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Review

A Comparison of the Inherent Adaptivity Perspective and Functionalist Perspective on Guilt and Shame

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

Keywords: guilt; shame; emotion; functionalist perspective; TOSCA

1. Introduction

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

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

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Neo-Freudian psychoanalysts continued to see guilt, and not shame, as a dominant emotion in psychological disorders until H. B. Lewis brought shame, the "sleeper in psychopathology" to the forefront. In her seminal work, she sought to differentiate shame from guilt by proposing the now classic distinction, "The experience of shame is directly about the *self*, which is the focus of evaluation. In guilt, the self is not the central object of negative evaluation, but rather the *thing* done or undone is the focus," [10] (p. 30, italics in original).

This definitional distinction made by Lewis led to a major debate within the guilt and shame research field that began in the 1990s and is still unresolved today. This is the question of whether shame is an inherently maladaptive emotion and guilt and inherently adaptive emotion (inherent adaptivity perspective) or whether either emotion can serve an adaptive or maladaptive purpose (functionalist perspective). The goal of the present paper is to review the existing literature on guilt and shame to investigate strengths and weaknesses of each of these perspectives and address whether the research shows stronger support for one of these perspectives over the others.

2. Inherent Adaptivity Perspective on Guilt and Shame

2.1. Guilt and Shame Action Tendencies and Appraisals

One of the most influential researchers in the modern era of guilt and shame assessment is June Price Tangney. Tangney adopted Lewis's theory that guilt stems from a behavior-based appraisal while shame stems from a self-based appraisal [11,12]. That is, guilt focuses the person on the specific action taken or not taken (e.g., "How could I have done *that*?"), while shame focuses the person inward toward the self (e.g., "How could *I* have done that?"). Because the shame appraisal is global (it involves the entire self), the resulting shame feeling is more intense, painful, and pervasive than is the feeling of guilt. Since a guilt appraisal only involves a specific aspect of the self, the resulting guilt feeling tends to be transitory and localized to a specific deed [12]. These different appraisals then lead to distinct types of action tendencies. For guilt, the focus is more outward, on how the other person is feeling and thus action tendencies should be other-focused. Action tendencies that individuals tend to display for guilt include apologizing, offering to make reparation and amends, vowing to change future behavior, confessing, asking for forgiveness, seeking to restore balance in the relationship, and offering to help others in need [13-21]. Shame is associated with avoidance behaviors such as hiding one's face, collapsing of the body, slumping, or gaze aversion [14,22-24]. Shame action tendencies also revolve around expressions of inadequacy, defectiveness, wishing to hide or escape, wanting to save face, and wanting to know that the other person does not view him/her as a lesser person [16,17,19,25,26]. In contrast to guilt, which does not appear to have a unique facial expression, shame does have a recognizable facial expression which incorporates the characteristics of gaze aversion and submissiveness [24,27,28].

Tangney's appraisal theory does not put very much weight on specific situational antecedents. In fact, she proposes that "...there are very few 'classic' shame-inducing or guilt-inducing situations," [11] (p. 115). This is based on her appraisal theory which suggests that it is not a specific characteristic of the situation that give rise to a particular emotion, but rather it is the individual's appraisal of the situation with regard to a self- vs. behavior-focus that differentially gives rise to shame and guilt. Tangney does make one concession, and that is with regard to whether the situation was moral or nonmoral in nature. As mentioned above, guilt and shame tend to be equally likely to be elicited by moral transgressions (e.g., lying, cheating, stealing, failing to help another). Recent research also lends support to the idea that nonmoral events and failures (e.g., having a physical deformity, behaving inappropriately) are more likely to elicit shame than guilt [29-31].

2.2. Guilt and Shame Measurement and Correlates

Tangney's guilt- and shame-proneness measures, the Test of Self-Conscious Affect (TOSCA; TOSCA-C; TOSCA-A; TOSCA-2; TOSCA-3) and forerunner the Self-Conscious Affect and Attribution Inventory (SCAAI) were developed using the inherent adaptivity perspective as their foundation [32-37]. The TOSCA attempts to measure an individual's guilt- and shame-proneness

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by asking respondents to imagine themselves in a series of hypothetical scenarios. These situations generally involve some sort of interpersonal moral transgression (e.g., forgetting a lunch date with a friend; making a mistake at work and finding out a coworker is blamed for the error). After the participants read each scenario, they are asked how likely it is that that they would respond in a variety of ways precoded to represent guilt, shame, pride, externalization, and detachment. A typical shame response is, "You would feel small...like a rat" and a typical guilt response is "You'd think you should make it up to him as soon as possible."

Consistent with Tangney's operationalization of guilt as an inherently adaptive emotion, research done with the TOSCA has shown that often TOSCA-guilt is unrelated to symptoms of psychopathology. Some of the guilt scales that have shown no relationship with psychopathology at the bivariate level are: anger, state anxiety, phobic anxiety, depression, interpersonal sensitivity, self-esteem, suicide ideation, negative self-evaluation, externalizing, and social insecurity [38-46]. Although the majority of TOSCA studies show there is no relationship between TOSCA-guilt and maladaptive functioning, there are a few select studies that do show a small positive bivariate correlation (usually $r < .20$) between guilt and anxiety, depression, obsessive-compulsive behavior, trait anxiety, state anxiety, phobic anxiety, interpersonal sensitivity, social anxiety, anger arousal, anger held in, and self-directed aggression (in these studies, self-esteem is typically also negatively correlated with guilt) [11,42,47-50]. The correlations between guilt and psychopathology tend to be even smaller when guilt is partialled for shame. 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 [42]. However, many authors disagree with this partialling technique [51-54]. Further, guilt, as measured by the TOSCA, has been shown to be positively related to several measures of adaptive functioning. For example, TOSCA-guilt is positively correlated with empathy scales such as perspective taking, empathic concern, and fantasy, while only marginally with the flipside of empathy—personal distress [42,55]. Also, when the feeling of anger is broken down into its constructive and deconstructive components, only the constructive components are related to guilt. That is, TOSCA-guilt has been shown to be positively correlated with: constructive anger intentions; adaptive anger behaviors, such as discussing the incident with the target and taking direct corrective action; adaptive anger responses, such as diffusing the situation or removing oneself from the situation; and making cognitive reappraisals of the situation such as the target's role and the self's role [38,49,56,57]. TOSCA-guilt also predicted an increased propensity toward self-forgiveness [58]. Finally, TOSCA-guilt was found to be negatively correlated with maladaptive anger tendencies such as direct physical, verbal or symbolic aggression, displaced physical aggression, as well as criminal behavior [38,49,56,57,59]. In sum, the majority of results found using Tangney's conceptualization of guilt does show support for the notion of guilt as adaptive and not related to lasting ill effects for an individual.

The correlations between TOSCA-shame and symptoms of psychopathology tend to reflect Tangney's conceptualization of shame as maladaptive. Namely, TOSCA-shame has been shown to be related to depression, anxiety, social anxiety, self-derogation, eating disorders, posttraumatic stress disorder, anger, aggression, alcohol and drug problems (including early drinking), decreased self-forgiveness, and low self-esteem [38,39,47,58-61]. TOSCA-shame has also been found to be negatively correlated with measures of adaptive functioning, such as self-esteem, and uncorrelated with measures of empathy [42,62]. To summarize, Tangney and Dearing [12] (p. 44) state:

> The scenario-based findings, which underscore guilt's positive potential, make a great deal of sense once one makes the critical distinction between shame and guilt (guilt as a sense of remorse over a specific behavior rather than shame as a global condemnation of the self). The distinction between self and behavior, inherent in guilt, helps people protect the self from unwarranted global devaluation. Perhaps more important, because of this focus on a specific behavior, the path toward constructive change, reparation, and resolution is much clearer. It is much easier to change a bad behavior than to change a bad self.

2.3. Issues with the TOSCA and the Inherent Adaptivity Perspective

As evident from the review of the literature above, the TOSCA was developed using a very specific theory of guilt and shame as its foundation. That is, the TOSCA scenarios were chosen without any specific situational characteristics in mind, other than that the situations were moral in nature. The TOSCA responses were designed to maximize the self- versus behavior-appraisal and also to portray guilt as an inherently adaptive response and shame as an inherently maladaptive response.

