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

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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 another's 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

59 1. Introduction

60

61 Contempt contributes to many of the challenges confronting a globalizing world, including human rights
62 abuses such as slavery, human trafficking, and sexual exploitation; intractable ethnic conflicts attended
63 by displacement and genocide; intolerance of diversity and minority voices; and insoluble political
64 divisions sustained by disparagement and obstructionism. At a more intimate scale, contempt may be
65 the best predictor of divorce (Gottman & Levenson, 1992), and it animates both parties during breaches
66 of community expectations (Rozin, Lowey, Imada & Haidt, 1999). Understanding the causes,
67 consequences, and cures for contempt is a critical problem with clear applications. Yet, contempt is an
68 enigma, empirically and theoretically neglected relative to comparable emotional phenomena (Haidt,
69 2003). What data there are raise more questions than they answer. We seek to fill these lacunae by
70 challenging the paradigmatic assumptions of modern contempt research, with broad implications for
71 understanding the functional and cultural organization of affect.

72

73 1.1. "A special case"

74

75 The modern contempt literature crystallized around the debate over basic emotions in social
76 psychology. Ekman and Friesen (1986) famously showed that college students in ten cultures select
77 translations of "contempt" to label a distinct facial expression, the unilateral lip curl. For many scholars,
78 this elevated contempt to the pantheon of basic emotions; a complex "contempt" concept was
79 designated a universal human emotion with evolved design features, including rapid onset and brief
80 duration (Ekman, 1992). The apparent absence of evidence of the unilateral lip curl in non-human
81 primates suggested that contempt may even be uniquely human (Ekman & Friesen, *ibid.*).

82

83 Ekman and Friesen's (1986) provocative claims largely defined the focus of subsequent contempt
84 research. While their study occasioned critiques (Izard & Haynes, 1988; Russell, 1991a,b,c) and replies
85 thereto (Ekman & Friesen, 1988; Ekman, O'Sullivan & Matsumoto, 1991), the initial contempt-as-
86 emotion thesis remains ubiquitous. Dominating the relatively small contempt literature (Haidt, 2003),
87 numerous studies have explored the form and universality of contempt expressions (Alvarado &
88 Jameson, 1996; Haidt & Keltner, 1999; Matsumoto & Ekman, 2004; Matsumoto, 2005; Rosenberg &
89 Ekman, 1995; Rozin et al., 1999; Wagner, 2000). Debates in this literature have largely concerned
90 methodological details, the empirical strength of emotion-expression correspondences, or the specific
91 assumptions of the basic emotions approach, not contempt's status as an emotion. Studies on the
92 antecedents and consequences of contempt have likewise assumed that "contempt" refers to a discrete
93 emotion similar in kind to anger and disgust (e.g., Fischer & Roseman, 2007; Hutcherson & Gross, 2011;
94 Laham et al., 2010; Rozin et al., 1999). Some authors have questioned whether "contempt" picks out a
95 psychological primitive. Prinz (2007), for example, argues that contempt is a blend of disgust and anger,
96 while others (e.g., S. Fiske et al., 2002; Cottrell & Neuberg, 2005) see contempt as superordinate to, or
97 synonymous with, these other emotions. These studies maintain that contempt is a prototypical
98 emotion, albeit not a basic one.

99

100 The contempt-as-emotion literature has produced inconclusive, even perplexing, results. Contempt is
101 not uniquely associated with the unilateral lip curl, but is associated with a range of facial, postural, and
102 behavioral expressions, including a neutral face (Izard & Haynes, 1988; Wagner, 2000). The relationship
103 of contempt to anger and disgust remains elusive, and is aptly described as "nebulous" (Hutcherson &
104 Gross, 2011). In empirical studies, contempt is often explicitly collapsed with other putative emotions
105 such as disgust and hate (e.g., Cuddy et al., 2007; Mackie et al., 2000), making clean inferences difficult.
106 Complicating matters, some results suggest that English-speaking participants are confused, or at least

107 in disagreement, as to the meaning of the term “contempt” (Haidt & Keltner, 1999; Matsumoto, 2005).
108 Other documented properties of contempt are altogether anomalous for an emotion, basic or
109 otherwise: contempt has a relatively enduring, even indefinite, time course (Fischer & Roseman, 2007;
110 Hutcherson & Gross, 2011), and it can be phenomenologically “cold”, or distinctly unemotional (Haidt,
111 2003; Izard, 1977; Miller, 1997). Confronted with such results, Rosenberg and Ekman (1995)
112 characterized contempt as a “special case” among putative basic emotions, nevertheless maintaining
113 the underlying contempt-as-emotion thesis.

114

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

122

123 *1.2. Folk affect concepts and basic affect systems*

124

125 We begin with three premises. First, we distinguish between cultural representations of affective
126 phenomena and the underlying behavior regulation systems of affect – that is, *folk affect concepts*, such
127 as emotion terms and ethnopsychological theories, and *basic affect systems*, neurocognitive “survival
128 circuits” (LeDoux, 2012) with phylogenetic legacies far deeper than human language and symbolic
129 capacities (Darwin, 1872; Fessler & Gervais, 2010; Panksepp, 1998; Parr et al. 2007). Basic affect systems
130 are built from “core affect” (Russell, 2003) and other domain-general core systems (L. Barrett, 2013),

131 but they evince higher-level evolved design for solving particular adaptive problems (Nesse, 1990;
132 Cosmides & Tooby, 2000; Kragel & LaBar, 2013; see also H.C. Barrett, 2012). Folk affect concepts need
133 not correspond to these discrete functional systems (Scarantino, 2009). Emotion language has many
134 uses, being performative and political as much as veridical of experience (Besnier, 1990; Lutz & Abu-
135 Lughod, 1990; Sabini & Silver, 2005), and folk affect concepts can dissociate from basic affect systems;
136 some cultures lack words for coherent emotional experiences, while some gloss several distinct
137 experiences with one word (Breugelmans and Poortinga, 2006; Fessler, 2004; Haslam and Bornstein,
138 1996; Levy, 1973). “Contempt” is a folk affect concept. Much research on contempt is research on the
139 term “contempt” and its particular meanings and uses for English speakers. This has frequently been
140 equated with investigating the nature of *contempt*, a putative basic affect system. Recognizing this
141 slippage and distinguishing these projects is a first step in resolving ambiguity in the contempt literature.
142 Here, we use quotation marks to indicate folk affect concepts (e.g., “contempt”), and italics for basic
143 affect systems (e.g., *contempt*); the folk meanings of such terms serve only as intuitive anchors and do
144 not delimit functional hypotheses about the postulated systems so labeled.

145

146 Second, a theory of the computational architecture of basic affect systems is needed to explain
147 individual and population variation in the content of folk affect concepts, including “contempt”.
148 Although basic affect systems and folk affect concepts dissociate, their relationship is not arbitrary. The
149 contents of folk affect concepts derive in part from temporal and causal contingencies in embodied
150 emotional experience (L. Barrett, 2006b; Lyon, 1996; Niedenthal, 2008; Russell, 1991a; White, 2000).
151 Such experience is patterned by basic affect systems interacting with local threats and opportunities,
152 mediated by cultural resources for appraisal and affect regulation (Markus & Kitayama, 1994; Mesquita
153 & Frijda, 1992). While the content of folk affect concepts is fluid with respect to underlying networks of
154 basic affect systems (Haslam & Bornstein, 1996), that content should vary predictably with the

155 engagement of basic affect systems by social and ecological processes -- for example, by the frequencies
156 and local meanings of emotion-evoking events. By specifying the underlying networks of basic affect
157 systems, and considering the social, ecological, and historical contexts in which these systems operate,
158 one can potentially explain the unique constellations of meanings associated with folk affect concepts
159 (Lutz & White, 1986), as well as changes and variation in their content across time and space. Unpacking
160 the network of basic affect systems underlying “contempt” is the central goal of this paper.

161

162 Finally, it is possible to develop constructive hypotheses about the functional architecture of basic affect
163 systems. While concepts such as “emotion” and “affect” invoke folk affect concepts (Lutz 1988; Russell,
164 1991a), basic affect systems need not be defined using the everyday content of such concepts (Royzman
165 et al., 2005; see also Fehr & Russell, 1984). As in adaptationist approaches to the emotions (e.g.,
166 Cosmides & Tooby, 2000; Nesse & Ellsworth, 2009), evolutionary, functional, and comparative
167 considerations can guide the stipulation of basic affect systems and provide grounded criteria for
168 predicting and evaluating their existence (Darwin, 1872; Fessler & Gervais, 2010). Analytic tools include
169 reverse engineering observed phenomena to determine potential function; task analysis of proposed
170 functions to predict design features; consideration of ancestral adaptive problems to predict additional
171 features; cross-species comparison to distinguish conserved and derived features; and ontogenetic and
172 cross-cultural data on developmental canalization and phenotypic plasticity. Increasingly, the functional
173 organization of proximate neural systems can also be interrogated. We use these tools synergistically in
174 inferring the form and functions of *contempt*.

175

176 *1.3. Contempt as a sentiment*

177

178 Taking inspiration from an early and largely forgotten literature in social psychology, we argue that
179 *contempt* is most profitably understood neither as a discrete emotion, nor as an attitude, but as a
180 *sentiment*: a functional network of discrete emotions moderated across situations by an attitudinal
181 representation of another person (McDougall, 1937; Shand, 1920; Stout, 1903; see also Frijda et al.,
182 1991; Scherer 2005). “Sentiment” once vied with “attitude” to be the “main foundation of all social
183 psychology” (see Allport, 1935). Sentiments were thought to differ from attitudes in important ways,
184 being more concrete in their object, more enduring, more consciously accessible, and hierarchically
185 organized. Most importantly, sentiments were recognized as emotionally pluripotent, moderating a
186 range of emotions towards their object across situations. The paradigmatic sentiment is *love*, which
187 “cannot be reduced to a single compound feeling; it must organize a number of different emotional
188 dispositions capable of evoking in different situations the appropriate behavior” (Shand, 1920:56); that
189 is, under different scenarios *love* leads to *joy, contentment, compassion, anxiety, sadness, anger, and*
190 *guilt* (Royzman et al., 2005; Shaver et al., 1996; Storm & Storm, 2005; see also Lutz, 1988). Other
191 candidate sentiments include *liking, hate, fear*, and, we will argue, *respect*, an absence of which defines
192 the sentiment *contempt*. Contempt thus constitutes a case study in the deep structure of social affect,
193 the largely neglected architecture of emotions underlying the regulation of social relationships.

194

195 We theorize three kinds of basic affect systems, defined by their distinct forms and social-relational
196 functions: *attitudes*, identified as enduring affective valuations that represent relational value; *emotions*,
197 identified as occurrent affective reactions that mobilize relational behavior; and *sentiments*, identified
198 as higher-level functional networks of attitudes and emotions that serve critical bookkeeping (Aureli &
199 Schaffner, 2002; Evers et al., 2014) and commitment (A. Fiske, 2002; Gonzaga et al., 2001; Fessler &
200 Quintelier, 2013) functions within social relationships. These systems interface through *affect*, a
201 representational format for information about value (Tooby et al., 2008). Affect is a “feeling”

202 component of emotions and a representational currency of attitudes. Through affect, emotions update
203 attitudes towards particular people, while attitudes moderate emotions across situations; sentiments
204 are the attitude-emotion networks that emerge from these interactions. The functional organization of
205 these systems, engaged by local social and cultural processes, helps explain the variable patterning of
206 folk affect concepts.

207

208 On our account, “contempt” is a folk affect concept anchored by a sentiment, *contempt*. This sentiment,
209 like *hate*, is a “syndrome of episodic dispositions” (Royzman et al., 2005:23), the function of which
210 inheres in linking perceived relationship value to emotion moderation across contexts. *Contempt*
211 specifically represents another as having low intrinsic relational value as cued by their practical or moral
212 inefficacy and expendability, and it entails devaluing and diminishing them. *Contempt* moderates diverse
213 emotions across contexts, potentiating *anger*, *disgust*, and *mirth*, and muting *compassion*, *guilt*, and
214 *shame*. These emotions implement relational behaviors that are adaptive vis-à-vis someone of low
215 value, including intolerance, indifference, and exploitation.

216

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

226 This framework explains the coherence of the various features ascribed to “contempt” in the literature –
227 it is hot and cold, occurrent and enduring, translatable yet varying, with a range of expressive avenues
228 across situations. The contempt-as-sentiment approach illustrates how evaluative sentiments invite
229 spurious study as basic emotions, producing inconsistent results. More generally, our approach revives
230 the sentiment construct, foregrounding the reciprocal functional relationship of attitudes and emotions
231 and thereby bridging their mutually isolated literatures. This elucidates the patterning of affect in social
232 relationships and the grounded pathways traveled by folk affect concepts across cultures and over the
233 course of sociolinguistic change. Our argument is a rapprochement between evolutionary psychology
234 and psychological anthropology for the sake of understanding a biologically cultural species.

235

236 **2. The features of “contempt”**

237

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

244

245 *2.1. Contempt is intentional or about an object*

246

247 Contempt is directed towards a particular object or class thereof (Frijda, 1986). Unlike disgust (e.g.,
248 Wheatley & Haidt, 2005) and anger (e.g., DeSteno et al., 2004), contempt appears not to be susceptible
249 to priming or misattribution (e.g., Tapias et al., 2007). Contempt “tags” others (Fessler & Haley, 2003;

250 Hutcherson & Gross, 2011), inhering in representations of them more than in a systemic mode of
 251 operation in the perceiver.

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	Rozin et al. (1999); Laham et al. (2010); Hutcherson & Gross (2011); Caprariello et al. (2009); Fischer & Roseman (2007)
4. Entails loss of respect and status diminution	Haidt (2003); Sternberg (2003); Miller (1997); Hutcherson & Gross (2011)
5. Creates “cold” indifference through diminished interest and muted prosocial emotions	Izard (1977); Sternberg (2003); Rozin (1999); Haidt (2003); Debreuil (2010)
6. Associated with “anger” and “disgust,” which are among the proximate causes, concomitants, and outcomes of “contempt”	Alvarado & Jameson (1996); Frijda et al., (1989); Rozin et al., (1999); Shaver et al., (1987); Smith & Ellsworth, (1985); Ekman et al., (1987); Storm & Storm (1987); Fischer & Roseman (2007); Hutcherson & Gross (2011); Laham et al. (2010); Mackie et al. (2000); Marzillier & Davey (2004)
7. Can be expressed in many ways, including non-facial modalities	Alvarado & Jameson (1996); Rozin et al. (1994); Ekman et al. (1987); Wagner (2000); Ekman & Friesen (1986); Matsumoto & Ekman (2004); Izard and Haynes (1988); Darwin (1872); various ethnographic accounts (see pp. 16)
8. Leads to intolerance, exclusion, and relationship dissolution	Fischer & Roseman (2007); Mackie et al. (2000); Gottman & Levenson (2000)

252
 253 **Table 1.** Eight features of “contempt”, documented or argued for in the literature, that a complete theory of
 254 “contempt” must explain.

255
 256 *2.2. Contempt is an enduring evaluation*

257
 258 Contempt entails a relatively enduring change in feeling toward its object (Sternberg, 2003). Fischer and
 259 Roseman (2007) found that contempt increased over a period of days, with short-term anger giving way

260 to longer-term contempt. Hutcherson and Gross' (2011) participants explained the undesirability of
261 being an object of contempt in terms of its duration or difficulty of resolution relative to both anger and
262 moral disgust. Many investigators (e.g., Mason, 2003) hold that contempt is anchored by enduring
263 attributions about character traits; Roseman (2001) distinguishes anger and contempt according to their
264 appraised problem types, where that underlying contempt is intrinsic to the person appraised.

