



Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

The relationship between shame and different types of anger: A theory-based investigation

Jennie Hejdenberg*, Bernice Andrews

Royal Holloway, University of London, United Kingdom

ARTICLE INFO

Article history:

Received 18 October 2010

Received in revised form 18 February 2011

Accepted 23 February 2011

Available online 21 March 2011

Keywords:

Shame

Anger

Shame–rage

Social rank

STAXI

ABSTRACT

The link between shame and anger is widely recognised in the clinical literature and a positive correlation between dispositions to the two emotions is evident in numerous studies. However research into the mechanisms behind the relationship is sparse, with little consideration of when anger is shame-related and when it is not. Both shame–rage theory (Lewis, 1971) and social rank theory (Gilbert, 1997) suggest that shame would be more strongly associated with anger in response to criticism than to having an angry temperament and this hypothesis was tested in the current study. Questionnaire measures of shame and anger were completed by 188 university students. The results were in line with predictions, and indicated that the relationship between shame proneness and trait anger is due to an association between shame and the tendency to become angry in reaction to criticism. In the absence of such a tendency, having an angry temperament was not related to shame, and this effect did not vary by gender. The findings extend previous research by confirming that shame is related to a tendency to a particular type of anger, namely that felt after specific provocation.

© 2011 Elsevier Ltd. All rights reserved.

1. Introduction

Whilst shame is often seen as an adaptive emotion as it can motivate prosocial behaviour (de Hooge, Breugelmans, & Zeelenberg, 2008; Keltner & Harker, 1998), dispositional shame has been viewed as maladaptive and likely to be associated with negative outcomes including anger and aggressive behaviour (e.g., Farmer & Andrews, 2009; Harper, Austin, Cercone, & Arias, 2005; Tangney, Wagner, Fletcher, & Gramzow, 1992; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996). Although numerous studies have demonstrated positive correlations between shame and anger proneness, with few exceptions (Tangney et al., 1992, 1996) authors have not attempted to disentangle this relationship or describe what it may represent. The current paper reviews theories and evidence for an association between shame and anger and presents further evidence to elucidate this relationship.

1.1. Theoretical models of shame and anger

Theoretical notions of shame and anger derive mainly from the original work of Lewis (1971) and have been adopted by current theorists such as Tangney and Dearing (2002). Based on clinical

observation, Lewis's shame–rage theory posits that feelings of shame may instigate a seething, hostile type of anger described as humiliated fury. Lewis proposed that this is an essentially defensive response to the powerlessness and defectiveness felt when experiencing shame. Supported by evidence (Tangney et al., 1992), Tangney and Dearing (2002) have proposed that as shame also involves concern of how one appears to others, its cause may be attributed to a perceived disapproving other resulting in blame toward the other with anger as a consequence. Protecting the self by shifting blame and becoming angry towards others allows the shamed individual to gain some sense of control and relief from the self-impairing experience of shame (Lewis, 1971; Retzinger, 1991; Tangney & Dearing, 2002). Although shame–rage theory describes the interplay between shame and anger in a situational context, the implication is that such interactions represent an entrenched pattern. Indeed, evidence used in support of the theory usually involves studies of dispositional shame and anger (Tangney et al., 1992, 1996).

Whilst Lewis's theory is the most referred-to model, the connection between shame and anger is also compatible with evolutionary theories of emotion. From this perspective shame and anger have been linked to fundamental concerns at opposite ends of the spectrum, shame with defeat and anger with counterattack and survival (Andrews, Brewin, Rose, & Kirk, 2000). Gilbert's social rank theory (1997) extends these notions to a later phylogenetic stage of group living by proposing that both emotions are concerned with rank and social status.

* Corresponding author. Address: Psychology Department, Royal Holloway University of London, Egham, Surrey TW20 0EX, United Kingdom. Tel.: +44 7835738135.

E-mail address: jennie.hejdenberg@rhul.ac.uk (J. Hejdenberg).