Although the TOSCA does have many advantages, such as not requiring participants to have a sophisticated vocabulary (they do not have to distinguish between the words "shame" and "guilt"), providing respondents a context in which to project their guilt and shame reactions, and having a variety of questionnaires available for a range of populations, it does have some potential limitations.

One issue with the TOSCA scenarios concerns whether they equally elicit shame and guilt responses. Tangney's theoretical stance is that any moral situation (which all of the TOSCA situations may be classified as) can equally elicit shame and guilt [11]. She stated that guilt- and shame-proneness are more appropriately measured through the responses endorsed on the TOSCA, although recently researchers have called these tenets into question [63]. Ferguson and colleagues suggested that the TOSCA is biased toward guilt, because participants are clearly causing interpersonal harm in the majority of situations, and thus endorsement of guilt in these scenarios is suggestive of adaptive functioning (as the correlations with symptoms of psychopathology would support) [51,64]. That is, the hypothetical scenarios Tangney uses portray the person as having done or not done something which he or she *should* feel guilty about so there is a match between the appraisal of *being* guilty and *feeling* guilty (as is the case in the majority of moral transgression situations). If these scenarios truly are biased more for guilt than shame and a participant endorses shame frequently across these situations, this would indicate a mismatch in appraisal and would suggest maladaptive functioning (as the correlations with TOSCA shame and psychopathology would suggest). Furthermore, because Tangney and colleagues purposefully exclude nonmoral situations, in which shame is the dominant emotion, they are more likely to underestimate people's tendency to respond with shame.

Additionally, because the TOSCA only uses situations in which the majority of people are likely to report feeling ashamed and especially guilty, this measure does little to tell us about people who have particular problems with the emotion. A useful way to conceptualize this issue is to place it within Kelley's covariation theory framework [51,65]. One obvious way to assess proneness is to give respondents situations in which the majority of people would feel guilty or ashamed (high consensus). This is the approach the TOSCA takes. However, according to Kelley, to make a true person attribution, that is to be able to determine it is something about the person that is causing the behavior as opposed to something about the situation or circumstance, then we should look for the guilt or shame behavior in low consensus situations (in conjunction with low distinctiveness—responding in the same manner in similar situations—and high consistency—responding the same way each time he/she is confronted with the same type of situation) [65]. This means the person who is truly guilt- or shame-prone will respond with guilt or shame in a variety of situations, including situations in which the majority of other respondents would not feel these emotions. Thus, the TOSCA is arguably limited because it can only garner information from high consensus situations and, for guilt especially, it is very likely to suffer from ceiling effects.

Beyond the problems with the TOSCA situations, there is also some concern regarding the TOSCA responses. The first issue is regarding the content of the items. Because the TOSCA was developed within the inherent adaptivity framework, the guilt items represent constructive, interpersonally focused responses to situations (such as trying to make amends and atoning for wrongdoing) and the shame items represent negative, self-derogatory responses and self-directed hostility. For example, several authors have classified the TOSCA guilt responses into categories. According to Buss, the TOSCA guilt responses reflect four categories: atoning for or remedying the situation; interpersonal concern; behaving better; and negative, but

circumscribed self-reactions [66]. The majority of the responses fall within the first category. Luyten, Fontaine, and Corveleyn report the following categories: tendency to repair (5 items), remorse or regret (5 items), negative feelings and a tendency to repair (2 items), and several categories represented by a single item [67]. Surprisingly there are no items that reflect guilt prompting a desire to confess, a theme that is dominant in much of the literature on guilt [15,68-72]. Also surprising is that there is a TOSCA item that represents expectation for punishment "I deserve to be reprimanded." While expectation for punishment is an item that hearkens back to the traditional psychoanalytic view of guilt, it is not a construct that is represented in Tangney's theory of guilt (focusing the individual on some specific behavior and not on the self) [67]. Turning to shame, Luyten and colleagues showed that TOSCA-shame items only refer to maladaptive aspects of this emotion: negative self-esteem (9 items), desire to hide or escape (4 items), negative emotion (1 item), and negative self-appraisal (1 item) [67].

One reason that Tangney has used correlate-based judgments (e.g., thoughts, feelings, and behaviors associated with guilt and shame) as the responses in her TOSCA-type measures (e.g., thoughts, feelings, and behaviors associated with guilt and shame) as the responses in her TOSCA-type measures, is that she has argued that it is too difficult for participants to differentiate between the words *guilt* and *shame* [73]. For example, in a scenario that depicts a person as breaking something at work and then hiding it, the respondent is asked to rate the likelihood of responding with guilt which is depicted as, "You would think: 'This is making me anxious. I need to either fix it or get someone else to.'" The shame response in the same scenario is, "You would think about quitting." However, there are several issues with using correlate-based judgments that should be addressed. First, when an individual is making a correlate-based judgment as representative of the emotion, the researcher is making the assumption that there is a near one-to-one correspondence between the judgment and the underlying emotion. This is a risky assumption, given there are many factors that may influence the endorsement of a correlate. For example, social rules that govern behavior operantly condition people to apologize when another is offended in order to smooth interpersonal relations. This apology, though, is not always rooted in a true sense of remorse and does not even necessarily mean that the individual agrees that he or she has caused any harm [74]. In fact, Kugler and Jones showed that TOSCA-guilt was more strongly correlated with awareness of moral standards than it was with the affective experience of guilt [75]. Furthermore, Ferguson and Crowley conducted a confirmatory factor analysis trying to determine the relationship between the most common measures of guilt and shame [64]. They found that although the TOSCA guilt items load on their own factor, they do not load with other commonly used measures of guilt-proneness. Additionally, once method variance was accounted for (22%), 0% of the guilt variance was accounted for by the emotion trait factor of guilt. Seventy-eight percent of the variance was unexplained by either method variance or the latent factor of guilt. Thus, the TOSCA guilt items shared no variance in common with other measures of the construct.

A second problem with correlate-based responses are that an individual may feel the underlying emotion, but deny that he or she would be likely to respond in the manner given to him/her as an option on the TOSCA. For example, in the scenario presented above, the respondent may think he or she would feel intense shame to the point of hiding in his/her cubicle, but the thought of quitting may be too extreme for the respondent so he or she may indicate there is a very small likelihood that they would respond in that manner. Similarly, the individual may think that the guilt response presented in the TOSCA is inappropriate and his or her preferred response in the situation would be to confess that he or she broke the item.

Third, although Tangney has suggested that participants cannot reliably distinguish the terms *guilt* from *shame*, which is why she uses correlate-based judgments, many other studies of guilt and shame have shown that participants can reliably distinguish these two emotion terms [29,73,76,77]. Ferguson, Stegge, and Damhuis first illustrated children as young as 11 years of age reliably associated having violated a moral norm with the term *guilt* and having committed

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a social blunder with the term *shame* [22]. Similarly, fifth graders could differentiate characteristics associated with shame from characteristics associated with guilt [22]. Olthof and colleagues investigated whether children's ratings were different based on whether the response was a correlate-based response precoded to represent shame or guilt or the emotion words of *shame* and *guilt*. They found few differences between the correlate-based ratings and the emotion word ratings [78]. In Olthof and colleagues' conclusions they argue for the use of emotion word ratings over correlate-based ratings. Because they found correlate-based ratings to be lower than the emotion word ratings, they reasoned that correlate-based ratings may underestimate the intensity of a child's emotional response. In sum, they stated that, "The data indicate that from the age of 9 upward, children are perfectly well able to differentiate shame from guilt, even when giving term-based judgments" [78] (p. 62). In conclusion, although the TOSCA has been widely used, there are a number of reasons to suggest that it, and the inherent adaptivity perspective on which it is based, is a restrictive view of guilt and shame.

