or *learned* during infancy. While much convincing evidence exists for the very early developmental onset of the five basic emotions, analogous pieces of evidence for “contempt” have not been discussed in detail. The typical developmental trajectory of “contempt” perception and expression therefore remains fragmentary. Additionally and relatedly, it would have been interesting to discuss

the impact of a neurological brain lesion on the onset and characteristic properties of “contempt” behavior. Its heritability strikes as similarly missing and could have introduced more matter-of-fact elements into the authors’ conceptual framework. Moreover, “contempt” is qualified as situation-enduring. Yet, this psychological concept has not been explicitly posed within the state–trait dichotomy. Clinically, it would also have been pertinent to more exhaustively discuss the relationship between contempt and personality structure, in addition to the relation to psychopathy traits.

Apart from these blind spots when examined from a social neuroscience perspective, we are grateful to G&F for the comprehensive and thought-provoking account of perhaps one of the most complicated emotional sentiments specific to the complex societies of human primates.

Dominance as a competence domain, and the evolutionary origins of respect and contempt

doi:10.1017/S0140525X16000704, e0

Bernard Chapais

Department of Anthropology, University of Montreal, Montreal, QC, H3C 3J7, Canada.

Bernard.chapais@umontreal.ca

Abstract: The hypothesis of a phylogenetic connection between *protoprotest* in primate dominance hierarchies and *respect* in human prestige hierarchies lies in the principle that dominance is a domain of competence like others and, hence, that high-ranking primates have *protoprestige*. The idea that dominant primates manifest *protocontempt* to subordinates suggests that “looking down on” followers is intrinsic to leadership in humans, but that the expression of contempt varies critically in relation to the socioecological context.

Gervais & Fessler’s (G&F’s) Attitude–Scenario–Emotion (ASE) model provides a stimulating, ontologically useful, and testable framework of the relations between sentiments, attitudes, and emotions. The sentiments they are concerned with, respect and its correlate contempt, are an integral part of the psychological foundation of status hierarchies, which are universal features of human societies (Anderson et al. 2015). Here I elaborate on the primate origins of respect, a topic the authors treat rather briefly, and on some implications of the idea that high-ranking primates show *protocontempt* towards subordinates.

G&F argue that respect tracks the value of others as competent partners, and evolved to facilitate the formation of efficacious relationships. In prior work (Chapais 2015), I suggested that the emotional underpinnings of attraction to higher ranking individuals in primate dominance hierarchies (*protoprotest*) had been co-opted in the course of human evolution and given rise to the admiration (respect) of experts in all relevant domains of activities. The two phenomena would be homologous. Referring to that work, the authors go on stating that *protoprotest* was co-opted “just as the emotion systems *protopride* and *protoshame* were co-opted from dominance hierarchies for use in prestige hierarchies” (target article, sect. 5.3, para. 2). I agree. However, there are some important differences between the processes involved in the co-optation of *protoprotest*, on the one hand, and that of *protopride* and *protoshame*, on the other, and I take this opportunity to enlighten those differences and further characterize the primate origins of respect.

Dominance is the capacity to exercise coercive power and orient the behavior of others by undermining their welfare and reproductive capacity. Dominance status in animals is imposed upon others based on asymmetries in physical power, whereas prestige status in humans is freely conferred on skilled individuals based on their competence levels in any one of a vast array of domains and, hence, on their value as social partners. While dominance status

stems from *competition* and involves intimidation and fear, prestige status stems from *cooperation* and involves competence and attraction. If only for that reason, it is tempting to conceive of dominance and prestige as distinct strategies of status-attainment having their own separate evolutionary origins (e.g., Cheng et al. 2013; Henrich & Gil-White 2001). In many primate species, however, dominance relationships are not limited to their competitive dimension. They may also have a significant cooperative component, and it is only by considering the latter that the evolution of respect may be understood (Chapais 2015). Once dominance relationships are established, the highest-ranking individuals, especially the alpha male and female, are uniquely positioned to provide specific types of benefits to subordinates, including efficient protection against aggressors, decisive support in conflicts, and access to monopolizable resources (mates or food). The high value of top-ranking individuals as potential partners may explain why subordinates are attracted to them, offering grooming and support in exchange for help and tolerance (reviewed in Chapais 2015). From that perspective, dominants have *protoprestige* and primate dominance hierarchies concurrently are prestige hierarchies.

Following the evolution of cumulative culture among hominins and, with it, the multiplication of technological, social, and ideational activities requiring high levels of competence, the cooperation-based psychology of *protoprotest* towards dominants would have generated the respect of experts in all relevant cultural domains. In that view, the key principle for understanding the transition from primate-like dominance hierarchies to human-like prestige hierarchies is that dominance is a domain of competence *per se* and hence a source of prestige, from which it follows that it should be so in humans as well. Empirical findings support that prediction. Taller men are perceived as having greater leadership abilities (Blaker et al. 2013; Murray & Schmitz 2011; Re et al. 2013; Von Rueden 2014), and group members willingly grant a high status to physically formidable men owing to their leadership abilities and the services they may provide, such as punishing free-riders and negotiating with other groups (Lukaszewski et al. 2016). This indicates that formidable men have a high status because they have a high social value, not just because they are feared, and that the attractiveness of formidable individuals is homologous between humans and other primates. That said, the capacity to exercise dominance in humans involves competence in several other domains, including in the handling of weapons, recruitment of allies based on ideational arguments, control of information and resources affecting others’ welfare, and use of nonphysical entities to inflict physical costs.

The other point concerns the evolutionary origins of contempt, which G&F define as an absence of respect towards individuals perceived as having low value as social partners. They further suggest that a plausible *homologue* of contempt is found in primate dominance hierarchies in the attitude of high-ranking individuals “towards lower-ranking conspecifics that cannot deliver benefits upwards and fail to earn *respect*” (sect. 5.3, para. 2; emphasis in original) and are, as a result, the object of indifference, intolerance or exploitation. If this phylogenetic connection is right, it implies that “looking down on” followers is *intrinsic* to leadership; that is, leaders would by default be emotionally biased to exploit a substantial fraction of their followers. Assuming this to be the case, one expects the expression of contempt to vary critically in relation to the extent to which leaders are dependent on their followers’ respect to acquire and maintain their status. When leadership is freely conferred on leaders based on their skills and willingness to cooperate, and hence may be revoked by followers – for example, in non-authoritarian societies, contempt and exploitation would be substantially muted. At the other extreme, in dictatorships, the exploitation of “followers” would be given free reign, but would focus on the (usually large) fraction of followers on whom leaders are not dependent for maintaining power. In all intermediate situations in which leaders run the risk of being deposed by their followers, either democratically or through revolutions, leaders would tend to

exploit followers whenever opportunities arise, but covertly. History is filled with kings and nobles appropriating a disproportionate share of resources while publicly acting as if, and stating that, their subjects' welfare is their main concern.

Are sentiments subject to selection pressures? The case of oxytocin

doi:10.1017/S0140525X16000716, e0

Chelsea D. Christie and Frances S. Chen

Department of Psychology, University of British Columbia, Vancouver, BC, V6T 1Z4, Canada.

frances.chen@psych.ubc.ca chelsea.christie@psych.ubc.ca
<http://chenlab.psych.ubc.ca>

Abstract: We argue that natural selection operates on emotional and cognitive capacities supporting the subjective experience of sentiments, rather than on discrete sentiments themselves. We support this argument by examining the case of oxytocin in relation to the sentiment of love. We also explore future directions for health psychology research that includes “cold” aspects of contempt in conjunction with “hot” aspects.

Gervais & Fessler (G&F), recognizing that attitudes and emotions are highly intertwined in the social domain, make a compelling case for the value of reconciling distinct research traditions that have focused either on attitudes or on emotion in relative isolation. G&F provide a valuable discussion of why and how a broader lens should be used to examine the larger picture of social affect. Specifically, they focus on the unique social functions that are served through particular combinations of attitude and emotion.

The authors conceive of sentiments (such as *contempt*) as “functional networks of attitudes and emotions” that are organized around the “fitness affordances” – that is, likely costs and benefits of particular types of interactions – of others (sect. 4.2, para. 3). At the same time, the authors acknowledge considerable fluidity in the boundaries of sentiments (arguing, for example, that *contempt* can co-occur or overlap with love or anger to create pity or hate, respectively). What remains unclear in this formulation is whether and how natural selection could act upon sentiments, given the range of emotions and attitudes that the authors argue are encompassed within a single sentiment and the fluid boundaries that sentiments are proposed to have.

We commend the authors' broad aim of reconciling attitudes and emotions research. At the same time, we remain unconvinced that discrete sentiments such as *contempt* are themselves subject to selection pressures. Instead, we suggest that *contempt* emerges as a phenomenologically – and functionally – coherent construct because natural selection operates on underlying processes that, in combination, give rise to the subjective experience of a sentiment. Specifically, we posit that natural selection may act upon (1) basic affective reactions, (2) the cognitive capacity to hold stable representations of specific others in memory, and (3) the high-level ability to experience attitudes and emotions in flexible combinations in the service of particular social goals relative to specific individuals. In this conceptualization, further specification of discrete sentiments as units of functional specialization, or as distinct targets of evolutionary pressures, is unnecessary.

G&F (sect. 6.2, para. 8) discuss how certain neuroendocrine systems, such as oxytocin, may support specific sentiments (the authors do not specify a particular sentiment corresponding to oxytocin, but *love* might be a plausible candidate). We argue that a parsimonious interpretation of the prior research conducted on non-human animals does not require sentiments as an organizing construct. Instead, oxytocin seems to regulate basic affective and cognitive processes (e.g., desire for proximity; social recognition and memory) that yield attachment outcomes (e.g., proximity-seeking; social regulation of stress) to specific others (e.g.,

caregivers; mates; Donaldson & Young 2008; Insel & Young 2001). Infant–caregiver bonds and mated-pair bonds clearly serve functions with survival consequences, but these functions can be supported via oxytocin regulating basic affective reactions and cognitive representations (rather than via oxytocin regulating any particular sentiment directly). Oxytocin's basic functions across mammalian species are likely to be evolutionarily conserved. In humans, oxytocin's role in regulating affective and cognitive processes may operate in combination with our species' ability to experience attitudes and emotions in flexible combinations. Love may emerge as a coherent subjective experience out of the core processes that oxytocin supports, but the case for love *itself* as having an “evolved functional specialization” (sect. 4.1, para. 3) seems more tenuous when the role of oxytocin in the human species is considered alongside its role in other species' cognition and behavior.

Leaving aside the question of whether discrete sentiments are “evolved functional specializations” or not, G&F's discussion of individual differences in “sentiment profiles” of contempt provides interesting future directions for health psychology research. G&F describe a sentiment profile of contempt as an individual's proneness to feeling contempt (sect. 6.1, para. 5). The concept of hostility in health psychology – defined as a “negative attitude towards others, consisting of enmity, denigration, and ill will” (Smith 1994, p. 26) – maps well onto G&F's conceptualization of the “hot” aspects of contempt (i.e., anger, disgust, and laughter at the expense of others). A large body of research has linked hostility to coronary heart disease outcomes in both healthy and coronary heart disease populations (Chida & Steptoe 2009; Smith et al. 2004).

Several mechanisms explaining how hostility influences coronary heart disease have been proposed, including both behavioral and psychosocial mediators. Hostility and anger are linked to smoking, excessive alcohol consumption, greater fat and caloric intake, lower physical activity, and greater body mass (Bunde & Suls 2006; Miller et al. 1996). High levels of hostility and anger have also been proposed to create a pattern of “moving away” from others resulting in decreased social support, which could be a factor contributing to the association between hostility and coronary heart disease (target article: sect. 5.4, para. 4; Smith et al. 2004).

G&F's ideas should prompt health researchers to consider the “cold” aspects of contempt (muted prosocial emotions such as compassion, guilt, and shame) in order to better understand the social isolation that has been associated with the “hot” (hostile) components of contempt. Speculatively, decreased levels of prosocial emotions might also result in higher levels of relationship strife and social isolation contributing to greater heart disease risk. Indeed, there is some evidence that lower trait levels of compassion are associated with less adaptive profiles of stress reactivity, including higher blood pressure reactivity and higher cortisol reactivity (Cosley et al. 2010). Considering the health implications of “cold” aspects of contempt that often co-occur with the more well-studied “hot” aspects could help researchers develop more comprehensive interventions for individuals with high-contempt sentiment profiles.

Warmth and competence as distinct dimensions of value in social emotions

doi:10.1017/S0140525X16000923, e0

Mina Cikara

Department of Psychology, Harvard University, Cambridge, MA 02138.

mcikara@fas.harvard.edu
www.intergroupneurosciencelaboratory.com

Abstract: Gervais & Fessler's analysis collapses across two orthogonal dimensions of social value to explain contempt: relational value,

predicted by cooperation, and agentic value, predicted by status. These dimensions interact to potentiate specific social emotions and behaviors in intergroup contexts. By neglecting the unique roles of these dimensions—and their associated attributes: warmth and competence—the sentiment framework cedes predictive precision.

Gervais & Fessler (G&F) have laid out a novel analysis of social emotions, which is sure to stimulate fruitful discussion and future research. Nevertheless, I believe that their model suffers from some conceptual ambiguity, which, if clarified, would give the analysis greater predictive power and fidelity.

The authors posit that low-value individuals are likely to become targets of contempt because they fail to elicit respect. This characterization neglects that value may be high or low along orthogonal dimensions and that these dimensions interact to predict specific emotions. The Stereotype Content Model (SCM) (Fiske et al. 2002; 2007) organizes beliefs about social and cultural groups along two fundamental dimensions of social cognition: warmth and competence. Warmth is attributed to groups that are generally seen as cooperative rather than competitive, whereas attributions of competence are reserved for high-status relative to low-status groups. Crossing the warmth and competence dimensions yields four broad classes of stereotypes and predicts specific corresponding emotions. Groups that are seen as both cooperative and high-status—and therefore warm and competent (e.g., Christians, middle class)—elicit emotions like pride and admiration. Groups that are seen as competitive (in the sense that they are free-riders) and low-status stimulate disgust and scorn (e.g., drug addicts, welfare recipients). The two “off-diagonal” classes provoke ambivalent emotions: cooperative but low-status groups (e.g., elderly, disabled) are seen as warm but incompetent and therefore trigger pity. Competitive but admittedly high-status groups (e.g., rich people, Asians, and other model minorities) activate emotions like envy.

In the SCM framework, groups may be imbued with relational value (based on their cooperation), agentic value (based on their status), neither, or both. Each dimension is associated with distinct suites of behaviors (Cuddy et al. 2007). Relational value predicts active behaviors. Cooperative groups receive active assistance (e.g., prosocial behavior, charity), whereas competitive groups receive active harm (e.g., harassment, political scapegoating). Agentic value, on the other hand, predicts passive behaviors. High-status groups receive passive facilitation (e.g., realpolitik cooperation) and low-status groups receive passive harm (e.g., neglect, limited access to education, housing). Each class of social groups receives a combination of these active and passive behaviors (e.g., elderly people receive charity, but are also neglected). Rather than treat them as orthogonal sources of value, G&F discuss “value” and “efficacy” as substitutes for one another.

Collapsing across warmth and competence as distinct value dimensions diminishes the predictive power of G&F’s model. Furthermore, it considerably expands the swath of people who are likely to become targets of contempt. In the contempt-as-sentiment framework, all social targets with the exception of high-warmth, high-competence targets are likely targets of contempt in either its cool or hot form because they are devalued on at least one dimension.

What determines whether a sentiment—in this case contempt—runs hot or cold? And when it runs hot, what determines whether contempt prompts approach or avoidance behaviors? G&F reference many likely moderators; the hot form of contempt may be invigorated by frequency of contact, stability of the social hierarchy, and network size, among many other factors. The authors ultimately conclude that the emotions, phenomenology, and behavior that result from the contempt sentiment will depend on “any variable that influences the perceived costs and benefits of social relationships” (sect. 6.1, para. 7).

Contrast this formulation with the systematic principles approach taken by the SCM, which begins by identifying the functional relations—competitive, cooperative—between parties to make predictions about downstream emotions and behaviors. Active, “hot” intergroup emotions are amplified when there is a

zero-sum relationship between two parties’ goals (Fiske & Ruscher 1993; Struch & Schwartz 1989). Even in the absence of overt competition, the mere *perception* that a group poses a resource or value threat engenders negative emotions, intergroup conflict, and outgroup derogation (Deutsch 2006; Johnson & Johnson 1989; Mackie et al. 2000; Sherif et al. 1954/1961). However, as described above, the assessment of a group as friend or foe necessarily intersects with the assessment of their ability to enact their intentions (i.e., their status), good or ill.

Because the sentiment framework relies on a single index of value, it clusters anger, an approach emotion, together with disgust, an avoidance emotion, to produce the “hot” phenomenology associated with contempt. However, using both dimensions from the SCM allows us to differentiate when the hostile emotions route is likely to lead to anger and attack (i.e., in response to low-warmth, high-competence targets; Glick 2002) versus disgust and exclusion (i.e., in response to low-warmth, low-competence targets). In line with these predictions, we find that participants report they would be most likely to *harm* low-warmth, high-competence targets (Cikara & Fiske 2011), but most likely to say it is acceptable to *sacrifice* low-warmth, low-competence targets (Cikara et al. 2010).

Another strength of examining the orthogonal effects of competitiveness and status, as opposed to a unitary value, is that it allows for predictions about how emotional responses towards groups will change as attributions of warmth and competence change. For example, we find that participants are most likely to exhibit pleasure in response to competitive, high-status (relative to other) targets’ misfortunes (for a review, see Cikara & Fiske 2013). However, providing participants with counter-stereotypic information that decreases these targets’ status or increases perceptions of their cooperation significantly reduces participants’ Schadenfreude (Cikara & Fiske 2012), indicating that it is these dimensions, as opposed to anything intrinsic to the groups themselves, that drives counter-empathic responses.

G&F’s broader contribution to the social emotions literature is undeniable. The Attitude-Scenario-Emotion (ASE) model of sentiments integrates seemingly irreconcilable views of contempt and other social emotions. Formally integrating distinct dimensions of social value would deepen the impact of this approach by facilitating even more specific predictions regarding when and why contempt arises, and how it manifests.

ACKNOWLEDGMENTS

I am very grateful to Susan Fiske and Carey Morewedge for helpful comments on earlier versions of this commentary.

Affect in social media: The role of audience and the presence of contempt in cyberbullying

doi:10.1017/S0140525X16000728, e0

Mihaela Cocea

School of Computing, University of Portsmouth, Portsmouth PO1 3HE, United Kingdom.

mihaela.cocea@port.ac.uk

<http://coceam.myweb.port.ac.uk/>

Abstract: Gervais & Fessler’s Attitude–Scenario–Emotion (ASE) model is a useful tool for the detection of affect in social media. In this commentary, an addition to the model is proposed—the audience—and its role in the manifestation of affect is discussed using a cyberbullying scenario. The presence of contempt in cyberbullying is also discussed.

Social media is now a standard way of interacting with other people—friends, acquaintances, and a wider audience of unknown people. Given the wealth of online activity and its relevance to our “real” lives, analysis of social media has gained a lot of interest. In particular, affect detection from text has attracted many researchers (e.g., Altrabsheh et al. 2015; Paltoglou &

Table 1 (Cocea). Cases of the Attitude–Scenario–Emotion+Audience (ASE+A) model for a cyberbullying scenario

	Case 1	Case 2	Case 3	Case 4	Case 5
Attitude	Appearance is indicative of one’s worth		One’s worth is independent of one’s appearance		
Audience	Acquaintances; friend with X	Friends; friend with X	Friends and acquaintances; friends with X	Friends	Friends and acquaintances; friends with Y
Emotion	Lack of compassion	Mirth	Pity for Y	Indignation	Fear
Behavior	Indifference	Laughter at Y	Indifference	Defend Y	Indifference

Thelwall 2012; Tromp & Pechenizkiy 2015), where affect is broadly understood as anything to do with human emotion and related phenomena. In this area, there is confusing terminology about what is expressed and what can be detected from social media text. A recent article (Munezero et al. 2014b) sought to clarify this terminology and it is largely aligned with Gervais & Fessler’s (G&F’s) article in the sense that emotions can be observed and that sentiments can be inferred from different emotion expressions.

Research in this area focuses on broad categories such as subjective versus objective text and positive/negative/neutral polarity (e.g., Gaber et al. 2015; Liu & Zhang 2012). Some attempts were made to detect specific emotions, mostly based on Ekman’s basic emotions model (Ekman 1992b) or Russell’s dimensions (Russell & Mehrabian 1977) (e.g., Balahur 2013; Paltoglou & Thelwall 2013). In the last five years there has emerged detection of more complex affective phenomena, such as humour and irony (Reyes et al. 2012), nastiness (Justo et al. 2014), and sarcasm (Altrabsheh et al. 2015; Justo et al. 2014). Moreover, there is a growing interest in the detection of online activity such as antisocial behaviour (Munezero et al. 2014a) and cyberbullying (Dinakar et al. 2012; Zhao et al. 2016) through the manifestation of affective text (e.g., insults).

In this context, the ASE model proposed by G&F would be a useful tool for sentiment detection. Given the characteristics of the medium of communication, that is, social media, I propose the addition of another dimension: the audience. The audience is implicit in social media; one may not be aware of the entire audience – in fact, there is a tendency to underestimate the size of the audience (Bernstein et al. 2013), but one accepts that there is an audience and one’s mental model of the audience influences one’s online activity (Litt 2012; Marwick 2011).

To illustrate the ASE model with the addition of the audience (ASE+A), a cyberbullying scenario is used, where cyberbullying is the repeated communication through digital media of hostile/aggressive messages intended to harm/discomfort others (Tokunaga 2010). The influence of attitudes, audience, and emotions on behaviour is discussed for several cases (Table 1). The cases and their explanations are not exhaustive; they are meant as an illustration of how the audience has an influence on one’s emotions, and, consequently, on one’s behaviour.

Scenario: X is repeatedly making nasty comments about Y’s appearance on a social network. The last comment is more hurtful and is accompanied by an unflattering picture.

Cases 1 and 2 illustrate the presence of contempt with “cold” and “hot” phenomenology respectively. In Case 1, the actor lacks compassion for Y, but the uncertainty over the audience (i.e., perceived risk of social negative evaluation/less social reward), prevents a reaction resulting in indifference. Case 2, on the other hand, with an audience of friends involved in the bullying (i.e., opportunity to gain social reward or fear of losing social approval if not joining) activates hostility in the form of laughter.

Case 3 illustrates a conflict between one’s beliefs and a friends’ behaviour, which could result in compassion for Y, but a reluctance to risk the friendship with X, leading to no reaction. In Case 4, defending Y is an opportunity to gain social rewards

from an audience of friends (presumed to have similar beliefs). In Case 5, the actor is fearful that defending Y would lead to being targeted as well.

Thus, the audience has a major role in one’s reactions on social media, with two main dimensions: (a) relationship to main actors (X and Y) and (b) the social group (friends/acquaintances/unknown). Social reward depending on the audience of friends versus acquaintances was explored in previous research on cyberbullying (Bastiaensens et al. 2014; Jones et al. 2011) – these cost-reward and power dynamic aspects are in line with the book-keeping and commitment functions in social relationships, as discussed in G&F’s article.

G&F define contempt as the lack of caring, but with the lack of intrinsic motivation to harm others. In cyberbullying, the intent to harm is present, without a clear distinction if this harm is the main goal or a means for other ends like social standing. In face-to-face bullying and, possibly even more so, in cyberbullying, the element of power or social standing may be the main goal. This may explain why some people join in the bullying when they do not know the victim or the initiating bully. Bertolotti and Magnani (2013) describe this behaviour as gratuitously humiliating another person in public and compare it to “sociopathy.” In this sense, it is similar to the “hate crimes” mentioned by G&F, and contempt rather than hate is more likely to justify such behaviour.

Using the ASE+A model for affect detection offers the potential to better understand affect in the context of social dynamics by integrating elements of the context (i.e., scenario), the audience (network of relations), and attitudes. Of these, perhaps the most challenging is the detection of attitudes; in the case of cyberbullying, stereotypes about one’s appearance, intelligence, and other personal characteristics are often involved (Dinakar et al. 2012) and could be used as a proxy for attitudes.

Two kinds of respect for two kinds of contempt: Why contempt can be both a sentiment and an emotion

doi:10.1017/S0140525X1600073X, e0

Florian Cova, Julien Deonna, David Sander, and Fabrice Teroni

Swiss Centre for Affective Sciences, University of Geneva, Campus Biotech, CISA – University of Geneva, CH-1202 Geneva, Switzerland.

Florian.Cova@unige.ch Julien.Deonna@unige.ch
 David.Sander@unige.ch Fabrice.Teroni@unige.ch
<https://sites.google.com/site/florianscova/>
<http://www.unige.ch/lettres/philo/collaborateurs/professeurs/julien-deonna/>
<http://cms2.unige.ch/fapse/EmotionLab/Members/david-sander/>
<http://www.unige.ch/lettres/philo/collaborateurs/professeurs/fabrice-teroni/>

Abstract: Gervais & Fessler argue that because contempt is a sentiment, it cannot be an emotion. However, like many affective labels, it could be that

“contempt” refers both to a sentiment and to a distinct emotion. This possibility is made salient by the fact that contempt can be defined by contrast with respect, but that there are different kinds of respect.

In their fascinating article, Gervais & Fessler (G&F) draw a distinction between *emotions* and *sentiments* and argue that contempt is better understood as a sentiment. G&F’s distinction parallels a longstanding distinction in the philosophy of emotion between emotions (e.g., “being afraid of a spider at a given moment”), which are occurrent mental states, and emotional dispositions (e.g., “being afraid of spiders in general”). While simple emotional dispositions consist in being disposed to feel only a single kind of emotion (e.g., the disposition to feel fear when seeing a spider), complex emotional dispositions trigger different emotions depending on the circumstances (e.g., love and hate). This latter kind of emotional dispositions is what philosophers often call *sentiments* (Deonna & Teroni 2012).

One common observation in the philosophy of emotions is that many folk concepts of emotions are ambiguous: they refer to both emotions and related emotional dispositions. For example, “He is angry at his father” may refer either to the emotion (“Right now, he is angry at his father”) or to the emotional disposition (“He has been angry at his father for years”). Thus, even if G&F are right to point out that the term “contempt” sometimes refers to a sentiment, whether it also sometimes refers to a distinct emotion remains an open question.

This idea that “contempt” may refer to both a sentiment and an emotion finds additional support in G&F’s proposal to define contempt in contrast to respect. Indeed, philosophers are accustomed to distinguishing between different kinds of respect. More particularly, Stephen Darwall has famously drawn a distinction between two kinds of respect: *recognition respect* and *appraisal respect* (Darwall 1977). According to Darwall, recognition respect “consists in giving appropriate consideration or recognition to some feature of its object in deliberating about what to do” (p. 38). Thus, “to have recognition respect for persons is to give proper weight to the fact that they are persons” (p. 40). Meanwhile, appraisal respect “consists in an attitude of positive appraisal of that person either as a person or as engaged in some specific pursuit” (p. 38). Thus, appraisal respect takes as objects only persons or features of persons “that manifest their excellence as persons or as engaged in some particular pursuit” (p. 38).

If we were to convert Darwall’s proposal into psychological terms, we would probably fall on the following distinction. In one sense, respect amounts to caring for a person, that is, taking her well-being and interests into consideration. In another sense, respect is akin to admiration. In the first sense, we respect people when we do not instrumentalize or wrong them; in the second sense, we respect them when we appraise some of their excellence.

G&F’s proposal somewhat conflates both notions in one construct. We have good reasons to keep them apart, however. There are people we do not admire and even consider quite incompetent, but whom we care about, or at least are reluctant to treat as objects (Fiske et al. 2002). Recognition respect (i.e., the attitude that prevents us from treating people as mere means to our ends) may occasionally originate in appraisal of skills and abilities, but can as well originate in empathy, or even tenderness in the case of young children (Sherman & Haidt 2011).

Thus, if (i) we define contempt by opposition to respect, and (ii) accept that there are different kinds of respect, we should conclude (iii) that there are different kinds of contempt. If recognition respect amounts to care about someone, then its opposite is an absence of care, a pure indifference to someone’s fate, which will translate into reduced empathetic reactions. Let’s call this first form of contempt *disregard*. Alternatively, if appraisal respect amounts to admiring someone’s excellence or skills, then it seems that contempt should not be defined as the mere absence of admiration, but as the opposite reaction, a negative

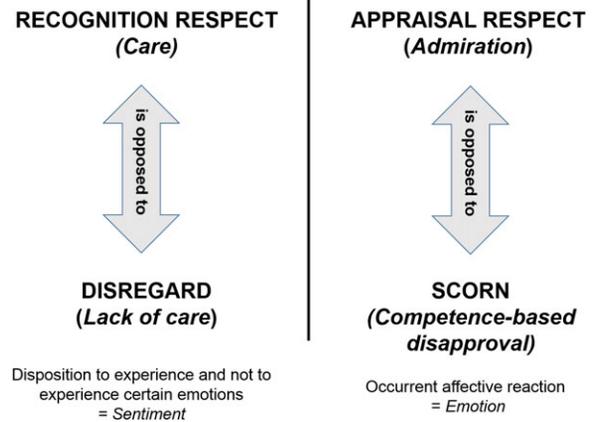


Figure 1 (Cova et al.). Two kinds of contempt (*disregard* and *scorn*), the corresponding two kinds of respect, and their properties (Cova 2016).

emotion triggered by the spectacle of incompetence. Let’s call this second form of contempt *scorn* (see our Figure 1).

We now have two kinds of contempt, which demarcates between the two conflated notions in G&F’s characterization of contempt: lack of care, on the one hand, and focus on poor skills and abilities, on the other. At that stage, we can trace our steps back to the distinction with which we started. On the face of it, our first kind of contempt (*disregard*) can only be a long-term disposition, that is, a sentiment. This is the side of contempt that G&F’s account adequately captures. But if we look at the second kind of contempt (*scorn*), it looks as if it can be an occurrent mental state, and thus an emotion. We do say that we *feel* scorn on some occasions (“She felt only scorn for my performance”), even if “scorn” can at other times also describe a more durable emotional disposition (“I have only scorn for p-hackers”). We are thus led to an ambivalent attitude toward G&F’s conclusion: the true claim that contempt is a sentiment is only half the story, since contempt is also an emotion. The difference between the two might sometimes be elusive, as scorn often leads to disregard. Still, we think that an account that distinguishes between different meanings of “contempt” is better suited to make sense of the conflicting evidence G&F rightly emphasize.

Above and below the surface: Genetic and cultural factors in the development of values

doi:10.1017/S0140525X16000741, e0

Sara Dellantonio,^a Luigi Pastore,^b and Gianluca Esposito^{c,d}

^aDepartment of Psychology and Cognitive Sciences, University of Trento, I-38068 Rovereto (TN), Italy; ^bDepartment of Education, Psychology, Communication, University of Bari “A. Moro”, 70121 Bari (BA), Italy; ^cAffiliative Behaviour & Physiology Lab, Department of Psychology and Cognitive Sciences, University of Trento, I-38068 Rovereto (TN), Italy; ^dSocial & Affective Neuroscience Lab, Division of Psychology, Nanyang Technological University, 637332, Singapore.

sara.dellantonio@unitn.it luigi.pastore@uniba.it
gianluca.esposito@unitn.it gianluca.esposito@ntu.edu.sg
https://www.researchgate.net/profile/Sara_Dellantonio
https://www.researchgate.net/profile/Luigi_Pastore
<http://abp.dipsco.unitn.it>
<https://blogs.ntu.edu.sg/sanlab/>

Abstract: In the Attitude–Scenario–Emotion (ASE) model, social relationships are subpersonally realized by sentiments: a network of

emotions/attitudes representing relational values. We discuss how relational values differ from moral values and raise the issue of their ontogeny from genetic and cultural factors. Because relational values develop early in life, they cannot rely solely on cognition as suggested by the notion of attitude.

We describe and understand our social (inter-)actions on the basis of a complex of folk-psychological notions, for example, “contempt” or “respect,” which also convey the criteria on the basis of which we attribute value to things and, above all, to people. We are generally aware which of these folk-psychological notions adequately describes our stance toward others – on any specific occasion we know whether we experience “contempt” or “respect” – and that such stances are characterized by specific affective tones. However, we do not know what causes these stances or whether the folk-psychological notions that we use to describe them are well grounded at a subpersonal level. Gervais & Fessler (G&F) develop a model called Attitude–Scenario–Emotion (ASE) that explains what these folk-psychological notions actually describe, that is, what computational and functional mechanisms realize our social relationships and actions. According to the ASE model, these stances and their characteristic affective tones are due to an underlying mechanism based on *sentiments*. Sentiments are viewed as functional networks: They are the basis of all social affects and constitute the deep structure that underlies and regulates emotions and attitudes (meant as affective valuations, which include cognitive elements such as beliefs, as well as representations concerning values).

The ASE model takes inspiration from early literature in social psychology, and its central idea can be traced back to 18th-century Sentimentalism, which claims that our social relationships are determined by the structure of our sentiments: these motivate all our morally relevant behaviors and allow us to become aware of our values as the criteria we use to assess our actions. In the ASE model, values are also a crucial operational parameter for sentiments that contributes to regulating our social emotions and selecting the appropriate (re-)actions. An important difference between these two perspectives is, however, the way in

which they conceive of values. This difference points to an explanatory gap in the ASE model.

For Sentimentalism, sentiments have a prescriptive function; they operate independently of reasoning processes to determine social actions (Shaftesbury 1711/2001). They are directly responsible for our grasp of moral values and do not derive from relational dispositions such as, for example, sympathy, because we can morally approve of the actions of our enemies (Hutcheson 1755). The values conveyed by our sentiments are the outcome of a moral intuition: Values are immediately perceived as such; they are produced by an innate faculty and are, therefore, “objective” and shared by all humans. This argument does not apply in the ASE model.

First, the authors never speak of *moral* values. Values are rather qualified as (social-) relational, even though they are hypothesized to be indirectly related to morality through the mediation of sentiments: In G&F’s view, our view of another person’s moral (in)efficacy depends on whether we are motivated, for example, by contempt or respect. The switch from moral to relational values remains unexplained in the target article, but is probably rooted in a relativistic view of morality according to which there are no situations that are universally considered as specifically moral, and moral rules are instead considered conventional, that is, social (Quintelier & Fessler 2012; 2015). To consider values as social-relational instead of moral might allow us to account for the cultural component of our judgments about what is right or wrong and for the fact that we often have variable degrees of moral consideration for people depending on our relation to them (e.g., friendship or hatred) (Dellantonio & Pastore 2013). However, it makes it difficult to explain why humans are also capable of neutral moral evaluations, which disregard relational values and even contradict the sentiments we have.

Second, and most importantly, the authors do not address the issue of how these values are formed. In the ASE model, values are a component of attitudes described as affective valuations, that is, as cognitions characterized by an affective component. This raises the question of how the relationship between values and

Transmission of Values

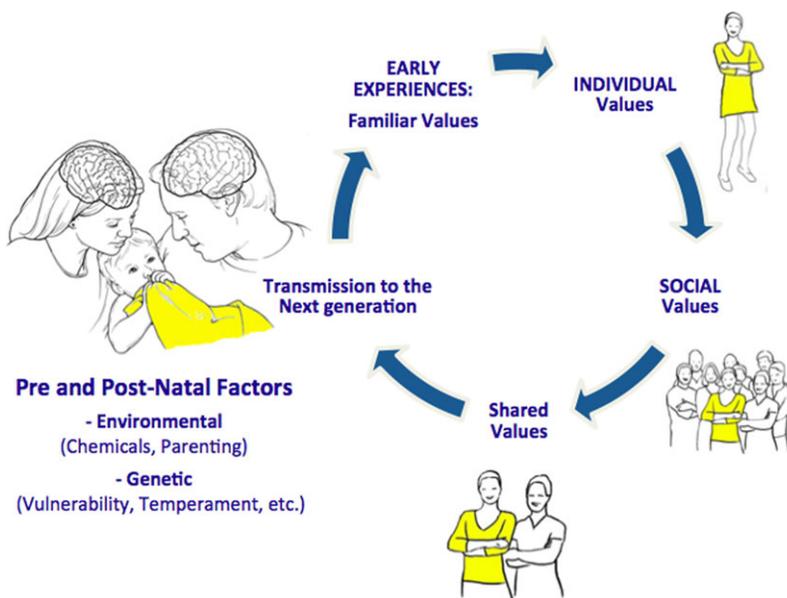


Figure 1 (Dellantonio et al.). Transgenerational Transmission of Values. Prenatal and postnatal factors influence early life experience, as family values are passed on. These family values merge later in life with individual and social values. The adult then passes on her/his values combined with her/his partner’s values to the next generation.

Fig. 1 - Colour online

valuations should be interpreted. Do values depend on valuations, that is, on the beliefs we have? Or are they rather the outcome of affects? If this remains undetermined, it is impossible to establish how people weight the relational value of others and how earlier weightings might be modified across time on the basis of what factors.

As for the ontogeny of values, we may gain some insight from recent literature in human genetics and physiology. Relational values, which may be represented by automatic patterns of relation in a given social scenario, start to develop at a very early stage, before children learn language and, thus, before they have cognitions in the form of beliefs. They start as subpersonal structures determined by our genetic background and environmental influences. Specifically, pre- and post-natal factors such as the genetic background of a person (genetic vulnerability and/or temperament) and environmental exposure (chemicals, parenting, etc.) interact in determining the transmission of relational values from one generation (parents) to the next (see our Fig. 1). Recent evidence has indicated, for instance, how people's automatic physiological reactivity to social stimuli (e.g., responses to a human cry [Esposito et al. 2017] or responses to socially appropriate/inappropriate contexts [Truzzi et al. 2016]) is moderated by complex factors that depend on both genetic background (i.e., the oxytocin receptor gene) and environmental exposure (e.g., exposure to hormones during the fetal period or the subsequent level of bonding with parents; see Dalsant et al. 2015). Of course, transmission from one generation to the next is not direct and linear; in addition, cognitive as well as social-relational mechanisms are involved in the further development of values. However, from a developmental perspective, values cannot be interpreted as the product of cognitive valuations; their early origin must be subpersonal, prelinguistic, and noncognitive. From this point of view, it does not seem appropriate to consider values as a component of attitudes, if attitudes are valuations. Alternatively, the notion of attitude should be further specified in terms of its affective components and its ontogenesis.

We need more precise, quantitative models of sentiments

doi:10.1017/S0140525X16000753, e0

Mirta Galesic

Santa Fe Institute, Santa Fe, NM 87501.

galesic@santafe.edu

<http://www.santafe.edu/about/people/profile/Mirta%20Galesic>

Abstract: The constructs of attitudes, emotions, and sentiments are often only verbally defined and therefore somewhat vague. The sentiment construct might be fruitfully modeled as a result of sampling processes, complementing the Attitude–Scenario–Emotion model in explaining similarities and differences in sentiments across different cultures.

