

1 *Review*

2 **A Comparison of the Social-Adaptive Perspective and** 3 **Functionalist Perspective on Guilt and Shame**

4 **Heidi L. Dempsey** ^{1,*}

5 ¹ Jacksonville State University; hdempsey@jsu.edu

6 * Correspondence: hdempsey@jsu.edu; Tel.: +1-256-782-5895

7 **Abstract:** Within the field of guilt and shame, two competing perspectives have been advanced.
8 The first, the social-adaptive perspective, proposes that guilt is an inherently adaptive emotion and
9 shame is an inherently maladaptive emotion; thus, those interested in moral character development
10 and psychopathology should work to increase an individual's guilt-proneness and decrease an
11 individual's shame-proneness. The functionalist perspective, in contrast, argues that both guilt and
12 shame can serve a person adaptively or maladaptively—depending on the situational appropriateness,
13 duration, intensity, and so forth. This paper reviews the research conducted supporting both
14 positions, critiques some issues with the most widely used guilt- and shame-proneness measure in
15 the social-adaptive research (the TOSCA), and discusses the differences in results found when
16 assessing guilt and shame at the state versus trait level. The conclusion drawn is that although
17 there is broad support for the functionalist perspective across a wide variety of state and trait
18 guilt/shame studies, the functionalist perspective does not yet have the wealth of data supporting it
19 that has been generated by the social-adaptive perspective using the TOSCA. Thus, before a
20 dominant perspective can be identified, researchers need to (1) do more research assessing how the
21 social-adaptive perspective compares to the functionalist perspective at the state level, and (2) do
22 more trait research within the functionalist perspective to compare functionalist guilt- and shame-
23 proneness measures with the TOSCA.

24 **Keywords:** guilt; shame; emotion; functionalist; social-adaptive; test of self-conscious affect; TOSCA
25

26 **1. Introduction**

27 The systematic study of guilt and shame in the current era began with Darwin's observations of
28 his young son William and were later published in his comprehensive treatise *The Expression of the*
29 *Emotions in Man and Animals* [1]. Although Darwin did not clearly distinguish guilt from shame, he
30 did note that shame has a unique behavioral expression. That is, "persons who feel shame for some
31 moral delinquency, are apt to avert, bend down, or hide their faces, independently of any thought
32 about their personal appearance" [1] (p. 157). After Darwin's insightful exploration of emotional
33 expression, the majority of emotion researchers turned away from research on emotional expression
34 and instead sought to describe the structure of the emotional experience [2]. One notable exception
35 to this trend was within the clinical domain where psychoanalysts focused on examining the role of
36 emotion, particularly guilt, in psychopathology.

37 Within the psychoanalytic tradition, guilt serves as a self-punisher and excessive guilt was
38 considered to be an important factor in psychological disorders such as neuroticism [3-6]. Freud
39 postulated that the conscience, or super-ego, develops when the punishing authority of the parents
40 is internalized [7]. Guilt results from violations of commands issued by the conscience, which acts
41 as a self-regulating agency [3]. According to Freud, excessive conscientiousness leads to anxiety,
42 neuroticism, and intense feelings of guilt [8]. Freud gave little credence to shame as a distinct
43 emotion; rather, he saw it as a more primitive version of guilt, or a defense mechanism based on a
44 fear of a loss of love, a concept that was extended in Erikson's theory of psychosocial development
45 [9,10].

46 Neo-Freudian psychoanalysts continued to see guilt, and not shame, as a dominant emotion in
47 psychological disorders until H. B. Lewis brought shame, the “sleeper in psychopathology” to the
48 forefront. In her seminal work, she sought to differentiate shame from guilt by proposing the now
49 classic distinction, “The experience of shame is directly about the *self*, which is the focus of evaluation.
50 In guilt, the self is not the central object of negative evaluation, but rather the *thing* done or undone
51 is the focus,” [11] (p. 30, italics in original). For guilt, the focus is outward, on how the other person
52 is feeling, and thus action tendencies are generally prosocial and other-focused. Consistent with this
53 conceptualization, numerous studies have found that action tendencies for guilt include apologizing,
54 offering to make reparation and amends, vowing to change future behavior, confessing, asking for
55 forgiveness, seeking to restore balance in the relationship, and offering to help others in need [12-20].
56 Shame, in contrast, is associated with avoidance behaviors such as hiding one’s face, collapsing of the
57 body, slumping, or gaze aversion [13,21-23]. Shame action tendencies also revolve around
58 expressions of inadequacy, defectiveness, wishing to hide or escape, wanting to save face, and
59 wanting to know that the other person does not view him/her as a lesser person [15,16,18,24,25].

60 This definitional distinction made by Lewis led to new avenues of research trying to assess the
61 nature of guilt and shame and whether Lewis’s definition had captured an essential distinction
62 between the two emotions. Over the past 40 years, the study of guilt and shame has grown
63 exponentially. One issue with the field guilt and shame, in particular, but also with the emotion
64 field as a whole, is that there is no agreed upon framework or guiding theory from which researchers
65 can draw their hypotheses, nor are there universally agreed upon measures of the emotions
66 themselves [26]. The current paper reviews two of the main perspectives within the field of guilt
67 and shame and addresses how adoption of each of these perspectives leads to different hypotheses,
68 measurement tools, and ultimately interpretations of results.

69 2. Social-Adaptive and Functionalist Perspectives on Guilt and Shame

70 The social-adaptive perspective is built on social psychological and clinical theory. In this
71 perspective, guilt focuses the person on the specific action taken or not taken (e.g., “How could I have
72 done *that?*”), while shame focuses the person inward toward the self (e.g., “How could *I* have done
73 that?”) [27]. Because the shame appraisal is global (it involves the entire self), the resulting shame
74 feeling is more intense, painful, and pervasive than is the feeling of guilt. Since a guilt appraisal
75 only involves a specific aspect of the self, the resulting guilt feeling tends to be transitory and
76 localized to a specific deed [28]. Thus, there it is not a specific characteristic of the situation that give
77 rise to a particular emotion, but rather it is the individual’s appraisal of the situation with regard to
78 a self- vs. behavior-focus that differentially gives rise to shame and guilt [29]. Baumeister and
79 colleagues also advocate that guilt should be seen as a fundamentally interpersonal emotion, in
80 contrast to the psychoanalytic perspective of guilt as an intrapsychic phenomenon [12]. Nelissen
81 argues that even self-punishment, as conceptualized by the psychoanalytic theorists, is also part of
82 the inherent adaptivity of guilt, in that, “it may even be the case that self-punishment and prosocial
83 behavior are functionally identical and both actually operate as signals of remorse” [30] (p. 142).
84 Because of the self- vs. behavior-distinction, guilt should be highly correlated to measures of adaptive
85 functioning, such as empathy and prosocial action tendencies and uncorrelated with measures of
86 psychopathology. In contrast, since shame is viewed as so internally, self-focused, it should be
87 highly correlated with both internalizing and externalizing symptoms of psychopathology (e.g.,
88 depression, anxiety, hostility, rage, etc.) [31]. Thus, according to Carnì, within the social-adaptive
89 framework, guilt “is perceived as a prosocial phenomenon that has the goal of maintaining,
90 reinforcing, and protecting important interpersonal relationships, particularly with loved ones” [32]
91 (p. 336). In contrast, Tangney and colleagues reason that although shame may have been adaptive
92 at one point in evolutionary history, it is no longer an adaptive or moral emotion [18,31], and “the
93 negative psychological implications of shame are evident across measurement methods, diverse age
94 groups, and populations” [31] (p. 27).

95 Counter to the social-adaptive perspective, the functionalist perspective of guilt and shame is
96 built on evolutionary and developmental theory [33,34]. Hutcherson and Gross state that the

97 functionalist perspective “argues that emotions are adaptive solutions comprising a coordinated set
98 of appraisals, communicative gestures, physiological responses, and action tendencies tailored to
99 respond to crucial problems faced by our species over the millennia” [35] (p. 720). Consistent with
100 the social-adaptive perspective, the functionalists see emotions as inherently interpersonal because
101 they postulate that they result from the complex interplay between appraisals and behavior, rather
102 than from an intrapsychic source [36]. Campos and colleagues define emotion, from a functionalist
103 approach as, “the attempt by the person to establish, maintain, change, or terminate the relation
104 between the person and the environment on matters of significance to the person” [36] (p. 285). For
105 this reason, appraisals, social signals (as reflected appraisals of others), goals, and the degree to which
106 one is making progress towards one’s goals are central to the understanding which emotion will be
107 elicited and the accompanying action tendencies [36]. Nelissen, Breugelmans, and Zeelenberg’s [34]
108 (pp. 361-362) evolutionary theory that postulates the ultimate causes of guilt and shame stem from
109 differences in direct and indirect reciprocity appraisals:

110

111 At an ultimate level, then, the defining difference between shame and guilt is to be found
112 in the conditions that determine the extent to which they will produce moral behavior.
113 Guilt is more likely to produce moral behavior if conditions favoring direct reciprocity are
114 met – that is, in cases in which there is a likelihood of future encounters with a specific
115 other person who is able to reciprocate with substantial value. Shame is more likely to
116 produce moral behavior if conditions favoring indirect reciprocity are met – that is, in the
117 presence of a relevant audience that witnessed the shameful act. It is further important
118 to realize that from an ultimate perspective, social relationships are nothing more than a
119 resource. Accordingly, any response to threats of concerns for direct and indirect
120 reciprocity needed to be resolved in a cost-efficient manner to the self. So, guilt will often
121 motivate prosocial behavior towards a victim but will do so in a relatively low-cost way,
122 for example, by benefiting nonvictims to a lesser extent rather than incurring more
123 personal costs. Likewise, shame will often motivate norm-compliant behavior (which can
124 be moral) when witnessed by people aware of the shameful act but will be more likely to
125 produce relatively low-cost behavior, such as hiding or leaving a situation (nonmoral) that
126 prevent further reputation loss in the absence of an audience that may enable reputation
127 restoration.