3. Functionalist Perspective on Guilt and Shame

The functionalist perspective of guilt and shame is built on evolutionary and developmental theory [54,79]. Hutcherson and Gross state that the functionalist perspective "argues that emotions are adaptive solutions comprising a coordinated set of appraisals, communicative gestures, physiological responses, and action tendencies tailored to respond to crucial problems faced by our species over the millennia" [80] (p. 720). The functionalists see emotions as inherently interpersonal because they postulate that they result from the complex interplay between appraisals and behavior, rather from an intrapsychic source [81]. Campos and colleagues define emotion, from a functionalist approach as, "the attempt by the person to establish, maintain, change, or terminate the relation between the person and the environment on matters of significance to the person" [81] (p. 285). For this reason, appraisals, social signals (as reflected appraisals of others), goals, and the degree to which one is making progress towards one's goals are central to the understanding which emotion will be elicited and the accompanying action tendencies [81]. Emotion regulation is also central to the functionalist perspective. To the functionalist, no emotion is inherently adaptive or maladaptive. Rather adaptivity is determined by emotion regulation processes—how does the individual respond to the emotional experience? In the case of guilt and shame, does the individual work to change the situation or event that caused guilt or shame? Repair the interpersonal relationship that has been damaged? Strive to change others' impression of him or her? Externalize blame or get angry? Dwell on the emotion? Thus, how one manages and copes with guilt and shame, and subsequently modifies one's goals and interactions, will determine whether or not these emotions are adaptive or maladaptive for the individual. Cicchetti, Ackerman, and Izard [82] (p. 6, italics in original) state:

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

3.1. Guilt and Shame Action Tendencies and Appraisals

Turning first to the question of action tendencies associated with guilt and shame, Tangney's research suggests that guilt is associated with prosocial, constructive, approach-oriented action tendencies, while shame is associated with avoidance, withdrawal, and aggressive action tendencies. One argument against this perspective was made above in Section 2.3 in the discussion about issues with the guilt and shame scenario responses used in Tangney's measurement tool, the TOSCA. A second argument can be made based on the plethora of results obtained by other researchers, using a variety of other measurement techniques (including looking at state guilt and shame responses, not just trait guilt and shame). For example, it does not appear to be the case that only guilt motivates

apology and reparation, nor that only shame motivates withdrawal and avoidance, either when looking at the group level or individual level [53,83]. First, in the domain of group-based emotions, both collective guilt and collective shame have been found to be associated with prosocial motivations to engage in reparations to the outgroup [83,84]. Specifically, guilt was found to have a direct relationship with reparations, while the relationship between shame and reparation was mediated by a reputation management motivation [85]. Brown and Cehajic extended this research to suggest that the driving forces behind the shame-reparation relationship are self-pity and empathy felt toward the victimized group, while the driving force behind the guilt-reparation relationship was empathy toward the victimized group [84].

Second, in the interpersonal domain de Hooge and colleagues have found that situational shame motivates prosocial behavior and acts as an interpersonal commitment device when the shame experienced is directly relevant to the current goal pursuit (endogenous shame), but not when the shame is unrelated to the current goal pursuit (exogenous shame) [86]. Further, they have found that shame activates an approach motivation when it appears to be possible, and not too risky, to affirm and restore a positive self-view [87,88]. Along these lines, Leach and Cidam found in their meta-analysis that the single best predictor of an individual having a constructive approach orientation after a shame episode was the degree to which the failure was more reparable [53]. In failure episodes where the failure was less reparable, shame led to an avoidance orientation. Thus, although guilt and shame appear to have similar action tendencies, the motivation for engaging in these action tendencies comes from the unique appraisals that one is making in guilt- and shame-inducing situations.

Given the strong interpersonal focus in the functionalist approach, most functionalist appraisal theories postulate that the difference between guilt and shame lies in the way one thinks one is being perceived by another person. One such appraisal theory suggests that the difference between guilt and shame lies in the *public-private* distinction [29,89]. Within this approach, shame is said to be the more public emotion which is elicited when one's failures or shortcomings are known or witnessed by others. In contrast, guilt is the more private emotion where one fails to live up to one's own internalized standards or norms [31]. Smith and colleagues found that, "public exposure of both moral (transgressions) and nonmoral (incompetence) experiences was associated more with shame than with guilt" [29] (p. 138). This appraisal theory is consistent with the evolutionary theories of shame that state that its primary purpose is to maintain social hierarchies and ranks. That is, an individual will feel shame when they accept the negative evaluation of a higher status group member and this will cause the person to either respond either with an angry defense strategy or a deference strategy [90]. In fact, Elison and colleagues believe "that many instances of aggression would be better understood as reactions to shame" [91] (p. 448). Conversely, higher status individuals are less likely to express shame [92]. Thus, within an evolutionary framework, shame reminds the individual of his or her relative social rank, lets other group members know the individual is aware of violation of public moral norms, and prompts submissive, appeasement behavior among lower status group members [54,93-95]. In support of this, a recent study by Hejdenberg and Andrews demonstrated that shame and anger were linked only in situations involving criticism and put-downs and not due to a general angry temperament [96]. Eisenberger and colleagues have also shown that social pain, related to social rejection or exclusion, shares the same neurobiological mechanisms as physical pain [97,98]. Eisenberger suggests that, "over the course of mammalian history, the physical pain system was co-opted by the social attachment system, using pain signals to regulate social relationships" [98] (p. 204). This suggests that social exclusion or devaluation by relationship partners will not just result in a short-lived emotional experience, but also a feeling of social pain on par with that of physical pain. These theories have led some researchers to argue that shame is a basic emotion and guilt is not even an emotion at all [99,100].

Olthof's appraisal theory suggests that a researcher could predict the degree to which a scenario might elicit shame or guilt based on the degree to which two factors were present. The first is whether the scenario leads to the actor perceiving that he or she has an unwanted identity (being seen in a way that one does not wish to be seen or is identity-threatening), which would lead to shame.

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The second is whether the actor perceives that he or she has caused harm to another (hurting a valued relationship partner), which would lead to guilt [63]. For example, Olthof and colleagues and Ferguson and colleagues independently found scenarios that presented an unwanted identity, without causing harm to another individual, elicited high levels of shame and low levels of guilt in participants [78,101]. Specifically, Ferguson and colleagues generated several scenarios that violated the male gender-role (e.g., getting a flat tire and not being able to change it; crying during an emotional TV commercial in front of friends; being told by a career counselor that one would make a good day-care worker or nurse) [101]. Consistent with the idea that these scenarios would create a stronger unwanted identity for men than women, they found that men reported greater unwanted identities and more intense shame than women did. This research also revealed that the majority of scenarios which present an unwanted identity in the absence of causing harm are nonmoral in nature. When specifically examining nonmoral situations in which an unwanted identity was present, Olthof and associates found that shame was significantly higher than guilt across all ages in their study (i.e., 7- to 16-year-olds) [102].

In addition to developing scenarios that present participants with specific unwanted identities, Olthof also proposed that a researcher could develop scenarios in which interpersonal harm would occur that would not imply an unwanted identity (e.g., leaving a crying child alone in a hospital to receive his/her treatment; a police officer or soldier having to kill a person in the line of duty) [63]. However, these types of scenarios are likely to be more rare because they require a complete justification of the harm caused, so there is no way the individual can conceive that others are seeing him/her in a negative light. When Olthof examined children's ratings of guilt and shame in these type of situations (moral wrong but no unwanted identity), he found that children over the age of 12 responded with significantly more guilt in these situations [102]. These results suggest that children must have a very complete understanding of mitigation of an unwanted identity before guilt alone, without the presence of shame, can be experienced.

Although, as Olthof's appraisal theory suggests, it is possible to find situations in which guilt is likely to occur without a glimmer of shame and shame is likely to occur without a faint trace of guilt, it is likely that these types of situations are not the norm. Rather, the majority of situations one is likely to encounter are moral in nature (with the possibility of causing harm to another) which may, in turn, give rise to an unwanted identity. Because of this overlap, as Tangney suggests, most situations are capable of eliciting both shame and guilt to some degree. The key, though, is understanding that these variables are continuous and that it is very possible to have a situation in which a person is only slightly harmed or inconvenienced (lower levels of guilt), or a situation that may causing lasting damage to the relationship (higher levels of guilt). The same is the case with situations that present unwanted identities to various degrees—some identities may be more "unwanted" than others. Understanding the complex interplay of these variables should allow researchers to create scenarios that are very focused in terms of whether guilt or shame should be the dominant emotion (or whether they should be equally likely to be elicited).