265

266 *2.3. Contempt follows from cues to low relational value*

267

268 A number of antecedents have been associated with contempt. These include violations of community
269 expectations (Laham et al., 2010; Rozin et al., 1999), incompetence (Hutcherson & Gross, 2011),
270 immorality (S. Fiske et al., 2002), badness of character (Fischer & Roseman, 2007; Smith & Ellsworth,
271 1985), and out-group or minority status (Brewer, 1999; Izard, 1977; Mackie et al., 2000), especially when
272 perceived competition, superiority, and in-group strength pertain (Caprariello et al. 2009). These causes
273 have in common that the targeted actor or group is a low-value or even worthless relationship partner
274 (Fessler & Haley, 2003). This may follow from their unpredictability, unreliability, inefficacy,
275 incompetence, impoverishment, incompatibility, or replaceability.

276

277 *2.4. Contempt entails loss of respect and status diminution*

278

279 Following from another's cues to low relationship value, contempt emerges as a two-part
280 representation: respect is lost (Haidt, 2003; Laham et al., 2010), and the other is viewed as beneath
281 oneself (Miller, 1997; Smith, 2000, Wagner, 2000; Keltner et al., 2006). Whereas respect for an other
282 follows from efficacy and competence (Wojciszke et al., 2009), contempt follows from their absence
283 (Hutcherson & Gross, 2011). Whereas respect involves "looking up to" someone (A. Fiske, 1991),

284 contempt involves “looking down on” them (Miller, 1997), even seeing them as less than human
285 (Sternberg, 2003; Haslam, 2006; Leyens et al., 2007). Contrary to claims that contempt blends anger and
286 disgust, of the three, only contempt is empirically associated with feelings of superiority (Hutcherson
287 and Gross, 2011).

288

289 *2.5. Contempt creates “cold” indifference*

290

291 Authors frequently refer to contempt and its concomitants as “cold”, a polysemous folk metaphor. One
292 meaning of “cold” refers to the absence of intense qualia in contempt, in contrast to the “hot”
293 experience of anger or disgust (Rozin et al., 1999; Haidt, 2003). Another meaning of “cold” refers to the
294 absence of empathic concern and “warm” prosocial emotions in contempt (Haidt, 2003; Mason, 2003;
295 Dubreuil, 2010). Participants appear to blend these two facets when reporting relatively cool sensations
296 associated with contempt (Nummenmaa et al., 2014). Nonetheless, Frijda et al. (1989) found that
297 “contempt” events are associated with “boiling inwardly” (see also Fischer, 2011); below we explain
298 how contempt may sometimes involve this experience.

299

300 *2.6. Contempt is associated with anger and disgust*

301

302 In studies with various probes and outcome measures, contempt clusters primarily with anger, and
303 secondarily with disgust (Alvarado & Jameson, 1996, 2002; Frijda et al., 1989; Rozin et al., 1994, 1999;
304 Shaver et al., 1987; Smith & Ellsworth, 1985), although some researchers report the reverse (Ekman et
305 al., 1987; Nummenmaa et al., 2014; Storm & Storm, 1987). Many stimuli or situations simultaneously
306 evoke contempt with anger or disgust (Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Laham et
307 al., 2010; Mackie et al., 2000; Marzillier & Davey, 2004; Rozin et al., 1999; Tapias et al., 2007), while the

308 display of disgust is among the behaviors associated with contempt (Fischer and Roseman, 2007).
309 Contempt and disgust are considered together most commonly because both are associated with action
310 tendencies to exclude or avoid another person (Mackie et al., 2000; S. Fiske et al., 2002). Others have
311 considered anger, disgust, and contempt together because all three are “other-condemning” and
312 motivate hostility (Haidt, 2003; Izard, 1977; Sternberg, 2003). Many authors argue that contempt either
313 is a form of anger or disgust, or is built from them (e.g., S. Fiske et al., 2002; Lazarus, 1991; Ortony et al.,
314 1988; Prinz, 2007).

315

316 *2.7. Contempt has many expressions*

317

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

331

332 Beyond facial expressions, research links contempt with a downward gaze and tilted-back head,
333 postures associated with dominance displays and assertions of superiority in animals (see Darwin, 1872;
334 Izard and Haynes, 1988; also Frijda, 1986). In addition to linking contempt to a non-human snarl
335 reminiscent of the unilateral lip curl, Darwin (1872) foregrounded derisive laughter and turning away as
336 expressions of contempt associated with the other's insignificance (see also Fischer, 2011; Roseman et
337 al., 1994).

338

339 In the ethnographic literature, numerous behaviors and expressions that show a lack of respect are
340 parochially interpreted as indexing contempt, including ignoring someone (e.g., Turnbull, 1962),
341 throwing sand at someone (e.g., Thomas, 1914), spitting at or near them (e.g., Handy, 1972), swearing
342 at them (e.g., Campbell, 1964), sticking one's tongue or lips out at them (e.g., Pierson, 1967), and
343 displaying one's buttocks or genitalia to them (e.g., Archer, 1984). In American English, "contempt of
344 court" refers to disregarding the rules, etiquette, or orders of a court of law (Goldfarb, 1961) – that is,
345 "contempt" is inferred from disrespectful, irreverent behavior.

346

347 *2.8. Contempt leads to intolerance, exclusion, and relationship dissolution*

348

349 Contempt is associated with diverse action tendencies; it has been classed among the "appraisal
350 dominant" emotions, meaning that it can be better predicted from antecedent appraisals than from
351 consequent action readiness (Frijda et al., 1989). Nonetheless, the motivations and action tendencies
352 associated with contempt have usually been characterized as rejection and exclusion (Fischer &
353 Roseman, 2007; Frijda, 1986; Roseman et al., 1994). Retrospectively reported contempt events are
354 associated with the goals of social exclusion, coercion, derogation, rejection, and verbal attack (Fischer
355 and Roseman, 2007). A composite of "contempt" and "disgust" partially mediates reported willingness

356 to move away from an out-group, while anger mediates willingness to move against (Mackie et al.,
 357 2000). More broadly, contempt may serve to reduce interaction with those who cannot contribute to
 358 the group (Hutcherson & Gross, 2011), leading to mockery, exclusion, and ostracism (Dubreuil, 2010).
 359 Haidt (2003) argues that “contempt motivates neither attack nor withdrawal” (858), instead pervading
 360 later interactions, diminishing prosocial emotions and leading to mockery or disregard (see also Miller,
 361 1997). Consonant with these motivational and behavioral outcomes, an important consequence of
 362 contempt is relationship dissolution (Fischer & Roseman, 2007). Famously, contempt is one of the “four
 363 horsemen of the apocalypse” in predicting divorce (Gottman & Levenson, 1992). Finally, contempt is
 364 implicated in some of the most heinous of human behaviors. Sternberg (2003) suggests that contempt
 365 plays a role in propaganda campaigns designed to foment hate, and implicates contempt in the
 366 calculated massacres of Hutus, Jews, and Armenians (see also Izard, 1977).

367

368 **3. What “contempt” is not**

369

370 The eight features of the folk affect concept “contempt” demand explanation. Why do they cohere?
 371 How is it that they show regularities across populations despite frustrating researchers with low
 372 consensus across participants? Several existing approaches offer explanations to these questions.
 373 However, none of them explain the full feature set of “contempt” and its translations. As existing
 374 theories cannot adequately account for these features, we offer a novel explanation below.

375

376 *3.1. “Contempt” is not a basic emotion*

377

378 One explanatory approach, exemplified by Ekman and Friesen (1986), maps the folk affect concept
 379 “contempt” onto a basic emotion, *contempt*. This is the approach, at least implicitly, of most contempt

380 researchers (e.g., Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Rozin et al., 1999). A related
381 approach, which does not assume basic emotions, maps “contempt” onto an emergent yet cross-
382 culturally salient “modal emotion” *sensu* appraisal theorists such as Scherer (2009; see also Colombetti,
383 2009).

384

385 Although contempt evinces features of a prototypical emotion profile, including elicitors,
386 phenomenological concomitants, and motivational and expressive outcomes, other features of
387 contempt do not sit comfortably within a basic emotion or appraisal theory approach: contempt is a
388 relatively enduring representation rather than a fleeting occurrent response; it shows no evidence of
389 diffuse systemic effects, as in priming or misattribution; it often involves a marked absence of emotion,
390 as in “cold” indifference to another’s suffering or threat; and its expressions are diverse across contexts.
391 Despite important cross-cultural regularities (Ekman & Friesen, 1986; Haidt & Keltner, 1999; Rozin et al.,
392 1999), agreement on the meaning of “contempt” is also uniquely low for a putative basic emotion
393 (Rosenberg & Ekman, 1995). “Contempt” does not map cleanly onto a natural kind emotion.

394

395 3.2. “Contempt” is not an attitude

396

397 Another approach proposes that “contempt” is an attitude of indifference or rejection towards an
398 object, person, place, or idea viewed as having low value (Frijda, 1986; Mason, 2003). In standard
399 frameworks, attitudes are like emotions in that they are intentional, or about particular objects, but
400 longer lasting – emotions are fleeting responses-in-context, while attitudes are enduring
401 representations (Clore & Schnall, 2005) that involve little arousal (Russell & Barrett, 1999). The structure
402 of attitudes is generally thought to include affective representations (e.g., prejudice), cognitive
403 representations (e.g., stereotypes), and behaviors (e.g., discrimination) (see Breckler, 1984; Eagley &

404 Chaiken, 1993; Rosenberg & Hovland, 1960). These three channels are themselves treated as equally
405 evaluative and unidimensional – from like to dislike, from good to bad, and from approach to avoidance,
406 respectively.

407

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

414

415 *3.3. “Contempt” is not an untethered construction*

416

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

428

429 In a psychological constructionist approach, a word such as “contempt” is necessary to anchor the
430 coherence of the features categorized as a single emotion; without this anchor for statistical learning,
431 there is only the continuous stream of core affect. However, this or comparable words do not appear
432 necessary for experiencing together the features of “contempt”. In a study of anger, Fridhandler and
433 Averill (1982) found that unresolved anger towards a formerly valued relationship partner, dispositional
434 attributions of their shortcomings, and low estimation of the other’s value and character were
435 associated with having “less need or affection for the offender” and a “cooling of the relationship with
436 the instigator”. While these results closely parallel those of Fischer and Roseman (2007) for “contempt”,
437 the word was never used as a prompt. Similarly, the unilateral lip curl is associated with the same kinds
438 of eliciting situations as “contempt” yet without using that word as a prompt (Matsumoto & Ekman,
439 2004; Rozin et al., 1999). In addition, as we will detail below, the features of “contempt” cohere as a
440 dispositional social stance in clinical primary psychopathy, suggesting that their co-occurrence is far
441 from arbitrary. Finally, a constructionist approach has trouble explaining the translatability of
442 “contempt” across diverse populations (e.g., Ekman & Friesen, 1986). The features of “contempt”
443 appear to functionally stick together even without that word acting as conceptual glue.

444

445 The features of “contempt” are not merely a conceptual construction around core affect. They also
446 approximate neither a basic emotion nor an attitude. Nonetheless, each of these approaches has merit.
447 The basic emotions approach highlights the motivational and expressive components of contempt. The
448 attitude approach can account for the object specificity and durability of contempt. And a
449 constructionist approach is necessary to understand how basic affect systems might manifest as folk
450 affect concepts. Synthesizing these perspectives, we argue that the features of “contempt” are aspects
451 of an underlying *sentiment*: a functional network of diverse basic emotions moderated by an attitudinal

452 representation of a person. This network evinces statistical regularities across disparate emotional and
 453 behavioral outcomes anchored by a common attitudinal core. On this account, the major limitation of
 454 the discrete emotions paradigm in the affective sciences is not the assumption of evolved design at a
 455 higher level than “core affect” (*sensu* L. Barrett, 2006a) – it is the under-appreciation of an even higher
 456 level of functional organization across discrete emotions in the service of social relationship regulation.

457

458 **4. Sentiments and the structure of folk affect concepts**

459

460 *4.1. Sentiments*

461

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

473

474 Despite being hailed as “the main foundation of all social psychology” (McDougall, 1933), the sentiment
 475 construct fell from use (though see Heider, 1958). Sentiments were contrasted with “attitudes” (see,

476 e.g., Cattell, 1940; McDougall, 1937), which, following Allport (1935), were embraced by American social
477 psychology. The abstractness and generality of the attitude construct likely helped it gain wider use,
478 especially in experimental studies of impersonal attitudes towards stereotypes, products, and political
479 positions. Other reasons for the waning of “sentiment” likely included behaviorist opposition to the
480 “hormic” teleology of sentiments; greater reliance on evolutionary (especially Lamarckian) reasoning by
481 proponents; and associations with discredited, yet logically distinct, theories of parapsychology and
482 eugenics (see, e.g., Asprem, 2010).

483

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

488

489 *4.2. The Attitude-Scenario-Emotion (ASE) model of sentiments*

490

491 We propose the Attitude-Scenario-Emotion (ASE) model of sentiments (see Table 2). This model
492 specifically addresses social affect, emphasizing the adaptive problems of social relationship regulation
493 (A. Fiske, 2002; Fessler & Haley, 2003). We leave open the potential generality of this model for non-
494 social affect. The model includes three kinds of basic affect systems distinguished by their forms and
495 functions: *attitudes*, *emotions*, and *sentiments*.

496

497

498

499

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 longstanding 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 & 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 Attitudes moderate emotions; emotions update attitudes Emotional pluripotence of attitudes	<i>Structure</i> : stable attitudinal core and diverse fleeting emotions across scenarios <i>Phenomenology</i> : conflation of emotions and attitudes due to reciprocal causal and temporal connections <i>Outcomes</i> : diverse motives, behaviors and expressions across scenarios	“Context-dependent universals” of Attitude X Scenario X Emotion interactions Individual and population variation in conceptual emphasis on attitudinal core or emotional antecedents and outcomes Can be inferred in varying social contexts from different emotion expressions

500
501 **Table 2.** The major features of the Attitude-Scenario-Emotion model of sentiments, including the constructs,
502 functional features, operational indicators, and sample predictions from the model (see section 6, below).

503

504 In our model, *attitudes* are enduring yet tentative representations of social-relational value (e.g., Fazio,

505 2007). Attitudes are set or updated by cues of relational value, then index or proxy that value through

506 time, moderating behavior regulation systems in light of it. In their form attitudes approximate Internal

507 Regulatory Variables (IRVs; Tooby et al., 2008): “indices” or “registers...whose function is to store

508 summary magnitudes...that allow value computation to be integrated into behavior regulation” (253).

509 Tooby et al. propose that IRVs are ubiquitous across levels of the mind, operating in hierarchical systems

510 that aggregate and summarize information at higher levels as a function of outputs from lower levels.

511 Attitudes are IRVs operating at a particularly high, and potentially introspectively salient, level of the

512 social mind.

513

514 Attitudes solve a key adaptive problem of social relationships: conditioning social behavior on the fitness

515 affordances – or likely costs and benefits – associated with others. Anyone can approach, offer aid,

516 inflict harm, or die. But the fitness consequences of such events depend on who is involved – on

517 whether they are kin, ally, leader, mate, stranger, or enemy, and on the costs and benefits to self that

518 such categories entail. Fitness affordances are not objective properties, but are relative to a perceiver’s

519 traits, resources, and current state, requiring subjective representation (see Cottrell et al., 2007; S. Fiske

520 et al., 2002; Tooby et al., 2008). Moreover, appraised threats and opportunities are often not presently

521 observable but are grounded in past events that revealed an other’s skills, propensities, and affiliations.

522 Hence, enduring yet tentative summary representations should commute the past into the present and

523 subjectively weight the value of others. In the ASE model, attitudes serve this function.

524

525 In the ASE model, attitudinal representations guide action, but emotions implement action. Following

526 adaptationist and social-functional approaches (e.g., Cosmides & Tooby, 2000; Ekman, 1992; Keltner et

527 al., 2006; Nesse, 1990; Nesse & Ellsworth, 2009), *emotions* are contingent, occurrent, and coordinated
528 shifts across the cognitive, motivational, and movement systems of an organism, creating a state of
529 action readiness (Frijda et al., 1989). Each emotion is a mode of operation for the organism, contingent
530 on a particular appraisal of circumstance. Functionally, each emotion facilitates adaptive behavior vis-à-
531 vis its eliciting circumstance. In the ASE model, this adaptive behavior regulation occurs primarily in the
532 present, although one function of emotions may be to update attitudes for the future (Baumeister,
533 Vohs, & DeWall, 2007; Tooby et al., 2008). We consider canonical *moods* to be emotions temporally
534 tailored to address protracted threats and opportunities. As with other emotions, their form is systemic
535 and pervades thought and action (see Clore & Schnall, 2005; Frijda, 1994; Schimmack et al., 2000).