128

129 Emotion regulation is also central to the functionalist perspective. To the functionalist, no
130 emotion is inherently adaptive or maladaptive. Rather, adaptivity is determined by emotion
131 regulation processes—how does the individual respond to the emotional experience? In the case of
132 guilt and shame, does the individual work to change the situation or event that caused guilt or
133 shame? Repair the interpersonal relationship that has been damaged? Strive to change others’
134 impression of him or her? Externalize blame or get angry? Dwell on the emotion? Thus, how one
135 manages and copes with guilt and shame, and subsequently modifies one’s goals and interactions,
136 will determine whether or not these emotions are adaptive or maladaptive for the individual.
137 Cicchetti, Ackerman, and Izard [37] (p. 6, italics in original) state:

138

139 Even strong and intense emotions are *not* necessarily maladaptive. Emotions may become
140 maladaptive in two situations. One is when emotions are unconnected to cognitive and
141 affective-cognitive control structures or are connected to cognitive processes and actions that are
142 situationally inappropriate. In the latter case, it is the cognitive appraisal and behavior that are
143 maladaptive, not the emotion. The other situation may involve emotional flooding, where an
144 emotion overwhelms control structures and strategies.

145

146

147

148

149 2.1. *Public-Private Distinction*

150 In contrast to the social-adaptive approach, most functionalist appraisal theories postulate that
151 the difference between guilt and shame lies in the way one thinks one is being perceived by another
152 person. One such appraisal theory suggests that the difference between guilt and shame lies in the
153 *public-private* distinction [38,39]. Within this approach, shame is said to be the more public emotion
154 which is elicited when one's failures or shortcomings are known or witnessed by others [40]. This
155 is consistent with Cooley's looking glass self in which shame involves, "condemning oneself...but
156 add the social component, imagining correctly or incorrectly a negative view of self by others" [41]
157 (p. 116). Guilt, on the other hand, is the more private emotion where one fails to live up to one's
158 own internalized standards or norms, consistent with the psychoanalytic conceptualization of guilt
159 [42]. Smith and colleagues found that, "public exposure of both moral (transgressions) and
160 nonmoral (incompetence) experiences was associated more with shame than with guilt" [38] (p. 138).
161 This appraisal theory is consistent with the evolutionary theories of shame that state that its primary
162 purpose is to maintain social hierarchies and ranks. That is, an individual will feel shame when they
163 accept the negative evaluation of a higher status group member and this will cause the person to
164 either respond either with an angry defense strategy or a deference strategy [43]. In fact, Elison and
165 colleagues believe "that many instances of aggression would be better understood as reactions to
166 shame" [44] (p. 448). Conversely, higher status individuals are less likely to express shame [45].
167 Thus, within an evolutionary framework, shame reminds the individual of his or her relative social
168 rank, lets other group members publically witness the individual is aware of violation of moral
169 norms, and prompts submissive, appeasement behavior among lower status group members [34,46-
170 48]. In her proposal that shame serves as a general sociometer, de Hooge goes one step further by
171 proposing that "people experiencing shame not only appease to group norms due to their public
172 display of shame, but also *actively engage* in affiliated behaviors that improve their inclusionary status
173 among desired others or groups" [49] (p. 101). In support of this, a recent study by Hejdenberg and
174 Andrews demonstrated that shame and anger were linked only in situations involving criticism and
175 put-downs and not due to a general angry temperament [50]. This is also supported by the finding
176 that shame is directly linked to ostracism and social rejection [51]. Eisenberger and colleagues have
177 also shown that social pain, related to social rejection or exclusion, shares the same neurobiological
178 mechanisms as physical pain [52,53]. Eisenberger suggests that, "over the course of mammalian
179 history, the physical pain system was co-opted by the social attachment system, using pain signals to
180 regulate social relationships" [53] (p. 204). This suggests that public social exclusion or devaluation
181 by relationship partners will not just result in a short-lived emotional experience, but also a feeling
182 of social pain on par with that of physical pain. These findings have led some researchers to argue
183 that shame is a basic emotion and guilt is not even an emotion at all [54,55]. This idea is also
184 consistent with the research showing that while shame does have a recognizable facial expression
185 which incorporates the characteristics of gaze aversion and submissiveness, guilt does not appear to
186 have a unique facial expression [23,56,57].

187 2.2. *Trait Guilt and Shame: Social-Adaptive Measures*

188 There have been a wide range of measures used to assess guilt and shame over the past few
189 decades. Although there were measures of guilt developed prior to 1990 (e.g., Mosher's guilt scales),
190 most were derived using only a psychoanalytic perspective, and thus are not germane to the current
191 review [58,59]. One of the most commonly used measures in the field today is the Test of Self-
192 Conscious Affect (TOSCA). One of the main reasons that the TOSCA is so widely used is because it
193 is available in English versions for children, adolescents, college students, adults, and inmates and
194 has been translated in to multiple other languages [60-69]. The TOSCA attempts to measure an
195 individual's guilt- and shame-proneness by asking respondents to imagine themselves in a series of
196 hypothetical scenarios. These situations generally involve some sort of interpersonal moral
197 transgression (e.g., forgetting a lunch date with a friend; making a mistake at work and finding out a
198 coworker is blamed for the error). After the participants read each scenario, they are asked how
199 likely it is that that they would respond in a variety of ways precoded to represent guilt, shame, pride,

200 externalization, and detachment. The TOSCA scenarios were chosen without any specific
201 situational characteristics in mind, other than that the situations were moral in nature. Because the
202 TOSCA was developed within the social-adaptive framework, the TOSCA responses were designed
203 to maximize the self- versus behavior-appraisal. They also tend to portray guilt as an inherently
204 adaptive response and shame as an inherently maladaptive response to the situation. For example,
205 a typical shame response is, "You would feel small...like a rat" and a typical guilt response is "You'd
206 think you should make it up to him as soon as possible." Although the TOSCA does have many
207 advantages, such as not requiring participants to have a sophisticated vocabulary (they do not have
208 to distinguish between the words "shame" and "guilt"), providing respondents a context in which to
209 project their guilt and shame reactions, and having a variety of questionnaires available for a range
210 of populations, it does have some potential limitations.

211 One issue with the TOSCA scenarios concerns whether they *equally* elicit shame and guilt
212 responses. Ferguson and colleagues suggested that the TOSCA is biased toward guilt, because
213 participants are clearly causing interpersonal harm in the majority of situations, and thus
214 endorsement of guilt in these scenarios is suggestive of adaptive functioning (as the correlations
215 with symptoms of psychopathology would support) [70,71]. That is, the hypothetical scenarios
216 the TOSCA uses portray the person as having done or not done something which he or she *should*
217 feel guilty about so there is a match between the appraisal of *being* guilty and *feeling* guilty (as is
218 the case in the majority of moral transgression situations). If these scenarios truly are biased
219 more for guilt than shame and a participant endorses shame frequently across these situations,
220 this would indicate a mismatch in appraisal and would suggest maladaptive functioning (as the
221 correlations with TOSCA shame and psychopathology would suggest). Furthermore, because
222 the TOSCA purposefully excludes nonmoral situations, in which shame is the dominant
223 emotion, it is more likely to underestimate people's tendency to respond with shame.

224 Additionally, because the TOSCA only uses situations in which the majority of people are
225 likely to report feeling ashamed and especially guilty, this measure does little to tell us about
226 people who have particular problems with the emotion. A useful way to conceptualize this
227 issue is to place it within Kelley's covariation theory framework [71,72]. One obvious way to
228 assess proneness is to give respondents situations in which the majority of people would feel
229 guilty or ashamed (high consensus). This is the approach the TOSCA takes. However,
230 according to Kelley, to make a true *dispositional* attribution (that is to be able to determine it is
231 something about the person that is causing the behavior as opposed to something about the
232 situation or circumstance), then we should look for the guilt or shame behavior in *low* consensus
233 situations in conjunction with *low* distinctiveness (responding in the same manner in similar
234 situations) and *high* consistency (responding the same way each time he/she is confronted with
235 the same type of situation) [72]. This means the person who is truly guilt- or shame-prone will
236 respond with guilt or shame in a variety of situations, including situations in which the majority
237 of other respondents would not feel these emotions. Thus, the TOSCA is arguably limited
238 because it can only garner information from high consensus situations and, for guilt especially,
239 it is very likely to suffer from ceiling effects.

240 Beyond the problems with the TOSCA situations, there is also some concern regarding the
241 TOSCA responses. The first issue is regarding the content of the items. Because the TOSCA
242 was developed within the social-adaptive framework, the guilt items represent constructive,
243 interpersonally focused responses to situations (such as trying to make amends and atoning for
244 wrongdoing) and the shame items represent negative, self-derogatory responses and self-
245 directed hostility. For example, several authors have classified the TOSCA guilt responses into
246 categories. According to Buss, the TOSCA guilt responses reflect four categories: atoning for
247 or remedying the situation; interpersonal concern; behaving better; and negative, but
248 circumscribed self-reactions [73]. The majority of the responses fall within the first category.
249 Luyten, Fontaine, and Corveleyn report the following categories: tendency to repair (5 items),
250 remorse or regret (5 items), negative feelings and a tendency to repair (2 items), and several
251 categories represented by a single item [74]. Surprisingly there are no items that reflect guilt

252 prompting a desire to confess, a theme that is dominant in much of the literature on guilt [14,75-
253 79]. Also surprising is that there is a TOSCA item that represents expectation for punishment,
254 "I deserve to be reprimanded," which harkens back to the psychoanalytic view of guilt and is
255 not commonly represented in the social-adaptive approach [74]. Turning to shame, Luyten and
256 colleagues showed that TOSCA-shame items only refer to maladaptive aspects of this emotion:
257 negative self-esteem (9 items), desire to hide or escape (4 items), negative emotion (1 item), and
258 negative self-appraisal (1 item) [74].