Attitudes and emotions are among the longest studied constructs in psychology, but there is still a lot of disagreement about the meaning of these concepts, their objective existence, and their function (e.g., Bohner & Dickel 2011; Ekman 2016; Volz & Hertwig 2016). Gervais & Fessler's (G&F's) target article provides a thoughtful review of these constructs and clarifies them by examining their evolutionary significance for human sociality, recognizing the intricate links and feedbacks between attitudes and emotions, and distinguishing the folk affect concepts from basic affect systems.

The sentiment construct in the Attitude–Scenario–Emotion (ASE) model might not be as illuminating as the other ideas in the target article. It seems to be yet another verbally described psychological construct that might be difficult to empirically distinguish from related experiences (other recent

conceptualizations of sentiments are similarly vague; e.g., see Pang & Lee 2008; Stets 2003). In the ASE model, this construct was formulated specifically to describe the concept of *contempt*, which at times may be more similar to different emotions and at other times to attitudes. The number of different sentiments and their expressions might be very large, and their characteristics might overlap with each other and with their constituent parts. It therefore seems difficult to measure empirically and either prove or disprove that a person is experiencing a particular hypothesized sentiment. The potential of the sentiment construct to usefully describe and, in particular, predict human judgments and experiences could be limited.

Instead of adding a new (or revived) vague construct to organize other unclear constructs, more clarity and predictive power might be achieved by attempting to build a simple, parsimonious, quantitative model that would more precisely describe and predict what a person might experience in a particular social situation. A potentially good starting point might be the constructionist models of attitudes *sensu* Tourangeau and Rasinski (1988) and Schwarz and Bless (1992) (note that this tradition is largely disconnected from the constructionist models of emotions discussed in the target article). For instance, Tourangeau et al. (2000) proposed a belief-sampling model of attitudes in which a reported attitude is formed by sampling potentially relevant considerations from memory, which may include feelings, evaluations, images, or any other material that seems relevant in the current situational context. These models predict that the resulting attitudes will be affected by the context in which they are formed; but at the same time they can predict intra-individual consistency across time because of similar samples (Schwarz 2007). The models can also produce quite precise predictions of differences in attitudes constructed in different contexts.

A similar, but broader approach might be used to quantitatively model not only attitudes, but also syndromes of attitudes and emotions, such as *contempt* and other sentiments in the ASE model. People might sample different emotions, attitudes, and other relevant considerations from memory and from the current context to form an appraisal of a social situation. Different considerations might receive different sampling weights, determined in part by the evolutionarily developed sensitivity for an other's relational value as a potential cooperation partner, a mate, or a source of useful information, and in part by individual circumstances and affordances of the particular situation. The content of the samples and the sampling weights can, at least in principle, be explicitly or implicitly measured, or inferred from evolutionary analysis and anthropological findings. The samples might be quantitatively described as, for instance, an individual's frequency distribution over different emotions (e.g., *anger*, *disgust*, *mirth*) and evaluative judgments (e.g., devaluation and diminution; examples taken from G&F's Figure 1 in the target article). These distributions might be thought of as quantitative representations of the sentiments in the ASE model, and might be used as building blocks of simple models (e.g., akin to Galesic et al. 2012) to predict the resulting motives, behaviors, and physical expressions.

To the extent that the same considerations receive similar weights in different cultures (e.g., because of their evolutionary significance), experiences in similar social contexts will translate across diverse populations. At the same time, to the extent that the social contexts differ between populations (e.g., in how easy it is to dissolve an unsatisfying relationship, or openly express hostility), the samples and the resulting experiences will be different. In other words, we might not need to assume an existence of specialized, evolutionarily developed functional networks of attitudes and emotions in order to explain similarities and differences across populations. Instead, sentiments such as *contempt* and *respect* might be conceived and perhaps more precisely modeled as experiences constructed from more basic emotions and relatively simple evaluative judgments sampled in a particular social context.

Contempt, like any other social affect, can be an emotion as well as a sentiment

doi:10.1017/S0140525X16000765, e0

Roger Giner-Sorolla^a and Agneta H. Fischer^b

^aSchool of Psychology, University of Kent, Canterbury, Kent, CT2 7NP, United Kingdom; ^bDepartment of Psychology University of Amsterdam, 1001 NK Amsterdam, The Netherlands.

R.S.Giner-Sorolla@kent.ac.uk a.h.fischer@uva.nl

<https://www.kent.ac.uk/psychology/people/ginerr/>

<http://home.medewerker.uva.nl/a.h.fischer/>

Abstract: Gervais & Fessler assert that contempt is (a) *not* an emotion (or an attitude) but (b) a sentiment. Here, we challenge the validity and empirical basis of these two assertions, arguing that contempt, like many other emotions, can be both an emotion and a sentiment.

The debate about how to define emotions and demarcate them from related phenomena like affect, feelings, attitudes, and sentiments is an everlasting discussion in the social and life sciences, starting with ancient philosophers and continuing until the present day (see Kleinginna & Kleinginna [1981] for an overview). Gervais & Fessler's (G&F's) article is a new attempt to clarify these different concepts, focusing on one emotion: contempt. The authors rightly argue that contempt is a relatively neglected phenomenon (see also our review, Fischer & Giner-Sorolla 2016), but they also conclude that "the contempt-as-emotion literature has provided inconclusive, even perplexing results" (sect. 1, para. 3). They therefore assert that contempt is (a) *not* an emotion (or an attitude), but (b) a sentiment. Here, we challenge the validity and empirical basis of these two assertions.

Contempt as non-prototypical emotion. G&F find support for eight different and coherent features of contempt from the literature, but still conclude that contempt cannot be considered a (basic) emotion. We do not see this literature on contempt as perplexing or inconsistent. Our review took as its basis a prototype view (Russell 1991b) in which non-prototypical emotions lack one or more key traits. For example, we argued that contempt may lack hot physiology and a clear term in English, but its appraisals, action tendencies, and expressions are distinctive. Contempt thus can be seen as a non-prototypical emotion (similar to other non-prototypical emotions like guilt or worry). This more parsimonious account shows that the literature does not lead inevitably to the model proposed by G&F.

Contempt as a sentiment, not an emotion. In our review, we argue that contempt can be both emotion and sentiment, based on Frijda et al.'s (1991) definition of sentiment as an enduring object-emotion association, that is, a disposition to respond emotionally to a certain object. G&F assume that contempt can only be seen as an enduring sentiment, organizing more momentary related emotions such as anger and disgust around "a common attitudinal core" (sect. 3.3, para. 3). However, many other emotions can become enduring object-linked emotional sentiments, such as anger (e.g., Giner-Sorolla 2012; Halperin & Gross 2011), disgust (Ortony et al. 1990; Olatunji et al. 2007), envy, or admiration (Fiske et al. 2002; Harris & Fiske 2007). In other words, any emotion can become a sentiment when it becomes temporally extended, characterized by enduring changes in one's relation with others. There is no evidence that one of these is a "master sentiment" leading the other mere emotions along.

According to G&F, because contempt is a sentiment, it cannot also be an emotion, elicited by a single action of a person. We think that this assumption makes a category error: yes, contempt represents negative traits in others, but need not itself arise from an enduring attitude; one action can suffice. For example, a son who has a very good relationship with his parents hears that they have decided to divorce because his father betrayed his mother by sleeping with another woman, and he feels contempt towards his father. No pre-existing negative attitude is required to feel contempt for his father. On the contrary, the experience of contempt may lead

to an attitude change towards his father, and he may not have the same relationship with his father ever again. This story, as reported by a respondent in one of our studies (Fischer & Roseman 2007), clearly illustrates that contempt can be an immediate response.

Although it is true that various studies have shown that contempt is more likely to endure than anger, this is plausibly because its eliciting factors are more likely to endure (a single act versus a character), and not a reason to deny contempt's manifestation as an emotion. In fact, it is hard to see how evidence that contempt has distinctive expressions (e.g., the unilateral lip curl [Matsumoto & Ekman 2004], or clucking or tutting noises [Hawk et al. 2009]) fits the view of contempt as a recruiter of diverse, context-sensitive feelings and expressions. What transitory emotion is recruited, if not contempt itself, when the contempt sentiment leads to such displays?

The Attitude-Scenario-Emotion model of sentiments. While Frijda and colleagues' definition of sentiment is easy to operationalize – does an object elicit the same emotion at different times or when presented out of context – G&F propose an Attitude-Scenario-Emotion model of sentiments. This model's components have many hard-to-verify, hard-to-falsify or overlapping features (see G&F's Table 2 in the target article), for example, "diverse motives, behaviors, and expressions across scenarios" (said of sentiments in their Table 2, but also potentially true of emotions or attitudes). In fact, the authors assert that sentiments are "higher-level functional networks of attitudes and emotion; each sentiment is an attitude state and the various emotions disposed by that representation" (sect. 4.2, para. 6). The interrelatedness and fuzzy boundaries of three core concepts of this model stand in sharp contrast with the authors' aim to disentangle folk concepts and the neurobiological basis of affect systems.

Conclusion. We agree on many functional points about contempt, but don't see the usefulness of an overly complicated model that blurs established usages of the terms "emotion" and "sentiment." Of the eight features of folk "contempt" presented as evidence of deep structure (target article, Table 1), none of them supports the structural model exclusively. Anger and disgust, the latter in particular, can also be (1) object focused and (2) enduring. A prototype view of contempt as emotion also characterizes contempt with the perception (feature 3) and reinforcement (feature 4) of low social value, and with related action tendencies (feature 8). Contempt's "coldness" (feature 5) is a non-prototypical feature, and its negative association with empathy and positive association with anger and disgust (feature 6) can be explained by related negative appraisals of social value. Finally, there is no comparative evidence that contempt has more or fewer expressions than other emotions (feature 7), for example, disgust and anger too can be expressed through variations of a facial expression, sounds, verbal expression, or gestures. We encourage the study of the social and evolutionary functions of contempt using a more parsimonious and better-supported conceptual model.

How dare you not recognize the role of my contempt? Insight from experimental psychopathology

doi:10.1017/S0140525X16000777, e0

Alessandro Grecucci,^a Jon Frederickson,^{b,c} and Remo Job^a

^aClinical and Affective Neuroscience Lab, CLIAN, Department of Psychology and Cognitive Sciences, University of Trento, Rovereto, 38068 (TN), Italy;

^bWashington School of Psychiatry, Washington, D.C. 20016; ^cIntensive Short Term Dynamic Psychotherapy Institute, ISTDP, Washington, DC 20016.

alessandro.grecucci@unitn.it jf1844@gmail.com

remo.job@unitn.it

<http://r.unitn.it/en/dipsco/clian> <http://istdpinstitute.com/>

Abstract: Gervais & Fessler argue that contempt is an attitude state defined as a lack of respect that potentiates the activation and

deactivation of two different clusters of emotions. However, clinical and experimental findings do not support this view. We provide evidence that contempt is not an emotion, nor an attitude, but a reactive defensive mechanism evolved to help individuals avoid shame.

In their target article, Gervais & Fessler (G&F) develop a theoretical approach to understanding the role of contempt and use contempt as a case study to develop a broader argument about the architecture of basic affect systems (Attitude–Scenario–Emotion [ASE] model). A cornerstone of the article is that contempt is an attitude state defined as “an absence of respect” that potentiates the activation and deactivation of two different clusters of emotions (muted prosocial emotions and potentiated hostile emotions) (sect. 5.2). We believe this statement to be biologically and clinically implausible, and we argue that the available data from affective neuroscience and experimental psychopathology provide evidence that contempt is not an emotion, nor an attitude, but a reactive defensive mechanism evolved to help individuals to avoid and minimize the experience of self-harming emotions such as shame. We present three issues that are inconsistent with the authors’ conclusions and support our view.

G&F identify “the absence of respect as the sentiment contempt” and propose “that the core of *contempt* is an attitude state that represents others’ low intrinsic value to self, due to their inefficacy in adhering to social-relational standards; they have either failed to establish their worth or shown themselves unworthy of previous positive valuation” (sect. 5.2, also see their Fig. 1). Accordingly, in the sequence for generating contempt, first, cues to inefficacy and low value are detected (relational cues); then contempt is activated (attitude); then anger, disgust, and mirth are activated (emotions); finally, intolerance and exclusion are enacted (behaviors). In other words, the timeline of events according to the ASE model is stimulus → attitude → emotions → behavior. This assumption is not supported by affective neuroscience findings (Damasio 1999; Grecucci & Job 2015; Grecucci et al. 2015; Panksepp 1998). Emotion has a neurobiological primacy over cognition (attitudes) and behavioral responses in terms of temporal dynamics (emotional information is processed a few milliseconds before cognitive processes take place [Damasio 1999; LeDoux 1998]) and anatomical circuitry (direct links between perceptual systems to detect salient stimuli and emotional structures, and then, higher cognition areas; Panksepp & Biven 2012). It follows that a biologically plausible sequence is stimulus → emotion → behavior/cognition (Frederickson 2013; Grecucci et al. 2017; Panksepp 1998). This evidence contradicts the model presented in G&F’s Figure 1. We suggest that for the ASE model to work, these findings should be incorporated in the model, which should be reformulated accordingly.

G&F argue that contempt shares some features of a sentiment. However, we see two major problems with this approach. On one hand, the nature of contempt is misunderstood; on the other hand, the link between contempt and emotions is unclear. A useful distinction from clinical psychology and psychotherapy is between emotions and defensive affects (Dadomo et al. 2016; Frederickson 2013; Grecucci et al. 2016). The first refer to primary biologically generated emotions. They are elicited by specific stimuli and have certain temporal dynamics with specific strength and duration proportional to the relevance of the stimulus itself. The second, defensive affects, are generated by the operation of defensive mechanisms. They are not proportional to the entity of the stimulus and can be longstanding. Defensive affects serve to avoid and cover primary emotions. For their functions, defensive affects can be considered as part of defensive mechanisms typically used to ward off unwanted emotions (Vailant 1992, p. 238). We propose that contempt is not an emotion, nor a sentiment, but rather a defensive reaction that serves to protect the self against the experience of unpleasant emotions. The ASE model does not incorporate this distinction and is thus unclear regarding the nature of contempt.

Building on the previous considerations, we suggest that contempt is a defensive reaction to cope with the experience of shame. Robust clinical evidence indicates that shame-eliciting situations cause expressions of intense reactive contempt, anger and hostility (Izard 1991; Kohut 1971; Lewis 1971; Nathanson 1994; Tangney et al. 2007). Lewis (1971) first noted that patients’ shame co-occurs with responses of humiliated fury and suggested that shame can elicit defensiveness, anger, and overt aggression. Shame rage or humiliated fury is thought to represent a defensive response to a wounded self (Stuewig et al. 2010). Shamed individuals may become angry, blame others, and use contempt to regain a sense of agency and control (Gilligan 1996; Scheff 1987, pp. 109–49; Stuewig et al. 2010; Tangney 1992; Tangney & Dearing 2002). This is especially true for individuals with antisocial and narcissistic personality disorders, who suffer from excessive shame sensitivity. This sensitivity leads to the creation of a defensive pathological grandiose self that keeps the self-esteem at tolerable levels (Kernberg 1984; Kohut 1971; McWilliams 1994). When the grandiose self is publicly threatened with cues of inefficacy and low value, these individuals avoid the experience of shame by reacting with contempt, devaluation, and narcissistic rage, defense strategies designed to humiliate the offending person (Izard 1991; Kernberg 1984; Lewis 1971). This reaction aims to restore self-esteem and a pathologically positive self-view to protect the self from further harm (Kohut 1971). Recent experimental data from our lab show that individuals, when criticized for socially and morally unwanted aspects of the self, experience shame and subsequently react with anger towards others. Such anger reactions take the form of contempt aimed at devaluing and punishing the partner who criticized and shamed them (Grecucci et al., in preparation).

The above considerations allow us to frame the role and function of contempt, and its link with emotions, in a clear and consistent pattern. When someone is threatened by relational cues of inefficacy and low value (stimulus), shame is experienced (emotion). Contempt is not a feeling, but a defensive strategy to avoid shame. Contempt (as well as other cognitive and behavioral reactions) attempts to restore a positive self-image (defensive reaction) by devaluing the image of the other person. As it stands, G&F’s framework cannot account for the pattern we have outlined on the basis of neuroscientific data and clinical observations, and we suggest that some aspects of G&F’s approach need rethinking.

A sentimental education: The place of sentiments in personality and social psychology

doi:10.1017/S0140525X16000789, e0

Nick Haslam

School of Psychological Sciences, University of Melbourne, Parkville, VIC 3010, Australia.

nhaslam@unimelb.edu.au

www.psych.unimelb.edu.au/nhaslam

Abstract: “Sentiment” is a potentially appealing concept for social and personality psychologists. It can render some complex affective phenomena theoretically tractable, help refine accounts of social perception, and illuminate some personality dispositions. The success of a future sentimental psychology depends on whether “sentiment” can be delimited as a distinct domain, and whether a credible classification of sentiments can be developed.

Like Dr. Frankenstein, Gervais & Fessler (G&F) have brought something dead back to life. Their monster, the concept of sentiment, has been rebuilt from the remnants of early psychology

textbooks. As a functional network of emotions and attitudes, a sentiment is a complex assemblage, and the authors' Attitude–Scenario–Emotion model allows emotion theorists to sew it together with surgical precision.

Just how functional “sentiment” will prove to be in psychology's conceptual repertoire remains to be seen, but the idea has several desirable properties. First, it helps to make sense of complex phenomena such as contempt that are not easily assimilated into existing concepts of emotion or attitude but appear to have elements of both. Like Goldilocks' porridge, sentiments are not too affectively hot nor too cognitively cold to do justice to love or respect. Second, G&F's account of sentiments represents a sophisticated synthesis of cultural and evolutionary approaches to emotion. Third, like recent developments in moral psychology (Rai & Fiske 2011), the concept of “sentiment” places the regulation of social relationships front and center in the study of affective science, where it belongs. Sentiments are embedded in social relations, not confined to individual hearts and minds.

For a social psychologist, “sentiment” is an appealing idea. The concept of emotion has often been poorly integrated into research on core social psychological topics such as stereotypes and prejudice. As a result, this research has tended to flatten complex affective orientations towards others into a single dimension of positive versus negative evaluation. This unidimensional understanding has begun to break down as social psychologists recognize that stereotypes differ qualitatively and that prejudices vary in their affective coloration. This recognition is best known through the work of Susan Fiske and colleagues (Fiske et al. 2007). Their stereotype content model identifies groups which are targets of prejudices that have different emotional tones—pitying, envious, or disgusted—depending on their perceived status and warmth. Here sentiment-like ideas are permeating the social psychology of attitudes in a direction that G&F's work might advance.

The concept of sentiment also has the potential to bridge personality and social psychology. These fields sometimes seem to be drifting apart on different tectonic plates, one increasingly bound to the idea of universal neurobiologically grounded affective dispositions, the other to contextually variable cognitive appraisals. “Sentiment” offers a point of connection. If a sentiment is a particular configuration of (social) emotions and attitudes directed towards a particular (social) object, then some personality characteristics may be construed as default sentiments, as the authors propose, or as generalized sentiments without particular objects.

If this is the case, then the task of the personality psychologist is not just to identify a latent trait psychometrically and explore its correlates, but to understand the complex cognitive-affective network that underpins individual differences. Sentiments are a promising starting point for this kind of social psychology-informed personality research. Research on dispositions to express single emotions (e.g., trait anxiety, envy-proneness) has proven to be something of a dead end, and exploring tendencies to manifest more complex configurations—“pluripotent” emotions as the authors describe them—may be revealing. G&F's analysis of psychopathy as a trait linked to the sentiment of contempt is encouraging on that point. Future research might link complex traits such as dependency and narcissism to possible sentiments of love and pride.

The real challenges for a future psychology of sentiments will be to demonstrate that “sentiment” has clear conceptual boundaries with adjacent notions of “emotion” and “attitude,” and that a credible classification of sentiments can be developed. On the first point, there is reason for some skepticism. G&F do not make a strong case for sentiments being qualitatively distinct from emotions or attitudes, and, thus, self-evidently needful of their own separate conceptual domain. Emotions vary in their durability and complexity, attitudes vary in their degrees of affective saturation, and sentiments might simply represent an indistinct intermediate zone between the most prototypical emotion and the most prototypical attitude, rather than being a distinct natural kind. This semantic continuum can be carved in different

ways in different languages. In the Romance languages, for example, what counts as “emotion” is typically covered by two distinct terms referring to primary and secondary emotions. In French, “emotion” refers to more basic emotional states and “sentiment” to states that are seen as relatively complex, refined, and unique to humans. Thus, the same affective landscape is mapped rather differently in French and English, and in the former the distinction between “sentiment” and “emotion” is drawn in a different place—closer to the emotion prototype—than it is in the authors' formulation. As Wierzbicka (1999) has written, the French “sentiment” generally resembles the English “emotion” except that it lacks reference to bodily states. These linguistic points relate to everyday word meanings rather than to scientific concepts, but they raise questions about whether a clear distinction between sentiments and cognate concepts can be made. If it cannot, the psychology of sentiments will be undermined.

Whether sentiments can be classified readily is another key challenge. The psychology of discrete emotions is grounded in a well-established, if occasionally questioned, taxonomy. The development of a similarly solid classification of sentiments—whether categorical like the taxonomy of basic emotions or dimensional like the taxonomy of personality—would be a great step forward for a future sentimental psychology. However, this classification will be compelling only if there is general agreement on what phenomena count as sentiments—where the concept's boundary lies—and if the classification does not closely resemble the classifications of emotions or attitudes. If they do, psychologists might question whether the domain of sentiments is truly distinct. Much work remains to be done, but G&F's proposal is a promising first step.

Warmth, competence, and closeness may provide more empirically grounded starts for a theory of sentiments

doi:10.1017/S0140525X16000790, e0

Daniel J. Hruschka

School of Human Evolution and Social Change, Arizona State University, Tempe, AZ 85287-2402.

Daniel.Hruschka@asu.edu

<https://shesc.asu.edu/content/daniel-hruschka>

Abstract: Gervais & Fessler dissect the folk concept of “contempt” to argue for a functionally integrated model of attitudes and emotions in the context of social relationships. Existing studies of how evaluations of warmth, competence, and closeness shape people's reactions and behaviors towards others may help in operationalizing and testing the proposed model.

In the target article, Gervais & Fessler (G&F) propose the Attitude–Scenario–Emotion (ASE) model of sentiment as a remedy to a contemporary disconnect between the study of emotions and attitudes in social behavior. The authors use “contempt” as the main lever for their argument, providing a fascinating portrayal of its functions, cross-cultural instantiations, and potential phylogenetic origins to show that contempt is not simply a basic emotion or an attitude, but rather a functionally integrated network of emotions and attitudes called a sentiment. According to their model, “contempt” is only one of a number of distinct sentiments, including love, respect, hate, and fear, that both keep track of the value of relationships and facilitate commitment to them.

The ASE model productively focuses our attention on how complex networks of attitudes and emotions help us evaluate, react to, and act towards social partners, as well as the evolutionary functions of these networks. However, the focus on contempt rather than on better studied dimensions, such as warmth, competence, and closeness, makes it difficult to judge how the theory improves our understanding over and above an already growing

literature on how people evaluate and act towards others. Here I describe some potential linkages that might inform the model as it is filled out with concrete examples in future work.

A recurring prediction in the target article is that contempt for another person will reduce prosocial behavior towards that person – muting prosocial emotions, undermining compassion, potentiating anger, promoting exploitation, and leading not only to relationship dissolution, but also avoidance, exclusion, mockery, and dehumanization (also see Figure 1 in the target article). This fits well with the folk concept of contempt and the negative connotations of the term. However, the article also raises the possibility that the effect of contempt can be completely reversed by another sentiment, love. In such situations, as with one's own young child or a beloved elderly community member, contempt and love together can lead to pity and related prosocial emotions and behaviors. In the English language at least, this seems like an odd way of talking about a loved one. It would be quite an emotional mind-bender to say, for example, that I love my child, but that I also have contempt for her. I'm fine calling my child helpless, needy, or incompetent, but saying I have contempt for her is a stretch. How such challenges arise in other languages and cultures remains to be seen, and is worth considering as the authors further elaborate and assess the ASE theory of sentiments.

A potentially simpler theory of contempt would build from well-established dimensions of warmth and competence already studied in social cognition (Cuddy et al. 2007; Fiske et al. 2007). According to this model, a dimension of warmth captures assessments of trustworthiness, liking, and loving. Orthogonally, a dimension of competence captures perceived ability, skills, and efficacy. In evolutionary terms, these are both plausibly cues to the magnitude and reliability of fitness benefits provided by others. The folk concept of “contempt” can easily fit into the low-warmth and low-competence quadrant of this two-dimensional model. Reframing contempt in this way also suggests why it doesn't sound right to view one's beloved young child with contempt. Contempt is not just about “looking down,” but rather about looking down with a lack of warmth or love towards that person. When considered in light of the warmth–competence model, perhaps one of the reasons contempt is an enigma is not that it is an emotionally pluripotent sentiment, but rather that it is a composite of two more basic ways of evaluating others.

In addition to making it easier to talk in English about how I view my young child, this alternative model allows us to compare ways of operationalizing how people evaluate their social partners. In fieldwork in the United States and in rural Bangladesh, respondents can readily talk about concepts like social closeness and liking (coinciding with a warmth dimension) and relative ability or need (coinciding with a competence dimension). In most cases, they don't protest when asked to rank or rate others along these dimensions, and they have reliable correlations with giving and helping (Hackman et al. 2015; 2017). It would have been helpful if the article had discussed how readily people in different cultural settings could rate others in terms of how much contempt they feel towards those others.

The warmth–competence model has largely been applied to social judgments about groups and classes of people. However, it also has clear relevance to how people evaluate, react to, and act toward current and potential relationship partners. For example, the concept of social or emotional closeness in the literature on altruism in social relationships appears to map closely to the warmth dimension. Contrary to G&F's observation that attitudes are often poorly linked with behaviors, numerous studies have found reliable associations between perceived social closeness to a partner and giving both real and hypothetical stakes and helping in naturalistic settings (Aron et al. 1992; Bechler et al. 2015; Hackman et al. 2015; 2017; Ma et al. 2015; Rachlin & Jones 2008).

I have focused here on the proposed sentiment of contempt because it was described in most detail in the target article. However, it is quite possible that other sentiments proposed by

G&F, such as love, may pose similar challenges of definition and operationalization (Fisher et al. 2002; Hruschka 2010; Sternberg 1986). As the hypothesized structure of sentiments is more thoroughly fleshed out against existing and future empirical work, it will be exciting to see what sentiments finally emerge as distinct and functionally coherent. The ASE model may be useful, but it will require considerable working out with appropriate concrete examples and linkage with existing empirical work before this can be determined.

Oxytocin shapes the priorities and neural representations of attitudes and values

doi:10.1017/S0140525X16000807, e0

René Hurlemann,^{a,b} Nina Marsh,^b Johannes Schultz,^b and Dirk Scheele^b

^aDepartment of Psychiatry, University of Bonn, 53105 Bonn, Germany;

^bDivision of Medical Psychology, University of Bonn, 53105 Bonn, Germany.

renehurlemann@icloud.com n.marsh@gmx.de

johannes.schultz@gmail.com dirk-scheele@gmx.de

<http://renehurlemann.squarespace.com/welcome/>

<https://sites.google.com/site/johannesschultz/>

<http://psychiatrie.uni-bonn.de/>

Abstract: The phylogenetically ancient neuropeptide oxytocin has been linked to a plethora of social behaviors. Here, we argue that the action of oxytocin is not restricted to the downstream level of emotional responses, but substantially alters higher representations of attitudes and values by exerting a distant modulatory influence on cortical areas and their reciprocal interplay with subcortical regions and hormonal systems.

In their superb Attitude–Scenario–Emotion (ASE) model, Gervais & Fessler (G&F) propose that distinct sentiments such as contempt or love result from enduring attitudes which moderate discrete emotional outcomes across various scenarios in a top-down-like manner. When reflecting on the role of neuroendocrine systems in the light of the ASE model, the authors suggest that the canonical “functions of the [neuropeptide] oxytocin are not the attitudinal encoding of social value itself, but are specifically *emotion-like*” (sect. 6.2, para. 8), thus enabling different behavioral outcomes depending on superordinate *a priori* attitudes.

The past decade has witnessed a tremendous surge of interest in the modulatory effects of oxytocin (OXT) on social-cognitive and behavioral readouts in humans. These studies are feasible because intranasal delivery of synthetic OXT allows modeling of transient states of heightened brain OXT concentrations (Striepens et al. 2013). Converging evidence now suggests that the influence of OXT varies as a function of context and interpersonal variables (Olff et al. 2013). As such, OXT effects can be dependent upon the time point of administration (Eckstein et al. 2015; 2016), the presence of social cues (Scheele et al. 2015), social provenience and parochialism (De Dreu et al. 2010; 2011), or neurodevelopmental characteristics (Scheele et al. 2014a). However, G&F's interpretation that the peptide produces exclusively emotion-like effects has several shortcomings. For instance, it cannot account for the finding that exogenous OXT evokes differential effects in women and men (Scheele et al. 2014b) and young and elderly participants (Ebner et al. 2015), despite the absence of *a priori* group differences in the placebo condition. Moreover, the authors' interpretation does not fully account for OXT causing an enhancement of emotional empathy to the pain of an adversary outgroup (Shamay-Tsoory et al. 2013) and a newly induced social altruism bias at the cost of ecological responsibility (Marsh et al. 2015), both of which rather suggest that the peptide can weaken or reverse *a priori* attitudinal representations and resultant behavioral priorities. Administration of OXT may even modify complex psychological

constructs such as self-concept, for instance, by increasing the subjective experience of attachment security in insecurely attached adults (Buchheim et al. 2009) or by eliciting stronger positive attitudes toward oneself (Colonnello & Heinrichs 2014). OXT also influences self-perception of extraversion and openness to new experiences, in the absence of mediation by stress or negative affect (Cardoso et al. 2012).

Further support for the notion that the effects of OXT are not restricted to downstream emotional responses, but in fact shape attitudes and values, comes from clinical studies documenting the peptide's therapeutic potential to improve social functioning in individuals with autism (Yatawara et al. 2016) and schizophrenia (Davis et al. 2014). In these studies, improvements were observed far beyond the emotional level, namely, in social awareness, capacity for reciprocal social communication, and empathic accuracy. Dysfunctional cognitive schemata can be influenced as well: OXT as an adjunct to exposure therapy for social anxiety disorder has been found to mitigate the exaggerated negative beliefs about oneself which are typical for patients with social anxiety (Guastella et al. 2009).

In addition, G&F propose to reconceptualize psychopathy as a sentiment disorder in which an inability to value others disrupts downstream social emotions including empathy. Concordant with this view is neuroimaging evidence that spontaneous empathy is reduced in psychopathy, whereas deliberate empathy is not (Meffert et al. 2013). OXT has a key role in empathy (Domes et al. 2007; Hurlmann et al. 2010), and evidence suggests abnormalities of the OXT system in psychopathy and related callous-unemotional traits: For example, lower peripheral OXT concentrations are associated with stronger callous-unemotional traits (Levy et al. 2015). Notably, a recent longitudinal epigenetic study detected a positive link between methylation of the OXT receptor gene at birth and callous-unemotional traits at age 13, which corroborates the hypothesis of abnormalities in the oxytocin system as a core element of developmental pathways to callous-unemotional traits (Cecil et al. 2014). These findings, together with the relationship between variations in common polymorphisms of the OXT receptor gene and antisocial behavior (Hovey et al. 2016), and high callous-unemotional traits (Beitchman et al. 2012; Dadds et al. 2014), all point to an involvement of the OXT system in upstream attitudinal representations.

On the neural level, exogenously administered OXT affects activity not only in key components of the salience network including the amygdala (Eckstein et al. 2015), insula (Striepens et al. 2012), and anterior cingulate cortex (Preckel et al. 2015), but also in the precuneus (Scheele et al. 2014b), which is consistent with current concepts that the peptide's effects are not limited to the modulation of arousal responses orchestrated by evolutionary ancient areas. OXT also influences, and interacts with, representations of attitudes and values in more recently developed cortical regions (Hurlmann & Scheele 2016). Furthermore, the modulatory effects of OXT on reward-associated responses in the ventral tegmental area (VTA) or nucleus accumbens are critically influenced by gonadal hormones (Scheele et al. 2013; 2016), suggesting that at least some representations of value are susceptible to hormonal signals and their interactions, especially in the sexual domain (Hurlmann & Scheele 2016). Specifically, it has been proposed that OXT attaches salience to socially relevant cues by modulating activity in the VTA (Gregory et al. 2015; Groppe et al. 2013). While it would seem simplistic to reduce relational values to a single peripheral OXT concentration, these findings are consistent with the idea that OXT contributes to the representation of sentiments not only at the behavioral and emotional level, but also at the level of relationship values and attitudes.

Taken together, the effect profile of OXT is not confined to the peptide's modulatory role in proximate emotional responding. In fact, to understand how OXT influences human social behavior, we need to consider the close cross-talk between OXT and other hormonal systems through which sentiments such as contempt may be shaped at various levels.

Building a house of sentiment on sand: Epistemological issues with contempt

doi:10.1017/S0140525X16000819, e0

Heather C. Lench, Shane W. Bench, and Kenneth A. Perez

Department of Psychology, Texas A&M University, College Station, TX 77843-4235.

hlench@tamu.edu swbench@gmail.com

kenneth.perez@tamu.edu

www.heatherlench.com

Abstract: Contempt shares its features with other emotions, indicating that there is no justification for creating “sentiment” as a new category of feelings. Scientific categories must be created or updated on the basis of evidence. Building a new category on the currently limited contempt literature would be akin to building a house on sand—likely to fall at any moment.

A well-known parable contrasts two men: one man builds his house upon solid rock, the other builds his house upon shifting sand. This allegory conveys the importance of a solid foundation. The effort by Gervais & Fessler (G&F) to integrate emotional theories through creation of a new construct is laudable. However, the available empirical evidence reveals that contempt shares features with other emotions and offers a shaky foundation for building “sentiment” as a construct.

Is contempt different? Categories emerge in science based on assessment of correlated properties (Boyd 1991). To determine whether a new category is warranted, studies must demonstrate that a member has properties different from existing categories. Do the features identified by G&F suggest contempt is different from other emotions?

1. *Contempt is intentional.* All emotions are “about” or directed toward specific events or objects, including sadness at a failure or anger at an insult. Emotions are “intentional states,” directed toward the world (Neu 2000; Solomon 2008). Indeed, evidence reveals this is *the hallmark feature* of emotions (Beedie et al. 2005; Kaplan et al. 2016; Lench et al. 2015; Verduyn et al. 2011).

2. *Contempt involves enduring evaluation.* Emotions were once defined as relatively brief and contrasted with longer-lasting moods (Eich et al. 2000; Russell 2003). An unfortunate consequence of this definition was the resultant supposition that emotions are ephemeral—there and then gone. The evidence does not support this supposition. Emotions can last for minutes, hours, or days, and re-occur *when people think about an event or object* (Lench et al. 2011b; Levine et al. 2012; Verduyn et al. 2009; 2011). Widows and widowers, for example, report intense emotions on the anniversary of their spouse's death (Carmelley et al. 2006). Many experimental emotion elicitation studies rely on this feature of emotion by engaging participants with autobiographical narratives or emotion-evoking objects (Lench et al. 2011a; Lerner & Keltner 2001; Lench & Levine 2005).

3. *Contempt follows cues to low relational value.* This feature suggests that people engage in evaluation and, as a result, experience contempt. Decades of investigations have revealed the evaluations that cause different emotions (e.g., sadness after perceived loss; Carver 2004; Frijda 1987; Lench et al. 2011a; Levine 1996; Roseman et al. 1996). These evaluations are often called appraisals—fast, typically unconscious, assessments of situations, objects, or people (Arnold 1960; Ellsworth & Scherer 2003).

4. *Contempt entails loss of respect and status diminution.* G&F posit that contempt is associated with these cognitions. Emotions are typically defined as coordinated responses in experience, cognition, behavior, and physiology (Lench et al. 2016; Mauss et al. 2005). In a meta-analysis, emotions had effects on cognition consistent with theoretical accounts and small to moderate in size (Lench et al. 2011a).

5. *Contempt creates “cold” indifference.* Any feelings signal relevancy, and many studies demonstrate that emotions orient attention (Arnold 1960; Compton 2003; Lench & Levine 2010).

Whether contempt is classified as emotion or sentiment, it is unlikely that it creates indifference. This feature might reflect a phenomenological experience of coldness. The experience of dissociation (“coldness”) is also a feature of sadness (Andrews & Thomson 2009; Averill 1968; Cunningham 1988) and is not unique to contempt. Generally, emotions are associated with subjective experience (Lench et al. 2011a; Nummenmaa et al. 2014).

6. *Contempt is associated with “anger” and “disgust.”* Self-reports of negative emotions are often correlated, and effects are less differentiated among negative emotions than between emotions that vary in valence (Lench et al. 2011a).

7. *Contempt can be expressed in many ways.* All emotions are associated with different expressions. The moderator of expression can be identified when sufficient evidence is available. Anger is associated with “approach” brain activation, but only when action is possible (Carver & Harmon-Jones 2009). Sadness is associated with physiological arousal when help is available and deactivation when help is not possible (Kreibig 2010).

8. *Contempt leads to intolerance, exclusion, and relationship dissolution.* Most theories posit that emotions are associated with behaviors (Lench et al. 2015; Mauss et al. 2005). Thousands of studies examine the behavioral consequences associated with different emotions, and studies frequently include interpersonal behaviors (e.g., anger and aggression).

The preceding review reveals that the “unique” features of contempt are common among emotions. One feature – that contempt is an intentional state about objects – is a *defining property of all emotions*. There is insufficient evidence to support a new category of feeling.

Shifting sands of contempt research. We were surprised to find so few studies that experimentally manipulated contempt. The majority of studies consider identification of contempt expressions (Ekman & Friesen 1986; Matsumoto & Ekman 2004), contempt as a mediator (Becker et al. 2011; Mackie et al. 2000; Melwani & Barsade 2011; Romani et al. 2013; Ufkes et al. 2012), or scenarios that result in contempt (Caprariello et al. 2009; Laham et al. 2010). This lack of experimental control limits inferences about contempt in two critical ways. First, it is impossible to distinguish contempt from other emotions. Reliance on self-report means findings can be determined by the wording of measures. For example, G&F contend that contempt is sometimes correlated with disgust and sometimes with anger. A close examination of the literature reveals that some measures of contempt include disgust items (Becker et al. 2011; Caprariello et al. 2009; Mackie et al. 2000), making the relationship between contempt and disgust difficult to disentangle. Second, without experimental work it is impossible to draw inferences about the effects of contempt on cognition, physiology, and behavior, or whether contempt experienced in one situation can influence subsequent situations (as with other emotions).