536

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

549

550 In the ASE model, *sentiments* are higher-level functional networks of attitudes and emotions; each
551 sentiment is an attitude state and the various emotions disposed by that representation. Within
552 relationships, or towards particular people, the functions of attitudes and emotions are complementary
553 and intertwined. Attitudes “bookkeep” and represent another’s relational value to self. These
554 representations adaptively moderate emotions across scenarios involving another’s actions and
555 fortunes, such as their approach, departure, or death, imbuing such events with self-relevant meaning.
556 Emotions then implement adaptive behavior. One overarching function of each sentiment – of the
557 emotional syndrome of each attitude – is to implement commitment to the value of the relationship
558 represented by that attitude: positive attitudes regulate emotions to build and sustain valuable
559 relationships, while negative attitudes regulate emotions to minimize the costs of, and maximize the
560 benefits extracted from, costly relationships. Sentiments are thus the deep structure of social affect, the
561 largely unstudied networks of attitudes and emotions that pattern affect within social relationships.

562

563 *4.3. The diversity of sentiments and their emotional outcomes*

564

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

571

572 The social world presents many distinct fitness threats and opportunities that cannot be collapsed into a
573 single summary representation of goodness or badness, liking or disliking (see Bugental, 2000; Kenrick et

574 al., 2010; Kurzban & Leary, 2001; Neuberg & Cottrell, 2008; Rai & Fiske, 2011). Correspondingly, existing
575 findings indicate that there are likely more attitude dimensions than traditionally assumed. Results
576 support orthogonal positive and negative attitude dimensions (Cacioppo et al., 1999), distinct
577 dimensions of “liking” and “respect” for tracking affiliation and efficacy, respectively (S. Fiske et al.,
578 2007; Wojciszke et al., 2009; see also White, 1980), and possibly four or five different positive forms of
579 regard (e.g., infatuation, respect, attachment, and liking; Storm & Storm, 2005). Those few emotion
580 researchers who have addressed attitudes and/or sentiments likewise propose some beyond liking and
581 disliking, including love, respect, and hate (Frijda, 1994; Lazarus, 1991; Royzman et al., 2005; Scherer,
582 2005).

583

584 Integrating these deductive and inductive approaches suggests a provisional set of sentiments – social
585 attitude dimensions, corresponding to distinct social-relational affordances, whose states potentiate
586 unique constellations of emotions. We highlight the positive dimensions *love*, *liking*, and *respect*, and
587 the negative dimensions *hate* and *fear*. The positive dimensions correspond to distinct though
588 potentially correlated positive fitness affordances: fitness dependence on an other (*love*; Shaver et al.,
589 1996; Roberts, 2005), the receipt of benefits from an other (*like*; S. Fiske et al., 2007; Wojciszke et al.,
590 2009; Trivers, 1971), and an other’s efficacy (*respect*; S. Fiske et al., *ibid.*; Wojciszke et al., *ibid.*; Henrich
591 & Gil-White, 2001; Chapais, 2015). The negative dimensions correspond to distinct kinds of threat or
592 cost imposition: *hate* tracks an other’s ongoing cost imposition, including zero-sum advantages relative
593 to self (Royzman et al., 2005), while *fear* tracks an other’s willingness and ability to inflict costs under
594 certain circumstances (Öhman & Mineka, 2001; Evers et al., 2014). A given value on one of these
595 dimensions has the functional role of indexing a magnitude of that affordance and moderating behavior
596 regulation systems, including emotions, to manage it. Each of these dimensions can range in value from
597 nil to high, and each is named for its high value. However, the absence of value on a dimension can be

598 functionally significant, and can be linguistically marked or otherwise psychologically or socially salient.

599 Below we make this case for an absence of *respect*, which we identify with *contempt*. In addition,

600 multiple orthogonal dimensions of attitudes can create composite sentiments. For example, equal

601 amounts of liking and disliking can lead either to indifference (when neither is appreciable) or to

602 ambivalence (when both are appreciable; Cacioppo et al., 1999.).

603

604 A second hypothesis of the ASE model is that each attitude state is emotionally pluripotent, disposing

605 diverse emotions towards its object, thereby constituting a sentiment. Each emotion, in turn, might play

606 a role in numerous sentiments. The functional logic is straightforward: each attitude-by-scenario

607 interaction creates an adaptive problem best addressed by a particular emotion. Such events might

608 include an other's approach, achievement, misfortune, or death, injuring them oneself, their witnessing

609 one's own transgression, and so on. Each of these scenarios has unique fitness implications within a

610 relationship, and each means very different things across relationships depending on how the person

611 involved is valued. For instance, if *love* proxies fitness dependence on an other, as cued, for example, by

612 indispensable coalitionary support, then the death of a loved one should lead to a response that solicits

613 social support to mitigate that potential fitness decrement (e.g., *sadness*; Keller & Nesse, 2006). In

614 contrast, if *hate* proxies an other's ongoing costs to self, as cued, for example, by their monopolization

615 of resources, then the death of a hated one should evoke a positively reinforcing response (e.g.,

616 *schadenfreude*; Hareli & Weiner, 2002; van Dijk et al., 2006). The emotional pluripotency of sentiments

617 explains the lack of direct behavioral correspondence between attitudes and behavior – appraised

618 situations and emotions intervene (see, e.g., Cottrell & Neuberg, 2005; Mackie et al., 2000).

619

620 Though a central feature of the early sentiment construct (e.g., Shand, 1920), emotional pluripotency

621 departs radically from most recent discussions. These assume a one-to-one correspondence between

622 emotions and sentiments, with sentiments being mere latent emotions awaiting reinstatement by the
 623 sentiment object (e.g., *hate* as latent *anger*; Frijda, 1994; Lazarus, 1991; see also Averill, 1991; Clore &
 624 Ortony, 2008). Instead, following Royzman et al. (2005), we maintain that each sentiment disposes
 625 multiple discrete emotions conditioned on the actions and fortunes of the attitude object. A negative
 626 sentiment such as *hate* can dispose positive emotions such as *joy* at another's suffering, while a positive
 627 sentiment such as *love* can dispose negative emotions such as *sadness* at another's death -- there is no
 628 simple one-to-one correspondence that depends on previous association for emotion elicitation.
 629 Instead, there is an adaptive grammar of emotions within relationships resulting from the dispositions of
 630 attitudes across social scenarios. Nonetheless, it may be that some sentiments have proprietary
 631 emotions among their dispositions that function like latent emotions -- for example, an emotion *love*
 632 disposed by an attitude *love* (Frijda, 1994; Shaver et al., 1996), contributing to the unique structure of
 633 the sentiment *love*. Similarly, the sentiment *fear* may include a particularly strong association between
 634 an attitude *fear* and an emotion *fear*. In future work it may therefore be prudent to notate polysemous
 635 scientific language when referring to a sentiment network (e.g., FEAR_S, LOVE_S), or to its component
 636 attitude (e.g., FEAR_A, LOVE_A) or proprietary emotion (e.g., FEAR_E, LOVE_E).

637

638 *4.4. The deep structure of folk affect concepts*

639

640 The ASE model is a novel rapprochement between evolutionary psychology and psychological
 641 anthropology: it maintains that human social affect has an evolved, functionally-specialized architecture,
 642 while theorizing the pathways through which this architecture finds variable conceptual and cultural
 643 manifestation. Folk affect concepts are patterned by embodied experience, which is itself patterned by
 644 the engagement of basic affect systems by local ecological, social, and cultural circumstances. The

645 structure of sentiments – as functional networks of contingent attitudes and emotions – allows many
 646 experientially-grounded sources of variation in folk affect concepts.

647

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

658

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

668

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

681

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

690

691 **5. The deep structure of “contempt”**

692

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

698

699 5.1. *The sentiment respect*

700

701 Of the multiple meanings of “respect” (Langdon, 2007), most are consistent with an underlying
702 sentiment that tracks an other’s practical and moral efficacy in domains relevant to the evaluator (S.
703 Fiske et al., 2002; Wojciszke et al., 2009). These standards are subjective, defined relative to the
704 evaluator’s goals, abilities, and social options, but they can stem from shared criteria defining a social
705 role. Ultimately, respect facilitates forming mutualisms with efficacious individuals (see also McClelland,
706 2011) by motivating tolerance of, and interest in, their continued functioning, and facilitating prosocial
707 emotions (e.g., *compassion*, *guilt*, and *shame*) that foster engagement and mitigate harm done to them.
708 Increasing levels of respect track an other’s relative expertise in relevant cultural domains, which makes
709 the other an increasingly valuable source of information and positive externalities. While minimal
710 respect engenders tolerance and interest in an other’s continued functioning, increasing respect
711 motivates increasing concern, deference, and imitation (Henrich & Gil-White, 2001), as well as
712 followership and support (Van Vugt, 2006). *Respect* is implicated in many of the social behaviors that
713 constitute human ultrasociality, including reciprocal relationships (Trivers, 1971), prestige-biased
714 cultural learning (Henrich & Gil-White, 2001), and followership in the resolution of coordination
715 problems (King et al., 2009; Price & Van Vugt, 2014). In each case, *respect* plays a role in assortment by
716 indexing which individuals are competent norm adherents, potential sources of cultural skills, and

717 capable leaders. *Respect* is one proximate mechanism that may implement strategies modeled as
 718 explanations for the evolution of cooperation, including partner selection (e.g., Hruschka & Henrich,
 719 2006) and indirect reciprocity (e.g., Panchanathan & Boyd, 2004).

720

721 5.2. *The sentiment contempt*

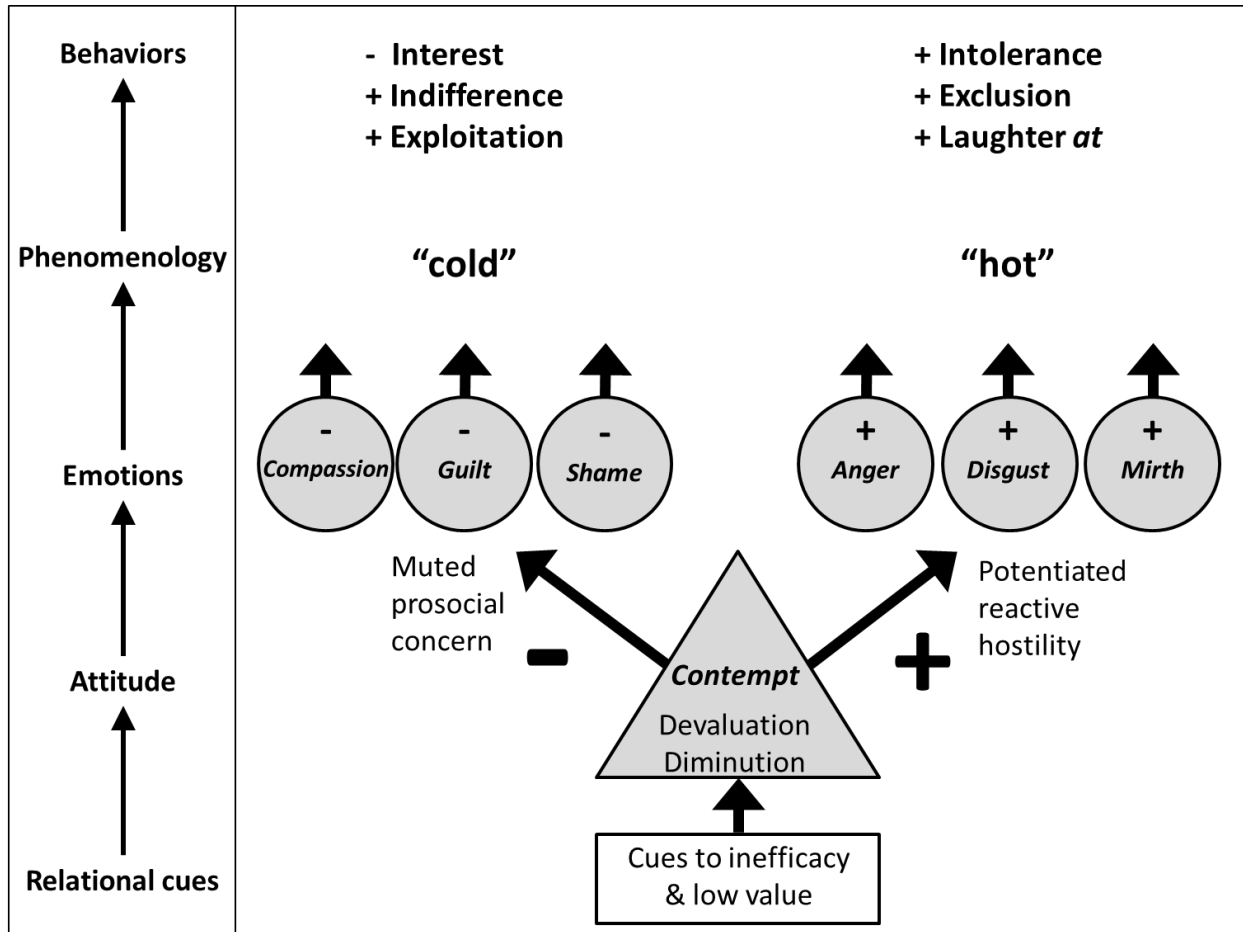
722

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

732

733 *Contempt* potentiates two clusters of emotion dispositions. First, the prosocial emotions supported by
 734 *respect* are muted, leading to cold indifference and exploitation, i.e., *contempt* undermines emotions
 735 that implement subjective commitment (Fessler & Quintelier, 2013) to valuable relationships. The target
 736 may be ignored, and, as their welfare is not valuable, empathy and *compassion* are not engaged. There
 737 is no valuable relationship for *guilt* to preserve as a disincentive to exploit the other, nor is there a
 738 relationship for *guilt* to repair following a transgression (Baumeister et al., 1994; Fessler & Haley, 2003);
 739 any benefit taken is a net benefit lacking a countervailing cost. Moreover, the target's approval is not
 740 important and their knowledge of one's own transgressions should not motivate *shame*. Accidents

741 befalling them are not perceived as serious for oneself, as no valuable relationship is thereby
 742 threatened, potentiating mirth and Duchenne laughter (Gervais & Wilson, 2005).
 743



744
 745 **Figure 1.** A schematic representation of the hypothesized sentiment *contempt*. Relational cues to an other's
 746 inefficacy and low value establish an attitudinal representation of an other that is an absence of *respect*; they are
 747 worthless and below oneself. This creates two clusters of emotion dispositions: muted prosocial emotions such as
 748 *compassion*, *guilt*, and *shame*, and potentiated hostile emotions including *anger*, *disgust*, and *mirth*. These
 749 emotions create both the "cold" and "hot" aspects of contempt phenomenology, and implement indifference,
 750 exploitation, intolerance, and exclusion.

751

752 Second, the hostile emotions mitigated by *respect* are instead potentiated in *contempt*, leading to
753 intolerance and exclusion. Any actual or potential cost imposed by the other – including proximity as a
754 cue to cost imposition – registers as a net cost, disposing *anger* and behaviors that will deter the other
755 in the future (see, e.g., Sell et al., 2009). The target also presents costs that can be mitigated through the
756 co-opted avoidance tendencies of *disgust*. These costs include culture contamination – inadvertently
757 copying the practices that may have earned that person contempt in the first place – and image
758 infection, or stigma-by-association (e.g., Neuberg et al., 1994).