In evolutionary terms, competing for scarce resources is one of the most primitive behaviours to increase fitness and the potential to acquire such resources is thought to underlie social status conferral (Gilbert, 1997). When faced with threats to status and resources, evolved defence systems are rapidly activated, including fight, flight or submission, which are related to different types of defence emotions (anger, fear, shame; Gilbert, 2002). According to Gilbert (1997), shame evolved to protect one's social status by signalling a threat to status or loss of status. This can be countered in several ways: one can accept the lowered status and show submissiveness to avoid further conflict. Alternatively, status can be maintained or improved by strategies that increase social attractiveness through prosocial behaviour, competence or talent, or by strategies that signal agency and power using anger and aggression (Gilbert, 1997, 2002). The defensive strategy adopted may depend on individual differences such as those relating to prior learning experiences, or on situational factors and physiological states (Gilbert, 2002).

In general terms, Lewis's shame–rage theory and Gilbert's social rank theory both construe anger as a defensive action. According to shame–rage theory, anger should be particularly motivated by and associated with self-concept concerns. According to social rank theory, anger should be associated with concerns over status. Both models imply that shame should be related to anger as a response to threats to ego and rank rather than to the type of unfocused anger that might result from having an angry temperament.

1.2. Research and methodological issues in the study of shame and anger

The different types of anger outlined in the clinical and evolutionary models are reflected in Spielberger's well established anger scale (STAXI; Spielberger, 1999). The measure consists of two subscales: angry temperament and angry reaction to criticism, which have consistently been identified in factor analytic studies of STAXI trait anger items (Forgays, Forgays, & Spielberger, 1997; Fuqua et al., 1991). Whilst the angry temperament subscale reflects the tendency to feel angry in the absence of specific provocation (with items such as 'I am a hot headed person' and 'I am quick tempered'), angry reaction to criticism represents the frequency of angry feelings in response to criticism ('I feel infuriated when I do a good job and get a poor evaluation', 'it makes me furious when I am criticised in front of others'). One of these studies reported a modest correlation between the two subscales in college students ($r = .37$, $N = 455$; Fuqua et al., 1991) and the authors suggested that they should be considered separately.

Five studies have presented data on the relation between shame-proneness and the STAXI trait anger scale (Farmer &

Andrews, 2009; Harper et al., 2005; Hoglund & Nicholas, 1995; Milligan & Andrews, 2005; Tangney et al., 1992), three of which reported data from the two subscales. In the two which did not, relevant data were retrieved from the authors for the purpose of this review. The subscales' relative contributions to shame-proneness were however not the focus of any of these studies and were not specifically considered. Further details of these studies are presented in Table 1; they do not represent an exhaustive review of all shame and anger studies, but only those in which the STAXI trait anger scale was used as this is presently the only trait anger measure that distinguishes between angry temperament and angry reaction to criticism.

With the exception of Farmer and Andrews' (2009) offender sample all these studies found significant correlations of moderate magnitude between shame-proneness and trait anger overall. The relation between shame and the STAXI subscales has however been somewhat inconsistent across studies. In three studies shame appeared to be more strongly related to angry reaction to criticism than to angry temperament although correlational differences were not specifically tested (Farmer & Andrews, 2009; Hoglund & Nicholas, 1995; Tangney et al., 1992). Tangney et al. (1992) reported in a student sample that whilst both angry reaction to criticism and angry temperament were significantly related to increased levels of shame measured by the Test of Self-Conscious Affect (TOSCA; Tangney, Wagner, & Gramzow, 1989), the effect size for angry temperament was small (.13 bivariate correlation; see Table 1). Hoglund and Nicholas (1995) considered the relative importance to TOSCA shame of a number of anger and hostility variables in students including the two STAXI trait anger subscales in a regression analysis. However, the actual correlation coefficients were not reported and could not be retrieved. The results were described in text, such that when all anger and hostility variables were considered simultaneously, shame was positively related to angry reaction to criticism in females only, and there was no relation to angry temperament in either gender. In the third study, Farmer and Andrews (2009) examined the relation between shame as measured by the Experience of Shame Scale (ESS; Andrews, Qian, & Valentine, 2002) and the STAXI trait anger subscales in two male samples, young offenders, and students. The authors found that angry reaction, but not angry temperament, was significantly correlated with shame-proneness in the male students. Neither correlation was significant in the young offenders, whose shame levels were comparatively low. Two further studies did not find any apparent differential effects for angry temperament and angry reaction in relation to shame. In the studies by Harper et al. (2005) using TOSCA with male students in dating relationships and Milligan and Andrews (2005) using the ESS with female offenders, angry temperament and angry reaction to criticism both correlated significantly with shame at similar magnitudes.