Categories must be created or updated based on evidence. Building a new category on the currently available contempt literature would be akin to building a house on sand – likely to fall at any moment.

Contempt as the absence of appraisal, not recognition respect

doi:10.1017/S0140525X16000820, e0

Michelle Mason

Department of Philosophy, University of Minnesota, Minneapolis, MN 55455.

mason043@umn.edu

<https://michellemasonphilosophy.wordpress.com/>

Abstract: Gervais & Fessler’s defense of a sentiment construct for *contempt* captures features distinguishing the phenomenon from basic

emotions and highlights the fact that it comprises a coordinated syndrome of responses. However, their conceptualization of *contempt* as the absence of respect equivocates. Consequently, a “dignity” culture that prescribes respect does not thereby limit legitimate contempt in the manner the authors claim.

Gervais & Fessler’s (G&F) defense of a sentiment construct for *contempt* captures features distinguishing the phenomenon from basic emotions. Although their case against an attitude construct is more tenuous, it highlights that the phenomenon comprises a coordinated syndrome of responses, with an attitude modulating discrete emotions across situations. However, their conceptualization of *contempt* as the absence of *respect* invites equivocation. Consequently, a “dignity” culture that prescribes respect does not thereby limit legitimate contempt in the manner the authors claim.

Contempt: Reactive attitude, nonreactive attitude, and sentiment. G&F correctly distinguish contempt from basic emotions insofar as contempt is a phenomenon of more lasting duration, is associated with more complex appraisals, has no apparent correlate in nonhuman hominids, and may, indeed, mute emotional responses to its target. Although the authors further argue against attitude theories of *contempt*, their reasons suggest deficiencies of current attitude theory more than they defend positing a distinct psychological kind.

In adopting the term *attitude*, my early work on contempt signaled a debt to the philosopher P. F. Strawson, who dubbed an admittedly motley class of affective phenomena the “reactive attitudes,” prototypical among them resentment (Mason 2003; Strawson 1962). For Strawson, to say that an attitude is “reactive” is to say that it responds to the quality of will (good, ill, or indifferent) that a person (perhaps yourself) manifests toward you or those of concern to you. It is less clear why Strawson calls resentment an “attitude.” My usage is intended to position contempt as an evaluative stance toward a person, one that is more enduring than an occurrent emotion and that includes an “evaluative presentation” – or appraisal – of its target as “low” in the sense of ranking low in worth in virtue of falling short of an interpersonal ideal that the contemptor endorses, if not one that she herself meets (Mason 2003; 2014). Although nothing in my use of “attitude” is incompatible with the authors’ observation that an attitude of contempt moderates discrete emotions across situations (sect. 1.3), philosophical work on the reactive attitudes has not sufficiently attended to this feature. If using “sentiment” as a term of art helps us keep track of it, all the better.

In pursuing the sentiment construct, however, the authors must render the relation between the sentiment and its constituent attitude(s) more precise. Whereas the construct posits a one-to-many mapping from the sentiment to discrete emotions across situations, the mapping between sentiment and attitude remains ambiguous. The folk concept “contempt” refers to either of at least two phenomena, which I call reactive contempt and nonreactive (or objective) contempt (Mason 2014). For an example of the former, consider the attitude expressed by many of those who joined the January 2017 Women’s March on Washington to call U.S. President Donald Trump to task for his sexism and racism (cf. Bell 2013). For an example of the latter, consider the utter disregard that others felt toward a man they found beyond reform and, thus, “beneath (reactive) contempt” – a proper subject for therapy, perhaps, but not for rational engagement or accountability-seeking attitudes. The two phenomena are unified by their constitutive appraisal of their target as “low”; they are distinguished by their emotion-modulating effects and motivational goals, among other features (Roseman 1984; cf. Frijda 1986).

How does the sentiment *contempt* map onto these two related but distinct phenomena? Do we have a one-to-one mapping where a single attitude modulates the protest marchers’ emotions toward Trump in one way and mutes others’ accountability-seeking responses toward him? If so, is the suggested model

perhaps one where the attitude tends to mute certain emotional responses to its target when previous emotional engagement has been denied uptake? Alternatively, do we have a one-to-many mapping to two related but distinct attitudes? In either case, reactive contempt emerges as one form that the sentiment *contempt* may take.

Appraisal respect tracks worth; recognition respect acknowledges dignity. G&F conceptualize the sentiment *contempt* as the absence of the sentiment *respect*. However, as they note, “respect” is notoriously equivocal (sect. 5.1). Philosophers employ “recognition respect” as a philosophical term of art for a respect universally owed all persons because they possess what Kant calls a “dignity” (*würde*), as opposed to the “price” of fungible objects (Kant 1786/2012). “Dignity cultures,” G&F note, are committed to universal respect. That is to say, in dignity cultures, each person has an inalienable claim right on the recognition respect of each other.

English usage allows that “respect” must be earned. This is so of what philosophers call “appraisal respect” (Darwall 1977) – a mode of valuing a person grounded in a positive appraisal of the person’s good features of character (Darwall 1977; 2004).

Contempt, “dignity” cultures, and relationship dissolution. The accounts of recognition and appraisal respect in hand, we see that G&F arrive at a fallacious conclusion. One cannot infer, from the fact that a dignity culture affords all persons equal, inalienable rights to recognition respect, that the culture thereby limits those legitimately and publicly contemptible to “only those universally viewed as morally depraved” (sect. 6.1, para. 6). This is a *non sequitur* on either disambiguation of “respect.” Understood as the absence of recognition respect, contempt is *never* legitimate in a dignity culture; even the morally deprived possess dignity. Understood as the absence of appraisal respect, contempt may be legitimate in response to those other than the morally deprived (for a detailed example and defense, see Mason 2003). In close interpersonal contexts, for example, one may be warranted in giving priority to certain aspects of others’ characters for the purpose of appraising their suitability for continued relationship; when they prove grossly substandard, one’s reactive contempt may signal to them a need for reform. Ultimately, the corrosive effects of a reactive contempt that decays into nonreactive contempt may serve the important emotivational goal of dissolving the relationship (Frie & Shaver 2002; Gottman & Levenson 1992). Not only the morally deprived but also those more mundanely bad are thus, even in a dignity culture, legitimate targets for contempt.

The target article by Gervais & Fessler (G&F) brings an important contribution to anthropology and ethnology, by means of the Attitude–Scenario–Emotion model of sentiments encompassing *contempt*; in turn, the model is being given historical consistency, by means of those disciplines. In our opinion, what best illustrates the case of *contempt* across social historical data is the European institution of *charivari*. Its own diachrony and amplitude are difficult to delineate, since, as a concept, *charivari* has been defined as a collective ritual performed mainly by the youth, specific to both urban and rural Western European milieus and documented as late as the 14th century (Castelli 2004, p. VIII; Ginzburg 1981, pp. 131–140). Yet, the literature available on the custom expands its area at least to the eastern border of Europe (Lesourd [1981, pp. 109–113] calling it *charivari*; Manolescu [1967/2004, pp. 141–176] calling it, in vernacular Romanian, *strigare pe sat, alimori, silitatul, moroleuca*); and its existence at least as far back as classical Roman times (see Boiteux 1981, pp. 237–249). The literature also broadens the custom’s development to the realm of the *rites of passage* (Benga et al. 2015; Castelli 2004, p. IX; Karnoouh 1981, pp. 33–43) and its historical-religious relevance as deep as *the wild hunt/la chasse sauvage* (Barillari 2001; Ginzburg 1981, pp. 131–140; 1989/1996; Meisen 1935/2001) and the battles for fertility (Benga 2011; 2015; Ginzburg 1989/1996; Manolescu 1967/2004; Neagota 2012b, pp. 70–71). What then, is *charivari*, and how can it help us bridge the social affect “contempt” and the collective imagination and rituality?

Charivari is a loud public ritual, a raucous, discordant mock serenade involving a lot of noise-making, frequently with pounding on pots and pans and makeshift instruments. A *big sound* is produced by a merry procession of youth and others, which is directed either towards the house of the designated “victim” of the *charivari* mockery procedure (where they yell and ring their bells), or merely led throughout the entire village, meant symbolically to stand for the “victims” who are this time addressed by name and targeted by verbal mockery and loud disharmony. What is being punished by these means? Improper marital behavior (e.g., female domestic violence; a non-native spouse; marrying a widow/widower, or marrying with a wide age-difference, or not marrying at all – as in the case of spinsters and bachelors; adultery) is largely documented as subjected to *charivari* all across Europe. The custom/practice appears under many names: *charivarium, capramaritim, chabro, ciabra, crava, Haberfeld-treiben, katzenmusik, pøeletage, rough music, cencerrada, cochallada, esquellotada, scampanata, caribaria, charavaria, javamaritum, zabramari, zebra, cireri, sireri, bataquarci, burdaleri, matrimügg, cioccada, tuba, tiibada, tamburata, tuntuna, tempellata, timpuleada, corna, scornata, sa correda, ludus turpis, ludus iniquitatis, ludus demoniacus, gioco infernale, gioco d’Acheronte*, and so on (Castelli 2004, pp. VII–XXIV). As indicated by some of the latter terms in the preceding list, *charivari* also takes place in the context of private (non-institutionalized) witchcraft practices, which are well documented as existing up to the 20th century in Eastern Europe. (In this context – which has been our field of research from 1997 to the present – public exposure is less evident and the *charivari* more narrative-confined; that is, recounted in narrative form and accessed through interviews.)

Stripped to the core, the *charivari* procedure is meant to publicly divulge and actively mock what is perceived as a violation of the norms and moral non-written codes of the respective communities. This kind of verbal and gestural mockery, climaxing in punishment and atonement (by payments in modern times, by public execution of yore – executions scheduled for the days of Carnival, preferred scenario on Shrove Tuesday), has left traces in present-day carnivals across Europe: burying or burning the simulacrum of a person is ultimately common to every carnivalesque cortège (Neagota 2012a). Are they mocking, punishing, or securing the social behavior within the community?

The target article provides the tools to address these enduring ethnological questions. Even though the accent in G&F’s article is

On the substantial contribution of “contempt” as a folk affect concept to the history of the European popular institution of *charivari*

doi:10.1017/S0140525X16000832, e0

Bogdan Neagota,^a Ileana Benga,^b and Oana Benga^c

^aDepartment of Classical Philology, Babes-Bolyai University, Cluj-Napoca 400038, Romania; ^bDepartment for Folklore Studies, Romanian Academy of Sciences, Cluj-Napoca 400015, Romania; ^cDepartment of Psychology, Babes-Bolyai University, Cluj-Napoca 400015, Romania.

bogdan.neagota@gmail.com ileanabenga@gmail.com
oanabenga@gmail.com
www.orma.ro
www.psychology.psiedu.ubbcluj.ro

Abstract: The integration of the folk affect concept of “contempt” into the analysis of the complex institution known generally as *charivari* is mutually beneficial for both ethno-anthropology (which may thus access inner causes for disputed social and collective behaviors) and evolutionary psychology (which may thus study the length of tradition together with the width of the institution spread, serving the same social functions).

on the individual generation of *contempt*, the collective behaviors that the authors cite, as such being solely the economic calculus of benefits (“fitness benefits”; sects. 4.3, 5.2, and 6.1), all the way to “ambivalence” or “indifference” (sect. 4.3), and the overall social effect of the influence of a dominant individual on an other (the “image infection” or “stigma-by-association” paradigm; sects. 5.2 and 6.1), are nonetheless relevant to – and can in turn be illuminated by – the kind of group/community behavior enacted in *charivari*. Likewise, regarding the norms and predictions that are addressed in sect. 6.1, or regarding the “social-relational affordance” (sect. 4.3), G&F’s body of theory will be of essential use in pondering the roles assigned by tradition and “the adaptive grammar of emotions” (sect. 4.3, para. 5) to the hieratic versus carnivalesque cortèges, accompanying, ultimately, every closed-group popular ceremonial (cf. sect. 1.2). Interactive behavior within groups is minutely presented within G&F’s Table 1 featuring the eight attributes of “contempt,” and elsewhere throughout the article. The novel explanation of the ASE model of sentiments (sect. 2.6), with its critical formulation (the eight features cohere across populations, why is that?), helps us answer the critical trans-disciplinary question: whether we can, or cannot, attach rituality to carnivalesque behavior (cf. Benga & Benga 2006).

Ultimately, the extant questions are: Can contempt be collective? Could we share in the same contempt? Could the mockery and derision assembled in culturally transmitted patterns reach some sort of rituality? Could societies, better than individuals, exchange the permanent loss of respect and status diminution, on such temporary losses, within a cyclic perspective over the ceremonial year within customary societies, aiming at releasing pent-up social conflict tensions (Bakhtin 1965/1984)? Is contempt necessary, less so as leading to anger and hatred, from which it in effect it differs (sects. 1.1, 5.1–5.3, and 6.1), and more so as the *sine qua non* fabric of salient tradition-bound narratives: such as the Christian gospel, where the god himself is being compulsorily mocked and punished? Anthropologists suggest *charivari*, the marital-comment format of Western Europe, had a most concrete reason to appear: the strict rules around marriage alliance, forbidding *by all means* the loss of a young bride to an old bridegroom, and the like (Karnouh 1981, pp. 33–43). That we, as a species, could mock with a reason – contempt as a “biologically cultural species” (last line of the target article, sect. 7, para. 2) – is an encouraging thought after all. If we speak about contempt as an evolutionary unit within our cultural phylogeny, we need to remember the grand scale migration routes and historical links within the large landmass of Eurasia, as well as the thousands of years of clustering within the European cultural pool, whose features we may still decipher and delineate with our, relatively late in history, field researches of today.

Sentiments and the motivational psychology of parental care

doi:10.1017/S0140525X16000844, e0

Mark Schaller

Department of Psychology, University of British Columbia, Vancouver, BC V6T 1Z4, Canada.

schaller@psych.ubc.ca

<http://www2.psych.ubc.ca/~schallerlab/>

Abstract: Beyond its implications for contempt, it remains to be determined whether the sentiment concept might be applied usefully to other domains of social affect. This commentary considers its applicability to the domain of parental caregiving. Characteristic features of sentiments are considered in conjunction with empirical research on the motivational psychology of parental care.

Sentiments are hard to define conceptually, although Gervais & Fessler (G&F) make valiant and reasonable attempts to do so.

And given that a sentiment is variously described as a “syndrome” or a “network” or a “deep structure,” sentiments may be difficult to define operationally too. (It is not yet clear that sentiments are a readily measurable psychological construct.) In order for the sentiment concept to catch on again, I suspect that it will have to be defined more precisely and tethered more rigorously to a computational approach to motivational systems (Cosmides & Tooby 2013; Tooby et al. 2008). Still, G&F’s analysis of contempt is provocative; and it suggests that sentiments – whatever they are exactly – may offer a useful lens through which to examine human affect and human motivation.

Of course, if the sentiment concept is to be influential, it must be relevant to more than just the psychology of contempt. It must be applicable to a wider range of social relationships and motivational systems pertaining to those relationships. So let us consider carefully whether the sentiment concept might apply to something that is very different from contempt. Let us talk about love.

Echoing others (e.g., Shand 1920), G&F identify love as a prototypic sentiment. This assertion seems superficially appealing, but it is probably not quite right. Love is perhaps too diffuse a construct to fit sensibly within an evolutionary analysis of the sort offered by G&F. Love comes in a variety of different flavors (e.g., romantic love, filial love, parental love) that are specific to functionally different kinds of relationships and that dispose individuals toward different kinds of behavioral responses (Shaver et al. 1996). But even if the vague folk concept of love does not qualify as a sentiment, each relationship-specific form of love might make the cut. With that in mind, I focus on one specific form of love: parental love. How do the characteristic features of sentiments fit with what we know about the motivational psychology of parental care?

Sentiments are characterized as functionally specialized networks of attitudes and emotions that evolved in response to selection pressures arising within specific kinds of relationships. Does this apply to parental care? Yes. Parental caregiving responses are products of genetically coded neural mechanisms and neurochemical processes that are, to some extent, distinct from those associated with other motivational systems (Feldman 2016; Mileva-Seitz et al. 2016; Rilling 2013). This underlying physiology appears to have evolved in response to the unique fitness implications associated with the provision of parental care to offspring (Kenrick et al. 2010; Preston 2013).

Sentiments are characterized as enduring, emotionally textured responses. Does this apply to parental care? Yes. There are stable individual differences in individuals’ affective responses to children (Buckels et al. 2015). Attitudes constitute part of this constellation of affective responses, but there is more to it than mere liking or disliking. The parental disposition is characterized also by a capacity to experience very particular, functionally specific emotional responses – such as tenderness, which is empirically distinct from other compassionate responses (Buckels et al. 2015; Kalawski 2010; Lishner et al. 2011).

Sentiments are characterized as being emotionally pluripotent, manifesting in different emotional expressions under different contextual circumstances. Does this apply to parental care? Yes. The perception of young children elicits a tenderness response, which is subjectively experienced as a rewarding emotional state (Buckels et al. 2015; Kalawski 2010), and may facilitate nurturing behaviors. But parental care is characterized not only by nurturing behaviors but by protective behaviors, too, which may manifest in risk-aversion and antagonistic responses to potentially threatening things (Eibach & Mock 2011; Fessler et al. 2014; Gilead & Lieberman 2014; Hahn-Holbrook et al. 2011). These protective responses are typically associated with entirely different kinds of emotions, such as fear and disgust and anger.

Sentiments are characterized as being responsive to functionally relevant relational cues. Does this apply to parental care? Yes; and here things get a bit more complicated. Parental responses – including tender responses to children and aversive responses to the broader environment – are triggered not just by

the perception of cues indicating the presence of one's own offspring, but by the perception of human infants more generally, and even by things that merely mimic prototypic features of human infants, such as baby nonhuman animals or adults with baby-faced features (Buckels et al. 2015; Glocker et al. 2009; Sherman et al. 2009). These responses are exhibited not just by parents, but by non-parents too.

In sum, there is an evolved “deep structure” of parental love that seems to fit with G&F's conceptualization of sentiments; but this parental sentiment is directed toward an unusually large and fuzzy category of relational objects. Indeed, one need not have had any prior interaction with—or even any meaningful knowledge of—an object in order for it to elicit a parental affective response. This contrasts with other alleged sentiments, such as contempt and hate and romantic love, which are typically directed toward specific individuals with whom one has had some prior interaction or at least some prior knowledge. So is parental love a sentiment? I am not sure. Might there be different kinds of sentiments—some that require input from prior experience with particular relational objects, and others that do not? Again, I am not sure. What I am sure of is this: Before the sentiment concept can be applied productively to a broad range of motivational systems and affective experiences, some rigorous conceptual work needs to be undertaken. G&F have taken some necessary and stimulating first steps, and I commend them for it. The hard work remains to be done.

Constructing contempt

doi:10.1017/S0140525X16000856, e0

Victoria L. Spring,^a C. Daryl Cameron,^{a,c} Kurt Gray,^b and Kristen A. Lindquist^b

^aDepartment of Psychology, The Pennsylvania State University, University Park, PA 16801; ^bDepartment of Psychology & Neuroscience, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599; ^cThe Rock Ethics Institute, The Pennsylvania State University, University Park, PA 16801.

vls23@psu.edu victoria-spring.wix.com/aboutme
cdc49@psu.edu https://sites.psu.edu/emplab/
kurtgray@unc.edu www.mpmlab.org
kristen.lindquist@unc.edu unc.edu/~kal29

Abstract: Gervais & Fessler argue that contempt is a natural kind and that its experience cannot be explained by a constructionist account of emotion. We dispute these claims and offer a positive constructionist model of contempt that accounts for the existing evidence and unifies conflicting findings in the literature on contempt.

Gervais & Fessler (G&F) characterize contempt as a “sentiment” to account for inconsistent findings on contempt as a basic emotion. They claim that constructionism, an alternative to basic emotions approaches, cannot account for contempt findings. We suggest that “sentiments” sound a lot like basic emotions as natural kinds, a theoretical approach that has been heavily criticized. Moreover, G&F misunderstand constructionism, which parsimoniously accounts for the messy literature on contempt.

Despite claiming that contempt is not a basic emotion, G&F use basic emotion theory terms (e.g., Ekman & Cordaro 2011; Izard 2011; Panksepp 2011) to define sentiments: “As with emotions, each sentiment likely has a distinct evolutionary history and taxonomic distribution [...], as well as partially dissociable neural bases” (sect. 4.3, para. 1). Similarly, when they suggest “a provisional set of sentiments—social attitude dimensions, corresponding to distinct social-relational affordances—whose states potentiate unique constellations of emotions” (sect. 4.3, para. 3).

As in basic emotion approaches, G&F define contempt as a natural kind. A natural kind is a non-arbitrary collection of natural phenomena or properties existing independent of

human observation (e.g., chemical elements; Mill 1884). However, growing evidence suggests that emotions are not natural kinds. Emotion categories have neither consistent nor specific outcomes making them biologically distinct from one another (Barrett 2006a; Kreibitz 2010; Lindquist et al. 2012; Mauss & Robinson 2009; Vytal & Hamann 2010; Wager et al. 2015). Contempt is no exception.

Contempt lacks consistency and specificity. People fail to consistently identify facial expressions as contempt; the label “contempt” is used to categorize posed facial portrayals of contempt at or below chance (Izard & Haynes 1988; Wagner 2000). Instead, facial muscle movements are not specific to contempt—people categorize them as disgust (Haidt & Keltner 1999; Russell 1991d; Russell et al. 1993) or annoyance (Alvarado & Jameson 1996) depending on context. Although some studies find that people associate a unilateral lip-curl with contempt (Matsumoto & Ekman 2004), this occurs only in forced choice designs involving direct comparisons between prescribed categories. In fact, prototypically contemptuous facial expressions are not universally perceived as contemptuous (Heuer et al. 2010; Russell 1991d). Additionally, predicted correspondences between specific antecedent events (e.g., violations of community norms) and contempt are not upheld (Rozin et al. 1999). The evidence for the existence of contempt as a natural kind is so in question that even proponents of natural kind views of emotions admit contempt is less likely to qualify as such (Haidt & Graham 2016; Rosenberg & Ekman 1995).

If contempt is not a natural kind, then what is it? We suggest it is a constructed experience, like all emotions and mental states (Barrett 2009; Clore & Ortony 2013; Cunningham et al. 2013; Lindquist 2013; Russell 2003). Rather than arising from discrete mechanisms with domain-specific functions, constructionism suggests that distinct mental states are the emergent product of domain-general ingredients, including core affect and conceptual knowledge (Barrett 2013; Cameron et al. 2015; Lindquist 2013; Russell 2003). These ingredients combine in different ways to produce different mental products. For example, just as the same combination of ingredients can create a sugary cake or a savory biscuit, different combinations of core affect and conceptual knowledge can construct different emotions.

G&F dismiss constructionism as a theoretical framework for understanding contempt, but their argument is based on a misunderstanding of constructionism. The authors wrongly claim that a constructionist view predicts that “a word such as ‘contempt’ is necessary to anchor ... features categorized as a specific emotion” (sect. 3.3, para. 2), pointing to evidence in which people experience contempt without linguistic prompts (Fridhandler & Averill 1982; Matsumoto & Ekman 2004; Rozin et al. 1999). However, this is a misunderstanding; constructionism hypothesizes that *most* instances of emotion are experienced in the absence of an explicit linguistic prompt—little of daily life involves explicitly labeling experiences. Instead, a constructionist view predicts that language plays a covert role in emotion insofar as it implicitly helps people acquire, organize, and use emotion concept knowledge during online categorization (Lindquist & Gendron 2013; Lindquist et al. 2015a; 2015b).

Constructionism predicts that people experience a specific emotion concept (e.g., contempt) when they draw on their rich cache of conceptual knowledge about that category. Conceptual knowledge of “contempt” consists of past internal feelings in situations categorized as contempt, as well as past motor representations of behaviors, sensory representations of situations, and cultural knowledge about what it means to experience contempt. These diverse sensorimotor representations are partly united by the word *contempt* because contempt is *not* a natural kind with strong perceptual regularities uniting members of the category (Lindquist et al. 2015a; 2015b). Unbeknownst to human observers, words cohere this category information and facilitate its accessibility during online perception (Lindquist et al. 2015a; 2015b; Lupyan 2012; Vigliocco et al. 2009). People can still experience

contempt in the absence of explicit emotion words, but emotions are disrupted when implicit access to emotion words is impaired (Gendron et al. 2012; Lindquist et al. 2006; 2014).

In sum, constructionism accounts for the “messy” data on contempt more parsimoniously than the authors’ model, suggesting domain-general processes underlie emotion rather than many discrete, local mechanisms. This converges with neuroscientific evidence suggesting domain-general neural networks are implicated in many different mental states besides the emotional (Barrett & Satpute 2013; Cushman & Young 2011; Lindquist & Barrett 2012; Shenhav & Greene 2010). Additionally, constructionism generates novel predictions about contempt: People with more fine-grained conceptual knowledge about emotions (Lindquist & Barrett 2008) may be more likely to construct contempt as opposed to anger or disgust out of diffuse core affect. This suggests that, contrary to G&F’s claims, the experience of contempt may vary across persons within the same situation and within the same person across situations.

If the authors make a mistake, it is placing too much emphasis on the meaning of words. The lack of a verbal label in an experiment does not invalidate constructionism. And a new label of contempt – as a “sentiment” – does not make this argument different from old natural kinds claims about emotions. Words have power, but we should not confuse our labels with the essence underneath, especially when that essence may not exist.

Further implications in analyzing contempt in modern society

doi:10.1017/S0140525X16000868, e0

Robert J. Sternberg

Cornell University, Department of Human Development, Ithaca, NY 14853.
robert.sternberg@cornell.edu
www.robertjsternberg.com

Abstract: The target article by Gervais & Fessler represents a comprehensive analysis of contempt but is not fully adequate in addressing how contempt produces hatred, how contempt is used manipulatively by aspiring leaders, and how contempt can be cured or at least mitigated. This commentary addresses these concerns.

Many articles become quickly out of date, even before being published. This excellent target article by Gervais & Fessler (G&F) is an exception. Indeed, the study of contempt has become more relevant in 2016 perhaps than it was at any time in the past in U.S. society.

Although this is an excellent article, there are three important questions about contempt that are left either unaddressed or insufficiently addressed.

1. Why is contempt such a serious problem for contemporary society? Although the article briefly discusses hate, it does not squarely deal with how, when leaders express contempt, they generate hatred in their followers toward those to whom they show contempt. Contempt is not merely incidental to hatred, but rather, an integral part of it.

Contempt generates and then continues to feed off two components of hate, negation of intimacy and “decision/commitment” (Sternberg 2003a). Negation of intimacy is the feeling that one could never have any degree of intimacy with a person or group because they are beneath one’s station, perhaps barely human. Commitment is a cognitive rationale for the negation of intimacy. The commitment component is characterized by cognitions of devaluation and diminution through contempt for a targeted group. Those who foment hate seek to change the feelings and thought processes of the preferred population so that its members will conceive of the targeted group(s) in a devalued way (Sternberg 2003a).

In generating components of hatred, the consequences may be literally deadly, as they have been in so many wars. Generating contempt may thus lead followers to hatred that even leaders cannot control. Aspiring leaders should be aware that they may lose control of the hatred toward targets that they generate. The authors need more to deal with the very serious worldwide consequences of contempt, especially as practiced by leaders.

2. Do leaders and aspiring leaders sometimes strategically display false contempt that is confused by followers as genuine contempt? There is contempt and there is feigned contempt. If we look at contemporary leaders and would-be leaders and their styles of leadership (Antonakis et al. 2004a; 2004b), outward displays of contempt seem to be on the rise (which became apparent in the U.S. presidential elections of 2016). But is the contempt real? The target article does not adequately address the very real problem of feigned contempt, especially as shown by candidates for political or other leadership positions. Why are so many leaders today, as in times past, contemptuous of not only their opponents, but also even would-be allies? The answer is that they may not be. Rather, they may be strategically feigning contempt.

As a strategy for an aspiring leader, displays of contempt may be “practically intelligent” (Sternberg 1984) in the sense that they produce votes. The strategy worked for Hitler and Mussolini. The strategy may even be creative (Lubart & Sternberg 1988), in that it is both novel, in the context of what have been more sedate campaigns, and effective, in that it acquires votes of people who want nothing more than to legitimize their feelings of components of hatred that in the past they have kept latent.

3. What is the cure for contempt? The target article deals inadequately with cure. The cure is wisdom, seeking a common good for all, not just oneself or one’s group. Ultimately contempt is not wise but rather foolish (Sternberg 2002; 2003b), because it degrades the dignity of the person and certainly of any potential leader. Mere intelligence is not a cure, because it deals with how intellectually able people are (Sternberg 1985; 1988), and intelligent people may use their smarts to manipulate others through expressions of contempt. Contemptuous leaders generate ethical drift (Sternberg 2012), a downward spiral in the ethical reasoning and behavior of the citizenry.

People probably always will show less liking for those who are unlike them (Sternberg 1987; 1998), whether for reasons of race, or ideology, or whatever (Sternberg et al. 2005). It is as though people’s metaphors of mind (Sternberg 1990) become ones in which their own minds are “sound” (regardless of what they believe), whereas people who disagree with them are unsound of mind and worthy of contempt.

Unfortunately, people always have been suspicious of those who are wise and above contempt. We may be reminded of Socrates, who was rewarded for being wise by being forced to drink hemlock. We can and must do better.

Including pride and its group-based, relational, and contextual features in theories of contempt

doi:10.1017/S0140525X1600087X, e0

Gavin Brent Sullivan

Centre for Trust, Peace and Social Relations, IV5, Innovation Village, Cheetah Road, Coventry University, Coventry, CV1 2TL, United Kingdom.

gavin.sullivan@coventry.ac.uk

<http://www.coventry.ac.uk/research/research-directories/researchers/gavin-sullivan/>

Abstract: Sentiment includes emotional and enduring attitudinal features of contempt, but explaining contempt as a mixture of basic emotion system affects does not adequately address the family resemblance structure of the concept. Adding forms of individual, group-based, and widely shared arrogance and contempt is necessary to capture the complex mixed

feelings of proud superiority when “looking down upon” and acting harshly towards others.

When David Hume wrote about the moral emotions, he argued: “Contempt or scorn has such a strong tincture of pride, that there scarce is any other passion discernible” (Hume 1739/2001, p. 249). According to Norton (2001), Hume argued that contempt is “a mixture of hatred and pride arising from the experience of the negative features of another person” (p. 161). While it might be argued that the folk affect concept of contempt has changed markedly since the 18th century, a more parsimonious explanation is that pride is an important omission from Gervais & Fessler’s (G&F’s) Attitude–Emotion–Scenario (AES) model.

Claiming that pride is part of the complex family resemblance (Wittgenstein 1953/2001) of conceptual relations means examining the criteria for ascribing contempt and pride in contrast to (and excluding) their respective opposites of respect and humility. Moreover, pride, anger, and disgust should be included in the family resemblance structure of contempt because these are manifestations of a devaluation of *and* sense of superiority over other individuals and groups. It is important to clarify that pride is not discussed here as a form of positive self-evaluative emotion based upon “authentic” personal achievements recognized by others (Tracy & Robins 2007). Rather, it is “hubristic pride” (Tracy & Robins 2007), which suggests a lack of concern for others (e.g., opponents) when celebrating one’s achievements, abilities, or affiliations and a tendency towards self-aggrandizement and arrogance. Depending upon the context, intensity (Holbrook et al. 2014b), and repetition of such displays, a consistently arrogant stance when comparing oneself with or simply relating to others tends to be associated with the type of description of a “proud man” discussed by Hume (1739/2001). The account of proud arrogance and aloof or “cold” superiority and anger or disgust advocated here is therefore consistent with a dispositional negative character of a contemptuous person. However, *pace* G&F, I argue that expressions of disgust, anger, and arrogant pride form a family resemblance structure of complex similarities and differences which allows these quite distinct discrete emotions to be examined *as manifestations of* a superior or devaluating attitude towards another person or group.

On my account, both “hot” and “cold” forms of arrogant pride should be included in G&F’s analysis of contempt. Similar but limited recognition of a role for pride is acknowledged in Fischer and Giner-Sorolla’s (2016) competing analysis of contempt as a dynamic emotion. Fischer and Giner-Sorolla present contempt as a complex mix of emotions, expressive behaviours, and actions experienced during interactions with others that potentially varies from laughter to hate, but people do not tend to vacillate between contempt and more positive emotions. Both analyses rightfully emphasise that contempt is about the other person or group and their lack of worth and only implicitly about one’s superiority. However, pointing out that a person is expressing contempt or enjoys dominating and demeaning others (e.g., as an individual or on behalf of group) might, of course, be experienced as identifying the person’s conduct as shameful – that is, unless the context is one in which the contemptuous person’s prestige or status reflects individual or group-based power as well as the confidence and certainty that criticism of his or her sentiment can be easily rebuffed.

Such contexts indicate the importance of group-based individual and even widely shared collective emotional forms of relational emotions (Sullivan 2014). By including pride within the AES model, we can see how complex interpersonal relations are important in contexts in which imbalances of power are maintained between individuals. For example, it is not always the case that pride is a matter of one’s superiority over others or that the grounds for arrogance reside solely in the deficiencies, errors, or weaknesses of other persons or groups. The appraised lower value of others and perceptions based on social appraisals, such as being influenced by the contempt of a popular group leader,

may be perpetuated by propaganda, disinformation, and a lack of meaningful intergroup contact.

Evidence for complex mixed and group-based combinations of contempt with other emotions is demonstrated by Becker et al.’s (2011) finding that negative outgroup-directed anger and contempt was experienced simultaneously with positive self-directed emotions (which included personal pride) as a result of engaging in collective action. Moreover, as Bar-Tal et al. (2007) have outlined with regard to intractable conflicts, emotions like anger or disgust towards other groups may become part of a background collective emotional orientation of a given society. Occasions of group pride that are widely shared and form a background to individual group-based expressions or internalizations of contempt for others are therefore worth incorporating into the AES model, even if only to identify how the re-humanization of devalued others occurs and contempt expressed towards individuals and groups is overcome, in some cases, by the actions of the “targets” of the sentiment themselves. If such reconciliation is impossible, then contempt may indeed signal that the other person (or group) is individually or socially “appraised as unworthy or inferior and the relation as beyond reconciliation” (van der Löwe & Parkinson 2014, p. 130).

In this commentary, I have argued that contempt has a family resemblance conceptual structure with multiple overlapping criteria. Hubristic or arrogant pride should be analysed as part of the conceptual relations of contempt with disgust and anger. The enduring interactional and relational features of the proud or arrogant individual who “looks down upon” other individuals or groups also should be included in a manner that can address G&F’s focus on sentiment as a combination of basic affect mixtures and enduring attitudes. In the right context, diverse expressive and performative behaviour such as a lip curl, laughter, or indifference can be interpreted as individual, group-based, or even widely shared collective forms of contempt. Scenarios in which a person might feel completely justified and certain in their devaluation of another person or group therefore require close attention to matters of identity and power. This may include certainty of the inferiority of an individual or collective other that renders reconciliation (or mutual recognition) unlikely and reflects a background group moral ethos which is reinforced by social appraisals of the contempt towards a given target displayed by individuals or groups that the appraiser does respect.

Deep mechanisms of social affect – Plastic parental brain mechanisms for sensitivity versus contempt

doi:10.1017/S0140525X16000935, e0

James E. Swain^{a,b,c} and S. Shaun Ho^a

^aDepartment of Psychiatry, Stony Brook University Medical Center, Stony Brook, NY 11794; ^bDepartment of Psychiatry, Psychology and Center for Human Growth and Development, University of Michigan, Ann Arbor, MI 48105; ^cChild Study Center, Yale University School of Medicine, New Haven, CT 06520.

james.swain@stonybrookmedicine.edu

Shao-Hsuan.ho@stonybrookmedicine.edu

<https://www.stonybrookmedicine.edu/profile?pid=2038&name=James%20Swain%20MD>

https://www.researchgate.net/profile/Shao-Hsuan_Ho

Abstract: Insensitive parental thoughts and affect, similar to contempt, may be mapped onto a network of basic emotions moderated by attitudinal representations of social-relational value. Brain mechanisms that reflect emotional valence of baby signals among parents vary according to individual differences and show plasticity over time. Furthermore, mental health problems and treatments for parents may affect these brain systems toward or away from contempt, respectively.

Gervais & Fessler (G&F) describe the complex phenomenon of contempt within functional networks of attitudes and emotions. The related inverse concept of parental sensitivity may provide a framework for underlying brain mechanisms. Maternal sensitivity comprises the thoughts and behaviors required for parenting, including recognition and acknowledgment of baby, reflective self-awareness, and emotion regulation toward social attachment (Ainsworth & Bell 1970; Bowlby 1958; Mayes et al. 2005; Swain et al. 2004). This is also present for fathers (Swain & Lorberbaum 2008; Swain et al. 2014a) with brain circuits that are highly adaptable (Kim et al. 2014; 2016b) – perhaps a critical realization because they relate to child outcome (Kim et al. 2015b). Indeed, studies of brain activity as a function of listening to baby cry in the early postpartum period have established responses in adaptable social brain circuits, including those concerning emotion response and regulation in addition to dissociable and volitional attention and executive function, reward and motivation, and sensorimotor circuits (Buckner et al. 2008; Seeley et al. 2007; Sripada et al. 2014; Swain 2011; Swain et al. 2014b).

Brain affect regulation centers are more sensitive for vaginal versus cesarean deliveries (Swain et al. 2008) and breastfeeding versus formula-feeding mothers (Kim et al. 2011). In these studies, brain responses to infant stimuli vary according to maternal mood, and predict parental sensitivity (Elmadhi et al. 2016), as well as the related constructs of empathy (Ho et al. 2014) that guide sensitive decision-making (Swain & Ho 2017). Own versus other baby cry stimuli have been studied for associations with maternal mental state talk (Hipwell et al. 2015). In this work, mothers were filmed in face-to-face interaction with their 4-month-old infants, and maternal behaviors were blindly and independently coded. Higher functional activity in the right fronto-insular cortex to own versus other baby cry at the group level, in addition to bilateral subcortical regions including the thalamus, amygdala, hippocampus, and putamen, was positively associated with mental-state talk. Rather than being related to global aspects of observed caregiving, relationships were reported between brain activity and perceptual and contextual covariates, such as maternal felt distress, urge to help, depression severity, and recognition of own infant cry. This suggests many nuances of parental brain activity that may fit with the notion of sentiments (G&F), in which, for example, contempt may co-exist with other sentiments important for parenting such as liking, loving, respect and caring (parental nurturance) (Davis & Panksepp 2011).