759

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

767

768 There is convergent empirical support for this model of *contempt*. Mounting evidence indicates that
769 empathy and concern are moderated by social closeness and relationship value (e.g., Cikara & Fiske,
770 2011; Hein et al., 2010). These effects are both direct and mediated by reduced motivation to
771 perspective-take (Batson et al., 2007) and affiliate (van Kleef et al., 2008). There is also evidence that
772 increasing someone’s power (Lammers & Stapel, 2011) or social capital (Waytz & Epley, 2011) increases
773 their indifference and dehumanization towards distant others, consistent with *contempt*. The down-
774 regulation of concern by those high in relative efficacy is evident in increased rule breaking, exploitation,
775 and cheating by wealthier individuals (Piff et al., 2012). Likewise, increased physical formidability

776 enhances anger reactivity (Sell et al., 2009). The coincidence of in-group love and out-group indifference
777 (Brewer, 1999) is explicable as outgroup *contempt* abetted by in-group interdependence and solidarity.

778

779 *Contempt* is plausibly the default social sentiment in psychopathy. Clinical psychopaths are
780 characterized by a constellation of anti-social traits and behaviors, including “cold” affect, arrogance,
781 interpersonal manipulation, impulsivity, irresponsibility, and both reactive (anger-based) and
782 instrumental aggression (Blair et al., 2005; Hare, 1996; though see Reidy et al., 2011). Psychopaths thus
783 appear *contemptuous* in all of their interactions: arrogant, without guilt, empathy, shame, or social
784 sadness; exploitative, reactively intolerant, and blaming others – all adaptive dispositions vis-à-vis
785 someone held in *contempt*. Supporting this, clinical psychopaths are capable of empathy but are usually
786 unmotivated to empathize (Meffert et al. 2013), while subclinical psychopathic traits predict the
787 conditioning of concern and relational investment on another’s manifest relational value (Arbuckle &
788 Cunningham, 2012; Gervais et al., 2013; Molenberghs et al., 2014).

789

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

800

801 *5.3. The evolution and phylogeny of contempt*

802

803 How might *contempt*, as the absence of *respect*, have evolved? To start with, *respect* must be a derived
804 capacity within a species' neurocognitive repertoire. Species lacking this capacity – plausibly the
805 prevailing pattern in the animal kingdom, especially among non-social animals – merely evince
806 *pseudocontempt* in their intolerance and indifference to conspecifics. Among social species capable of
807 differentiated relationships involving interest, tolerance, coordination, and reciprocity among non-kin
808 (including “friendships”), we might expect that *respect* evolved to facilitate the establishment and
809 maintenance of valuable relationships with efficacious others. In such species, *respect* could be gained
810 or lost, making *contempt* relationally significant.

811

812 The ancestral form of respect (*protorespect*) may have been directed up dominance hierarchies towards
813 especially efficacious conspecifics, motivating interest and investment in exchange for the benefits
814 uniquely available from those of high rank (Chapais, 2015). This system – involving “looking up to”
815 another – may have co-opted a physical size schema with even deeper phylogenetic roots in force-based
816 agonistic interactions (A. Fiske, 1991; Holbrook et al., 2015), just as the emotion systems *protopride* and
817 *protoshame* were coopted from dominance hierarchies for use in prestige hierarchies (Fessler, 1999;
818 2004). The cognitive side of *contempt* – “looking down on” another – likewise finds a plausible
819 homologue in dominance hierarchies (Darwin, 1872; Frijda, 1986; Izard & Haynes, 1988), especially
820 towards lower-ranking conspecifics that cannot deliver benefits upwards and fail to earn *respect*.
821 Dominant individuals in many species act contemptuous towards replaceable and low-ranking
822 conspecifics – indifferent, intolerant, even exploitative – while showing *respect*-like tolerance and
823 cooperation in more valuable relationships (e.g., Smuts & Watanabe, 1990; see Chapais, *ibid.*). To the

824 extent that high rank is contingent on the support of subordinates, mutual respect may change the
825 quality of dominance interactions and hierarchies (Boehm, 1999; Chapais, *ibid.*). The interaction of
826 positive yet asymmetrical levels of respect could sustain a legitimate status hierarchy, involving upwards
827 support, deference, followership, and propitiation, and downwards *noblesse oblige* and pastoral
828 responsibility, approximating the Authority Ranking (AR) relational model (Fiske, 1991).

829

830 Beyond a capacity for conditional *respect*, in a few species we might expect further derived mechanisms
831 that facilitate social tolerance and the discovery of mutualisms on a larger or faster scale. Two possible
832 mechanisms are an elevated baseline level of *respect* towards conspecifics, and prepared, one-shot cue-
833 based learning. Such mechanisms are plausibly found in humans, owing to the co-evolution of risk-
834 pooling, obligate cultural learning, expanding social networks, and ratcheting interdependence (e.g., Hill
835 et al., 2011; Tomasello et al., 2012). *Contempt* can be implicated in facilitating the evolution of human
836 ultrasociality once prestige and community expectations gained a foothold in our lineage. *Contempt*
837 implements low-cost or indirect punishment, such as exclusion from cooperative ventures, potentiating
838 social selection (Boehm, 2012; Nesse, 2007). Specifically, *contempt* as relative devaluation should have
839 selected for strategies for its avoidance – including adherence to norms for the sake of predictability in
840 joint enterprise (Fessler, 1999, 2007), social niche differentiation and the cultivation of worth to others
841 (Sugiyama & Sugiyama, 2003; Tooby & Cosmides, 1996), and socio-cultural competence culminating in
842 leadership and prestige (Henrich & Gil-White, 2001; Price & Van Vugt, 2014; Chapais, 2015). Efficacy in
843 adhering to community moral expectations could likewise engender *respect* and mitigate contempt (see
844 Rozin et al. 1999). It may be the significance of *lost* respect, especially for moral failings, that makes
845 *contempt* particularly salient in human social life; that is, *contempt* may be a uniquely human moral
846 sentiment, but only insofar as humans are unique in their moral expectations. One upshot of this
847 phylogenetic history may be a kludgy solution to relational tracking that evinces phylogenetic legacies

848 in its proximate instantiation (Fessler & Gervais, 2010), including bleeding across the bases for
 849 *contempt*, as illustrated by metaphors of possessing “weak” moral fiber, engaging in “low” actions
 850 (Lakoff, 1995), or having a “small” intellect.

851

852 5.4. The deep structure of “contempt”

853

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

860

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

869

870 “Contempt” is associated with (5) “cold” indifference. This conceptual metaphor follows from the role of
 871 *contempt* in reducing the “warm” feelings associated with friendship, respect, and committed

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

880

881 That *contempt* moderates diverse emotions and behaviors explains why (7) “contempt” can be
882 expressed in so many ways – a mild threat signaling “stay away” (e.g., Ekman & Friesen, 1986); largeness
883 or a downward glance signaling “I’m better than you” (e.g., Izard & Haynes, 1988); disappointment
884 signaling “you’re not good enough for me” (e.g., Russell, 1991c); anger (e.g., Alvarado & Jameson, 1996),
885 disgust (e.g., Ekman et al., 1987), indifference (e.g., Wagner, 2000), and laughter (e.g., Miller, 1997) as
886 emotion dispositions that index *contempt* in context; and also ridicule, disrespect, vulgarity, and a lack
887 of shameful modesty in the other’s presence, which index lack of regard for them. Finally, the outcomes
888 associated with “contempt” – (8) intolerance, exclusion, exploitation, and relationship dissolution –
889 follow from the emotional dispositions created by *contempt*, which function to minimize the costs
890 incurred, and maximize the benefits extracted, from low-value individuals.

891

892 The ASE model of *contempt* thus organizes the existing contempt literature and makes sense of the
893 eight features that cohere in the “contempt” concept. This includes the findings for which contempt has
894 been labeled a “special case”, most notably individual variation in the meaning of “contempt”, diverse
895 expressions, both “hot” and “cold” phenomenology, and “nebulous” association with anger and disgust.

896 In addition to shedding light on existing data, the ASE model generates predictions about how the
897 “contempt” concept should be patterned across studies, individuals, cultures, and social ecologies. In
898 the next section we flesh out these predictions and future directions, after which we develop more
899 general implications of the ASE model for studies of basic affect systems and folk affect concepts. In
900 evaluating the utility of the ASE model, we stress that it makes predictions about the structure and
901 variation of folk affect concepts where few if any other theories do. Folk affect concepts are the most
902 directly observable affective phenomena and the most experience-near for participants, lending added
903 value to any theory that can explain and predict their form.

904

905 **6. Predictions and Future Directions**

906

907 *6.1. Predicting variation in contempt and “contempt”*

908

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

914

915 In the ASE model, attitudes and emotions are tightly linked causally as well as temporally. Owing to this
916 functional dependency and close association in experience, attitudes and emotions should be readily
917 conflated in folk affect concepts (Frijda et al., 1991). Nonetheless, it should be possible to probe
918 sentiments for their distinct functional components. For example, at the synchronic level of psychology
919 experiments, the meaning of “contempt” should be fluid as different frames or primes make salient

920 different aspects of the underlying sentiment – not only the “hot” or “cold” emotion constellations of
921 *contempt*, but also whether it resembles an emotion or an attitude. Asking about “a time” one felt
922 contempt should foreground the occurrent emotionality of contempt establishment or situational
923 reactivity. In contrast, asking about a person towards whom one feels contempt should foreground the
924 enduring evaluation of the relationship and its cold consideration. More broadly, a productive line of
925 research might explore the malleability of affect concepts, and whether apparent individual or cultural
926 differences in affect concepts can be erased or reversed through the foregrounding of different aspects
927 of relational experience grounded in emotions or attitudes.

928

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

943

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

955

956 Because sentiments subjectively represent the fitness affordances of others, they should be calibrated
957 to individual differences in variables that influence one’s own relative value and the value of social
958 relationships more generally. Individual differences in sentiment profiles – differences in emotion
959 dispositions created by differences in attitude baselines – may be an important yet overlooked source of
960 so-called trait emotions and personality differences. This implies that, across individuals, there should be
961 differences in proneness to *respect* and *contempt* that influence the varieties of “contempt”
962 experienced. Clinical psychopathy may be an extreme case of obligate *contempt* across relationships.
963 More usually, these differences will be a function of one’s own perceived efficacy and value relative to
964 others. For example, high resource-holding power should circumscribe the number of others deemed
965 valuable, making one “contemptuous”. High resource-holding power in a steep, unstable social ecology
966 should sensitize one to threats to resources from others, making “contempt” relatively “hot”. In
967 contrast, a stable dominance hierarchy insulates those at the top from such threats, while making them

968 enduring sources of costs for those on lower rungs; in the thermodynamics of rigid hierarchies, “cold”
 969 contempt should sink, while “hot” contempt rises.

970

971 Within populations, folk affect concepts should be fluid over time, influenced by changes in the lived
 972 costs and benefits of social relationships, as well as shifting normative discourses pertaining to self,
 973 society, and morality. The turn towards “emotion” in urban Vietnamese ethnopsychologies (Tran, 2015),
 974 discussed earlier, indexes the increasing salience of discrete *emotions* per se, a shift apparently driven
 975 by urbanization, market integration, and individualization. Historical shifts may also occur with respect
 976 to particular sentiments. For example, the predominant meaning of “contempt” and its nearest
 977 translations may be fluid over historical time. We suggest that one reason for the common conflation of
 978 “contempt” with “anger”, “disgust”, and “hate” is that successive civil rights movements in America
 979 have undercut the public legitimacy of *contempt*. Many such movements are responses to *contempt* and
 980 hinge on counter-claims to dignity and *respect* – from the “unalienable rights” listed in the Declaration
 981 of Independence, to the Declaration of Sentiments at Seneca Falls that “all men *and women* are created
 982 equal” (Stanton, 1848/2007; emphasis added), to the more recent affirmation that #BlackLivesMatter. In
 983 the moral discourse of a “dignity” culture (Leung & Cohen, 2011), all people have, and ought to be
 984 treated as though they have, inviolable rights and worth. This prescribes *respect* and renders
 985 illegitimate, even contemptible, looking down on or treating as worthless many historically contemned
 986 statuses – a pattern that potentially explains the more than five-fold decrease over the last two
 987 centuries in the proportion of words in English-language books that are ‘contempt’ (Google Ngram:
 988 Michel et al., 2010). In this context, only those universally viewed as morally depraved – such as Nazis,
 989 pedophiles, or, within political parties, the other political party – remain legitimately and publicly
 990 contemptible. This normative stance conflates in discourse and experience *contempt* and *hate* and their
 991 conjoint emotional outcomes *anger* and *disgust*. It may even “unmark” many cases of cold contempt,

992 making them even more insidious, for instance in implicit racial biases. If this account is correct,
 993 differences in the texture of “contempt” should be evident in comparisons of the corpuses of early and
 994 recent American English, older and younger Americans, and American and British English speakers,
 995 wherein modern American contempt should be relatively “hot” and bound up with *anger*, *disgust*, and
 996 *hate*. Generally, any transition from an autocracy to a democracy should be accompanied by a shift in
 997 the content of the nearest cultural model of *contempt* away from the cold, matter-of-fact
 998 representation of inferiority, towards hot emotional reactions to the trampling of rights and dignity.

999

1000 Across populations, folk affect concepts should also vary in systematic ways. For example, the nearest
 1001 translations of “contempt” will vary in content as a function of differences in social organization and the
 1002 frequencies of particular relational events, in addition to local moral discourses. In contrast to the “hot”
 1003 contempt of dignity cultures (see above), “contempt” will take on cold tones of disappointment and
 1004 indifference in contexts where failings or essentialized differences are common grounds for devaluation.
 1005 This includes honor cultures, in which respect has to be earned, and *contempt* plays a legitimate role in
 1006 everyday social life (e.g., Abu-Lughod, 1986). In populations with low relational mobility and high
 1007 interdependence – for example, some “face” cultures (e.g., Doi, 1973) – contempt will be infused with
 1008 pity from the parallel engagement of *love* by that interdependence. In autocratic stratified settings,
 1009 “contempt” should involve cold instrumentality directed downwards, and hot indignation and
 1010 resentment directed upwards. “Reverence” as the conjunction of *love* and *respect* may be more
 1011 common in social structures with freely-conferred status differences, while such societies may lack
 1012 terms, common elsewhere, for the composite sentiments of *respect* and *fear*. Specific variables of
 1013 interest that might influence the manifestation of *contempt* and other sentiments include the structure,
 1014 size, and fluidity of social networks, levels of risk pooling and collective action, rates of within- and
 1015 between-group violence, and the presence of interaction rituals that cue different relational affordances

1016 – in short, any variable that influences the perceived costs and benefits of social relationships. As with
 1017 individual differences, we would implicate culturally variable sentiment profiles as a source of genuine
 1018 cultural differences in emotional proclivities and social behavior. Nonetheless, there should be deep
 1019 similarities across populations in the contingencies that obtain between particular valuations of
 1020 relationships and the emotional concomitants of those relationships in particular appraised scenarios –
 1021 that is, “context-dependent universals” (Chapais 2014) in attitude-scenario-emotion linkages.

1022

1023 *6.2. General ASE predictions and future directions*

1024

1025 The preceding predictions about folk affect concepts hinge on the underlying structure of basic affect
 1026 systems as characterized in the ASE model of sentiments, especially our model of *contempt*, which
 1027 exemplifies the structure of sentiments and the consequences of this structure for folk affect concepts.
 1028 Of course, our predictions about variation in concepts of “contempt” could be wrong without imperiling
 1029 the underlying model of *contempt*, if, for example, our assumptions about the relationship of basic
 1030 affect systems and folk affect concepts are mistaken. Likewise, our specific model of *contempt* could be
 1031 wrong without imperiling the more general ASE model of sentiments; *contempt* may not be an absence
 1032 of *respect*, or it may not be a sentiment at all. For these reasons, it is worth sketching more general
 1033 empirical contributions of the ASE model as well as metatheoretical virtues of this approach.