259 One reason the TOSCA authors have used correlate-based judgments (e.g., thoughts,
260 feelings, and behaviors associated with guilt and shame) as the responses in the TOSCA
261 measures is that they have argued that it is too difficult for participants to differentiate between
262 the words *guilt* and *shame* [65,80]. For example, in a scenario that depicts a person as breaking
263 something at work and then hiding it, the respondent is asked to rate the likelihood of
264 responding with guilt, which is depicted as, "You would think: 'This is making me anxious. I
265 need to either fix it or get someone else to.'" The shame response in the same scenario is, "You
266 would think about quitting." However, there are several issues with using correlate-based
267 judgments that should be addressed. First, when an individual is making a correlate-based
268 judgment as representative of the emotion, the researcher is making the assumption that there is
269 a near one-to-one correspondence between the judgment and the underlying emotion. This is a
270 risky assumption, given there are many factors that may influence the endorsement of a correlate.
271 For example, social rules that govern behavior operantly condition people to apologize when
272 another is offended in order to smooth interpersonal relations. This apology, though, is not
273 always rooted in a true sense of remorse and does not even necessarily mean that the individual
274 agrees that he or she has caused any harm [81]. In fact, Kugler and Jones showed that TOSCA-
275 guilt was more strongly correlated with awareness of moral standards than it was with the
276 affective experience of guilt [82]. Furthermore, Ferguson and Crowley conducted a
277 confirmatory factor analysis trying to determine the relationship between the most common
278 measures of guilt and shame [70]. They found that although the TOSCA guilt items load on
279 their own factor, they do not load with other commonly used measures of guilt-proneness.
280 Additionally, once method variance was accounted for (22%), 0% of the guilt variance was
281 accounted for by the emotion trait factor of guilt. Seventy-eight percent of the variance was
282 unexplained by either method variance or the latent factor of guilt. Thus, the TOSCA guilt items
283 shared no variance in common with other measures of the construct.

284 A second problem with correlate-based responses is that an individual may feel the
285 underlying emotion, but deny that he or she would be likely to respond in the manner given to
286 him/her as an option on the TOSCA. For example, in the scenario presented above, the
287 respondent may think he or she would feel intense shame to the point of hiding in his/her cubicle,
288 but not specifically think about quitting, so he or she may indicate there is a very small likelihood
289 that he or she would respond in that manner. Similarly, the individual may think that the guilt
290 response presented in the TOSCA is inappropriate and his or her preferred response in the
291 situation would be to confess that he or she broke the item.

292 Third, although several authors have suggested that participants cannot reliably distinguish the
293 terms *guilt* from *shame*, which is why the TOSCA uses correlate-based judgments, many other studies
294 of guilt and shame have shown that participants can reliably distinguish these two emotion terms
295 [38,80,83,84]. Ferguson, Stegge, and Damhuis first illustrated children as young as 11 years of age
296 reliably associated having violated a moral norm with the term *guilt* and having committed a social
297 blunder with the term *shame* [21]. Similarly, fifth graders could differentiate characteristics
298 associated with shame from characteristics associated with guilt [21]. Olthof and colleagues
299 investigated whether children's ratings were different based on whether the response was a correlate-
300 based response precoded to represent shame or guilt or the emotion words of *shame* and *guilt*. They
301 found few differences between the correlate-based ratings and the emotion word ratings [85]. In
302 Olthof and colleagues' conclusions they argue for the use of emotion word ratings over correlate-
303 based ratings. Because they found correlate-based ratings to be lower than the emotion word

304 ratings, they reasoned that correlate-based ratings may underestimate the intensity of a child's
305 emotional response. In sum, they stated that, "The data indicate that from the age of 9 upward,
306 children are perfectly well able to differentiate shame from guilt, even when giving term-based
307 judgments" [85] (p. 62). In conclusion, although the TOSCA has been widely used, there are a
308 number of reasons to suggest that it, and the social-adaptive perspective on which it is based, is a
309 restrictive view of guilt and shame.

310 2.3. Trait Guilt and Shame: Functionalist Measures

311 There have been numerous measures developed to assess trait guilt and shame within the
312 functionalist framework. These measures have generally fallen into two categories: checklist
313 measures and scenario-based measures. The checklist measures have been used nearly as often as
314 the TOSCA and have most often been contrasted with the TOSCA in the literature. Harder and
315 Zalma's Personal Feelings Questionnaire is a 16-item questionnaire (10 shame; 6 guilt) which asks
316 participants to rate how frequently they feel various emotions such as "mild guilt," "self-conscious,"
317 "remorse," or "feel stupid" [86]. In Tignor and Colvin's recent meta-analysis, they found that check-
318 list type measures differed quite substantially from the TOSCA in their representation of guilt [87].
319 TOSCA-guilt was positively correlated with prosocial orientation, but there was no correlation
320 between checklist measures of guilt and prosocial orientation. These results are not surprising,
321 given that the majority of checklist measures are designed to measure the frequency of emotion (e.g.,
322 the Personal Feelings Questionnaire), guilt related to harming others (the Interpersonal Guilt
323 Questionnaire), how much guilt one normally feels (the Guilt Inventory), and so forth [82,83,88].
324 These measures are more likely to tap guilt emotions that are not well-regulated.

325 The scenario-based measures that have been developed using the functionalist approach
326 generally include either: (1) scenarios in which guilt or shame should not be normative response or
327 (2) responses that reflect problems with emotion regulation. With regard to guilt specifically,
328 Ferguson makes a clear distinction between the state of "being" guilty and "feeling" guilty which is
329 echoed in dictionary definitions of the term [89]. According to Ferguson, guilt does serve an
330 individual adaptively when there is a match between those situations in which an individual *is guilty*
331 and *feels guilty* [89]. Conversely, guilt is likely to be maladaptive when an individual's sense of
332 *feeling guilty* does not match his/her actual state of *being guilty*. In these cases, a sense of guilt is
333 misplaced or overexaggerated (e.g., a very young child feels responsible for "causing" his mother's
334 depression; a woman feels guilty for "allowing" herself to be beaten; a child feels guilty for being
335 more popular than her friend) [90-94].

336 Olthof's appraisal theory suggests that a researcher could predict the degree to which a scenario
337 might elicit shame or guilt based on the degree to which two factors were present. The first is
338 whether the scenario leads to the actor's perceiving that he or she has an unwanted identity (being
339 seen in a way that one does not wish to be seen or is identity-threatening), which would lead to
340 shame. The second is whether the actor perceives that he or she has caused harm to another (hurting
341 a valued relationship partner), which would lead to guilt [95]. This is similar to de Hooge's recent
342 theorizing in which she sees shame as a general sociometer of inclusive fitness in social groups (see
343 Section 2.1) and guilt as a "specific sociometer, indicating people's inclusion in one specific
344 relationship (namely, the relationship with the victim)" [49] (p. 102). For example, Olthof et al. and
345 Ferguson et al. independently found scenarios that presented an unwanted identity, without causing
346 harm to another individual, elicited high levels of shame and low levels of guilt in participants [85,96].
347 Specifically, Ferguson and colleagues generated several scenarios that violated the male gender-role
348 (e.g., getting a flat tire and not being able to change it; crying during an emotional TV commercial in
349 front of friends; being told by a career counselor that one would make a good day-care worker or
350 nurse) [96]. Consistent with the idea that these scenarios would create a stronger unwanted identity
351 for men than women, they found that men reported greater unwanted identities and more intense
352 shame than women did. This research also revealed that the majority of scenarios which present an
353 unwanted identity in the absence of causing harm are nonmoral in nature. When specifically
354 examining nonmoral situations in which an unwanted identity was present, Olthof and associates

355 found that shame was significantly higher than guilt across all ages in their study (i.e., 7- to 16-year-
356 olds) [97].

357 In addition to developing scenarios that present participants with specific unwanted identities,
358 Olthof also proposed that a researcher could develop scenarios in which interpersonal harm would
359 occur and which would not imply an unwanted identity (e.g., leaving a crying child alone in a
360 hospital to receive his/her treatment; a police officer or soldier having to kill a person in the line of
361 duty) [95]. However, these types of scenarios are likely to be more rare because they require a
362 complete justification of the harm caused, so there is no way the individual can conceive that others
363 are seeing him/her in a negative light. When Olthof examined children's ratings of guilt and shame
364 in these type of situations (moral wrong but no unwanted identity), he found that children over the
365 age of 12 responded with significantly more guilt in these situations [97]. These results suggest that
366 children must have a very complete understanding of mitigation of an unwanted identity before guilt
367 alone, without the presence of shame, can be experienced.

368 Although, as Olthof's appraisal theory suggests, it is possible to find situations in which guilt is
369 likely to occur without a glimmer of shame and shame is likely to occur without a faint trace of guilt,
370 it is likely that these types of situations are not the norm. Rather, the majority of situations one is
371 likely to encounter are moral in nature (with the possibility of causing harm to another) which may,
372 in turn, give rise to an unwanted identity. Because of this overlap, most situations are capable of
373 eliciting both shame and guilt to some degree [10,38,42,98]. The key, though, is understanding that
374 these variables are continuous and that it is very possible to have a situation in which a person is only
375 slightly harmed or inconvenienced (lower levels of guilt), or a situation that may cause lasting
376 damage to the relationship (higher levels of guilt). The same is the case with situations that present
377 unwanted identities to various degrees—some identities may be more “unwanted” than others.
378 Understanding the complex interplay of these variables should allow researchers to create scenarios
379 that are very focused in terms of whether guilt or shame should be the dominant emotion (or whether
380 they should be equally likely to be elicited). For example, the Shame and Guilt Inventory (SAGI) is
381 one such trait measure that has been developed using Olthof's framework [99].

382 Mounting empirical evidence has supported the idea that the appropriateness of the emotion to
383 the situation affects the adaptivity of the emotion [21,90]. Ferguson and colleagues demonstrated
384 with children that the context in which guilt occurs has a strong relationship with symptoms of
385 psychopathology [91]. That is, reporting of guilt in scenarios in which guilt is the consensual
386 response¹ was unrelated to internalizing symptoms, whereas experiencing guilt in nonconsensual
387 situations² was strongly related to internalizing symptoms [91]. In a subsequent study, Ferguson
388 and colleagues found that experiencing guilt in hypothetical nonconsensual situations was an even
389 *stronger* predictor of internalizing symptoms than was experiencing shame in consensual situations
390 [90]. This study is especially important because the measure used in this study conceptualizes guilt
391 as an empathic, interpersonally-oriented response. Yet, responding with this “adaptive” form of
392 guilt is NOT adaptive when the response is in an inappropriate context.

393 Ferguson and Crowley have also identified a distinctive form of guilt that they termed
394 ruminative guilt [70]. Ruminative guilt is built upon Nolen-Hoeksema's view that excessive
395 rumination is maladaptive [100]. Ruminative guilt occurs when an individual continues to relive or

¹ These scenarios were pilot tested and selected on the basis that the majority of children said they *would* feel guilt in the given situation; for example, “You are outside playing with a friend. Your mom has given you two some Kool-Aid to drink. Your friend begins to tease you and you get very upset. You grab your drink and throw it in your friend's face.”