Further brain evidence for the necessary plasticity in parental brain circuits among the same mothers includes affect regulation brain function changes in response to baby cry (Swain 2008) and structure changes over the postpartum according to positive perceptions of baby (Kim et al. 2010a) suggesting adaptability according to parental affect and circumstances. Maternal brains are more sensitive to infant cry according to perception of early-life caregiving (Kim et al. 2010b), suggesting long-term transgenerational effects of parental sensitivity on affect regulation. Finally, a widespread set of brain responses were reported in a recent study of mothers responding to child visual feedback after a caring decision (Ho et al. 2014). Responses that correlated with dimensions of empathy included the amygdala, ventrolateral prefrontal cortex (PFC), and supplementary motor area that may also fit with broader work on altruism (Brown & Brown 2015; Preston 2013; Swain et al. 2012) and critically inform progress on consciousness connecting sensory with motor output as aspects. Although most of the work has involved relations of brain activity with caregiving sentiments, there are presumably relations with corollary variables such as contempt. This is included in the literature on the corollary of long-term adverse effects on maternal sensitivity – perhaps akin to contempt – in which postpartum psychopathology and reduced sensitivity have just begun to be studied.

Indeed, postpartum depression is associated with deficits in parenting (Feldman et al. 2009), which may include exaggerated components of the sentiment of contempt. Ongoing research on

brain function beyond the normal range of parental anxiety (Leckman et al. 2004; Kim et al. 2013), such as with postpartum depression, suggests impairments in specific empathy and emotion regulation circuits (Moses-Kolko et al. 2014). Highlights of this research on maternal depression and brain function include evidence for reduced reward circuit activity (Laurent & Ablow 2012), dampened emotion circuit response (Barrett et al. 2012), and connectivity (Wonch et al. 2016) using own baby picture stimuli. Furthermore, even less severe adverse circumstances can interfere with parental brain responses such as the stress of poverty (Kim et al. 2015a; 2016b) and lack of parent–infant synchrony (Atzil et al. 2011; 2012; 2014) – perhaps also related to contempt.

An important next step is to elucidate brain mechanisms that reflect change with a parenting treatment, such as Mom Power (MP) – equipped with cognitive-behavioral therapy techniques, mindfulness, and distress tolerance practices – likely to decrease contempt. It has been shown that mothers undergoing MP exhibit reduced parenting stress, less depression and anxiety, and increased bonding toward their children (Muzik et al. 2015). For the first time, (Swain et al. 2017), mothers were studied before and after parenting intervention. Twenty-nine mothers with a wide range of depression symptoms were pseudo-randomly assigned to either MP ($n=14$) or control ($n=15$). Compared with control, MP decreased parenting stress and increased child-focused responses and connectivity in social brain areas. Furthermore, over 13 weeks, reduction in parenting stress was related to increasing child-focused versus self-focused baby-cry responses in amygdala-temporal pole functional connectivity, which may mediate maternal ability to take the perspective of her child. Future studies may explore the brain basis of contempt among parents to understand when it may be compatible with sensitive parenting and when it may be incompatible with parental sensitivity yet perhaps amenable to treatment to the benefit of child outcome.

ACKNOWLEDGMENTS

The authors are supported by the Department of Psychiatry, Psychology and Injury Center at the University of Michigan, National Alliance for Research on Schizophrenia and Depression, Klingenstein Third Generation Foundation, National Institute on Minority Health and Health Disparities (NIMHD)/National Institute of Child Health and Health Development (NICHD) Grant RC2MD004767-01, Michigan Institute for Clinical Health Research and National Center for Advancing Translational Sciences Grant UL1TR000433, and a Robert Wood Johnson Health and Society Scholar Award.

Socioecological factors are linked to changes in prevalence of contempt over time

doi:10.1017/S0140525X16000881, e0

Michael E. W. Varnum^a and Igor Grossmann^b

^aDepartment of Psychology, Arizona State University, Tempe, AZ 85287-1104;

^bDepartment of Psychology, University of Waterloo, Waterloo, ON N2L 3G1, Canada.

mvarnum@asu.edu igrossma@uwaterloo.ca

<https://psychology.clas.asu.edu/research/labs/cultural-neuroscience-lab-varnum>

<http://uwaterloo.ca/wisdom-and-culture-lab/>

Abstract: Gervais & Fessler argue that the perceived legitimacy of contempt has declined over time in the United States, citing evidence of a decrease in the frequency of its use in the American English corpus. We argue that this decline in contempt, as reflected in cultural products, is linked to shifts in key socioecological features previously associated with other forms of cultural change.

Gervais & Fessler (G&F) suggest that “contempt,” a cultural-level folk concept, is on the decline in American culture. This change is evident in a decline in the frequency of the word *contempt* in the American English corpus, which, the authors argue, reflects a shift to a dignity culture (Leung & Cohen 2011), one in which all people are assumed to have inherent rights and dignity, and expressions of contempt are viewed as illegitimate. But why might such a shift have taken place? We propose that changes towards a dignity culture represent shifts in values that are often responses to changes in socioecological conditions. Previous work has linked variations in ecological factors such as pathogen prevalence and climatic stress in interaction with resource levels to cultural variations in a host of behaviors, attitudes, and other psychological tendencies (e.g., Fincher & Thornhill 2012; Thornhill & Fincher 2014; Van de Vliert 2013). In our work we have explored how *changes* in socioecological variables are also linked to cultural-level shifts in culture’s value systems and associated practices and behaviors. For example, higher socioeconomic standing (as well as the prevalence of infectious diseases, and decreasing frequency of natural disasters) are associated with cultural-level shifts towards products and practices reflecting individualism in the United States (Grossmann & Varnum 2015), with similar patterns occurring across a variety of other societies (Santos et al. 2017). Similarly, reduction in prevalence of infectious diseases has been associated with reduction in cultural-level gender inequality (Varnum & Grossmann 2016). It is, therefore, possible that cultural change in the prevalence of contempt may also be linked to shifts in social ecology.

To test this idea, we analyzed archival data on the frequency of the use of the word *contempt* and its synonyms *disdain*, *disgrace*, and *despised* in the American English corpus using Google’s Ngrams database (<https://books.google.com/ngrams>), from the beginning of the 20th century until the emergence of digital readers like Amazon Kindle (1900–2006). We also looked at the frequency of the word *contempt* and its synonyms in the Bookworm Movies database over the same period (starting in the 1930s; see: movies.benschmidt.org), which provided uses of the word per million words of dialogue in thousands of American movies and television shows and archival data on pathogen prevalence, socioeconomic status (SES), urbanization, deaths resulting from natural disasters, and climatic stress (Grossmann & Varnum 2015), as well as unemployment (U.S. Department of Labor) in the United States during this period. All data are available at the Open Science Framework (see: osf.io/k6ec8). Pathogen prevalence was positively correlated with the use of contempt-related words in books, $r = 0.69$, whereas socioeconomic development (tracked through urbanization, less unemployment, and median shifts in occupational prestige) was negatively associated with the use of contempt-related words in books, $r_{\text{urbanization}} = -0.78$, $r_{\text{less unemployment}} = -0.43$, $r_{\text{level of SES}} = -0.92$. The number of deaths due to natural disasters was weakly positively associated with the use of contempt-related words in books, $r = 0.22$, whereas the relationship between climatic stress and contempt-related words was negligible, $r = -0.10$.

Similar patterns were found in analysis of movie and television dialogue. Pathogen prevalence was positively correlated with the use of contempt-related words in movies and television, $r = 0.25$, whereas markers of socioeconomic development were negatively correlated with contempt-related words in these media, $r_{\text{urbanization}} = -0.43$, $r_{\text{less unemployment}} = -0.18$, $r_{\text{level of SES}} = -0.68$. Natural disasters and climatic stress were only negligibly related with use of contempt-related words in movies and television, $-0.02 < r's < 0.11$.

To explore the lagged relationships between these variables, we also analyzed the data using cross-correlation functions (CCFs). We found that decline in pathogen prevalence is lagging, rather than causing, the decline in contempt-related words in books and is unrelated to contempt-related words in television and movie scripts. In contrast, socioeconomic development (standardized average of SES, urbanization, and reverse-scored

unemployment) was bidirectionally associated with the frequency of contempt-related words in books, and predicted the frequency of contempt-related words in television and movie scripts 20 years later.

Why might pathogen prevalence and socioeconomic conditions be linked to changes in contempt? As G&F note, contempt as a sentiment serves as a guide to action; as such it may cause people to avoid contact with others for whom they feel contempt. Objects of contempt are often out-groups, as G&F note. Previous work has consistently linked xenophobia and in-group bias to higher levels of pathogen prevalence (Fincher & Thornhill 2012; Huang et al. 2011; Schaller & Park 2011). Given that the sentiment and the folk affect concept of contempt are interrelated, it may be possible that pathogen levels influence how the notion and the utility of the folk affect concept contempt will change, too.

G&F also suggest that contempt is inferred from disrespectful, irreverent behavior. Appraisal of behavior as disrespectful may be more pronounced in societies emphasizing social stratification (e.g., between the working, middle, and upper classes). As U.S. society continues to move from industrial to post-industrial means of production (i.e., from manual labor to office work), contempt may continue to decline. Moreover, G&F suggest that contempt should be more common when there is greater competition for resources. Thus, shifts in occupational status and unemployment levels might be linked to cultural shifts in the prevalence of contempt as was seen in our data. These findings are also broadly consistent with modernization theory, which holds that as people become more materially secure, they become more tolerant and supportive of diversity (Inglehart & Welzel 2005). These relationships should be confirmed in systematic experimental work; however, our initial analyses provide support for the notion that expressions of contempt (and cultural changes in contempt) are likely intertwined with the major societal-level shifts in social ecology.

Is humility a sentiment?

doi:10.1017/S0140525X16000893, e0

Aaron C. Weidman and Jessica L. Tracy

Department of Psychology, University of British Columbia, Vancouver, BC, V6T 1Z4, Canada.

acweidman@psych.ubc.ca jltracy@psych.ubc.ca

<http://ubc-emotionlab.ca/people/aaron-weidman/>

<http://ubc-emotionlab.ca/people/dr-jessica-tracy/>

Abstract: Gervais & Fessler reintroduce the concept of a sentiment as a framework for conceptualizing contempt, a construct with both attitudinal and emotional components. We propose that humility might also fit this mold. We review recent findings regarding the antecedents, phenomenology, and functional consequences of humility, and discuss why conceptualizing it as a sentiment may advance our understanding of this construct.

Gervais & Fessler (G&F) hearken back to the formative years of social psychology to make a strong case for resuscitating the concept of a *sentiment*, or “a functional network of discrete emotions moderated across situations by an attitudinal representation of another person” (sect. 1.3, para. 1). We applaud their effort, and expect it to help bridge the largely disparate literatures on attitudes and emotions. Although it may be pragmatic for scientists to conceptualize constructs as primarily attitudinal or emotional—and carve out corresponding niches in circumscribed academic subfields—ample evidence suggests that many constructs involve components of both. For example, feelings-as-information theory suggests that individuals rely on momentary affect when making attitude-like evaluations (Schwarz 2010),

and functionalist models of distinct emotions often explicitly incorporate attitude-like evaluations of the self and others as necessary prerequisites for certain emotional experiences (e.g., Tracy & Robins 2004; Van Dijk et al. 2015).

G&F propose a provisional set of sentiments that might serve unique social affordances (i.e., love, liking, respect, hate, fear; sect. 4.3). We would add another construct to this list—one that also does not fit well with current models of emotions or attitudes: *humility*. Like contempt, humility does not meet the standard criteria to be considered a basic emotion (Ekman 1992a); for example, it lacks a cross-culturally recognizable nonverbal expression, distinct physiological signature, and evidence of manifestation in any nonhuman species. However, also like contempt, humility is clearly an affective experience (Saroglou et al. 2008), and is characterized by several features typically used to define emotions (Izard 2010), including antecedent cognitive appraisals (i.e., accurate evaluation of one's abilities) and activation of distinct cognitive-behavioral patterns (i.e., directing one's attention toward others and their accomplishments; Chancellor & Lyubomirsky 2013; Tangney 2000). Yet, alongside these emotion-like qualities, humility exhibits several features more characteristic of attitudes: it is thought to be a relatively enduring quality of persons (e.g., Kesebir 2014; Peterson & Seligman 2004) and is considered by some to be a judgment, composed of at least as much cognitive content as affective content (Davis et al. 2010).

Adding to this complexity, we recently found converging evidence across a series of studies examining lay experiences and semantic conceptualizations, as well as experts' reports, that humility is experienced in two distinct forms, each of which involves both emotional and attitudinal features (Weidman et al. 2016). The first of these, which we labeled *appreciative humility* based on its most representative feelings and thoughts, typically follows personal success; it is associated with compassion, grace, and understanding, and with traits such as high self-esteem, status, and agreeableness; and it motivates a behavioral orientation toward celebrating others. The second form, labeled *self-abasing humility*, is more likely to follow personal failures; is associated with feelings of submissiveness, unimportance, and worthlessness, and with traits such as low self-esteem and introversion; and motivates a behavioral orientation toward hiding from others.

In light of this complexity, how *should* humility be understood? To date, researchers have reached little consensus; humility has variously been described as a relationship-specific personality judgment (Davis et al. 2010), a personality trait (Kesebir 2014), a hypoegoic state (Kruse et al. 2014), an emotion (Saroglou et al. 2008), spiritual intelligence (Emmons 1999), an accurate assessment of one's abilities (Tangney 2000), and a virtue (Chancellor & Lyubomirsky 2013; Peterson & Seligman 2004). In the face of such disparate conceptualizations, the concept of *sentiment* could prove useful. Consistent with the first major component of G&F's definition, each form of humility involves several narrower distinct emotional experiences; for appreciative humility these include authentic pride and gratitude, and for self-abasing humility they include shame and embarrassment. Consistent with another major component of G&F's *sentiment*, each form of humility involves the adoption of a particular attitude toward a person. Episodes of appreciative humility promote a sense of appreciation toward others' accomplishments and a desire to connect with those individuals. Self-abasing humility also fosters an attitude toward a person, but, interestingly, that person is oneself. Indeed, this form of humility leads individuals to view themselves as unimportant, unintelligent, and incompetent, all of which reflect a negative attitudinal self-evaluation. If humility is a sentiment, this last finding suggests that sentiments may involve attitudinal representations of either another person or the self, suggesting a possible minor amendment to G&F's definition.

Conceptualizing humility as a sentiment may yield a much needed, more nuanced understanding of the construct. To date,

humility has been portrayed as a universally positive characteristic, with wide ranging and somewhat disparate effects, such as attenuating death anxiety (Kesebir 2014), reinforcing gratitude (Kruse et al. 2014), fostering forgiveness (Davis et al. 2013), promoting prosocial behavior (Exline & Hill 2012; LaBouff et al. 2012), buffering against stress (Kruse et al. 2016), and facilitating self-control (Tong et al. 2016). These findings likely result from the aforementioned contrasting conceptualizations of humility, as well as the fact that most researchers view humility as uniformly positive but do not specify what exactly it is (Peterson & Seligman 2004). To date, these findings have not been integrated into a comprehensive theoretical model, leading to the conclusion that humility simply promotes a grab-bag of desirable outcomes. Yet it is not immediately clear why existential anxiety and gratitude—two entirely distinct emotional processes—would both be influenced by humility. Similarly, why would humility lead to both prosociality and increased self-control, given that the former requires focusing on others, whereas the latter involves focusing on (and withstanding) one's own desires? Crucially, conceptualizing humility as a sentiment could prompt researchers to move beyond viewing the construct as broadly and uni-dimensionally positive, toward building a more nuanced theory, as G&F have done for contempt (see their Figure 1 in the target article). This, in turn, might generate specific predictions regarding the elicitors, phenomenology, and functional consequences of humility.

In closing, we appreciate G&F's attempt to integrate constructs with both attitudinal and emotional components under the rubric of a sentiment, and believe it may foster novel insights into certain constructs that have defied proper classification—like contempt and humility.

Authors' Response

Seeing the elephant: Parsimony, functionalism, and the emergent design of contempt and other sentiments

doi:10.1017/S0140525X17001236, e0

Matthew M. Gervais^{a,b} and Daniel M. T. Fessler^{c,d}

^aSchool of Human Evolution and Social Change, Arizona State University, Tempe, AZ 85287-2402; ^bCenter for Human Evolutionary Studies, Department of Anthropology, Rutgers University, New Brunswick, NJ 08901-1414; ^cCenter for Behavior, Evolution, and Culture, University of California, Los Angeles, Los Angeles, CA 90095-1553; ^dDepartment of Anthropology, University of California, Los Angeles, Los Angeles, CA 90095-1553.

matthewmgervais@gmail.com

dfessler@anthro.ucla.edu

www.matthewgervais.net www.danielmfessler.com

Abstract: The target article argues that contempt is a sentiment, and that sentiments are the deep structure of social affect. The 26 commentaries meet these claims with a range of exciting extensions and applications, as well as critiques. Most significantly, we reply that construction and emergence are necessary for, not incompatible with, evolved design, while parsimony requires explanatory adequacy and predictive accuracy, not mere simplicity.

R1. Introduction

We thank the authors of the 26 commentaries for their thoughtful and wide-ranging discussions of our target

article. Many affirm the aptness of our analysis of contempt, the conceptual and methodological value of the Attitude–Scenario–Emotion (ASE) model, and the applicability of this model to other affective and interpersonal phenomena. Many commentators also present constructive criticism, advancing the discussion and revealing avenues for future research and theory-building. Some may misunderstand our argument, so below we clarify our position. We maintain that sentiments are like the proverbial elephant: unseen by disparate investigators narrowly focused on parts of the whole. Also like the elephant, sentiments are constructed from general materials organized over evolutionary and developmental time to serve specialized functions. We hope that in stimulating debate about the shape and substance of sentiments, we contribute to eventually understanding the evolved structure of the social mind.

Our response is organized as follows: In section R2, we address criticisms. These include skepticism that sentiments are natural kinds (R2.1), skepticism of the functional distinction between attitudes and emotions (R2.2), skepticism of the utility of the ASE sentiment construct, especially as applied to contempt (R2.3, R2.4), and skepticism of the operationalizability of the ASE model (R2.5). In section R3, we engage the many productive extensions and applications of the general ASE model (R3.1, R3.3) and of the specific ASE model of contempt (R3.2, R3.4).

R2. Critical concerns

R.2.1. The designed emergence of functional kinds

The ASE model is grounded in an evolutionary approach that assumes the mind consists of adaptations shaped by natural selection. Adaptations can be described at multiple complementary levels: evolved function, phylogenetic history, ontogenetic origins, and proximate implementation. Functional descriptions, addressing why a trait evolved, entail descriptions of input–output computations, but they are agnostic as to how adaptations proximately work and how they arise during development. Nonetheless, natural selection operates by shaping proximate and developmental systems to produce functional phenotypes; rather than being contradictory to evolved design, “designed emergence” (H.C. Barrett 2015) is necessary for building locally adapted organisms.

Several commentaries (Bzdok & Schilbach; Christie & Chen; Galesic; Spring, Cameron, Gray, & Lindquist [Spring et al.]) conflate levels of description in construing the emergence of sentiments from lower-level processes as an alternative to our adaptationist account of sentiments. The ASE describes the design—the computational form and functions—of emotions, attitudes, and sentiments. These functional kinds are built out of domain-general ingredients over both evolutionary and developmental time. If design is evident in the patterning of constituent parts across situations, individuals, and populations, this indicates that evolution has crafted functional kinds, regardless of how they get built. Showing that emotions are constructed from domain-general processes, as Spring et al. suggest, does not refute adaptationist accounts.

Likewise, Galesic’s “alternative” account to the ASE supposedly renders sentiments illusory, mere distributions of emotions and judgments. Her account assumes basic

emotions, simple evaluative judgments, and information from memory and context, which jointly construct an appraisal of a social situation. However, sampling evaluative judgments of others (what we call “attitudes”) in constructing an appraisal of a social situation, to produce emotions, is precisely a process account of the ASE. If (1) evaluative judgments are influenced by previous relational experience (the bookkeeping functions of attitudes); (2) there are ancestrally adaptive patterns in the construction of these judgments; (3) sampled social contexts are parsed according to evolutionarily relevant content (“scenarios”); (4) jointly sampling evaluations and contexts has consistent effects on emotion components (“appraisal”); and (5) the same evaluations sampled in different contexts produce different yet adaptive emotions (emotional pluripotence), then, evolution has built functional systems—sentiments—for social relationship regulation. It is not the involvement of lower-level processes that will weigh against the ASE model, but an absence of patterning in their joint operation. We nonetheless agree with Galesic that formally modeling these interactions will help generate quantitative predictions about the patterning of emotions within relationships (see sect. R.2.5, second paragraph, below).

Spring et al. do dispute functional patterning in emotions and sentiments, arguing that “emotion categories have neither consistent nor specific outcomes.” But existing emotion categories are not natural kinds; they are folk affect concepts. In contrast, ASE attitudes, emotions, and sentiments are functional constructs and putative basic affect systems. Folk affect concepts may dissociate from these systems for many reasons. One is that the adaptive regulation of behavior does not require phenomenological consistency every time an adaptation is engaged. This is especially true of sentiments, which can manifest as attitudes or as different emotions, producing diverse and variably salient experiences. Accordingly, contempt’s manifestations can vary “across persons within the same situation, and within the same person across situations”—which Spring et al. erroneously claim is a novel prediction of constructionist accounts; yet we predict such variation in detail in section 6.1 of the target article. We grant that no linguistic prompt is necessary to experience together the features united by an existing “contempt” concept. But unlike the ASE, constructionist accounts produce only post hoc explanations for the particular patterning of “contempt” concepts across scenarios, individuals, and populations.

Considering the proximate instantiation of the ASE, sentiments should inhere in functional networks among neural and embodied sub-systems for memory, attention, appraisal processes, affect regulation, and decision making. This belies any suggestion that we naively assume discrete neural “centers,” even for discrete emotions. Bzdok & Schilbach appreciate this, yet they label sentiments “non-natural kinds”—a puzzling description if evolution has designed coordination among their sub-systems. We are also surprised that Schaller views the ASE model as insufficiently computational—we defined the components of sentiments with reference to the same evolutionary-computational approaches that Schaller cites (e.g., Tooby et al. 2008).

R.2.2. Attitudes and emotions

A number of the commentaries wrestle with the distinction between attitudes and emotions. Haslam highlights the

need to establish clear conceptual boundaries between them, even while everyday vernacular conflates them. We agree (see Table 2 of the target article). A functionalist model of the deep structure of affect can decompose folk affect concepts into constituent functional systems.

Lench, Bench, & Perez (Lench et al.) argue that many of the features we ascribe to contempt are features of emotions and, therefore, that contempt is an emotion. However, they ignore attitudes, ascribing to emotions features often used to distinguish attitudes from them (e.g., Clore & Schnall 2005). For example, Lench et al. argue that intentionality is a hallmark of emotions, while conflating intentionality about objects and about events. Their examples of the intentionality of emotions—sadness at failure, and anger at insult—are events. Yet we explicitly ascribe object intentionality to contempt, and use intentionality about objects as compared to events as *the hallmark functional distinction* between attitudes and emotions. Lench et al. also argue that duration does not distinguish emotions from attitudes, given evidence for the potential long time course, and re-occurrence, of emotions. We acknowledge that emotions can last a long time; unconventionally, we explicitly classify moods as emotions that deal with protracted problems. However, this is not the same as a permanent change in attitude towards a target, and reliving an emotion through simulation or mental time travel is not equivalent to coldly contemplating an attitude. Lench et al. further argue that appraisals, such as those in contempt, are well known to cause emotions. However, the fact that emotions are preceded by appraisals does not mean that anything that follows an appraisal is an emotion. Some appraisals cause emotions, but some recalibrate attitudes, and some may do both. Lench et al. also argue that because emotions include changes in cognition, the cognitive changes in contempt are evidence of an emotion. While we include cognitive shifts as part of our account of the form of emotions, not all cognitive changes are contingent on emotion activation, and they may be permanent, as in attitude change.

Giner-Sorolla & Fischer likewise inadequately theorize attitudes. They emphasize that contempt involves an appraisal of character, being about a person, making it different from putatively comparable emotions involving appraisals of actions. Fischer and Giner-Sorolla (2016) even describe contempt as an emotion attached to an “attitude” or to a “general representation” of a person or group. Yet they deny that contempt is an attitude. By undertheorizing attitudes, emotion researchers perpetuate the mutual isolation of the attitude and emotion literatures.

Grecucci, Frederickson, & Job (Grecucci et al.) argue that comparative neurobiological evidence contradicts the ASE. After perception, affective information is processed first via direct links between perceptual systems and subcortical structures; cognitive processing occurs more slowly and is influenced by prior affective evaluation. However, Grecucci et al. equate attitudes with cognition, and emotions with affect. In the ASE, affect plays a role in both attitudes and emotions, being the representational currency linking them. The priority of affect in processing stimuli is consistent with the role that attitudes play in the ASE in moderating appraisals. If someone approaches, the reaction of fear, anger, or happiness will be contingent on the affective attitude one holds; affectively tinged representations of other people potentiate

emotional reactions in scenarios. Rather than undermining the ASE, research such as that cited by Grecucci et al. offers a consilient neurobiological account of how attitudes moderate emotions, and how emotions update attitudes.

Grecucci et al. also critique us for overlooking the distinction between emotions and “defensive affects,” purportedly a class of mechanisms functioning to “ward off unwanted emotions.” This biologically implausible view treats “self-harming” emotions such as shame as dysfunctional, despite strong support for theories of their adaptive functions (e.g., Szynger et al. 2016). Contempt generally follows from appraisals of inefficacy *in others*, not, as Grecucci et al. contend, cues of inefficacy and low value in *one’s self*.

Commentators **Hurlemann, Marsh, Schultz, & Scheele (Hurlemann et al.)** and **Christie & Chen** argue that oxytocin challenges the ASE model because it has effects that are both emotional and attitudinal. This critique rests on a definition of “emotion” delimited to valence and arousal. Although these facets are primary in some definitions of emotion, the ASE theorizes emotions as coordinating modulation across systems, including cognition. Rather than being a counterexample, oxytocin may exemplify a neurohormonally implemented emotion that coordinates organism-wide systems. These authors also underestimate the implications of the contingent release of oxytocin within particular dyads. Oxytocin administration studies, such as those cited by Hurlemann et al., bypass the endogenous processes that moderate oxytocin release in naturalistic social interaction. If not an attitude, what is the “bond” that moderates oxytocin release towards one individual and not towards others? To the extent that oxytocin release is contingent on the presence of particular partners, and on antecedent attitudinal representations of them as valuable, then oxytocin regulation nicely illustrates attitudinal moderation of emotions. Evidence that the attitudinal bond moderates emotion systems not linked to oxytocin would support the broader emotional pluripotency of sentiments.

R.2.3. Sentiments and the emotional pluripotency hypothesis

Adair & Carruthers argue that sentiments are not psychological causes; either sentiments are epiphenomena, or they should be equated with attitudes, which are causal. Strictly speaking, they are correct: As we stated, “each sentiment is an attitude state and the various emotions disposed by that representation” (sect. 4.2, para. 6). However, there are two reasons for distinguishing between attitudes narrowly defined as representations, and sentiments as attitudes linked to diverse emotion dispositions. First, Adair & Carruthers argue that attitudes alone can explain the emotional texture of contempt, “provided one bears in mind that any evaluative attitude will issue in a range of distinct emotions.” This will be news to social psychologists, who have long theorized and studied attitudes without reference to their emotional pluripotency, contrasting “attitude” with “sentiment” on precisely this basis. Moreover, beyond interpersonal relationships, in attitude research on products, opinions, and political positions, attitudes are simple evaluative representations, qualitatively different from the causally linked emotion networks of sentiments. **Mason**, implicating deficiencies of current attitude theory,

appreciates this. Although not endorsing the need for a distinct psychological kind in sentiments, Mason emphasizes that the sentiment construct helps keep track of the emotion dispositions of attitudes. With “sentiment” highlighting attitude–emotion contingencies, it becomes an empirical question whether all attitudes qualify as sentiments.

A second reason to maintain the sentiment construct is that, rather than being psychological causes, networks of attitudes and emotions are social, evolutionary, and cultural causes. In a sentiment, each contingent emotion serves a particular function in regulating a social relationship tracked by an attitude. These functions are complementary – in a relationship represented by *love* for an other, different emotions implement attending to their needs, tolerating costs from them, refraining from exploiting them, and signaling commitment after failing their expectations. The gestalt of these contingent behaviors determines the partner’s perception of relationship quality, their reciprocal sentiments, and the success of the relationship. It is the sentiment – the whole attitude–emotion network – that is causing relationship quality. **Christie & Chen** contend that only lower-level processes will be under selection, but evolution through social selection – in which particular relationship partners are differentially chosen as mates, cooperative partners, or leaders – should target sentiments, and configure networks of attitudes and emotions as contributors to social strategies that determine fitness. Finally, as **Adair & Carruthers** appreciate, the network patterning of attitudes and emotions is causal in structuring folk affect concepts. It is in this sense that sentiments are a “deep structure.” A concept such as “contempt” can include contradictory facets such as “cold” indifference and “boiling inward” because these are linked within sentiment networks. Differential activation of parts of this network can explain seemingly irreconcilable affect concepts across individuals and populations.

Haslam suggests that rather than being a distinct natural kind, sentiments may be an “intermediate zone between the most prototypical emotion and the most prototypical attitude.” Attitudes and emotions may well overlap at the margins, since emotions can be enduring moods and can be chronically evoked by re-imagining their eliciting appraisals. However, the emotional pluripotency of sentiments presents a qualitatively different form from single emotions (Royzman et al. 2005). If an evaluation of an object can be shown to cause distinct emotions across different scenarios, then, operationally, that evaluation is a sentiment.

Giner-Sorolla & Fischer advance several critiques that hinge on the emotional pluripotency hypothesis. They claim that the ASE model blurs established usage of the term “sentiment,” developed by Frijda (1994; Frijda et al. 1991), wherein a sentiment is the enduring one-to-one association of an emotion with an object. Like **Haslam’s** “intermediate” form, this usage is qualitatively different from the ASE’s emotionally pluripotent sentiments. However, “sentiment” is rarely invoked as a construct in the social psychological literature, and Frijda’s use is not seminal; an earlier “sentiment” construct (e.g., Shand 1920; McDougall 1937) included diverse emotional outcomes.

Giner-Sorolla & Fischer also contend that the ASE model of contempt is unnecessarily complicated. They

advance an alternative model (Fischer & Giner-Sorolla 2016), which was published while our target article was under review. (The authors of the 2016 paper are hereafter referred to as F&G-S.) F&G-S depict contempt as a discrete (albeit not prototypical) emotion, involving distinct appraisals and action tendencies, but lacking distinct eliciting conditions and a universal non-verbal expression, while appearing uniquely “cool” relative to frequently co-occurring anger and disgust. To explain contempt’s non-prototypical features, F&G-S argue that contempt is *also* a sentiment *sensu* Frijda – the emotion becomes “attached” to a representation of the target, which functions to elicit contempt at the target’s real, or imagined, presence.

The F&G-S model is only superficially simple. It includes three pathways to contempt elicitation: (i) repeated transgressions implying low-value character; (ii) culturally transmitted beliefs about an other’s contemptible characteristics; and (iii) transgression-evoked anger that, if ineffectual, “turns into” contempt. The ASE model parsimoniously subsumes these. In each case, information is obtained that warrants devaluation of the object (i.e., the “relational cues” in Figure 1 of the target article). **Giner-Sorolla & Fischer** mischaracterize us as claiming that contempt only manifests from a pre-set attitude. Contempt will manifest during its establishment by any cues to inefficacy and low relationship value, including single events that recalibrate attitudes and establish contempt.

The F&G-S model also fails to account for data that the ASE model illuminates. In portraying contempt as both a distinct emotion and a sentiment, **Giner-Sorolla & Fischer** note that “any emotion can become a sentiment.” Why, then, is contempt a “special case” (Rosenberg & Ekman 1995) among putative basic emotions for its inconsistent lexicalization and unreliable expression? F&G-S attribute contempt’s lack of a distinct facial expression to “methodological problems” and to the rarity of the term. This both fails to explain that rarity and overstates it; in the research they review, “contempt” is the most common term in the “disgust” cluster, and contempt is studied with the same methods as other putative emotion-sentiments. F&G-S also observe that contempt has divergent emotional consequences in scenarios beyond “merely seeing someone.” Their examples – verbal attack, and reduced compassion – entail distinct emotional concomitants in complex scenarios; F&G-S obscure this complexity and fail to give a process account for it. Likewise, arguing, as F&G-S do, that contempt downregulates anger and hate – being less “effortful and dangerous” (p. 351), less “socially and personally costly” (p. 354) – fails to account for the “boiling inward” phenomenology sometimes associated with contempt (Frijda et al. 1989, p. 223). It also conflates “coolness” from reduced anger with “coolness” from reduced “warm” engagement.

In contrast, contempt as an emotionally pluripotent sentiment parsimoniously explains – and furnishes predictions about – the range of emotions, expressions, and meanings associated with contempt. There are several critical tests between our model and that of **Giner-Sorolla & Fischer/F&G-S**. First, if enduring contempt, identified by a representation of a target as inferior, can be shown to create diverse downstream emotion biases in particular contexts – for example, downregulating compassion and guilt, while disposing anger and disgust – then, congruent with the ASE but not with the F&G-S model, this will be

evidence of a “master sentiment.” Second, F&G-S explain contempt’s “coolness” by suggesting that contempt downregulates anger, whereas the ASE predicts that contempt potentiates anger in the service of social distancing; data on anger reactivity towards objects of contempt will support one model over the other.

Lench et al. also deny the emotional pluripotency hypothesis, underappreciating the functional gestalt among contempt’s features. They reject that contempt creates indifference, and argue that “coldness” is also a feature of sadness. However, this again conflates two meanings of “coldness” – vis-à-vis “hot” anger and “warm” compassion – and ignores that we emphasize the latter in articulating the reduction in “warm” prosocial emotions caused by contempt. Lench et al. implicate lack of differentiation among negative emotions in explaining the associations of contempt with disgust and anger. However, the evidence we reviewed goes far beyond vague associations, to specific functional and temporal relationships. Our model explains these, while making many predictions about contempt vis-à-vis anger, disgust, and hate. In explaining away contempt’s diverse expressions, Lench et al. argue that the expressions of all emotions are moderated by contextual affordances. We concur, but this does not explain why contempt is inferred from a range of expressions, including those for other basic emotions, and from an absence of any expression. Finally, in explaining the diverse behavioral outcomes of contempt, Lench et al. argue that all emotions are associated with behaviors. We do not dispute this, but it does not follow that only emotions predict behavior. If attitudes moderate emotions, then they too will have behavioral consequences, albeit a more diverse set than a single emotion.

Both **Mason and Cova, Deonna, Sander, & Teroni (Cova et al.)** argue that the ASE model of contempt conflates “recognition respect” and “appraisal respect.” Recognition respect entails giving appropriate consideration to its object during deliberation. In Darwall’s (1977) normative account, recognition respect is owed all persons by virtue of them being ends in themselves in possession of dignity. Appraisal respect, in contrast, must be earned through positive appraisals of character, and involves feelings of respect such as admiration.

Acknowledging the utility of distinguishing recognition and appraisal respect, we think the ASE model of respect parsimoniously unites them. Appraisal respect is the more accurate descriptive account of how the *respect* sentiment operates: appraisals of another’s value incrementally increase “feelings of respect,” the emotion constellation of the *respect* sentiment. Unlike Darwall (1977), we do not limit appraised features to character, but hold that all contributors to efficacy influence respect. Moreover, appraisals are relative to an appraiser’s own interests and standards in valued domains, not “categorical” in Darwall’s sense. The ASE can then subsume recognition respect as part of the emotion constellation of appraisal respect. We have highlighted interest in targets, and deference to them, as outcomes of respect; this is effectively the weighting of a target’s concerns that scholars have ascribed to recognition respect. Interest and consideration may not intuitively belong among the “feelings of respect,” but they involve the kinds of systems (e.g., attention, and evaluative trade-offs) that attitudes moderate on the ASE. In this account, prescribing recognition respect for persons is

equivalent to stipulating that personhood is a sufficient criterion for some minimum appraisal respect. However, personhood will compete with other appraisals – including incompetence, laziness, or badness – that undercut appraisal respect, engendering contempt, muting recognition respect, and potentiating intolerance and exploitation.

This descriptive account does not deny the virtue of stipulating recognition respect for all humans, or for all life. But it does unpack why the normative project of fostering recognition respect runs aground on the rocks of human nature, while suggesting workarounds (see sect. R.3.4 below). It also minimizes **Mason’s** critique of our analysis of contempt’s place in a dignity culture. We identify contempt with an absence of respect. We argue that because a dignity culture prescribes respect for all persons, it prescribes expressions of contempt. Mason points out that prescribing *recognition* respect, and dignity for all, does not proscribe *appraisal* contempt, or differentially devaluing others on the basis of character. Even those viewed as morally depraved should be granted dignity. However, the normative stipulation of respect for persons does not countervail the descriptive fact that humans are prone to deny personhood to others on the basis of real or imagined negative appraisals. Lapses in recognition respect remain a problem in a dignity culture, even while its prescription undercuts the expression of contempt. If such lapses are most likely towards targets that are also objects of hate, then our suggestion of a conceptual conflation of contempt and hate within dignity cultures remains plausible.

Cova et al. argue that we conflate two forms of contempt, disregard (an absence of recognition respect) and scorn (an absence of appraisal respect). We see these as two *components* of the sentiment contempt. Disregard can be viewed as part of the “cold indifference” facet of the contempt sentiment, while scorn belongs to the “reactive intolerance” facet. However, rather than proposing a distinct emotion, *scorn*, our account decomposes the folk affect concept “scorn” as disgust in the service of contempt. This captures both the enduring and the occurrent manifestations of scorn, as well as its connotations of superiority, derision, and rejection. Similarly, whereas **Giner-Sorolla & Fischer** adduce the unilateral lip curl (ULC) as evidence of a unique contempt emotion, we counter that the ULC, often labeled “anger” or “disgust” (Haidt & Keltner 1999; Matsumoto 2005; Russell 1991c; 1991d), signals the reactive intolerance cluster of the ASE sentiment contempt, implemented by anger (if a second-person threat) or disgust (if a third-party signal) vis-à-vis a devalued target. Either of these emotions, or the attitudinal core of contempt, can be inferred from the ULC.