1034

1035 The ASE model distinguishes attitudes and emotions by their computational form and function. In so
 1036 doing, it pioneers an explicit evolutionary psychological approach to attitudes to complement that which
 1037 exists for emotions (e.g., Tooby & Cosmides, 1990; Nesse, 1990). The venerable attitude literature has
 1038 continually reconsidered the nature of its own constructs and redefined “attitude” across the years
 1039 (Allport, 1935; Eagly & Chaiken, 1993; see Gawronski, 2007). Emphasizing form-function fit, functional

1040 specialization, and the adaptive problems of personal social relationships, the ASE model extends this
1041 tradition in the direction of consilient social theory.
1042
1043 Empirically, there are a number of operational indicators that may be used to distinguish attitudes and
1044 emotions (summarized in Table 2, column 3). For example, in natural language use, the object-specificity
1045 of attitudes should manifest in statements regarding “feelings about” someone, while the more diffuse
1046 and systemic operation of emotions should manifest in statements regarding “feelings because of” some
1047 event. Phenomenologically, it should be possible to introspect present attitudes coldly and
1048 dispassionately, while emotions remain relatively “hot” during their operation. As enduring
1049 representations, attitudes should have a relatively stable time course updated only by new object-
1050 relevant information, while the course of emotions should be relatively fleeting, lasting only as long as
1051 the eliciting scenario (however protracted). Structurally, attitudes are principally evaluations of
1052 someone and require only that object (real or imagined) for their activation. In contrast, the structure of
1053 emotions is that of systemic mobilization without necessarily a clear object, but instead patterned
1054 changes across the organism (Kragel & LaBar, 2013). No single heuristic is likely to clearly distinguish
1055 emotions and attitudes in all cases; their casual and temporal dependencies, which mask their
1056 distinction in folk affect concepts, will likewise complicate scientific attempts to empirically disentangle
1057 them (see also Frijda et al., 1991). For example, this may explain why “hate” and “anger” are not
1058 reported to vary in their duration (Royzman et al., 2005) – if *hate* requires *anger* (among other
1059 emotions) to mobilize action, and if *anger* can follow recurrently from *hate*, then their conceptual
1060 representations may well overlap. Distinguishing attitudes and emotions in such folk affect concepts will
1061 require carefully crafted probes that assess the statistical clustering of multiple functional features
1062 across measures, including self-reports, physiology, neural signatures, and behavior.
1063

1064 The ASE model invites a host of novel questions about the psychological and functional interactions of
1065 emotions and attitudes. The attitude and emotion literatures have remained largely isolated for a half
1066 century; little research has explored how attitudes articulate with the appraisal processes theorized in
1067 the emotion literature, or how and when emotions influence attitudes (though see, e.g., Cunningham et
1068 al., 2007; Clore & Ortony, 2008). Considering how attitudes articulate with emotion-eliciting appraisals
1069 can inform relational models of appraisal, which attempt to specify the information that influences
1070 appraisal processes (see Smith & Kirby, 2009). For example, the valence or intrinsic pleasantness of a
1071 stimulus (see Scherer, 1999), important in the front end of appraisal, potentially cleaves closely to the
1072 evaluative representations of attitudes. Attitudes may play a direct role in appraisal by coordinating
1073 goals or more proximate motives vis-à-vis attitude objects (Shand, 1920; Frijda, 1994). Attitudes may
1074 also influence attention and perspective-taking, mediating, for example, empathic concern (Batson et
1075 al., 2007). Likewise, attitudes may influence ascriptions of causal locus, including ascriptions of intent for
1076 behaviors with positive versus negative outcomes (e.g., Peets et al., 2008). Reciprocally, emotions may
1077 update attitudes. This idea is central to the latent-emotion approaches to attitudes and sentiments (see
1078 also Baumeister et al., 2007), but conceptualizing attitudes as Internal Regulatory Variables, each
1079 updated by diverse emotions, greatly expands this underexplored area (see Tooby et al., 2008).

1080

1081 Two additional hypotheses of the ASE are 1) the existence of diverse orthogonal dimensions of
1082 interpersonal attitudes, and 2) the emotional pluripotency of attitude states. Together these features
1083 motivate the characterization of sentiments as higher-order attitude-emotion networks, and constitute
1084 key criteria for distinguishing sentiments from stand-alone attitudes or emotions. Sentiments should
1085 have some of the functional attributes of attitudes described above – including intentionality and
1086 durability – but will “feel” respectively like attitudes or emotions depending on circumstances. One
1087 signature of sentiments will be the tendency of people to infer them from diverse emotional

1088 expressions. For example, *love* may be indexed by *joy*, *anger*, *fear*, or *sadness* in different contexts. This
1089 is readily testable in a modified emotion recognition paradigm with social-relational framings. Rather
1090 than asking which emotion a pictured person feels, researchers might ask how the pictured person feels
1091 *about* another person given their expression at that person's fate or action – a smile at that person
1092 winning the lottery or dying, for example. A similar paradigm, measuring emotional reactions to
1093 scenarios with a manipulation of target identities, could be used to characterize the precise emotional
1094 grammar for different values of each putative attitude across events. Distinct attitudes should produce
1095 divergent emotional outcomes under at least some circumstances – such as *envy* or schadenfreude-like
1096 *joy* following from *hate* but not *contempt*, or approach-induced anxiety that scales with *respect* but not
1097 *love*. Under our reconceptualization of interpersonal attitudes, it is unclear that any will be simple
1098 attitudes with only one emotional disposition. We have focused on *respect* and *contempt* as the anchors
1099 of one among many attitude dimensions, merely sketching a larger set of dimensions, and general
1100 functional links among cued affordances, attitudinal representations, and emotional dispositions. In
1101 doing so, we sought a middle ground between parsimony and functional specialization. Much more
1102 research will be necessary to catalogue and characterize the pantheon of sentiments, in particular in
1103 personal relationships. Most work on the dimensionality of attitudes has focused on stereotypes and
1104 impersonal judgments, arguably a distinct domain with its own adaptive problems and functional
1105 structure (see Fiske & Fiske, 2007 for discussion).

1106

1107 One fruitful line of research into the diversity of attitude dimensions might investigate their interactions
1108 and conjoint emotional outcomes within relationships. Because individuals are multifaceted, different
1109 features of an other may be represented via different attitudes, and these may conflict. For example, an
1110 actor may both *love* a close kinsperson and hold the other in *contempt* for the latter's divergent politics,
1111 a conflict that can produce "pity" due to the conjunction of (perceived) superiority and affection

1112 (Fessler, 1999) – a quite different prediction from that which limits the objects of contempt to the
1113 “lowest of the low” (i.e. Cuddy et al., 2007). Children may be a common object of such affectionate
1114 contempt across populations. While this may seem counterintuitive given the Western folk affect
1115 concept of “contempt”, consider that, by the same logic, *hate* and *respect* can likewise intersect, as, for
1116 example, in the sentiments of a military leader toward a skilled and formidable foe. Some intersections
1117 of attitude dimensions may be common, while others are unlikely or even incommensurate, owing to
1118 the clustering of relational affordances in the world. What terms are there in the world’s affect lexicons
1119 for mixed-attitude relationships? If more than hyperbole, a “love/hate relationship” would illustrate the
1120 upper boundary of information summarization in the social mind, providing evidence of ambivalence at
1121 the coexistence of competing relational affordances, such as dependence and exploitation.

1122 Interpersonal ambivalence may be an important signature of the multi-dimensionality of attitudes
1123 (Cacioppo et al., 1999). It also distinguishes the ASE from the theory that there is a single streamlined
1124 summary variable regulating self-other tradeoffs (i.e., the Welfare Tradeoff Ratio; Tooby et al., 2008).
1125 Studies of reaction times in social decision making could quantify the magnitude of ambivalence from
1126 different combinations of attitude states, while priming studies that foreground different facets of
1127 targets should be able to increase or reduce such ambivalence experimentally.

1128

1129 The ASE model links to and extends a growing literature in primatology on cost/benefit bookkeeping
1130 within social relationships (*sensu* Silk, 2003). Researchers studying social bonds, reciprocity, and
1131 assortment in non-human primates have proposed that emotions are the proximate mechanisms that
1132 track relational costs and benefits, adaptively regulating social behavior without explicit cognitive
1133 account keeping (e.g., Aureli & Schaffner, 2002; Evers et al., 2014; Schino & Aureli, 2009). The ASE
1134 model clarifies the functional systems in question, distinguishing the complementary forms and
1135 functions of bookkeeping attitudes and commitment emotions in networks of sentiment. Highlighting a

1136 deep but previously unappreciated connection between bookkeeping and commitment, the ASE model
1137 grounds the commitment functions of emotions, including social engagement versus disengagement
1138 (Kitayama et al., 2006), or affiliation versus distancing (Fischer & Manstead, 2008), in antecedent
1139 bookkeeping indices of relational value. In so doing, the ASE model provides a novel lens for
1140 investigating the neurobiological bases of social relationship regulation.

1141

1142 The functional features of sentiments map closely onto the functional properties of some
1143 neuroendocrine systems, facilitating contingent behavior across social-relational contexts (Trumble,
1144 Jaeggi, & Gurven 2015). The ASE model creates a framework for testing how particular hormones and
1145 neural networks represent relationship value, update such representations, or implement behavior
1146 conditionally on such representations. For example, the proposed functions of the neuropeptide
1147 oxytocin range across these processes, including social memory, social bonding, and modulated
1148 tolerance, trust, and parochialism (Insel, 1992; Kosfeld et al., 2005; De Dreu et al., 2011). However, a
1149 careful examination of the evidence in light of the ASE model suggests that the functions of oxytocin are
1150 not the attitudinal encoding of value itself, but are specifically *emotion*-like, implementing a mode of
1151 behavior conditional on an existing representation of value (e.g., Crockford et al., 2013), or updating
1152 that representation given new cues to relationship value (e.g., Wittig et al., 2014). Evidence that
1153 oxytocin tracks relationship quality (e.g., Holt-Lunstad et al., 2014) should not be taken as evidence that
1154 oxytocin is in some sense *the* bond or attitude. Instead, we suggest it is moderated by a separate index
1155 of relationship value – an *attitude* – and implements adaptive behavior (e.g., tolerance, trust,
1156 investment) within a relationship thus indexed. The effects of exogenous oxytocin do appear contingent
1157 on other evaluative representations, such as those tied to group membership (De Dreu, 2012; though
1158 see Leng & Ludwig, 2015), suggesting that simply boosting oxytocin does not get one a bonded
1159 relationship; changes to the representation of the relationship, or the attitude, may be necessary.

1160
1161 What neural systems, then, encode relationship value and moderate the release of, and the effects of,
1162 oxytocin and other neurotransmitters? Insight into social-relational valuation may be gained from
1163 pathologies thereof, as in psychopathy or Frontotemporal Dementia. Though typically conceptualized as
1164 pathologies of emotion, we reconceptualize these as *sentiment* disorders in which atypical attitudinal
1165 representations disrupt downstream social emotions. Previous work on these conditions can thus be
1166 interpreted as nominating candidate neural networks for encoding social valuation (or *attitudes*),
1167 including the basolateral nucleus of the amygdala, orbitofrontal cortex, anterior cingulate, anterior
1168 insula, and superior temporal pole (see Anderson & Kiehl, 2012; Filippi et al., 2013; Yoder et al., 2015).
1169 These areas are key components of the “salience network” (Seeley et al., 2007) regulating the
1170 motivational import of social information, in line with a proposed function of attitudes. How these areas
1171 relate to the regulation of neurohormones – their release and effects, for example – is a key outstanding
1172 question for the neural implementation of sentiments. The construct of sentiment disorders can also
1173 challenge received wisdom. For example, rather than an empathy deficit disrupting the development of
1174 attachment in psychopathy (Blair et al., 1997), an inability to value others may be primary in
1175 psychopathy and underlay psychopaths’ diminished empathy and resistance to socialization.

1176
1177 We have characterized sentiments as systems of endogenous affect that regulate social-relational
1178 behavior. This is not to say that the engagement of these systems within any given relationship is the
1179 only determinant of behavior within that relationship. Strong norms backed by punishment, or
1180 obligations and expectations linked to reputation, can channel and constrain social behavior, motivating
1181 generosity, or disincentivising exploitation, even in the absence of compassion or respect. At the same
1182 time, the existence of norms such as “hate the sin, not the sinner” suggests that communities often
1183 need norms to countervail the endogenous tendencies of social attitudes (Wilson, 2002). Despite

1184 extensive research on the individual and societal determinants of relational dynamics, the nature of the
1185 psychological interactions between these influences on social behavior remains under-researched. What
1186 work there is suggests significant cultural variation in the relative weight of relational attitudes and
1187 internalized role expectations in determining social behavior. For instance, among Indian participants,
1188 an internalized sense of duty can abet prosociality even within relationships that are devoid of warmth,
1189 thus establishing two pathways to “intrinsically” motivated prosocial behavior (Miller & Bersoff, 1998;
1190 Miller et al., 2011). However, the interaction of sentiments and internalized norms is likely more
1191 intertwined than such cases suggest; internalization itself may be mediated by sentiments towards
1192 community members generally, or towards authority figures (including supernatural agents) in
1193 particular. Theorized as a psychological commitment device evolved to enhance norm conformity and
1194 the social benefits thereof (Fessler, 2007), the internalization of norms should hinge on the perceived
1195 fitness affordances of the holders of normative expectations. This is because the fitness benefits of
1196 internalization apply only vis-à-vis those whose judgments are valuable as means to social, cultural, and
1197 material resources. In other words, the costs of *not* internalizing norms follow from the negative
1198 judgments of valuable allies or authorities. This implies that, over and above cultural variation in
1199 normative expectations, individual and cultural differences in the internalization of norms may reflect
1200 variation in *respect* for authority, or *love* for other group members, producing differences in the
1201 commitment emotions regulated by these attitudes. This, in turn, predicts variation in the success of the
1202 social control of sentiments; *love* or *respect* for authorities or other critical third parties may be
1203 necessary to curb the enactment of *contempt* or *hate* in other social contexts within the group, and to
1204 direct such antisocial sentiments towards rival out-groups. Dramatic changes in an individual’s
1205 circumstances vis-à-vis a group, with corresponding changes in the relational value of group members,
1206 may alter the degree to which norms are internalized as a function of changes in sentiments: a sudden
1207 rise in an actor’s coercive power may lead to a decline in their *respect* for authority and the motivational

1208 import of previously motivating norms, while defeat and assimilation by an outside group may lead to
1209 the abandonment of prior norms in favor of those of the new group on which one becomes dependent
1210 (cf. Cantor & Price, 2007).

1211

1212 **7. Summary & Conclusion**

1213

1214 Employing an adaptationist approach to the mind while taking transmitted culture seriously, we have
1215 sought to clarify the form and functions of contempt, a phenomenon that has resisted simple
1216 explanation. Decomposing the folk affect concept “contempt” into its eight component features reveals
1217 characteristics that cannot be fully accounted for by models that depict contempt as a basic emotion or
1218 by those that seek to explain it as an attitude. Rather, the features of “contempt” functionally cohere
1219 and map onto the basic affect systems of a *sentiment* – a network of basic emotions moderated by an
1220 attitudinal representation of social-relational value. The Attitude-Scenario-Emotion (ASE) model of
1221 sentiments details this construct, including the diversity of functionally-specialized attitude dimensions,
1222 and the emotional pluripotency of each attitude state. The sentiment *contempt* represents an other as
1223 worthless and below oneself, and potentiates both indifference to an other’s concerns and intolerance
1224 of their presence and any costs associated with them. The features of the folk affect concept
1225 “contempt” are the variably-experienced manifolds of this functional network – which may be more or
1226 less “cold”, more or less enduring, and experienced in conjunction with other sentiments such as *love* or
1227 *hate*. Though not simple, our explanation of contempt is parsimonious, explaining all the features of the
1228 folk affect concept “contempt” with reference to one high-level basic affect system, *contempt*.