² These scenarios were pilot tested and selected on the basis that the majority of children said they *would not* feel guilt in the given situation; for example, “At school your teacher says that there'll be a drawing contest. So that afternoon you and your friend go home and you're both sitting there doing your drawings. You get bored, though, pretty quickly and just want to get the drawing done as fast as you can. But, your friend works on his/her drawing for the whole afternoon, for hours and hours. The next day, you and your friend give the teacher your drawings. When they announce the winners, you win FIRST PRIZE! The teacher holds up your drawing for everyone to see.”

396 replay the transgression over and over in his or her mind, thus failing to engage in appropriate
397 emotion regulation. Additionally, it may be characterized by repeated attempts to make reparation
398 and amends [101]. For example, Ferguson and Crowley modified the TOSCA (their version is called
399 the TOSCA-M) to add an additional response to each scenario, which they proposed reflected
400 ruminative guilt. For example, items included “You cannot apologize enough for forgetting...,”
401 “You would bend over backwards for months to make up for it...,” and “For days you would worry
402 about it, repeatedly trying to think of a way to remedy the situation.” All of these items were very
403 behaviorally-focused, as opposed to self-focused, consistent with the TOSCA’s operationalization of
404 guilt. Their results showed that ruminative forms of guilt were correlated with guilt frequency and
405 trait guilt, and not correlated with the traditional TOSCA-guilt subscale.

406 Finally, other issues that likely play into the relative (mal)adaptivity of guilt or shame, are the
407 frequency, intensity, duration, and coping strategy used to reduce the guilt or shame [17,24,100,102-
408 105]. The combination of these different factors may lead to differing levels of maladaptivity. For
409 example, guilt or shame that is too mild for the given situation may also lead to the choice of an
410 inappropriate coping strategy (e.g., a man who may apologize in an offhanded way to his wife for an
411 affair). Measures such as the Compass of Shame Scale have been specifically designed to assess
412 maladaptive shame regulation styles [106,107].

413 2.4. Trait Guilt, Trait Shame, and Psychopathology

414 Across numerous studies, trait measures of shame have been positively correlated with a wide
415 variety of symptoms of psychopathology, both with clinical populations and non-clinical
416 populations. For example, TOSCA-shame and PFQ-shame have been shown to be related to
417 depression, anxiety, social anxiety, self-derogation, eating disorders, posttraumatic stress disorder,
418 anger, aggression, alcohol and drug problems (including early drinking), decreased self-forgiveness,
419 and low self-esteem [99,102,108-114]. TOSCA-shame has also been found to be negatively correlated
420 with measures of adaptive functioning, such as self-esteem and life satisfaction, and uncorrelated
421 with measures of empathy [99,115,116]. Thus, there appears to be broad consensus that a disposition
422 toward feeling frequent shame and shame in response to relatively minor moral transgressions is
423 likely to serve an individual maladaptively.

424 However, the relationship between guilt and psychopathology is very dependent on the type of
425 measure used. The TOSCA, created within the social-adaptive framework, generally shows small
426 or near-zero correlations with unrelated to symptoms of psychopathology. For example, TOSCA
427 guilt has been shown to be unrelated to anger, state anxiety, phobic anxiety, depression, interpersonal
428 sensitivity, self-esteem, suicide ideation, negative self-evaluation, externalizing, and social insecurity
429 [88,108,109,115,117-121]. Although the majority of TOSCA studies show there is no relationship
430 between TOSCA-guilt and maladaptive functioning, there are a few select studies that do show a
431 small positive bivariate correlation (usually $r < .20$) between guilt and anxiety, depression, obsessive-
432 compulsive behavior, trait anxiety, state anxiety, phobic anxiety, interpersonal sensitivity, social
433 anxiety, anger arousal, anger held in, and self-directed aggression (in these studies, self-esteem is
434 typically also negatively correlated with guilt) [29,110,115,122-124]. The correlations between guilt
435 and psychopathology tend to be even smaller when guilt is partialled for shame.³ Further, guilt, as
436 measured by the TOSCA, has been shown to be positively related to several measures of adaptive
437 functioning, such as an increased propensity toward self-forgiveness, perspective taking, empathic
438 concern, and fantasy, while only marginally with the flipside of empathy—personal distress
439 [111,115,125]. Also, when the feeling of anger is broken down into its constructive and
440 deconstructive components, only the constructive components, such as discussing the incident with
441 the target and taking direct corrective action, are related to guilt [108,123,126,127]. Finally, TOSCA-
442 guilt was found to be negatively correlated with maladaptive anger tendencies such as direct

³ Tangney suggests that partialling shame from guilt gives the researcher a measure of “shame-free guilt” which she contends is a more pure measure of the guilt construct. However, many authors disagree with this partialling technique.

443 physical, verbal or symbolic aggression, displaced physical aggression, as well as criminal behavior
444 [108,112,123,126,127]. In sum, the majority of results found using the TOSCA do show support for
445 the notion of guilt as adaptive and not related to lasting ill effects for an individual.

446 In contrast, researchers looking at correlations between guilt and psychopathology using
447 checklist measures have found guilt to be positively correlated with a wide range of indices of
448 maladaptive functioning and symptoms of psychopathology, similar to shame [92,121,128-135].
449 This is consistent with the idea that frequent, unregulated guilt is likely maladaptive for an
450 individual. Similarly, Crowley and Ferguson found the ruminative guilt subscale of their modified
451 TOSCA to be correlated with symptoms of internalizing disorders such as anxiety and depression,
452 while the standard TOSCA-guilt subscale was uncorrelated [136]. Similarly, in a meta-analysis on
453 the links between shame, guilt, and depression, Kim, Thibodeau, and Jorgensen found that when
454 shame and guilt were conceptualized in the manner of the social-adaptive perspective where shame
455 is partialled for guilt and guilt is partialled for shame, then there is support for the idea that shame is
456 more strongly predictive of depressive symptoms than guilt. However, when one separates out
457 TOSCA-guilt from more pathological forms of guilt, "shame and pathological guilt...are *both*
458 important to depressive symptomatology, and to a roughly equal extent" [137] (p. 86, italics in
459 original).

460 2.5. State Guilt and Shame

461 Recently those researchers looking at state guilt and shame assessment have also begun
462 questioning the research supporting the social-adaptive perspective. Specifically, it does not appear
463 to be the case that only guilt motivates apology and reparation, nor that only shame motivates
464 withdrawal and avoidance, either when looking at the group level or individual level [49,138-140].
465 First, in the domain of group-based emotions, both collective guilt and collective shame have been
466 found to be associated with prosocial motivations to engage in reparations to the outgroup [138,141].
467 Guilt had a direct relationship with reparations, while the relationship between shame and reparation
468 was mediated by a reputation management motivation [142]. Brown and Cehajic extended this
469 research to suggest that the driving forces behind the shame-reparation relationship are self-pity and
470 empathy felt toward the victimized group, while the driving force behind the guilt-reparation
471 relationship was empathy toward the victimized group [141].

472 Second, recent research has focused on situations in which shame serves an adaptive purpose
473 [143]. In the interpersonal domain de Hooge and colleagues have found that situational shame
474 motivates prosocial behavior and acts as an interpersonal commitment device when the shame
475 experienced is directly relevant to the current goal pursuit (endogenous shame), but not when the
476 shame is unrelated to the current goal pursuit (exogenous shame), although see Declerck for a
477 counterexample [144,145]. Further, they have found that shame activates an approach motivation
478 when it appears to be possible, and not too risky, to affirm and restore a positive self-view [146,147].
479 Along these lines, Leach and Cidam found in their meta-analysis that the single best predictor of an
480 individual having a constructive approach orientation after a shame episode was the degree to which
481 the failure was more reparable [139]. In failure episodes where the failure was less reparable, shame
482 led to an avoidance orientation. Thus, although guilt and shame appear to have similar action
483 tendencies, the motivation for engaging in these action tendencies comes from the unique appraisals
484 that one is making in guilt- and shame-inducing situations.

485 Third, in situations in which one ought to feel shame, a shame response is likely to be an adaptive
486 one because it helps the individual cope with the situation (e.g., after cheating on one's spouse) [148].
487 However, in situations in which shame ought not to be felt (e.g., for having a physical or mental
488 disability), then the experience of shame is likely to serve that person maladaptively [90].
489 Specifically, when an individual experiences shame after a moral lapse or non-moral failure, it may
490 serve the individual adaptively by interrupting the shame-causing behavior and encouraging the
491 person to adhere to societal norms and codes [149-151]. For example, most would agree that it is not
492 maladaptive for an individual to experience shame after murdering an unarmed passerby or beating
493 one's children and spouse. For example, Tangney et al. recently found that inmates who felt shame

494 for their earlier criminal behavior, and who did not externalize blame onto others, had lower
495 recidivism rates [152]. Unlike guilt, the experience of shame has the powerful ability to alter how a
496 person views himself or herself and can deal a crippling blow to an individual's self-esteem [150].
497 Because of the intensity and duration of shame, there are perhaps fewer situations in which the
498 average person should feel ashamed. Or perhaps, as Scheff suggests, shame is simply a taboo
499 emotion in our modern Western culture that we attempt to avoid⁴ [41]. Further, not all instances of
500 shame appear to be as detrimental to one's sense of self as one might think. For example, when
501 looking at narratives of shame episodes in individualistic versus collectivist cultures, Wallbott and
502 Scherer found that shame episodes were relatively less intense and shorter in duration in collectivistic
503 cultures than individualistic ones [153]. This is reflective of some of the sociological theories of
504 shame that come from Scheff and Cooley which propose that there are many instances of "low-
505 visibility" shame which are often hidden from view, but central to society's functioning [154].
506 Finally, researchers in the field of morality and moral education make the case that both shame and
507 guilt should be considered central moral emotions, even virtues, that should be instilled in childhood
508 [155,156].

509 Fourth, as mentioned in Section 2.3, there have been several studies conducted on how
510 experiencing guilt in low consensus situations serves an individual maladaptively. This is even
511 more evident when looking at singular traumatic events that have shaped people's lives and led to
512 emotion regulation problems, such as those tied to posttraumatic stress disorder, trauma-related
513 guilt, and survivor guilt [88,92,121,157]. Specifically, guilt that arises in each of these situations has
514 stemmed from events where one has relatively little control over the outcome and/or the individual
515 holds no culpability for the negative outcome (e.g., being raped, surviving a war). Further, in some
516 other maladaptive forms of guilt, an individual believes that he or she has is responsible for other
517 people's welfare and general happiness (omnipotent responsibility guilt) or that one feels guilty for
518 pursuing one's own goals and thus being disloyal to family (separation guilt) [88]. Thus, the degree
519 of responsibility one is perceived to have in a situation (by oneself or by others) predicts intensity of
520 guilt [158].