Challenging our claim that contempt actually disposes both anger and disgust, **Cikara** asks what determines whether contempt runs hot or cold, and, when it runs hot, what determines whether contempt prompts approach or avoidance. **Mason** similarly asks how contempt maps onto two putatively distinct phenomena, “reactive contempt” (such as protesting) and “nonreactive (or objective) contempt,” such as disregard and disengagement. The answer to both is: the scenarios in which the attitude object is encountered or imagined, and the threats or opportunities posed by that scenario vis-à-vis the fitness affordances tracked by the attitude. Anger, as a bargaining strategy (Sell et al. 2009), changes the behavior of contempted targets to reduce the costs they impose; disgust,

as a mechanism co-opted for signaling rejection (Fessler & Haley 2003), prevents guilt-by-association in the eyes of third parties (see also Kupfer & Giner-Sorolla 2016). Imposition or even approach by a condemned target evokes anger, whereas proximity to, or similarity with, a condemned target in the presence of potential allies elicits disgust; if a condemned target claims leadership, this elicits disgusted opposition; if they are inactive or harmless, disregard suffices. In all cases, action is suffused with disrespect, including protest (Tausch et al. 2011).

R.2.4. The dimensionality of sentiments

Comparing the ASE unfavorably to the Stereotype Content Model (SCM), **Cikara** contends that we collapse orthogonal dimensions of social-relational value, namely, “relational value” (warmth) and “agentic value” (competence). In fact, we break “warmth” into two positive (*love, liking*) and two negative (*hate, fear*) dimensions, while generalizing “competence” to efficacy across domains. These dimensions are potentially orthogonal, allowing for cooperation and competition to occur within a relationship, unlike the unitary “warmth” dimension of the SCM. The ASE also provides a crucial missing piece to the SCM: how interactive scenarios moderate the relationship of attitudes and emotions. In the SCM, each representational quadrant has “corresponding” emotions. However, **Cikara’s** own example of *schadenfreude* at the misfortune of a competitive, high-status target illustrates that such “correspondence” does not hold. The ASE acknowledges “default” emotion dispositions at approach, but theorizes emotional pluripotency, in which single emotions can address similar adaptive problems vis-à-vis different kinds of targets. This includes happiness at the success of a loved one *and* at the failure of a hated enemy, and anger at any “transgression,” with a threshold moderated by attitudes.

Hruschka suggests that the SCM provides a “simpler” theory of contempt than the ASE. In the SCM, contempt joins disgust and hatred as emotional reactions to targets low in both warmth and competence. Yet, as we point out in the target article, and as **Lench et al.** echo, studies of the SCM often collapse measures of contempt with disgust and hatred, producing composite ratings. This obscures unique variance accounted for by contempt, and limits contempt to targets that are also disgusting and hated. Studies that partial out contempt find it is not directed only at low warmth–low competence targets: in some, contempt tracks competence alone (Hutcherson & Gross 2011; Ufkes et al. 2011); in others, there are main effects of both warmth and competence (Schriber et al. 2016); and in some, only high–high targets are safe from contempt (Caprariello et al. 2009; Schriber et al. 2016). The SCM also denies a role for contempt in pity. But as Miller (1997) argues, “Contempt ... often informs benevolent and polite treatment of the inferior.... Pity and contempt go hand in hand” (p. 32). Yoking contempt to the efficacy dimension explains this. **Cova et al.** argue that “caring about” someone does not have a single sentimental etiology, and sentiments including love can produce it despite contempt; parental sensitivity is thus not necessarily the “inverse” of contempt, as **Swain & Ho** and **Hruschka** suggest. Although **Hruschka** and **Cikara** contend that we extend the swath of the condemned too far, contempt is not simply a response to the lowest of the low.

Schaller doubts that there is a unitary *love* sentiment tracking fitness dependence on an other. While we agree that the domains of fitness dependence addressed by romantic love, filial love, and parental love entail unique adaptive problems, the similarities are striking—for example, the behavioral needs for tolerance and conditional aid provisioning. Evidence for conserved neural bases across these systems (Preston 2013) suggests that an ancestral *love* system was evolutionarily co-opted repeatedly, from regulating parental behavior to shaping pair bonds and friendships, producing a *love* sentiment with manifestations tailored to different forms of fitness dependence.

R.2.5. Operationalizing the ASE

Galesic, Giner-Sorolla & Fischer, Hruschka, and Schaller express concerns about the operationalizability of the ASE. We outlined how to operationalize and empirically distinguish attitudes, emotions, and sentiments (see Table 2, column 2, in the target article). The parameters for distinguishing attitudes and emotions include their intentionality (object- vs. event-specific), phenomenology (“cold” vs. “hot”), time course (enduring vs. occurrent), and structure (evaluative representation vs. organismic mode of operation). Sentiments will include all of these features, but not randomly: attitudinal representations will moderate different emotional outcomes across scenarios. The interrelatedness of the core concepts of the ASE is a feature of the model, not a limitation, affording decomposition of folk affect concepts into underlying attitude–emotion networks. Various descriptions of a sentiment as a “syndrome,” a “network,” or a “deep structure,” which **Schaller** laments, is productively seeing sentiments from different perspectives: respectively as the coordinated regulation of different emotions, as causal links among attitudes and emotions, and as the functional architecture underlying variation in folk affect concepts.

Galesic suggests that sentiments might be quantitatively described as frequency distributions of appraisals and emotions within relationships. Refining this, sentiments may be described as a set of conditional probabilities of scenario–emotion contingencies given a particular attitudinal representation in a relationship. *Perceived* scenarios are crucial; the consequences of objective situations will be psychologically mediated, via attention, appraisals of threat, harm, and so on, and ascriptions of causation. Efforts to measure emotions have recently converged on multi-componential triangulation (e.g., Kragel & LaBar 2013), focusing on the coordination of functional features across diverse measures. Multi-measure scales are likewise useful for measuring interpersonal attitudes. Although **Hruschka** worries about how readily people can rate their contempt for others, he also highlights the role that metaphors such as “warmth” and “closeness” can play in assessing interpersonal evaluations. In the case of contempt, scaling separate Likert-type measures of “look down on,” “look up to,” “contempt,” and “respect” could produce a reliable measure of the attitudinal core of contempt. Schriber et al. (2016) demonstrated the utility of this approach in their Dispositional Contempt Scale; this could be readily converted into a target-specific scale. The key to a clean measure of respect–contempt will be partialing out love and hatred.

Bilewicz, Kamińska, Winiewski, & Soral (Bilewicz et al.) challenge our identification of *contempt* with an

absence of *respect*, citing research on attitudes towards out-groups that reports widely varying intra-target correlations between respect and contempt. However, Bilewicz et al. treat both affects as “emotions,” and they do not give sufficient detail of the studies they cite to evaluate their bearing on our claims. Of course, if reliable measures of respect and contempt, as enduring, target-specific attitudes, fail to negatively correlate, then this will undermine our model.

R.3. Extensions and applications

R.3.1. Extensions of the ASE model of sentiments

Both Cova et al. and Giner-Sorolla & Fischer argue that contempt can be an emotion and a sentiment. We are unconvinced by their arguments for a unique emotional outcome of the contempt sentiment, since a representational core that downregulates prosocial emotions, and that upregulates anger and disgust, can account for the data. Nonetheless, some sentiments may have proprietary emotional outcomes. They may also be updated by emotions. The possibility remains that there is a proprietary contempt emotion involved in the establishment of the sentiment contempt, that is, in downregulating respect. At the perception of cues to inefficacy in some valued domain, this emotion would recalibrate the affective component of respect and establish a contempt representation. This emotion might sometimes be categorized as “disappointment,” which has been linked with the unilateral lip curl (Russell 1991d). However, we know of no strong evidence for this proposal. Similarly, Cova et al. suggest that an emotion, *admiration*, plays a role in establishing respect. As an emotional reaction to appraised efficacy, admiration plausibly upregulates respect. Alternatively or in addition, admiration may be a proprietary outcome of an established *respect* representation—part of the ASE sentiment *respect*—implementing approach and emulation of highly respected targets (Onu et al. 2016). These considerations highlight the need for a more detailed theory of the processes whereby the attitudinal cores of sentiments are recalibrated, including by emotions (Tooby et al. 2008).

Dellantonio, Pastore, & Esposito (Dellantonio et al.) discuss the role of moral values in sentiments. They claim that, in our approach, “[one’s] view of another person’s moral (in)efficacy depends on whether [one is] motivated, for example, by contempt or respect.” This actually reverses our argument: contempt and respect depend on appraisals of another person’s moral (in)efficacy. Nonetheless, this appraisal is influenced by moral values. We distinguish two meanings of “value” that Dellantonio et al. conflate. One, *valuation*, is a form of regard; an outcome of evaluation, it involves ascribing a quality and quantity of worth to an object. This is the primary sense in which we use *value*—relational valuations of the fitness costs and benefits of social partners, evaluated using ancestrally reliable cues, and tracked through time by attitudinal representations. By *values* Dellantonio et al. mean abstract principles used in the process of evaluation; values are standards against which evaluation occurs. Some values are moral, but others are practical, such as valuing particular domains of expertise. Dellantonio et al. are correct that we said little about values-as-standards. We did discuss two points. First, values play a role in determining respect. Respect is conditioned on attributions of efficacy

in valued domains; failure in those domains warrants contempt; values thus condition valuations. Second, we discussed the role of relational valuations in anchoring the internalization of values. If internalization is a psychological commitment device for enacting normative behavior, a capacity selected by differential inclusion in cooperative ventures (Fessler 2007), then what gets internalized as values should be yoked to valuations of social partners. In this vein, Dellantonio et al. review early life transmission of values, highlighting the role of bonding with parents. We likewise implicated deficits in valuations underlying insensitivity to socialization in clinical psychopathy. We agree that the function of morality is relationship regulation, and that moral values are, to some extent, relative to the expectations of moral communities (Fessler et al. 2015).

R.3.2. Extensions of the ASE model of contempt

Bzdok & Schilbach foreground an absence of neuropsychological, ontogenetic, and heritability data in our account of contempt. We endorse triangulating the form and functions of biological systems using consilient data from across disciplines. While direct data are lacking, there may be relevance in research on the genetics and development of callous-unemotional traits, as well as in frontotemporal dementia. Important empirical questions remain.

Varnum & Grossmann present original analyses extending both our observation that “contempt” use has proportionally decreased in English-language books and our suggestion that folk affect concept salience should vary with socioecological parameters. Varnum & Grossmann suggest that contempt may be less engaged in excluding out-group targets as infection risk decreases. However, they show that declines in pathogen prevalence lag behind declines in contempt-related words, which undermines a simple causal story, hinting at a third variable, plausibly socioeconomic development. On the negative relationship of socioeconomic development and contempt, Varnum & Grossman implicate reduced stratification in post-industrial workplaces, and increased material security through stable employment. We are skeptical of these causal mechanisms. It is not clear that hierarchically structured white-collar organizations involve less perceived stratification than do industrial or pre-industrial workplaces. Moreover, increased material security and individual risk retention may effectively decrease the value of social partners, especially for risk pooling, which may increase contempt. Perhaps socioeconomic development both fosters, and relies upon, respect (in action, if not in sentiment), as a medium for mutualistic economic interactions among strangers. However, capitalism can also produce inequality and exploitation. A confound in the American data-set used by Varnum & Grossmann is the rise of a dignity culture through civil rights movements. This shift toward norms of equality, inclusivity, and tolerance likely undermined the expression of contempt in America, perhaps until recent shifts in American political discourse during the 2016 election (e.g., Stohr 2017). Prior to this, if the rise of a dignity culture actually did increase tolerance and mutual respect, without common violations, then discussions of contempt would have declined. Whether this change in norms can

itself be related to changes in social or economic organization is unclear.

Chapais summarizes our argument (based partly on his work) that *protorespect* evolved in primate dominance hierarchies to track efficacy—both of dominants, in downwardly conferring benefits such as resource access and protection, and of subordinates, in upwardly conferring benefits such as grooming and coalitional support. The evolution of a capacity for *protorespect* made possible *protocontempt*: withholding *protorespect* from those not efficacious in these ways, directing intolerance and exploitation towards them. Chapais derives two predictions from this. First, he suggests that “looking down on” followers should be intrinsic to leadership, potentiating exploitation down hierarchies. Some folk models (e.g., that “power is corrupting”) are consistent with this. Second, Chapais suggests that downward contempt should vary with the extent to which status is dependent upon subordinates. This echoes our own conjecture: “To the extent that high rank is contingent on the support of subordinates, mutual respect may change the quality of dominance interactions and hierarchies” (target article, sect. 5.3, para. 2). Again, there is folk precedent: “absolute power corrupts absolutely.” Regarding both predictions, note that respect and contempt may interact with other attitude dimensions and sentiments. For example, while downward contempt may unleash exploitation, the expression of upward contempt may be mitigated by fear of physical reprisal. Likewise, in addition to respect for efficacious subordinates, downward contempt may be mitigated by interdependence from relatedness or shared group defense.

Sullivan notes that pride was implicated in contempt in eighteenth-century moral philosophy, and draws parallels between the functional features of one facet of pride—“hubristic pride” (Tracy & Robins 2007)—and contempt, including expressions of superiority and diminished concern for others. Sullivan proposes that hubristic pride is among the emotion dispositions of the contempt sentiment, following from a superior and devaluing attitude. This is plausible. Fessler (1999) has argued that pride has phylogenetic roots in *protopride*, an emotion evoked in dominance hierarchies when a dominant is in the presence of a subordinate; it motivates status-striving and signals dominance to others. In this model, an antecedent representation (of being dominant or higher-status) interacts with a scenario (proximity) to produce an emotion (*protopride*). If the attitudinal core of contempt is part of the representation of relative superiority, this model of *protopride* implies that a dominance-based positive emotion should be evoked by proximity to a contemned target. Research does link contempt to a tilted-back head and downward gaze (Izard & Haynes 1988), components of pride expressions, especially of the hubristic or dominance-based variety. Self-reported dispositional contempt also correlates positively with trait hubristic pride (Schriber et al. 2016). Dominance-based pride may well be among the emotion dispositions of the sentiment contempt.

Even if one assumes a unitary pride emotion—an authentic positive feeling evoked during accomplishments—we expect attitudes towards others to moderate pride expressions. Respect for others, and concern for their standing and self-esteem, might lead authentic pride to be expressed humbly, with self-deprecation and other-enhancement; pride in the context of contempt may lead

to unmitigated self-aggrandizing and bragging, inviting accusations of arrogance and conceit, the core of the hubristic pride scale (Tracy & Robins 2007; see also Holbrook et al. 2014a; Tracy & Robins 2014). On this account, pride would not be an emotion disposition of contempt, but contempt would moderate pride expression. Different social-attitudinal contexts of pride and pride expression, in turn, could contribute to different cultural models of pride—as a healthy expression of success, as evidence of humility, or as an index of inflated self-worth. Degrees of pride expression could be taken as indexical of one’s views of others; consonant with Sullivan’s suggestion, the proud person may be the contemptuous person. This would illuminate why pride is viewed as dangerous in communal societies: its unmitigated expression indexes devaluation of others, predicting selfish behavior that undercuts community.

R.3.3. Applications of the ASE model of sentiments

Bzdok & Schilbach suggest that the ASE is relevant to interpreting the functions of the amygdala, the insular cortex, and the brain’s “salience network.” We add that somatic markers (*sensu* **Greccucci et al.**) may be the affective component of attitudes, providing the mechanism whereby emotions update, or recalibrate, attitudinal representations.

Weidman & Tracy apply the ASE to “humility,” raising the possibility that there may be a self-directed sentiment, a representation of self-value moderating self-conscious emotional reactions to events. This finds precedent in functionalist views of self-esteem as an internal index regulating emotions and behavior (e.g., Leary et al. 1995). Given that self-esteem has been modeled as tracking liking by others (e.g., Srivastava & Beer 2005), the ASE suggests distinct self-monitoring systems may track distinct dimensions of valuation by others (e.g., liking, respect, love). Paralleling our remarks on pride, above, “humility” could be fruitfully approached by considering how the expression of self-valuations is moderated by other-directed sentiments such as respect—for example, whether pride manifests as hubris or humility. This raises questions about the interaction of other- and self-sentiments, for example, in producing attachment styles, or varieties of the “Dark Triad” personality complex. We suggest that some personality complexes emerge from the interaction of different sentiment dispositions. For example, psychopathy and narcissism may both involve dispositional contempt (Schriber et al. 2016), yet be distinguished in their default self-sentiments: high self-esteem (psychopathy) and low self-esteem (narcissism). Other facets of personality, such as attachment styles and agreeableness, may likewise emerge from the interaction of self- and other-sentiment dispositions.

Bzdok & Schilbach concur that the ASE is generally relevant to personality structure, extending our analysis of psychopathy. **Haslam** suggests that the ASE can help personality psychology go beyond inductively identifying latent traits by theorizing the cognitive-affective networks that constitute relational strategies, including the simultaneous regulation of multiple emotion dispositions. He points to future research studying dependency in terms of dispositions towards the sentiment love. **Christie & Chen** suggest that, in a health psychology literature focused on individual differences in “hot” reactive hostility,

considering the “cold” aspects of our model of contempt might inspire alternative interventions.

Schaller assesses the generality of the ASE model beyond contempt. For each sentiment feature – functional specialization, the interaction of an enduring attitude and diverse emotions, emotional pluripotency, and sensitivity to relevant relational cues – Schaller affirms an equivalent in a system regulating parental care provisioning. He also notes that this system responds to others’ infants as well as one’s own; is active in non-parents; and responds to many organisms displaying cues of neotony and dependence. This highlights process distinctions between (1) the cue-driven elicitation of emotions, (2) the establishment of an attitude (and a sentiment) through emotion elicitation, and (3) the attitude-moderated elicitation of emotions within established sentiments. The ASE focuses on the latter, but allows for attitude updating by emotions, and also allows for emotion elicitation outside of sentiments. Neotony cues may elicit caretaking generally, but may also begin the process of parental sentiment formation; a unique function of a parental sentiment is to maintain caretaking after the child no longer evinces such cues. More discriminating cues may cement a strong parental sentiment; **Swain & Ho** foreground vaginal delivery and breastfeeding in the neural reorganization of motherhood that later predicts sensitivity, empathy, and the unique neural responses to one’s own child. We add that differences in maternal life history trajectories – coloring the fitness value of a given child for its mother – plausibly influence maternal sentiments, such that these cues do not have a uniform impact across mothers.

Bahns proposes that prejudice also evinces many of the functional features of sentiments, finding the emotional pluripotency hypothesis useful in accounting for both the evaluative form of prejudice and the many emotional outcomes associated with attitudes towards out-groups. Viewed in ASE terms, stereotypes may function like chronic scenario appraisals concerning the intentions, actions, and fates of out-group members, interacting with evaluative attitudes to produce chronic emotion dispositions towards them. More broadly, although we have focused on affect within personal relationships, sentiments should operate toward classes of others, of which out-groups are one type. We expect not only that both negative and positive stereotypes toward out-groups decompose into sentiments, but also that the same processes underlie representations of, and the regulation of responses toward, generic others on the basis of gender, age, class, and so forth.

Cocea raises the question of how sentiments operate within multi-party contexts. She suggests that N -person dynamics warrant modification of the ASE. We agree that N -person contexts add complexity, but suggest that they “simply” involve the relative weighting of sentiments across targets; attitudes towards all salient parties in a scenario should jointly moderate emotional reactions. More valuable relationships should be prioritized when trade-offs are unavoidable, and allegiances strategically revealed when a side must be taken (Shaw et al. 2017). Biasing emotional reactions according to the relative strengths of attitudes towards different parties addresses adaptive trade-offs, as attitudes track the relative costs and benefits to supporting various parties. These computations are not simple, but the ASE provides a framework with which to

partition sources of variation, especially the relative valuation of different social partners and weighting of their interests.

R.3.4. Applications of the ASE model of contempt

Cocea highlights situations wherein a devalued target is instrumentally harassed to enhance social standing with an audience. This resonates with our suggestion that many “hate crimes” are more properly “contempt crimes” wherein perpetrators instrumentally exploit targets for gain, rather than spitefully attacking them for harm’s sake. **Bilewicz et al.** discuss “hate speech” driven by dominance and the expression of disgust, rather than by perceived threat. Although not materially exploitative, which would follow from the “cold” indifference facet of the contempt sentiment, such speech plausibly arises as part of the “hot” reactive intolerance facet of contempt. We suggested that disgust, in particular, operates in the service of contempt to signal alliance membership and mitigate “image infection” from the contemned.

Neagota, Benga, & Benga (Neagota et al.) apply our model of contempt to *charivari*, a pan-Europe collective mockery institution, noting that, per the model, features of contempt should cohere across time and space. This suggests a recurring motivational and expressive scaffold from which ritualized institutions might be built, providing part of a universal semiotics for decomposing historical phenomena into constituent psychological and social processes. Their analysis also raises the possibility that the semiotics of contempt can be deployed in informal social bargaining, to influence the behavior of norm violators through mockery and threat of exclusion. Public ritualized mockery appears in many cultures (e.g., Indonesia; Fessler 1995), as punishment in the service of motivating norm conformity, rather than simply excluding non-conformists beyond redemption.

Sullivan suggests that group-level contempt illuminates intractable conflicts, noting that contempt within a “background group moral ethos” of relative power, abetted by group-based pride, can justify violence, undermine reconciliation, and prolong conflict. We agree that the social context of contempt will influence its expression and enactment. While contempt can be proscribed, it can also be encouraged. The recent re-emergence of contempt in U.S. political discourse suggests that political polarization crossed a threshold at which the perceived between-group benefits of showing respect for the opposing party were outweighed by the within-group benefits of derogating and obstructing them. This transition could rest on increasing self-segregation afforded by new media, fanning a conviction that one’s own principles and constituents are superior to those of the other party. Expressions of contempt can be the final act in a crumbling relationship (Gottman & Levenson 2000), likely also between groups, biasing subsequent attributions of intentions, and shifting construals of interdependence to zero-sum competition.

Asking why contempt is such a problem for contemporary society, **Sternberg** proposes that leaders use contempt to foment hate. We provided an error management mechanism for this phenomenon: contempt should bias one towards believing untrue vilifying information about its object, since targets of contempt are expendable, and

failing to heed true vilifying information is dangerous. While this supports Sternberg's claim that leaders open the door for hate when they show contempt for opponents, it leaves unexplained the latent contempt that leaders leverage. We might implicate the larger cultural and historical context: a globalized capitalist economy that requires impersonal participation while obscuring latent networks of interdependence (Durkheim 1893/1997). Such a system may be unfulfilling for a social mind striving for warmth, belonging, and reciprocity. Communities that do fulfill these needs, forced together despite divergent norms and interests, may fail to see latent efficacy in each other, and set themselves in competition.

Sternberg also proposes that leaders strategically display false contempt that followers mistake for genuine contempt. We are skeptical. Disrespecting and diminishing another's worth is corrosive in relationships. If a potential ally is actually valued, the costs of feigning contempt will be too high – unless both parties have reliable information about each other's private commitment to an alliance, whereupon displays of contempt could be used to mask the alliance without undermining it.

Lastly, **Sternberg** suggests that seeking a common good for all is the cure for contempt. This is partially accurate, but too underspecified. When will people seek a common good? Why do groups delimit the moral circle, with people tending to view "others" as worthy of contempt? Morality evolved for regulating social relationships (Fessler et al. 2015; Rai & Fiske 2011). Group members have a shared fate, manifest interdependencies, and accountability, as well as shared norms that facilitate coordination. Group boundaries are therefore ancestrally adaptive borders for sentiments such as love (tracking fitness dependence) and respect (tracking efficacy) that build and preserve valuable relationships; beyond them we should generally expect indifference (Brewer 1999) or competitive hate (Choi & Bowles 2007), except in cases of specific affordances for out-group cooperation (Pisor & Gurven 2016).

We suggest three potential cures for contempt. First, sanctions on contemptuous behavior can extrinsically motivate tolerance and respectful consideration. However, contempt for the institutions backing such sanctions predicts extreme non-conformity (Tausch et al. 2011). Suppressing the expression of contempt is thus an unstable stopgap at best.

Second, it may be possible to upregulate the sentiment *love*, to override contempt. Given the likely phylogenetic origins of fitness dependence in biological relatedness, and later in shared fate within a coalition or group, cues of "unity" (Rai & Fiske 2011) – common origins, shared essence, shared fate, group membership, physical similarity – may upregulate love and the commitment emotions supporting those on whom one is dependent. Unfortunately, similar strategies can also be used to constrict boundaries. Immigration debates hinge on origin stories and purported allegiances; global threats are downplayed while anxieties over national or religious threats are fanned; economic isolationism denies gains-in-trade from intergroup alliances; and so on. The salience of spatially- and temporally-near interdependencies may outweigh abstract considerations. Using love to treat contempt may not be feasible or stable.

The "wisest" cure for contempt is to stoke respect through appraisals of efficacy, including competence, effort, and integrity. Dignity cultures simply stipulate that everyone deserves respect. However, the basic criterion for respect in this logic is personhood; contempt contributes to dehumanization (Haslam 2006), so premising respect on personhood cannot cure contempt. Simply contesting pejorative narratives will often fail, as antecedent contempt biases evaluations of information, discrediting counter-narratives. Instead, curing contempt likely requires concrete interactions with target populations, in which practical and moral efficacy is evident and irrefutable. Intergroup Contact Theory has long recognized this (e.g., Allport 1954). Such research would benefit from moving beyond general conceptions of attitudes as positive versus negative, to measuring specific attitudes of love and closeness, respect and worth, hate and zero-sumness, and fear and bad intentions, including intervening appraisals of interdependence, varieties of efficacy, competition, and threat. Designing interventions that highlight concrete efficacy, as well as interdependence, while downplaying zero-sumness and unpredictability (e.g., collective action tasks; Schroeder & Risen 2016), are most likely to positively alter attitudes. Although neither simple nor cheap, cuing respect has the best chance of curing contempt.

ACKNOWLEDGMENTS

This work benefited from the feedback of numerous scholars, especially Clark Barrett, Alan Fiske, Dan Hruschka, Adrian Jaeggi, Tatsuya Kameda, Heejung Kim, Michelle Kline, Tage Rai, Joanna Schug, Lani Shiota, John Tooby, Ben Trumble, and the UCLA eXperimental Biological Anthropology (XBA) Lab. Portions of this work were written while Matthew. M. Gervais was funded by the National Science Foundation (Doctoral Dissertation Improvement Grant [DDIG] 1061496) and the University of California, Santa Barbara, SAGE Center for the Study of the Mind. Daniel M. T. Fessler was supported by the U.S. Air Force Office of Scientific Research under Award number FA9550-15-1-0137. This publication was made possible through the support of a grant from the John Templeton Foundation. The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the John Templeton Foundation.

References

[Letters 'a' and 'r' before author's initials stand for Target Article and Response references, respectively]

- Abu-Lughod, L. (1986) *Veiled sentiments*. University of California Press. [aMMG]
- Ainsworth, M. D. & Bell, S. M. (1970) Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development* 41(1):49–67. [JES]
- Allport, G. W. (1935) Attitudes. In: *Handbook of social psychology*, ed. C. Murchison, pp. 798–844. Clark University Press. [aMMG]
- Allport, G. W. (1954) *The nature of prejudice*. Addison-Wesley. [rMMG]
- Altrabsheh, N., Cocea, M. & Fallahkhair, S. (2015) Detecting sarcasm from students' feedback in Twitter. In: *Design for teaching and learning in a networked world: Proceedings of the 10th European Conference on Technology Enhanced Learning, EC-TEL 2015, Toledo, Spain, September 15-18, 2015*, ed. G. Conole, T. Klobučar, C. Rensing, J. Konert, & E. Lavoué, pp. 551–555. Springer. [MCo]
- Alvarado, N. & Jameson, K. A. (1996) New findings on the contempt expression. *Cognition and Emotion* 10:379–407. [aMMG, MB, VLS]
- Alvarado, N. & Jameson, K. A. (2002) Varieties of anger: The relation between emotion terms and components of anger expressions. *Motivation and Emotion* 26(2):153–82. [aMMG]

- Anderson, C., Hildreth, J. A. D. & Howland, L. (2015) Is the desire for status a fundamental human motive? A review of the empirical literature. *Psychological Bulletin* 141:574–601. [BC]
- Anderson, N. E. & Kiehl, K. A. (2012) The psychopath magnetized: Insights from brain imaging. *Trends in Cognitive Sciences* 16:52–60. [aMMG]
- Andrews, P. W. & Thomson, J. A. (2009) The bright side of being blue: Depression as an adaptation for analyzing complex problems. *Psychological Review* 116:620–54. doi: 10.1037/a0016242. [HCL]
- Antonakis, J., Cianciolo, A. T. & Sternberg, R. J. (2004a). Leadership: Past, present, and future. In: *The nature of leadership*, ed. J. Antonakis, A. T. Cianciolo & R. J. Sternberg, pp. 3–15. Sage. [RJS]
- Antonakis, J., Cianciolo, A. T. & Sternberg, R. J., eds. (2004b) *The nature of leadership*. Sage. [RJS]
- Arbuckle, N. L. & Cunningham, W. A. (2012) Understanding everyday psychopathy: Shared group identity leads to increased concern for others among undergraduates higher in psychopathy. *Social Cognition* 30:564–83. [aMMG]
- Archer, W. G. (1984) *Tribal law and justice: A report on the Santal*. Concept. [aMMG]
- Arnold, M. B. (1960) *Emotion and personality*. Columbia University Press. [HCL]
- Aron, A., Aron, E. N. & Smollan, D. (1992) Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology* 63(4):596–612. [DJH]
- Asprey, E. (2010) A nice arrangement of heterodoxies: William McDougall and the professionalization of psychical research. *Journal of the History of the Behavioral Sciences* 46(2):123–43. [aMMG]
- Atzil, S., Hendler, T. & Feldman, R. (2011) Specifying the neurobiological basis of human attachment: Brain, hormones, and behavior in synchronous and intrusive mothers. *Neuropsychopharmacology* 36(13):2603–15. doi: 10.1038/npp.2011.172. [JES]
- Atzil, S., Hendler, T. & Feldman, R. (2014) The brain basis of social synchrony. *Social Cognitive and Affective Neuroscience* 9(8):1193–202. doi: 10.1093/scan/nst105. [JES]
- Atzil, S., Hendler, T., Zagoory-Sharon, O., Winetraub, Y. & Feldman, R. (2012) Synchrony and specificity in the maternal and the paternal brain: Relations to oxytocin and vasopressin. *Journal of the American Academy of Child and Adolescent Psychiatry* 51(8):798–811. doi: 10.1016/j.jaac.2012.06.008. [JES]
- Aureli, F. & Schaffner, C. M. (2002) Relationship assessment through emotional mediation. *Behaviour* 139(2):393–420. [aMMG]
- Averill, J. R. (1968) Grief: Its nature and significance. *Psychological Bulletin* 70:721–48. doi: 10.1037/h0026824. [HCL]
- Averill, J. R. (1991) Emotions as episodic dispositions, cognitive schemas, and transitory social roles: Steps toward an integrated theory of emotion. In: *Perspectives in personality, vol. 3*, ed. D. Ozer, M. Healy, Jr. & A. J. Stewart, pp. 139–67. Jessica Kingsley. [aMMG]
- Bahns, A. J. (2017) Threat as justification of prejudice. *Group Processes & Intergroup Relations* 20(1):52–74. Available at: <http://journals.sagepub.com/doi/full/10.1177/1368430215591042>. [AJB]
- Bakhtin, M. (1965/1984) *Rabelais and his world*. Indiana University Press. [BN]
- Balahur, A. (2013) Sentiment analysis in social media texts. In: *Proceedings of the 4th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis, Atlanta, Georgia, 14 June, 2013*, ed. A. Balahur, E. van der Goot, & A. Montoyo, pp. 120–28. Association for Computational Linguistics. [MCo]
- Barillari, S. M. (2001) Introduzione. In: *La leggenda del cacciatore furioso e della caccia selvaggia [The legend of the wild hunter and of the wild hunt]* (1935), by K. Meisen, ed. S. M. Barillari, pp. 5–28. Edizioni dell'Orso. [BN]
- Barrett, H. C. (2012) A hierarchical model of the evolution of human brain specializations. *Proceedings of the National Academy of Sciences USA* 109:10733–40. [aMMG]
- Barrett, H. C. (2015) *The shape of thought: How mental adaptations evolve*. Oxford University Press. [rMMG]
- Barrett, H. C. & Kurzban, R. (2006) Modularity in cognition: Framing the debate. *Psychological Review* 113:628–47. [aMMG]
- Barrett, J., Wonch, K. E., Gonzalez, A., Ali, N., Steiner, M., Hall, G. B. & Fleming, A. S. (2012) Maternal affect and quality of parenting experiences are related to amygdala response to infant faces. *Social Neuroscience* 7(3):252–68. doi: 10.1080/17470919.2011.609907. [JES]
- Barrett, L. F. (2006a) Are emotions natural kinds? *Perspectives on Psychological Science* 1(1):28–58. [aMMG, VLS]
- Barrett, L. F. (2006b) Solving the emotion paradox: Categorization and the experience of emotion. *Personality and Social Psychology Review* 10:20–46. [aMMG]
- Barrett, L. F. (2009) Variety is the spice of life: A psychological construction approach to understanding variability in emotion. *Cognition and Emotion* 23:1284–306. [VLS]
- Barrett, L. F. (2013) Psychological construction: The Darwinian approach to the science of emotion. *Emotion Review* 5:379–89. [aMMG, VLS]
- Barrett, L. F. & Satpute, A. B. (2013) Large-scale brain networks in affective and social neuroscience: Towards an integrative functional architecture of the brain. *Current Opinion in Neurobiology* 23(3):361–72. doi: 10.1016/j.conb.2012.12.012. [DB, VLS]
- Bar-Tal, D., Halperin, E. & de Rivera, J. (2007) Collective emotions in conflict situations: Societal implications. *Journal of Social Issues* 63(2):441–60. [GBS]
- Bastiaensens, S., Vandebosch, H., Poels, K., Van Cleemput, K., DeSmet, A. & De Bourdeaudhuij, I. (2014) Cyberbullying on social network sites: An experimental study into bystanders' behavioural intentions to help the victim or reinforce the bully. *Computers in Human Behavior* 31:259–71. [MCo]
- Batson, C. D., Hakansson, E., Chermok, V. L., Hoyt, J. L. & Ortiz, B. G. (2007) An additional antecedent of empathic concern: Valuing the welfare of the person in need. *Journal of Personality and Social Psychology* 93:65–74. [aMMG]
- Baumeister, R., Stillwell, A. & Heatherton, T. (1994) Guilt: An interpersonal approach. *Psychological Bulletin* 115:243–67. [aMMG]
- Baumeister, R., Vohs, K. & DeWall, C. N. (2007) How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review* 11:167–203. [aMMG]
- Bechler, C., Green, L. & Myerson, J. (2015) Proportion offered in the Dictator and Ultimatum Games decreases with amount and social distance. *Behavioural Processes* 115:149–55. [DJH]
- Becker, J. C., Tausch, N. & Wagner, U. (2011) Emotional consequences of collective action participation: Differentiating self-directed and outgroup-directed emotions. *Personality and Social Psychology Bulletin* 37(12):1587–98. doi: 10.1177/0146167211414145. [HCL, GBS]
- Beedie, C. J., Terry, P. C. & Lane, A. M. (2005) Distinctions between emotion and mood. *Cognition and Emotion* 19:847–78. doi: 10.1080/02699930541000057. [HCL]
- Beitchman, J. H., Zai, C. C., Muir, K., Berall, L., Nowrouzi, B., Choi, E. & Kennedy, J. L. (2012) Childhood aggression, callous-unemotional traits and oxytocin genes. *European Child and Adolescent Psychiatry* 21(3):125–32. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22294460>. [RH]
- Bell, M. (2013) *Hard Feelings: The moral psychology of contempt*. Oxford University Press. [MM]
- Benga, I. (2011) *Povestirile Roşiei Montane [Tales of Roşia Montană]*. Galaxia Gutenberg. [BN]
- Benga, I. (2015) "I'm stabbing you, I'm stabbing you not": Tales of witches, their gatherings, magic thefts and wrestles around Roşia Montană, România. Towards a modal biography of the local witch type. In: *Il canto di Orfeo: Poesia – Rito – Magia*, ed. S. M. Barillari & F. Castelli, pp. 99–131. Edizioni dell'Orso. [BN]
- Benga, I. & Benga, O. (2006) What else is driving ritualized behaviour, besides the "hazard-precaution system"? Developmental, psychopathological, and ethnological considerations. *Behavioral and Brain Sciences* 29(6):615–16. [BN]
- Benga, O., Neagota, B. & Benga, I. (2015) The importance of the rites of passage in assigning semantic structures to autobiographical memory. *Behavioral and Brain Sciences* 38:20–21. [BN]
- Bernstein, M. S., Bakshy, E., Burke, M. & Karrer, B. (2013) Quantifying the invisible audience in social networks. In: *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Paris, France, April 27-May 2, 2013*, ed. W. E. Mackay, S. A. Brewster, & S. Bødker, pp. 21–30. ACM Digital Library/Association for Computing Machinery. [MCo]
- Bertolotti, T. & Magnani, L. (2013) A philosophical and evolutionary approach to cyber-bullying: Social networks and the disruption of sub-moralities. *Ethics and Information Technology* 15(4):285–99. [MCo]
- Besnier, N. (1990) Language and affect. *Annual Review of Anthropology* 19:419–51. [aMMG]
- Bilewicz, M., Marchlewska, M., Soral, W. & Winiewski, M. (2014) *Hate speech in Poland 2014*. Summary of the national opinion poll. Stefan Batory Foundation. [MB]
- Bilewicz, M., Soral, W., Marchlewska, M. & Winiewski, M. (2017) When authoritarians confront prejudice: Differential effects of SDO and RWA on support for hate-speech prohibition. *Political Psychology* 38(1):87–99. doi: 10.1111/pops.12313. [MB]
- Blair, R. J. R., Jones, L., Clark, F. & Smith, M. (1997) The psychopathic individual: A lack of responsiveness to distress cues? *Psychophysiology* 34:192–98. [aMMG]
- Blair, R. J. R., Mitchell, D. & Blair, K. (2005) *The psychopath: Emotion and the brain*. Blackwell. [aMMG]
- Blaker, N. M., Rompa, I., Dessing, I. H., Vriend, A. F., Herschberg, C. & van Vugt, M. (2013) The height leadership advantage of men and women: Testing evolutionary psychology predictions about the perceptions of tall leaders. *Group Processes & Intergroup Relations* 16:17–27. [BC]
- Boehm, C. (1999) *Hierarchy in the forest: The evolution of egalitarian behavior*. Harvard University Press. [aMMG]
- Boehm, C. (2012) *Moral origins: The evolution of virtue, altruism, and shame*. Basic Books. [aMMG]
- Bohner, G. & Dickel, N. (2011) Attitudes and attitude change. *Annual Review of Psychology* 62:391–417. [MG]
- Boiteux, M. (1981) Dérision et deviance: Apropos de quelques coutumes romaines. In: *Le Charivari*, ed. J. Le Goff & J.-Cl. Schmitt, pp. 237–49. Mouton. [BN]