1229

1230 This approach suggests a number of methodological and empirical insights, illuminating how “contempt”
1231 can be probed to reveal different features of the underlying sentiment, and shedding light on both when

1232 variation in “contempt” is to be expected and how corresponding folk affect concepts compare across
1233 social and temporal scales. More generally, the ASE model of sentiments has many virtues.
1234 Characterizing emotions and attitudes in complementary functional terms should facilitate engagement
1235 between emotion researchers and attitude researchers, connecting these mutually-isolated literatures.
1236 While the ASE model focuses on the role of attitudes in moderating emotions, it leaves room for the
1237 dynamic feedback of emotions on attitudes (see, e.g., Tooby et al., 2008). The computational-functional
1238 ASE model can be grounded in comparative neuroscience and can help clarify our understanding of the
1239 representational and motivational functions of different neural systems, including neuropeptides, the
1240 “salience network”, and the etiologies of emotion-related disorders. The model links psychological
1241 research to the comparative literature in primatology, fleshing out candidate proximate mechanisms for
1242 models of social evolution, and foregrounding enduring social relationships – the ancestral cornerstone
1243 of human adaptation – in the evolution and functions of social affect. By jointly considering evolved
1244 psychological architecture, the content of emotion lexicons, and genuine cultural differences in
1245 attitudes, emotions, and social behavior, this synthetic approach unifies the insights of evolutionary
1246 psychology, psychological anthropology, and cultural psychology – a necessary consilience if we are to
1247 understand humans as a biologically cultural species.
1248

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1258 **References**

- 1259 Abu-Lughod, L. (1986). *Veiled Sentiments*. Berkeley: University of California Press.
- 1260 Allport, G.W. (1935). Attitudes. In: C. Murchison (Ed.), *Handbook of Social Psychology* (pp. 798-844).
1261 Worcester, MA: Clark University Press.
- 1262 Alvarado, N., & Jameson, K. (1996). New findings on the contempt expression. *Cognition & Emotion*, *10*,
1263 379-407.
- 1264 Alvarado, N., & Jameson, K. A. (2002). Varieties of anger: The relation between emotion terms and
1265 components of anger expressions. *Motivation and Emotion*, *26*(2), 153-182.
- 1266 Anderson, N. E., & Kiehl, K. A. (2012). The psychopath magnetized: insights from brain imaging. *Trends in*
1267 *Cognitive Sciences*, *16*, 52-60.
- 1268 Arbuckle, N. L., & Cunningham, W. A. (2012). Understanding everyday psychopathy: shared group
1269 identity leads to increased concern for others among undergraduates higher in
1270 psychopathy. *Social Cognition*, *30*, 564-583.
- 1271 Archer, W. G. (1984). *Tribal Law and Justice: A Report on the Santal*. New Delhi: Concept.
- 1272 Aspren, E. (2010). A nice arrangement of heterodoxies: William McDougall and the professionalization
1273 of psychical research. *Journal of the History of the Behavioral Sciences*, *46*(2), 123-143.
- 1274 Aureli, F., & Schaffner, C. M. (2002). Relationship assessment through emotional mediation. *Behaviour*,
1275 *139*(2), 393-420.
- 1276 Averill, J.R. (1991). Emotions as episodic dispositions, cognitive schemas, and transitory social roles:
1277 Steps toward an integrated theory of emotion. In D. Ozer, M. Healy, Jr., & A.J. Stewart (Eds.),
1278 *Perspectives in Personality, Vol. III* (pp. 139-167). London: Jessica Kingsley Publishers.
- 1279 Barrett, H.C. (2012). A hierarchical model of the evolution of human brain specializations. *Proceedings of*
1280 *the National Academy of Sciences* *109*, 10733-10740.
- 1281 Barrett, H.C., & Kurzban, R. (2006). Modularity in cognition: Framing the debate. *Psychological Review*,

- 1282 113, 628-647.
- 1283 Barrett, L. (2006a). Are emotions natural kinds? *Perspectives on Psychological Science*, 1(1), 28-58.
- 1284 Barrett, L. (2006b). Solving the emotion paradox: Categorization and the experience of emotion.
- 1285 *Personality and Social Psychology Review*, 10, 20-46.
- 1286 Batson, C.D., Hakansson, E., Chermok, V.L., Hoyt, J.L., & Ortiz, B.G. (2007). An additional antecedent of
- 1287 empathic concern: Valuing the welfare of the person in need. *Journal of Personality and Social*
- 1288 *Psychology*, 93, 65-74.
- 1289 Baumeister, R., Stillwell, A., & Heatherton, T. (1994). Guilt: An interpersonal approach. *Psychological*
- 1290 *Bulletin*, 115, 243-267.
- 1291 Baumeister, R., Vohs, K., & DeWall, C.N. (2007). How emotion shapes behavior: Feedback,
- 1292 anticipation, and reflection, rather than direct causation. *Personality and Social Psychology*
- 1293 *Review*, 11, 167-203.
- 1294 Besnier, N. (1990). Language and affect. *Annual Review of Anthropology*, 19, 419-451.
- 1295 Blair, R.J.R., Jones, L., Clark, F., & Smith, M. (1997). The psychopathic individual: A lack of responsiveness
- 1296 to distress cues? *Psychophysiology*, 34, 192-198.
- 1297 Blair, R.J.R., Mitchell, D., & Blair, K. (2005). *The Psychopath: Emotion and the Brain*. Malden, MA:
- 1298 Blackwell.
- 1299 Boehm, C. (2012). *Moral Origins: The Evolution of Virtue, Altruism, and Shame*. Basic Books: New York.
- 1300 Breckler, S. (1984). Empirical validation of affect, behavior, and cognition as distinct components of
- 1301 attitude. *Journal of Personality and Social Psychology*, 47 (6), 1191-1205.
- 1302 Breugelmans, S., & Poortinga, Y. (2006). Emotion without a word: Shame and guilt among Rarámuri
- 1303 Indians and rural Javanese. *Journal of Personality and Social Psychology*, 91 (6), 1111-1122.
- 1304 Brewer, M. B. (1999). The psychology of prejudice: Ingroup love or outgroup hate? *Journal of Social*
- 1305 *Issues*, 55(3), 429-444.

- 1306 Bugental, D. (2000). Acquisition of the algorithms of social life: A domain-based approach. *Psychological*
 1307 *Bulletin* 126, (2), 187-219.
- 1308 Cacioppo, J., Gardner, W., & Berntson, G. (1999). The affect system has parallel and integrative
 1309 processing components: Form follows function. *Journal of Personality and Social Psychology*, 76
 1310 (5), 839-855.
- 1311 Campbell, John Kennedy. (1964). *Honour, Family and Patronage: A Study of Institutions and Moral*
 1312 *Values in a Greek Mountain Community*. Oxford: Clarendon Press.
- 1313 Cantor, C. & Price, J. (2007). Traumatic entrapment, appeasement and complex PTSD: evolutionary
 1314 perspectives of hostage reactions, domestic abuse and the Stockholm syndrome. *Australian and*
 1315 *New Zealand Journal of Psychiatry*, 41, 377-384.
- 1316 Caprariello, P.A., Cuddy, A.J.C., & Fiske, S.T. (2009). Social structure shapes cultural stereotypes and
 1317 emotions: A causal test of the stereotype content model. *Group Processes & Intergroup*
 1318 *Relations*, 12, 147-155.
- 1319 Cattell, R. B. (1940). Sentiment or attitude? The core of a terminology problem in personality
 1320 research. *Journal of Personality*, 9(1), 6-17.
- 1321 Chapais, B. (2014). Complex kinship patterns as evolutionary constructions, and the origins of
 1322 sociocultural universals. *Current Anthropology*, 55(6), 751-783.
- 1323 Chapais, B. (2015). Competence and the evolutionary origins of status and power in humans. *Human*
 1324 *Nature*, 1-23.
- 1325 Cikara, M., & Fiske, S. T. (2011). Bounded empathy: Neural responses to outgroup targets' (mis)fortunes.
 1326 *Journal of Cognitive Neuroscience*, 23(12), 3791-3803.
- 1327 Cikara, M., & Fiske, S. T. (2012). Stereotypes and schadenfreude affective and physiological markers of
 1328 pleasure at outgroup misfortunes. *Social Psychological and Personality Science*, 3(1), 63-71.
- 1329 Clore, G.L. & Ortony, A. (2008). Appraisal theories: How cognition shapes affect into emotion. In: M.

- 1330 Lewis, J.H. Haviland-Jones & L.F. Barrett (Eds.), *Handbook of Emotions, 3rd Ed.* (628-642). New
 1331 York: The Guilford Press.
- 1332 Clore, G.L. & Schnall, S. (2005). The influence of affect on attitudes. In: Albarracin, D., Johnson, B.T., &
 1333 Zanna, M.P. (Eds.), *The Handbook of Attitudes* (437-489). New Jersey: Lawrence Erlbaum
 1334 Associates.
- 1335 Colombetti, G. (2009). From affect programs to dynamical discrete emotions. *Philosophical Psychology*,
 1336 22(4), 407-425.
- 1337 Cosmides, L. & Tooby, J. (2000). Evolutionary psychology and the emotions. In: M. Lewis & J.M.
 1338 Haviland-Jones (Eds.), *Handbook of Emotions, 2nd Ed.* (91-115). New York: Guildford Press.
- 1339 Cottrell, C. A., & Neuberg, S. L. (2005). Different emotional reactions to different groups: A
 1340 sociofunctional threat-based approach to "prejudice". *Journal of Personality and Social*
 1341 *Psychology*, 88(5), 770-789.
- 1342 Cottrell, C.A., Neuberg, S.L., & Li, N.P. (2007). What do people desire in others? A sociofunctional
 1343 perspective on the importance of different valued characteristics. *Journal of Personality and*
 1344 *Social Psychology*, 92, 208-231.
- 1345 Crockford, C., Wittig, R. M., Langergraber, K., Ziegler, T. E., Zuberbühler, K., & Deschner, T. (2013).
 1346 Urinary oxytocin and social bonding in related and unrelated wild chimpanzees. *Proceedings of*
 1347 *the Royal Society of London B: Biological Sciences*, 280(1755), 20122765.
- 1348 Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2007). The bias map: Behaviors from intergroup affect and
 1349 stereotypes. *Journal of Personality and Social Psychology*, 92(4), 631-648.
- 1350 Cunningham, W. A., Zelazo, P. D., Packer, D. J., & Van Bavel, J. J. (2007). The iterative reprocessing
 1351 model: A multilevel framework for attitudes and evaluation. *Social Cognition*, 25(5), 736-760.
- 1352 Darwin, C. (1872/1955). *Expression of the emotions in man and animals*. New York: Philosophical
 1353 Library.

- 1354 De Dreu, C. K., Greer, L. L., Van Kleef, G. A., Shalvi, S., & Handgraaf, M. J. (2011). Oxytocin promotes
 1355 human ethnocentrism. *Proceedings of the National Academy of Sciences*, *108*(4), 1262-1266.
- 1356 De Dreu, C. K. (2012). Oxytocin modulates cooperation within and competition between groups: an
 1357 integrative review and research agenda. *Hormones and behavior*, *61*(3), 419-428.
- 1358 DeSteno, D., Dasgupta, N., Bartlett, M., & Caidric, A. (2004). Prejudice from thin air. *Psychological*
 1359 *Science*, *15* (5), 319-324.
- 1360 Doi, T. (1973). *The Anatomy of Dependence*, trans. J. Bester. Tokyo: Kodansha International.
- 1361 Dubreuil, B. (2010). Punitive emotions and norm violations. *Philosophical Explorations*, *13* (1), 35-50.
- 1362 Eagly, A.H. & Chaiken, S. (1993). *The Psychology of Attitudes*. Orlando: Harcourt Brace.
- 1363 Ekman, P. (1992). An argument for basic emotions. *Cognition & Emotion*, *6* (3), 169-200.
- 1364 Ekman, P., & Friesen, W. V. (1986). A new pan-cultural facial expression of emotion. *Motivation and*
 1365 *Emotion*, *10*(2), 159-168.
- 1366 Ekman, P., & Friesen, W. V. (1988). Who knows what about contempt: A reply to Izard and Haynes.
 1367 *Motivation and Emotion*, *12*, 17-22.
- 1368 Ekman, P., Friesen, W. V., O'Sullivan, M., Chan, A., Diacoyannitarlatzis, I., Heider, K., et al. (1987).
 1369 Universals and cultural-differences in the judgments of facial expressions of emotion. *Journal of*
 1370 *Personality and Social Psychology*, *53*(4), 712-717.
- 1371 Ekman, P., O'Sullivan, M., & Matsumoto, D. (1991). Contradictions in the study of contempt: What's it all
 1372 about? Reply to Russell. *Motivation & Emotion*, *15*, 293-296.
- 1373 Evers, E., de Vries, H., Spruijt, B. M., & Sterck, E. H. (2014). The EMO-Model: An Agent-Based Model of
 1374 Primate Social Behavior Regulated by Two Emotional Dimensions, Anxiety-FEAR and
 1375 Satisfaction-LIKE. *PLoS ONE*, *9*(2), e87955.
- 1376 Fazio, R. (2007). Attitudes as object-evaluation associations of varying strength. *Social Cognition*, *25*,
 1377 603-637.

- 1378 Fehr, B., & Russell, J. A. (1984). Concept of emotion viewed from a prototype perspective. *Journal of*
 1379 *Experimental Psychology-General*, 113(3), 464-486.
- 1380 Fessler, D.M.T. (1999). Toward an understanding of the universality of second order emotions. In: A.L.
 1381 Hinton (Ed.), *Biocultural Approaches to the Emotions* (pp. 75-116). New York: Cambridge
 1382 University Press.
- 1383 Fessler, D. (2004). Shame in two cultures: Implications for evolutionary approaches. *Journal of Cognition*
 1384 *and Culture*, 4, 207-262.
- 1385 Fessler, D.M.T. (2007). Steps toward an evolutionary psychology of a culture-dependent species. In S.
 1386 Carruthers, S. Laurence & S. Stich (Eds.) *The Innate Mind* (vol. II) (pp. 91-117). New York: Oxford
 1387 University Press.
- 1388 Fessler, D. M. T., & Gervais, M. (2010). From whence the captains of our lives: Ultimate and phylogenetic
 1389 perspectives on emotions in humans and other primates. In P. M. Kappeler & J. B. Silk (Eds.),
 1390 *Mind the Gap: The Origins Of Human Universals* (pp. 261-280). New York: Springer.
- 1391 Fessler, D.M.T. & Haley, K.J. (2003). The strategy of affect: Emotions in human cooperation. In: P.
 1392 Hammerstein (Ed.), *The Genetic and Cultural Evolution of Cooperation* (pp. 7-36). Cambridge,
 1393 MA: MIT Press.
- 1394 Fessler, D.M.T. & Quintelier, K. (2013). Suicide Bombings, weddings, and prison tattoos: An
 1395 evolutionary perspective on subjective commitment and objective commitment. In *Cooperation*
 1396 *and its Evolution, Vol. 2: Agents and Mechanisms* (K. Sterelny, R. Joyce, B. Calcott, and B. Fraser,
 1397 Eds), pp. 459-483. MIT Press.
- 1398 Filippi, M., Agosta, F., Scola, E., Canu, E., Magnani, G., Marccone, A., Valsasina, P., Caso, F., Copetti, M.,
 1399 Comi, G., Cappa, S.F. & Falini, A. (2013). Functional network connectivity in the behavioral
 1400 variant of frontotemporal dementia. *Cortex*, 49(9), 2389-2401.
- 1401 Fischer, A. (2011). Contempt: A hot feeling hidden under a cold jacket. In: *Re-constructing Emotional*

- 1402 *Spaces: From Experience to Regulation* (R. Trnka, K. Balcar, & M. Kuska, eds.), pp. 77-87. Prague
 1403 College of Psychosocial Studies Press.
- 1404 Fischer, A.H. & Manstead, A.S.R. (2008). Social functions of emotion. In: M. Lewis, J.H. Haviland-Jones &
 1405 L.F. Barrett (Eds.), *Handbook of Emotions, 3rd Ed.* (pp. 456-468). New York: The Guilford Press.
- 1406 Fischer, A. H., & Roseman, I. J. (2007). Beat them or ban them: The characteristics and social functions of
 1407 anger and contempt. *Journal of Personality and Social Psychology, 93*(1), 103-115.
- 1408 Fiske, A.P. (1991). *Structures of Social Life*. New York: The Free Press.
- 1409 Fiske, A.P. (2002). Socio-moral emotions motivate action to sustain relationships. *Self and Identity 1*,
 1410 169-175.
- 1411 Fiske, A.P. & Fiske, S.T. (2007). Social relationships in our species and cultures. In: S. Kitayama & D.
 1412 Cohen (Eds.), *Handbook of Cultural Psychology* (283-306). New York: Guilford.
- 1413 Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content:
 1414 Competence and warmth respectively follow from perceived status and competition. *Journal of*
 1415 *Personality and Social Psychology, 82*(6), 878-902.
- 1416 Fiske, S., Cuddy, A., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and
 1417 competence. *Trends in Cognitive Sciences, 11*(2), 77-83.
- 1418 Frank, R.H. (1988). *Passions Within Reason: The Strategic Role of the Emotions*. New York: W. W.
 1419 Norton & Co.
- 1420 Fridhandler, B. M., & Averill, J. R. (1982). Temporal dimensions of anger: An exploration of time and
 1421 emotion. In: J. R. Averill (Ed.), *Anger and Aggression* (pp. 253–280). New York: Springer-Verlag.
- 1422 Frijda, N. H. (1986). *The Emotions*. New York: Cambridge University Press.
- 1423 Frijda, N. H. (1994). Varieties of Affect: Emotions and Episodes, Moods, and Sentiments. In P. Ekman &
 1424 R. J. Davidson (Eds.), *The Nature of Emotion: Fundamental Questions* (pp. 59-67). New York:
 1425 Oxford University Press.