Table 1
Summary of studies examining the relationship between STAXI trait anger subscales and measures of shame proneness.

Study	Sample	N	Shame measure	STAXI trait anger		
				Temperament	Reaction	Overall
Tangney et al. (1992) Study 2	Students (71% female)	252	TOSCA	.13*	.26***	.33***
Hoglund and Nicholas (1995) (No correlation coefficients reported)	Students (49% female)	208	TOSCA	Correlation not significant	Correlation significant	Not reported
Harper et al. (2005) ^a	Male students	150	TOSCA	.30**	.29**	.35***
Milligan and Andrews (2005) ^a	Female prisoners	89	ESS	.32***	.41***	.42***
Farmer and Andrews (2009)	Male students	60	ESS	.12	.56**	.47**
	Male young offenders	56		-.03	.17	.05

Note. ESS, Experience of Shame Scale (Andrews et al., 2002); STAXI, State Trait Anger Expression Inventory (Spielberger, 1999); TOSCA, Tests of Self-Conscious Affect (Tangney, Wagner, & Gramzow, 1989).

^a Correlation coefficients provided by personal communication with the study's authors

* $p < .05$.

** $p < .01$.

*** $p < .001$.

In summary, the evidence for a differential relationship between shame and angry temperament and angry reaction has been inconsistent in existing studies. Although the results are somewhat tipped in favour of the primacy of anger in reaction to criticism, this differential has not so far been specifically hypothesised or formally tested.

The current study tests this differential using the ESS. The majority of studies have used the TOSCA to measure shame-proneness in relation to anger. TOSCA shame involves rating hypothetical scenarios of personal behaviour with the potential to induce shame on scales for responses defined as shame by the researchers. The ESS provides an alternative measure of shame-proneness that assesses not only behavioural shame but also additional sources of shame relating to personal characteristics (Andrews et al., 2002). Previous studies using the ESS in relation to anger have used male students and male offenders (Farmer & Andrews, 2009) or female offenders only (Milligan & Andrews, 2005). In the current study a 'normal' mixed sample of male and female college students was used. In particular, it was hypothesised that angry reaction to criticism would be significantly more strongly related to shame-proneness than angry temperament. Using multivariate analysis to take account of shared variance, it was also hypothesised that angry reaction would be independently related to shame, but in the absence of angry reaction, angry temperament would not make an independent contribution. A further aim was to investigate whether the strength of the observed relationships would be similar in both genders.

2. Method

2.1. Participants

One hundred and eighty eight university students participated, of which 77 (41%) were male. One participant did not supply information on gender and was therefore excluded from analyses on gender. The age ranged from 18 to 27 years ($M = 21.04$, $SD = 2.25$).

2.2. Measures

2.3.1. The Experience of Shame Scale

Shame proneness was measured with The Experience of Shame Scale (ESS; Andrews et al., 2002), which consists of 25 items assessing eight areas of shame. Four domains comprise the characterological shame subscale and consist of shame regarding personal habits, manner with others, the sort of person one is and personal ability. Three areas of behavioural shame are assessed – shame about doing something wrong, saying something stupid and failing in competitive situations. The final subscale of bodily shame measures this single form of shame. Each of these eight types is assessed via questions tapping experiential, cognitive and behavioural elements. Each item is rated on a 4-point scale in response to how the participant has felt during the past year. The scale has good construct and discriminant validity and high internal consistency and test-retest reliability (Andrews et al., 2002). The internal consistency (Cronbach's alpha) for the total ESS scale in the current study was .93, and for the subscales $\alpha = .89$ for characterological shame, $\alpha = .88$ for behavioural shame, and $\alpha = .88$ for bodily shame.