521 Fifth, all of the aforementioned studies on the adaptivity of guilt have only looked at dyadic
522 relationships between transgressor and victim. When one extends the social circle out a bit further,
523 de Hooze and colleagues have shown that the guilt dynamics also shift. That is, a guilt-driven
524 concern for the victim may actually lead the transgressor to neglect and disadvantage other social
525 partners [159]. Further, "when a third person intervenes in the dyadic situation between a victim
526 and the transgressor by changing the guilt-inducing situation, guilt feelings, reparative intentions,
527 and prosocial behaviours decrease" [160] (p. 1204).

528 3. Discussion

529 Although the social-adaptive perspective has been one of the dominant approaches, it seems
530 that many current researchers in the field are moving toward a functionalist, evolutionary
531 perspective on guilt and shame. Instead of trying to ask *if* guilt is adaptive and *if* shame is
532 maladaptive, most now seem to be asking the broader question of *when* do guilt and shame serve
533 adaptive and maladaptive purposes. However, one major stumbling block remains with regard to
534 whether the functionalist approach will become the primary approach advocated within this field,
535 and that has to do with the trait measurement of these emotions. Studies using the TOSCA have
536 been published more often and in more prestigious journals than many other measures of guilt and
537 shame. Thus, to those unfamiliar with the issues regarding trait guilt and shame assessment, the
538 TOSCA seems like the best measure because shame and guilt are portrayed as separate, distinct, and
539 unambiguous emotions. In fact, Leach [140] (p. 18) has recently noted that:
540

⁴ In support of his thesis, Scheff reported in his analysis of digital books scanned by Google between 1800 and 2007 "the use of the word shame has decreased threefold during the last 200 years in American and British English, French, Spanish, and German books" [154] (p. 117).

541 The prevailing view of shame and guilt [to social-adaptive perspective] appears to be especially
 542 useful because shame and guilt are thought to be so *qualitatively* different that they are
 543 conceptualized as very much like opposites...[but in fact] shame and guilt are more alike than
 544 different....And, consistent with this, contemporary emotion research shows there to be small
 545 *quantitative* differences between shame and guilt, rather than the dramatic qualitative
 546 differences suggested by conceptualizing them as opposites.

547
 548 To make a convincing case for the functionalist perspective, more studies need to be published
 549 using trait measures of guilt and shame based on the functionalist approach. This would allow for
 550 a statistical comparison to be made comparing measures using a meta-analysis. Further, researchers
 551 need to continue moving beyond simply looking at trait propensity to feel these emotions into
 552 looking at guilt and shame *episodes* in broader cultural and contextual domains [161,162]. For
 553 example, researchers are now trying to disentangle exactly when shame will result in prosocial,
 554 approach responses and when it will result in self-protection responses [138,139,163]. Additionally,
 555 research needs to further address Wallbott and Scherer's findings that shame episodes were relatively
 556 less intense and shorter in duration in collectivistic cultures than individualistic ones [153]. For
 557 instance, it would be useful to collect narratives from participants, from different cultures,
 558 reporting guilt and shame episodes where they felt the emotion served an adaptive or maladaptive
 559 purpose in their lives. Perhaps this will shed more light on the complex interplay between self- and
 560 other-appraisal and their relationship to the (mal)adaptive consequences of these emotions. Future
 561 research should also continue to look at the definitions of these two emotions in an attempt to clearly
 562 separate out instances of shame and instances of guilt. The narrative study, suggested above, would
 563 also be useful for examining how participants define these emotions and whether participants see
 564 guilt and shame as distinct emotions, the same emotion, or one emotion as subsumed under the other.
 565 Finally, guilt and shame are both social emotions which are often assessed in non-social or dyadic
 566 situations [164,165]. De Hooge has recently begun to investigate how guilt and shame play out when
 567 there are multiple actors present, but more needs to be done in this domain.

568 In conclusion, there seems to be no clear consensus on which perspective will end up being
 569 supported by the majority of emotion researchers. This mainly stems from the fact that the social-
 570 adaptive researchers have great depth in the field, but not enough breadth (i.e., many systematic
 571 studies, but conducted with a single measure of trait guilt and shame). The functionalist researchers,
 572 on the other hand, have great breadth, but not much depth (i.e., a wide range of studies on both state
 573 and trait guilt and shame, but not enough programmatic research to yield conclusive results). Thus,
 574 in order to fully compare and contrast the two perspectives, researchers need to (1) conduct *more*
 575 studies comparing the TOSCA to other measures of guilt and shame and (2) to conduct systematic
 576 studies looking at which approach best accounts for emotions, cognitions, and behaviors in a *wide*
 577 *variety* of guilt- and shame-inducing situations.

578 **Acknowledgments:** Part of the research was supported by a University of Kentucky Presidential Fellowship for
 579 the author in writing her dissertation [99].

580 **Conflicts of Interest:** The author declares no conflict of interest.

581 References

- 582 1. Darwin, C. *The expression of the emotions in man and animals*. D. Appleton and company: New
 583 York, 1896; p 1-372.
- 584 2. Lange, C.G.; James, W. *The emotions*. Williams & Wilkins: Baltimore, 1922; p 1-135.
- 585 3. Freud, S. *Totem and taboo: Some points of agreement between the mental lives of savages and*
 586 *neurotics*. Norton: New York, 1913/1950; p 1-172.
- 587 4. Klein, M. A contribution to the theory of anxiety and guilt. *Int J Psychoanal* **1948**, *29*, 114-123.
- 588 5. Miller, D.R.; Swanson, G.E. *Inner conflict and defense*. H. Holt: New York, 1960; p 1-452.

- 589 6. Modell, A.H. The origin of certain forms of pre-oedipal guilt and the implications for a
590 psychoanalytic theory of affects. *Int J Psychoanal* **1971**, *52*, 337-346.
- 591 7. Freud, S. *Civilization and its discontents*. Standard ed.; W. W. Norton: New York, 1961; p 1-109.
- 592 8. Freud, S. *A general introduction to psychoanalysis*. Garden City Pub. Co.: Garden City, NY, 1943;
593 p 1-412.
- 594 9. Erikson, E.H. *Childhood and society*. 1st ed.; Norton: New York, 1950; p 1-397.
- 595 10. Lewis, H.B. Some thoughts on the moral emotions of shame and guilt. In *Emotions in ideal*
596 *human development*, Cirillo, L.; Kaplan, B.A.; Wapner, S., Eds. Erlbaum: Hillsdale, NJ, 1989; pp
597 35-51.
- 598 11. Lewis, H.B. *Shame and guilt in neurosis*. International Universities Press: New York, 1971; p 1-
599 525.
- 600 12. Baumeister, R.F.; Stillwell, A.M.; Heatherton, T.F. Guilt: An interpersonal approach. *Psychol*
601 *Bull* **1994**, *115*, 243-267.
- 602 13. Berti, A.E.; Garattoni, C.; Venturini, B. The understanding of sadness, guilt, and shame in 5-,
603 7-, and 9-year-old children. *Genet Soc Gen Psych* **2000**, *126*, 293-318.
- 604 14. Bybee, J.; Merisca, R.; Velasco, R. The development of reactions of guilt-producing events. In
605 *Guilt and children*, Bybee, J., Ed. Academic Press: San Diego, CA, 1998; pp 185-213.
- 606 15. Cupach, W.R.; Metts, S. *Facework*. Sage Publications: Thousand Oaks, CA, 1994; p 1-122.
- 607 16. Ferguson, T.J.; Ives, D.; Eyre, H.L. All is fair in love, but not war: The management of
608 emotions in dyadic relationships. In *The Biennial Meeting of Society for Research in Child*
609 *Development*, Washington, DC, 1997.
- 610 17. Miceli, M.; Castelfranchi, C. How to silence one's conscience: Cognitive defenses against the
611 feeling of guilt. *J Theor Soc Behav* **1998**, *28*, 287-318.
- 612 18. Tangney, J.P.; Miller, R.S.; Flicker, L.; Barlow, D.H. Are shame, guilt, and embarrassment
613 distinct emotions? *J Pers Soc Psychol* **1996**, *70*, 1256-1269.
- 614 19. Tavuchis, N. *Mea culpa: A sociology of apology and reconciliation*. Stanford University Press:
615 Stanford, CA, 1991; p 1-165.
- 616 20. Wicker, F.W.; Payne, G.C.; Morgan, R.D. Participant descriptions of guilt and shame. *Motiv*
617 *Emotion* **1983**, *7*, 25-39.
- 618 21. Ferguson, T.J.; Stegge, H.; Damhuis, I. Children's understanding of guilt and shame. *Child*
619 *Dev* **1991**, *62*, 827-839.
- 620 22. Izard, C.E. *Human emotions*. Plenum Press: New York, 1977; p 1-495.
- 621 23. Lewis, M. *Shame : The exposed self*. Free Press: New York, 1992; p 1-275.
- 622 24. Eyre, H.L.; Ferguson, T.J.; Strayer, J.; Grotepas-Sanders, D.; Hawkins, S. Links between self-
623 conscious emotion and coping in children and young adults. In *The Annual Convention of the*
624 *American Psychological Society*, Denver, CO., 1999.
- 625 25. Malatesta-Magai, C.; Dorval, B. Language, affect, and social order. In *Modularity and*
626 *constraints in language and cognition*, Gunnar, M.R.; Maratsos, M., Eds. Lawrence Erlbaum
627 Associates, Inc: Hillsdale, NJ, 1992; pp 139-177.
- 628 26. Ekkekakis, P. *The measurement of affect, mood, and emotion: A guide for health-behavioral research*.
629 Cambridge University Press: Cambridge, England, 2013.
- 630 27. Tangney, J.P. Moral affect: The good, the bad, and the ugly. *J Pers Soc Psychol* **1991**, *61*, 598-
631 607.