- 1426 Frijda, N., Kuipers, P., & Ter Schure, E. (1989). Relations among emotion, appraisal, and emotional action
1427 readiness. *Journal of Personality and Social Psychology*, *57*(2), 212-228.
- 1428 Frijda, N. H., Mesquita, B., Sonnemans, J., & Van Goozen, S. (1991). The duration of affective
1429 phenomena or emotions, sentiments and passions. *International Review of Studies on*
1430 *Emotion*, *1*, 187-225.
- 1431 Gawronski, B. (2007). Editorial: Attitudes can be measured! But what is an attitude? *Social Cognition*, *25*
1432 (5), 573-581.
- 1433 Gervais, M. M., Kline, M., Ludmer, M., George, R., & Manson, J. H. (2013). The strategy of psychopathy:
1434 primary psychopathic traits predict defection on low-value relationships. *Proceedings of the*
1435 *Royal Society B: Biological Sciences*, *280*(1757), 20122773.
- 1436 Gervais, M., & Wilson, D. (2005). The evolution and functions of laughter and humor: a synthetic
1437 approach. *The Quarterly Review of Biology*, *80* (4), 395-430.
- 1438 Goldfarb, R. (1961). The history of the contempt power. *Washington University Law Quarterly*, *1*, 1-29.
- 1439 Gonzaga, G., Keltner, D., Londahl, E., & Smith, M. (2001). Love and the commitment problem in romantic
1440 relations and friendship. *Journal of Personality and Social Psychology*, *81*(2), 247-262.
- 1441 Gottman, J.M. & Levenson, R.W. (1992). Marital processes predictive of later dissolution: Behavior,
1442 Physiology, and Health. *Journal of Personality and Social Psychology*, *63*, 221-233.
- 1443 Haidt, J. (2003). The moral emotions. In: R. Davidson, K. Scherer, & H. Goldsmith (Eds.), *Handbook of*
1444 *Affective Science* (pp. 852-870). New York: Oxford.
- 1445 Haidt, J., & Keltner, D. (1999). Culture and facial expression: Open-ended methods find more faces and a
1446 gradient of recognition. *Cognition and Emotion*, *13*, 225-266.
- 1447 Hare, R. D. (1996). Psychopathy: a clinical construct whose time has come. *Criminal Justice and Behavior*,
1448 *23*, 25-54.
- 1449 Hareli, S., & Weiner, B. (2002). Dislike and envy as antecedents of pleasure at another's misfortune.

- 1450 *Motivation and Emotion*, 26 (4), 257-277.
- 1451 Haselton, M., & Nettle, D. (2006). The paranoid optimist: An integrative evolutionary model of cognitive
 1452 biases. *Personality and Social Psychology Review*, 10 (1), 47-66.
- 1453 Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology*
 1454 *Review*, 10(3), 252-264.
- 1455 Haslam, N., & Bornstein, B. (1996). Envy and jealousy as discrete emotions: A taxometric analysis.
 1456 *Motivation and Emotion*, 20(3), 255-272.
- 1457 Heider, F. (1958). *The Psychology of Interpersonal Relations*. Psychology Press.
- 1458 Hein, G., Silani, G., Preuschoff, K., Batson, C. D., & Singer, T. (2010). Neural responses to ingroup and
 1459 outgroup members' suffering predict individual differences in costly helping. *Neuron*, 68(1), 149-
 1460 160.
- 1461 Henrich, J., & Gil-White, F. J. (2001). The evolution of prestige: Freely conferred status as a mechanism
 1462 for enhancing the benefits of cultural transmission. *Evolution and Human Behavior*, 22, 1-32.
- 1463 Hill, K. R., Walker, R. S., Božičević, M., Eder, J., Headland, T., Hewlett, B., Magdalena Hurtado, A.,
 1464 Marlowe, F., Wiessner, P., & Wood, B. (2011). Co-residence patterns in hunter-gatherer
 1465 societies show unique human social structure. *Science*, 331(6022), 1286-1289.
- 1466 Hirshleifer, J. (1987). On the emotions as guarantors of threats and punishments. In J. Dupre (Ed.), *The*
 1467 *Latest on the Best: Essays in Evolution and Optimality* (pp. 307-326). Cambridge: MIT Press.
- 1468 Holbrook, C., Fessler, D.M.T., and Navarrete, C.D. (2015). Looming large in others' eyes: Racial
 1469 stereotypes illuminate dual adaptations for representing threat versus prestige as physical size.
 1470 *Evolution and Human Behavior*. DOI: <http://dx.doi.org/10.1016/j.evolhumbehav.2015.08.004>
- 1471 Holt-Lunstad, J., Birmingham, W. C., & Light, K. C. (2014). Relationship quality and oxytocin Influence of
 1472 stable and modifiable aspects of relationships. *Journal of Social and Personal Relationships*,
 1473 32(4), 472-490.
- 1474 Hruschka, D., & Henrich, J. (2006). Friendship, cliquishness, and the emergence of cooperation. *Journal*

- 1475 *of Theoretical Biology*, 239 (1), 1-15.
- 1476 Hutcherson, C.A. & Gross, J.J. (2011). The moral emotions: A social-functionalist account of anger,
1477 disgust, and contempt. *Journal of Personality and Social Psychology*, 100, 719-737.
- 1478 Insel, T. R. (1992). Oxytocin—a neuropeptide for affiliation: evidence from behavioral, receptor
1479 autoradiographic, and comparative studies. *Psychoneuroendocrinology*, 17(1), 3-35.
- 1480 Izard, C. E. (1977). *Human Emotions*. New York: Plenum Press.
- 1481 Izard, C. E., & Haynes, O. M. (1988). On the form and universality of the contempt expression - a
1482 challenge to Ekman and Friesen claim of discovery. *Motivation and Emotion*, 12(1), 1-16.
- 1483 Keller, M. C., & Nesse, R. M. (2006). The evolutionary significance of depressive symptoms: Different
1484 adverse situations lead to different depressive symptom patterns. *Journal of Personality and*
1485 *Social Psychology*, 91(2), 316-330.
- 1486 Keltner, D., Haidt, J. & Shiota, M.N. (2006). Social functionalism and the evolution of emotions. In: M.
1487 Schaller, J.A. Simpson & D.T. Kenrick (Eds.), *Evolution and Social Psychology* (pp. 115–142). New
1488 York: Psychology Press.
- 1489 Kenrick, D., Griskevicius, V., Neuberg, S., & Schaller, M. (2010). Renovating the Pyramid of Needs:
1490 Contemporary Extensions Built Upon Ancient Foundations. *Perspectives on Psychological*
1491 *Science*, 5 (3), 292-314.
- 1492 King, A.J., Johnson, D.D.P., & Van Vugt, M. (2009). The origins and evolution of leadership. *Current*
1493 *Biology*, 19, R911-R916.
- 1494 Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience:
1495 Socially engaging and disengaging emotions in Japan and the United States. *Journal of*
1496 *Personality and Social Psychology*, 91(5), 890-903.
- 1497 Kosfeld, M., Heinrichs, M., Zak, P. J., Fischbacher, U., & Fehr, E. (2005). Oxytocin increases trust in
1498 humans. *Nature*, 435(7042), 673-676.

- 1499 Kövecses, Z. (2003). *Metaphor and Emotion: Language, Culture, and Body in Human Feeling*. New York:
 1500 Cambridge University Press.
- 1501 Kragel, P. A., & LaBar, K. S. (2013). Multivariate pattern classification reveals autonomic and experiential
 1502 representations of discrete emotions. *Emotion, 13*(4), 681.
- 1503 Kurzban, R., & Leary, M. R. (2001). Evolutionary origins of stigmatization: The functions of social
 1504 exclusion. *Psychological Bulletin, 127*(2), 187-208.
- 1505 Laham, S.M., Chopra, S., Lalljee, M., & Parkinson, B. (2010). Emotional and behavioural reactions to
 1506 moral transgressions: Cross-cultural and individual variations in India and Britain. *International*
 1507 *Journal of Psychology, 45*, 64-71.
- 1508 Lakoff, G. Metaphor, morality, and politics, or, why conservatives have left liberals in the dust. *Social*
 1509 *Research* (1995): 177-213.
- 1510 Lammers, J. & Stapel, D.A. (2011). Power increases dehumanization. *Group Processes and Intergroup*
 1511 *Relations, 14*, 113-126.
- 1512 Langdon, S.W. (2007). Conceptualizations of respect: Qualitative and quantitative evidence of four (five)
 1513 themes. *The Journal of Psychology, 141*, 469-484.
- 1514 Lazarus, R. S. (1991). *Emotion and Adaptation*. New York: Oxford University Press.
- 1515 LeDoux, J. (2012). Rethinking the emotional brain. *Neuron, 73*(4), 653-676.
- 1516 Leng, G., & Ludwig, M. (2015). Intranasal oxytocin: myths and delusions. *Biological Psychiatry*.
 1517 doi:10.1016/j.biopsych.2015.05.003
- 1518 Leung, A. K. Y., & Cohen, D. (2011). Within-and between-culture variation: individual differences and the
 1519 cultural logics of honor, face, and dignity cultures. *Journal of Personality and Social*
 1520 *Psychology, 100*(3), 507.
- 1521 Levy, R. I. (1973). *Tahitians: Mind and Experience in the Society Islands*. Chicago: University of Chicago
 1522 Press.

- 1523 Levy, R.L. (1984). Emotion, knowing, and culture. In: R.A. Shweder & R.A. LeVine (Eds.), *Culture Theory*
 1524 (pp. 214-237). Cambridge: Cambridge.
- 1525 Leyens, J.P., Demoulin, S., Vaes, J., Gaunt, R., & Paladino, M.P. (2007). Infra-humanization: The wall of
 1526 group differences. *Social Issues and Policy Review*, 1, 139-172.
- 1527 Lindquist, K. A. (2013). Emotions emerge from more basic psychological ingredients: A modern
 1528 psychological constructionist model. *Emotion Review*, 5(4), 356-368.
- 1529 Lutz, C. (1988). *Unnatural Emotions: Everyday Sentiments on a Micronesian Atoll & Their Challenge to*
 1530 *Western Theory*. Chicago: University of Chicago Press.
- 1531 Lutz, C. & Abu-Lughod, L. (Eds.). (1990). *Language and the Politics of Emotion*. Cambridge: Cambridge
 1532 University Press.
- 1533 Lutz, C. & White, G. M. (1986). The anthropology of emotions. *Annual Review of Anthropology* 15, 405-
 1534 436.
- 1535 Lyon, M.L. (1996). Missing emotion: The limitations of cultural constructionism in the study of emotion.
 1536 *Cultural Anthropology* 10, 244-263.
- 1537 Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action
 1538 tendencies in an intergroup context. *Journal of Personality and Social Psychology*, 79(4), 602-
 1539 616.
- 1540 Markus, H.R. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and
 1541 motivation. *Psychological Review* 98, 224-253.
- 1542 Markus, H. R., & Kitayama, S. (1994). The cultural shaping of emotion: A conceptual framework. In S.
 1543 Kitayama & H. R. Markus (Eds.), *Emotion and Culture: Empirical Studies of Mutual Influence*, (pp.
 1544 339-351). APA: Washington, D.C.
- 1545 Marzillier, S., & Davey, G. (2004). The emotional profiling of disgust-eliciting stimuli: Evidence for
 1546 primary and complex disgusts. *Cognition & Emotion*, 18(3), 313-336.

- 1547 Mason, M. (2003). Contempt as a moral attitude. *Ethics*, 113(2), 234-272.
- 1548 Matsumoto, D. (2005). Scalar ratings of contempt expressions. *Journal of Nonverbal Behavior*, 29, 91-
- 1549 104.
- 1550 Matsumoto, D., & Ekman, P. (2004). The relationship among expressions, labels, and descriptions of
- 1551 contempt. *Journal of Personality and Social Psychology*, 87(4), 529-540.
- 1552 McClelland, R.T. (2011). A naturalistic view of human dignity. *The Journal of Mind and Behavior*, 32, 5-
- 1553 48.
- 1554 McDougall, W. (1933). *The Energies of Men*. New York: Scribner's.
- 1555 McDougall, W. (1937). Organization of the affective life: A critical survey. *Acta Psychologica*, 2, 233-346.
- 1556 Mesquita, B. & Frijda, N.H. (1992). Cultural variations in emotions: A review. *Psychological Bulletin*, 112,
- 1557 179-204.
- 1558 Meffert, H., Gazzola, V., Den Boer, J. A., Bartels, A. A., & Keysers, C. (2013). Reduced spontaneous but
- 1559 relatively normal deliberate vicarious representations in psychopathy. *Brain*, 136(8), 2550-2562.
- 1560 Michel, J-B., Shen, Y.K., Aiden, A.P., Veres, A., Gray, M.K., Brockman, W., The Google Books Team,
- 1561 Pickett, J.P., Hoiberg, D., Clancy, D., Norvig, P., Orwant, J., Pinker, S., Nowak, M.A., & Aiden, E.L.
- 1562 (2010). Quantitative Analysis of Culture Using Millions of Digitized Books. *Science* (Published
- 1563 online ahead of print: 12/16/2010). Accessed: <http://books.google.com/ngrams> (12/09/2015).
- 1564 Miller, J.G., Das, R. & Chakravarthy, S. (2011). Culture and the role of choice in agency. *Journal of*
- 1565 *Personality and Social Psychology*, 101, 46-61.
- 1566 Miller, J.G. & Bersoff, D.M. (1998). The role of liking in perceptions of the moral responsibility to help: A
- 1567 cultural perspective. *Journal of Experimental Social Psychology*, 34, 443-469.
- 1568 Miller, W. I. (1997). *The Anatomy of Disgust*. Cambridge, MA: Harvard University Press.
- 1569 Molenberghs, P., Bosworth, R., Nott, Z., Louis, W. R., Smith, J. R., Amiot, C. E., Vohs, K., & Decety, J.