2.3. State-Trait Anger Expression Inventory-2

The Trait Anger Scale (TAS) from the State Trait Anger Expression Inventory (STAXI-2; Spielberger, 1999) was used to measure anger proneness. The scale consists of 10 items assessing the frequency and intensity of anger an individual tends to experience, with responses on a 4-point Likert scale. The TAS consists of two subscales, Angry Temperament ("I am a hot-headed person") and

Angry Reaction to Criticism ("It makes me furious when I am criticised in front of others"). Deffenbacher et al. (1996) reported support for the scale's discriminant and convergent validity. The TAS scale had an internal consistency of .79 (Cronbach's alpha) in the current study, with $\alpha = .68$ for Angry Reaction to Criticism, and $\alpha = .81$ for Angry Temperament.

2.4. Procedure

Participants were recruited on the college campus via posters, and face to face contacts, and were invited to either scheduled group testing sessions on campus or by arrangement. The voluntary nature of participation was stressed and informed consent obtained before the questionnaires were dispensed.

3. Results

3.1. Descriptive statistics

The means and standard deviations of each scale and subscale are presented in Table 2. Females reported significantly more shame than males, mainly due to a difference in reported bodily shame, as well as a just significant difference on behavioural shame.

3.2. Correlations between shame and anger variables

The zero-order correlations for the sample are presented in Table 3. No significant gender differences in correlation coefficients between the shame and anger variables were found, Z_s ranged from 0 to 1.38, *ns*. If not otherwise mentioned, analyses were carried out on the whole sample.

There was a significant correlation between proneness to shame and trait anger as expected, with an effect size in the region of previous findings, $r = .30$, $p < .01$ (see also Table 1). Both angry reaction to criticism and angry temperament were significantly related to the total shame score, however the correlation coefficient for total

Table 2
Means and SD for STAXI trait anger and ESS Shame and their subscales.

	Total sample <i>N</i> = 188 <i>M</i> (<i>SD</i>)	Female <i>N</i> = 110 <i>M</i> (<i>SD</i>)	Male <i>N</i> = 77 <i>M</i> (<i>SD</i>)	<i>t</i> (185)
Anger total	19.86 (4.54)	19.75 (4.55)	19.90 (4.49)	0.27
Temperament	6.70 (2.22)	6.77 (2.28)	6.56 (2.14)	0.59
Reaction	9.70 (2.37)	9.64 (2.35)	9.74 (2.38)	0.35
Shame total	50.24 (14.34)	52.68 (14.57)	46.77 (13.44)	2.92**
Behavioural	19.59 (6.12)	20.29 (6.09)	18.62 (6.09)	1.99*
Characterological	21.89 (6.98)	22.58 (7.38)	20.87 (6.32)	1.51
Bodily	8.77 (3.55)	9.81 (3.58)	7.27 (2.97)	5.25***

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3
Zero-order correlations between STAXI trait anger, ESS shame and their subscales.

	1	2	3	4	5	6
1. Anger total						
2. Temperament	.76**					
3. Reaction	.83**	.36**				
4. Shame total	.30**	.17*	.36**			
5. Behavioural	.31**	.21**	.37**	.89**		
6. Characterological	.27**	.12	.31**	.90**	.69**	
7. Bodily	.13	.07	.17*	.72**	.50**	.51**

* $p < .05$.

** $p < .01$.

shame and angry reaction to criticism ($r = .36$) was significantly higher than the correlation between shame and angry temperament ($r = .17$), $t(185) = 2.44$, $p < .05$.

Both behavioural and characterological shame were significantly correlated with trait anger, but bodily shame was not. Bodily shame did however correlate significantly with the angry reaction subscale. Whilst angry temperament was significantly related to the total ESS shame score, it was significantly correlated only with behavioural shame. The correlation between angry temperament and behavioural shame was not significantly different to the correlation between angry temperament and characterological shame however, $t(185) = 1.59$, *ns*, or that between bodily shame and angry temperament, which just failed to reach significance, $t(185) = 1.95$, *ns*.

3.3. Relative contribution of angry temperament and angry reaction to criticism to shame

To examine the relationship between shame and the two anger subscales further, a multiple regression analysis was conducted. Total ESS shame score was included as the criterion variable with angry temperament and angry reaction to criticism as predictor variables. When both predictors were added, R for regression was significantly different from zero, $R = .34$, $F(2, 185) = 12.02$, $p < .001$. Twelve percent of the variance in ESS shame scores could be accounted for by the predictors. Once both anger subscales were taken into account, only angry reaction to criticism significantly contributed to the variance in shame scores, $\beta = .32$, $p < .001$, adding an additional 9% to the variance over and above angry temperament, $\beta = .04$, $p = .60$. The analysis was repeated for males and females separately, and yielded similar results.