- 632 28. Tangney, J.P.; Dearing, R.L. *Shame and guilt*. Guilford Press: New York, NY, US, 2002; p 1-
633 272.
- 634 29. Tangney, J.P. Shame and guilt in interpersonal relationships. In *Self-conscious emotions: The*
635 *psychology of shame, guilt, embarrassment, and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford
636 Press: New York, 1995; pp 114-139.
- 637 30. Nelissen, R.M.A. Guilt-induced self-punishment as a sign of remorse. *Soc Psychol Personal Sci*
638 **2011**, *3*, 139-144.
- 639 31. Tangney, J.P.; Stuewig, J.; Mashek, D.J. What's moral about the self-conscious emotions? In
640 *The self-conscious emotions: Theory and research.*, Tracy, J.L.; Robins, R.W.; Tangney, J.P., Eds.
641 Guilford Press: New York, NY, US, 2007; pp 21-37.
- 642 32. Carni, S.; Petrocchi, N.; Del Miglio, C.; Mancini, F.; Couyoumdjian, A. Intrapyschic and
643 interpersonal guilt: A critical review of the recent literature. *Cogn Process* **2013**, *14*, 333-346.
- 644 33. Barrett, K.C. A functionalist approach to shame and guilt. In *Self-conscious emotions: The*
645 *psychology of shame, guilt, embarrassment, and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford
646 Press: New York, NY, 1995; pp 25-63.
- 647 34. Nelissen, R.M.A.; Breugelmans, S.M.; Zeelenberg, M. Reappraising the moral nature of
648 emotions in decision making: The case of shame and guilt. *Soc Personal Psychol Compass* **2013**,
649 *7*, 355-365.
- 650 35. Hutcherson, C.A.; Gross, J.J. The moral emotions: A social-functionalist account of anger,
651 disgust, and contempt. *J Pers Soc Psychol* **2011**, *100*, 719-737.
- 652 36. Campos, J.J.; Mumme, D.L.; Kermoian, R.; Campos, R.G. A functionalist perspective on the
653 nature of emotion. *Monogr Soc Res Child Dev* **1994**, *59*, 284-303.
- 654 37. Cicchetti, D.; Ackerman, B.P.; Izard, C.E. Emotions and emotion regulation in developmental
655 psychopathology. *Dev Psychopathol* **1995**, *7*, 1-10.
- 656 38. Smith, R.H.; Webster, J.M.; Parrott, W.G.; Eyre, H.L. The role of public exposure in moral and
657 nonmoral shame and guilt. *J Pers Soc Psychol* **2002**, *83*, 138-159.
- 658 39. Ausubel, D.P. Relationships between shame and guilt in the socializing process. *Psychol Rev*
659 **1955**, *62*, 378-390.
- 660 40. Benedict, R. *The chrysanthemum and the sword*. Houghton Mifflin: Boston, 1946.
- 661 41. Scheff, T. Goffman on emotions: The pride-shame system. *Symb Interact* **2014**, *37*, 108-121.
- 662 42. Wolf, S.T.; Cohen, T.R.; Panter, A.T.; Insko, C.A. Shame proneness and guilt proneness:
663 Toward the further understanding of reactions to public and private transgressions. *Self*
664 *Identity* **2010**, *9*, 337-362.
- 665 43. Gilbert, P. What is shame? Some core issues and controversies. In *Shame: Interpersonal*
666 *behavior, psychopathology, and culture.*, Gilbert, P.; Andrews, B.; Gilbert, P.; Andrews, B., Eds.
667 Oxford University Press: New York, NY, US, 1998; pp 3-38.
- 668 44. Elison, J.; Garofalo, C.; Velotti, P. Shame and aggression: Theoretical considerations. *Aggress*
669 *Violent Behav* **2014**, *19*, 447-453.
- 670 45. Shariff, A.F.; Tracy, J.L.; Markusoff, J.L. (implicitly) judging a book by its cover: The power
671 of pride and shame expressions in shaping judgments of social status. *Pers Soc Psychol Bull*
672 **2012**, *38*, 1178-1193.

- 673 46. Gilbert, P.; McGuire, M.T. Shame, status, and social roles: Psychobiology and evolution. In
674 *Shame: Interpersonal behavior, psychopathology, and culture*, Gilbert, P.; Andrews, B., Eds. Oxford
675 University Press: New York, NY, 1998; pp 99-125.
- 676 47. Cheung, M.S.P.; Gilbert, P.; Irons, C. An exploration of shame, social rank and rumination in
677 relation to depression. *Pers Indiv Differ* **2004**, *36*, 1143-1153.
- 678 48. Gilbert, P. The relationship of shame, social anxiety and depression: The role of the
679 evaluation of social rank. *Clin Psychol Psychot* **2000**, *7*, 174-189.
- 680 49. de Hooge, I.E. The general sociometer shame: Positive interpersonal consequences of an
681 ugly emotion. In *Psychology of shame: New research*, Lockhart, K.G., Ed. Nova Science
682 Publishers: New York, 2014; pp 95-110.
- 683 50. Hejdenberg, J.; Andrews, B. The relationship between shame and different types of anger: A
684 theory-based investigation. *Pers Indiv Differ* **2011**, *50*, 1278-1282.
- 685 51. Westermann, S.; Rief, W.; Euteneuer, F.; Kohlmann, S. Social exclusion and shame in obesity.
686 *Eat Behav* **2015**, *17*, 74-76.
- 687 52. Eisenberger, N.I. The neural bases of social pain: Evidence for shared representations with
688 physical pain. *Psychosom Med* **2012**, *74*, 126-135.
- 689 53. Moieni, M.; Eisenberger, N. Neural correlates of social pain. In *Social neuroscience: Biological
690 approaches to social psychology.*, Harmon-Jones, E.; Inzlicht, M., Eds. Routledge/Taylor &
691 Francis Group: New York, NY, US, 2016; pp 203-222.
- 692 54. Elison, J. Shame and guilt: A hundred years of apples and oranges. *New Ideas Psychol* **2005**,
693 *23*, 5-32.
- 694 55. Ortony, A. Is guilt an emotion? *Cogn Emot* **1987**, *1*, 283-298.
- 695 56. Keltner, D. Signs of appeasement: Evidence for the distinct displays of embarrassment,
696 amusement, and shame. *J Pers Soc Psychol* **1995**, *68*, 441-454.
- 697 57. Keltner, D.; Buswell, B.N. Evidence for the distinctness of embarrassment, shame, and guilt:
698 A study of recalled antecedents and facial expressions of emotion. *Cogn Emot* **1996**, *10*, 155-
699 171.
- 700 58. Mosher, D.L. The development and multitrait-multimethod matrix analysis of three
701 measures of three aspects of guilt. *J Consult Psychol* **1966**, *30*, 25-29.
- 702 59. Mosher, D.L. Measurement of guilt in females by self-report inventories. *J Consult Clin
703 Psychol* **1968**, *32*, 690-695.
- 704 60. Tangney, J.P.; Wagner, P.; Gramzow, R. The test of self-conscious affect (tosca). George
705 Mason University: Fairfax, VA, 1989.
- 706 61. Tangney, J.P.; Wagner, P.; Burggraf, S.A.; Gramzow, R.; Fletcher, C. The test of self-conscious
707 affect for children (tosca-c). George Mason University: Fairfax, VA, 1990.
- 708 62. Tangney, J.P.; Wagner, P.; Gavlas, J.; Gramzow, R. The test of self-conscious affect for
709 adolescents (tosca-a). George Mason University: Fairfax, VA, 1991.
- 710 63. Tangney, J.P.; Ferguson, T.J.; Wagner, P.E.; Crowley, S.L.; Gramzow, R. The test of self-
711 conscious affect, version 2 (tosca-2). George Mason University: Fairfax, VA, 1996.
- 712 64. Tangney, J.P.; Wagner, P.E.; Gramzow, R. The test of self-conscious affect, version 3 (tosca-
713 3). George Mason University: Fairfax, VA, 2000.

- 714 65. Tangney, J.P. Assessing individual differences in proneness to shame and guilt:
715 Development of the self-conscious affect and attribution inventory. *J Pers Soc Psychol* **1990**,
716 *59*, 102-111.
- 717 66. Stromsten, L.M.; Henningsson, M.; Holm, U.; Sundbom, E. Assessment of self-conscious
718 emotions: A swedish psychometric and structure evaluation of the test of self-conscious affect
719 (tosca). *Scand J Psychol* **2009**, *50*, 71-77.
- 720 67. Shahnawaz, S.; Malik, J.A. Assessing shame and guilt in adolescents: Translation and
721 adaptation of test of self-conscious affect for adolescents (tosca-a). *Pakistan Journal of*
722 *Psychological Research* **2017**, *32*, 97-116.
- 723 68. Tangney, J.P.; Stuewig, J.; Mashek, D.; Hastings, M. Assessing jail inmates' proneness to
724 shame and guilt: Feeling bad about the behavior or the self? *Crim Justice Behav* **2011**, *38*, 710-
725 734.
- 726 69. Nugier, A.; Gil, S.; Chekroun, P. Validation française du test des émotions réflexives (french-
727 toska-3): Une mesure des tendances émotionnelles de honte et de culpabilité. *Revue*
728 *Européenne de Psychologie Appliquée/European Review of Applied Psychology* **2012**, *62*, 19-27.
- 729 70. Ferguson, T.J.; Crowley, S.L. Measure for measure: A multitrait-multimethod analysis of
730 guilt and shame. *J Pers Assess* **1997**, *69*, 425-441.
- 731 71. Ferguson, T.J.; Stegge, H. Measuring guilt in children: A rose by any other name still has
732 thorns. In *Guilt and children*, Bybee, J., Ed. Academic Press: San Diego, CA, 1998; pp 19-74.
- 733 72. Kelley, H.H. Attribution theory in social psychology. In *Nebraska symposium on motivation*,
734 Levine, D., Ed. University of Nebraska-Lincoln: Lincoln, NE, 1967; Vol. 51, pp 192-241.
- 735 73. Buss, A. *Psychological dimensions of the self*. Sage: Thousand Oaks, CA, 2001.
- 736 74. Luyten, P.; Fontaine, J.R.J.; Corveleyn, J. Does the test of self-conscious affect (tosca) measure
737 maladaptive aspects of guilt and adaptive aspects of shame? An empirical investigation. *Pers*
738 *Indiv Differ* **2002**, *33*, 1373-1387.
- 739 75. Otterbacher, J.R.; Munz, D.C. State-trait measure of experiential guilt. *J Consult Clin Psychol*
740 **1973**, *40*, 115-121.
- 741 76. Regan, J. Guilt, perceived injustice, and altruistic behavior. *J Pers Soc Psychol* **1971**, *18*, 124-
742 132.
- 743 77. Stice, E. The similarities between cognitive dissonance and guilt: Confession as a relief of
744 dissonance. *Curr Psychol* **1992**, *11*, 69-77.
- 745 78. Todd, E. The value of confession and forgiveness according to jung. *J Relig Health* **1985**, *24*,
746 39-48.
- 747 79. Weiner, B.; Graham, S.; Peter, O.; Zmuidinas, M. Public confession and forgiveness. *J Pers*
748 **1991**, *59*, 281-312.
- 749 80. Tangney, J.P. Conceptual and methodological issues in the assessment of shame and guilt.
750 *Behav Res Ther* **1996**, *34*, 741-754.
- 751 81. Giner-Sorolla, R.; Piazza, J.; Espinosa, P. What do the toska guilt and shame scales really
752 measure: Affect or action? *Pers Indiv Differ* **2011**, *51*, 445-450.
- 753 82. Kugler, K.; Jones, W.H. On conceptualizing and assessing guilt. *J Pers Soc Psychol* **1992**, *62*,
754 318-327.