Similar to Olthof's theory, Nelissen, Breugelmans, and Zeelenberg's [54] (pp. 361-362) evolutionary theory postulates the ultimate causes of guilt and shame stem from differences in direct and indirect reciprocity appraisals:

> At an ultimate level, then, the defining difference between shame and guilt is to be found in the conditions that determine the extent to which they will produce moral behavior. Guilt is more likely to produce moral behavior if conditions favoring direct reciprocity are met – that is, in cases in which there is a likelihood of future encounters with a specific other person who is able to reciprocate with substantial value. Shame is more likely to produce moral behavior if conditions favoring indirect reciprocity are met – that is, in the presence of a relevant audience that witnessed the shameful act. It is further important to realize that from an ultimate perspective, social relationships are nothing more than a resource. Accordingly, any response to threats of concerns for direct and indirect reciprocity needed to be resolved in a cost-efficient manner to the self. So, guilt will often

motivate prosocial behavior towards a victim but will do so in a relatively low-cost way, for example, by benefiting nonvictims to a lesser extent rather than incurring more personal costs. Likewise, shame will often motivate norm-compliant behavior (which can be moral) when witnessed by people aware of the shameful act but will be more likely to produce relatively low-cost behavior, such as hiding or leaving a situation (nonmoral) that prevent further reputation loss in the absence of an audience that may enable reputation restoration.

3.2. Guilt and Shame Measurement and Correlates

There have been numerous measures developed to assess trait guilt and shame that have not used the inherent adaptivity framework. Although some researchers from the functionalist approach have used scenario-based measures (for example, the Shame and Guilt Inventory, the TOSCA-M), most have used checklist-type measures (e.g., The Personal Feelings Questionnaire, the Guilt and Shame Proneness Scale) [30,52,64,103]. In Tignor and Colvin's recent meta-analysis, they found that check-list type measures differed quite substantially from the TOSCA in their representation of guilt [104]. Consistent with Tangney's analysis, TOSCA-guilt was positively correlated with prosocial orientation, but there was no correlation between checklist measures of guilt and prosocial orientation. These results are not surprising, given the majority of checklist measures are designed to measure the frequency of emotion (e.g., the Personal Feelings Questionnaire), guilt related to harming others (the Interpersonal Guilt Questionnaire), how one normally feels (the Guilt Inventory), and so forth [46,75,76]. These measures are more likely to tap guilt emotions which are not well-regulated. Consistent with this, researchers looking at correlations between guilt and psychopathology, using checklist measures, other than the TOSCA, have found both guilt and shame to be positively correlated with a wide range of indices of maladaptive functioning and symptoms of psychopathology [45,105-108].

Further, the scenario-based measures that have been developed using the functionalist approach generally include either: (1) scenarios in which guilt or shame should not be normative response or (2) responses that reflect problems with emotion regulation. With regard to guilt specifically, Ferguson makes a clear distinction between the state of "being" guilty and "feeling" guilty which is echoed in dictionary definitions of the term [109]. According to Ferguson, guilt does serve an individual adaptively when there is a match between those situations in which an individual *is guilty* and *feels guilty* [109]. Conversely, guilt is likely to be maladaptive when an individual's sense of *feeling guilty* does not match his/her actual state of *being guilty*. In these cases, a sense of guilt is misplaced or overexaggerated (e.g., a very young child feels responsible for "causing" his mother's depression; a woman feels guilty for "allowing" herself to be beaten; a child feels guilty for being more popular than her friend) [110-114].

Mounting empirical evidence has supported the idea that the appropriateness of the emotion to the situation affects the adaptivity of the emotion [22,110]. Ferguson and colleagues demonstrated with children that the context in which guilt occurs has a strong relationship with symptoms of psychopathology [111]. That is, reporting of guilt in scenarios in which guilt is the consensual response[1] was unrelated to internalizing symptoms, whereas experiencing guilt in nonconsensual situations[2] was strongly related to internalizing symptoms [111]. In a subsequent study, Ferguson

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[1] These scenarios were pilot tested and selected on the basis that the majority of children said *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 *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

and colleagues found that experiencing guilt in hypothetical nonconsensual situations was an even *stronger* predictor of internalizing symptoms than was experiencing shame in consensual situations [110]. This study is especially important because the measure used in this study conceptualizes guilt as an empathic, interpersonally-oriented response. Yet, responding with this "adaptive" form of guilt is NOT adaptive when the response is in an inappropriate context.

Research on posttraumatic stress disorder, trauma-related guilt, and survivor guilt add further support to the idea of how emotions can serve an individual maladaptively when elicited in inappropriate situations [45,112,115]. Specifically, guilt that arises in each of these situations has stemmed from events where one has relatively little control over the outcome and/or the individual holds no culpability for the negative outcome (e.g., being raped, surviving a war). The experience of guilt in these types of situations can be devastating for an individual.

Ferguson and Crowley have also identified a distinctive form of guilt that they termed ruminative guilt [64]. Ruminative guilt is built upon Nolen-Hoeksema's view that excessive rumination is maladaptive [116]. Ruminative guilt occurs when an individual continues to relive or replay the transgression over and over in his or her mind, thus failing to engage in appropriate emotion regulation. Additionally, it may be characterized by repeated attempts to make reparation and amends [117]. For example, Ferguson and Crowley modified the TOSCA (their version is called the TOSCA-M) to add an additional response to each scenario, which they proposed reflected ruminative guilt. For example, items included "You cannot apologize enough for forgetting...," "You would bend over backwards for months to make up for it...," and "For days you would worry about it, repeatedly trying to think of a way to remedy the situation." All of these items were very behaviorally-focused, as opposed to self-focused, consistent with Tangney's theory of guilt. Their results showed that ruminative forms of guilt were correlated with guilt frequency and trait guilt, and not correlated with the traditional TOSCA-guilt subscale. In addition, they found the ruminative guilt subscale to be correlated with symptoms of internalizing disorders such as anxiety and depression, while the TOSCA-guilt subscale was uncorrelated [118]. Similarly, in a meta-analysis on the links between shame, guilt, and depression, Kim, Thibodeau, and Jorgensen found when shame and guilt were conceptualized in the manner of the inherent adaptivity perspective where shame is partialled for guilt and guilt is partialled for shame, then there is support for the idea that shame is more strongly predictive of depressive symptoms than guilt. However, when one separates out TOSCA-guilt from more pathological forms of guilt, "shame and pathological guilt…are *both* important to depressive symptomatology, and to a roughly equal extent" [119] (p. 86, italics in original).

Finally, other issues that likely play into the relative (mal)adaptivity of guilt or shame, are the frequency, intensity, duration, and coping strategy used to reduce the guilt or shame [18,25,116,120-123]. The combination of these different factors may lead to differing levels of maladaptivity. For example, guilt or shame that is too mild for the given situation may also lead to the choice of an inappropriate coping strategy (e.g., a man who may apologize in an offhanded way to his wife for an affair). Measures such as the Compass of Shame Scale have been specifically designed to assess maladaptive shame regulation styles [124,125]. Additionally, all of the aforementioned studies have only looked at dyadic relationships between transgressor and victim. When one extends the social circle out a bit further, de Hooge and colleagues have shown that the guilt dynamics also shift. That is, a guilt-driven concern for the victim may actually lead the transgressor to neglect and disadvantage other social partners [126]. Further, "when a third person intervenes in the dyadic situation between a victim and the transgressor by changing the guilt-inducing situation, guilt feelings, reparative intentions, and prosocial behaviours decrease" [127] (p. 1204).