To more fully investigate whether the relationship between shame and angry reaction and temperament varied by gender, moderated regression analyses were carried out. Interaction terms were used to test the moderating effect of gender on shame and angry reaction and angry temperament in separate regression analyses. The interaction term was entered at the second step of analyses, and did not explain any additional variance in either anger subscale, F change (1, 183) = 0.16, $p = .69$, F change (1, 183) = 1.28, $p = .26$, for angry temperament and angry reaction respectively).

4. Discussion

The aim of the current study was to replicate previous findings of a relationship between questionnaire measures of shame- and anger-proneness, using the ESS, a measure which assesses different sources of shame, in a mixed gender sample. There was a positive correlation between shame and overall trait anger of a similar magnitude to that found in previous studies (e.g., Harper et al., 2005; Milligan & Andrews, 2005; Tangney et al., 1992). As predicted by theoretical models of the relationship (Gilbert, 1997, 2002; Lewis, 1971; Tangney & Dearing, 2002), the results indicated that shame-proneness was significantly more strongly related to a tendency to become angry in response to criticism than to having an angry temperament. When angry temperament and angry reaction to criticism were considered together, only angry reaction showed a unique relationship to shame-proneness. This extends and adds weight to previous research by showing in a mixed sample that shame-proneness is related to a specific type of anger, namely that felt after provocation and perceived affronts. Furthermore, despite a significant gender difference on shame due to higher female levels of behavioural and bodily shame, the relationship between shame and anger was not affected by gender.

Differences in the strength of the relationship between shame and angry reaction and angry temperament have not previously been specifically tested or discussed within a theoretical framework. Nevertheless the findings are in line with three previous studies showing stronger correlations between shame and angry reaction than between shame and angry temperament (Farmer & Andrews, 2009; Hoglund & Nicholas, 1995; Tangney et al., 1992). Two other studies have however reported correlations of similar magnitude between shame and these anger factors (Harper et al., 2005; Milligan & Andrews, 2005). This may in part be due to the specific characteristics of the samples, as it is unlikely to be due to method variance given that different shame measures have produced similar patterns (Table 1). Milligan and Andrews' study involved female prisoners, who may be high in undifferentiated negative affect. In fact, angry reaction and angry temperament were particularly highly correlated in this sample ($r = .53$, Milligan & Andrews, personal communication), compared to the current sample ($r = .36$), suggesting that this group has a less differentiated experience of their anger. It is unclear why Harper et al.'s sample of male students should be less differentiated in their experience of anger. However, in the absence of a formal test of the relative contribution of the anger factors to shame in these two studies, no conclusions can be drawn.

The findings support predictions derived from shame–rage theory and social rank theory of the relationship between shame and anger, as both models imply that shame should be related to anger as a response to threats to rank and ego, as opposed to a more unfocused hotheadedness. The current study offers a correlational perspective on the relationship between trait measures of shame and anger, and as such it does not reveal any causal relation. The finding is nevertheless consistent with the idea that feelings of shame may motivate defence strategies involving anger, as criticism and put-downs are typical triggers of shame, especially if the criticised individual accepts the negative evaluation or if an undesired aspect of the self has been revealed to others (Gilbert, 1998). Shame–rage theory and social rank theory propose that shame has a causal role in provoking anger in these situations of criticism and put-down. This could be investigated in a situational context, by exploring sequences of emotional responses to being put down, using interview methodology and facial expression coding.

Whilst angry reaction to criticism reflects a threat to social rank and ego as discussed above, it could also reflect public exposure of negative aspects of the self. This is implied in shame–rage and social rank theories but not made explicit. Research by Smith and colleagues supports this contention by demonstrating a close connection between public exposure and shame (Smith, Webster, Parrot, & Eyre, 2002). Further support comes from a study by Combs, Campbell, Jackson, and Smith (2010) who found that public exposure of a moral transgression resulted in heightened feelings of humiliation, anger, hostility and vengefulness. To the extent that the STAXI angry reaction to criticism subscale represents attempts of condemnation in front of an audience, this may also contribute to the explanation of its unique relationship with shame.