- 755 83. Harder, D.W.; Rockart, L.; Cutler, L. Additional validity evidence for the harder personal
756 feelings questionnaire-2 (pfq2): A measure of shame and guilt proneness. *J Clin Psychol* **1993**,
757 *49*, 345-348.
- 758 84. Harder, D.W.; Greenwald, D.F. Further validation of the shame and guilt scales of the harder
759 personal feelings questionnaire-2. *Psychol Rep* **1999**, *85*, 271-281.
- 760 85. Olthof, T.; Schouten, A.; Kuiper, H.; Stegge, H.; Jennekens-Schinkel, A. Shame and guilt in
761 children: Differential situational antecedents and experiential correlates. *Brit J Dev Psychol*
762 **2000**, *18*, 51-64.
- 763 86. Harder, D.W.; Zalma, A. Two promising shame and guilt scales: A construct validity
764 comparison. *J Pers Assess* **1990**, *55*, 729-745.
- 765 87. Tignor, S.M.; Colvin, C.R. The interpersonal adaptiveness of dispositional guilt and shame:
766 A meta-analytic investigation. *J Pers* **2017**, *85*, 341-363.
- 767 88. O'Connor, L.E.; Berry, J.W.; Weiss, J.; Bush, M.; Sampson, H. Interpersonal guilt: The
768 development of a new measure. *J Clin Psychol* **1997**, *53*, 73-89.
- 769 89. Ferguson, T.J. Guilt. In *Encyclopedia of human emotions*, Levinson, D.; Ponzetti Jr., J.J.;
770 Joregensen, P.F., Eds. Macmillan Reference USA: New York, 1999; Vol. 1, pp 307-315.
- 771 90. Ferguson, T.J.; Stegge, H.; Eyre, H.L.; Vollmer, R.; Ashbaker, M. Context effects and the
772 (mal)adaptive nature of guilt and shame in children. *Genet Soc Gen Psych* **2000**, *126*, 319-345.
- 773 91. Ferguson, T.J.; Stegge, H.; Miller, E.R.; Olsen, M.E. Guilt, shame, and symptoms in children.
774 *Dev Psychol* **1999**, *35*, 347-357.
- 775 92. Kubany, E.S.; Abueg, F.R.; Owens, J.A.; Brennan, J.M.; Kaplan, A.S.; Watson, S.B. Initial
776 examination of a multidimensional model of trauma-related guilt: Applications to combat
777 veterans and battered women. *J Psychopathol Behav* **1995**, *17*, 353-376.
- 778 93. Zahn-Waxler, C.; Kochanska, G.; Krupnick, J.; McKnew, D. Patterns of guilt in children of
779 depressed and well mothers. *Dev Psychol* **1990**, *26*, 51-59.
- 780 94. Zahn-Waxler, C.; Kochanska, G. The origins of guilt. In *Nebraska symposium on motivation*,
781 *1988: Socioemotional development.*, Thompson, R.A., Ed. University of Nebraska Press: Lincoln,
782 NE, 1990; pp 183-258.
- 783 95. Olthof, T. A developmental tasks analysis of guilt and shame. In *The Biennial Meeting of the*
784 *International Society for the Research on Emotion*, Bern, Switzerland, 1996.
- 785 96. Ferguson, T.J.; Eyre, H.L.; Ashbaker, M. Unwanted identities: A key variable in shame-anger
786 links and gender differences in shame. *Sex Roles* **2000**, *42*, 133-157.
- 787 97. Olthof, T.; Ferguson, T.J.; Bloemers, E.; Deij, M. Morality- and identity-related antecedents of
788 children's guilt and shame attributions in events involving physical illness. *Cogn Emot* **2004**,
789 *18*, 383-404.
- 790 98. Cohen, T.R.; Wolf, S.T.; Panter, A.T.; Insko, C.A. Introducing the gasp scale: A new measure
791 of guilt and shame proneness. *J Pers Soc Psychol* **2011**, *100*, 947-966.
- 792 99. Eyre, H.L. The shame and guilt inventory: Development of a new scenario-based measure of
793 shame- and guilt-proneness. Dissertation, University of Kentucky, Lexington, KY, 2004.
- 794 100. Nolen-Hoeksema, S.; Morrow, J.; Fredrickson, B.L. Response styles and the duration of
795 episodes of depressed mood. *J Abnorm Psychol* **1993**, *102*, 20-28.
- 796 101. Eyre, H.L.; Ferguson, T.J. Ruminative and empathic guilt: Two sides of the same coin? In *The*
797 *Annual Convention of the Society for Personality and Social Psychology*, Nashville, TN, 2000.

- 798 102. Harder, D.W.; Cutler, L.; Rockart, L. Assessment of shame and guilt and their relationships
799 to psychopathology. *J Pers Assess* **1992**, *59*, 584-604.
- 800 103. Kochanska, G. Socialization and temperament in the development of guilt and conscience.
801 *Child Dev* **1991**, *62*, 1379-1392.
- 802 104. Bybee, J.; Zigler, E.; Berliner, D.; Merisca, R. Guilt, guilt-evoking events, depression, and
803 eating disorders. *Curr Psychol* **1996**, *15*, 113-127.
- 804 105. Mikulincer, M.; Florian, V. A cognitive-relational approach to emotions—the appraisal and
805 coping components of sadness, shame, guilt, jealousy, and disgust. *Imagin Cogn Pers* **1997**, *16*,
806 263-279.
- 807 106. Elison, J.; Lennon, R.; Pulos, S. Investigating the compass of shame: The development of the
808 compass of shame scale. *Soc Behav Personal* **2006**, *34*, 221-238.
- 809 107. Schalkwijk, F.; Stams, G.J.; Dekker, J.; Peen, J.; Elison, J. Measuring shame regulation:
810 Validation of the compass of shame scale. *Soc Behav Personal* **2016**, *44*, 1775-1792.
- 811 108. Tangney, J.P.; Stuewig, J.; Mashek, D.J. Moral emotions and moral behavior. *Annu Rev Psychol*
812 **2007**, *58*, 345-372.
- 813 109. Bennett, D.S.; Sullivan, M.W.; Lewis, M. Neglected children, shame-proneness, and
814 depressive symptoms. *Child Maltreat* **2010**, *15*, 305-314.
- 815 110. Tangney, J.P.; Wagner, P.; Gramzow, R. Proneness to shame, proneness to guilt, and
816 psychopathology. *J Abnorm Psychol* **1992**, *101*, 469.
- 817 111. Carpenter, T.P.; Tignor, S.M.; Tsang, J.-A.; Willett, A. Dispositional self-forgiveness, guilt-
818 and shame-proneness, and the roles of motivational tendencies. *Pers Indiv Differ* **2016**, *98*, 53-
819 61.
- 820 112. Stuewig, J.; Tangney, J.P. Shame and guilt in antisocial and risky behaviors. In *The self-
821 conscious emotions: Theory and research*, Tracy, J.L.; Robins, R.W.; Tangney, J.P., Eds. Guilford
822 Press: New York, NY, 2007; pp 371-388.
- 823 113. Feiring, C.; Taska, L.S. The persistence of shame following sexual abuse: A longitudinal look
824 at risk and recovery. *Child Maltreat* **2005**, *10*, 337-349.
- 825 114. Feiring, C.; Taska, L.; Chen, K. Trying to understand why horrible things happen:
826 Attribution, shame, and symptom development following sexual abuse. *Child Maltreat* **2016**,
827 *7*, 25-39.
- 828 115. Tangney, J.P.; Burggraf, S.A.; Wagner, P.E. Shame-proneness, guilt-proneness, and
829 psychological symptoms. In *Self-conscious emotions: The psychology of shame, guilt,
830 embarrassment, and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford Press: New York, NY,
831 1995; pp 343-367.
- 832 116. Leith, K.P.; Baumeister, R.F. Empathy, shame, guilt, and narratives of interpersonal conflicts:
833 Guilt-prone people are better at perspective taking. *J Pers* **1998**, *66*, 1-37.
- 834 117. Bennett, D.S.; Sullivan, M.W.; Lewis, M. Young children's adjustment as a function of
835 maltreatment, shame, and anger. *Child Maltreat* **2005**, *10*, 311-323.
- 836 118. Sanftner, J.L.; Barlow, D.H.; Marschall, D.E.; Tangney, J.P. The relation of shame and guilt to
837 eating disorder symptomatology. *J Soc Clin Psychol* **1995**, *14*, 315-324.
- 838 119. Tangney, J.P.; Wagner, P.; Fletcher, C.; Gramzow, R. Shamed into anger? The relation of
839 shame and guilt to anger and self-reported aggression. *J Pers Soc Psychol* **1992**, *62*, 669-675.