Although the majority of the early functionalist research examined when guilt might serve an individual maladaptively, recent research has focused on situations in which shame serves an adaptive purpose (see the research mentioned above at the beginning of Section 3.1). In situations

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teacher your drawings. When they announce the winners, you win FIRST PRIZE! The teacher holds up your drawing for everyone to see."

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in which one ought to feel shame, a shame response is likely to be an adaptive one because it helps the individual cope with the situation (e.g., after cheating on one's spouse) [128]. However, in situations in which shame ought not to be felt (e.g., for having a physical or mental disability), then the experience of shame is likely to serve that person maladaptively [110]. Specifically, when an individual experiences shame after a moral lapse or non-moral failure, it may serve the individual adaptively by interrupting the shame-causing behavior and encouraging the person to adhere to societal norms and codes [93,129]. For example, even Tangney recently found that inmates who felt shame for their earlier criminal behavior, and who did not externalize blame onto others, had lower recidivism rates [130]. Unlike guilt, the experience of shame has the powerful ability to alter how a person views himself or herself and can deal a crippling blow to an individual's self-esteem [131]. Because of the intensity and duration of shame, there are perhaps fewer situations in which the average person should feel ashamed. But, most would agree that it is not maladaptive for an individual to experience shame after murdering an unarmed passerby or beating one's children and spouse. In these cases, shame is an important tool for compelling individuals to adhere to social norms [132]. Further, not all instances of shame appear to be as detrimental to one's sense of self as one might think. For example, when looking at narratives of shame episodes in individualistic versus collectivist cultures, Wallbott and Scherer found that shame episodes were relatively less intense and shorter in duration in collectivistic cultures than individualistic ones [133]. This is reflective of some of the sociological theories of shame that come from Scheff and Cooley which propose that there are many instances of "low-visibility" shame which are often hidden from view, but central to society's functioning [134]. Finally, researchers in the field of moral education make the case that both shame and guilt should be considered central moral emotions, even virtues, that should be instilled in childhood [135,136].

4. Discussion

Although Tangney's inherent adaptivity perspective reigned in the 1990s and 2000s, it seems that many current researchers in the field have adopted a functionalist perspective on guilt and shame. Instead of trying to ask *if* guilt is adaptive and *if* shame is maladaptive, most now seem to be asking the broader question of *when* do guilt and shame serve adaptive and maladaptive purposes. However, one major stumbling block remains with regard to whether the functionalist approach will become the primary approach advocated within this field, and that has to do with the trait measurement of these emotions. Studies using the TOSCA have been published more often and in more prestigious journals than many other measures of guilt and shame. Thus, to those unfamiliar with the issues regarding guilt and shame assessment, the TOSCA seems like a totally appropriate measure which is easy to use because shame and guilt are portrayed as separate, distinct, and unambiguous. To make a more convincing case for the functionalist perspective, more studies need to be published using trait measures of guilt and shame based on the functionalist approach. Having more results published using these other measures would also allow for a statistical comparison to be made using a meta-analysis.

Further, researchers need to continue moving beyond simply looking at trait propensity to feel these emotions into looking at guilt and shame *episodes* in broader cultural and contextual domains [137,138]. For example, researchers are now trying to disentangle exactly when shame will result in prosocial, approach responses and when it will result in self-protection responses [53,83,139]. Additionally, research needs to further address Wallbott and Scherer's findings that shame episodes were relatively less intense and shorter in duration in collectivistic cultures than individualistic ones [133]. For instance, it would be useful to collective narratives from participants, from different cultures, reporting guilt and shame episodes where they felt the emotion served an adaptive or maladaptive purpose in their lives. Perhaps this will shed more light on the complex interplay between self- and other-appraisal and their relationship to the (mal)adaptive consequences of these emotions. Future research should also continue to look at the definitions of these two emotions in an attempt to clearly separate out instances of shame and instances of guilt. The narrative study, suggested above, would also be useful for examining how participants define these emotions and

whether participants see guilt and shame as distinct emotions, the same emotion, or one emotion as subsumed under the other.

In conclusion, there seems to be no clear consensus on which perspective will end up being supported by the majority of researchers. This mainly stems from the fact that the majority of studies advocating the inherent adaptivity perspective have used a single trait measure of guilt- and shame-proneness, while the majority of studies advocating the functionalist perspective have used a variety of guilt- and shame-proneness measures and have also assessed guilt and shame states in responses to emotion-inducing episodes. Thus, in order to fully compare and contrast the two perspectives, those advocating the inherent adaptivity perspective need to do more state guilt and shame research to show that their perspective shows that guilt is adaptive and shame is maladaptive even in common, everyday emotion-inducing episodes. In contrast, those advocating the functionalist perspective need to contend with the wellspring of research produced by the TOSCA researchers. They need to do more studies showing the relative (mal)adaptivity of guilt- and shame-proneness using trait measures generated by functionalist researchers. Only then can researchers easily compare the two perspectives to see which one best accounts for the majority of the data.

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References

1. Darwin, C. *The expression of the emotions in man and animals*. D. Appleton and company: New York, 1896; p 1-372.
2. Lange, C.G.; James, W. *The emotions*. Williams & Wilkins: Baltimore, 1922; p 1-135.
3. Freud, S. *Totem and taboo: Some points of agreement between the mental lives of savages and neurotics*. Norton: New York, 1913/1950; p 1-172.
4. Klein, M. A contribution to the theory of anxiety and guilt. *Int J Psychoanal* **1948**, *29*, 114-123.
5. Miller, D.R.; Swanson, G.E. *Inner conflict and defense*. H. Holt: New York, 1960; p 1-452.
6. Modell, A.H. The origin of certain forms of pre-oedipal guilt and the implications for a psychoanalytic theory of affects. *Int J Psychoanal* **1971**, *52*, 337-346.
7. Freud, S. *Civilization and its discontents*. Standard ed.; W. W. Norton: New York, 1961; p 1-109.
8. Freud, S. *A general introduction to psychoanalysis*. Garden City Pub. Co.: Garden City, NY, 1943; p 1-412.
9. Erikson, E.H. *Childhood and society*. 1st ed.; Norton: New York, 1950; p 1-397.
10. Lewis, H.B. *Shame and guilt in neurosis*. International Universities Press: New York, 1971; p 1-525.
11. Tangney, J.P. Shame and guilt in interpersonal relationships. In *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford Press: New York, 1995; pp 114-139.
12. Tangney, J.P.; Dearing, R.L. *Shame and guilt*. Guilford Press: New York, NY, US, 2002; p 1-272.
13. Baumeister, R.F.; Stillwell, A.M.; Heatherton, T.F. Guilt: An interpersonal approach. *Psychol Bull* **1994**, *115*, 243-267.
14. Berti, A.E.; Garattoni, C.; Venturini, B. The understanding of sadness, guilt, and shame in 5-, 7-, and 9-year-old children. *Genet Soc Gen Psych* **2000**, *126*, 293-318.