In contrast to anger about how one is viewed and treated by others, angry temperament in the absence of an angry reaction to criticism may be a somewhat different construct, representing a more indeterminate hotheadedness unrelated to shame. Some aspects of anger are likely to be temperamental and innate (Caspi, 1998) and studies have shown a hereditary component of anger and aggression (Brendgen, Vitaro, Boivin, Dionne, & Perusse, 2006). Furthermore, gene studies have indicated that the tendency to experience unprovoked anger is associated with specific allele variations, while angry arousal in response to real or perceived ill-treatment is not (Manuck et al., 1999). It is therefore possible that the predisposition to unprovoked anger may represent a more

hard-wired trait. The tendency to angry reaction on the other hand may be acquired through environmental exchanges, including interactions with parents and peers. There is evidence that shame-proneness is related to early shaming and abusive experiences (Andrews, 1995; Stuewig & McCloskey, 2005) and research on general trait anger also indicates a relationship to recalled parental shaming tactics (Gilbert & Gerlsma, 1999; Harper & Arias, 2004). Speculation based on shame–rage theory may suggest that anger in response to provocations may develop specifically in reaction to such shaming interactions, eventually becoming an entrenched coping strategy to deal with and avoid shame. This requires further investigation.

The current study indicated that although the overall relationship between shame and anger was of a similar magnitude to that of past research using the TOSCA measure of shame, there were some advantages in using a measure of different sources of shame. When the relation of different aspects of shame to angry temperament was examined, only behavioural shame was significantly related to this aspect. This type of anger might have shameful consequences and in such cases, shame may be instigated by inappropriate expressions of anger and related behaviours caused by the angry temperament. This could potentially explain the undifferentiated correlations between shame and angry reaction and angry temperament in Milligan and Andrews' (2005) study. The female offenders in the study may have experienced higher behavioural shame in relation to the consequences of their anger, particularly as angry behaviour may have been significant in causing their incarceration. This implies that it is not always appropriate to interpret any observed relationship between the two emotions as anger stemming from shame. By differentiating different sources of shame, the associations between shame and anger can be further elucidated and understood.

The current study highlights the importance of relying on theoretical frameworks when attempting to understand a phenomenon in more depth. The findings suggest that shame is likely to be more closely related to angry reaction in a sample of male and female students, however this result may be limited to student samples as the relationship between shame and anger is likely to present differently in disparate samples.