- Bowlby, J. (1958) The nature of the child's tie to his mother. *International Journal of Psycho-analysis* 39(5):350–73. [JES]
- Boyd, R. (1991) Realism, anti-foundationalism, and the enthusiasm for natural kinds. *Philosophical Studies* 61:127–48. [HCL]
- Breckler, S. (1984) Empirical validation of affect, behavior, and cognition as distinct components of attitude. *Journal of Personality and Social Psychology* 47(6):1191–205. [aMMG]
- Bruegelmans, S. & Poortinga, Y. (2006) Emotion without a word: Shame and guilt among Rarāmuri Indians and rural Javanese. *Journal of Personality and Social Psychology* 91(6):1111–22. [aMMG]
- Brewer, M. B. (1999) The psychology of prejudice: Ingroup love or outgroup hate? *Journal of Social Issues* 55(3):429–44. [arMMG]
- Brigham, J. C. (1993) College students' racial attitudes. *Journal of Applied Social Psychology* 23:1933–67. [AJB]
- Brown, S. L. & Brown, R. M. (2015) Connecting prosocial behavior to improved physical health: Contributions from the neurobiology of parenting. *Neuroscience and Biobehavioral Reviews* 55:1–17. doi: 10.1016/j.neubiorev.2015.04.004. [JES]
- Buchheim, A., Heinrichs, M., George, C., Pokorny, D., Koops, E., Henningsen, P., O'Connor, M. F. & Gundel, H. (2009) Oxytocin enhances the experience of attachment security. *Psychoneuroendocrinology* 34(9):1417–22. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/19457618>. [RH]
- Buckels, E. E., Beall, A. T., Hofer, M. K., Lin, E., Zhou, Z. & Schaller, M. (2015) Individual differences in activation of the parental care motivational system: Assessment, prediction, and implications. *Journal of Personality and Social Psychology* 108:497–514. [MS]
- Buckner, R. L., Andrews-Hanna, J. R. & Schacter, D. L. (2008) The brain's default network: Anatomy, function, and relevance to disease. *Annals of the New York Academy of Sciences* 1124:1–38. doi: 10.1196/annals.1440.011. [JES]
- Bugental, D. (2000) Acquisition of the algorithms of social life: A domain-based approach. *Psychological Bulletin* 126(2):187–219. [aMMG]
- Bukowski, M. & Winiewski, M. (2011) Emocje międzygrupowe a stereotypy i zagrożenia społeczne: Co jest przyczyną a co skutkiem uprzedzeń? [Intergroup emotions and stereotypes and prejudice: Antecedents and consequences]. In: *Wobec obcych: Zagrożenie psychologiczne a stosunki międzygrupowe [Toward others: Psychological threat and intergroup relations]*, ed. M. Kofta & M. Bilewicz, pp. 40–59. Wydawnictwo Naukowe PWN. [MB]
- Bunde, J. & Suls, J. (2006) A quantitative analysis of the relationship between the Cook–Medley Hostility Scale and traditional coronary artery disease risk factors. *Health Psychology* 25(4):493–500. [CDC]
- Bzdok, D., Eickenberg, M., Grisel, O., Thirion, B. & Varoquaux, G. (2015) Semi-supervised factored logistic regression for high-dimensional neuroimaging data. In: *Advances in Neural Information Processing Systems 28: Proceedings of the 29th Annual Conference on Neural Information Processing Systems (NIPS) 2015*, ed. C. Cortes, N. D. Lawrence, D. D. Lee, M. Sugiyama, & R. Garnett, pp. 3348–56. Neural Information Processing Systems (NIPS). [DB]
- Cacioppo, J., Gardner, W. & Berntson, G. (1999) The affect system has parallel and integrative processing components: Form follows function. *Journal of Personality and Social Psychology* 76(5):839–55. [aMMG]
- Cameron, C. D., Lindquist, K. A. & Gray, K. (2015) A constructionist review of morality and emotions: No evidence for specific links between moral content and discrete emotions. *Personality and Social Psychology Review* 19:371–94. [VLS]
- Campbell, J. K. (1964) *Honour, family and patronage: A study of institutions and moral values in a Greek mountain community*. Clarendon Press. [aMMG]
- Cantor, C. & Price, J. (2007) Traumatic entrapment, appeasement and complex PTSD: Evolutionary perspectives of hostage reactions, domestic abuse and the Stockholm syndrome. *Australian and New Zealand Journal of Psychiatry* 41:377–84. [aMMG]
- Caprariello, P. A., Cuddy, A. J. C. & Fiske, S. T. (2009) Social structure shapes cultural stereotypes and emotions: A causal test of the stereotype content model. *Group Processes & Intergroup Relations* 12(2):147–55. [arMMG, HCL]
- Cardoso, C., Ellenbogen, M. A. & Linnen, A. M. (2012) Acute intranasal oxytocin improves positive self-perceptions of personality. *Psychopharmacology* 220(4):741–49. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22012170>. [RH]
- Carnelley, K. B., Wortman, C. B., Bolger, N. & Burke, C. T. (2006) The time course of grief reactions to spousal loss: Evidence from a national probability sample. *Journal of Personality and Social Psychology* 91:476–92. [HCL]
- Carver, C. S. (2004) Negative affects deriving from the behavioral approach system. *Emotion* 4:3–22. doi: 10.1037/1528-3542.4.1.3. [HCL]
- Carver, C. S. & Harmon-Jones, E. (2009) Anger is an approach-related affect: Evidence and implications. *Psychological Bulletin* 135:183–204. doi: 10.1037/a0013965. [HCL]
- Castelli, F. (2004) Charivari, Scampanata, Ciabra, ovvero il “gioco d'Acheronte.” Introduzione [Introduction]. In: *Charivari: Mascherate di vivi e di morti [Charivari: Masks of the living and of the dead]*, ed. F. Castelli. Atti del V Convegno Internazionale, Rocca Grimalda, 7–8 Ottobre 2000, pp. VII–LXIII. Edizioni dell'Orso. [BN]
- Cattell, R. B. (1940) Sentiment or attitude? The core of a terminology problem in personality research. *Journal of Personality* 9(1):6–17. [aMMG]
- Cecil, C. A., Lysenko, L. J., Jaffee, S. R., Pingault, J. B., Smith, R. G., Relton, C. L., Woodward, G., McArdle, W., Mill, J. & Barker, E. D. (2014) Environmental risk, oxytocin receptor gene (OXTR) methylation and youth callous-unemotional traits: A 13-year longitudinal study. *Molecular Psychiatry* 19(10):1071–77. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25199917>. [RH]
- Chancellor, J. & Lyubomirsky, S. (2013) Humble beginnings: Current trends, state perspectives, and hallmarks of humility. *Social and Personality Psychology Compass* 7:819–33. [ACW]
- Chapais, B. (2014) Complex kinship patterns as evolutionary constructions, and the origins of sociocultural universals. *Current Anthropology* 55(6):751–83. [aMMG]
- Chapais, B. (2015) Competence, and the evolutionary origins of status and power in humans. *Human Nature* 26(2):1–23, 161–83. doi: 10.1007/s12110-015-9227-6. [aMMG, BC]
- Cheng, J. T., Tracy, J. L., Foulsham, T., Kingstone, A. & Henrich, J. (2013) Two ways to the top: Evidence that dominance and prestige are distinct yet viable avenues to social rank and influence. *Journal of Personality and Social Psychology* 104:103–25. [BC]
- Chida, Y. & Steptoe, A. (2009) The association of anger and hostility with future coronary heart disease: A meta-analytic review of prospective evidence. *Journal of the American College of Cardiology* 53(11):936–46. Available at: <http://doi.org/10.1016/j.jacc.2008.11.044>. [CDC]
- Choi, J. K. & Bowles, S. (2007) The coevolution of parochial altruism and war. *Science* 318(5850):636–40. [rMMG]
- Cichocka, A., Winiewski, M., Bilewicz, M., Bukowski, M. & Jost, J. T. (2015) Complementary stereotyping of ethnic minorities predicts system justification in Poland. *Group Processes & Intergroup Relations* 18:788–800. doi: 10.1177/1368430214566891. [MB]
- Cikara, M., Farnsworth, R. A., Harris, L. T. & Fiske, S. T. (2010) On the wrong side of the trolley track: Neural correlates of relative social valuation. *Social Cognitive and Affective Neuroscience* 5:404–13. [MCI]
- Cikara, M. & Fiske, S. T. (2011) Bounded empathy: Neural responses to outgroup targets' (mis)fortunes. *Journal of Cognitive Neuroscience* 23(12):3791–803. [aMMG, MCI]
- Cikara, M. & Fiske, S. T. (2012) Stereotypes and Schadenfreude: Affective and physiological markers of pleasure at outgroup misfortunes. *Social Psychological and Personality Science* 3(1):63–71. [aMMG, MCI]
- Cikara, M. & Fiske, S. T. (2013) Their pain, our pleasure: Stereotype content and Schadenfreude. *Annals of the New York Academy of Sciences* 1299:52–59. [MCI]
- Clare, G. L. & Ortony, A. (2008) Appraisal theories: How cognition shapes affect into emotion. In: *Handbook of emotions*, 3rd edition, ed. M. Lewis, J. H. Haviland-Jones & L. F. Barrett, pp. 628–42. Guilford Press. [aMMG]
- Clare, G. L. & Ortony, A. (2013) Psychological construction in the OCC model of emotion. *Emotion Review* 5:335–43. [VLS]
- Clare, G. L. & Schnall, S. (2005) The influence of affect on attitudes. In: *The handbook of attitudes*, ed. D. Albarracín, B. T. Johnson & M. P. Zanna, pp. 437–89. Erlbaum. [arMMG]
- Colombetti, G. (2009) From affect programs to dynamical discrete emotions. *Philosophical Psychology* 22(4):407–25. [aMMG]
- Colonnello, V. & Heinrichs, M. (2014) Intranasal oxytocin enhances positive self-attribution in healthy men. *Journal of Psychosomatic Research* 77(5):415–19. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25439340>. [RH]
- Compton, R. J. (2003) The interface between emotion and attention: A review of evidence from psychology and neuroscience. *Behavioral and Cognitive Neuroscience Reviews* 2:115–29. doi: 10.1177/1534582303002002003. [HCL]
- Cosley, B. J., McCoy, S. K., Saslow, L. R. & Epel, E. S. (2010) Is compassion for others stress buffering? Consequences of compassion and social support for physiological reactivity to stress. *Journal of Experimental Social Psychology* 46(5):816–23. [CDC]
- Cosmides, L. & Tooby, J. (2000) Evolutionary psychology and the emotions. In: *Handbook of emotions*, 2nd edition, ed. M. Lewis & J. M. Haviland-Jones, pp. 91–115. Guilford Press. [aMMG]
- Cosmides, L. & Tooby, J. (2013) Evolutionary psychology: New perspectives on cognition and motivation. *Annual Review of Psychology* 64:201–29. [MS]
- Cottrell, C. A. & Neuberg, S. L. (2005) Different emotional reactions to different groups: A sociofunctional threat-based approach to “prejudice”. *Journal of Personality and Social Psychology* 88(5):770–89. [aMMG, AJB]
- Cottrell, C. A., Neuberg, S. L. & Li, N. P. (2007) What do people desire in others? A sociofunctional perspective on the importance of different valued characteristics. *Journal of Personality and Social Psychology* 92:208–31. [aMMG]
- Cova, F. (2016) The dangerous path from contempt to disregard: A philosophical review of the psychology of contempt. Unpublished manuscript, University of Geneva. [FC]

- Crandall, C. S., Bahns, A. J., Warner, R. & Schaller, M. (2011) Stereotypes as justifications of prejudice. *Personality and Social Psychology Bulletin* 37:1488–98. doi: 10.1177/0146167211411723. [AJB]
- Crandall, C. S. & Eshleman, A. (2003) A justification-suppression model of the expression and experience of prejudice. *Psychological Bulletin* 129(3):414–46. doi: 10.1037/0033-2909.129.3.414. [AJB]
- Crockford, C., Wittig, R. M., Langergraber, K., Ziegler, T. E., Zuberbühler, K. & Deschner, T. (2013) Urinary oxytocin and social bonding in related and unrelated wild chimpanzees. *Proceedings of the Royal Society of London B: Biological Sciences* 280(1755):e20122765. [aMMG]
- Cuddy, A. J. C., Fiske, S. T. & Glick, P. (2007) The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology* 92(4):631–48. [aMMG, AJB, MB, MCi, DJH]
- Cunningham, M. R. (1988) What do you do when you're happy or blue? Mood, expectancies, and behavioral interest. *Motivation and Emotion* 12:309–31. doi: 10.1007/BF00992357. [HCL]
- Cunningham, W. A., Dunfield, K. A. & Stillman, P. E. (2013) Emotional states from affective dynamics. *Emotion Review* 5:344–55. [VLS]
- Cunningham, W. A., Zelazo, P. D., Packer, D. J. & Van Bavel, J. J. (2007) The iterative reprocessing model: A multilevel framework for attitudes and evaluation. *Social Cognition* 25(5):736–60. [aMMG]
- Cushman, F. & Young, L. (2011) Patterns of moral judgment derive from nonmoral psychological representations. *Cognitive Science* 35:1052–75. [VLS]
- Dadds, M. R., Moul, C., Cauchi, A., Dobson-Stone, C., Hawes, D. J., Brennan, J., Urwin, R. & Ebstein, R. E. (2014) Polymorphisms in the oxytocin receptor gene are associated with the development of psychopathy. *Development and Psychopathology* 26(1):21–31. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24059750>. [RH]
- Dadomo, H., Grecucci, A., Giardini, I., Ugolini, E., Carmelita, A. & Panzeri, M. (2016) Schema therapy for emotional dysregulation: Theoretical implication and clinical application. *Frontiers in Psychology* 7: article 1987. doi: 10.3389/fpsyg.2016.01987. [AG]
- Dalsant, A., Truzzi, A., Setoh, P. & Esposito, G. (2015) Maternal bonding in childhood moderates autonomic responses to distress stimuli in adult males. *Behavioural Brain Research* 292:428–31. doi: 10.1016/j.bbr.2015.06.026. [SD]
- Damasio, A. (1999) *The feeling of what happens: Body and emotion in the making of consciousness*. Harcourt Brace. [AG]
- Darwall, S. L. (1977) Two kinds of respect. *Ethics* 88(1):36–49. [FC, MM, rMMG]
- Darwall, S. L. (2004) Respect and the second-person standpoint. *Proceedings and Addresses of the American Philosophical Association* 78:43–59. [MM]
- Darwin, C. (1872/1955) *Expression of the emotions in man and animals*. Philosophical Library. (Original work published in 1872). [aMMG, MB]
- Dasgupta, N. & Rivera, L. M. (2006) From automatic antigay prejudice to behavior: The moderating role of conscious beliefs about gender and behavioral control. *Journal of Personality and Social Psychology* 91:268–80. doi: 10.1037/0022-3514.91.2.268. [AJB]
- Davis, D. E., Worthington, E. L., Jr. & Hook, J. N. (2010) Humility: Review of measurement strategies and conceptualization as a personality judgment. *The Journal of Positive Psychology* 5:243–52. [ACW]
- Davis, D. E., Worthington, E. L., Jr., Hook, J. N., Emmons, R. A., Hill, P. C., Bollinger, R. A. & Van Tongeren, D. R. (2013) Humility and the development and repair of social bonds: Two longitudinal studies. *Self and Identity* 12:58–77. [ACW]
- Davis, K. L. & Panksepp, J. (2011) The brain's emotional foundations of human personality and the Affective Neuroscience Personality Scales. *Neuroscience and Biobehavioral Reviews* 35(9):1946–58. doi: 10.1016/j.neubiorev.2011.04.004. [JES]
- Davis, M. C., Green, M. F., Lee, J., Horan, W. P., Senturk, D., Clarke, A. D. & Marder, S. R. (2014) Oxytocin-augmented social cognitive skills training in schizophrenia. *Neuropsychopharmacology* 39(9):2070–77. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24637803>. [RH]
- De Dreu, C. K. (2012) Oxytocin modulates cooperation within and competition between groups: An integrative review and research agenda. *Hormones and Behavior* 61(3):419–28. [aMMG]
- De Dreu, C. K., Greer, L. L., Handgraaf, M. J., Shalvi, S., Van Kleef, G. A., Baas, M., Ten Velden, F. S., Van Dijk, E. & Feith, S. W. (2010) The neuropeptide oxytocin regulates parochial altruism in intergroup conflict among humans. *Science* 328(5984):1408–11. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20538951>. [RH]
- De Dreu, C. K., Greer, L. L., Van Kleef, G. A., Shalvi, S. & Handgraaf, M. J. (2011) Oxytocin promotes human ethnocentrism. *Proceedings of the National Academy of Sciences USA* 108(4):1262–66. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21220339>. [aMMG, RH]
- Dellantonio, S. & Pastore, L. (2013) Freedom and moral judgment: A cognitive model of permissibility. In: *Model-based reasoning in science and technology. Vol. 8: Studies in Applied Philosophy, Epistemology and Rational Ethics*, ed. L. Magnani, pp. 339–61. Springer. doi: 10.1007/978-3-642-37428-9_19. [SD]
- Deonna, J. & Teroni, F. (2012) *The emotions: A philosophical introduction*. Routledge. [FC]
- DeSteno, D., Dasgupta, N., Bartlett, M. & Caidric, A. (2004) Prejudice from thin air. *Psychological Science* 15(5):319–24. [aMMG]
- Deutsch, M. (2006) Cooperation and competition. In: *The handbook of conflict resolution: Theory and practice*, ed. M. Deutsch, P. T. Coleman & E. C. Marcus, pp. 23–42. Jossey-Bass. [MCi]
- Dinakar, K., Jones, B., Havasi, C., Lieberman, H. & Picard, R. (2012) Common sense reasoning for detection, prevention, and mitigation of cyberbullying. *ACM Transactions on Interactive Intelligent Systems (TIIS)* 2(3): article 18:1–30. [MCo]
- Doi, T. (1973) *The anatomy of dependence*, trans. J. Bester. Kodansha International. [aMMG]
- Domes, G., Heinrichs, M., Michel, A., Berger, C. & Herpertz, S. C. (2007) Oxytocin improves "mind-reading" in humans. *Biological Psychiatry* 61(6):731–33. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17137561>. [RH]
- Donaldson, Z. R. & Young, L. J. (2008) Oxytocin, vasopressin, and the neurogenetics of sociality. *Science* 322(5903):900–904. [CDC]
- Dubreuil, B. (2010) Punitive emotions and norm violations. *Philosophical Explorations* 13(1):35–50. [aMMG]
- Durkheim, E. (1893/1997) *The division of labor in society*. The Free Press. [rMMG]
- Eagly, A. H. & Chaiken, S. (1993) *The psychology of attitudes*. Harcourt Brace. [aMMG]
- Ebner, N. C., Horta, M., Lin, T., Feifel, D., Fischer, H. & Cohen, R. A. (2015) Oxytocin modulates meta-mood as a function of age and sex. *Frontiers in Aging Neuroscience* 7: article 175. (Online journal). Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26441637>. [RH]
- Eckstein, M., Becker, B., Scheele, D., Scholz, C., Preckel, K., Schlaepfer, T. E., Grinevich, V., Kendrick, K. M., Maier, W. & Hurlmann, R. (2015) Oxytocin facilitates the extinction of conditioned fear in humans. *Biological Psychiatry* 78(3):194–202. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25542304>. [RH]
- Eckstein, M., Scheele, D., Patin, A., Preckel, K., Becker, B., Walther, A., Domschke, K., Grinevich, V., Maier, W. & Hurlmann, R. (2016) Oxytocin facilitates Pavlovian fear learning in males. *Neuropsychopharmacology* 41(4):932–39. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26272050>. [RH]
- Eibach, R. P. & Mock, S. E. (2011) The vigilant parent: Parental role salience affects parents' risk perceptions, risk-aversion, and trust in strangers. *Journal of Experimental Social Psychology* 47:694–97. [MS]
- Eich, E., Kihlstrom, J. F., Bower, G. H., Forgas, J. P. & Niedenthal, P. M. (2000) *Cognition and emotion*. Oxford University Press. [HCL]
- Ekman, P. (1992a) An argument for basic emotions. *Cognition and Emotion* 6(3):169–200. [aMMG, ACW]
- Ekman, P. (1992b) Are there basic emotions? *Psychological Review* 99(3):550–53. [MCo]
- Ekman, P. (2016) What scientists who study emotion agree about. *Perspectives on Psychological Science* 11:31–34. [MG]
- Ekman, P. & Cordaro, D. (2011) What is meant by calling emotions basic. *Emotion Review* 3:364–70. [VLS]
- Ekman, P. & Friesen, W. V. (1986) A new pan-cultural facial expression of emotion. *Motivation and Emotion* 10(2):159–68. doi: 10.1007/BF00992253. [aMMG, HCL]
- Ekman, P. & Friesen, W. V. (1988) Who knows what about contempt: A reply to Izard and Haynes. *Motivation and Emotion* 12:17–22. [aMMG]
- Ekman, P., Friesen, W. V., O'Sullivan, M., Chan, A., Diacoyanni-Tarlatzis, I., Heider, K., Krause, R., LeCompte, W. A., Pitcairn, T., Ricci-Bitti, P. E., Scherer, K., Tomita, M. & Tzavaras, A. (1987) Universals and cultural-differences in the judgments of facial expressions of emotion. *Journal of Personality and Social Psychology* 53(4):712–17. [aMMG]
- Ekman, P., O'Sullivan, M. & Matsumoto, D. (1991) Contradictions in the study of contempt: What's it all about? Reply to Russell. *Motivation and Emotion* 15:293–96. [aMMG]
- Ellsworth, P. C. & Scherer, K. R. (2003) Appraisal processes in emotion. In: *Handbook of affective sciences*, ed. R. J. Davidson, K. R. Scherer & H. H. Goldsmith, pp. 572–95. Oxford University Press. [HCL]
- Elmadhi, A., Wan, M. W., Downey, D., Elliott, R., Swain, J. E. & Abel, K. M. (2016) Natural variation in maternal sensitivity is reflected in maternal brain responses to infant stimuli. *Behavioral Neuroscience* 130(5):500–10. doi: 10.1037/bne0000161. [JES]
- Emmons, R. A. (1999) *The psychology of ultimate concern*. Guilford Press. [ACW]
- Esposito, G., Truzzi, A., Setoh, P., Putnick, D. L., Shinohara, K. & Bornstein, M. H. (2017) Genetic predispositions and parental bonding interact to shape adults' physiological responses to social distress. *Behavioural Brain Research* 325 (Part B):156–62. doi:10.1016/j.bbr.2016.06.042. [SD]
- Evers, E., de Vries, H., Spruijt, B. M. & Sterck, E. H. (2014) The EMO-model: An agent-based model of primate social behavior regulated by two emotional dimensions, anxiety-FAIR and satisfaction-LIKE. *PLoS ONE* 9(2):e87955. [aMMG]

- Exline, J. J. & Hill, P. C. (2012) Humility: A consistent and robust predictor of generosity. *The Journal of Positive Psychology* 7:208–18. [ACW]
- Fazio, R. (2007) Attitudes as object-evaluation associations of varying strength. *Social Cognition* 25:603–37. [aMMG]
- Fazio, R. H., Jackson, J. R., Dunton, B. C. & Williams, C. J. (1995) Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology* 69:1013–27. doi: 10.1037/0022-3514.69.6.1013. [AJB]
- Fehr, B. & Russell, J. A. (1984) Concept of emotion viewed from a prototype perspective. *Journal of Experimental Psychology—General* 113(3):464–86. [aMMG]
- Feldman, R. (2016) The neurobiology of mammalian parenting and the biosocial context of human caregiving. *Hormones and Behavior* 77:3–17. [MS]
- Feldman, R., Granat, A., Pariente, C., Kanety, H., Kuint, J. & Gilboa-Schechtman, E. (2009) Maternal depression and anxiety across the postpartum year and infant social engagement, fear regulation, and stress reactivity. *Journal of the American Academy of Child and Adolescent Psychiatry* 48(9):919–27. doi: 10.1097/CHI.0b013e3181b21651. [JES]
- Fessler, D. M. T. (1995) A small field with a lot of hornets: An exploration of shame, motivation, and social control. Doctoral dissertation, University of California, San Diego. [rMMG]
- Fessler, D. M. T. (1999) Toward an understanding of the universality of second order emotions. In: *Biocultural approaches to the emotions*, ed. A. L. Hinton, pp. 75–116. Cambridge University Press. [arMMG]
- Fessler, D. M. T. (2004) Shame in two cultures: Implications for evolutionary approaches. *Journal of Cognition and Culture* 4:207–62. [aMMG]
- Fessler, D. M. T. (2007) Steps toward an evolutionary psychology of a culture-dependent species. In *The innate mind, vol. II*, ed. S. Carruthers, S. Laurence & S. Stich, pp. 91–117. Oxford University Press. [arMMG]
- Fessler, D. M. T., Barrett, H. C., Kanovsky, M., Stich, S., Holbrook, C., Henrich, J., Bolyanatz, A. H., Gervais, M. M., Gurven, M., Kushnick, G., Pisor, A. C., von Rueden, C. & Laurence, S. (2015) Moral parochialism and contextual contingency across seven disparate societies. *Proceedings of the Royal Society of London B: Biological Sciences* 282(1813):e20150907. [rMMG]
- Fessler, D. M. T. & Gervais, M. (2010) From whence the captains of our lives: Ultimate and phylogenetic perspectives on emotions in humans and other primates. In: *Mind the gap: The origins of human universals*, ed. P. M. Kappeler & J. B. Silk, pp. 261–80. Springer. [aMMG]
- Fessler, D. M. T. & Haley, K. J. (2003) The strategy of affect: Emotions in human cooperation. In: *The genetic and cultural evolution of cooperation*, ed. P. Hammerstein, pp. 7–36. MIT Press. [arMMG]
- Fessler, D. M. T., Holbrook, C., Pollack, J. S. & Hahn-Holbrook, J. (2014) Stranger danger: Parenthood increases the envisioned bodily formidability of menacing men. *Evolution and Human Behavior* 35:109–17. [MS]
- Fessler, D. M. T. & Quintelier, K. (2013) Suicide bombings, weddings, and prison tattoos: An evolutionary perspective on subjective commitment and objective commitment. In: *Cooperation and its evolution: Vol. 2. Agents and mechanisms*, ed. K. Sterelny, R. Joyce, B. Calcott & B. Fraser, pp. 459–83. MIT Press. [aMMG]
- Filippi, M., Agosta, F., Scola, E., Canu, E., Magnani, G., Marcone, A., Valsasina, P., Caso, F., Copetti, M., Comi, G., Cappa, S. F. & Falini, A. (2013) Functional network connectivity in the behavioral variant of frontotemporal dementia. *Cortex* 49(9):2389–401. [aMMG]
- Fincher, C. L. & Thornhill, R. (2012) Parasite-stress promotes in-group assortative sociality: The cases of strong family ties and heightened religiosity. *Behavioral and Brain Sciences* 35(2):61–79. [MEWV]
- Fischer, A. (2011) Contempt: A hot feeling hidden under a cold jacket. In: *Re-constructing emotional spaces: From experience to regulation*, ed. R. Trnka, K. Balcar & M. Kuska, pp. 77–87. Prague College of Psychosocial Studies Press. [aMMG]
- Fischer, A. & Giner-Sorolla, R. (2016) Contempt: Derogating others while keeping calm. *Emotion Review* 8(4):346–57. doi:10.1177/1754073915610439. Available at: <http://journals.sagepub.com/doi/full/10.1177/1754073915610439>. [rMMG, RG-S, GBS]
- Fischer, A. H. & Manstead, A. S. R. (2008) Social functions of emotion. In: *Handbook of emotions*, 3rd edition, ed. M. Lewis, J. H. Haviland-Jones & L. F. Barrett, pp. 456–68. Guilford Press. [aMMG]
- Fischer, A. H. & Roseman, I. J. (2007) Beat them or ban them: The characteristics and social functions of anger and contempt. *Journal of Personality and Social Psychology* 93(1):103–15. doi:10.1037/0022-3514.93.1.103. [aMMG, RG-S]
- Fisher, H. E., Aron, A., Mashek, D., Li, H. & Brown, L. L. (2002) Defining the brain systems of lust, romantic attraction, and attachment. *Archives of Sexual Behavior* 31(5):413–19. [DJH]
- Fiske, A. P. (1991) *Structures of social life*. The Free Press. [aMMG]
- Fiske, A. P. (2002) Socio-moral emotions motivate action to sustain relationships. *Self and Identity* 1:169–75. [aMMG]
- Fiske, A. P. & Fiske, S. T. (2007) Social relationships in our species and cultures. In: *Handbook of cultural psychology*, ed. S. Kitayama & D. Cohen, pp. 283–306. Guilford Press. [aMMG]
- Fiske, S. T. (2015) Intergroup biases: A focus on stereotype content. *Current Opinion in Behavioral Sciences* 3:45–50. [MB]
- Fiske, S. T., Cuddy, A. J. & Glick, P. (2007) Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences* 11(2):77–83. [aMMG, MCI, NH, DJH]
- Fiske, S. T., Cuddy, A. J. C., Glick, P. & Xu, J. (2002) A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology* 82(6):878–902. doi:10.1037/0022-3514.82.6.878. [aMMG, AJB, MB, MCI, FC, RG-S]
- Fiske, S. T. & Ruscher, J. B. (1993) Negative interdependence and prejudice: Whence the affect? In: *Affect, cognition, and stereotyping: Interactive processes in group perception*, ed. D. M. Mackie & D. L. Hamilton, pp. 239–68. Academic Press. [MCI]
- Frank, R. H. (1988) *Passions within reason: The strategic role of the emotions*. W. W. Norton. [aMMG]
- Frederickson, J. (2013) *Co-creating change. Effective dynamic therapy techniques*. Seven Leaves Press. [AG]
- Fridhandler, B. M. & Averill, J. R. (1982) Temporal dimensions of anger: An exploration of time and emotion. In: *Anger and aggression*, ed. J. R. Averill, pp. 253–80. Springer-Verlag. [aMMG, VLS]
- Frie, J. R. & Shaver, P. (2002) Respect in close relationships: Prototype definition, self-report assessment, and initial correlates. *Personal Relationships* 9(2):121–39. [MM]
- Frijda, N. H. (1986) *The emotions*. Cambridge University Press. [aMMG, MM]
- Frijda, N. H. (1987) Emotion, cognitive structure, and action tendency. *Cognition and Emotion* 1:115–43. doi: 10.1080/02699938708408043. [HCL]
- Frijda, N. H. (1994) Varieties of affect: Emotions and episodes, moods, and sentiments. In: *The nature of emotion: Fundamental questions*, ed. P. Ekman & R. J. Davidson, pp. 59–67. Oxford University Press. [arMMG]
- Frijda, N. H., Mesquita, B., Sonnemans, J. & Van Goozen, S. (1991) The duration of affective phenomena or emotions, sentiments and passions. In: *International review of studies on emotion, vol. 1*, ed. K. T. Strongman, pp. 187–225. Wiley. [arMMG, RG-S]
- Frijda, N. H., Kuipers, P. & Ter Schure, E. (1989) Relations among emotion, appraisal, and emotional action readiness. *Journal of Personality and Social Psychology* 57(2):212–28. [arMMG]
- Gaber, M. M., Cocea, M., Wiratunga, N. & Goker, A., eds. (2015) *Advances in social media analysis, vol. 602*. Springer. [MC]
- Galesic, M., Olsson, H. & Rieskamp, J. (2012) Social sampling explains apparent biases in judgments of social environments. *Psychological Science* 23:1515–23. [MC]
- Gawronski, B. (2007) Editorial: Attitudes can be measured! But what is an attitude? *Social Cognition* 25(5):573–81. [aMMG]
- Gendron, M., Lindquist, K. A., Barsalou, L. & Barrett, L. F. (2012) Emotion words shape emotion percepts. *Emotion* 12:314–25. [VLS]
- Gervais, M. & Wilson, D. (2005) The evolution and functions of laughter and humor: A synthetic approach. *The Quarterly Review of Biology* 80(4):395–430. [aMMG]
- Gervais, M. M., Kline, M., Ludmer, M., George, R. & Manson, J. H. (2013) The strategy of psychopathy: Primary psychopathic traits predict defection on low-value relationships. *Proceedings of the Royal Society of London B: Biological Sciences* 280(1757):e20122773. [aMMG]
- Gilead, M. & Lieberman, N. (2014) We take care of our own: Caregiving salience increases out-group bias in response to out-group threat. *Psychological Science* 25:1380–87. [MS]
- Gilligan, J. (1996) Exploring shame in special settings: A psychotherapeutic study. In: *Forensic psychotherapy: Crime, psychodynamics and the offender patient. Vol. 2: Mainly practice*, ed. C. Cordess & M. Cox, pp. 475–89. Jessica Kingsley. [AG]
- Giner-Sorolla, R. (2012) *Judging passions: Moral emotions in persons and groups*. European Monographs in Social Psychology. Psychology Press. [RG-S]
- Ginzburg, C. (1981) Charivari, associations juvéniles, chasse sauvage. In: *Le Charivari*, ed. J. Le Goff & J.-C. Schmitt, pp. 131–40. Mouton. [BN]
- Ginzburg, C. (1989/1996) *Istorie nocturnă: O interpretare a Sabatului [Ecstasies: Deciphering the Witches' Sabbath]*, trans. M. Avădanei. Polirom. (Original English publication in 1989). [BN]
- Glick, P. (2002) Sacrificial lambs in wolves clothing: Envious prejudice, ideology, and scapegoating of Jews. In: *What social psychology can tell us about the Holocaust*, ed. L. S. Newman & R. Erber, pp. 113–42. Oxford University Press. [MCI]
- Glocker, M. L., Langleben, D. D., Ruparel, K., Loughead, J. W., Gur, R. C. & Sachser, N. (2009) Baby schema in infant faces induces cuteness perception and motivation for caretaking in adults. *Ethology* 115:257–63. [MS]
- Goldfarb, R. (1961) The history of the contempt power. *Washington University Law Quarterly* 1:1–29. [aMMG]
- Gonzaga, G., Keltner, D., Londahl, E. & Smith, M. (2001) Love and the commitment problem in romantic relations and friendship. *Journal of Personality and Social Psychology* 81(2):247–62. [aMMG]