15. Bybee, J.; Merisca, R.; Velasco, R. The development of reactions of guilt-producing events. In *Guilt and children*, Bybee, J., Ed. Academic Press: San Diego, CA, 1998; pp 185-213.
16. Cupach, W.R.; Metts, S. *Facework*. Sage Publications: Thousand Oaks, CA, 1994; p 1-122.
17. Ferguson, T.J.; Ives, D.; Eyre, H.L. All is fair in love, but not war: The management of emotions in dyadic relationships. In *The Biennial Meeting of Society for Research in Child Development*, Washington, DC, 1997.
18. Miceli, M.; Castelfranchi, C. How to silence one's conscience: Cognitive defenses against the feeling of guilt. *J Theor Soc Behav* **1998**, *28*, 287-318.
19. Tangney, J.P.; Miller, R.S.; Flicker, L.; Barlow, D.H. Are shame, guilt, and embarrassment distinct emotions? *J Pers Soc Psychol* **1996**, *70*, 1256-1269.
20. Tavuchis, N. *Mea culpa: A sociology of apology and reconciliation*. Stanford University Press: Stanford, CA, 1991; p 1-165.
21. Wicker, F.W.; Payne, G.C.; Morgan, R.D. Participant descriptions of guilt and shame. *Motiv Emotion* **1983**, *7*, 25-39.
22. Ferguson, T.J.; Stegge, H.; Damhuis, I. Children's understanding of guilt and shame. *Child Dev* **1991**, *62*, 827-839.
23. Izard, C.E. *Human emotions*. Plenum Press: New York, 1977; p 1-495.
24. Lewis, M. *Shame : The exposed self*. Free Press: New York, 1992; p 1-275.
25. Eyre, H.L.; Ferguson, T.J.; Strayer, J.; Grotepas-Sanders, D.; Hawkins, S. Links between self-conscious emotion and coping in children and young adults. In *The Annual Convention of the American Psychological Society*, Denver, CO., 1999.
26. Malatesta-Magai, C.; Dorval, B. Language, affect, and social order. In *Modularity and constraints in language and cognition*, Gunnar, M.R.; Maratsos, M., Eds. Lawrence Erlbaum Associates, Inc: Hillsdale, NJ, 1992; pp 139-177.
27. Keltner, D. Signs of appeasement: Evidence for the distinct displays of embarrassment, amusement, and shame. *J Pers Soc Psychol* **1995**, *68*, 441-454.
28. Keltner, D.; Buswell, B.N. Evidence for the distinctness of embarrassment, shame, and guilt: A study of recalled antecedents and facial expressions of emotion. *Cogn Emot* **1996**, *10*, 155-171.
29. Smith, R.H.; Webster, J.M.; Parrott, W.G.; Eyre, H.L. The role of public exposure in moral and nonmoral shame and guilt. *J Pers Soc Psychol* **2002**, *83*, 138-159.
30. Cohen, T.R.; Wolf, S.T.; Panter, A.T.; Insko, C.A. Introducing the gasp scale: A new measure of guilt and shame proneness. *J Pers Soc Psychol* **2011**, *100*, 947-966.
31. Wolf, S.T.; Cohen, T.R.; Panter, A.T.; Insko, C.A. Shame proneness and guilt proneness: Toward the further understanding of reactions to public and private transgressions. *Self Identity* **2010**, *9*, 337-362.
32. Tangney, J.P.; Wagner, P.; Gramzow, R. The test of self-conscious affect (tosca). George Mason University: Fairfax, VA, 1989.
33. Tangney, J.P.; Wagner, P.; Burggraf, S.A.; Gramzow, R.; Fletcher, C. The test of self-conscious affect for children (tosca-c). George Mason University: Fairfax, VA, 1990.
34. Tangney, J.P.; Wagner, P.; Gavlas, J.; Gramzow, R. The test of self-conscious affect for adolescents (tosca-a). George Mason University: Fairfax, VA, 1991.

35. Tangney, J.P.; Ferguson, T.J.; Wagner, P.E.; Crowley, S.L.; Gramzow, R. The test of self-conscious affect, version 2 (tosca-2). George Mason University: Fairfax, VA, 1996.
36. Tangney, J.P.; Wagner, P.E.; Gramzow, R. The test of self-conscious affect, version 3 (tosca-3). George Mason University: Fairfax, VA, 2000.
37. Tangney, J.P. Assessing individual differences in proneness to shame and guilt: Development of the self-conscious affect and attribution inventory. *J Pers Soc Psychol* **1990**, *59*, 102-111.
38. Tangney, J.P.; Stuewig, J.; Mashek, D.J. Moral emotions and moral behavior. *Annu Rev Psychol* **2007**, *58*, 345-372.
39. Bennett, D.S.; Sullivan, M.W.; Lewis, M. Neglected children, shame-proneness, and depressive symptoms. *Child Maltreat* **2010**, *15*, 305-314.
40. Bennett, D.S.; Sullivan, M.W.; Lewis, M. Young children's adjustment as a function of maltreatment, shame, and anger. *Child Maltreat* **2005**, *10*, 311-323.
41. Sanftner, J.L.; Barlow, D.H.; Marschall, D.E.; Tangney, J.P. The relation of shame and guilt to eating disorder symptomatology. *J Soc Clin Psychol* **1995**, *14*, 315-324.
42. Tangney, J.P.; Burggraf, S.A.; Wagner, P.E. Shame-proneness, guilt-proneness, and psychological symptoms. In *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford Press: New York, NY, 1995; pp 343-367.
43. Tangney, J.P.; Wagner, P.; Fletcher, C.; Gramzow, R. Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *J Pers Soc Psychol* **1992**, *62*, 669-675.
44. Woien, S.L.; Ernst, H.A.H.; Patock-Peckham, J.A.; Nagoshi, C.T. Validation of the tosca to measure shame and guilt. *Pers Indiv Differ* **2003**, *35*, 313.
45. O'Connor, L.E.; Berry, J.W.; Weiss, J. Interpersonal guilt, shame, and psychological problems. *J Soc Clin Psychol* **1999**, *18*, 181-203.
46. O'Connor, L.E.; Berry, J.W.; Weiss, J.; Bush, M.; Sampson, H. Interpersonal guilt: The development of a new measure. *J Clin Psychol* **1997**, *53*, 73-89.
47. Tangney, J.P.; Wagner, P.; Gramzow, R. Proneness to shame, proneness to guilt, and psychopathology. *J Abnorm Psychol* **1992**, *101*, 469.
48. Hastings, M.E.; Northman, L.M.; Tangney, J.P. Shame, guilt, and suicide. In *Suicide science: Expanding the boundaries.*, Joiner, T.E.; Rudd, M.D., Eds. Kluwer Academic/Plenum Publishers: New York, NY, 2000; pp 67-79.
49. Tangney, J.P.; Hill-Barlow, D.; Wagner, P.E.; Marschall, D.E.; Borenstein, J.K.; Sanftner, J.; Mohr, T.; Gramzow, R. Assessing individual differences in constructive versus destructive responses to anger across the lifespan. *J Pers Soc Psychol* **1996**, *70*, 780-796.
50. Wright, F.; O'Leary, J.; Balkin, J. Shame, guilt, narcissism, and depression: Correlates and sex differences. *Psychoanal Psychol* **1989**, *6*, 217-230.
51. Ferguson, T.J.; Stegge, H. Measuring guilt in children: A rose by any other name still has thorns. In *Guilt and children*, Bybee, J., Ed. Academic Press: San Diego, CA, 1998; pp 19-74.
52. Eyre, H.L. The shame and guilt inventory: Development of a new scenario-based measure of shame- and guilt-proneness. Dissertation, University of Kentucky, Lexington, KY, 2004.
53. Leach, C.W.; Cidam, A. When is shame linked to constructive approach orientation? A meta-analysis. *J Pers Soc Psychol* **2015**, *109*, 983-1002.