References

- Andrews, B. (1995). Bodily shame as a mediator between abusive experiences and depression. *Journal of Abnormal Psychology*, *104*, 277–285.
- Andrews, B., Brewin, C., Rose, S., & Kirk, M. (2000). Predicting PTSD symptoms in victims of violent crime: The role of shame, anger, and childhood abuse. *Journal of Abnormal Psychology*, *109*, 69–73.
- Andrews, B., Qian, M., & Valentine, J. (2002). Predicting depressive symptoms with a new measure of shame: The experience of shame scale. *British Journal of Clinical Psychology*, *41*, 29–42.
- Brendgen, M., Vitaro, F., Boivin, M., Dionne, G., & Perusse, D. (2006). Examining environmental and genetic effects on reactive versus proactive aggression. *Developmental Psychology*, *42*, 1299–1312.
- Caspi, A. (1998). Personality development across the life course. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed., pp. 311–388). New York: Wiley.
- Combs, D. J. Y., Campbell, G., Jackson, M., & Smith, R. H. (2010). Exploring the consequences of humiliating a moral transgressor. *Basic and Applied Social Psychology*, *32*, 128–143.
- Deffenbacher, J., Oetting, E. R., Thwaites, G. A., Lynch, R. S., Baker, D. A., Stark, R. S., et al. (1996). State-trait anger theory and the utility of the trait anger scale. *Journal of Counseling Psychology*, *43*, 131–148.
- Farmer, E., & Andrews, B. (2009). Shameless yet angry: Shame and its relationship to anger in male young offenders and undergraduate controls. *Journal of Forensic Psychiatry & Psychology*, *20*, 48–65.
- Forgays, D. G., Forgays, D. K., & Spielberger, C. D. (1997). Factor structure of the State-Trait Anger Expression Inventory. *Journal of Personality Assessment*, *69*, 497–507.
- Fuqua, D. R., Leonard, E., Masters, M., Smith, R., Campbell, J., & Fischer, P. (1991). A structural analysis of the State-Trait Anger Expression Inventory (STAXI). *Educational and Psychological Measurement*, *51*, 439–446.
- Gilbert, P. (1997). The evolution of social attractiveness and its role in shame, humiliation, guilt and therapy. *British Journal of Medical Psychology*, *70*, 113–147.
- Gilbert, P. (1998). What is shame? Some core issues and controversies. In P. Gilbert & B. Andrews (Eds.), *Shame: Interpersonal behaviour, psychopathology and culture* (pp. 3–38). Oxford: Oxford University Press.
- Gilbert, P. (2002). Body shame: A biopsychosocial conceptualisation and overview, with treatment implications. In P. Gilbert & J. Miles (Eds.), *Body shame: Conceptualisation, research and treatment* (pp. 3–54). London: Brunner-Routledge.
- Gilbert, P., & Gerlsma, C. (1999). Recall of shame and favouritism in relation to psychopathology. *British Journal of Clinical Psychology*, *38*, 357–373.
- Harper, F. W., & Arias, I. (2004). The role of shame in predicting adult anger and depressive symptoms among victims of child psychological maltreatment. *Journal of Family Violence*, *19*, 367–375.
- Harper, F. W., Austin, A. G., Cercone, J. J., & Arias, I. (2005). The role of shame, anger and affect regulation in men's perpetration of psychological abuse in dating relationships. *Journal of Interpersonal Violence*, *20*, 1648–1662.
- Hoglund, C. L., & Nicholas, K. B. (1995). Shame, guilt, and anger in college students exposed to abusive family environments. *Journal of Family Violence*, *10*, 141–157.
- de Hooge, I. E., Breugelmans, S. M., & Zeelenberg, M. (2008). Not so ugly after all: When shame acts as a commitment device. *Journal of Personality and Social Psychology*, *95*, 933–943.
- Keltner, D., & Harker, L. (1998). The forms and functions of the nonverbal signal of shame. In P. Gilbert & B. Andrews (Eds.), *Shame: Interpersonal behaviour, psychopathology and culture* (pp. 78–98). Oxford: Oxford University Press.
- Lewis, H. (1971). *Shame and guilt in neurosis*. New York: International Universities Press.
- Manuck, S., Flory, J. D., Ferrell, R., Dent, K., Mann, J., & Muldoon, M. (1999). Aggression and anger-related traits associated with a polymorphism of the tryptophan hydroxylase gene. *Biological Psychiatry*, *45*, 603–614.
- Milligan, R., & Andrews, B. (2005). Suicidal and other self-harming behaviour in offender women: The role of shame, anger and childhood abuse. *Legal and Criminological Psychology*, *10*, 13–25.
- Retzinger, S. (1991). *Violent emotions: Shame and rage in marital quarrels*. Thousand Oaks, CA: Sage Publications.
- Smith, R. H., Webster, J. M., Parrott, W. G., & Eyre, H. L. (2002). The role of public exposure in moral and nonmoral shame and guilt. *Journal of Personality and Social Psychology*, *83*, 138–159.
- Spielberger, C. D. (1999). *State-Trait Anger Inventory-2: Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Stuewig, J., & McCloskey, L. (2005). The relation of child maltreatment to shame and guilt among adolescents: Psychological routes to depression and delinquency. *Child Maltreatment*, *10*, 324–336.
- Tangney, J., & Dearing, R. (2002). *Shame and guilt*. New York: Guilford Press.
- Tangney, J., Wagner, P., Fletcher, C., & Gramzow, R. (1992). Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology*, *62*, 669–675.
- Tangney, J., Wagner, P., & Gramzow, R. (1989). *The test of self-conscious affect*. Fairfax, VA: George Mason University.
- Tangney, J., Wagner, P., Hill-Barlow, D., Marschall, D., & Gramzow, R. (1996). Relation of shame and guilt to constructive versus destructive responses to anger across the lifespan. *Journal of Personality and Social Psychology*, *70*, 767–809.