- Górska, P. & Bilewicz, M. (2015) When 'a group in itself' becomes 'a group for itself': Overcoming inhibitory effects of superordinate categorization on LGBTQ individuals. *Journal of Social Issues* 71:554–75. [MB]
- Gottman, J. M. & Levenson, R. W. (1992) Marital processes predictive of later dissolution: Behavior, physiology, and health. *Journal of Personality and Social Psychology* 63(2):221–33. [aMMG, MM]
- Gottman, J. M. & Levenson, R. W. (2000) The timing of divorce: Predicting when a couple will divorce over a 14-year period. *Journal of Marriage and Family* 62(3):737–45. [rMMG]
- Greccucci, A., Frederickson, J. & Job, R. (2017) Editorial: Advances in emotion regulation: From neuroscience to psychotherapy. *Frontiers in Psychology* 8: article 985. Available at: <http://journal.frontiersin.org/article/10.3389/fpsyg.2017.00985/full> [AG]
- Greccucci, A. & Job, R. (2015) Rethinking reappraisal: Insights from affective neuroscience. *Behavioral and Brain Sciences* 38:e102. Available at: <https://doi.org/10.1017/S0140525X14001538> [AG]
- Greccucci, A., Recchia, L. & Frederickson, J. (2016) Per una metodologia della regolazione emozionale basata su principi psicodinamici [For a methodology of emotion regulation based on psychodynamic principles]. *International Journal of Psychoanalysis and Education* 8(2):4–13. Available at: <http://www.psychoedu.org/index.php/IJPE/article/view/166/158>. [RH] [AG]
- Greccucci, A., Siugzdaite, R., Frederickson, J. & Job, R. (in preparation) Neurocognitive mechanisms of shame. [AG]
- Greccucci, A., Theuninck, A., Frederickson, J. & Job, R. (2015) Mechanisms of social emotion regulation: From neuroscience to psychotherapy. In: *Emotion regulation: Processes, cognitive effects and social consequences*, ed. M. L. Bryant, pp. 57–84. Nova Science. [AG]
- Gregory, R., Cheng, H., Rupp, H. A., Sengelaub, D. R. & Heiman, J. R. (2015) Oxytocin increases VTA activation to infant and sexual stimuli in nulliparous and postpartum women. *Hormones and Behavior* 69:82–88. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25562711>. [RH]
- Groppe, S. E., Gossen, A., Rademacher, L., Hahn, A., Westphal, L., Grunder, G. & Spreckelmeyer, K. N. (2013) Oxytocin influences processing of socially relevant cues in the ventral tegmental area of the human brain. *Biological Psychiatry* 74(3):172–79. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23419544>. [RH]
- Grossmann, I. & Varnum, M. E. W. (2015) Social structure, infectious diseases, disasters, secularism, and cultural change in America. *Psychological Science* 26:311–24. [MEWV]
- Guastella, A. J., Howard, A. L., Dadds, M. R., Mitchell, P. & Carson, D. S. (2009) A randomized controlled trial of intranasal oxytocin as an adjunct to exposure therapy for social anxiety disorder. *Psychoneuroendocrinology* 34(6):917–23. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/19246160>. [RH]
- Hackman, J., Danvers, A. & Hruschka, D. J. (2015) Closeness is enough for friends, but not mates or kin: Mate and kinship premiums in India and US. *Evolution and Human Behavior* 36(2):137–45. [DJH]
- Hackman, J., Munira, S., Khaleida, J. & Hruschka, D. (2017) Revisiting psychological mechanisms in the anthropological study of altruism. *Human Nature* 28(1):76–91. [DJH]
- Halm-Holbrook, J., Holt-Lunstad, J., Holbrook, C., Coyne, S. & Lawson, E. T. (2011) Maternal defense: Breastfeeding increases aggression by decreasing stress. *Psychological Science* 22:1288–95. [MS]
- Haidt, J. (2003) The moral emotions. In: *Handbook of affective science*, ed. R. Davidson, K. Scherer & H. Goldsmith, pp. 852–70. Oxford University Press. [aMMG]
- Haidt, J. & Graham, J. (2016) Paradise lost: How moral psychology would contract if reduced to harm. Symposium conducted at the meeting of the Society for Personality and Social Psychology, San Diego, CA, January 2016. [VLS]
- Haidt, J. & Keltner, D. (1999) Culture and facial expression: Open-ended methods find more faces and a gradient of recognition. *Cognition and Emotion* 13(3):225–66. [arMMG, MB, VLS]
- Halperin, E. & Gross, J. J. (2011) Intergroup anger in intractable conflict: Long-term sentiments predict anger responses during the Gaza War. *Group Processes & Intergroup Relations* 14(4):477–88. [RG-S]
- Handy, E. S. C. & Pukui, M. K. (1953) The Polynesian family system in Ka-‘u, Hawaii I, VII. Traditional manners and customs, and the social order. *The Journal of the Polynesian Society* 62(4):295–341. [aMMG]
- Hare, R. D. (1996) Psychopathy: A clinical construct whose time has come. *Criminal Justice and Behavior* 23:25–54. [aMMG]
- Hareli, S. & Weiner, B. (2002) Dislike and envy as antecedents of pleasure at another's misfortune. *Motivation and Emotion* 26(4):257–77. [aMMG]
- Harris, L. T. & Fiske, S. T. (2006) Dehumanizing the lowest of the low neuroimaging responses to extreme out-groups. *Psychological Science* 17:847–53. [MB]
- Harris, L. T. & Fiske, S. T. (2007) Social groups that elicit disgust are differentially processed in mPFC. *Social Cognitive and Affective Neuroscience* 2:45–51. Available at: <http://doi.org/10.1093/scan/nsl037>. [RG-S]
- Harris, L. T. & Fiske, S. T. (2009) Social neuroscience evidence for dehumanised perception. *European Review of Social Psychology* 20:192–231. [MB]
- Harris, L. T. & Fiske, S. T. (2011) Perceiving humanity or not: A social neuroscience approach to dehumanized perception. In: *Social neuroscience: Toward understanding the underpinnings of the social mind*, ed. A. Todorov, S. T. Fiske, & D. A. Prentice, pp. 123–34. Oxford University Press. [MB]
- Haselton, M. & Nettle, D. (2006) The paranoid optimist: An integrative evolutionary model of cognitive biases. *Personality and Social Psychology Review* 10(1):47–66. [aMMG]
- Haslam, N. (2006) Dehumanization: An integrative review. *Personality and Social Psychology Review* 10(3):252–64. [arMMG]
- Haslam, N. & Bornstein, B. (1996) Envy and jealousy as discrete emotions: A taxometric analysis. *Motivation and Emotion* 20(3):255–72. [aMMG]
- Hawk, S. T., van Kleef, G. A., Fischer, A. H. & van der Schalk, J. (2009) "Worth a thousand words": Absolute and relative decoding of nonlinguistic affect vocalizations. *Emotion* 9:293–305. doi: 10.1037/a0015178. [RG-S]
- Heider, F. (1958) *The psychology of interpersonal relations*. Psychology Press. [aMMG]
- Hein, G., Silani, G., Preuschhoff, K., Batson, C. D. & Singer, T. (2010) Neural responses to ingroup and outgroup members' suffering predict individual differences in costly helping. *Neuron* 68(1):149–60. [aMMG]
- Henrich, J. & Gil-White, F. J. (2001) The evolution of prestige: Freely conferred deference as a mechanism for enhancing the benefits of cultural transmission. *Evolution and Human Behavior* 22(3):165–96. [aMMG, BC]
- Heuer, K., Lange, W. G., Isaac, L., Rinck, M. & Becker, E. S. (2010) Morphed emotional faces: Emotion detection and misinterpretation in social anxiety. *Journal of Behavioral Therapy and Experimental Psychiatry* 41:418–25. [VLS]
- Hill, K. R., Walker, R. S., Božičević, M., Eder, J., Headland, T., Hewlett, B., Magdalena Hurtado, A., Marlowe, F., Wiessner, P. & Wood, B. (2011) Co-residence patterns in hunter-gatherer societies show unique human social structure. *Science* 331(6022):1286–89. [aMMG]
- Hipwell, A. E., Guo, C., Phillips, M. L., Swain, J. E. & Moses-Kolko, E. L. (2015) Right fronto-insular cortex and subcortical activity to infant cry is associated with maternal mental state talk. *Journal of Neuroscience* 35(37):12725–32. doi: 10.1523/JNEUROSCI.1286-15.2015. [JES]
- Hirshleifer, J. (1987) On the emotions as guarantors of threats and punishments. In: *The latest on the best: Essays in evolution and optimality*, ed. J. Dupre, pp. 307–26. MIT Press. [aMMG]
- Ho, S. S., Konrath, S., Brown, S. & Swain, J. E. (2014) Empathy and stress related neural responses in maternal decision making. *Frontiers in Neuroscience* 8: article 152. doi: 10.3389/fnins.2014.00152. [JES]
- Hodson, G. & Costello, K. (2007) Interpersonal disgust, ideological orientations, and dehumanization as predictors of intergroup attitudes. *Psychological Science* 18:691–98. [MB]
- Holbrook, C., Fessler, D. M. T. & Navarrete, C. D. (2016) Looming large in others' eyes: Racial stereotypes illuminate dual adaptations for representing threat versus prestige as physical size. *Evolution and Human Behavior* 37:67–78. Available at: <http://dx.doi.org/10.1016/j.evolhumbehav.2015.08.004>. [aMMG]
- Holbrook, C., Piazza, J. & Fessler, D. M. (2014a) Conceptual and empirical challenges to the "authentic" versus "hubristic" model of pride. *Emotion* 14(1):17–32. [rMMG]
- Holbrook, C., Piazza, J. R. & Fessler, D. M. (2014b) Further challenges to the "authentic"/"hubristic" model of pride: Conceptual clarifications and new evidence. *Emotion* 14(1):38–42. [GBS]
- Holt-Lunstad, J., Birmingham, W. C. & Light, K. C. (2014) Relationship quality and oxytocin: Influence of stable and modifiable aspects of relationships. *Journal of Social and Personal Relationships* 32(4):472–90. [aMMG]
- Hovey, D., Lindstedt, M., Zettergren, A., Jonsson, L., Johansson, A., Melke, J., Kerekes, N., Anckarsater, H., Lichtenstein, P., Lundstrom, S. & Westberg, L. (2016) Antisocial behavior and polymorphisms in the oxytocin receptor gene: Findings in two independent samples. *Molecular Psychiatry* 21(7):983–88. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26390829>. [RH]
- Hruschka, D. J. (2010) *Friendship: Development, ecology, and evolution of a relationship*, vol. 5. University of California Press. [DJH]
- Hruschka, D. J. & Henrich, J. (2006) Friendship, cliquishness, and the emergence of cooperation. *Journal of Theoretical Biology* 239(1):1–15. [aMMG]
- Huang, J. Y., Sedlovskaya, A., Ackerman, J. M. & Bargh, J. A. (2011) Immunizing against prejudice effects of disease protection on attitudes toward out-groups. *Psychological Science* 22(12):1550–56. [MEWV]
- Hume, D. (1739/2001) *A treatise of human nature*, ed. D. F. Norton & E. F. Norton. Oxford University Press. (Original work published in 1739). [GBS]
- Hurlemann, R., Patin, A., Onur, O. A., Cohen, M. X., Baumgartner, T., Metzler, S., Dziobek, I., Gallinat, J., Wagner, M., Maier, W. & Kendrick, K. M. (2010) Oxytocin enhances amygdala-dependent, socially reinforced learning and emotional empathy in humans. *Journal of Neuroscience* 30:4999–5007. [RH]
- Hurlemann, R. & Scheele, D. (2016) Dissecting the role of oxytocin in the formation and loss of social relationships. *Biological Psychiatry* 79(3):185–93. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26122876>. [RH]

- Hutcherson, C. A. & Gross, J. J. (2011) The moral emotions: A social-functional account of anger, disgust, and contempt. *Journal of Personality and Social Psychology* 100(4):719–37. doi: 10.1037/a0022408. [arMMG]
- Hutcheson, F. (1755) *A system of moral philosophy*, 3 volumes. Foulis. [SD]
- Inbar, Y., Pizarro, D. A. & Bloom, P. (2009) Conservatives are more easily disgusted than liberals. *Cognition and Emotion* 23:714–25. [MB]
- Inglehart, R. & Welzel, C. (2005) *Modernization, cultural change, and democracy: The human development sequence*. Cambridge University Press. [MEWV]
- Insel, T. R. (1992) Oxytocin – A neuropeptide for affiliation: Evidence from behavioral, receptor autoradiographic, and comparative studies. *Psychoneuroendocrinology* 17(1):3–35. [aMMG]
- Insel, T. R. & Young, L. J. (2001) The neurobiology of attachment. *Nature Reviews Neuroscience* 2(2):129–36. [CDC]
- Izard, C. E. (1977) *Human emotions*. Plenum Press. [aMMG]
- Izard, C. E. (1991) *The psychology of emotions*. Plenum Press. [AG]
- Izard, C. E. (2010) The many meanings/aspects of emotion: Definitions, functions, activation, and regulation. *Emotion Review* 2:363–70. [ACW]
- Izard, C. E. (2011) Forms and functions of emotions: Matters of emotion–cognition interactions. *Emotion Review* 3:371–78. [VLS]
- Izard, C. E. & Haynes, O. M. (1988) On the form and universality of the contempt expression: A challenge to Ekman and Friesen's claim of discovery. *Motivation and Emotion* 12(1):1–16. [arMMG, VLS]
- Johnson, D. W. & Johnson, R. T. (1989) *Cooperation and competition: Theory and research*. Interaction. [MCi]
- Jones, A. & Fitness, J. (2008) Moral hypervigilance: The influence of disgust sensitivity in the moral domain. *Emotion* 8:613–27. [MB]
- Jones, S. E., Manstead, A. S. R. & Livingstone, A. G. (2011) Ganging up or sticking together? Group processes and children's responses to text-message bullying. *British Journal of Psychology* 102:71–96. [MCo]
- Jost, J. T. & Kay, A. C. (2005) Exposure to benevolent sexism and complementary gender stereotypes: Consequences for specific and diffuse forms of system justification. *Journal of Personality and Social Psychology* 88:498–509. [MB]
- Justo, R., Corcoran, T., Lukin, S. M., Walker, M. & Torres, M. I. (2014) Extracting relevant knowledge for the detection of sarcasm and nastiness in the social web. *Knowledge-Based Systems* 69:124–33. [MCo]
- Kalawski, J. P. (2010) Is tenderness a basic emotion? *Motivation and Emotion* 34:158–67. [MS]
- Kant, I. (1786/2012) *Groundwork of the metaphysics of morals*, revised edition, trans. M. Gregor, rev. J. Timmermann. Cambridge University Press. (Original work published in 1786). [MM]
- Kaplan, R. L., Levine, L. J., Lench, H. C. & Safer, M. A. (2016) Forgetting feelings: Opposite biases in reports of the intensity of past emotion and mood. *Emotion* 16:309–19. doi: 10.1037/emo0000127. [HCL]
- Karnouh, C. (1981) Le charivari on l'hypothèse de la monogamie. In: *Le Charivari*, ed. J. Le Goff & J.-C. Schmitt, pp. 33–43. Mouton. [BN]
- Keller, M. C. & Nesse, R. M. (2006) The evolutionary significance of depressive symptoms: Different adverse situations lead to different depressive symptom patterns. *Journal of Personality and Social Psychology* 91(2):316–30. [aMMG]
- Keltner, D., Haidt, J. & Shiota, M. N. (2006) Social functionalism and the evolution of emotions. In: *Evolution and social psychology*, ed. M. Schaller, J. A. Simpson & D. T. Kenrick, pp. 115–42. Psychology Press. [aMMG]
- Kenrick, D. T., Griskevicius, V., Neuberg, S. L. & Schaller, M. (2010) Renovating the pyramid of needs: Contemporary extensions built upon ancient foundations. *Perspectives on Psychological Science* 5(3):292–314. [aMMG, MS]
- Kernberg, O. F. (1984) *Severe personality disorders: Psychotherapeutic strategies*. Yale University Press. [AG]
- Kesebir, P. (2014) A quiet ego quiets death anxiety: Humility as an existential anxiety buffer. *Journal of Personality and Social Psychology* 106:610–23. [ACW]
- Kim, P., Capistrano, C. & Congleton, C. (2016a) Socioeconomic disadvantages and neural sensitivity to infant cry: Role of maternal distress. *Social Cognitive and Affective Neuroscience* 11(10):1597–607. doi: 10.1093/scan/nsw063. [JES]
- Kim, P., Feldman, R., Mayes, L. C., Eicher, V., Thompson, N., Leckman, J. F. & Swain, J. E. (2011) Breastfeeding, brain activation to own infant cry, and maternal sensitivity. *Journal of Child Psychology and Psychiatry* 52(8):907–15. [JES]
- Kim, P., Ho, S. S., Evans, G. W., Liberzon, I. & Swain, J. E. (2015a) Childhood social inequalities influences neural processes in young adult caregiving. *Developmental Psychobiology* 57(8):948–60. doi: 10.1002/dev.21325. [JES]
- Kim, P., Leckman, J. F., Mayes, L. C., Feldman, R., Wang, X. & Swain, J. E. (2010a) The plasticity of human maternal brain: Longitudinal changes in brain anatomy during the early postpartum period. *Behavioral Neuroscience* 124(5):695–700. [JES]
- Kim, P., Leckman, J. F., Mayes, L. C., Newman, M. A., Feldman, R. & Swain, J. E. (2010b) Perceived quality of maternal care in childhood and structure and function of mothers' brain. *Developmental Science* 13(4):662–73. doi: 10.1111/j.1467-7687.2009.00923.x. [JES]
- Kim, P., Mayes, L., Feldman, R., Leckman, J. F. & Swain, J. E. (2013) Early postpartum parental preoccupation and positive parenting thoughts: Relationship with parent-infant interaction. *Infant Mental Health Journal* 34(2):104–16. doi: 10.1002/imhj.21359. [JES]
- Kim, P., Rigo, P., Leckman, J. F., Mayes, L. C., Cole, P. M., Feldman, R. & Swain, J. E. (2015b) A prospective longitudinal study of perceived infant outcomes at 18–24 months: Neural and psychological correlates of parental thoughts and actions assessed during the first month postpartum. *Frontiers in Psychology* 6: article 1772. (Online journal). doi: 10.3389/fpsyg.2015.01772. [JES]
- Kim, P., Rigo, P., Mayes, L. C., Feldman, R., Leckman, J. F. & Swain, J. E. (2014) Neural plasticity in fathers of human infants. *Social Neuroscience* 9(5):522–35. doi: 10.1080/17470919.2014.933713. [JES]
- Kim, P., Strathearn, L. & Swain, J. E. (2016b) The maternal brain and its plasticity in humans. *Hormones and Behavior* 77:113–23. doi: 10.1016/j.yhbeh.2015.08.001. [JES]
- King, A. J., Johnson, D. D. P. & Van Vugt, M. (2009) The origins and evolution of leadership. *Current Biology* 19:R911–16. [aMMG]
- Kitayama, S., Mesquita, B. & Karasawa, M. (2006) Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology* 91(5):890–903. [aMMG]
- Kleinginna, P. R., Jr. & Kleinginna, A. M. (1981) A categorized list of motivation definitions, with a suggestion for a consensual definition. *Motivation and Emotion* 5(3):263–91. [RG-S]
- Kohut, H. (1971) *The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders*. International Universities Press. [AG]
- Kosfeld, M., Heinrichs, M., Zak, P. J., Fischbacher, U. & Fehr, E. (2005) Oxytocin increases trust in humans. *Nature* 435(7042):673–76. [aMMG]
- Kövecses, Z. (2003) *Metaphor and emotion: Language, culture, and body in human feeling*. Cambridge University Press. [aMMG]
- Kragel, P. A. & LaBar, K. S. (2013) Multivariate pattern classification reveals autonomic and experiential representations of discrete emotions. *Emotion* 13(4):681–90. [arMMG]
- Krause, N., Pargament, K. I., Hill, P. C. & Ironson, G. (2016) Humility, stressful life events, and psychological well-being: Findings from the landmark spirituality and health survey. *The Journal of Positive Psychology* 11:499–510. [ACW]
- Kreibitz, S. D. (2010) Autonomic nervous system activity in emotion: A review. *Biological Psychology* 84:394–421. doi: 10.1016/j.biopsycho.2010.03.010. [HCL, VLS]
- Krumhuber, E. G., Tsankova, E. & Kappas, A. (in press) Examining subjective and physiological responses to norm violation using text-based vignettes. *International Journal of Psychology*. Advance Online publication. doi: 10.1002/ijop.12253. [MB]
- Kruse, E., Chancellor, J., Ruberton, P. M. & Lyubomirsky, S. (2014) An upward spiral between gratitude and humility. *Social Psychological and Personality Science* 5:805–14. [ACW]
- Kupfer, T. R. & Giner-Sorolla, R. (2016) Communicating moral motives: The social signaling function of disgust. *Social Psychological and Personality Science*. Published Online December 15, 2016. doi: 10.1177/1948550616679236. [rMMG]
- Kurzban, R. & Leary, M. R. (2001) Evolutionary origins of stigmatization: The functions of social exclusion. *Psychological Bulletin* 127(2):187–208. [aMMG]
- LaBouff, J. P., Rowatt, W. C., Johnson, M. K., Tsang, J. & Willerton, G. M. (2012) Humble persons are more helpful than less humble persons: Evidence from three studies. *The Journal of Positive Psychology* 7:16–29. [ACW]
- Laham, S. M., Chopra, S., Lalljee, M. & Parkinson, B. (2010) Emotional and behavioural reactions to moral transgressions: Cross-cultural and individual variations in India and Britain. *International Journal of Psychology* 45:64–71. doi: 10.1080/00207590902913434. [aMMG, MB, HCL]
- Lakoff, G. (1995) Metaphor, morality, and politics, or why conservatives have left liberals in the dust. *Social Research* 62:177–213. [aMMG]
- Lammers, J. & Stapel, D. A. (2011) Power increases dehumanization. *Group Processes & Intergroup Relations* 14:113–26. [aMMG]
- Langdon, S. W. (2007) Conceptualizations of respect: Qualitative and quantitative evidence of four (five) themes. *The Journal of Psychology* 141:469–84. [aMMG]
- Laurent, H. K. & Ablow, J. C. (2012) A cry in the dark: Depressed mothers show reduced neural activation to their own infant's cry. *Social Cognitive and Affective Neuroscience* 7(2):125–34. doi: nsq091 [pii] 10.1093/scan/nsq091. [JES]
- Lazarus, R. S. (1991) *Emotion and adaptation*. Oxford University Press. [aMMG]
- Leary, M. R., Tambor, E. S., Terdal, S. K. & Downs, D. L. (1995) Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology* 68(3):518–30. [rMMG]
- Leckman, J. F., Feldman, R., Swain, J. E., Eicher, V., Thompson, N. & Mayes, L. C. (2004) Primary parental preoccupation: Circuits, genes, and the crucial role of the environment. *Journal of Neural Transmission* 111(7):753–71. [JES]
- LeDoux, J. (1998) *The emotional brain: The mysterious underpinnings of emotional life*. Simon & Schuster/Touchstone. [AG]
- LeDoux, J. (2012) Rethinking the emotional brain. *Neuron* 73(4):653–76. [aMMG]

- Lench, H. C., Bench, S. W., Darbor, K. E. & Moore, M. (2015) A functionalist manifesto: Goal-related emotions from an evolutionary perspective. *Emotion Review* 7:90–98. doi: 10.1177/1754073914553001. [HCL]
- Lench, H. C., Flores, S. A. & Bench, S. W. (2011a) Discrete emotions predict changes in cognition, judgment, experience, behavior, and physiology: A meta-analysis of experimental emotion elicitation. *Psychological Bulletin* 137:834–55. doi: 10.1037/a0024244. [HCL]
- Lench, H. C. & Levine, L. J. (2005) Effects of fear on risk and control judgements and memory: Implications for health promotion messages. *Cognition and Emotion* 19:1049–69. doi: 10.1080/02699930500203112. [HCL]
- Lench, H. C. & Levine, L. J. (2010) Motivational biases in memory for emotions. *Cognition and Emotion* 24:401–18. doi: 10.1080/02699930802650788. [HCL]
- Lench, H. C., Safer, M. A. & Levine, L. J. (2011b) Focalism and the underestimation of future emotion: When it's worse than imagined. *Emotion* 11:278–85. doi: 10.1037/a0022792. [HCL]
- Lench, H. C., Tibbett, T. P. & Bench, S. W. (2016) Exploring the toolkit of emotion: What do sadness and anger do for us? *Social and Personality Psychology Compass* 10:11–25. doi: 10.1111/spc3.12229. [HCL]
- Leng, G. & Ludvig, M. (2016) Intranasal oxytocin: Myths and delusions. *Biological Psychiatry* 79:243–50. doi:10.1016/j.biopsych.2015.05.003. [aMMG]
- Lerner, J. S. & Keltner, D. (2001) Fear, anger, and risk. *Journal of Personality and Social Psychology* 81:146–59. doi: 10.1037/0022-3514.81.1.146. [HCL]
- Lesourd, D. (1981) "Strigătorii", une coutume de charivari roumaine? In: *Le Charivari*, ed. J. Le Goff & J.-C. Schmitt, pp. 131–40. Mouton. [BN]
- Leung, A. K. Y. & Cohen, D. (2011) Within- and between-culture variation: Individual differences and the cultural logics of honor, face, and dignity cultures. *Journal of Personality and Social Psychology* 100(3):507–26. [aMMG, MEVW]
- Levine, L. J. (1996) The anatomy of disappointment: A naturalistic test of appraisal models of sadness, anger, and hope. *Cognition and Emotion* 10:337–59. doi: 10.1080/026999396380178. [HCL]
- Levine, L. J., Lench, H. C., Kaplan, R. L. & Safer, M. A. (2012) Accuracy and artifact: Reexamining the intensity bias in affective forecasting. *Journal of Personality and Social Psychology* 103:584–605. doi: 10.1037/a0029544. [HCL]
- Levy, R. I. (1973) *Tahitians: Mind and experience in the Society Islands*. University of Chicago Press. [aMMG]
- Levy, R. L. (1984) Emotion, knowing, and culture. In: *Culture theory*, ed. R. A. Shweder & R. A. LeVine, pp. 214–37. Cambridge University Press. [aMMG]
- Levy, T., Bloch, Y., Bar-Maisels, M., Gat-Yablonski, G., Djalovski, A., Borodkin, K. & Apter, A. (2015) Salivary oxytocin in adolescents with conduct problems and callous-unemotional traits. *European Child and Adolescent Psychiatry* 24(12):1543–51. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26433370>. [RH]
- Lewis, H. B. (1971) *Shame and guilt in neurosis*. International Universities Press. [AG]
- Leyens, J. P., Demoulin, S., Vaes, J., Gaunt, R. & Paladino, M. P. (2007) Infrahumanization: The wall of group differences. *Social Issues and Policy Review* 1:139–72. [aMMG]
- Lindquist, K. A. (2013) Emotions emerge from more basic psychological ingredients: A modern psychological constructionist model. *Emotion Review* 5(4):356–68. [aMMG, VLS]
- Lindquist, K. A. & Barrett, L. F. (2008) Emotional complexity. In: *Handbook of emotions*, ed. M. Lewis, J. M. Haviland-Jones & L. F. Barrett, pp. 513–30. Guilford Press. [VLS]
- Lindquist, K. A. & Barrett, L. F. (2012) A functional architecture of the human brain: Emerging insights from the science of emotion. *Trends in Cognitive Sciences* 16:533–40. [VLS]
- Lindquist, K. A., Barrett, L. F., Bliss-Moreau, E. & Russell, J. A. (2006) Language and the perception of emotion. *Emotion* 6:125–38. [VLS]
- Lindquist, K. A. & Gendron, M. (2013) What's in a word? Language constructs emotion perception. *Emotion Review* 5:66–71. [VLS]
- Lindquist, K. A., Gendron, M., Barrett, L. F. & Dickerson, B. C. (2014) Emotion perception, but not affect perception, is impaired with semantic memory loss. *Emotion* 14:375–87. [VLS]
- Lindquist, K. A., MacCormack, J. K. & Shablack, H. (2015a) The role of language in emotion: Predictions from psychological constructionism. *Frontiers in Psychology* 6: article 444. (Online journal). [VLS]
- Lindquist, K. A., Satpute, A. B. & Gendron, M. (2015b) Does language do more than communicate emotion? *Current Directions in Psychological Science* 24:99–108. [VLS]
- Lindquist, K. A., Wager, T. D., Kober, H., Bliss-Moreau, E. & Barrett, L. F. (2012) The brain basis of emotion: A meta-analytic review. *Behavioral and Brain Sciences* 35:121–43. [VLS]
- Lishner, D. A., Batson, C. D. & Huss, E. (2011) Tenderness and sympathy: Distinct empathic emotions elicited by different forms of need. *Personality and Social Psychology Bulletin* 37:614–25. [MS]
- Litt, E. (2012) Knock, knock. Who's there? The imagined audience. *Journal of Broadcasting & Electronic Media* 56(3):330–45. [MCo]
- Liu, B. & Zhang, L. (2012) A survey of opinion mining and sentiment analysis. In: *Mining text data*, ed. C. C. Aggarwal & C. Zhai, pp. 415–63. Springer. [MCo]
- Lubart, T. I. & Sternberg, R. J. (1988) Creativity: The individual, the systems, the approach. *Creativity Research Journal* 1:63–67. [RJS]
- Lukaszewski, A. W., Anderson, C., Simmons, Z. L. & Roney, J. R. (2016) The role of physical formidability in human social status allocation. *Journal of Personality and Social Psychology* 110(3):385–406. doi: 10.1037/pspi0000042. Available at: <http://dx.doi.org/10.1037/pspi0000042>. [BC]
- Lupyan, G. (2012) Linguistically modulated perception and cognition: The label-feedback hypothesis. *Frontiers in Psychology* 3: article 54. doi:10.3389/fpsyg.2012.00054. (Online journal). [VLS]
- Lutz, C. (1988) *Unnatural emotions: Everyday sentiments on a Micronesian atoll and their challenge to Western theory*. University of Chicago Press. [aMMG]
- Lutz, C. & Abu-Lughod, L., eds. (1990) *Language and the politics of emotion*. Cambridge University Press. [aMMG]
- Lutz, C. & White, G. M. (1986) The anthropology of emotions. *Annual Review of Anthropology* 15:405–36. [aMMG]
- Lyon, M. L. (1996) Missing emotion: The limitations of cultural constructionism in the study of emotion. *Cultural Anthropology* 10:244–63. [aMMG]
- Ma, Q., Pei, G. & Jin, J. (2015) What makes you generous? The influence of rural and urban rearing on social discounting in China. *PLoS ONE* 10(7):e0133078. [DJH]
- Mackie, D. M., Devos, T. & Smith, E. R. (2000) Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology* 79(4):602–16. doi: 10.1037/0022-3514.79.4.602. [aMMG, AJB, MCI, HCL]
- Manolescu, C. (1967/2004) Strigarea peste sat. [Calling over the village]. In: *Mimă și dramă în obiceiurile populare românești [Mimic and drama within Romanian folk customs]*, ed. A. Turcuș. Editura Excelsior Art. [BN]
- Markus, H. R. & Kitayama, S. (1991) Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review* 98:224–53. [aMMG]
- Markus, H. R. & Kitayama, S. (1994) The cultural shaping of emotion: A conceptual framework. In: *Emotion and culture: Empirical studies of mutual influence*, ed. S. Kitayama & H. R. Markus, pp. 339–51. American Psychological Association. [aMMG]
- Marsh, N., Scheele, D., Gerhardt, H., Strang, S., Enax, L., Weber, B., Maier, W. & Hurlemann, R. (2015) The neuropeptide oxytocin induces a social altruism bias. *Journal of Neuroscience* 35(47):15696–701. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26609161>. [RH]
- Marwick, A. E. (2011) I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media and Society* 13(1):114–33. [MCo]
- Marzillier, S. & Davey, G. (2004) The emotional profiling of disgust-eliciting stimuli: Evidence for primary and complex disgusts. *Cognition and Emotion* 18(3):313–36. [aMMG]
- Mason, M. N. (2003) Contempt as a moral attitude. *Ethics* 113(2):234–72. [aMMG, MM]
- Mason, M. N. (2014) Reactivity and refuge. In: *Oxford studies in agency and responsibility, vol. 2*, ed. D. Shoemaker & N. Tognazzini, pp. 143–62. Oxford University Press. [MM]
- Matsumoto, D. (2005) Scalar ratings of contempt expressions. *Journal of Nonverbal Behavior* 29:91–104. [arMMG]
- Matsumoto, D. & Ekman, P. (2004) The relationship among expressions, labels, and descriptions of contempt. *Journal of Personality and Social Psychology* 87(4):529–40. doi:10.1037/0022-3514.87.4.529. [aMMG, RG-S, HCL, VLS]
- Mauss, I. B., Levenson, R. W., McCarter, L., Wilhelm, F. H. & Gross, J. J. (2005) The tie that binds? Coherence among emotion experience, behavior, and physiology. *Emotion* 5:175–90. doi: 10.1037/1528-3542.5.2.175. [HCL]
- Mauss, I. B. & Robinson, M. D. (2009) Measures of emotion: A review. *Cognition and Emotion* 23:209–37. [VLS]
- Mayes, L. C., Swain, J. E. & Leckman, J. F. (2005) Parental attachment systems: Neural circuits, genes, and experiential contributions to parental engagement. *Clinical Neuroscience Research* 4(5–6):301–13. doi: 10.1016/j.cnr.2005.03.009. [JES]
- McClelland, R. T. (2011) A naturalistic view of human dignity. *The Journal of Mind and Behavior* 32:5–48. [aMMG]
- McConahay, J. B. (1986) Modern racism, ambivalence, and the Modern Racism Scale. In: *Prejudice, discrimination, and racism*, ed. J. F. Dovidio & S. L. Gaertner, pp. 91–125. Academic Press. [AJB]
- McConnell, A. R. & Leibold, J. M. (2001) Relations among the Implicit Association Test, discriminatory behavior, and explicit measures of racial attitudes. *Journal of Experimental Social Psychology* 37:435–42. doi: 10.1006/jesp.2000.1470. [AJB]
- McDougall, W. (1933) *The energies of men*. Charles Scribner's. [aMMG, AJB]
- McDougall, W. (1937) Organization of the affective life: A critical survey. *Acta Psychologica* 2:233–346. [arMMG]
- McWilliams, N. (1994) *Psychoanalytic diagnosis: Understanding personality structure in the clinical process*. Guilford Press. [AG]

- Meffert, H., Gazzola, V., den Boer, J. A., Bartels, A. A. & Keysers, C. (2013) Reduced spontaneous but relatively normal deliberate vicarious representations in psychopathy. *Brain* 136 (Part 8):2550–62. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23884812>. [aMMG, RH]
- Meisen, K. (1935/2001) *La leggenda del cacciatoro furioso e della caccia selvaggia [The legend of the wild hunter and of the wild hunt]*, ed. S. M. Barillari. Edizioni dell'Orso. (Original work published in 1935). [BN]
- Melwani, S. & Barsade, S. G. (2011) Held in contempt: The psychological, interpersonal, and performance consequences of contempt in a work context. *Journal of Personality and Social Psychology* 101:503–20. doi: 10.1037/a0023492. [HCL]
- Mesquita, B. & Frijda, N. H. (1992) Cultural variations in emotions: A review. *Psychological Bulletin* 112:179–204. [aMMG]
- Michel, J.-B., Shen, Y. K., Aiden, A. P., Veres, A., Gray, M. K., Brockman, W., The Google Books Team, Pickett, J. P., Hoiberg, D., Clancy, D., Norvig, P., Orwant, J., Pinker, S., Nowak, M. A. & Aiden, E. L. (2011) Quantitative analysis of culture using millions of digitized books. *Science* 331(6014):176–82. Available at: <http://science.sciencemag.org/content/331/6014/176> [aMMG]
- Mileva-Seitz, V. R., Bakermans-Kranenburg, M. J. & van IJzendoorn, M. H. (2016) Genetic mechanisms of parenting. *Hormones and Behavior* 77:211–23. [MS]
- Mill, J. S. (1884) *A system of logic, ratiocinative and inductive: Being a connected view of the principles of evidence and the methods of scientific investigation*. Longmans, Green. [VLS]
- Miller, J. G. & Bersoff, D. M. (1998) The role of liking in perceptions of the moral responsibility to help: A cultural perspective. *Journal of Experimental Social Psychology* 34:443–69. [aMMG]
- Miller, J. G., Das, R. & Chakravarthy, S. (2011) Culture and the role of choice in agency. *Journal of Personality and Social Psychology* 101:46–61. [aMMG]
- Miller, T. Q., Smith, T. W., Turner, C. W., Gujjarro, M. L. & Hallet, A. J. (1996) Meta-analytic review of research on hostility and physical health. *Psychological Bulletin* 119(2):322–48. [CDC]
- Miller, W. I. (1997) *The anatomy of disgust*. Harvard University Press. [aMMG]
- Molenberghs, P., Bosworth, R., Nott, Z., Louis, W. R., Smith, J. R., Amiot, C. E., Vohs, K. & Decety, J. (2014) The influence of group membership and individual differences in psychopathy and perspective taking on neural responses when punishing and rewarding others. *Human Brain Mapping* 35(10):4989–99. [aMMG]
- Moses-Kolko, E. L., Horner, M. S., Phillips, M. L., Hipwell, A. E. & Swain, J. E. (2014) In search of neural endophenotypes of postpartum psychopathology and disrupted maternal caregiving. *Journal of Neuroendocrinology* 26(10):665–84. doi: 10.1111/jne.12183. [JES]
- Munero, M., Montero, C. S., Kakkonen, T., Sutinen, E., Mozgovoy, M. & Klyuev, V. (2014a) Automatic detection of antisocial behaviour in texts. *Informatica* 38 (1):3–10. [MCo]
- Munero, M., Montero, C. S., Sutinen, E. & Pajunen, J. (2014b) Are they different? Affect, feeling, emotion, sentiment, and opinion detection in text. *IEEE Transactions on Affective Computing* 5(2):101–11. [MCo]
- Murray, G. R. & Schmitz, J. D. (2011) Caveman politics: Evolutionary leadership preferences and physical stature. *Social Science Quarterly* 92:1215–35. [BC]
- Muzik, M., Rosenblum, K. L., Alfafara, E. A., Schuster, M. M., Miller, N. M., Waddell, R. M. & Kohler, E. S. (2015) Mom Power: Preliminary outcomes of a group intervention to improve mental health and parenting among high-risk mothers. *Archives of Women's Mental Health* 18(3):507–21. doi: 10.1007/s00737-014-0490-z. [JES]
- Nathanson, D. L. (1994) *Shame and pride: Affect, sex, and the birth of the self*. W. W. Norton. [AG]
- Neagota, B. (2012a) Fășanc – The carnival in the mountainside Banat: Historical-religious and ethnographical aspects. *Revista de Etnografie și Folclor/Journal of Ethnography and Folklore, New Series* 12:147–68. [BN]
- Neagota, B. (2012b) Căzătoare, necromante, vrăjitoare. Experiențe și tehnici arhaice ale extazului în regiunea Dunării de Mijloc [Căzătoare, necromancers, sorceresses. experiences and archaic techniques of ecstasy in the region of Middle Danube]. In: *Orna. Revistă de studii etnologice și istorico-religioase/Journal of Ethnological and Historical-Religious Studies*, No. 17: Religiozitate și ceremonialitate folklorică [Folk Religiosity and Ceremoniality], ed. I. Benga, pp. 51–98. Babes-Bolyai University, Department of Classical Languages and Literatures. [BN]
- Nesse, R. M. (1990) Evolutionary explanations of emotions. *Human Nature* 1 (3):261–89. [aMMG]
- Nesse, R. M. (2007) Runaway social selection for displays of partner value and altruism. *Biological Theory* 2:143–55. [aMMG]
- Nesse, R. M. & Ellsworth, P. (2009) Evolution, emotions, and emotional disorders. *American Psychologist* 64(2):129–39. [aMMG]
- Neu, J. (2000) *A tear is an intellectual thing: The meaning of emotions*. Oxford University Press. [HCL]
- Neuberg, S. L. & Cottrell, C. A. (2008) Managing the threats and opportunities afforded by human sociality. *Group Dynamics: Theory, Research, and Practice* 12:63–72. [aMMG, AJB]
- Neuberg, S. L., Smith, D. M., Hoffman, J. C. & Russell, F. J. (1994) When we observe stigmatized and “normal” individuals interacting: Stigma by association. *Personality and Social Psychology Bulletin* 20:196–209. [aMMG]
- Niedenthal, P. M. (2008) Emotion concepts. In *Handbook of emotions*, 3rd edition., ed. M. Lewis, J. M. Haviland-Jones & L. F. Barrett, pp. 587–600. Guilford Press. [aMMG]
- Norton, D. F. (2001) Editor's introduction. In: D. Hume, *A treatise of human nature*, ed. D. F. Norton & E. F. Norton, pp. 9–99. Oxford University Press. [GBS]
- Nummenmaa, L., Glerean, E., Hari, R. & Hietanen, J. K. (2014) Bodily maps of emotions. *Proceedings of the National Academy of Sciences USA* 111(2):646–51. doi: 10.1073/pnas.1321664111. [aMMG, HCL]
- Öhman, A. & Mineka, S. (2001) Fears, phobias, and preparedness: Toward an evolved module of fear and fear learning. *Psychological Review* 108(3):483. [aMMG]
- Olatunji, B. O., Forsyth, J. P. & Cheria, A. (2007) Evaluative differential conditioning of disgust: A sticky form of relational learning that is resistant to extinction. *Journal of Anxiety Disorders* 21:820–34. [RG-S]
- Olf, M., Frijling, J. L., Kubzansky, L. D., Bradley, B., Ellenbogen, M. A., Cardoso, C., Bartz, J. A., Yee, J. R. & van Zuiden, M. (2013) The role of oxytocin in social bonding, stress regulation and mental health: An update on the moderating effects of context and interindividual differences. *Psychoneuroendocrinology* 38 (9):1883–94. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23856187>. [RH]
- Onu, D., Kessler, T. & Smith, J. R. (2016) Admiration: A conceptual review. *Emotion Review* 8(3):218–30. [rMMG]
- Ortony, A., Clore, G. & Collins, A. (1988) *The cognitive structure of emotions*. Cambridge University Press. (Original hardcover edition). [aMMG]
- Ortony, A., Clore, G. L. & Collins, A. (1990) *The cognitive structure of emotions*. Cambridge University Press. (Paperback edition, reprint). [RG-S]
- Paltoglou, G. & Thelwall, M. (2012) Twitter, MySpace, Digg: Unsupervised sentiment analysis in social media. *ACM Transactions on Intelligent Systems and Technology (TIST)* 3(4): article 66:1–19. [MCo]
- Paltoglou, G. & Thelwall, M. (2013) Seeing stars of valence and arousal in blog posts. *IEEE Transactions on Affective Computing* 4(1):116–23. [MCo]
- Panchanathan, K. & Boyd, R. (2004) Indirect reciprocity can stabilize cooperation without the second-order free rider problem. *Nature* 432:499–502. [aMMG]
- Pang, B. & Lee, L. (2008) Opinion mining and sentiment analysis. *Foundations and Trends in Information Retrieval* 2(1–2):1–135. Available at: <http://dx.doi.org/10.1561/1500000011>. [MG]
- Panksepp, J. (1998) *Affective neuroscience: The foundations of human and animal emotions*. Oxford University Press. [aMMG, AG]
- Panksepp, J. (2011) The basic emotional circuits of mammalian brains: Do animals have affective lives? *Neuroscience and Biobehavioral Reviews* 35:1791–804. [VLS]
- Panksepp, J. & Biven, L. (2012). *The archaeology of mind: Neuroevolutionary origins of human emotions*. W. W. Norton. [AG]
- Parr, L. A., Waller, B. M., Vick, S. J. & Bard, K. A. (2007) Classifying chimpanzee facial expressions using muscle action. *Emotion* 7(1):172. [aMMG]
- Peets, K., Hodges, E. V. E. & Salmivalli, C. (2008) Affect-congruent social-cognitive evaluations and behaviors. *Child Development* 79:170–85. [aMMG]
- Peterson, C. & Seligman, M. E. P. (2004) *Character strengths and virtues: A handbook and classification*. American Psychological Association (APA) Press. [ACW]
- Pierson, D. (1967) *Negroes in Brazil*. Southern Illinois University Press. [aMMG]
- Piff, P. K., Stancato, D. M., Côté, S., Mendoza-Denton, R. & Keltner, D. (2012) Higher social class predicts increased unethical behavior. *Proceedings of the National Academy of Sciences USA* 109(11):4086–91. [aMMG]
- Pisor, A. C. & Gurven, M. (2016) Risk buffering and resource access shape valuation of out-group strangers. *Scientific Reports* 6:e30435. Available at: <http://doi.org/10.1038/srep30435>. [rMMG]
- Preckel, K., Scheele, D., Eckstein, M., Maier, W. & Hurlmann, R. (2015) The influence of oxytocin on volitional and emotional ambivalence. *Social Cognitive and Affective Neuroscience* 10(7):987–93. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25398434>. [RH]
- Preston, S. D. (2013) The origins of altruism in offspring care. *Psychological Bulletin* 139(6):1305–41. doi: 10.1037/a0031755. [MS, JES, rMMG]
- Price, M. E. & Van Vugt, M. (2014) The evolution of leader–follower reciprocity: The theory of service-for-prestige. *Frontiers in Human Neuroscience* 8: article 363. (Online journal). [aMMG]
- Prinz, J. J. (2007) *The emotional construction of morals*. Oxford University Press. [aMMG]
- Quintelier, K. J. & Fessler, D. M. T. (2012) Varying versions of moral relativism: The philosophy and psychology of normative relativism. *Biology and Philosophy* 27 (1):95–113. doi: 10.1007/s10539-011-9270-6. [SD]
- Quintelier, K. J. & Fessler, D. M. T. (2015) Confounds in moral-conventional studies. *Philosophical Explorations* 18(1):58–67. doi: 10.1080/13869795.2013.874496. [SD]