54. Nelissen, R.M.A.; Breugelmans, S.M.; Zeelenberg, M. Reappraising the moral nature of emotions in decision making: The case of shame and guilt. *Soc Personal Psychol Compass* **2013**, *7*, 355-365.
55. Bassen, C.; Braveman, J.; Pearlman, J.; Lamb, M. Gender differences in normal adolescence: Guilt, reparation, and shame. In *The Biennial Meeting of Society for Research in Child Development*, Washington, DC, 1997.
56. Tangney, J.P. Recent advances in the empirical study of shame and guilt. *Am Behav Sci* **1995**, *38*, 1132-1145.
57. Tangney, J.P.; Wagner, P.E.; Hill-Barlow, D.; Marschall, D.E.; Gramzow, R. Relation of shame and guilt to constructive versus destructive responses to anger across the lifespan. *J Pers Soc Psychol* **1996**, *70*, 797-809.
58. Carpenter, T.P.; Tignor, S.M.; Tsang, J.-A.; Willett, A. Dispositional self-forgiveness, guilt- and shame-proneness, and the roles of motivational tendencies. *Pers Indiv Differ* **2016**, *98*, 53-61.
59. Stuewig, J.; Tangney, J.P. Shame and guilt in antisocial and risky behaviors. In *The self-conscious emotions: Theory and research*, Tracy, J.L.; Robins, R.W.; Tangney, J.P., Eds. Guilford Press: New York, NY, 2007; pp 371-388.
60. Feiring, C.; Taska, L.S. The persistence of shame following sexual abuse: A longitudinal look at risk and recovery. *Child Maltreat* **2005**, *10*, 337-349.
61. Feiring, C.; Taska, L.; Chen, K. Trying to understand why horrible things happen: Attribution, shame, and symptom development following sexual abuse. *Child Maltreat* **2016**, *7*, 25-39.
62. Leith, K.P.; Baumeister, R.F. Empathy, shame, guilt, and narratives of interpersonal conflicts: Guilt-prone people are better at perspective taking. *J Pers* **1998**, *66*, 1-37.
63. Olthof, T. A developmental tasks analysis of guilt and shame. In *The Biennial Meeting of the International Society for the Research on Emotion*, Bern, Switzerland, 1996.
64. Ferguson, T.J.; Crowley, S.L. Measure for measure: A multitrait-multimethod analysis of guilt and shame. *J Pers Assess* **1997**, *69*, 425-441.
65. Kelley, H.H. Attribution theory in social psychology. In *Nebraska symposium on motivation*, Levine, D., Ed. University of Nebraska-Lincoln: Lincoln, NE, 1967; Vol. 51, pp 192-241.
66. Buss, A. *Psychological dimensions of the self*. Sage: Thousand Oaks, CA, 2001.
67. Luyten, P.; Fontaine, J.R.J.; Corveleyn, J. Does the test of self-conscious affect (tosca) measure maladaptive aspects of guilt and adaptive aspects of shame? An empirical investigation. *Pers Indiv Differ* **2002**, *33*, 1373-1387.
68. Otterbacher, J.R.; Munz, D.C. State-trait measure of experiential guilt. *J Consult Clin Psych* **1973**, *40*, 115-121.
69. Regan, J. Guilt, perceived injustice, and altruistic behavior. *J Pers Soc Psychol* **1971**, *18*, 124-132.
70. Stice, E. The similarities between cognitive dissonance and guilt: Confession as a relief of dissonance. *Curr Psychol* **1992**, *11*, 69-77.
71. Todd, E. The value of confession and forgiveness according to jung. *J Relig Health* **1985**, *24*, 39-48.

72. Weiner, B.; Graham, S.; Peter, O.; Zmuidinas, M. Public confession and forgiveness. *J Pers* **1991**, *59*, 281-312.
73. Tangney, J.P. Conceptual and methodological issues in the assessment of shame and guilt. *Behav Res Ther* **1996**, *34*, 741-754.
74. Giner-Sorolla, R.; Piazza, J.; Espinosa, P. What do the tosca guilt and shame scales really measure: Affect or action? *Pers Indiv Differ* **2011**, *51*, 445-450.
75. Kugler, K.; Jones, W.H. On conceptualizing and assessing guilt. *J Pers Soc Psychol* **1992**, *62*, 318-327.
76. Harder, D.W.; Rockart, L.; Cutler, L. Additional validity evidence for the harder personal feelings questionnaire-2 (pfq2): A measure of shame and guilt proneness. *J Clin Psychol* **1993**, *49*, 345-348.
77. Harder, D.W.; Greenwald, D.F. Further validation of the shame and guilt scales of the harder personal feelings questionnaire-2. *Psychol Rep* **1999**, *85*, 271-281.
78. Olthof, T.; Schouten, A.; Kuiper, H.; Stegge, H.; Jennekens-Schinkel, A. Shame and guilt in children: Differential situational antecedents and experiential correlates. *Brit J Dev Psychol* **2000**, *18*, 51-64.
79. Barrett, K.C. A functionalist approach to shame and guilt. In *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford Press: New York, NY, 1995; pp 25-63.
80. Hutcherson, C.A.; Gross, J.J. The moral emotions: A social-functionalist account of anger, disgust, and contempt. *J Pers Soc Psychol* **2011**, *100*, 719-737.
81. Campos, J.J.; Mumme, D.L.; Kermoian, R.; Campos, R.G. A functionalist perspective on the nature of emotion. *Monogr Soc Res Child Dev* **1994**, *59*, 284-303.
82. Cicchetti, D.; Ackerman, B.P.; Izard, C.E. Emotions and emotion regulation in developmental psychopathology. *Dev Psychopathol* **1995**, *7*, 1-10.
83. Gausel, N.; Leach, C.W.; Vignoles, V.L.; Brown, R. Defend or repair? Explaining responses to in-group moral failure by disentangling feelings of shame, rejection, and inferiority. *J Pers Soc Psychol* **2012**, *102*, 941-960.
84. Brown, R.; Cehajic, S. Dealing with the past and facing the future: Mediators of the effects of collective guilt and shame in bosnia and herzegovina. *Eur J Soc Psychol* **2008**, *38*, 669-684.
85. Brown, R.; González, R.; Zagefka, H.; Manzi, J.; Čehajić, S. Nuestra culpa: Collective guilt and shame as predictors of reparation for historical wrongdoing. *Journal of Personality and Social Psychology* **2008**, *94*, 75-90.
86. de Hooge, I.E.; Breugelmans, S.M.; Zeelenberg, M. Not so ugly after all: When shame acts as a commitment device. *J Pers Soc Psychol* **2008**, *95*, 933-943.
87. de Hooge, I.E.; Zeelenberg, M.; Breugelmans, S.M. A functionalist account of shame-induced behaviour. *Cogn Emot* **2011**, *25*, 939-946.
88. de Hooge, I.E.; Zeelenberg, M.; Breugelmans, S.M. Restore and protect motivations following shame. *Cogn Emot* **2010**, *24*, 111-127.
89. Ausubel, D.P. Relationships between shame and guilt in the socializing process. *Psychol Rev* **1955**, *62*, 378-390.

90. Gilbert, P. What is shame? Some core issues and controversies. In *Shame: Interpersonal behavior, psychopathology, and culture.*, Gilbert, P.; Andrews, B.; Gilbert, P.; Andrews, B., Eds. Oxford University Press: New York, NY, US, 1998; pp 3-38.
91. Elison, J.; Garofalo, C.; Velotti, P. Shame and aggression: Theoretical considerations. *Aggress Violent Behav* **2014**, *19*, 447-453.
92. Shariff, A.F.; Tracy, J.L.; Markusoff, J.L. (implicitly) judging a book by its cover: The power of pride and shame expressions in shaping judgments of social status. *Pers Soc Psychol Bull* **2012**, *38*, 1178-1193.
93. Gilbert, P.; McGuire, M.T. Shame, status, and social roles: Psychobiology and evolution. In *Shame: Interpersonal behavior, psychopathology, and culture*, Gilbert, P.; Andrews, B., Eds. Oxford University Press: New York, NY, 1998; pp 99-125.
94. Cheung, M.S.P.; Gilbert, P.; Irons, C. An exploration of shame, social rank and rumination in relation to depression. *Pers Indiv Differ* **2004**, *36*, 1143-1153.
95. Gilbert, P. The relationship of shame, social anxiety and depression: The role of the evaluation of social rank. *Clinical Psychology & Psychotherapy* **2000**, *7*, 174-189.
96. Hejdenberg, J.; Andrews, B. The relationship between shame and different types of anger: A theory-based investigation. *Pers Indiv Differ* **2011**, *50*, 1278-1282.
97. Eisenberger, N.I. The neural bases of social pain: Evidence for shared representations with physical pain. *Psychosom Med* **2012**, *74*, 126-135.
98. Moieni, M.; Eisenberger, N. Neural correlates of social pain. In *Social neuroscience: Biological approaches to social psychology.*, Harmon-Jones, E.; Inzlicht, M., Eds. Routledge/Taylor & Francis Group: New York, NY, US, 2016; pp 203-222.
99. Elison, J. Shame and guilt: A hundred years of apples and oranges. *New Ideas Psychol* **2005**, *23*, 5-32.
100. Ortony, A. Is guilt an emotion? *Cogn Emot* **1987**, *1*, 283-298.
101. Ferguson, T.J.; Eyre, H.L.; Ashbaker, M. Unwanted identities: A key variable in shame-anger links and gender differences in shame. *Sex Roles* **2000**, *42*, 133-157.
102. Olthof, T.; Ferguson, T.J.; Bloemers, E.; Deij, M. Morality- and identity-related antecedents of children's guilt and shame attributions in events involving physical illness. *Cogn Emot* **2004**, *18*, 383-404.
103. Harder, D.W.; Zalma, A. Two promising shame and guilt scales: A construct validity comparison. *J Pers Assess* **1990**, *55*, 729-745.
104. Tignor, S.M.; Colvin, C.R. The interpersonal adaptiveness of dispositional guilt and shame: A meta-analytic investigation. *J Pers* **2017**, *85*, 341-363.
105. Harder, D.W. Shame and guilt assessment, and relationships of shame- and guilt-proneness to psychopathology. In *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford Press: New York, NY, 1995; pp 368-392.
106. Eyre, H.L. The emotional attributes questionnaire: Self- and other-reports of guilt and shame. Utah State University, 1997.
107. Chandler-Holtz, D.M. Relations between negative self-conscious emotions and prosocial behavior, psychological functioning, and perceived parenting among adolescents. Case Western Reserve U, Cleveland, OH, 1999.