- 1570 (2014). The influence of group membership and individual differences in psychopathy and
 1571 perspective taking on neural responses when punishing and rewarding others. *Human Brain*
 1572 *Mapping*, 35(10), 4989-4999.
- 1573 Nesse, R. M. (1990). Evolutionary explanations of emotions. *Human Nature*, 1(3), 261-289.
- 1574 Nesse, R. M. (2007). Runaway social selection for displays of partner value and altruism. *Biological*
 1575 *Theory*, 2, 143-155.
- 1576 Nesse, R.M., & Ellsworth, P. (2009). Evolution, emotions, and emotional disorders. *American*
 1577 *Psychologist*, 64(2), 129-139.
- 1578 Neuberg, S.L. & Cottrell, C.A. (2008). Managing the threats and opportunities afforded by human
 1579 sociality. *Group Dynamics: Theory, Research, & Practice*, 12, 63-72.
- 1580 Neuberg, S.L., Smith, D.M., Hoffman, J.C., & Russell, F.J. (1994). When we observe stigmatized and
 1581 “normal” individuals interacting: Stigma by association. *Personality and Social Psychology*
 1582 *Bulletin*, 20, 196-209.
- 1583 Niedenthal, P. M. (2008). Emotion concepts. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds),
 1584 *Handbook of Emotions*, 3rd Ed. (pp. 587-600). New York: Guilford.
- 1585 Nummenmaa, L., Glerean, E., Hari, R., & Hietanen, J. K. (2014). Bodily maps of emotions. *Proceedings of*
 1586 *the National Academy of Sciences*, 111(2), 646-651.
- 1587 Öhman, A., & Mineka, S. (2001). Fears, phobias, and preparedness: toward an evolved module of fear
 1588 and fear learning. *Psychological Review*, 108(3), 483.
- 1589 Ortony, A., Clore, G., and Collins, A. (1988). *The Cognitive Structure of Emotions*. Cambridge: Cambridge
 1590 University Press.
- 1591 Panchanathan, K. and Boyd, R. (2004). Indirect reciprocity can stabilize cooperation without the second-
 1592 order free rider problem. *Nature*, 432, 499–502.
- 1593 Panksepp, J. (1998). *Affective Neuroscience: The Foundations of Human and Animal Emotions*. Oxford

- 1594 University Press
- 1595 Parr, L. A., Waller, B. M., Vick, S. J., & Bard, K. A. (2007). Classifying chimpanzee facial expressions
1596 using muscle action. *Emotion*, 7(1), 172.
- 1597 Peets, K., Hodges, E.V.E., & Salmivalli, C. (2008). Affect-congruent social-cognitive evaluations and
1598 behaviors. *Child Development*, 79, 170-185.
- 1599 Pierson, Donald. (1967). *Negroes in Brazil*. Carbondale: Southern Illinois University Press.
- 1600 Piff, P. K., Stancato, D. M., Côté, S., Mendoza-Denton, R., & Keltner, D. (2012). Higher social class
1601 predicts increased unethical behavior. *Proceedings of the National Academy of Sciences*,
1602 109(11), 4086-4091.
- 1603 Price, M. E., & Van Vugt, M. (2014). The evolution of leader–follower reciprocity: the theory of service-
1604 for-prestige. *Frontiers in Human Neuroscience*, 8, 363.
- 1605 Prinz, J. J. (2007). *The Emotional Construction of Morals*. New York: Oxford University Press.
- 1606 Rai, T. S., & Fiske, A. P. (2011). Moral psychology is relationship regulation: moral motives for unity,
1607 hierarchy, equality, and proportionality. *Psychological Review*, 118(1), 57-75.
- 1608 Reidy, D.E., Shelley-Tremblay, J.F., & Lilienfeld, S.O. (2011). Psychopathy, reactive aggression, and
1609 precarious proclamations: A review of behavioral, cognitive, and biological research. *Aggression*
1610 *and Violent Behavior*, 16, 512-524.
- 1611 Roberts, G. (2005). Cooperation through interdependence. *Animal Behaviour*, 70(4), 901-908.
- 1612 Roseman, I. J. (2001). A model of appraisal in the emotion system. In K. R. Scherer, A. Schorr & T.
1613 Johnstone (Eds.), *Appraisal Processes in Emotion: Theory, Methods, Research* (pp. 68-91). New
1614 York: Oxford University Press.
- 1615 Roseman, I. J., Wiest, C., & Swartz, T. S. (1994). Phenomenology, behaviors, and goals differentiate
1616 discrete emotions. *Journal of Personality and Social Psychology*, 67(2), 206-221.
- 1617 Rosenberg, E. L., & Ekman, P. (1995). Conceptual and methodological issues in the judgment of facial

- 1618 expressions of emotion. *Motivation and Emotion*, 19(2), 111-138.
- 1619 Rosenberg, M.J. & Hovland, C.I. (1960). Cognitive, affective, and behavioral components of attitudes. In
 1620 C. I. Hovland & M. J. Rosenberg (Eds.), *Attitude Organization and Change* (pp. 1-14). New Haven:
 1621 Yale University Press.
- 1622 Rozman, E., McCauley, C. R., & Rozin, P. (2005). From Plato to Putnam: Four ways to think about hate.
 1623 In: R. J. Sternberg (Ed.), *The Psychology of Hate* (pp. 3–35). Washington, DC: American
 1624 Psychological Association.
- 1625 Rozin, P., Lowery, L., & Ebert, R. (1994). Varieties of disgust faces and the structure of disgust. *Journal of*
 1626 *Personality and Social Psychology*, 66(5), 870-881.
- 1627 Rozin, P., Lowery, L., Imada, S., & Haidt, J. (1999). The CAD triad hypothesis: A mapping between three
 1628 moral emotions (contempt, anger, disgust) and three moral codes (community, autonomy,
 1629 divinity). *Journal of Personality and Social Psychology*, 76(4), 574-586.
- 1630 Russell, J.A. (1991a). Culture and the categorization of emotions. *Psychological Bulletin*, 110(3), 426-450.
- 1631 Russell, J.A. (1991b). Negative results on a reported facial expression of contempt. *Motivation and*
 1632 *Emotion*, 15(4), 281-291.
- 1633 Russell, J.A. (1991c). The contempt expression and the relativity thesis. *Motivation and Emotion*, 15,
 1634 149-168.
- 1635 Russell, J.A. (2003). Core affect and the psychological construction of emotion. *Psychological Review*,
 1636 110(1), 145-172.
- 1637 Russell, J., & Barrett, L. (1999). Core affect, prototypical emotional episodes, and other things called
 1638 emotion: Dissecting the elephant. *Journal of Personality and Social Psychology*, 76(5), 805-819.
- 1639 Sabini, J. & Silver, M. (2005). Why emotion names and experiences don't neatly pair. *Psychological*
 1640 *Inquiry*, 16, 1-10.
- 1641 Scarantino, A. (2009). Core affect and natural affective kinds. *Philosophy of Science*, 76, 940-957.

- 1642 Scherer, K. R. (1999). Appraisal Theory. In T. Dalgleish & M. J. Power (Eds.), *Handbook of Cognition and*
 1643 *Emotion* (pp. 637-663): John Wiley & Sons.
- 1644 Scherer, K.R. (2005). What are emotions? And how can they be measured? *Social Science Information,*
 1645 *44(4)*, 695.
- 1646 Scherer, K.R. (2009). The dynamic architecture of emotion: Evidence for the component process model.
 1647 *Cognition and Emotion, 23*, 1307-1351.
- 1648 Schimmack, U., Oishi, S., Diener, E., & Suh, E. (2000). Facets of affective experiences: A framework for
 1649 investigations of trait affect. *Personality and Social Psychology Bulletin, 26(6)*, 655.
- 1650 Schino, G., & Aureli, F. (2009). Reciprocal altruism in primates: partner choice, cognition, and
 1651 emotions. *Advances in the Study of Behavior, 39*, 45-69.
- 1652 Seeley, W. W., Menon, V., Schatzberg, A. F., Keller, J., Glover, G. H., Kenna, H., Reiss, A. & Greicius, M. D.
 1653 (2007). Dissociable intrinsic connectivity networks for salience processing and executive
 1654 control. *The Journal of Neuroscience, 27(9)*, 2349-2356.
- 1655 Sell, A., Tooby, J., & Cosmides, L. (2009). Formidability and the logic of human anger. *Proceedings of the*
 1656 *National Academy of Sciences, 106 (35)*, 15073.
- 1657 Shand, A. F. (1920). *The Foundations of Character: Being a Study of the Tendencies of the Emotions &*
 1658 *Sentiments* (2nd Ed.). London: Macmillan.
- 1659 Shaver, P., Morgan, H., & Wu, S. (1996). Is love a "basic" emotion? *Personal Relationships, 3(1)*, 81-96.
- 1660 Shaver, P., Schwartz, J., Kirson, D., & Oconnor, C. (1987). Emotion knowledge - further exploration of a
 1661 prototype approach. *Journal of Personality and Social Psychology, 52(6)*, 1061-1086.
- 1662 Silk, J. B. (2003). Cooperation without counting. In P. Hammerstein (Ed.), *Genetic and Cultural Evolution*
 1663 *of Cooperation* (pp. 37-54): MIT.
- 1664 Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality*
 1665 *and Social Psychology, 48(4)*, 813-838.

- 1666 Smith, C.A. & Kirby, L.D. (2009). Putting appraisal in context: Toward a relational model of appraisal and
 1667 emotion. *Cognition and Emotion*, 23, 1352-1372.
- 1668 Smith, R.H. (2000). Assimilative and contrastive emotional reactions to upward and downward social
 1669 comparisons. In Suls & Wheeler (Eds.), *Handbook of Social Comparison: Theory and Research*
 1670 (pp. 173-200). New York: Kluwer Academic.
- 1671 Smuts, B. B., & Watanabe, J. M. (1990). Social relationships and ritualized greetings in adult male
 1672 baboons (*Papio cynocephalus anubis*). *International Journal of Primatology*, 11(2), 147-172.
- 1673 Sperber, D. (1996). *Explaining Culture*. Oxford: Blackwell.
- 1674 Stanton, E.C. (1848/2007). Declaration of Sentiments. In Gordon, A.D. (Ed.), *The Selected Papers of*
 1675 *Elizabeth Cady Stanton and Susan B. Anthony, Volume 1: In the School of Anti-Slavery, 1840-*
 1676 *1866* (pp. 78). New Brunswick, NJ: Rutgers University Press.
- 1677 Sternberg, R.J. (2003). A duplex theory of hate: Development and application to terrorism, massacres,
 1678 and genocide. *Review of General Psychology*, 7, 299-328.
- 1679 Storm, C., & Storm, T. (1987). A taxonomic study of the vocabulary of emotions. *Journal of Personality*
 1680 *and Social Psychology*, 53(4), 805-816.
- 1681 Storm, C., & Storm, T. (2005). The English lexicon of interpersonal affect: Love, etc. *Cognition & Emotion*,
 1682 19 (3), 333-356.
- 1683 Stout, G. F. (1903). *The Groundwork of Psychology*. Hinds & Noble.
- 1684 Sugiyama, L. S., & Sugiyama, M. S. (2003). Social roles, prestige, and health risk: Social niche
 1685 specialization as a risk-buffering strategy. *Human Nature*, 14(2), 165-190.
- 1686 Tapias, M. P., Glaser, J., Keltner, D., Vasquez, K., & Wickens, T. (2007). Emotion and prejudice: Specific
 1687 emotions toward outgroups. *Group Processes & Intergroup Relations*, 10(1), 27-39.
- 1688 Thomas, N. W. (1914). *Anthropological Report on the Ibo-speaking Peoples of Nigeria: pt. IV. Law and*
 1689 *Custom of the Ibo of the Asaba District, S. Nigeria*. London: Harrison and Sons.

- 1690 Tomasello, M., Melis, A. P., Tennie, C., Wyman, E., & Herrmann, E. (2012). Two key steps in the evolution
 1691 of human cooperation. *Current Anthropology*, 53(6), 673-692.
- 1692 Tooby, J., & Cosmides, L. (1990). The past explains the present: Emotional adaptations and the structure
 1693 of ancestral environments. *Ethology and Sociobiology*, 11(4-5), 375-424.
- 1694 Tooby, J., & Cosmides, L. (1996). Friendship and the banker's paradox: Other pathways to the evolution
 1695 of adaptations for altruism. In W. G. Runciman, J. Maynard Smith & R. I. M. Dunbar (Eds.),
 1696 *Evolution of Social Behaviour Patterns in Primates and Man: Proceedings of the British Academy*
 1697 (Vol. 88, pp. 119-143): Oxford University Press.
- 1698 Tooby, J., Cosmides, L., Sell, A., Lieberman, D., & Sznycer, D. (2008). Internal regulatory variables and the
 1699 design of human motivation: A computational evolutionary approach. In A. J. Elliot (Ed.)
 1700 *Handbook of Approach and Avoidance Motivation* (pp. 251-271). Mahwah, NJ: Lawrence
 1701 Erlbaum Associates.
- 1702 Tran, A. L. (2015). Rich sentiments and the cultural politics of emotion in postreform Ho Chi Minh City,
 1703 Vietnam. *American Anthropologist*, 117(3), 480-492.
- 1704 Trivers, R. L. (1971). Evolution of reciprocal altruism. *Quarterly Review of Biology*, 46(1), 35-57.
- 1705 Trumble, B.C., Jaeggi, A.,V, Gurven, M. 2015 Evolving the neuroendocrine physiology of human and
 1706 primate cooperation and collective action. *Phil. Trans. R. Soc. B* 370: 20150014.
 1707 <http://dx.doi.org/10.1098/rstb.2015.0014>
- 1708 Turnbull, Colin M. (1962). *The Forest People*. New York: Simon and Schuster.
- 1709 van Dijk, W.W., Ouwerkerk, J.W., Goslinga, S., Nieweg, M., & Gallucci, M. (2006). When people fall from
 1710 grace: Reconsidering the role of envy in *schadenfreude*. *Emotion*, 6, 156-160.
- 1711 van Kleef, G.A., Oveis, C., van der Lowe, I., LuoKogan, A., Goetz, J., & Keltner, D. (2008). Power, distress,
 1712 and compassion: Turning a blind eye to the suffering of others. *Psychological Science*, 19, 1315-
 1713 1322.

- 1714 Van Vugt, M. (2006). Evolutionary origins of leadership and followership. *Personality and Social*
 1715 *Psychology Review*, 10(4), 354.
- 1716 Wagner, H. L. (2000). The accessibility of the term "contempt" and the meaning of the unilateral lip curl.
 1717 *Cognition & Emotion*, 14(5), 689-710.
- 1718 Waytz, A. & Epley, N. (2012). Social connection enables dehumanization. *Journal of Experimental Social*
 1719 *Psychology*, 48 (1), 70-76. doi: 10.1016/j/jesp.2011.07.012.
- 1720 Wheatley, T & Haidt, J. (2005). Hypnotic disgust makes moral judgments more severe. *Psychological*
 1721 *Science*, 16, 780-784.
- 1722 White, G.M. (1980). Conceptual universals in interpersonal language. *American Anthropologist*, 82, 759-
 1723 781.
- 1724 White, G. M. (2000). Representing emotional meaning: Category, metaphor, schema, discourse. In M.
 1725 Lewis & J. M. Haviland-Jones (Eds.), *Handbook of Emotions*, 2nd Ed. (pp. 30-44). New York:
 1726 Guilford.
- 1727 White, G.M. & Kirkpatrick, J., Eds. (1985). *Person, self, and experience*. Berkeley: University of California
 1728 Press.
- 1729 Wilson, D.S. (2002). *Darwin's Cathedral: Evolution, Religion and the Nature of Society*. Chicago:
 1730 University of Chicago Press.
- 1731 Wittig, R. M., Crockford, C., Deschner, T., Langergraber, K. E., Ziegler, T. E., & Zuberbühler, K. (2014).
 1732 Food sharing is linked to urinary oxytocin levels and bonding in related and unrelated wild
 1733 chimpanzees. *Proceedings of the Royal Society of London B: Biological Sciences*, 281(1778),
 1734 20133096.
- 1735 Wojciszke, B., Abele, A., & Baryla, W. (2009). Two dimensions of interpersonal attitudes: Liking depends
 1736 on communion, respect depends on agency. *European Journal of Social Psychology*, 39(6), 973-
 1737 990.

1738 Yoder, K. J., Harenski, C., Kiehl, K. A., & Decety, J. (2015). Neural networks underlying implicit and explicit
1739 moral evaluations in psychopathy. *Translational Psychiatry*, 5(8), e625.

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