- Rachlin, H. & Jones, B. A. (2008) Altruism among relatives and non-relatives. *Behavioural Processes* 79(2):120–23. [DJH]
- Rai, T. S. & Fiske, A. P. (2011) Moral psychology is relationship regulation: Moral motives for unity, hierarchy, equality, and proportionality. *Psychological Review* 118(1):57–75. [arMMG, NH]
- Re, D. E., DeBruine, L. B., Jones, B. C. & Perrett, D. I. (2013) Facial cues to perceived height influence leadership choices in simulated war and peace contexts. *Evolutionary Psychology* 11:89–103. [BC]
- Reidy, D. E., Shelley-Tremblay, J. F. & Lilienfeld, S. O. (2011) Psychopathy, reactive aggression, and precarious proclamations: A review of behavioral, cognitive, and biological research. *Aggression and Violent Behavior* 16:512–24. [aMMG]
- Reyes, A., Rosso, P. & Buscaldi, D. (2012) From humor recognition to irony detection: The figurative language of social media. *Data & Knowledge Engineering* 74:1–12. [MCo]
- Rilling, J. K. (2013) The neural and hormonal bases of human parental care. *Neuropsychologia* 51:731–47. [MS]
- Roberts, G. (2005) Cooperation through interdependence. *Animal Behaviour* 70(4):901–908. [aMMG]
- Romani, S., Grappi, S. & Bagozzi, R. P. (2013) My anger is your gain, my contempt your loss: Explaining consumer responses to corporate wrongdoing. *Psychology & Marketing* 30:1029–42. doi: 10.1002/mar.20664. [HCL]
- Roseman, I. (1984) Cognitive determinants of emotions: A structural theory. *Personality and Social Psychology Review* 5:11–36. [MM]
- Roseman, I. J. (2001) A model of appraisal in the emotion system. In: *Appraisal processes in emotion: Theory, methods, research*, ed. K. R. Scherer, A. Schorr & T. Johnstone, pp. 68–91. Oxford University Press. [aMMG]
- Roseman, I. J., Antoniou, A. A. & Jose, P. E. (1996) Appraisal determinants of emotions: Constructing a more accurate and comprehensive theory. *Cognition and Emotion* 10:241–77. doi: 10.1080/026999396330240. [HCL]
- Roseman, I. J., Wiest, C. & Swartz, T. S. (1994) Phenomenology, behaviors, and goals differentiate discrete emotions. *Journal of Personality and Social Psychology* 67(2):206–21. [aMMG]
- Rosenberg, E. L. & Ekman, P. (1995) Conceptual and methodological issues in the judgment of facial expressions of emotion. *Motivation and Emotion* 19(2):111–38. [arMMG, VLS]
- Rosenberg, M. J. & Hovland, C. I. (1960) Cognitive, affective, and behavioral components of attitudes. In: *Attitude organization and change*, ed. C. I. Hovland & M. J. Rosenberg, pp. 1–14. Yale University Press. [aMMG]
- Royzman, E., McCauley, C. R. & Rozin, P. (2005) From Plato to Putnam: Four ways to think about hate. In: *The psychology of hate*, ed. R. J. Sternberg, pp. 3–35. American Psychological Association. [arMMG]
- Rozin, P., Lowery, L. & Ebert, R. (1994) Varieties of disgust faces and the structure of disgust. *Journal of Personality and Social Psychology* 66(5):870–81. [aMMG]
- Rozin, P., Lowery, L., Imada, S. & Haidt, J. (1999) The CAD triad hypothesis: A mapping between three moral emotions (contempt, anger, disgust) and three moral codes (community, autonomy, divinity). *Journal of Personality and Social Psychology* 76(4):574–86. [aMMG, VLS]
- Russell, J. A. (1991a) Culture and the categorization of emotions. *Psychological Bulletin* 110(3):426–50. [aMMG]
- Russell, J. A. (1991b) In defense of a prototype approach to emotion concepts. *Journal of Personality and Social Psychology* 60:37–47. <http://doi.org/10.1037/0022-3514.60.1.37>. [RG-S]
- Russell, J. A. (1991c) Negative results on a reported facial expression of contempt. *Motivation and Emotion* 15(4):281–91. [arMMG]
- Russell, J. A. (1991d) The contempt expression and the relativity thesis. *Motivation and Emotion* 15:149–68. [arMMG, VLS]
- Russell, J. A. (2003) Core affect and the psychological construction of emotion. *Psychological Review* 110(1):145–72. doi: 10.1037/0033-295X.110.1.145. [aMMG, HCL, VLS]
- Russell, J. A. & Barrett, L. F. (1999) Core affect, prototypical emotional episodes, and other things called emotion: Dissecting the elephant. *Journal of Personality and Social Psychology* 76(5):805–19. [aMMG]
- Russell, J. A. & Mehrabian, A. (1977) Evidence for a three-factor theory of emotions. *Journal of Research in Personality* 11(3):273–94. [MCo]
- Russell, J. A., Suzuki, N. & Ishida, N. (1993) Canadian, Greek, and Japanese freely produced emotion labels for facial expressions. *Motivation and Emotion* 17:337–51. [VLS]
- Sabini, J. & Silver, M. (2005) Why emotion names and experiences don't neatly pair. *Psychological Inquiry* 16:1–10. [aMMG]
- Santos, H. C., Varnum, M. E. W. & Grossmann, I. (2017) Global increases in individualism. *Psychological Science*. (Online first publication). doi: 10.1177/0956797617700622. [MEWV]
- Saroglou, V., Buxant, C. & Tiliquin, J. (2008) Positive emotions as leading to religion and spirituality. *The Journal of Positive Psychology* 3:165–73. [ACW]
- Scarantino, A. (2009) Core affect and natural affective kinds. *Philosophy of Science* 76:940–57. [aMMG]
- Schaller, M. & Park, J. H. (2011) The behavioral immune system (and why it matters). *Current Directions in Psychological Science* 20(2):99–103. [MEWV]
- Scheele, D., Kendrick, K. M., Khouri, C., Kretzer, E., Schlapfer, T. E., Stoffel-Wagner, B., Gunturkun, O., Maier, W. & Hurlmann, R. (2014a) An oxytocin-induced facilitation of neural and emotional responses to social touch correlates inversely with autism traits. *Neuropsychopharmacology* 39(9):2078–85. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24694924>. [RH]
- Scheele, D., Plota, J., Stoffel-Wagner, B., Maier, W. & Hurlmann, R. (2016) Hormonal contraceptives suppress oxytocin-induced brain reward responses to the partner's face. *Social Cognitive and Affective Neuroscience* 11(5):767–74. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26722017>. [RH]
- Scheele, D., Schwering, C., Elison, J. T., Spunt, R., Maier, W. & Hurlmann, R. (2015) A human tendency to anthropomorphize is enhanced by oxytocin. *European Neuropsychopharmacology* 25(10):1817–23. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26092202>. [RH]
- Scheele, D., Striepens, N., Kendrick, K. M., Schwering, C., Noelle, J., Wille, A., Schlapfer, T. E., Maier, W. & Hurlmann, R. (2014b) Opposing effects of oxytocin on moral judgment in males and females. *Human Brain Mapping* 35(12):6067–76. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25094043>. [RH]
- Scheele, D., Wille, A., Kendrick, K. M., Stoffel-Wagner, B., Becker, B., Güntürkün, O., Maier, W. & Hurlmann, R. (2013) Oxytocin enhances brain reward system responses in men viewing the face of their female partner. *Proceedings of the National Academy of Sciences USA* 110(50):20308–13. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24277856>. [RH]
- Scheff, T. (1987) *The role of shame in symptom formation*. Erlbaum. [AG]
- Scherer, K. R. (1999) Appraisal theory. In: *Handbook of cognition and emotion*, ed. T. Dalgleish & M. J. Power, pp. 637–63. John Wiley. [aMMG]
- Scherer, K. R. (2005) What are emotions? And how can they be measured? *Social Science Information* 44(4):695. [aMMG]
- Scherer, K. R. (2009) The dynamic architecture of emotion: Evidence for the component process model. *Cognition and Emotion* 23:1307–51. [aMMG]
- Schimmack, U., Oishi, S., Diener, E. & Suh, E. (2000) Facets of affective experiences: A framework for investigations of trait affect. *Personality and Social Psychology Bulletin* 26(6):655. [aMMG]
- Schino, G. & Aureli, F. (2009) Reciprocal altruism in primates: Partner choice, cognition, and emotions. *Advances in the Study of Behavior* 39:45–69. [aMMG]
- Schnall, S., Haidt, J., Clore, G. L. & Jordan, A. H. (2008) Disgust as embodied moral judgment. *Personality and Social Psychology Bulletin* 34:1096–109. [MB]
- Schriber, R. A., Chung, J. M., Sorensen, K. S. & Robins, R. W. (2016) Dispositional contempt: A first look at the contemptuous person. *Journal of Personality and Social Psychology*. Published online June 9, 2016. doi: 10.1037/pspp0000101. [rMMG]
- Schroeder, J. & Risen, J. L. (2016) Befriending the enemy: Outgroup friendship longitudinally predicts intergroup attitudes in a coexistence program for Israelis and Palestinians. *Group Processes and Intergroup Relations* 19(1):72–93. [rMMG]
- Schwarz, N. (2007) Attitude construction: Evaluation in context. *Social Cognition* 25(5):638–56. [Special Issue: What is an Attitude?]. [MG]
- Schwarz, N. (2010) Feelings-as-information theory. In: *Handbook of theories in social psychology*, ed. P. Van Lange, A. Kruglanski & E. T. Higgins, pp. 289–308. Sage. [ACW]
- Schwarz, N. & Bless, H. (1992) Constructing reality and its alternatives: Assimilation and contrast effects in social judgment. In: *The construction of social judgment*, ed. L. L. Martin & A. Tesser, pp. 217–45. Erlbaum. [MG]
- Seeley, W. W., Menon, V., Schatzberg, A. F., Keller, J., Glover, G. H., Kenna, H., Reiss, A. L. & Greicius, M. D. (2007) Dissociable intrinsic connectivity networks for salience processing and executive control. *The Journal of Neuroscience* 27(9):2349–56. doi: 10.1523/JNEUROSCI.5587-06.2007. [aMMG, JES]
- Sell, A., Tooby, J. & Cosmides, L. (2009) Formidability and the logic of human anger. *Proceedings of the National Academy of Sciences USA* 106(35):15073–78. doi: 10.1073/pnas.0904312106. [arMMG]
- Shaftesbury, A. A. C. (1711/2001) An inquiry concerning virtue and merit. In: *Characteristics of men, manners, opinions, times, vol. 1*, by A. A. C. Shaftesbury, ed. Douglas Den Uyl. Liberty Fund. (Original work compiled and published in 1711; Liberty Fund Online Library edition, 2001). Available at: <http://oll.libertyfund.org/titles/shaftesbury-characteristics-of-men-manners-opinions-times-3-vols> [SD]
- Shamay-Tsoory, S. G., Abu-Akel, A., Palgi, S., Suleiman, R., Fischer-Shofty, M., Levkovitz, Y. & Decety, J. (2013) Giving peace a chance: Oxytocin increases empathy to pain in the context of the Israeli-Palestinian conflict. *Psychoneuroendocrinology* 38(12):3139–44. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24099859>. [RH]
- Shand, A. F. (1920) *The foundations of character: Being a study of the tendencies of the emotions and sentiments*, 2nd edition. Macmillan. [arMMG, MS]
- Shaver, P. R., Morgan, H. J. & Wu, S. (1996) Is love a “basic” emotion? *Personal Relationships* 3(1):81–96. [aMMG, MS]
- Shaver, P. R., Schwartz, J., Kirson, D. & O'Connor, C. (1987) Emotion knowledge – further exploration of a prototype approach. *Journal of Personality and Social Psychology* 52(6):1061–86. [aMMG]

- Shaw, A., DeScioli, P., Barakzai, A. & Kurzban, R. (2017) Whoever is not with me is against me: The costs of neutrality among friends. *Journal of Experimental Social Psychology* 71:96–104. [rMMG]
- Shenhav, A. & Greene, J. D. (2010) Moral judgments recruit domain-general valuation mechanisms to integrate representations of probability and magnitude. *Neuron* 67:667–77. [VLS]
- Sherif, M., Harvey, O. J., White, B. J., Hood, W. R. & Sherif, C. W. (1954/1961) *Intergroup cooperation and competition: The Robbers Cave experiment*. University Book Exchange. [MCI]
- Sherman, G. D. & Haidt, J. (2011) Cuteness and disgust: The humanizing and dehumanizing effects of emotion. *Emotion Review* 3(3):245–51. [FC]
- Sherman, G. D., Haidt, J. & Coan, J. A. (2009) Viewing cute images increases behavioral carefulness. *Emotion* 9:282–86. [MS]
- Silk, J. B. (2003) Cooperation without counting. In: *Genetic and cultural evolution of cooperation*, ed. P. Hammerstein, pp. 37–54. MIT Press. [aMMG]
- Smith, C. A. & Ellsworth, P. C. (1985) Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology* 48(4):813–38. [aMMG]
- Smith, C. A. & Kirby, L. D. (2009) Putting appraisal in context: Toward a relational model of appraisal and emotion. *Cognition and Emotion* 23:1352–72. [aMMG]
- Smith, R. H. (2000) Assimilative and contrastive emotional reactions to upward and downward social comparisons. In: *Handbook of social comparison: Theory and research*, ed. J. Suls & L. Wheeler, pp. 173–200. Kluwer Academic. [aMMG]
- Smith, T. W. (1994) Concepts and methods in the study of anger, hostility, and health. In: *Anger, hostility and the heart*, ed. A. W. Siegman & T. W. Smith, pp. 23–42. Erlbaum. [CDC]
- Smith, T. W., Glazer, K., Ruiz, J. M. & Gallo, L. C. (2004) Hostility, anger, aggressiveness, and coronary heart disease: An interpersonal perspective on personality, emotion, and health. *Journal of Personality* 72(6):1217–70. [CDC]
- Smuts, B. B. & Watanabe, J. M. (1990) Social relationships and ritualized greetings in adult male baboons (*Papio cynocephalus anubis*). *International Journal of Primatology* 11(2):147–72. [aMMG]
- Solomon, R. C. (2008) The philosophy of emotions. In: *Handbook of emotions*, 3rd edition, ed. M. Lewis, J. M. Haviland-Jones, & L. F. Barrett, pp. 3–16. Guilford Press. [HCL]
- Sperber, D. (1996) *Explaining culture*. Blackwell. [aMMG]
- Sripada, C., Angstadt, M., Kessler, D., Phan, K. L., Liberzon, I., Evans, G. W., Welsh R. C., Kim, P. & Swain, J. E. (2014) Volitional regulation of emotions produces distributed alterations in connectivity between visual, attention control, and default networks. *Neuroimage* 89:110–21. doi: 10.1016/j.neuroimage.2013.11.006. [JES]
- Srivastava, S. & Beer, J. S. (2005) How self-evaluations relate to being liked by others: Integrating sociometer and attachment perspectives. *Journal of Personality and Social Psychology* 89(6):966–77. [rMMG]
- Stanton, E. C. (1848/1997) Declaration of sentiments. In: *The selected papers of Elizabeth Cady Stanton and Susan B. Anthony: Vol. 1. In the School of Anti-Slavery, 1840–1866*, ed. A. D. Gordon, p. 75. Rutgers University Press. (Original paper published in 1848). [aMMG]
- Sternberg, R. J. (1984) What should intelligence tests test? Implications of a triarchic theory of intelligence for intelligence testing. *Educational Researcher* 13:5–15. [RJS]
- Sternberg, R. J., ed. (1985) *Human abilities: An information-processing approach*. Freeman. [RJS]
- Sternberg, R. J. (1986) A triangular theory of love. *Psychological Review* 93(2):119–35. [DJH]
- Sternberg, R. J. (1987) Liking versus loving: A comparative evaluation of theories. *Psychological Bulletin* 102:331–45. [RJS]
- Sternberg, R. J., ed. (1988) *Advances in the psychology of human intelligence, vol. 4*. Erlbaum. [RJS]
- Sternberg, R. J. (1990) *Metaphors of mind: Conceptions of the nature of intelligence*. Cambridge University Press. [RJS]
- Sternberg, R. J. (1998) *Cupid's arrow: The course of love through time*. Cambridge University Press. [RJS]
- Sternberg, R. J., ed. (2002) *Why smart people can be so stupid*. Yale University Press. [RJS]
- Sternberg, R. J. (2003a) A duplex theory of hate: Development and application to terrorism, massacres, and genocide. *Review of General Psychology* 7(3):299–328. [aMMG, RJS]
- Sternberg, R. J. (2003b) Driven to despair: Why we need to redefine the concept and measurement of intelligence. In: *A psychology of human strengths: Fundamental questions and future directions for a positive psychology*, ed. L. G. Aspinwall & U. M. Staudinger, pp. 319–30. American Psychological Association. [RJS]
- Sternberg, R. J. (2012) Ethical drift. *Liberal Education* 98(3):60. [RJS]
- Sternberg, R. J., Grigorenko, E. L. & Kidd, K. K. (2005) Intelligence, race, and genetics. *American Psychologist* 60(1):46–59. [RJS]
- Stets, J. E. (2003) Emotions and sentiments. In: *Handbook of social psychology*, ed. J. Delamater, pp. 309–35. Kluwer Academic/Plenum. [MG]
- Stohr, K. (2017) Our new age of contempt. *The New York Times*, January 23, 2017. Available at: https://www.nytimes.com/2017/01/23/opinion/our-new-age-of-contempt.html?mc-edit_tnt_20170123&nlid=69338964&tntemail0=y&r=0. [rMMG]
- Storm, C. & Storm, T. (1987) A taxonomic study of the vocabulary of emotions. *Journal of Personality and Social Psychology* 53(4):805–16. [aMMG]
- Storm, C. & Storm, T. (2005) The English lexicon of interpersonal affect: Love, etc. *Cognition and Emotion* 19(3):333–56. [aMMG]
- Stout, G. F. (1903) *The groundwork of psychology*. Hinds & Noble. [aMMG]
- Strawson, P. F. (1962) Freedom and resentment. *Proceedings of the British Academy* 48:1–25. [MM]
- Striepens, N., Kendrick, K. M., Hanking, V., Landgraf, R., Willner, U., Maier, W., & Hurlmann, R. (2013) Elevated cerebrospinal fluid and blood concentrations of oxytocin following its intranasal administration in humans. *Scientific Reports* 3:3440. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24310737>. [RH]
- Striepens, N., Scheele, D., Kendrick, K. M., Becker, B., Schafer, L., Schwalba, K., Reul, J., Maier, W. & Hurlmann, R. (2012) Oxytocin facilitates protective responses to aversive social stimuli in males. *Proceedings of the National Academy of Sciences USA* 109(44):18144–49. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23074247>. [RH]
- Struch, N. & Schwartz, S. H. (1989) Intergroup aggression: Its predictors and distinctness from in-group bias. *Journal of Personality and Social Psychology* 56:364–73. [MCI]
- Stuewig, J., Tangney, J., Heigel, C., Harty, L. & McCloskey, L. (2010) Shaming, blaming, and maiming: Functional links among the moral emotions, externalization of blame, and aggression. *Journal of Research in Personality* 44(1):91–102. [AG]
- Sugiyama, L. S. & Sugiyama, M. S. (2003) Social roles, prestige, and health risk: Social niche specialization as a risk-buffering strategy. *Human Nature* 14(2):165–90. [aMMG]
- Sullivan, G. B., ed. (2014) *Understanding collective pride and group identity: New directions in emotion theory, research and practice*. Routledge. [GBS]
- Swain, J. E. (2008) Baby stimuli and the parent brain: Functional neuroimaging of the neural substrates of parent-infant attachment. *Psychiatry (Edgmont)* 5(8):28–36. [JES]
- Swain, J. E. (2011) The human parental brain: In vivo neuroimaging. *Progress in Neuro-Psychopharmacology and Biological Psychiatry* 35(5):1242–54. [JES]
- Swain, J. E., Dayton, C. J., Kim, P., Tolman, R. M. & Volling, B. L. (2014a) Progress on the paternal brain: Theory, animal models, human brain research, and mental health implications. *Infant Mental Health Journal* 35(5):394–408. doi: 10.1002/imhj.21471. [JES]
- Swain, J. E. & Ho, S. S. (2017) Neuroendocrine mechanisms for parental sensitivity: Overview, recent advances and future directions. *Current Opinion in Psychology* 15(1):105–10. doi: 10.1016/j.copsyc.2017.02.027. [JES]
- Swain, J. E., Ho, S. S., Rosenblum, K. L., Morelen, D., Dayton, C. J. & Muzik, M. (2017) Parent-child intervention decreases stress and increases maternal brain responses and connectivity in response to own baby-cry: An exploratory study. *Development and Psychopathology* 29(2):535–53. doi: 10.1017/S0954579417000165. [JES]
- Swain, J. E., Kim, P., Spicer, J., Ho, S. S., Dayton, C. J., Elmadih, A. & Abel, K. M. (2014b) Approaching the biology of human parental attachment: Brain imaging, oxytocin and coordinated assessments of mothers and fathers. *Brain Research* 1580:78–101. doi: 10.1016/j.brainres.2014.03.007. [JES]
- Swain, J. E., Konrath, S., Brown, S. L., Finegood, E. D., Akee, L. B., Dayton, C. J. & Ho, S. S. (2012) Parenting and beyond: Common neurocircuits underlying parental and altruistic caregiving. *Parenting, Science and Practice* 12(2–3):115–23. doi: 10.1080/15295192.2012.680409. [JES]
- Swain, J. E. & Lorberbaum, J. P. (2008) Imaging the human parental brain. In: *Neurobiology of the Parental Brain*, ed. R. S. Bridges, Ch. 6, pp. 83–100. Academic Press. doi: 10.1016/B978-0-12-374285-8.00006-8. [JES]
- Swain, J. E., Mayes, L. C. & Leckman, J. F. (2004) The development of parent-infant attachment through dynamic and interactive signaling loops of care and cry. *Behavioral and Brain Sciences* 27(4):472–73. [JES]
- Swain, J. E., Tasgin, E., Mayes, L. C., Feldman, R., Constable, R. T. & Leckman, J. F. (2008) Maternal brain response to own baby-cry is affected by cesarean section delivery. *Journal of Child Psychology and Psychiatry* 49(10):1042–52. [JES]
- Szyrmer, D., Tooby, J., Cosmides, L., Porat, R., Shalvi, S. & Halperin, E. (2016) Shame closely tracks the threat of devaluation by others, even across cultures. *Proceedings of the National Academy of Sciences USA* 113(10):2625–30. [rMMG]
- Tangney, J. P. (1992) Situational determinants of shame and guilt in young adulthood. *Personality and Social Psychology Bulletin* 18(2):199–206. [AG]
- Tangney, J. P. (2000) Humility: Theoretical perspectives, empirical findings and directions for future research. *Journal of Social and Clinical Psychology* 19:70–82. [ACW]
- Tangney, J. P. & Dearing, R. (2002) *Shame and guilt*. Guilford Press. [AC]

- Tangney, J. P., Mashek, D. & Stuewig, J. (2007). Working at the social-clinical community-criminology interface: The George Mason University inmate study. *Journal of Social and Clinical Psychology* 26:1–21. [AG]
- Tapias, M. P., Glaser, J., Keltner, D., Vasquez, K. & Wickens, T. (2007). Emotion and prejudice: Specific emotions toward outgroups. *Group Processes and Inter-group Relations* 10(1):27–39. [aMMG]
- Tausch, N., Becker, J. C., Spears, R., Christ, O., Saab, R., Singh, P. & Siddiqui, R. N. (2011). Explaining radical group behavior: Developing emotion and efficacy routes to normative and nonnormative collective action. *Journal of Personality and Social Psychology* 101(1):129–48. [MB, rMMG]
- Thomas, N. W. (1914). *Anthropological report on the Ibo-speaking peoples of Nigeria: Part IV. Law and custom of the Ibo of the Asaba District, S. Nigeria.* Harrison and Sons. [aMMG]
- Thornhill, R. & Fincher, C. L. (2014). *The parasite-stress theory of values and sociality.* Springer International. [MEWV]
- Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior* 26(3):277–87. [MCo]
- Tomasello, M., Melis, A. P., Tennie, C., Wyman, E. & Herrmann, E. (2012). Two key steps in the evolution of human cooperation. *Current Anthropology* 53(6):673–92. [aMMG]
- Tong, E. W. M., Tan, K. W. T., Chor, A. A. B., Koh, E. P. S., Lee, J. S. Y. & Tan, R. W. Y. (2016). Humility facilitates higher self-control. *Journal of Experimental Social Psychology* 62:30–39. [ACW]
- Tooby, J. & Cosmides, L. (1990). The past explains the present: Emotional adaptations and the structure of ancestral environments. *Ethology and Sociobiology* 11(4/5):375–424. [aMMG]
- Tooby, J. & Cosmides, L. (1996). Friendship and the banker's paradox: Other pathways to the evolution of adaptations for altruism. In: *Evolution of social behaviour patterns in primates and man: Proceedings of the British Academy, vol. 88*, ed. W. G. Runciman, J. Maynard Smith & R. I. M. Dunbar, pp. 119–43. Oxford University Press. [aMMG]
- Tooby, J., Cosmides, L., Sell, A., Lieberman, D. & Szyner, D. (2008). Internal regulatory variables and the design of human motivation: A computational evolutionary approach. In: *Handbook of approach and avoidance motivation*, ed. A. J. Elliot, pp. 251–71. Erlbaum. [arMMG, MS]
- Tourangeau, R. & Rasinski, K. A. (1988). Cognitive processes underlying context effects in attitude measurement. *Psychological Bulletin* 103:299–314. [MG]
- Tourangeau, R., Rips, L. J. & Rasinski, K. (2000). *The psychology of survey response.* Cambridge University Press. [MG]
- Tracy, J. L. & Robins, R. W. (2004). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry* 15:103–25. [ACW]
- Tracy, J. L. & Robins, R. W. (2007). The psychological structure of pride: A tale of two facets. *Journal of Personality and Social Psychology* 92(3):506–25. [GBS, rMMG]
- Tracy, J. L. & Robins, R. W. (2014). Conceptual and empirical strengths of the authentic/hubristic model of pride. *Emotion* 14(1):33–37. [rMMG]
- Tran, A. L. (2015). Rich sentiments and the cultural politics of emotion in postreform Ho Chi Minh City, Vietnam. *American Anthropologist* 117(3):480–92. [aMMG]
- Trivers, R. L. (1971). Evolution of reciprocal altruism. *Quarterly Review of Biology* 46(1):35–57. [aMMG]
- Tromp, E. & Pechenizkiy, M. (2015). Pattern-based emotion classification on social media. In: *Advances in social media analysis*, ed. M. M. Gaber, M. Cocea, N. Wiratunga & A. Goker, pp. 1–20. Springer. [MCo]
- Trumble, B. C., Jaeggi, A. V. & Gurven, M. (2015). Evolving the neuroendocrine physiology of human and primate cooperation and collective action. *Philosophical Transactions of the Royal Society London B: Biological Sciences* 370:e20150014. Available at: <http://dx.doi.org/10.1098/rstb.2015.0014>. [aMMG]
- Truzzi, A., Senese, V. P., Setoh, P., Ripoli, C. & Esposito, G. (2016). In utero testosterone exposure influences physiological responses to dyadic interactions in neurotypical adults. *Acta Neuropsychiatrica* 28(5):304–309. doi: 10.1017/neu.2016.15. (Online version available on CJO2016 and at: <https://www.cambridge.org/core/journals/acta-neuropsychiatrica/article/in-utero-testosterone-exposure-influences-physiological-responses-to-dyadic-interactions-in-neurotypical-adults/9288282B6A8B19D17CF09D171E9F2875>). [SD]
- Turnbull, C. M. (1962). *The forest people.* Simon and Schuster. [aMMG]
- Ufkes, E. G., Otten, S., van der Zee, K. I., Giebels, E. & Dovidio, J. F. (2011). The effect of stereotype content on anger versus contempt in “day-to-day” conflicts. *Group Processes & Inter-group Relations* 15(1):57–74. [rMMG]
- Ufkes, E. G., Otten, S., Vander Zee, K. I., Giebels, E. & Dovidio, J. F. (2012). Urban district identity as a common ingroup identity: The different role of ingroup prototypicality for minority and majority groups. *European Journal of Social Psychology* 42:706–16. doi: 10.1002/ejsp.1888. [HCL]
- Vaillant, G. E. (1992). *Ego mechanisms of defense: A guide for clinicians and researchers.* American Psychiatric Press. [AG]
- Van de Vliert, E. (2013). Climato-economic habitats support patterns of human needs, stresses, and freedoms. *Behavioral and Brain Sciences* 36(5):465–80. [MEWV]
- van der Löwe, I. & Parkinson, B. (2014). Relational emotions and social networks. In: *Collective emotions: Perspectives from psychology, philosophy and sociology*, ed. C. von Scheve & M. Salmela, pp. 125–30. Oxford University Press. [GBS]
- van Dijk, W. W., Ouwerkerk, J. W., Goslinga, S., Nieweg, M. & Gallucci, M. (2006). When people fall from grace: Reconsidering the role of envy in *schadenfreude*. *Emotion* 6:156–60. [aMMG]
- van Dijk, W. W., Ouwerkerk, J. W., Smith, R. H. & Cikara, M. (2015). The role of self-evaluation and envy in *schadenfreude*. *European Review of Social Psychology* 26:247–82. [ACW]
- van Kleef, G. A., Oveis, C., van der Lowe, I., LuoKogan, A., Goetz, J. & Keltner, D. (2008). Power, distress, and compassion: Turning a blind eye to the suffering of others. *Psychological Science* 19:1315–22. [aMMG]
- Van Vugt, M. (2006). Evolutionary origins of leadership and followership. *Personality and Social Psychology Review* 10(4):354. [aMMG]
- Varnum, M. E. W. & Grossmann, I. (2016). Pathogen prevalence is associated with cultural changes in gender equality. *Nature Human Behaviour* 1: article 0003. (Online publication). doi: 10.1038/s41562-016-0003. [MEWV]
- Verduyn, P., Delvaux, E., Van Coillie, H., Tuerlinckx, F. & Van Mechelen, I. (2009). Predicting the duration of emotional experience: Two experience sampling studies. *Emotion* 9:83–91. doi: 10.1037/a0014610. [HCL]
- Verduyn, P., Van Mechelen, I. & Tuerlinckx, F. (2011). The relation between event processing and the duration of emotional experience. *Emotion* 11:20–28. doi: 10.1037/a0021239. [HCL]
- Vigliocco, G., Meteyard, L., Andrews, M. & Kousta, S. (2009). Toward a theory of semantic representation. *Language and Cognition* 1:219–47. [VLS]
- Volz, K. G. & Hertwig, R. (2016). Emotions and decisions beyond conceptual vagueness and the rationality muddle. *Perspectives on Psychological Science* 11:101–16. [MG]
- Von Rueden, C. (2014). The roots and fruits of social status in small-scale human societies. In: *The psychology of social status*, ed. J. T. Cheng, J. L. Tracy & C. Anderson, pp. 179–200. Springer. [BC]
- Vytal, K. & Hamann, S. (2010). Neuroimaging support for discrete neural correlates of basic emotions: A voxel-based meta-analysis. *Journal of Cognitive Neuroscience* 22:2864–85. [VLS]
- Wager, T. D., Kang, J., Johnson, T. D., Nichols, T. E., Satpute, A. B. & Barrett, L. F. (2015). A Bayesian model of category-specific emotional brain responses. *PLoS Computational Biology* 11(4):e1004066. doi: 10.1371/journal.pcbi.1004066. [DB, VLS]
- Wagner, H. L. (2000). The accessibility of the term ‘contempt’ and the meaning of the unilateral lip curl. *Cognition and Emotion* 14(5):689–710. [aMMG, VLS]
- Waytz, A. & Epley, N. (2012). Social connection enables dehumanization. *Journal of Experimental Social Psychology* 48(1):70–76. doi: 10.1016/j.jesp.2011.07.012. [aMMG]
- Weidman, A. C., Cheng, J. T. & Tracy, J. L. (2016). The psychological structure of humility. Advance Online publication. Available at: <http://dx.doi.org/10.1037/pspp0000112>. [ACW]
- Wheatley, T. & Haidt, J. (2005). Hypnotic disgust makes moral judgments more severe. *Psychological Science* 16:780–84. [aMMG]
- White, G. M. (1980). Conceptual universals in interpersonal language. *American Anthropologist* 82:759–81. [aMMG]
- White, G. M. (2000). Representing emotional meaning: Category, metaphor, schema, discourse. In: *Handbook of emotions*, 2nd edition, ed. M. Lewis & J. M. Haviland-Jones, pp. 30–44. Guilford Press. [aMMG]
- White, G. M. & Kirkpatrick, J., eds. (1985). *Person, self, and experience.* University of California Press. [aMMG]
- Whitton, A. E., Henry, J. D., Rendell, P. G. & Grisham, J. R. (2014). Disgust, but not anger provocation, enhances levator labii superioris activity during exposure to moral transgressions. *Biological Psychology* 96:48–56. [MB]
- Wierzbicka, A. (1999). *Emotions across languages and cultures: Diversity and universals.* Cambridge University Press. [NH]
- Winiewski, M., Hansen, K., Bilewicz, M., Soral, W., Swiderska, A. & Bulska, D. (2017). *Contempt speech, hate speech. Report from research on verbal violence against minority groups.* Stefan Batory Foundation. [MB]
- Wilson, D. S. (2002). *Darwin's Cathedral: Evolution, religion and the nature of society.* University of Chicago Press. [aMMG]
- Wittgenstein, L. (1953/2001). *Philosophical investigations*, 3rd edition, trans. G. E. M. Anscombe. Prentice-Hall. (Original work published in 1935.) [GBS]
- Wittig, R. M., Crockford, C., Deschner, T., Langergraber, K. E., Ziegler, T. E. & Zuberbühler, K. (2014). Food sharing is linked to urinary oxytocin levels and bonding in related and unrelated wild chimpanzees. *Proceedings of the Royal Society of London B: Biological Sciences* 281(1778):e20133096. [aMMG]
- Wojciszke, B., Abele, A. & Barylka, W. (2009). Two dimensions of interpersonal attitudes: Liking depends on communion, respect depends on agency. *European Journal of Social Psychology* 39(6):973–90. [aMMG]
- Wonch, K. E., de Medeiros, C. B., Barrett, J. A., Dudin, A., Cunningham, W. A., Hall, G. B., Steiner, M. & Fleming, A. S. (2016). Postpartum depression and brain response to infants: Differential amygdala response and

- connectivity. *Social Neuroscience* 11(6):800–17. doi: 10.1080/17470919.2015.1131193. [JES]
- Yarkoni, T., Poldrack, R. A., Nichols, T. E., Van Essen, D. C. & Wager, T. D. (2011) Large-scale automated synthesis of human functional neuroimaging data. *Nature Methods* 8(8):665–70. doi: 10.1038/nmeth.1635. [DB]
- Yatawara, C. J., Einfeld, S. L., Hickie, I. B., Davenport, T. A. & Guastella, A. J. (2016) The effect of oxytocin nasal spray on social interaction deficits observed in young children with autism: A randomized clinical crossover trial. *Molecular Psychiatry* 21:1225–31. Available at: <http://www.nature.com/mp/journal/v21/n9/full/mp2015162a.html>. [RH]
- Yoder, K. J., Harenski, C., Kiehl, K. A. & Decety, J. (2015) Neural networks underlying implicit and explicit moral evaluations in psychopathy. *Translational Psychiatry* 5(8):e625. [aMMG]
- Zhao, R., Zhou, A. & Mao, K. (2016) Automatic detection of cyberbullying on social networks based on bullying features. In: *Proceedings of the 17th International Conference on Distributed Computing and Networking*, vol. 43, pp. 1–6. ACM (Association for Computing Machinery). [MCo]