108. Gilbert, P.; Andrews, B. *Shame: Interpersonal behavior, psychopathology, and culture*. Oxford University Press: New York, NY, US, 1998.
109. Ferguson, T.J. Guilt. In *Encyclopedia of human emotions*, Levinson, D.; Ponzetti Jr., J.J.; Joregensen, P.F., Eds. Macmillan Reference USA: New York, 1999; Vol. 1, pp 307-315.
110. Ferguson, T.J.; Stegge, H.; Eyre, H.L.; Vollmer, R.; Ashbaker, M. Context effects and the (mal)adaptive nature of guilt and shame in children. *Genet Soc Gen Psych* **2000**, *126*, 319-345.
111. Ferguson, T.J.; Stegge, H.; Miller, E.R.; Olsen, M.E. Guilt, shame, and symptoms in children. *Dev Psychol* **1999**, *35*, 347-357.
112. Kubany, E.S.; Abueg, F.R.; Owens, J.A.; Brennan, J.M.; Kaplan, A.S.; Watson, S.B. Initial examination of a multidimensional model of trauma-related guilt: Applications to combat veterans and battered women. *J Psychopathol Behav* **1995**, *17*, 353-376.
113. Zahn-Waxler, C.; Kochanska, G.; Krupnick, J.; McKnew, D. Patterns of guilt in children of depressed and well mothers. *Dev Psychol* **1990**, *26*, 51-59.
114. Zahn-Waxler, C.; Kochanska, G. The origins of guilt. In *Nebraska symposium on motivation, 1988: Socioemotional development.*, Thompson, R.A., Ed. University of Nebraska Press: Lincoln, NE, 1990; pp 183-258.
115. Kubany, E.S.; Watson, S.B. Guilt: Elaboration of a multidimensional model. *Psychol Rec* **2003**, *53*, 51-90.
116. Nolen-Hoeksema, S.; Morrow, J.; Fredrickson, B.L. Response styles and the duration of episodes of depressed mood. *J Abnorm Psychol* **1993**, *102*, 20-28.
117. Eyre, H.L.; Ferguson, T.J. Ruminative and empathic guilt: Two sides of the same coin? In *The Annual Convention of the Society for Personality and Social Psychology*, Nashville, TN, 2000.
118. Crowley, S.L.; Ferguson, T.J. Guilt revisited: Ruminative guilt and its relationship to shame. In *The Annual Convention of the Western Psychological Association*, Kona, HI, 1994.
119. Kim, S.; Thibodeau, R.; Jorgensen, R.S. Shame, guilt, and depressive symptoms: A meta-analytic review. *Psychol Bull* **2011**, *137*, 68-96.
120. Harder, D.W.; Cutler, L.; Rockart, L. Assessment of shame and guilt and their relationships to psychopathology. *J Pers Assess* **1992**, *59*, 584-604.
121. Kochanska, G. Socialization and temperament in the development of guilt and conscience. *Child Dev* **1991**, *62*, 1379-1392.
122. Bybee, J.; Zigler, E.; Berliner, D.; Merisca, R. Guilt, guilt-evoking events, depression, and eating disorders. *Curr Psychol* **1996**, *15*, 113-127.
123. Mikulincer, M.; Florian, V. A cognitive-relational approach to emotions—the appraisal and coping components of sadness, shame, guilt, jealousy, and disgust. *Imagin Cogn Pers* **1997**, *16*, 263-279.
124. Elison, J.; Lennon, R.; Pulos, S. Investigating the compass of shame: The development of the compass of shame scale. *Social Behavior & Personality: an international journal* **2006**, *34*, 221-238.
125. Schalkwijk, F.; Stams, G.J.; Dekker, J.; Peen, J.; Elison, J. Measuring shame regulation: Validation of the compass of shame scale. *Social Behavior & Personality: an international journal* **2016**, *44*, 1775-1792.
126. de Hooge, I.E.; Nelissen, R.M.A.; Breugelmans, S.M.; Zeelenberg, M. What is moral about guilt? Acting "prosocially" at the disadvantage of others. *J Pers Soc Psychol* **2011**, *100*, 462-473.

127. de Hooge, I.E. The exemplary social emotion guilt: Not so relationship-oriented when another person repairs for you. *Cogn Emot* **2012**, *26*, 1189-1207.
128. Cole, P.M.; Michel, M.K.; Teti, L.O.D. The development of emotion regulation and dysregulation: A clinical perspective. *Monogr Soc Res Child Dev* **1994**, *59*, 73-100.
129. Keltner, D.; Harker, L. The forms and functions of the nonverbal signal of shame. In *Shame: Interpersonal behavior, psychopathology, and culture.*, Gilbert, P.; Andrews, B., Eds. Oxford University Press: New York, NY, 1998; pp 78-98.
130. Tangney, J.P.; Stuewig, J.; Martinez, A.G. Two faces of shame: The roles of shame and guilt in predicting recidivism. *Psychol Sci* **2014**, *25*, 799-805.
131. Blavier, D.C.; Glenn, E. The role of shame in perceptions of marital equity, intimacy, and competency. *Am J Fam Ther* **1995**, *23*, 73-82.
132. Andrews, B. Methodological and definitional issues in shame research. In *Shame: Interpersonal behavior, psychopathology, and culture*, Gilbert, P.; Andrews, B., Eds. Oxford University Press: New York, NY, 1998; pp 39-54.
133. Wallbott, H.G.; Scherer, K.R. Cultural determinants in experiencing shame and guilt. In *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*, Tangney, J.P.; Fischer, K.W., Eds. Guilford Press: New York, 1995; pp 465-487.
134. Scheff, T. Socialization of emotions: Pride and shame as causal agents. In *Research agendas in the sociology of emotions*, Kemper, T.D., Ed. State University of New York: New York, 1990; pp 281-304.
135. Kristjánsson, K. Is shame an ugly emotion? Four discourses—two contrasting interpretations for moral education. *Stud Philos Educ* **2014**, *33*, 495-511.
136. Nichols, R. A sense of shame among the virtues. *J Moral Educ* **2016**, *45*, 166-178.
137. Sheikh, S. Cultural variations in shame's responses: A dynamic perspective. *Pers Soc Psychol Rev* **2014**, *18*, 387-403.
138. Fontaine, J.R.J.; Luyten, P.; de Boeck, P.; Corveleyn, J.; Fernandez, M.; Herrera, D.; IttzéS, A.; Tomcsányi, T. Untying the gordian knot of guilt and shame. *J Cross Cult Psychol* **2016**, *37*, 273-292.
139. Gausel, N.; Vignoles, V.L.; Leach, C.W. Resolving the paradox of shame: Differentiating among specific appraisal-feeling combinations explains pro-social and self-defensive motivation. *Motiv Emotion* **2016**, *40*, 118-139.