- 840 120. Woien, S.L.; Ernst, H.A.H.; Patock-Peckham, J.A.; Nagoshi, C.T. Validation of the toska to
841 measure shame and guilt. *Pers Individ Differ* **2003**, *35*, 313.
- 842 121. O'Connor, L.E.; Berry, J.W.; Weiss, J. Interpersonal guilt, shame, and psychological problems.
843 *J Soc Clin Psychol* **1999**, *18*, 181-203.
- 844 122. Hastings, M.E.; Northman, L.M.; Tangney, J.P. Shame, guilt, and suicide. In *Suicide science:
845 Expanding the boundaries.*, Joiner, T.E.; Rudd, M.D., Eds. Kluwer Academic/Plenum
846 Publishers: New York, NY, 2000; pp 67-79.
- 847 123. Tangney, J.P.; Hill-Barlow, D.; Wagner, P.E.; Marschall, D.E.; Borenstein, J.K.; Sanftner, J.;
848 Mohr, T.; Gramzow, R. Assessing individual differences in constructive versus destructive
849 responses to anger across the lifespan. *J Pers Soc Psychol* **1996**, *70*, 780-796.
- 850 124. Wright, F.; O'Leary, J.; Balkin, J. Shame, guilt, narcissism, and depression: Correlates and sex
851 differences. *Psychoanal Psychol* **1989**, *6*, 217-230.
- 852 125. Bassen, C.; Braveman, J.; Pearlman, J.; Lamb, M. Gender differences in normal adolescence:
853 Guilt, reparation, and shame. In *The Biennial Meeting of Society for Research in Child
854 Development*, Washington, DC, 1997.
- 855 126. Tangney, J.P. Recent advances in the empirical study of shame and guilt. *Am Behav Sci* **1995**,
856 *38*, 1132-1145.
- 857 127. Tangney, J.P.; Wagner, P.E.; Hill-Barlow, D.; Marschall, D.E.; Gramzow, R. Relation of shame
858 and guilt to constructive versus destructive responses to anger across the lifespan. *J Pers Soc
859 Psychol* **1996**, *70*, 797-809.
- 860 128. Harder, D.W. Shame and guilt assessment, and relationships of shame- and guilt-proneness
861 to psychopathology. In *Self-conscious emotions: The psychology of shame, guilt, embarrassment,
862 and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford Press: New York, NY, 1995; pp 368-392.
- 863 129. Eyre, H.L. The emotional attributes questionnaire: Self- and other-reports of guilt and shame.
864 Utah State University, 1997.
- 865 130. Chandler-Holtz, D.M. Relations between negative self-conscious emotions and prosocial
866 behavior, psychological functioning, and perceived parenting among adolescents. Case
867 Western Reserve U, Cleveland, OH, 1999.
- 868 131. Gilbert, P.; Andrews, B. *Shame: Interpersonal behavior, psychopathology, and culture*. Oxford
869 University Press: New York, NY, US, 1998.
- 870 132. Malti, T. Toward an integrated clinical-developmental model of guilt. *Dev Rev* **2016**, *39*, 16-
871 36.
- 872 133. Montebanocci, O.; Surcinelli, P.; Baldaro, B.; Trombini, E.; Rossi, N. Narcissism versus
873 proneness to shame and guilt. *Psychol Rep* **2004**, *94*, 883-887.
- 874 134. Quiles, Z.N.; Bybee, J. Chronic and predispositional guilt: Relations to mental health,
875 prosocial behavior and religiosity. *J Pers Assess* **1997**, *69*, 104-126.
- 876 135. Rusch, N.; Corrigan, P.W.; Bohus, M.; Jacob, G.A.; Brueck, R.; Lieb, K. Measuring shame and
877 guilt by self-report questionnaires: A validation study. *Psychiatry Res* **2007**, *150*, 313-325.
- 878 136. Crowley, S.L.; Ferguson, T.J. Guilt revisited: Ruminative guilt and its relationship to shame.
879 In *The Annual Convention of the Western Psychological Association*, Kona, HI, 1994.
- 880 137. Kim, S.; Thibodeau, R.; Jorgensen, R.S. Shame, guilt, and depressive symptoms: A meta-
881 analytic review. *Psychol Bull* **2011**, *137*, 68-96.

- 882 138. Gausel, N.; Leach, C.W.; Vignoles, V.L.; Brown, R. Defend or repair? Explaining responses to
883 in-group moral failure by disentangling feelings of shame, rejection, and inferiority. *J Pers*
884 *Soc Psychol* **2012**, *102*, 941-960.
- 885 139. Leach, C.W.; Cidam, A. When is shame linked to constructive approach orientation? A meta-
886 analysis. *J Pers Soc Psychol* **2015**, *109*, 983-1002.
- 887 140. Leach, C.W. Understanding shame and guilt. In *Handbook of the psychology of self-forgiveness*,
888 Woodyatt, L.; Worthington, J., E. L.; Wenzel, M.; Griffin, B.J., Eds. Springer International
889 Publishing: Cham, Switzerland, 2017; pp 17-28.
- 890 141. Brown, R.; Cehajic, S. Dealing with the past and facing the future: Mediators of the effects of
891 collective guilt and shame in bosnia and herzegovina. *Eur J Soc Psychol* **2008**, *38*, 669-684.
- 892 142. Brown, R.; González, R.; Zagefka, H.; Manzi, J.; Čehajić, S. Nuestra culpa: Collective guilt and
893 shame as predictors of reparation for historical wrongdoing. *J Pers Soc Psychol* **2008**, *94*, 75-
894 90.
- 895 143. van Alphen, M. Shame as a functional and adaptive emotion: A biopsychosocial perspective.
896 In *The value of shame: Exploring a health resource in cultural contexts.*, Vanderheiden, E.; Mayer,
897 C.-H.; Vanderheiden, E.; Mayer, C.-H., Eds. Springer International Publishing: Cham,
898 Switzerland, 2017; pp 61-86.
- 899 144. de Hooge, I.E.; Breugelmans, S.M.; Zeelenberg, M. Not so ugly after all: When shame acts as
900 a commitment device. *Journal of Personality and Social Psychology* **2008**, *95*, 933-943.
- 901 145. Declerck, C.H.; Boone, C.; Kiyonari, T. No place to hide: When shame causes proselves to
902 cooperate. *J Soc Psychol* **2014**, *154*, 74-88.
- 903 146. de Hooge, I.E.; Zeelenberg, M.; Breugelmans, S.M. A functionalist account of shame-induced
904 behaviour. *Cogn Emot* **2011**, *25*, 939-946.
- 905 147. de Hooge, I.E.; Zeelenberg, M.; Breugelmans, S.M. Restore and protect motivations following
906 shame. *Cogn Emot* **2010**, *24*, 111-127.
- 907 148. Cole, P.M.; Michel, M.K.; Teti, L.O.D. The development of emotion regulation and
908 dysregulation: A clinical perspective. *Monogr Soc Res Child Dev* **1994**, *59*, 73-100.
- 909 149. Andrews, B. Methodological and definitional issues in shame research. In *Shame: Interpersonal*
910 *behavior, psychopathology, and culture*, Gilbert, P.; Andrews, B., Eds. Oxford University Press:
911 New York, NY, 1998; pp 39-54.
- 912 150. Blavier, D.C.; Glenn, E. The role of shame in perceptions of marital equity, intimacy, and
913 competency. *Am J Fam Ther* **1995**, *23*, 73-82.
- 914 151. Teroni, F.; Bruun, O. Shame, guilt, and morality. *J Moral Phil* **2011**, *8*, 223-245.
- 915 152. Tangney, J.P.; Stuewig, J.; Martinez, A.G. Two faces of shame: The roles of shame and guilt
916 in predicting recidivism. *Psychol Sci* **2014**, *25*, 799-805.
- 917 153. Wallbott, H.G.; Scherer, K.R. Cultural determinants in experiencing shame and guilt. In *Self-*
918 *conscious emotions: The psychology of shame, guilt, embarrassment, and pride*, Tangney, J.P.;
919 Fischer, K.W., Eds. Guilford Press: New York, 1995; pp 465-487.
- 920 154. Scheff, T. Socialization of emotions: Pride and shame as causal agents. In *Research agendas in*
921 *the sociology of emotions*, Kemper, T.D., Ed. State University of New York: New York, 1990; pp
922 281-304.
- 923 155. Kristjánsson, K. Is shame an ugly emotion? Four discourses — two contrasting interpretations
924 for moral education. *Stud Philos Educ* **2014**, *33*, 495-511.

- 925 156. Nichols, R. A sense of shame among the virtues. *J Moral Educ* **2016**, *45*, 166-178.
- 926 157. Kubany, E.S.; Watson, S.B. Guilt: Elaboration of a multidimensional model. *Psychol Rec* **2003**,
927 53, 51-90.
- 928 158. Ferguson, T.J.; Dempsey, H.L. Reconciling interpersonal versus responsibility-based models
929 of guilt. In *The development and structure of conscience.*, Koops, W.; Brugman, D.; Ferguson, T.J.;
930 Sanders, A.F., Eds. Psychology Press: New York, NY, US, 2010; pp 171-206.
- 931 159. de Hooge, I.E.; Nelissen, R.M.A.; Breugelmans, S.M.; Zeelenberg, M. What is moral about
932 guilt? Acting "prosocially" at the disadvantage of others. *J Pers Soc Psychol* **2011**, *100*, 462-473.
- 933 160. de Hooge, I.E. The exemplary social emotion guilt: Not so relationship-oriented when
934 another person repairs for you. *Cogn Emot* **2012**, *26*, 1189-1207.
- 935 161. Sheikh, S. Cultural variations in shame's responses: A dynamic perspective. *Pers Soc Psychol*
936 *Rev* **2014**, *18*, 387-403.
- 937 162. Fontaine, J.R.J.; Luyten, P.; de Boeck, P.; Corveleyn, J.; Fernandez, M.; Herrera, D.; Ittzés, A.;
938 Tomcsányi, T. Untying the gordian knot of guilt and shame. *J Cross Cult Psychol* **2016**, *37*, 273-
939 292.
- 940 163. Gausel, N.; Vignoles, V.L.; Leach, C.W. Resolving the paradox of shame: Differentiating
941 among specific appraisal-feeling combinations explains pro-social and self-defensive
942 motivation. *Motiv Emotion* **2016**, *40*, 118-139.
- 943 164. Fischer, A.H.; van Kleef, G.A. Where have all the people gone? A plea for including social
944 interaction in emotion research. *Emotion Review* **2010**, *2*, 208-211.
- 945 165. van Kleef, G.A.; Cheshin, A.; Fischer, A.H.; Schneider, I.K. Editorial: The social nature of
946 emotions. *Front Psychol* **2016**, *7*, 896.